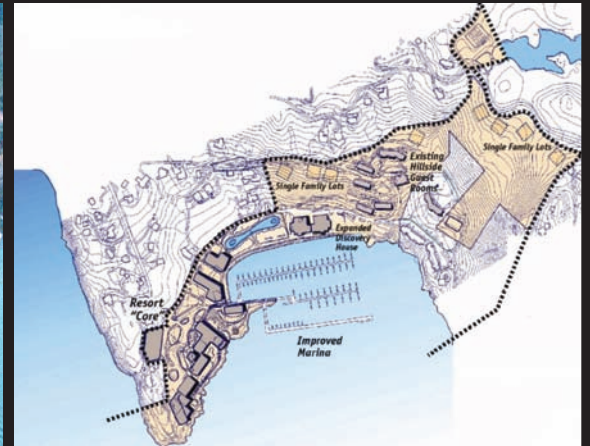


Rosario Resort Master Plan

Final Environmental Impact Statement (FEIS)



Prepared for San Juan County

December 21, 2006

Prepared by:



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ROSARIO RESORT FINAL ENVIRONMENTAL IMPACT STATEMENT

PREFACE

This Final Environmental Impact Statement (FEIS) has been prepared in accordance with WAC 197-11 to complete the Environmental Impact Statement preparation process under SEPA for the adoption of the Rosario Resort Master Plan. This FEIS consists of a revised version of the Draft Environmental Impact Statement (DEIS) issued on August 19, 2005, as well as two new chapters specific to this FEIS: Chapters 6 and 7. Chapter 6 contains responses to comments received on the DEIS and Chapter 7 summarizes impacts and mitigation for Master Plan Action Alternative B, the applicants' preferred alternative. Chapters 1 through 5 and the fact sheet of this FEIS are a revised version of the DEIS issued on August 19, 2005.

Categories of revisions made to the August 19, 2005 DEIS include the following:

- Revisions to provide correction or add information in response to comments received;
- Revisions to add information developed after the DEIS was published relevant to environmental issues examined in the DEIS;
- Revisions to address changes in the master plan made in response to issues raised by agencies, citizens and the County during the course of environmental review;
- Revision to the text to improve clarity and reduce the size of the document for ease of use by decision makers. Revisions under this category were made with care to not affect the substantive discussion of environmental issues presented in the original DEIS except as those discussions may have been modified as a result of comments received or other information developed after the DEIS was issued;
- Revisions resulting from changed or more accurate data.

Specific Revisions to the August 19, 2005 DEIS reflecting changes made to the Resort Master Plan in response to comments include the following:

- Modifications to the applicant's preferred alternative (Action Alternative B) including:
 - removal of the proposed owner's pavilion from the tennis court site;
 - removal of the proposed equestrian facility from the Hilltop;
 - removal of the proposed fish hatchery from the Figure-8 Lagoon;
 - reduced the size of the proposed woodland cottages from 5 to 3-bedrooms;

- moved the proposed laundry, housekeeping, maintenance, storage, administrative offices and parking from the Utility Tract to the Hilltop;
 - updated the land use tables accordingly;
 - reduced permitted development densities; and
 - addition of updated parking and traffic data.
- Inclusion of public and agency comments received on the DEIS and inclusion of responses to all substantive comments (new Chapter 6);
 - Clarification of the project's phased environmental review process as authorized by WAC 197-11-060(5);
 - Clarification on the relationship between the programmatic nature of the Resort Master Plan EIS and project-level review required for marina construction;
 - Incorporation of the Resort Master Plan by reference as authorized by WAC 197-11-635;
 - Increased detail describing each alternative;
 - Clarification of proposed development phasing for each alternative;
 - Additional environmental analysis of various impacts, with particular emphasis on plans and policy compliance issues related to the Shoreline Master Program; impacts to the marine environment and water quality issues related to wastewater and stormwater discharge including stormwater modeling using the Western Washington Hydrologic Model, version 2.5f. and the addition of a Conceptual Stormwater Management Plan and construction-phase Best Management Practices, and; revised transportation impacts reflecting updated traffic data;
 - Clarification and addition of mitigation measures and other management practices addressing various elements of the environment; and
 - Addition of four new appendices including the Marina Biology Report; a Stormwater Management Plan; an Economic Analysis of Alternatives and; the Construction Phase Best Management Practices.

FACT SHEET

Project Title

Adoption of the Rosario Resort Master Plan

Project Description and Alternatives

The proposed action is the adoption by the San Juan County Council of the Rosario Resort Master Plan. Adoption of the Master Plan is a non-project action under the State Environmental Policy Act (SEPA) and this EIS is the first phase of a phased environmental review under SEPA of planned future development at Rosario Resort. Subsequent environmental review under SEPA will be conducted for the site-specific project permits required for the implementation of the final approved version of the Rosario Resort Master Plan (RMP).

Rosario Resort is an established destination resort located on the shoreline and uplands adjacent to Cascade Bay on Orcas Island in San Juan County in section 31 Twn 37N R1W and section 6 Twn 36N R1W. At the time the County adopted its Comprehensive Plan under the Growth Management Act (GMA), the existing Rosario Resort site was designated a Master Planned Resort (MPR) consistent with the provisions of GMA. Under the County's Master Planned Resort regulations (SJCC 18.80.060.A.2), existing resorts that were designated as Master Planned Resorts are required to prepare a resort master plan for review and approval by San Juan County before any substantial additional resort development is allowed. The Rosario Resort Master Plan has been submitted by the applicant for adoption by the County to fulfill the above-cited requirement of the San Juan County Code.

Alternatives considered in this EIS include the No Action Alternative and two alternative plans for the site provided by the applicant that have been designated Action Alternative A and Action Alternative B in this EIS.

No Action Alternative: The No Action Alternative is the alternative that would be realized if the County did not approve the Master Plan.

Action Alternative A: This plan alternative would result in the redevelopment of Rosario as a larger conference-oriented resort, replacing the existing 43 guest rooms with new hotel buildings containing up to 250 new guest rooms and adding additional conference space (for a total of 10,000 square feet), and additional conference facilities including increasing the amount of restaurant space. The Action Alternative A proposal includes increasing the size of the marina from 34 to 145 slips.

Action Alternative B: Action Alternative B is the applicants' preferred alternative. This plan alternative would result in a family oriented destination resort comprised of a mixture of resort accommodations and vacation residential units located on different parts of the site, supplemented by new food and beverage venues, an expanded marina (from 34 to 165 slips),

complementary retail opportunities, a renovated Moran Mansion, an expanded spa and fitness center, and a variety of indoor and outdoor recreational activities for adults, teens, and children.

Project Location	The project site is the Rosario Master Planned Resort comprising 15 separate parcels totaling approximately 100.9 acres. The address for Rosario Resort and Cascade Harbor Inn are 1400 and 1800 Rosario Road, Eastsound WA 98245, respectively.
Applicants	Rosario Resort and Spa and Cascade Harbor Inn
Dates of Implementation	A decision by San Juan County on the Rosario Resort Master Plan is anticipated in late 2006. If the plan is approved, the plan would be implemented in two phases following its adoption. Application for Planned Unit Development (PUD) approval and associated permits for Phase I, which will include the majority of Resort redevelopment, will be made as soon after adoption of the RMP as is feasible. Application for the necessary approvals for Phase II which includes the marina expansion, hillside and woodland cottages, and Cascade Harbor Inn build-out will follow Phase I. No specific timeframes for these phases have been determined.
Lead Agency	San Juan County Community Development and Planning Department
Lead Agency Address	135 Rhone Street Courthouse Annex P.O. Box 947 Friday Harbor, WA 98250
Responsible Official	Ron Henrickson Director
Contact Person	Shireene Hale Senior Planner II shireeneh@co.san-juan.wa.us (360) 370-7569

Required Licenses

The following governmental approvals will be required for this action to adopt the Resort Master Plan:

- Approval of the proposed RMP pursuant to the provisions of section 18.90.060 SJCC.

Implementation of the RMP will require additional government approvals, which will likely include but are not limited to the following. Several of these approvals require additional environmental review under SEPA.

- A Land Use Re-designation as required by SJCC 18.90.030.
- Approval for a Planned Unit Development application will be required by SJCC 18.90.060 (D) 3.
- Shoreline Substantial Development Permits and Shoreline Conditional Use Permits as mandated by SJCC 18.80.110 SJCC.

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Date of Issuance

December 21, 2006

**Subsequent
Environmental
Review**

Adoption of the Rosario Resort Master Plan constitutes a non-project action under SEPA as defined under WAC 197-11-704(b). Environmental review under SEPA for the master plan has been conducted through the preparation of this EIS.

This EIS is the first phase of phased environmental review under SEPA as authorized by WAC 197-11-060(5). This EIS focuses on an analysis of potential significant adverse environmental impacts that could result from the adoption of the Rosario Resort Master Plan, including indirect and cumulative impacts to the extent that they are knowable at this time. Additional site specific project level government approvals required to implement the plan including approvals for PUD and shoreline permits, and marina redevelopment will be subject to additional environmental review under both SEPA and potentially, in the case of the marina, the National Environmental Policy Act (NEPA).

**Location of
Background
Information**

Copies of the 2006 Resort Master Plan (incorporated by reference per WAC 197-11-635), as well as this FEIS and supporting background data may be viewed at the San Juan County Community Development and Planning Department. Copies of the 2006 Resort Master Plan and FEIS may also be viewed at the Rosario Resort front desk.

**Availability and Cost
of Copies**

Copies of this FEIS and the Resort Master Plan may be viewed at local public libraries and at the San Juan County Community Development and Planning Department. Copies may be purchased for the cost of reproduction at Rainbow Services in Eastsound (376-2150).

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LIST OF ACRONYMS

AADT	Average Annual Daily Traffic
ACHP	Advisory Council on Historic Preservation
ADA	Americans with Disabilities Act
ADU	Accessory Dwelling Units Development
AOC	Areas of Concern
BMP	Best Management Practice
BOD5	5-Day Biological Oxygen Demand
BP	years before present
CDF	Controlled Density Fill
CIP	Capital Improvement Program
DAF	Dissolved Air Flotation
DC	Direct Current
DEIS	Draft Environmental Impact Statement
DNR	Department of Natural Resources
DOE	Department of Ecology
DU	Dwelling Unit
EIS	Environmental Impact Statement
EPA	U.S. Environmental Protection Agency
ERU	Equivalent Residential Unit
FAA	Federal Aviation Administration
GMA	Growth Management Act
gpd	gallons per day
gpm	gallons per minute
HABS	Historic American Building Survey
HVAC	Heating, Ventilation and Air Conditioning
ITE	Institute of Transportation Engineers
Ldn	sound level
lf	linear feet
LAMIRD	Limited Area of More Intensive Rural Development
LOS	Level of Service
MLLW	Medium Low Low Water
MPR	Master Planned Resort
NEPA	National Environment and Planning Agency
NPDES	National Pollution Discharge Elimination System
NWAA	Northwest Archaeological Associates

OAHF	Office of Archaeology and Historic Preservation
OHWM	Ordinary High Water Mark
PHS	Priority Habitat and Species
PRV	Pressure Reducing Valve
PUD	Planned Unit Development
RCW	Revised Code of Washington
RMP	Resort Master Plan
RPOA	Rosario Property Owners Association
SEPA	State Environmental Policy Act
SF	Single Family
SHPO	State Historic Preservation Officer
SJCC	San Juan County Code
SJCCP	San Juan County Comprehensive Plan
SMP	Shoreline Management Program
TES	Threatened, Endangered and Sensitive
THPO	Tribal Historic Preservation Officer
TMDL	Total Maximum Daily Load
TSI	Transportation Solutions, Inc.
TSS	Total Suspended Solids
UDC	Unified Development Code
WAC	Washington Administrative Code
WDFW	Washington Department of Fish and Wildlife
WSF	Washington State Ferry
WWTF	Waste Water Treatment Facility

CHAPTER 1

INTRODUCTION

1.0 INTRODUCTION

This Environmental Impact Statement (EIS) has been prepared to provide discussion of the potential significant environmental impacts of the adoption of the proposed Rosario Resort Master Plan. Adoption of the Rosario Resort Master Plan constitutes a non-project action under SEPA as defined under WAC 197-11-704(b). Environmental review under SEPA for the Rosario Resort Master Plan has been conducted through the preparation of this EIS.

This EIS is the first phase of phased environmental review under SEPA (WAC 197-11-060[5]) for the future development of Rosario Resort and Spa and Cascade Harbor Inn. This EIS focuses on an analysis of potential significant adverse environmental impacts that could result from the adoption of the Rosario Resort Master Plan, including indirect and cumulative impacts to the extent that they are knowable at this time. Additional site-specific project level government approvals required to implement the plan including approvals for planned unit development and shoreline permits, and marina redevelopment will be subject to additional environmental review under SEPA and potentially, in the case of the marina, under the National Environmental Policy Act (NEPA).

1.1 BACKGROUND AND PROJECT DESCRIPTION

The document titled Rosario Resort Master Plan 2006 is the master plan proposal submitted by the applicant and proposal currently under consideration by the County for adoption as the Rosario Resort Master Plan. The proposed 2006 Master Plan is the applicants' preferred plan for the site. This proposed plan has been labeled as Action Alternative B for the purposes of this EIS. Two other alternatives are discussed in this EIS. These include the No-Action Alternative and an earlier different master plan proposed by the applicants in 2000. This earlier plan is identified as Action Alternative A. The following sections of this introduction provide background, historic context, a description of the affected property, an explanation of existing development, and a general description of the applicants' preferred alternative, Action Alternative B. A more detailed description of the applicants' preferred plan and the other alternatives discussed in this EIS is provided in Chapter 2.

1.1.1 Background and Historic Context:

The proposed Rosario Resort Master Plan covers the area designated in the County's comprehensive plan as the Rosario Resort Master Planned Resort activity center. The Resort Master Plan has been prepared by the applicants in response to requirements of the San Juan County Code. At the time the County adopted its Comprehensive Plan under the Growth Management Act (GMA), the existing Rosario Resort site was designated a Master Planned Resort (MPR) consistent with the provisions of GMA. Under the County's Master Planned Resort regulations (SJCC 18.80.060.A.2), existing resorts that were designated as Master Planned Resorts are required to prepare a resort master plan for review and approval by San Juan County before any substantial additional resort development is allowed.

The area designated by the County as the Rosario Resort Master Planned Resort activity center has been the site of a destination resort operation since the early 1960s.

Robert Moran, a former Seattle shipbuilding magnate and civic leader, built Rosario as a private estate in 1909. In 1938, Moran sold Rosario to Mr. Donald Rheem who used Rosario as a personal residence before selling the estate to the Falcon Corporation in 1958. The Falcon Corporation attempted to redevelop Rosario as a land development project, subdividing portions of the property and selling several homes and lots. Financial difficulties resulted in the sale of the properties to Gilbert Geiser in 1960. Geiser developed and operated Rosario as a commercial destination resort. The Resort has continued to operate as a destination resort under a succession of owners to the present day. The two buildings comprising the Cascade Harbor Inn were built in 1982 by former owners of Rosario as additional resort lodging and sold to its current owner in 1989. The Cascade Harbor Inn became an independently managed hotel in 1994. Rosario Resort and Cascade Harbor Inn are collectively referred to as “the Resort” in this EIS.

1.1.2 Location and Properties Affected:

The Resort is located on the east side of Orcas Island as shown on Figure 1-1. The address for Rosario Resort and Cascade Harbor Inn are 1400 and 1800 Rosario Road, Eastsound, WA 98245, respectively. The Moran Mansion at Rosario is situated in NW1/4, NW1/4 Sec. 6, T.36N., R.1W., of the Willamette Meridian. Other portions of the Master Planned Resort designation occupy the SW1/4, Sec. 31, T.37N., R.1W., W.M.

The area designated MPR by the County is comprised of two non-contiguous areas. These two areas combined currently include a total of 14 individual parcels comprising approximately 61 acres of land (see Figure 1-2). Two relatively small parcels labeled in Figure 1-2 with the number 5 are in separate private ownership and are not proposed for inclusion in the Master Plan. A 39.8-acre parcel owned by the Resort (parcel 6 in Figure 1-2) that currently lies outside the MPR designated areas is proposed for inclusion in the Master Plan. This parcel is referred to in the plan as the “Hilltop” parcel. After the removal of the two small privately held parcels along Cascade Bay and the addition of the 39.8-acre “Hilltop” parcel, the MPR would consist of three non-contiguous areas with a combined total of 13 parcels containing approximately 99 acres. Properties affected by the proposed Master Plan are described below:

1. Six parcels comprising 38.6 acres owned by Oly Rose LLC and operated by Rosario Resort.
2. Three parcels containing 3.1 acres in condominium ownership used as lodging leased and operated by Rosario Resort.
3. The Utility Tract, an 8-acre parcel designated MPR and used by Rosario Utilities for water and sewer treatment. This parcel is not contiguous with the other MPR designated area.
4. Cascade Harbor Inn, a separately owned and managed motel on a 9.1-acre parcel owned by T.E.M. Management in the southeast corner of the MPR designation.

5. The two private inholdings (Parcels No. 173143002000 and 173134002000) that total 1.8 acres not associated with the Resort are not included in the proposed Master Plan. The proposal includes removing these parcels from the County’s MPR and redesignating them to Residential Activity Center or Rural Residential.
6. The Hilltop, a 39.2-acre parcel owned by Oly Rose LLC, is used by Rosario for employee housing. This parcel would be designated as part of the Rosario MPR and the existing Conditional Use Permit rescinded by the adoption of the Rosario Master Plan under the Preferred Alternative.

The property affected by the Rosario Resort Master Plan are summarized in Table 1.3-1 below and shown graphically in Figure 1-2.

**TABLE 1.3-1:
SUMMARY OF PROPERTIES AFFECTED BY THE ROSARIO RESORT MASTER PLAN**

Key	Current Use	Acreage	Description	Parcels	Ownership
1	Rosario Resort	37.4	Mixed Resort Use	7	Oly Rose LLC
2	Rosario Resort	5.4	Guest Lodging	3	Condominium
3	Rosario Utilities	8.0	Utility Tract	1	Oly Rose LLC
4	Cascade Harbor Inn	9.1	Guest Lodging	1	T.E.M. Management
5	Non-Resort	1.8	Private Inholdings	2	Private
6	Employee Housing	39.2	The Hilltop	1	Oly Rose LLC
	Total:	100.9		15	

If the County adopts the proposed Rosario Resort Master Plan, the boundary of the Rosario Resort MPR would be redrawn to exclude the two smaller non-resort properties and include the larger 39.2 acre parcel. The two smaller parcels would be redesignated as Residential Activity Center or Rural Residential under the County’s Comprehensive Plan and zoning land use designation. The Hilltop parcel and the southern portion of parcel 173142002000 would be redesignated as Master Planned Resort. The Action Alternative B proposed Master Plan identifies that the Hilltop site is planned for additional employee housing, employee food service and recreational facilities, and resort support facilities including maintenance, laundry, housekeeping services and office and warehouse.

1.1.3 Existing Development:

Combined Rosario and Cascade Harbor Inn guest accommodations currently include 179 guest rooms in 12 guest buildings, many of which are located on a steeply sloping wooded hillside overlooking Cascade Bay. Other facilities and amenities mapped on Figure 1-3 include:

- A gourmet year-round restaurant and lounge;
- A casual seasonal dining café;
- The Moran Museum including historic displays and the Music Room;

- A small protected harbor with 34 slips and 20 offshore moorage buoys;
- Outdoor recreation facilities consisting of hiking trails, tennis courts, shuffleboard, volleyball, and two outdoor swimming pools;
- A spa and fitness center with indoor pool;
- A gift boutique and small convenience store;
- Discovery House Conference Center with 5,000 square feet of meeting space; and
- Seasonal tents for catered outdoor events.

The Resort currently caters to vacation travelers, groups, weddings and small conferences. Resort occupancy is typically highest during the summer months, and lowest during the off-season.

1.1.4 Project Description – Applicants Preferred Plan:

The document titled Rosario Resort Master Plan 2006 is the applicants’ current proposal for the future development of Rosario Resort. This proposal is identified as Action Alternative B in this EIS. The 2006 Master Plan is an updated version of the 2005 Master Plan. The 2006 Master Plan includes revisions made to address comments received on the August 2005 DEIS and issues raised by the County with regard to the location of certain uses. However, the overall character of the plan remains essentially the same as the 2005 version of the Master Plan.

Under the proposed 2006 Master Plan, the Resort is to be redeveloped as a family oriented high-end resort community themed on the Resort’s history and catering to owners, fractional owners and other short-term Resort guests. A summary of the principal features of the Master Plan is provided below. A more detailed description of the proposed 2006 Master Plan is provided in Chapter 2 under the description of Action Alternative B:

- **Restoration of the Moran Mansion** to its original condition as the Resort’s centerpiece.
- **A new Mansion Annex** to replace the existing restaurant/kitchen wing.
- **Development of a new “Moran Club at Rosario”** including Waterfront Cottages and Mini-Mansion flats featuring views of East Sound.
- **Development of a new “Marina Village Club at Rosario”** including cottages and condominiums overlooking the Marina.
- **Expansion of Marina to approximately 165 slips** with adjacent retail and marine support facilities. The Marina expansion would require subsequent project-level environmental analysis.

- **Enhanced landscaping** including xeriscaping (low-water use landscaping), shoreline restoration for habitat improvement, improved pedestrian trail networks, wayfinding signage and lighting and renovated tennis courts.
- **Improved pedestrian circulation** with a new network of paths, trails, and promenades that would provide site-wide circulation; additional walking and hiking opportunities; and improved foot access to neighboring Moran State Park.
- **Improved support functions** including expansion of water and sewage treatment capacity on the Utility Tract, as well as additional employee housing and cafeteria, and new maintenance, housekeeping, laundry, storage facilities, administrative offices and parking to be located on the Hilltop parcel.
- **Future Resort expansion** of the Cascade Harbor Inn and whole ownership cottages through development of graded pads on the hillside and in the forested basin on the upper hillside.

At full build-out, the 2006 Master Plan would provide up to 319 units of Resort lodging. Including existing facilities, there are currently 179 existing units in the Rosario Resort complex. An additional 140 units are planned which brings the total number of units to 319. Up to 223 of the total units will be part of Rosario, while the remaining 96 units are associated with Cascade Harbor Inn.

Resort redevelopment is proposed to occur over a multi-year period in response to demand and market considerations. The first phase will begin following adoption of the RMP and would likely include construction of the employee housing at the Hilltop for temporary housing of construction crews, demolition of the restaurant/kitchen addition to the Mansion; 1000, 1200, and 1300 Buildings; Cascade Bay Grill; outdoor swimming pool complexes; and Discovery House followed by renovation of the Moran Mansion and construction of the new Mansion Annex along with cottages, condominiums, Mini-Mansions, Cabana, and associated landscaping, infrastructure, and other support amenities. It is possible that the Discovery House will be used as a temporary administration and dining facility during renovation of the Moran Mansion and construction of the Mansion Annex.

The Marina expansion, construction of the Woodland Cottages, and expansion of the Hillside Cottages, and Cascade Harbor Inn are anticipated to occur in later phases. Specific timeframes have yet to be refined for future development phases.

1.2 SCOPING AND ISSUES

San Juan County conducted an expanded public scoping process that began on May 25, 2005 when the Determination of Significance/Scoping Notice was published and ended on June 18, 2005. As part of this process, the County hosted a public scoping workshop on June 6, 2005, during which the alternatives were presented and discussed and public suggestions on the scope of environmental analysis was solicited. In anticipation of scoping, the County had already determined that the Master Plan could impact the following elements of the environment, which

therefore must be addressed through an EIS. The numerous oral and written comments presented to the County during the public scoping process confirmed and expanded consensus on the need to thoroughly address these issues in the EIS.

Relevant Elements of the Environment

- Land and Shoreline Use
- Plans and Policy Consistency
- Earth and Stormwater
- Water and Sewer
- Plants and Animals
- Aesthetics
- Noise
- Historic and Archaeological Resources
- Transportation

1.3 ORGANIZATION OF THIS EIS

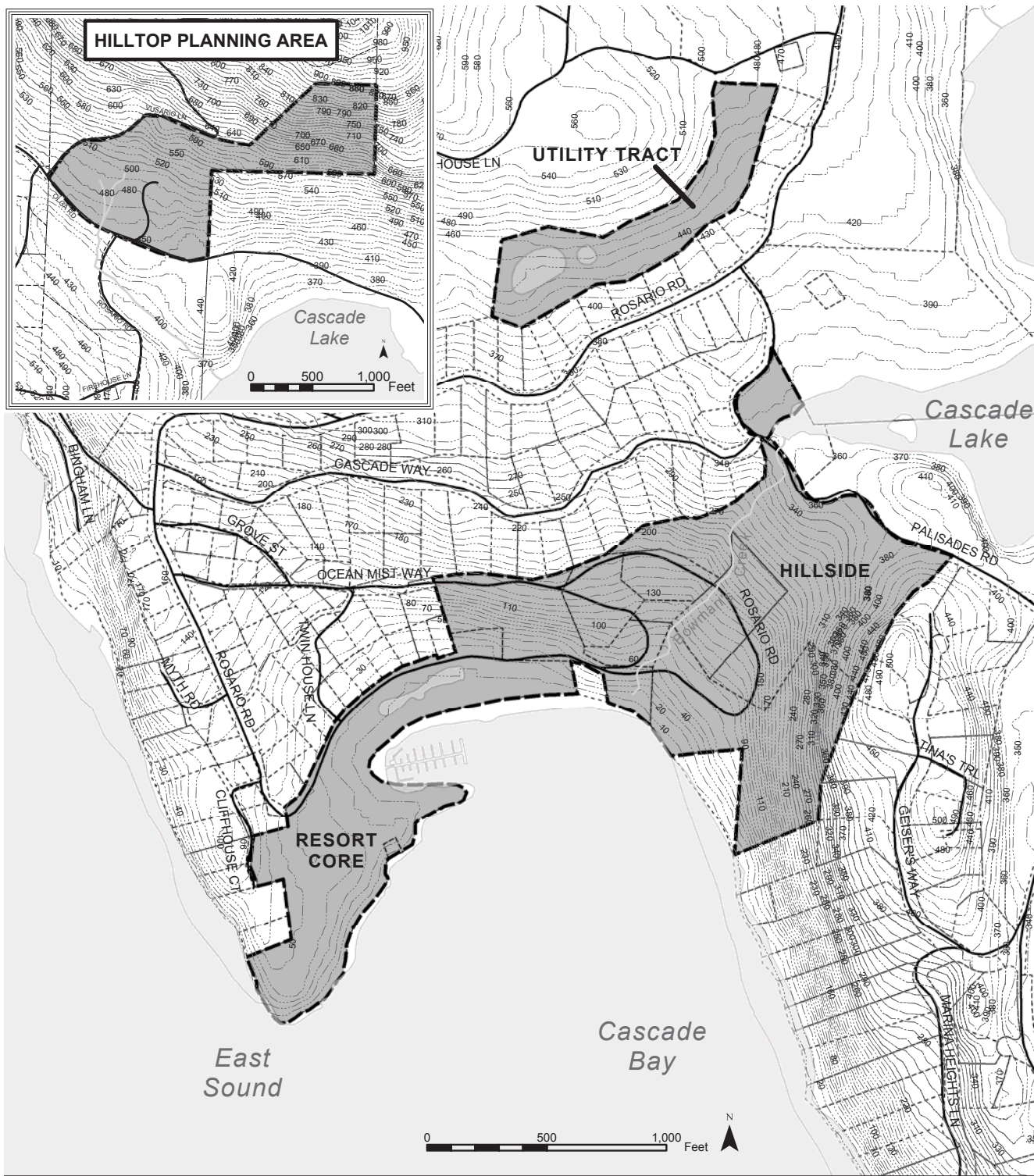
This EIS document has three main chapters followed by references and appendices. The three chapters are briefly summarized below:

VOLUME 1

- Preface: Summarizes changes to Draft EIS in response to comments and new information prepared to address issues raised during comment period.
- Chapter 1 Document introduction addressing purpose of the Proposed Action, specific issues to be addressed, location of the Resort, document structure, and public input process.
- Chapter 2 Summarizes and compares the three alternatives analyzed; discusses other alternatives that were considered and why these did not merit analysis; presents each relevant Element of the Environment and summarizes key discussion issues for each.
- Chapter 3 Discussion of existing conditions, potential impacts and mitigating measures for each of the elements of the environment, as defined in WAC 197-11-444, selected for discussion in this EIS as determined by the County through the scoping process. Each section of Chapter 3 is structured accordingly:

<u>Sub-Section:</u>	<u>Explanation:</u>
1) Affected Environment	Discussion of existing conditions.
2) Environmental Impacts	Discussion of potential adverse and positive impacts organized by alternative.
3) Mitigation Measures and Other Management Practices	Discussion of proposed methods to prevent or resolve adverse impacts identified.
4) Cumulative Impacts	Discussion of potential links between more than one impact or source of impact.
5) Unavoidable Significant Adverse Impacts	Listing of any significant adverse impacts that cannot be avoided or mitigated.
Chapter 4	Citations for all data sources used with in-text references using scientific notation for documents, internet sites, personal interviews and other data sources.
Chapter 5	FEIS Distribution List.
Chapter 6	Substantive DEIS comments and response to each comment.
Chapter 7	Summary of Impacts, Mitigation Measures and Other Management Practices for Action Alternative B.
VOLUME 2 APPENDICES	
Appendix A	National Register of Historic Places Nomination Form
Appendix B	Archeological Assessment for the Rosario Resort Master Plan
Appendix C	The Concurrency Analysis
Appendix D	The Traffic Impact Analysis
Appendix E	Public Comment Letters (Non-Substantive)
Appendix F	Marina Biology Report
Appendix G	Stormwater Management Plan
Appendix H	Economic Analysis of Alternatives
Appendix I	Construction Phase Best Management Practices

Copies of this FEIS and the 2006 Resort Master Plan may be viewed at local public libraries and at the San Juan County Community Development and Planning Department. Copies of the Resort Master Plan and FEIS may also be viewed at the Rosario Resort front desk. Copies may also be purchased for the cost of reproduction at Rainbow Services in Eastsound (376-2150).





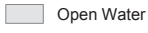

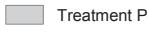


- | | |
|---|---|
|  Future Rosario MPR Boundary | Hydrological Features |
|  Roads |  Open Water |
|  Contours - 10 Ft. |  Treatment Ponds |
|  Parcel Lines |  Streams |



Figure 1-1
Location Map



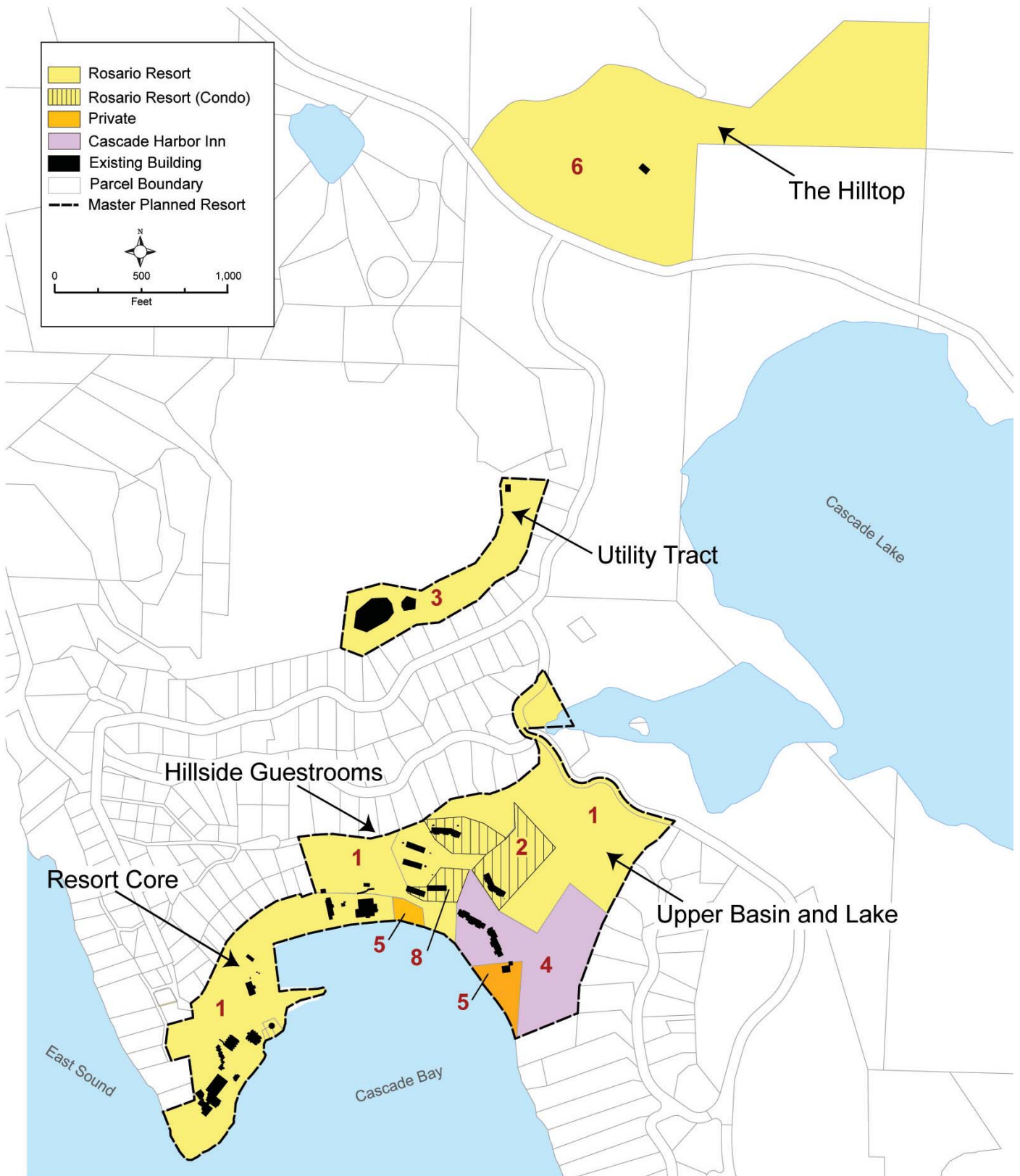


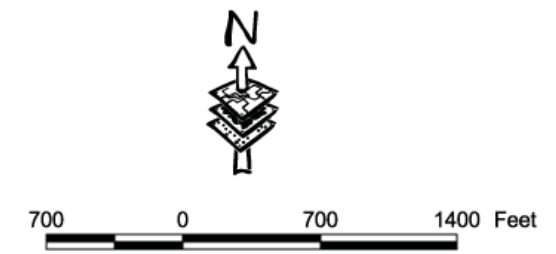
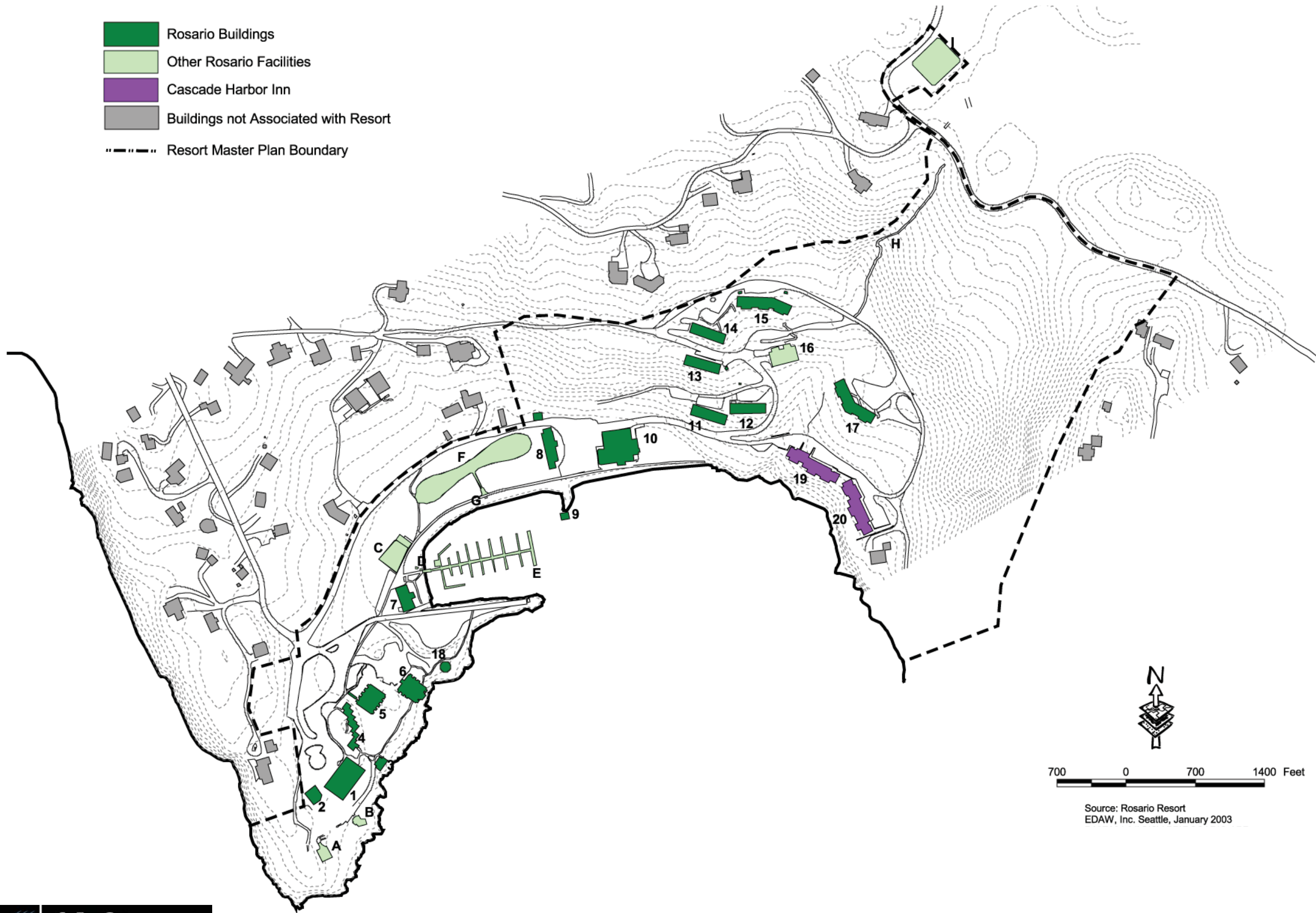
Figure 1-2

Summary of Land Ownership



ROSARIO RESORT MASTER PLAN FEIS

- Rosario Buildings
- Other Rosario Facilities
- Cascade Harbor Inn
- Buildings not Associated with Resort
- Resort Master Plan Boundary



Source: Rosario Resort
 EDAW, Inc. Seattle, January 2003

Figure 1-3
 Existing Facilities

CHAPTER 2

DESCRIPTION OF THE ALTERNATIVES AND SUMMARY OF IMPACTS

2.0 DESCRIPTION OF THE ALTERNATIVES AND SUMMARY OF IMPACTS

The primary purpose of this chapter is to summarize and compare the three alternatives analyzed in Chapter 3. It also discusses other alternatives that were considered and why these did not merit analysis in this EIS, presents each of the relevant Elements of the Environment, and summarizes key discussion issues for each. This chapter concludes with two tables summarizing environmental consequences and mitigation measures and other management practices for each alternative.

2.1 APPROACH TO ANALYSIS

This EIS is the first phase of a phased environmental review process as authorized by WAC 197-11-060(5). This EIS discusses the potential significant adverse environmental impacts that could result from the proposed action-adoption of the Rosario Resort Master Plan by San Juan County-including indirect and cumulative impacts to the extent those impacts are reasonably foreseeable at this time. Adoption of this plan is a nonproject action as defined under WAC 197-11-704(b). As required by the State Environmental Policy Act (SEPA), primary, secondary, and cumulative impacts are identified to the degree that they can be accurately addressed at this point in the process. Additional environmental review would occur at project-specific design and permitting phases, when the detailed impacts of those project-specific impacts are knowable. The Rosario Resort Master Plan will provide the framework for regulating land use and the redevelopment of lands within the MPR designation as well as redevelopment of the marina that serves the resort. As required by SEPA, all impacts related to elements of the environment addressed during scoping and listed below are considered for both the terrestrial and marine components of the Resort Master Plan.

<u>Elements of the Environment:</u>	<u>Issues Addressed:</u>
<i>Land and Shoreline Use</i>	Consistency with surrounding land uses and ownership.
<i>Plans and Policy Consistency</i>	Consistency analysis for each Element of the County's Comprehensive Plan including: Land Use; Shoreline Master Program; Water Resources; Transportation; Capital Facilities; Utilities, and; Historic and Archaeological Preservation. This section will also address compliance with the County's Unified Development Code.
<i>Earth and Stormwater</i>	Potential impacts to soils, slopes, geology, drainage and groundwater.
<i>Water and Sewer</i>	Potential impacts to supply, treatment and distribution of potable water and sanitary sewer service.

<u>Elements of the Environment:</u>	<u>Issues Addressed:</u>
<i>Plants and Animals</i>	Potential impacts to onsite flora and fauna, including threatened and endangered species.
<i>Aesthetics</i>	Potential impacts to views from adjacent sites and potential light and glare impacts to surrounding properties.
<i>Noise</i>	Potential noise impacts to surrounding properties associated with resort activity.
<i>Historic and Archaeological Resources</i>	Potential impacts to onsite historical and archeological resources.
<i>Transportation</i>	Potential impacts to traffic on roads and intersections; safety; ferry and airplane use; boats and boat docks; and traffic and safety concerns related to mopeds, pedestrians and bicycles. This section will also address impacts to parking supply.

The redevelopment and expansion of the marina is a component of the Rosario Resort Master Plan and is therefore subject to nonproject analysis in this EIS. As summarized in Table 2.1-1, nonproject and cumulative impacts of the marina redevelopment and expansion are discussed in relation to the Elements of the Environment covered in this EIS to the extent the impacts are knowable at this stage in the planning process for the resort. As the marina has yet to be designed, it is not possible at this stage in the development process to analyze project-level impacts of the marina or of the proposed building construction until design-level information is available to evaluate. Design level information will need to be provided at subsequent stages in the resort development process in order to receive approval from the County to construct the planned resort facilities.

Because of the unique issues regarding marina construction, separate project-level environmental review will be necessary to ensure that all applicable resource issues are considered and analyzed consistent with phased environmental review as stipulated by WAC 197-11-060(5). This analysis would include a separate threshold determination process and would likely address environmental, engineering, and other issues related to the marine environment. Because the marina redevelopment and expansion would require permits issued by the Army Corps of Engineers, future review must comply with the National Environmental Policy Act (NEPA). In addition, compliance with shoreline and land use regulations administered by San Juan County would require compliance with SEPA.

**TABLE 2.1-1:
SUMMARY OF PROGRAMMATIC ANALYSIS OF MARINA-RELATED IMPACTS**

Summary of Discussion	EIS Section
The marina expansion would not represent a change of use but would result in an intensification of an existing use. Marinas are an allowed use in the Rural shoreline. Additional governmental approvals and additional project-specific environmental review under SEPA would be required for the expansion.	<i>3.1 Land and Shoreline Use</i>
The marina is an allowed use in a Rural shoreline. Final approval for the expansion of the marina would require additional local, state and federal approvals.	<i>3.2 Plans and Policy Consistency</i>
Potential for disturbance to the shoreline resulting from increased activity associated with marina expansion. Discussion of bioswales and pervious pavement to intercept and treat runoff to protect Cascade Bay water quality. Impacts of expanded marina including sand accumulation from reduced wave energy and proposed re-naturalization of the beach as mitigation.	<i>3.3 Earth and Stormwater</i>
Discussion of water quality standards in marine waters surrounding Orcas Island. Analysis of additional demands on water and sewer treatment capacity resulting from marina expansion based on projected future number of slips.	<i>3.4 Water and Sewer</i>
List of wildlife (including marine species) observed during site visits; List of wildlife species of concern (including marine species) protected by State of Washington. List of Federally listed Threatened and Endangered species in the marine waters surrounding Orcas Island. Analysis of impacts to intertidal and subtidal shoreline habitat resulting from the alternatives including accidental litter and discharge, noise and shading. Discussion of prevention methods and mitigation measures.	<i>3.5 Plants and Animals</i>
Visual assessment of the Harbor.	<i>3.6 Aesthetics</i>
Analysis of noise impacts from seaplane operations and marine traffic including the noise of boat engines and generators.	<i>3.7 Noise</i>
Listing of stone jetty and Newhall pier as contributing historic resources. Impacts resulting from destruction of historic wharf proposed under Action Alternative A. Discussion of potential impacts to shell midden (site 45SJ242) resulting from redevelopment of lands surrounding Cascade Bay shoreline.	<i>3.8 Historic and Archaeological Resources</i>
Analysis of projected trip generation and parking requirements from marina slips. Use of privately-operated water shuttle to ferry passengers between resort and mainland. Increased private boat traffic using marina shifting closer to shore. Increased commercial seaplane access.	<i>3.9 Transportation</i>

2.2 ALTERNATIVES CONSIDERED BUT ELIMINATED

The alternatives evaluated in this EIS include the No Action Alternative, the applicants' preferred alternative (Action Alternative B) and a plan different from the applicants' preferred alternative that includes a greater number of guest units (Action Alternative A). Table 2.4-1 contains a summary comparison of the three alternatives. The proposed master plan covers privately owned development proposals. The range of alternatives to be considered for this private project include the No Action Alternative, the applicants' proposal, in this case the applicants' preferred alternative, and other alternative(s) intended to achieve the applicants' goals for the property, in this case, the creation of an economically viable destination resort. Action Alternative A, which includes a conference center and hotel expansion component not included in Action Alternative B, was a previous iteration of the current proposal. Action Alternative A, although less desirable from the applicants' point of view, is an alternative formerly believed by the applicants as having the potential for creating an economically viable destination resort.

Several previous, higher density iterations of the master plan were presented to the community and to the County. These higher density alternatives with ambitious build-out scenarios were considered, as was seasonal closure in the winter, however none of these were determined to be practical because of their scale and the limitations imposed by the transportation and utility infrastructure. Because these large-scale redevelopment concepts were not considered to be viable or context-appropriate, they were not sufficiently developed to warrant further consideration as potential planning concepts. A scaled-back Master Plan concept was presented to the community in a public meeting and later submitted to San Juan County in late 2000. The 2000 Master Plan concept plus the inclusion of an expansion of Cascade Harbor Inn make up Action Alternative A.

In response to comments by San Juan County staff on the 2000 Master Plan, the applicant presented a new conceptual plan to the community at a second public meeting in early 2003 that scaled the development back even further. The 2006 version of the 2003 scaled back plan is the applicants' preferred alternative, and addressed as Action Alternative B in this EIS.

2.3 ALTERNATIVES UNDER CONSIDERATION

This nonproject EIS analyzes the programmatic environmental impacts associated with adoption of the Resort Master Plan. In addition, certain project-specific impacts are also considered to the extent that they are reasonably foreseeable at this time.

The proposed action that is the subject of this EIS is the adoption of the Rosario Resort Master Plan. The EIS discusses the applicants' preferred master plan (identified in this EIS as Action Alternative B) and two additional alternatives including the No Action Alternative and a previous master plan proposal submitted by the applicants identified in this EIS as Action Alternative A. The applicants' preferred alternative and the two other alternatives are described more fully below.

2.3.1 No Action Alternative

A No Action Alternative is included in this EIS to discuss the potential environmental impacts of not approving a master plan for the site. The consequences of not approving a master plan include the removal of the Master Planned Resort designation. Since the resort development predated the adoption of the Growth Management Act in 1990, all or a portion of Rosario Resort could qualify as a Limited Area of More Intensive Rural Development (LAMIRD). A possible outcome of the removal of the MPR designation therefore would be to include the resort property into the North Rosario Residential Activity Center LAMIRD or to create a separate non-MPR LAMIRD covering the resort property. Undeveloped areas under resort ownership could be excluded from the LAMIRD and given a rural type of land use designation.

The No Action Alternative assumes that although no longer within an MPR, the Resort would continue its present operations with no immediate changes to existing facilities or activities. Existing resort accommodations that could potentially remain under the No Action Alternative are summarized in Table 2.3-1. If the MPR designation is removed and the property were included in the adjoining North Rosario Residential Activity Center or included in a separate LAMIRD, some of the existing uses could become non-conforming uses and subject to the non-conforming use provisions of the County’s Unified Development Code.

**TABLE 2.3-1:
SUMMARY OF EXISTING RESORT ACCOMMODATIONS UNDER THE NO ACTION ALTERNATIVE**

Description	Units	Notes
Mansion Area Total:	44	
Hotel Guest Rooms	42	Existing hotel rooms in 1100, 1200, and 1300 Buildings
Hotel Luxury Suites	2	Honeymoon Cottage and Roundhouse
Hillside and Upper Basin Total:	87	
Existing Hillside Condo Units	87	Includes 1500, 1600, 1900, 2000, and 2100 Buildings
Cascade Harbor Inn Total:	48	
Existing Guest Rooms	48	Does not include 3 rooms converted to offices
TOTAL	179	

Note: Rosario Resort contains 119 guest rooms including the Hillside condos. Twelve rooms in the 1700 Building are currently used for employee housing in addition to the 20-room employee housing dormitory at the Hilltop. Cascade Harbor Inn operates 48 guest rooms. A three-room condo located in Rosario’s 2000 Building is currently independently owned and operated.

The applicants have provided information that Rosario in its current operation is not economically viable, and has survived only through external financial assistance and through the sale of real estate assets. Annual operating losses would likely continue to be subsidized by the sale of existing parcels within the resort, thereby further reducing the area available for resort-related activities. If the resort continued to operate at a loss, there is a likelihood that the resort would cease to operate. In that event, the site would likely redevelop in accordance with the provisions of the North Rosario Residential Activity Center regulations or such other regulations as may apply if a separate LAMIRD is created. For this reason, the analysis of the No Action Alternative includes consideration of both ongoing unchanged operations as well as closure of Rosario and redevelopment of the real estate. Under either scenario, the MPR designation would be replaced with another designation, possibly *Rural Residential*, which is consistent with the

North Rosario Residential Activity Center designation and presumably be developed for private low-density residential use. On March 1 2006, an application for a Comprehensive Plan map amendment and rezone was filed with the County to rezone the property from MPR to Rural Residential and Activity Center. According to the application:

Under this contingency scenario, rather than continue to function as a resort, portions of the Rosario Resort property would be re-designated Activity Center and Rural, to be consistent with surrounding land uses, and could thus be utilized for residential use and development and minor commercial uses. This would permit the property to be used for uses other than the existing resort use.

Approval of this application would permit portions or all of the Resort to be divided into one or more large waterfront and Hillside estates featuring water views and utility connections while any remaining commercial facilities such as a marina or restaurant could remain within the Activity Center.

2.3.2 Action Alternative A

Action Alternative A is based on the Rosario Resort Master Plan submitted to San Juan County in November 2000. This master plan Alternative would result in a larger, group-oriented hotel with expanded conference facilities and enlarged restaurants, spa and fitness facilities, marina, and other recreation amenities and complementary facilities. Proposed resort accommodations are summarized in Table 2.3-2.

**TABLE 2.3-2:
SUMMARY OF PROPOSED RESORT ACCOMMODATIONS UNDER ACTION ALTERNATIVE A**

Description	Units	Notes
Mansion Area Total:	250	Would replace 43 units in the 1100, 1200, and 1300 Buildings
Hotel Guest Rooms	150	Lodging in or within 150 yards of Moran Mansion
Hotel Guest Rooms	100	Lodging within 300 yards of Moran Mansion
Hillside and Upper Basin Total:	95	
Existing Hillside Condo Units	63	Includes the 1500, 1600, 2000, and 2100 Buildings
Renovated Hillside Condos	24	Assumes renovation/conversion of the 1700 and 1900 Buildings into standard hotel guestrooms.
New Homesites	8	Accessed from Palisades Drive and Ocean Mist Way
Cascade Harbor Inn Total:	96	
Existing Rooms	48	
Proposed Rooms/Suites	48	
TOTAL	441	Approximate net increase 262 units

Action Alternative A would cluster future resort development in the vicinity of the historic Moran Mansion. New guest lodging would include up to 250 new guest rooms at Rosario and 48 new rooms at Cascade Harbor Inn. Approximately 150 of these would be located within 150 yards of the Moran Mansion, replacing the 42 guest rooms in the 1100, 1200 and 1300 Buildings. An additional 100 guest rooms would be located within a maximum of 300 yards, most likely located on the site of the existing swimming pool and Cascade Bay Grill. This

compact core would serve as the heart of the resort development. The existing 87 guest rooms within the Hillside condominium buildings would remain and be improved as necessary over the long-term. Additional concept highlights are explained below:

- **Renovation of Moran Mansion** to its original condition as the Resort’s centerpiece. Following its renovation, the Mansion would house the front desk and concierge, expanded spa and fitness center, restaurant, gift shop, and possibly guest accommodations on upper floors. The historic museum would be re-located to a new purpose-built building, and the preserved rooms now housing historical displays would be renovated for hotel guestrooms.
- **Development of new parking/tennis structure.** The parcels adjacent to the Mansion driveway would be excavated and developed into a parking lot with a tennis court deck built above.
- **Restaurant and conference facility expansion** sized for Rosario’s 200-250 room operation, as well as the existing 87 Hillside guestrooms. Upon completion of the construction of the guest room inventory, an addition to the Discovery House Conference Center would be constructed.
- **Expansion of the marina to approximately 145 slips** and new Marine Center. The proposed marina would be accessed from the western end of the breakwater where the proposed Marine Center would be located. The Marine Center would house water-oriented recreational activities such as kayaking, whale watching, sailing, and scuba diving tours. Other outdoor recreational activities such as bicycle rentals would also be provided at the Marine Center which would be addressed through a separate project-level NEPA/SEPA and permitting process along with the proposed marina expansion.
- **Preservation of open space and new outdoor facilities.** A considerable amount of open space for both active and passive recreation would be added along with new recreation facilities such as additional tennis courts. No new roads would likely be required, but parking would be increased to accommodate guest room expansion. An extensive system of foot trails would link all major resort facilities with Moran State Park.
- **Creation of eight new homesites.** These would be relatively large parcels for low-density residential development on the wooded slopes above the lower resort. Protective covenants have been proposed to limit the extent of site disturbance in the immediate area of each building pad and limit the vegetation that can be removed or thinned to provide view corridors from the homes.
- **Improved support functions.** The 8-acre Utility Tract would continue to be the site of community water and sewer treatment systems and the facilities would be expanded to accommodate the increased lodging capacity.

At full build-out, Action Alternative A anticipates a total of up to 441 units of resort lodging including eight new home sites. Including existing facilities, up to 343 of these would be part of

Rosario, while the remaining 96 units would be associated with Cascade Harbor Inn. This represents an increase of 262 units over the 179 existing units currently operated by Rosario and Cascade Harbor Inn.

Action Alternative A would be implemented in at least two phases. The first phase of development would include renovation of the kitchen facilities at the Mansion and replacement of the 42 rooms now within buildings 1100, 1200, and 1300 with approximately 150 new guest rooms in the vicinity of the Mansion.

An additional 100 guest rooms necessary to complete the resort core facility along with construction of approximately 145 new marina slips and removal of the existing marina and expansion of the Discovery House Conference Center and Cascade Harbor Inn would comprise the second phase following project-level environmental review. Table 2.3-3 lists proposed breakdowns by unit type and development phase, corresponding with the graphic representation on Figure 2-2.

**TABLE 2.3-3:
PROPOSED ACTION ALTERNATIVE A DEVELOPMENT PHASING**

PHASE I			
Action	Max. New Units	Replaced Units	Net Growth in Units
Demolish existing buildings, prepare site & new infrastructure	N/A	N/A	N/A
Build additional parking and tennis courts	N/A	N/A	N/A
Renovate Moran Mansion, replace kitchen and dinning room & build interpretive center	N/A	N/A	N/A
Build 150 new guestrooms near Mansion	150 rooms	42 rooms	108 rooms
Create & sell 8 new home sites on Hillside	8 units	N/A	8 units
PHASE II			
Action	Max. New Units	Replaced Units	Net Growth in Units
Expand water and sewer treatment facilities			
Build 100 new guestrooms near Mansion	100 rooms	N/A	100 rooms
Expand Cascade Harbor Inn	48 rooms	N/A	48 rooms
Replace and expand marina	145 slips	34 slips	111 slips

2.3.3 Action Alternative B (Applicants' Preferred Alternative)

Action Alternative B is the applicants' preferred alternative. This alternative is presented in the applicants' 2005 Rosario Resort Master Plan submitted to San Juan County in March 2005 and revised in early 2006 in response to comments on the DEIS and now titled 2006 Rosario Resort Master Plan. The 2006 master plan is intended to redevelop Rosario into a family-oriented vacation community catering to owners, fractional owners and other short-term resort guests by upgrading and replacing resort accommodations and other facilities. Resort accommodations proposed under Action Alternative B are summarized in Table 2.3-4.

**TABLE 2.3-4:
SUMMARY OF PROPOSED RESORT ACCOMMODATIONS UNDER ACTION ALTERNATIVE B**

Description	Units	Notes
Moran Club Total:	48	
Luxury Guest Suites	21	Lodging in Moran Mansion Inn
Penthouse Suites	3	Luxury flats in Mansion Annex
Waterfront Cottages	9	Includes 5 new cottages, 2 attached cottages, and existing Honeymoon Suite and Roundhouse
Flats in Mini-Mansions	12	Two-story craftsman-style four-plexes
Bowman's Bluff Cottages,	3	
Marina Village Club Total:	51	
Marina View Condos	30	Cabana and Jetty Site
Waterfront Cottages	19	Marina Village Cottages
Cliffhouse Court Homes	2	Single-family homes accessed from Cliffhouse Court
Hillside Total:	103	
Existing Hillside Condo Units	87	Includes the 1500, 1600, 2000, and 2100 Buildings
New Hillside Cottages	16	Located on developed pads
Cascade Harbor Inn Total:	96	
Existing Rooms	48	
Proposed Rooms/Suites	48	
Upper Basin Total:	21	
New Woodland Cottages	21	Built under future expansion
TOTAL	319	Approximate net increase of 140 units

Under Action Alternative B, the Resort would be redeveloped as a family-oriented high-end, resort community themed on the Resort’s history. Upon completion, the Resort would consist of a mixture of resort accommodations and vacation residential units located on different parts of the site, supplemented by high-end food and beverage venues, an expanded marina, complementary retail opportunities, a renovated and expanded spa and fitness center, and a variety of indoor and outdoor recreational activities for adults, teens, and children. The physical development of the Resort would complement Rosario’s historic character and natural setting. The restored Moran Mansion will remain the Resort’s centerpiece. Most of the Resort’s other historic features would be retained and identified with interpretive displays. New buildings and other construction would be located to preserve the site’s water views and physical beauty, while minimizing impacts on water quality and natural systems. Concept highlights are explained below and illustrated graphically on Figure 2-3.

- **Restoration of the Moran Mansion** to its original condition as the Resort’s centerpiece. Following its restoration, the Mansion would house the front desk and concierge; spa with indoor/outdoor swimming pool and hot tub; a gift shop; the renovated Moran Room and Music Room, as well as the historic museum; and new clubhouse for Moran Club members.
- **A new Mansion Annex** would replace the existing restaurant/kitchen wing. The Mansion Annex would house a new fitness center, executive and sales offices, flexible functions

rooms, approximately 21 luxury guest suites and 3 penthouse flats, and a new fine dining restaurant and bar overlooking Rosario Point and East Sound.

- **Development of a new “Moran Club at Rosario”** including Waterfront Cottages and Mini-Mansion flats featuring views of East Sound, coupled with use of a Club yacht, clubhouse, and other amenities and services primarily targeted for high-end fractional ownership.
- **Development of a new “Marina Village Club at Rosario”** including cottages and condominiums overlooking the Marina, sharing a swimming pool and Cabana complex and use of other amenities and services, targeted primarily for moderately upscale fractional and whole-ownership families.
- **Expansion of Marina to approximately 165 slips** intended to facilitate Club watercraft, commercial seaplanes, and private yacht berthing with adjacent retail and marine support facilities. While it makes sense from a planning perspective to include the marina as a part of the Resort Master Plan, the financial and programmatic success of the Resort will not depend on an expanded marina. Although modest by contemporary standards, the existing marina with its wharf, fuel docks, seaplane docks, mooring field and boater services could continue to accommodate the private water shuttle, expanded seaplane service, and needs of recreational boaters for some time. The Marina expansion would require subsequent project-level environmental analysis.
- **Enhanced landscaping** including xeriscaping (low-water use landscaping), shoreline restoration for habitat improvement, improved pedestrian trail networks, wayfinding signage and lighting and renovated tennis courts.
- **Improved pedestrian circulation** with a new network of paths, trails, and promenades that would provide site-wide circulation; additional walking and hiking opportunities; and improved foot access to neighboring Moran State Park.
- **Improved support functions** including expansion of water and sewage treatment capacity on the Utility Tract, as well as additional employee housing and cafeteria, and new maintenance, housekeeping, laundry, storage facilities, administrative offices and parking to be located on the Hilltop parcel.
- **Future Resort expansion** of the Cascade Harbor Inn and whole ownership cottages through development of graded pads on the Hillside and in the forested basin on the upper Hillside.

At full build-out, Action Alternative B anticipates a total of up to 319 units of Resort lodging. Including existing facilities, up to 223 of these will be part of Rosario, while the remaining 96 units are associated with Cascade Harbor Inn. This represents an increase of 140 units over the 179 existing units currently within the Resort and Cascade Harbor Inn.

Resort redevelopment under Action Alternative B will occur over a multi-year period as dictated by financing, market absorption, construction efficiency, Resort operations, regulatory, project-level environmental review and permitting requirements. The first phase, which could begin following adoption of the RMP by San Juan County, would likely include construction of the employee housing at the Hilltop for temporary housing of construction crews, demolition of the restaurant/kitchen addition to the Mansion; 1000, 1200, and 1300 Buildings; Cascade Bay Grill; outdoor swimming pool complexes; and Discovery Hall followed by renovation of the Moran Mansion and construction of the new Mansion Annex along with cottages, condominiums, Mini-Mansions, Cabana, and associated landscaping, infrastructure, and other support amenities. It is possible that the Discovery House could be used as a temporary administration and dining facility during renovation of the Moran Mansion and construction of the Mansion Annex.

The Marina expansion, construction of the Woodland Cottages, and expansion of the Hillside Cottages, and Cascade Harbor Inn are anticipated to occur in later phases. Specific timeframes have yet to be refined for future development phases since they will require approval of Substantial Development Permits for construction of conditional uses within the shoreline zone, involving a lengthy and often unpredictable review process. In addition, all new facilities will require demonstrated provision of adequate infrastructure, especially roads, sewer, and water treatment capacity addressed in Appendix C of this FEIS. As with other project development components, the proposed marina expansion will require project-level environmental review prior to Marina construction. Proposed redevelopment phasing is summarized in Table 2.3-5.

**TABLE 2.3-5:
PROPOSED ACTION ALTERNATIVE B DEVELOPMENT PHASING**

PHASE I			
Action	Max. New Units	Replaced Units	Net Growth in Units
Demolish existing buildings, prepare site & new infrastructure	N/A	8 buildings	N/A
Increase utility capacity on Utility Tract	N/A	N/A	N/A
Build additional employee housing & facilities at Hilltop	80 beds	N/A	80 Beds
Renovate Moran Mansion & build Mansion Annex	21 rooms	42 rooms	-21 rooms
Build new Moran Cottages, Mini-Mansions, Penthouses	27 units		27 units
Build new Marina Village Cottages, Condos, & Cabana	51 units		51 units
Build new Hillside Cottages	8 units	N/A	8 units
PHASE II			
Action	Max. New Units	Replaced Units	Net Growth in Units
Prepare site & new infrastructure			
Build Marina	165 slips	34 slips	131 slips
Build new Woodland Cottages	21 units	N/A	21 units
Expand Cascade Harbor Inn	48 rooms	N/A	48 rooms
Build new Hillside Cottages	8 units	N/A	8 units

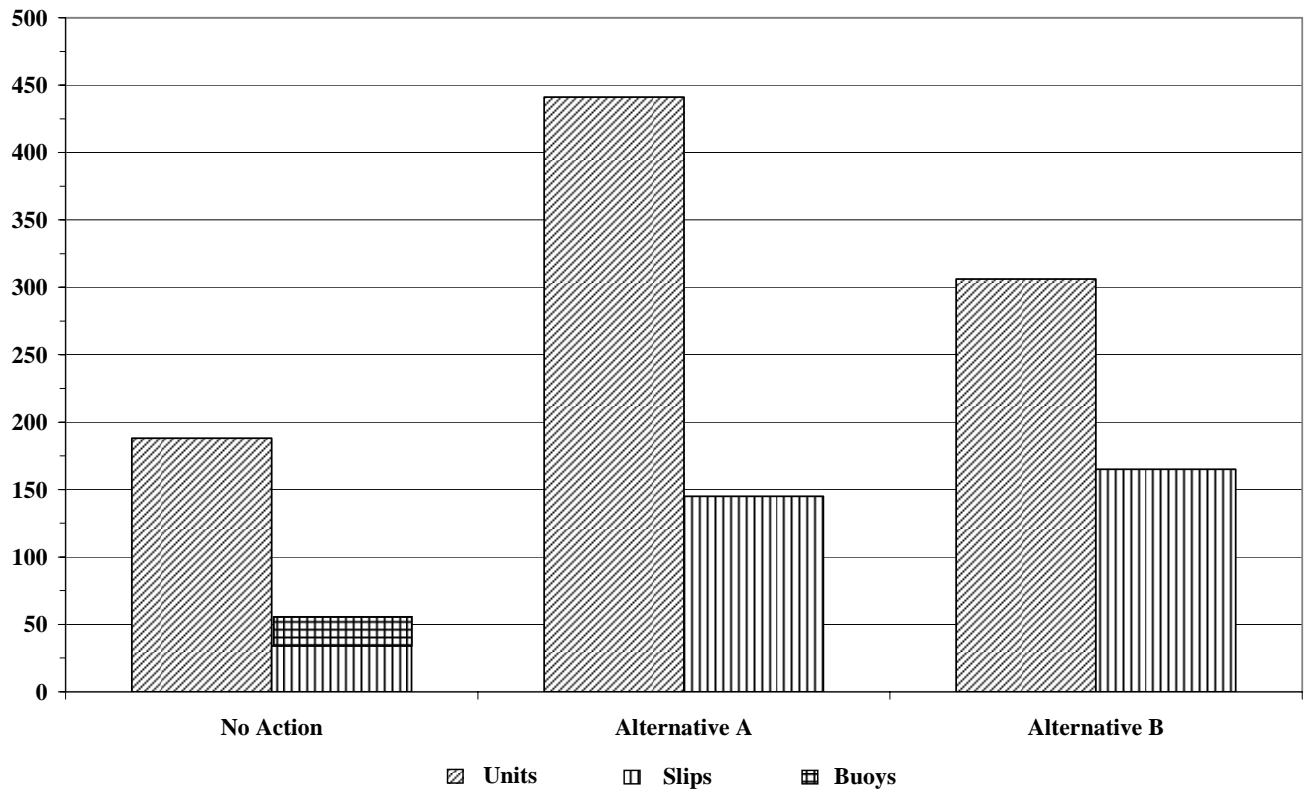
2.4 COMPARISON OF FACILITIES

Table 2.4-1 below summarizes each alternative by facilities. The No Action Alternative anticipates no resort growth and therefore includes the fewest facilities and no net change. Action Alternative A would include the largest amount of hotel growth, the majority of which would be clustered close to the Moran Mansion. Action Alternative B would include a moderate amount of growth consisting of a mix of new cottages, condos, and hotel rooms clustered around the Moran Mansion, the marina, and on the Hillside.

**TABLE 2.4-1:
COMPARISON OF FACILITIES BY ALTERNATIVE**

NO ACTION ALTERNATIVE	ACTION ALTERNATIVE A	ACTION ALTERNATIVE B
<ul style="list-style-type: none"> • 119 hotel rooms in 10 Buildings • 34-slip marina plus 20 mooring buoys • 45-room Cascade Harbor Inn • 5,000 sf conference center • 67 seasonal employee beds, or, • If Rosario closed, the site would likely be redeveloped as single-family homes. 	<ul style="list-style-type: none"> • 200-250 hotel rooms • 87 Hillside hotel rooms • 8 large home sites • 145 slip marina • 96-room Cascade Harbor Inn • 10,000 sf conference center (5,000 sf addition) • 39 seasonal employee beds 	<ul style="list-style-type: none"> • 24 luxury hotel suites • 12 waterfront cottages • 12 Mini-Mansion flats • 30 marina-view condos • 21 Marina Village cottages • 16 Hillside cottages • 21 Woodland Cottages • 87 existing condos • 96-room Cascade Harbor Inn • 165-slip marina • 120 seasonal employee beds
TOTAL FACILITIES		
164 hotel rooms and 34-slip marina plus 20 mooring buoys	441 units of guest lodging plus 145 marina slips	319 units of guest lodging plus 165 marina slips
NET CHANGE		
No change	Approximate net increase of 262 guest room units & 111 slips	Approximate net increase of 140 guest lodging units & 131 slips

Comparison of the Number of Guest Lodging Units and Marina Slips



2.5 SUMMARY OF ENVIRONMENTAL CONSEQUENCES, MITIGATION AND OTHER MANAGEMENT PRACTICES TABLE

ELEMENTS OF THE ENVIRONMENT	NO ACTION ALTERNATIVE	ACTION ALTERNATIVE A	ACTION ALTERNATIVE B
3.1 Land and Shoreline Use			
Environmental Impacts	Loss of MPR designation. New land use designation(s), possible inclusion in Residential Activity Center.	Existing land use intensified. Two non-resort related parcels (Geiser/Meade and Scharnhorst) removed from MPR and designated Rural Residential or Rural Activity Center.	Existing land use intensified, correct MPR mapping errors by re-designating Hilltop from Rural Farm Forest to MPR and by redesignating two non-resort parcels. Additional resort related uses to be developed on Hilltop.
Cumulative Impacts	None	None	None
Mitigation Measures	Redesignate MPR to more appropriate zoning designation(s).	Adjust MPR boundaries to exclude Geiser/Meade and Scharnhorst properties. Under all alternatives, the San Juan County Shoreline Program will continue to regulate land use within the shoreline area to assure consistency with the shoreline use policies of the state Shoreline Management Act and the County's Shoreline Program.	Adjust MPR boundaries to exclude Geiser/Meade and Scharnhorst properties and include the Hilltop property. Under all alternatives, the San Juan County Shoreline Program will continue to regulate land use within the shoreline area to assure consistency with the shoreline use policies of the state Shoreline Management Act and the County's Shoreline Program.
Other Management Practices	Re-designate former portions of the Resort in compliance with County <i>Comprehensive Plan</i> .	Protective covenants to limit extent of site disturbance around proposed home sites.	Provide visual buffer between uses on Hilltop and adjoining public and private property including roadways.
Unavoidable Significant Adverse Impacts	None	None	None
3.2 Plans and Policy Consistency			
Environmental Impacts	Without an approved RMP, the Resort would no longer meet <i>Comprehensive Plan</i> requirements for MPR designation.	Master Plan would guide future development consistent with adopted plans and policies. New development proposed within 100-foot shoreline setback will require CUP.	Master Plan would guide future development consistent with adopted plans and policies. New development proposed within 100-foot shoreline setback will require CUP.
Cumulative Impacts	None	None	None

2.5 SUMMARY OF ENVIRONMENTAL CONSEQUENCES, MITIGATION AND OTHER MANAGEMENT PRACTICES TABLE

ELEMENTS OF THE ENVIRONMENT	NO ACTION ALTERNATIVE	ACTION ALTERNATIVE A	ACTION ALTERNATIVE B
Mitigation Measures	Redesignation of MPR area to appropriate non-resort land use designation(s).	Adoption of Resort Master Plan per SJCC 18.90.060 (C). Development within 200 feet of the OHWM is subject to the provisions of the county's shoreline management program and will require Shoreline Substantial Development Permits and in some instances Shoreline Conditional Use Permits prior to construction. Development in the shoreline and uplands will require Planned Unit Development approval prior to the commencement of construction.	Adoption of Resort Master Plan per SJCC 18.90.060 (C). Development within 200 feet of the OHWM is subject to the provisions of the county's shoreline management program and will require Shoreline Substantial Development Permits and in some instances Shoreline Conditional Use Permits prior to construction. All development in the shoreline and uplands will require Planned Unit Development approval prior to the commencement of construction.
Other Management Practices	Re-designate former portions of the Resort in compliance with County <i>Comprehensive Plan</i> .	Shoreline Substantial Development Permits and Shoreline Conditional Use Permits as mandated by SJCC 18.80.110. to address SMP compliance	Shoreline Substantial Development Permits and Shoreline Conditional Use Permits as mandated by SJCC 18.80.110 to address SMP compliance
Unavoidable Significant Adverse Impacts	None	None	None
3.3 Earth and Stormwater			
Environmental Impacts	No improved management of stormwater from existing roads, parking, roofs, etc. No fire breaks.	Clearing, grading, fills, cuts, and compaction or loss of topsoil alters surface and groundwater flow paths. Additional impervious surface at convention center and resort core causes increased volumes and peak discharges of stormwater. Loss of trees and runoff from large upland homes results in erosion. Run-off from roads, parking degrades water quality.	Similar to Action Alternative A except less impervious surface and parking lot runoff from the resort core and convention center; longer driveways to Hillside cottages and a greater loss of trees but smaller cleared areas and roofs at each cottage. Additional employees at Hilltop increase risk of wildfire and ground water contamination from parked cars.

2.5 SUMMARY OF ENVIRONMENTAL CONSEQUENCES, MITIGATION AND OTHER MANAGEMENT PRACTICES TABLE

ELEMENTS OF THE ENVIRONMENT	NO ACTION ALTERNATIVE	ACTION ALTERNATIVE A	ACTION ALTERNATIVE B
Cumulative Impacts	Continued localized degradation and contamination at points of discharge to earth, groundwater, or intertidal zone. Continued risk of wildfire from employee housing and resulting loss of habitat, erosion and degradation of water quality especially in Cascade Lake and drinking water.	Ground water declines under parking and structures but rises in areas of stormwater discharge, storage and infiltration. Higher risk of wildfire at employee housing and 8 large homes and erosion of burned areas causing degradation of water quality in Cascade Lake and drinking water. Trees cut to improve views in future.	Use of Low Impact Development, bioretention areas and swales maximize groundwater recharge, limit increase in volume of stormwater run off and associated contaminants. New employee housing can reduce risk of ground water degradation and wildfire. Trees cut to improve views in future.
Mitigation Measures	None proposed. If Resort is sold, new development will be required to comply with current standards.	Implementation of comprehensive Stormwater Management Plan to capture and treat runoff from resort core and convention center in bioswales and infiltration facilities prior to discharge to bay. Possible improvements at Hilltop employee housing. Large homes can be built on piles or anchored to bedrock to allow infiltration and preserve soil without causing mass wasting. Use level spreaders for infiltration when possible. Use pollution free roofing materials.	Use low impact development and green building materials to minimize impervious surfaces. Implement of comprehensive Stormwater Management Plan to capture and treat runoff from small and dispersed improvements in bioretention areas, swales and infiltration facilities prior to discharge to bay or landscape. At Hilltop, pave parking as appropriate, collect, treat and infiltrate stormwater. Relocate campfire and recreation areas and build firebreak. Cottages can be built with minimal loss of tree canopy and on piles or anchored to bedrock to allow infiltration and preserve soil without causing mass wasting. Use level spreaders for infiltration when appropriate. Use pollution free roofing materials.

2.5 SUMMARY OF ENVIRONMENTAL CONSEQUENCES, MITIGATION AND OTHER MANAGEMENT PRACTICES TABLE

ELEMENTS OF THE ENVIRONMENT	NO ACTION ALTERNATIVE	ACTION ALTERNATIVE A	ACTION ALTERNATIVE B
Other Management Practices	No improved management of stormwater.	Monitor soil and water quality in bioswales receiving stormwater from large parking areas.	Minimize invasive species in cleared areas by retaining tree canopies. Control campfires and the car repairs at Hilltop.
Unavoidable Significant Adverse Impacts	None	None. Unavoidable adverse impacts include increased risk of wildfire caused by guests. Loss of trees and organic soil. New impervious surfaces at large home sites and in the resort core increase the volume of stormwater discharge and decrease ground water recharge.	None. Unavoidable adverse impacts include increased risk of wildfire caused by guests. Loss of some trees and organic soil. Increase in volume of stormwater runoff and decrease in groundwater recharge. Increased peak storm discharges to the Bay.
3.4 Water and Sewer			
Environmental Impacts	Additional potable water will be necessary for assigned growth.	Additional potable water will be necessary for assigned growth and RMP needs.	Additional potable water will be necessary for assigned growth and RMP needs.
Cumulative Impacts	None	Additional water use; additional wastewater volume discharges.	Additional water use; additional wastewater volume discharges.
Mitigation Measures	Improvement of water supply and treatment.	Improvement of water supply, storage and treatment; increasing the capacity of the sewage treatment system. Preparation of additional fixed nitrogen engineering analysis.	Improvement of water supply, storage and treatment; increasing the capacity of the sewage treatment system. Preparation of additional fixed nitrogen engineering analysis.
Other Management Practices	None	Stage RMP implementation to coincide with utility improvements.	Stage RMP implementation to coincide with utility improvements.
Unavoidable Significant Adverse Impacts	None	None. Unavoidable impacts include additional area covered by water treatment building expansion and sewage treatment lagoon expansion.	None. Unavoidable impacts include additional area covered by water treatment building expansion and sewage treatment lagoon expansion.

2.5 SUMMARY OF ENVIRONMENTAL CONSEQUENCES, MITIGATION AND OTHER MANAGEMENT PRACTICES TABLE

ELEMENTS OF THE ENVIRONMENT	NO ACTION ALTERNATIVE	ACTION ALTERNATIVE A	ACTION ALTERNATIVE B
3.5 Plants and Animals			
Environmental Impacts	None	Impacts to mature forested habitat; impacts to native plant communities. Potential pollution and disturbance to wildlife. Potential disturbance to nesting birds. Increased human activity in the area.	Impacts to mature forested habitat; impacts to native plant communities. Potential pollution and disturbance to wildlife. Potential disturbance to nesting birds. Increased human activity in the area.
Cumulative Impacts	Increased year-round human activity as well as decrease potential habitat if redeveloped for permanent housing.	Additional development of habitat; increased noise and human activity causing potential disturbance to wildlife.	Additional development of habitat; increased noise and human activity causing potential disturbance to wildlife and plants.
Mitigation Measures	Interpretive signs discussing wildlife habitat and connectivity. Removal of snags and woody debris restricted to meet safety standards. Environmentally sound building materials.	Protocol-level surveys for TES species prior to construction. Interpretive signs discussing wildlife habitat and connectivity. Removal of snags and woody debris restricted to meet safety standards. Directional night lighting to reduce ambient reflection and night glare impacts. Avoid clearing buffer areas of parking lots, roads, and buildings within mature forest habitat. Environmentally sound building materials. Development and implementation of Vegetation Management Plan addressing vegetation removal, revegetation and selection. Implementation of County, state and federal critical area and marine habitat protection regulations for future development of marina.	Protocol-level surveys for TES species prior to construction. Interpretive signs discussing wildlife habitat and connectivity. Removal of snags and woody debris restricted to meet safety standards. Directional night lighting to reduce ambient reflection and night glare impacts. Avoid clearing buffer areas of parking lots, roads, and buildings within mature forest habitat. Environmentally sound building materials. Development and implementation of Vegetation Management Plan addressing vegetation removal, revegetation and selection. Implementation of County, state and federal critical area and marine habitat protection regulations for future development of marina.

2.5 SUMMARY OF ENVIRONMENTAL CONSEQUENCES, MITIGATION AND OTHER MANAGEMENT PRACTICES TABLE

ELEMENTS OF THE ENVIRONMENT	NO ACTION ALTERNATIVE	ACTION ALTERNATIVE A	ACTION ALTERNATIVE B
Other Management Practices	None	BMPs implemented and maintained throughout the development process. Implement all necessary management practices to prevent establishment of invasive plant species.	BMPs implemented and maintained throughout the development process. Implement all necessary management practices to prevent establishment of invasive plant species.
Unavoidable Significant Adverse Impacts	None	None	None
3.6 Aesthetics			
Environmental Impacts	Possible reduction of visual cohesiveness and loss of openness resulting from unplanned residential development.	Improved architecture but increased massing and loss of open space and vegetation due expansion in guest room and conference facilities.	Improved architecture but loss of open space and vegetation due to new cottages and condos.
Cumulative Impacts	None	None	None
Mitigation Measures	None required	None required	None required
Other Management Practices	Compliance with appropriate UDC provisions	Careful site selection to avoid view blockage as well as improved architecture and shielded lighting.	Same as Action Alternative A plus adequate vegetative buffering and implementation of Design Guidelines addressing architecture, landscape architecture, signage, etc.
Unavoidable Significant Adverse Impacts	None	None	None
3.7 Noise			
Environmental Impacts	Ongoing Resort-generated noise and possible short-term construction noise associated with ongoing maintenance and operations.	Blasting and other short-term construction noise followed by potential operation and maintenance noise increase proportionate to Resort expansion.	Short-term construction noise followed by geographic redistribution of noise sources.
Cumulative Impacts	None	Vegetation removal and new construction may affect local acoustics and increasing non-Resort noise sources such as traffic and seaplane activity.	Vegetation removal and new construction may affect local acoustics and increasing non-Resort noise sources such as traffic and seaplane activity.

2.5 SUMMARY OF ENVIRONMENTAL CONSEQUENCES, MITIGATION AND OTHER MANAGEMENT PRACTICES TABLE

ELEMENTS OF THE ENVIRONMENT	NO ACTION ALTERNATIVE	ACTION ALTERNATIVE A	ACTION ALTERNATIVE B
Mitigation Measures	Continued Kenmore Air Noise Abatement.	Continued Kenmore Air Noise Abatement and monitoring.	Continued Kenmore Air Noise Abatement and monitoring.
Other Management Practices	SJCC Chapter 9.06; and Rosario-administered rules on amplified music, noisy maintenance equipment, and “Quiet Time” at Hilltop.	Same as No Action Alternative and reduced automobile use; increased reliance on quieter floatplanes; more conferences & weddings indoors.	Same as Action Alternative A and landscaped buffers; Quieter electric people mover; fewer noisy gatherings; Less outdoor noise at Hilltop.
Unavoidable Significant Adverse Impacts	None	None	None
3.8 Historic and Archaeological Resources			
Environmental Impacts	Gradual degradation to cultural resources from lack of maintenance. Potential residential redevelopment will affect historic integrity of historic architectural and landscape features and integrity of archaeological site 45SJ242.	Modifications to Mansion including museum relocation and loss of Boatel, wharf, and landscape features will affect historic integrity. Modifications to Discovery House, Boatel and other areas near Cascade beach could affect integrity of archaeological site 45SJ242.	Modifications to Mansion, landscape, and loss of Carriage House will affect historic integrity. Modifications to Discovery House and other areas near Cascade beach could affect integrity of archaeological site 45SJ242.
Cumulative Impacts	Uncertain but potential degradation through neglect.	Impact to 45SJ242 may eliminate the site from future archaeological studies.	Impact to 45SJ242 may eliminate the site from future archaeological studies.
Mitigation Measures	None proposed	HABS recordation and recovery of archeological data following development of cultural resources management plan based on consultation with SHPO and tribes.	Same as Action Alternative A and compliance with Secretary of Interior’s Standards for Rehabilitation and Restoration; interpretive signage; inclusion of historic specialists on design team.
Other Management Practices	None proposed	General sensitivity to historic resources; interpretive signage. Inclusion of qualified historic preservation professionals on design team.	Numerous other management practices proposed. Inclusion of qualified historic preservation professionals on design team.

2.5 SUMMARY OF ENVIRONMENTAL CONSEQUENCES, MITIGATION AND OTHER MANAGEMENT PRACTICES TABLE

ELEMENTS OF THE ENVIRONMENT	NO ACTION ALTERNATIVE	ACTION ALTERNATIVE A	ACTION ALTERNATIVE B
Unavoidable Significant Adverse Impacts	None. Permanent loss or destruction of cultural resources resulting from Rosario's closure could be prevented or mitigated.	None. Adverse impacts to integrity could be prevented through mitigation and other management practices.	None. Adverse impacts to integrity could be prevented through mitigation and other management practices.
3.9 Transportation			
Environmental Impacts	Potential decline in traffic volumes due to gradual decline of Resort.	Increase of 882 Average Annual Daily Vehicle trips. Decline in level of service but within acceptable levels. Slight increase in air and waterborne traffic operations due to marina expansion. Parking demand will increase.	Increase of 420 Average Annual Daily Vehicle trips. Minimal decline in level of service but within acceptable levels. Slight increase in air and waterborne traffic operations due to marina expansion. Parking demand will increase.
Cumulative Impacts	Cumulative traffic volume growth related to unrelated development in Eastsound reflected as part of background traffic volumes.	Cumulative traffic volume growth related to unrelated development in Eastsound reflected as part of background traffic volumes.	Cumulative traffic volume growth related to unrelated development in Eastsound reflected as part of background traffic volumes.
Mitigation Measures	None proposed	Safety Improvements to Rosario Road including signage and surface references. Short-term construction traffic limited by implementation of good construction practices. Sufficient parking supply which will provide safe ingress and egress for all, including those with disabilities. A resort operated water shuttle and on-site rental car fleet will be provided to help increase travel mode-split. Additional way finding signage will be placed on-site. On-site trail system will be improved to reduce number of pedestrians on Rosario Road.	Same as Action Alternative A.

2.5 SUMMARY OF ENVIRONMENTAL CONSEQUENCES, MITIGATION AND OTHER MANAGEMENT PRACTICES TABLE

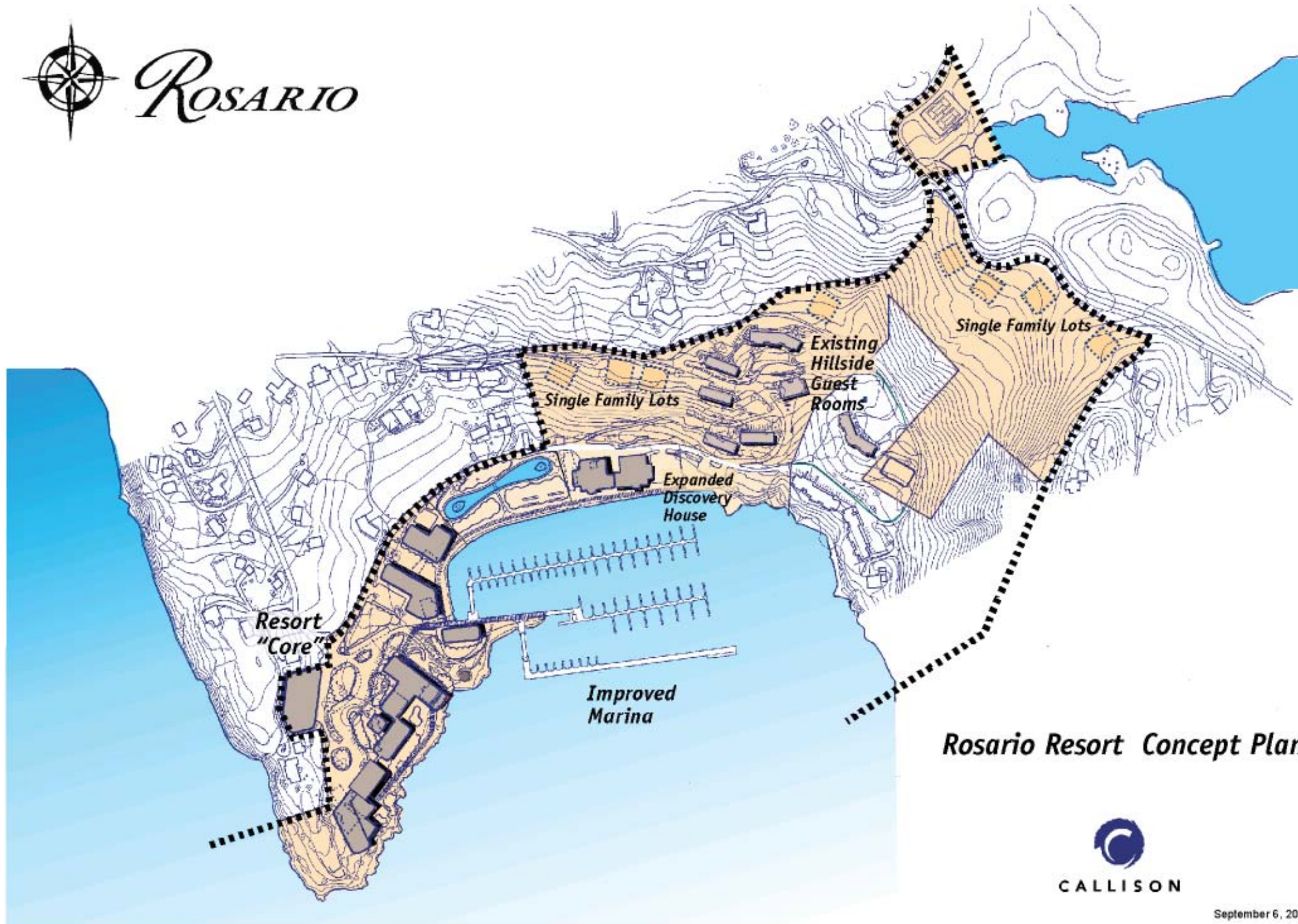
ELEMENTS OF THE ENVIRONMENT	NO ACTION ALTERNATIVE	ACTION ALTERNATIVE A	ACTION ALTERNATIVE B
Other Management Practices	Rosario Resort and Orcas Island Shuttle provides shuttle service to ferry and maintains rental vehicle fleet on site.	Rosario Resort will work with private transportation providers to increase air and marine travel to and from the Resort. Resort management will encourage guests to travel to and from Orcas Island via marine and air transportation rather than the Washington State Ferry (WSF). Management will encourage guests who do travel via the WSF to a) walk on rather than drive on and b) travel during non-peak WSF sailings.	Same as Action Alternative A.
Unavoidable Significant Adverse Impacts		None with Resort design and management practice and transportation support measures.	None with Resort design management practice and transportation support measures.

Note: Future developer is responsible for implementation of mitigation measures and other management practices listed in Section 2.5.





ROSARIO



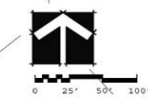
Rosario Resort Concept Plan

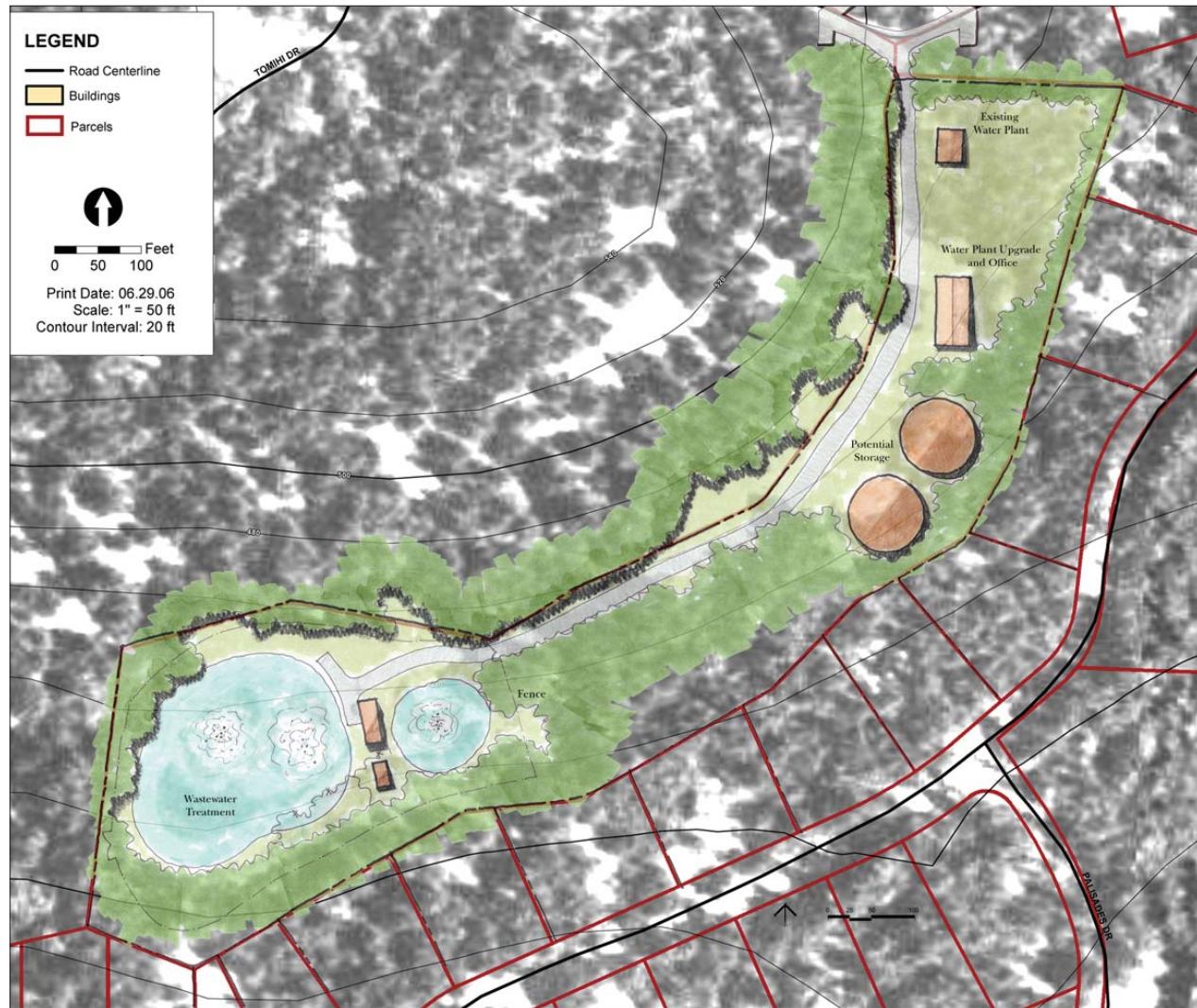


September 6, 2000



- LEGEND**
- ① Existing Rosario Point Lawn
 - ② New restaurant
 - ③ Luxury Waterfront Cottages
 - ④ Moran Mansion Annex
 - ⑤ Restored Moran Mansion
 - ⑥ Existing Honeymoon Suite
 - ⑦ Restored natural landscape
 - ⑧ Mini-Mansions (stacked flats)
 - ⑨ Historic Roundhouse
 - ⑩ Shared parking lots
 - ⑪ Pedestrian promenade
 - ⑫ Marina View Condos (Jetty site)
 - ⑬ Marina Village Cottages
 - ⑭ Cliffhouse Court Homes
 - ⑮ Figure 8 Lagoon (salmon hatchery)
 - ⑯ Community recreational open space (The Green)
 - ⑰ Historic Boatel renovated as Marina Activity Center
 - ⑱ Cabana Complex & swimming pool
 - ⑲ Historic Powerhouse
 - ⑳ Marina View Cabana Condos over parking
 - ㉑ New Bowman's Bluff Cottages
 - ㉒ Existing Cascade Harbor Inn
 - ㉓ Cascade Harbor Inn Expansion
 - ㉔ Existing Hillside Condos
 - ㉕ New Hillside Cottages
 - ㉖ New Woodland Cottages
 - ㉗ Tennis Courts & Owner Pavilion
 - ㉘ Community Boat Launch
 - ㉙ Meade Rosario Trust Property
 - ㉚ Robert Scharnhorst Residence
 - Existing Buildings
 - Proposed Buildings
 - MPR Boundary





Proposed Utility Tract Redevelopment Concept



Proposed Hilltop Redevelopment Concept

CHAPTER 3

ELEMENTS OF THE ENVIRONMENT AND ANALYSIS OF IMPACTS

3.0 ELEMENTS OF THE ENVIRONMENT AND ANALYSIS OF IMPACTS

This chapter includes a discussion of each of the nine Elements of the Environment selected for analysis in the Rosario Master Plan EIS for each of three alternatives evaluated in this EIS (see Section 2.3 for a description of the three alternatives). The Elements of the Environment chosen for inclusion in the EIS were selected through an EIS scoping process from the list of Elements defined in WAC 197-11-444. The scoping process is described in Section 1.2 of this EIS. For each of the nine Elements of the Environment as listed in the table below, this chapter includes a description of existing conditions, a discussion of potential adverse impacts including significant impacts for each alternative and a discussion of mitigating measures that could be employed to minimize adverse impacts. Other Management Practices that would prevent or address potential impacts are also listed. The table below lists the nine Elements of the Environment discussed in this EIS and the alphanumeric identifier of the mitigation measures and other management practices associated with that Element. The identifiers are number sequentially within each Element of the Environment but not within each alternative. As a result not all mitigation measures and Other Management Practices will apply to a particular alternative.

<u>Elements of the Environment:</u>	<u>Mitigation Measures</u>	<u>Other Management Practices</u>
<i>1. Land and Shoreline Use</i>	LSU-M-1 through 3	LSU-OMP-1 through 3
<i>2. Plans and Policy Consistency</i>	PPC-M-1 through 2	PPC-M-1 through 2
<i>3. Earth and Stormwater</i>	ES-M-1 through 31	ES-OMP-1 through 5
<i>4. Water and Sewer</i>	WS-M-1 through 6	WS-OMP-1 through 2
<i>5. Plants and Animals</i>	PA-M-1 through 12	PA-OMP-1 through 2
<i>6. Aesthetics</i>	A-M-1 through 2	A-OMP-1 through 8
<i>7. Noise</i>	N-M-1 through 2	N-OM -1 through 11
<i>8. Historic and Archaeological Resources</i>	HAR-M-1 through 9	HAR- OMP-1 through 12
<i>9. Transportation</i>	T-M-1 through 2	T-OMP-1

Unless otherwise noted, implementation of both the mitigation measures and the Other Management Practices would be the responsibility of the proponent or project developer. This chapter also addresses any cumulative impacts and significant adverse impacts that cannot be avoided or mitigated.

3.1 LAND AND SHORELINE USE

This section addresses compatibility with land use and ownership patterns surrounding the Resort.

3.1.1 Affected Environment

The Rosario Master Planned Resort (the Resort) is a designated Master Planned Resort (MPR) in San Juan County. Consistent with San Juan County's MPR designation, the Resort is a:

Self-contained and fully integrated Planned Unit Development in a setting of natural amenities with primary focus on destination resort facilities consisting of short-term visitor accommodations associated with a range of on-site indoor or outdoor recreation facilities. They may contain other residential uses and commercial activities within their boundaries, but only if these uses are integrated into and support the on-site recreation nature of the resort. (San Juan County Comprehensive Plan 2.3.B[e.]

Accordingly, all necessary support commercial services are to be contained on-site. As a result, the MPR is a mixed-use land use designation consisting of *commercial* uses such as visitor and guest accommodations, grocery/chandlery, laundry and fuel docks; *restaurants*, including eating and drinking establishments and employee cafeterias; *industrial* uses such as maintenance and storage; *institutional* uses such as community assembly and museums; *recreational* uses such as indoor and outdoor recreation facilities, as well as limited *residential*; *transportation*; *utility*, and *agricultural and forestry* uses.

3.1.1.1 Rosario MPR – Existing Land Uses and Ownership

Lands within the Master Planned Resort (MPR) designation contain a total of 14 individual parcels comprising approximately 62 acres, as shown on Figure 3-2 and summarized in Table 3.1-1. Six of these parcels, comprising slightly over 46 acres that are owned by Rosario Resort contain guest rooms. The seventh parcel within the MPR owned by Rosario Resort is the 8-acre Utility Tract. The largest Rosario owned parcel in the MPR, a 15.8 acre, crescent-shaped (the Resort Core – Parcel 1 in Table 3.1-1 and Figure 3-2), includes Rosario Point, and the low elevation land surrounding the harbor. Resort facilities located on this parcel include the Moran Mansion, three buildings housing a total of 42 guest rooms, two buildings containing one guest room each, two swimming pools, the conference center building, boatel and several other resort support structures (see Figure 1-3).

The second largest parcel is approximately 12.6 acres (Parcel 12 in Table 3.1-1 and Figure 3-2). This parcel generally includes the steeply sloping undeveloped forest land in the eastern portion of the MPR designation. The remaining Rosario-owned holdings within the MPR include four parcels of land (parcels 3, 5, 8 and 13 in Figure 3-2). The DC power station is located at the edge of Parcel 3. The remainder of Parcel 3 is steeply sloping undeveloped land. Parcel 5 is also steeply sloping and is the site of the Resort's maintenance and laundry facilities. Parcel 8, referred to as the Utility Tract, is a non-contiguous parcel designated MPR. It is located about

one-half mile from the resort core area and is currently the site of the Resort’s sewer treatment and water treatment facilities (see figures 1-2 and 3-2).

In addition to the parcels described above located in the MPR, the owner of the Resort, Oly Rose LLC, also owns “the Hilltop,” a 39.2-acre parcel currently occupied by 20 units of employee housing (Parcel 15 in Table 3.1-1 and Figure 3-2). The Hilltop site is currently designated Rural Farm Forest (RFF) which allows a density of one unit per 5 acres. The employee housing area was developed prior to the existing zoning under a Conditional Use Permit. The Hilltop area is proposed for designation as part of the Rosario MPR and additional employee housing and resort support services would be located on this site. The addition of this property to the MPR would bring the total acreage of the MPR to about 100 acres.

**TABLE 3.1-1:
OWNERSHIP OF PARCELS COMPRISING ROSARIO RMP**

Key	Description	Use	Acreage	Parcel I.D.	Ownership
1	Resort Core & Rosario Point	Moran Mansion	15.8	160621001000	Oly Rose, LLC
2	The “Roundhouse”	guest suite	0.1	173134003000	Oly Rose, LLC
3	forested hillside	open space	4.7	173134005000	Oly Rose, LLC
4	1700 & 1900 Buildings	guest rooms	1.9	MATIA/ROSARIO	condominium
5	Former Satellite Hall	maintenance & laundry	0.4	SATELLITE HALL	Oly Rose, LLC
6	2000 Building	guest rooms & suites	1.5	PATOS/ROSARIO	condominium
7	2100 Building	guest rooms & suites	2.9	SKIPJACK/ROSARIO	condominium
8	1500 & 1600 Buildings	guest rooms	1.0	SUCIA/ROSARIO	condominium
9	Cascade Harbor Inn	guest rooms & suites	9.1	ROSARIO HARBOR	D. & T. Morrison
10	Robert Scharnhorst residence	residence	1.4	173143001000	Robert Scharnhorst
11	Geiser/Meade property	open space	0.4	173134002000	Meade Rosario Trust
12	forested hillside	open space	12.63	173142001000	Oly Rose, LLC
13	Waterfront on Cascade Lake	tennis courts	1.9	173142002000	Oly Rose, LLC
14	Utility Tract	water and sewer treatment	8.0	173113004000	Oly Rose, LLC
15	“The Hilltop”*	employee housing	39.2	173043001000	Oly Rose, LLC
	TOTAL		100.9		

*The Hilltop is not currently included within the MPR designation; its inclusion is proposed as part of Action Alternative B.

Parcels 6, 7 and 8 (Table 3.1-1) containing slightly more than 3.0 acres are in condominium (mixed) ownership. These have been developed into lodgings, most of which are leased by Rosario Resort. Ownership of condominiums is summarized in Table 3.1-2.

**TABLE 3.1-2:
SUMMARY OF CONDOMINIUM OWNERSHIP BY BUILDING**

Building	Parcel	Total # of Owners	Number of Units
1500 Building	Sucia	4	12
1600 Building	Sucia	3	12
1700 Building	Matia	1 (Oly Rose LLC)	12
1900 Building	Matia	1	12
2000 Building	Patos	7	18
2100 Building	Skipjack	7	21

The three remaining parcels include a 9.1-acre parcel owned by the Cascade Harbor Inn; a 1.4-acre parcel containing a single-family Scharnhorst residence and a 0.4-acre undeveloped parcel (the Geiser/Meade property) east of the Resort Core.

As described above, most land abutting the MPR designation is in private ownership and largely developed into single family homes comprising the Rosario Estates and Rosario Palisades subdivisions. Moran State Park borders along the northeast boundary of the MPR and along the eastern boundary of the Hilltop property. Other privately held land in the vicinity includes the Rosario Shores, Rosario Highlands, and Vusario subdivisions.

3.1.1.2 Surrounding Land Uses

The Resort is adjoined on the uphill (north and east) side by a neighborhood of single-family homes within several Rosario plats. The majority of these homes were built on 0.2- to 5-acre lots platted from the late 1950s through early 1980s on land that was formerly part of the Moran estate. Due to the steeply sloping topography, the homes are accessed by narrow, winding roads that connect with the County’s Rosario Road, which also provides road access to the Resort. The hillside topography also provides many of these homes with dramatic views overlooking the Resort, Cascade Bay, and East Sound. Many of these local residents maintain connections to the Resort, either through employment, membership in the Rosario Property Owners Association, spa membership, or through water hookups to Rosario Utilities.

The neighborhoods surrounding the Resort have had a long but uneven historical relationship with Rosario. During the Resort’s first few years in the early 1960s, Rosario remained relatively small, with a close relationship with the Rosario residents and the Orcas Island community. The proximity to the Resort facilities was appealing to the purchasers of the property. Gilbert Geiser, the Resort’s founder, also developed the plat of Rosario Estates, eventually developing five other plats in the surrounding properties.

San Juan County land use designations in the vicinity of Rosario are mapped in Figure 3-1. Land bordering the Rosario Resort MPR designation to the north consists of single-family homes and

home sites. Most of these parcels are 0.5-acre in size or slightly larger and comprise a significant portion of the North Rosario Residential Activity Center, a Limited Area of More Intensive Rural Development (LAMIRD), as designated by the County's Comprehensive Plan. The Growth Management Act (GMA) does not allow urban or suburban development in rural lands, except in limited areas of more intensive rural developments, which are areas that have already developed at non-rural densities and uses. The intent is to allow infill development at the same density and pattern of use as previously established. LAMIRDs may include shorelines, activity centers, and crossroad developments. Importantly, GMA does not allow LAMIRDs to expand beyond their existing developed areas.

Land to the east includes a number of privately owned parcels within the County's *Rural Residential* designation. *Rural Residential* is generally applied to established residential subdivisions with a small-lot development pattern. It allows for single-family residential uses and home occupations, but most non-residential uses are not allowed. Residential development at densities of one unit per five acres is allowed in this designation. The portion of the Rural Residential zoned area bordering the northeast boundary of the MPR is part of Moran State Park.

Parcels near the MPR that front on East Sound or Cascade Lake are subject to compliance with the County's Shoreline Master Program. The MPR's shoreline designation on Eastsound is *Rural Residential* and the Cascade Lake shoreline is *Conservancy*.

3.1.2 Environmental Impacts

As described previously, the County's land use designation of the existing Rosario Resort property is Master Planned Resort (MPR). The MPR designation allows the continued operation of the Resort but does not allow expansion without the preparation by the owner and approval by the County of a Resort Master Plan. The two Master Plan alternatives, Action Alternative A and Action Alternative B, propose a range of land uses that are generally consistent with the range of uses typically associated with a resort development and contemplated under the MPR designation. However, the two alternatives differ in their focus. The Action Alternative A plan provides for a group-oriented conference center resort with primarily hotel room type accommodations. The Action Alternative B plan, which is the applicants' preferred alternative, provides for a family-oriented vacation community with fractional ownership condominium units as the primary vacation accommodation with some additional hotel type accommodations in the form of hotel suites. The discussion of potential impacts below focuses on long term impacts of each of these two alternative land use scenarios and also looks at the impact of the "No Action Alternative".

3.1.2.1 No Action Alternative

Under the No Action Alternative the MPR designation would be removed and a different land use designation applied to the property. Because most of the Resort was in existence prior to 1990, the year the Growth Management Act was approved, the resort property could potentially meet the requirements to be designated a LAMIRD, either on its own or part of the existing North Rosario Residential Activity Center LAMIRD. In either event, the No Action Alternative assumes the Resort will continue its current operation. Due to the Resort's long-standing presence, which pre-dates all but a few of the homes in the area, the Resort and the surrounding

residences are generally compatible land uses that would continue unchanged for some time under the No Action Alternative. Continued use of the Hilltop parcel in direct support of resort operations is presently allowed by Conditional Use Permit.

In the event that the Resort is unable to continue to operate due to financial considerations, as the applicant has indicated is a possibility, the future use of the property would need to be consistent with whatever land use designation was applied at the time the change from the MPR designation was made. The change in designation from MPR to some other designation would be subject to environmental review, the issue of compatibility with surrounding uses would be examined and the range and scale of permitted uses in the new designation would presumably be set with compatibility in mind.

Under either a continuation of the existing land use or development under a new land use designation, the No Action Alternative would not likely result in land uses that would be incompatible with surrounding uses.

3.1.2.2 Action Alternative A

Action Alternative A recognizes six major uses of the site: Resort Core Facilities, Guest Rooms, Low Density Residential, the Marina Center, Conference Center, and Open Space. Most redevelopment would occur within the resort core facilities near the Moran Mansion as well as within the Marina Center and Conference Center. This alternative proposes the most substantial resort growth of the three alternatives discussed in this EIS but does not propose any additional types of uses than those that already exist. Since these uses represent a continuation of existing land use practices and the duplication of adjacent existing land uses (single family residential), no land use incompatibilities would result. Proposed land uses for specific components of Action Alternative A are described below.

Resort Core Facilities

The most notable land-use related change would be increased hotel room densities in the Resort Core. In addition to lodging and dining, allowable uses would include commercial facilities, automobile rental, shops, personal services and spa facilities. Clustering hotel facilities to create the intended resort operation would necessitate an increase in density of resort accommodations close to the Moran Mansion. Currently, this part of the site (comprising 15.8 acres) contains 43 guest rooms for a ratio of nearly 3 hotel rooms per acre. Following full build-out of 200 to 250 rooms as proposed under Action Alternative A, this part of the site would contain between 12.6 and 15.8 hotel rooms per acre. This increase would be allowable because hotel room density is not regulated by San Juan County. Other than the addition of up to eight residences on lots averaging at least 1.0 acre each and the doubling of Cascade Harbor Inn, densities would not change on other parts of the MPR designation.

Guest Rooms

No changes for the Hillside condos are proposed under this alternative.

Low Density Residential

This alternative identifies eight large parcels for low density residential use located on the slopes above the harbor and near the road by Cascade Lake. Protective covenants would limit the extent of site disturbance in the immediate area of the building pad and limit the vegetation that could be removed or thinned to provide view corridors from the homes.

Marina Center

Under Action Alternative A, much of Cascade Bay would be developed as a new, enlarged “Marina Center” containing a 145-slip marina and support services. This development would consist of an expansion of existing over-water and shoreline practices, which like the proposed expansion to the land-based resort facilities, would likely result in a significant increase in marine activity, but does not represent a change in uses. The expanded Marina Center development would continue to consist of water dependant uses consistent with San Juan County’s Shoreline Master Program.

The marina redevelopment is a component of the Rosario Resort Master Plan and is therefore subject to nonproject analysis in this EIS. Impacts of the marina are disclosed to the extent reasonably foreseeable at this planning level stage of project development. At the design and project-specific review stage, project-specific impacts will be disclosed in subsequent environmental review when those impacts are known. Because of the unique issues regarding marina construction, separate project-level environmental review will be necessary to ensure that all applicable resource issues are considered and analyzed consistent with phased environmental review as provided by WAC 197-11-060(5).

Conference Center

Expansion of the Discovery House Conference Center, as proposed under this alternative, would require demolition of the Boatel Building and redevelopment of this site and the adjacent parking lot. This would not constitute a land use change because the Boatel has long been vacant while the Discovery House is already heavily used for weddings, meetings, and other gatherings.

Open Space

The largest single land use projected for the MPR proposed by this alternative is open space. Much of the forested hillside and other undeveloped portions of the site would remain as undeveloped forest land.

The Hilltop and Utility Tract

The Hilltop and Utility Tract would continue to support Resort operations through continued housing for Rosario employees and water and sewer treatment. Other than upgrades to water and sewer treatment facilities located on the Utility Tract necessitated by resort expansion proposed by this alternative, no other changes are proposed on these sites. These functions are compatible with surrounding land uses.

3.1.2.3 Action Alternative B

Action Alternative B would divide the MPR into four distinct land use areas: the Resort Core; the Hillside; the Utility Tract, and; the Hilltop.

Resort Core

The Resort Core would continue to provide the greatest range of activity under Action Alternative B. Allowable uses would include Resort lodging, commercial food and beverage along with lectures and live entertainment, spa and related retail, automobile and bicycle rental, retail shops, personal services, catered conferences, personal wireless communications service facilities, and recreation. Boater services, such as fuel and provision sales, showers and laundry, and vessel services such as holding tank pump-out, limited repairs, and yacht cleaning would be provided at the Marina. In addition, the Resort and concessions would offer sailing instruction and competition; kayaking tours and rentals; scenic tours such as whale watching, sailing, and scuba diving instruction; and equipment and other commercial ventures. Other outdoor recreational activities would be provided at the Marina Activity Center, such as bicycle rentals.

The marina redevelopment is a component of the Rosario Resort Master Plan and is therefore subject to nonproject analysis in this EIS. Impacts of the marina are disclosed to the extent reasonably foreseeable at this planning level stage of project development. At the design and project-specific review stage, project-specific impacts will be disclosed in subsequent environmental review when those impacts are known. Because of the unique issues regarding marina construction, separate project-level environmental review will be necessary to ensure that all applicable resource issues are considered and analyzed consistent with phased environmental review as authorized by WAC 197-11-060(5).

Action Alternative B would reposition Rosario from a traditional resort hotel to a resort with a substantial vacation home component. Like the existing hotel rooms, which would be replaced with cottages and condominium units, these future accommodations would be occupied by resort guests on a short-term transient basis. Although they would be occupied by their owners as well as by resort patrons, this activity would not constitute a distinct land use from existing resort use patterns and no change in land use or associated impacts would result from this development.

Clustering hotel facilities to create the intended resort operation would necessitate an increase in density close to the Moran Mansion. Currently, this part of the site (comprising nearly 16 acres of land) contains 44 guest rooms, for a ratio of nearly 3 hotel rooms per acre. Following full build-out totaling 34 cottages, 30 attached condominium units, 12 Mini-Mansion flats, 3 Penthouse Suites and 21 guest suites in the Inn, this part of the site would contain the equivalent of approximately 6.2 units per acre. Under Action Alternative B, densities of 8 dwelling units per acre would be permissible within the Resort Core, thus actual density at build-out would be below permissible density in this area.

Additionally, Action Alternative B would improve public shoreline access through a waterfront promenade that would follow most of the Rosario shoreline as well as an expanded marina that would be open to the public. The marina expansion is a separate phase of the project and would

undergo a separate project-level environmental analysis. In response to community suggestions, Action Alternative B also includes a community boat launch.

The Hillside

Uses within this part of the Resort would be limited to single-family residential and commercial Resort lodging, along with related continued recreational use of the tennis court.

The Hillside currently includes the equivalent of 135 hotel rooms in eight buildings owned by Oly Rose LLC, Cascade Harbor Inn, and in condominium ownership. Most of these buildings are currently configured as hotel guest rooms at an average density of approximately 7 hotel rooms per acre. Under Action Alternative B, 37 new Woodland and Hillside Cottages would be built along with 48 additional hotel rooms in the Cascade Harbor Inn, resulting in a total of 220 units on this portion of the Resort. Under this alternative, densities in this 34.9-acre area of the Resort would not exceed 6.2 units per acre on average, well within the 8 dwelling units per acre maximum proposed for this area under Action Alternative B.

Utility Tract

Potable water treatment and sanitary sewer treatment facilities for the Resort, Moran State Park, and neighboring residential areas, would continue to be located and expanded on the Utility Tract, thus no change of land use would result from this alternative. Action Alternative B does not address residential density on the Utility Tract as residential use is neither proposed nor allowed under this alternative.

The Tennis Court Site

In response to community suggestions, no new development is proposed for the Tennis Court Site under Action Alternative B. No permanent water and sewer services are planned for this site.

The Hilltop

The Hilltop parcel has historically been used for employee housing and resort support facilities, first as a site for temporary housing in trailers and then as the site of more permanent employee housing structures authorized by the Conditional Use Permit. A re-designation of this parcel from *Rural Farm Forest* to *MPR*, will allow additional employee housing and related services such as parking, storage of employee belongings, and employee recreational and dining facilities to be developed on the site. Other allowable uses would include remote/long-term/fleet/surge parking for Marina and Resort users, and laundry, housekeeping, maintenance, landscaping storage and administrative functions all of which would be relocated from elsewhere within the *MPR*.

Re-designation of this parcel from *Rural Farm Forest* to *MPR* would help separate incompatible uses within the Resort and reduce impervious parking areas near the shoreline. Employee housing and these other support functions are critical necessities of resort operation. However, because neither employee housing or operational support activities are compatible with the expectations of resort guests, each of these essential functions would be better located nearby but

on remote sites within the *MPR* designation. Adjacent to uninhabited portions of Moran State Park and other large parcels of rural land, the Hilltop is well-buffered from sensitive land uses such as the Resort or single-family residential portions of the Rosario Activity Center. Despite the Hilltop's proximity, it is also well-buffered from resort guest accommodations and neighboring single-family residences, allowing Rosario's employees needed space and freedom. The Hilltop is also within walking distance to the Resort and provides a suitable location for the Resort's occasional needs for overflow parking. Parking in an overflow parking lot for special events such as regattas and long-term vehicle storage for marina patrons is proposed for the Hilltop. As part of Action Alternative B, this would help minimize additional impervious surface close to the shoreline and reduce trips on Rosario Road.

The 39.2-acre Hilltop currently contains 20 units of employee housing at a density of approximately 0.5 dwelling units per acre. Following re-designation of this site as proposed under Action Alternative B, densities of up to 2 dwelling units per acre would be permitted, which would be more than adequate to allow the proposed 40 additional units of housing for up to 80 additional employees totaling up to 120.

3.1.3 Mitigation Measures

3.1.3.1 No Action Alternative

LSU-M-1: All MPR properties will be rezoned.

3.1.3.2 Action Alternative A

LSU-M-2: Because use of neither the Geiser/Meade property nor the Scharnhorst residence is related to resort operations, both should be considered for removal from San Juan County's MPR designation as a part of plan adoption under this alternative.

3.1.3.3 Action Alternative B

LSU-M-3: Because use of neither the Geiser/Meade property nor the Scharnhorst residence is related to resort operations, both should be considered for removal from San Juan County's MPR designation as a part of plan adoption under this alternative.

LSU-M-4: Under all alternatives, the San Juan County Shoreline Program will continue to regulate land use within the shoreline area to assure consistency with the shoreline use policies of the state Shoreline Management Act and the County's Shoreline Program.

3.1.4 Other Management Practices

3.1.4.1 No Action Alternative

LSU-OMP-1: The MPR properties will be rezoned.

3.1.4.2 Action Alternative A

LSU-OMP-2: Action Alternative A includes protective covenants to limit the extent of site disturbance in the immediate area of the eight single family home sites that would limit the vegetation that can be removed or thinned to provide view corridors from the homes.

3.1.4.3 Action Alternative B

LSU-OMP-3: Careful site design, buffering and screening of utilities expansion at the Utility Tract and support functions relocated to the Hilltop would minimize impacts to neighboring land uses. Such measures will need to be specifically addressed in the Resort Design Guidelines.

3.1.5 Cumulative Impacts

No significant cumulative adverse impacts to land or shoreline use would result from any of the alternatives addressed in this EIS.

3.1.6 Unavoidable Significant Adverse Impacts

All significant adverse impacts could be avoided or addressed by mitigation measures discussed in Section 3.1.3 or other management practices as discussed above in Section 3.1.4.

3.2 PLANS AND POLICY CONSISTENCY

This section evaluates the alternatives for their consistency and compatibility with the policies of the San Juan County Comprehensive Plan and with the regulations in the Unified Development Code.

3.2.1 Affected Environment

3.2.1.1 Comprehensive Plan

The San Juan County Comprehensive Plan is a set of goals and the policies aimed at achieving the vision for the future of the County that is expressed in the Vision Statement. The Comprehensive Plan first became effective in October of 2000, and is the guide for the physical, economic and community development of San Juan County for the next 20 years. The San Juan County Comprehensive Plan is:

Long-range in scope;

Designed to establish clear and *predictable* outcomes for the ways land will be used and developed, providing the policy basis for the implementing regulations (the Unified Development Code, or UDC);

Comprehensive. It addresses the interrelationships among land, resources, people, natural systems, and public facilities, to protect the future health, safety and welfare of County citizens;

Flexible. It will continue to evolve after its initial adoption through annual updates and five-year reviews. It will be adjusted to meet changing needs and circumstances over time.

The San Juan County Comprehensive Plan includes nine Elements consisting of: Governance; Land Use; Shoreline Master Program; Water Resources; Housing; Transportation; Capital Facilities; Utilities, and; Historic and Archaeological Preservation. Each of these Elements are summarized below.

Governance Element

The Governance Element is limited to overall goals and policies for County administration.

Land Use Element

The Land Use Element provides the policy framework for the governance of land use throughout San Juan County. The Comprehensive Plan's future land use map designates the area including Rosario as a MPR, a type of Activity Center that includes diverse employment opportunities and recreation in a concentrated development pattern.

Shoreline Master Program Element

The San Juan County Shoreline Master Program (SMP) governs lands within the County's shoreline jurisdiction, including all lands extending landward for 200 feet from the ordinary high water mark. The SMP is intended to protect San Juan County's unique island character by reserving the shorelines for water-oriented uses and protecting the shoreline environment. Water-dependant, water-related, and water-oriented uses are listed by the SMP as preferred shoreline uses by the SMP's overall goals and policies. Other SMP goals and policies recognize the importance of a balanced and diversified local economy; support public shoreline access; encourage bicycle and pedestrian facilities along the shoreline; seek to optimize opportunities for both passive and active water-oriented recreation; encourage scenic view and open space preservation; and protect shorelines with significant archaeological, historical, educational, or scientific value.

The SMP designation for the marine waterfront adjacent to Cascade Bay and Rosario Point is *Rural Environment*. According to Section 3.3.B of the SMP:

The Rural Environment is intended for residential development and other mixed use forms of development such as marinas, restaurants, resorts, and rural commercial and industrial activities.

The SMP designation for the small section of waterfront adjacent to the tennis court site facing Cascade Lake is *Conservancy*. According to Section 3.3.E of the SMP:

The purpose of the Conservancy designation is to protect, conserve, and manage existing natural resources and systems and/or valuable historic, educational, or scientific research areas without precluding compatible human uses...It should be applied to those areas which would most benefit the public if their existing character is maintained, but which are also able to tolerate limited or carefully planned development or resource use.

Rosario has historically been related to the water. Its construction was financed by the Moran Brothers' shipbuilding fortune, and the design and construction of the Moran Mansion reflects this nautical heritage. Following the lead of Robert Moran who sited his Mansion to maximize proximity to and views of the water, Resort guests have come to Rosario for generations to be close to the shores of East Sound.

Water Resources Element

The Water Resources Element of the Comprehensive Plan aims to establish a reasonable approach to water use and protection, as well as guide relevant decision-making and promote water conservation.

Housing Element

The Housing Element of the Comprehensive Plan consists of a description of housing needs with emphasis on housing affordability, as well as goals and policies addressing the provision of

housing for San Juan County residents. Many of these goals and policies support creative solutions to San Juan County’s shortage of affordable housing including Policy B.2 B.9:

Provide opportunity and specific standards for locating seasonal and year-round worker housing such as dorms, bunkhouses, hostels, group homes, and other communal living arrangements.

Transportation Element

The Transportation Element of the Comprehensive Plan consists of an inventory of local transportation facilities and provides adopted level of service (LOS) standards for each.

Capital Facilities Element

The Capital Facilities Element of the San Juan County Comprehensive Plan inventories existing public capital facilities and specifies rural and urban LOS standards for a variety of public services on each island. This Comprehensive Plan Element also addresses the County’s concurrency requirements for “Category A” capital facilities and services including those serving Master Planned Resorts.

Utilities Element

The Utilities Element of the Comprehensive Plan promotes the adequate utility LOS and aims to reconcile the needs of providing utility service with minimizing environmental impact.

Historic and Archaeological Preservation Element

The goal of the Historic and Archaeological Preservation Element is to:

Protect, preserve, and enhance the rich history and cultural resources of San Juan County; more particularly its significant places, traditions, artifacts, stories, family histories, and other important historical and archaeological items.

3.2.1.2 Unified Development Code

The Unified Development Code (UDC) is a compilation and revision of County Land Use, Shoreline Master Program, and Land Division codes in one document, which comprises Title 18 in the San Juan County Code. The UDC includes numerous provisions that were directly and indirectly applicable to both Action Alternatives.

Unified Development Code

A new Master Plan is required for an existing Master Planned Resort under Section 18.90.060 of the UDC.

Chapter 18.50 of the UDC is the code portion of the Shoreline Master Program. (The policy portion is addressed in the Shoreline Master Program Element of Comprehensive Plan discussed above.) Most of the Resort Core area and the Tennis Court Site are located entirely or partly within 200 feet of the Ordinary High Water Mark (OHWM) of a regulated shoreline and is thus within the jurisdiction of San Juan County’s Shoreline Master Program. The portion of the

shoreline adjacent to the Resort Core is classified as a *Rural* shoreline. New commercial development in the *Rural* shoreline designation is subject to a 100-foot setback from the OHWM and commercial uses such as the existing Resort would require a Shoreline Conditional Use Permit meeting the requirements of SJC 18.80.110 J.

The existing tennis courts on the shoreline of Cascade Lake are located within a shoreline area designated *Conservancy*. The *Conservancy* shoreline designation is more restrictive with respect to uses within the 100-foot setback. Existing Resort development within the shoreline area that pre-dates the County's Shoreline Master Program are considered legal non-conforming use and/or structures.

3.2.2 Consistency Analysis

This analysis focuses on consistency with each Element of the County's Comprehensive Plan followed by a consistency review of applicable sections of the Unified Development Code. Because both Action Alternatives are very similar in terms of plans and policy consistency, both are reviewed together below as "the Action Alternatives".

The analysis of consistency with plans and policies addresses long-term considerations. No short-term consistency issues are anticipated under the Action Alternatives.

3.2.2.1 No Action Alternative

Governance Element

None of these are directly applicable to the No Action Alternative, and none appear to be inconsistent with any aspect of continued resort operations or residential redevelopment.

Land Use Element

Under the No Action Alternative, the Resort would presumably continue for some time to meet both the definition of an Activity Center. Without an approved Master Plan, the Resort would need to be rezoned in conformance with the Land Use Element.

Shoreline Master Program Element

The No Action Alternative would continue ongoing activities such as marinas, restaurants, resorts, and other rural commercial enterprises within the *Rural* shoreline environment and provide no new development within the *Conservancy* shoreline designation. With economic uncertainty in the continued operation of the Resort, Shoreline Master Program Element Goal 3.2.C regarding public access to the shoreline would likely be less achievable, with the potential closure of Rosario Resort followed by conversion to private residential use. New residential development would be subject to the residential development requirements of the Shoreline Program.

Water Resources Element

The No Action Alternative would be consistent with the Water Resources Element by continuing to employ water saving practices such as low-flow showerheads and pressure-activated toilets, as long as Rosario and Cascade Harbor Inn remain in operation.

Housing Element

The No Action Alternative would be consistent with the policy to provide “communal living arrangements” (and by extension, the Housing Element) by continuing to provide an employee dormitory capable of housing up to 39 seasonal employees. In addition, Rosario’s 1700 Building would likely continue to be used to house up to 28 workers on a seasonal basis. If Rosario closed, no employee housing would be provided, the availability of this affordable employee communal housing would be lost, and the Hilltop site would likely revert to rural uses.

Transportation Element

The No Action Alternative would be consistent with the Transportation Element by continuing to provide transportation facilities such as seaplane facilities and services and to comply with parking and LOS standards. If the Resort were to cease operations and the property were redeveloped for private residential use, it is unlikely that Kenmore Air would continue to provide commercial air service to this location. In addition, Kenmore Air has indicated in comments on the DEIS that without Rosario, it may no longer be able to provide seaplane service to the San Juan Islands during the winter (see Appendix E).

Capital Facilities Element

Existing water and sanitary sewer consumption would continue under the No Action Alternative in compliance with LOS standards for “Category A” capital facilities. The water system currently does not meet LOS standards and is currently undergoing an expansion. Upon completion of the expansion, the system would meet LOS standards under the No Action Alternative.

Table 5 of the Capital Facilities Element lists Rosario Utilities’ sewer system as a “Community Sewage Treatment Facility.” The system is a private sewer system owned by private parties, not a community system subject to County-regulated LOS standards. Instead, this private system is regulated by the State Department of Ecology.

Utilities Element

The No Action Alternative would not reduce existing utility LOS because no facility expansion would take place.

Historic and Archaeological Preservation Element

By protecting and continuing to use the historic Moran Mansion with interpretive displays and weekly historical presentations on the Moran family history, the No Action Alternative would be consistent with the goal of the Historic and Archaeological Preservation Element. If Rosario

closed, cultural resources would be less likely to be protected, which would not be compatible with the goal of the Historic and Archaeological Preservation Element.

Unified Development Code

If an RMP is not approved, the County will rezone property within the MPR designation so that existing land uses will be in conformance with the UDC.

3.2.2.2 Action Alternatives

Governance Element

None of the goals and policies in the Governance Element are directly applicable to the Action Alternatives, and none would be inconsistent with any aspect of the Action Alternatives.

Land Use Element

Both Action Alternatives would provide recreation in a concentrated development pattern consistent with the Comprehensive Plan's future land use map designation of the Rosario area as an Activity Center. Under the Action Alternatives, the Resort would continue to meet both the definition of an Activity Center, as well as the more specific definition as a MPR, with its primary focus on *“destination Resort facilities consisting of short-term visitor accommodations associated with a range of developed on-site business and indoor or outdoor recreational facilities (San Juan County Comprehensive Plan 2.3 B[e]).”*

Rezoning the Hilltop from Rural Farm Forest to MPR and replacing the existing Conditional Use Permit with a Planned Unit Development approval would improve consistency with County land use policy. Also, because the Conditional Use Permit did not anticipate the expansion of facilities for employees and relocation of support functions from elsewhere within the MPR designation proposed by Action Alternative B, it is appropriate that the site's zoning be consistent with the intent of the alternative. This approach is consistent with the intent of the State's Growth Management Act.

The Hilltop parcel has been a part of the resort ownership and the site of an employee housing structure since before the adoption of the current Comprehensive Plan. Inclusion of this parcel within the MPR will correct what appears to have been an oversight when the original MPR boundary was established. The continued use of the property for employee housing and as the future site of proposed new resort support facilities provides some benefit to the community by reducing the number employee and delivery trips on local roads and by moving support functions away from the main resort area. The MPR designation coupled with the requirement that future development on the site must be consistent with the approved Resort Master Plan will provide a measure of certainty for surrounding land owners as to future development of the site.

Shoreline Master Program Element

Redevelopment of the Resort under both Action Alternatives will continue the historic water oriented focus of the Resort. Proposed water-dependant uses would include an expanded Marina, with both permanent and transient slips, docks for seaplanes and water taxis, a marine supplies

store, fueling and pump-out facilities, and water-dependant recreational activities. Water-related facilities would include the refurbished waterfront promenade and water-view restaurant and spa. The remainder of resort redevelopment would focus on water-enjoyment uses such as water-view hotel rooms, and in the case of Action Alternative B, vacation cottages, and condominiums. The proposed comprehensive program of water-oriented improvements will continue to provide public access to the shores of Cascade Bay.

Water Resources Element

Both Action Alternatives recognize that potable water is a limited and valuable resource, reflecting the Water Resources Element of the Comprehensive Plan. Consistent with the County Comprehensive Plan, the Action Alternatives propose a variety of water conservation measures ranging from the continued use of water-efficient fixtures to the increased reliance on xeriscaping and exploration of possible alternative water sources and reuse.

Housing Element

By providing dormitory-style employee housing, both Action Alternatives would be consistent with the “communal living” aspects of Policy B.2 B.9 (and by extension, the Housing Element), as discussed above under the No Action Alternative. Up to 40 seasonal employees would continue to be housed under Action Alternative A. Action Alternative B would expand facilities for Resort employees – adding employee accommodations to support an additional 80 seasonal employees, as well as dining, recreation, parking, and laundry facilities. Both Action Alternatives would convert Rosario’s 1700 Building to a Resort use other than employee housing. Because of the relatively high cost and limited availability of rental housing during the tourist season, employee housing has become an essential means of providing affordable and available accommodations for resort employees.

Transportation Element

Consistency with the Transportation Element of the Comprehensive Plan is achieved for both action alternatives by assessing the capacity of roads, trails, parking, marine, and air facilities and taking appropriate actions based on the results of the assessment. In particular, alternative transportation modes play prominently in Action Alternative B, including walking, boat access and an electric people mover. Action Alternative B also includes a detailed parking section that is based on County policies, as addressed in Chapter 5 of the RMP and Appendix D of this FEIS.

Capital Facilities Element

Both Action Alternatives consider the County’s concurrency requirements for “Category A” capital facilities and services, including those serving MPRs, with a phased development program. Each expansion phase would include corresponding utility expansion in order to provide adequate supply prior to future development, minimizing effects on LOS.

Utilities Element

Both Action Alternatives would provide adequate utility LOS, consistent with the goals addressed in the Utilities Element of the Comprehensive Plan.

Historic and Archaeological Preservation Element

Both Action Alternatives would generally be consistent with the goal of the Comprehensive Plan's Historic and Archaeological Preservation Element, to protect, preserve, and enhance the history and cultural resources of this important San Juan County historical property. The plan includes protecting and enhancing the Moran Mansion and other historic features and architecture guidelines for new structures to maintain the historic character of the Resort. However, as discussed more fully in Section 3.8 of this EIS, under both Action Alternatives, impacts to historical buildings and other cultural resources are expected.

Unified Development Code

The Resort Master Plans submitted for Action Alternative A and Action Alternative B are generally compliant with the submittal requirements of SJCC 18.90.060. As provided in Section 18.90, no development in an existing resort inside an existing MPR is permitted (with a minor exception) until a Resort Master Plan has been approved. Approval of the Resort Master Plan is the first step in the approval process. As provided in Section 18.90.040.D.3 SJCC, approval of the Master Plan does not confer development approval. Upon approval of the Resort Master Plan, the Resort owner will need to make application and receive approval for a Planned Unit Development (PUD) before any development can occur. Since the Resort may be developed in phases, an individual Planned Unit Development application may cover all or a portion of the improvements identified in the Master Plan. It may take several years and a number of PUD approvals to complete all of the development covered by the Resort Master Plan. As provided in Section 18.90.060.I.1 SJCC, the first PUD application must be submitted within two years of the date of approval of the Master Plan or the approval shall become null and void. An extension of up to one year may be granted if the proponent demonstrates good cause.

Application for PUD approval for all or a portion of the Resort is subject to public notice and environmental review under SEPA. If all or a portion of the proposed development is in the shoreline, a shoreline permit is also required. Planned Unit Development approval requires a public hearing before the San Juan County Hearing Examiner, who is authorized to grant approval of a PUD.

The two primary criteria for the review and approval of a PUD for resort development is that the development proposed under the PUD is consistent with the land use and design standards of the approved Resort Master Plan and consistent with the development requirements of the County's Unified Development Code. Design standards such as landscaping, building massing, open space requirements, architectural standards and land use are specified in the Resort Master Plan. A Planned Unit Development proposal will need to be consistent with those elements of the Plan. The environmental protection requirements of the UDC including but not limited to stormwater detention and treatment, critical areas regulations, and shoreline regulations take precedent over the Master Plan. A Planned Unit Development will be required to comply with the environmental protection regulations of the County's UDC. The mitigation measures identified in this EIS will be incorporated as appropriate in the conditions of approval of subsequent Planned Unit Developments for the Resort.

San Juan County Code (SJCC) Section 18.60.190 B allows a degree of flexibility with regard to the development standards for Master Planned Resorts as well as the range of permitted uses. Action Alternative B as proposed in the September 2006 Master Plan, includes under Chapter 6, tables identifying the range of proposed uses. Action Alternative A as proposed in the 2000 Master Plan does not include this information. Action Alternative B is therefore more consistent with the submittal requirements of the UDC. Action Alternative A would require additional planning and analysis to satisfy this requirement.

**TABLE 3.2-1:
SAN JUAN COUNTY COMPREHENSIVE PLAN AND UDC CITATIONS REFERENCED IN 2006 RMP**

RMP Section	Citation	Discussion
1.1 & Table 1.1-1	18.90.060	Addresses required contents of Resort Master Plan
3.2.2	SMP Sections 3.2 and 3.3	Shoreline goals and policies and Rural Conservancy Environments
4.2.4	18.60.190 A 11	Required incorporation of open space
4.2.4	18.60.190 A 10	Habitat preservation requirements
5.1.1	18.60.110	Pathway and trail width requirements
5.1.3	18.60.080-140	Road design standards
5.1.4 and Table 5.1-1	18.60.120, Table 6.4	Minimum parking requirements
5.1.4 and Exhibit 5-1	18.50.090 & 18.60.130	Shoreline-specific parking requirements Bicycle Parking requirements
5.3	18.60.160	Reference to general compliance
5.3.3	18.50.120 & 18.40.370-400	Signage within the shoreline zone road sign requirements
5.3.5	18.50.170	Glare and light pollution avoidance requirements
5.3.6	18.60.190 A. 11	Significant tree and buffer requirements
5.3.7	18.50.200	Regulations governing breakwaters, jetties, and groins
5.3.9	18.60.160 & 18.60.180	Buffering and visual screening requirements
5.5	18.50.190	Boating facility requirements
Exhibit 5-5	36 CFR 67	The Secretary of Interior's Standards for Rehabilitation
Exhibit 5-6	36 CFR 67	The Secretary of Interior's Standards for Restoration
6.0	18.60.190 B & 18.90.060 C.4	MPR flexible land use and development standards
7.2.1	18.50, 18.80.110	Shoreline Master Program compliance
7.2.2	18.90.060 D.2	Planned Unit Development requirements
7.2.3 & Exhibit 5-1	18.60.190 A. 11 & 18.60.160	Landscape and tree protection
7.2.5	15.04.515	Construction permitting
7.2.6	WAC 197-11-060(5)	Phased SEPA Environmental Review
Exhibit 7-1	RCW 27.53.060 & RCW 7.44	State-mandated archaeological procedures

Both Action Alternatives include new development within the jurisdiction of San Juan County's Shoreline Master Program. According to the County's Shoreline Permit and exemption procedures (18.80.110 SJCC), resort development within the 100-foot setback from the OHWM would require both Shoreline Substantial Development Permits and Shoreline Conditional Use Permits prior to construction. The land uses proposed in the shoreline are all allowed uses under

the County shoreline program provided the necessary shoreline approvals are obtained. Since these approvals are discretionary a final determination of consistency can only be made after review of a specific development proposal. At the non-project level of review, the consistency determination is limited to whether the uses proposed in the shoreline could be approved under the current shoreline regulations.

3.2.3 Mitigation Measures

3.2.3.1 No Action Alternative

PPC-M-1: For the Resort to continue to operate in compliance with the San Juan County Code, a Resort Master Plan consistent with the requirements listed in SJCC 18.90.060 (C) would have to be adopted by the County Council or the site would need to be rezoned in conformance with the goals and policies of the *Comprehensive Plan*.

3.2.3.2 Action Alternatives

Both Action Alternatives would be consistent with the plans and policies evaluated in this EIS, thus no mitigation measures are necessary to improve consistency.

PPC-M-2: All development within 200 feet of the OHWM is subject to the provisions of the County's shoreline management program. New development will require Shoreline Substantial Development Permits and in some instances Shoreline Conditional Use Permits prior to construction. The shoreline permit and review approval process will help assure that development within the shoreline is consistent with the County's policies and regulations pertaining to shoreline development.

PPC-M-3: Development within the area covered by the RMP includes development in the shoreline and uplands that will require Planned Unit Development approval prior to the commencement of construction. The Planned Unit Development review process will help assure that future development under the plan is not only consistent with the plan but consistent with the applicable standards of the UDC.

3.2.4 Other Management Practices

3.2.4.1 No Action Alternative

PPC-OMP-1: The Resort can continue to operate and the property would be re-designated by San Juan County. A property owner could also request a site-specific redesignation, which would require analysis and SEPA review.

3.2.4.2 Action Alternatives

Additional management practices or other permit conditions are likely to result from the required permit processes.

3.2.5 Cumulative Impacts

No cumulative impacts related to consistency with relevant plans and policies have been identified as part of this consistency analysis.

3.2.6 Unavoidable Significant Adverse Impacts

No unavoidable significant adverse impacts to plans and policies were identified for the proposal (Action Alternative B) or any of the other alternatives. The only inconsistency identified – the lack of a Resort Master Plan under the No Action Alternative – will be mitigated by re zoning the property in conformance with the *Comprehensive Plan*.

3.3 EARTH AND STORMWATER

This section describes and interprets existing conditions and analyses of each alternative for its potential impacts to on the earth, soils, bedrock, slopes, drainage, stormwater, and groundwater. The interpretation, analysis, and evaluation of the impacts of alternative Master Plans for the development of the Rosario Resort involves the practices of geology, hydrogeology, and engineering geology, which are regulated under RCW 18.220. Because this section of the Environmental Impact Statement has geologic and hydrogeologic findings that are “available to the public in such a manner that the public may reasonably be expected to rely thereon or be affected thereby...”, this chapter has been prepared by a geologist, hydrogeologist and engineering geologist licensed in the State of Washington (refer to the EIS Fact Sheet).

Two site-specific characteristics of the geology dominate the analysis of impacts of development on both the geologic and hydrogeologic environment. These two characteristics are startlingly simple but profoundly important for understanding how clearing, grading and the construction of roads and structures would affect the environment. The two key characteristics are the dominance of hard, glacially polished and scoured bedrock at or near ground surface and the absence of well-developed



The black bedrock in this photo was scoured and polished by glacial ice flowing across it from north to south. Weathering during the past 13,000 years has loosened and altered it only enough to form thin patches of soil.

soils. The presence of the hard bedrock and absence of deep soils vastly reduces steep slope hazards and allows the engineering geologist to confidently recommend ways to securely key roads and structures into the bedrock. The presence of impermeable bedrock and the absence of deep soils significantly limit the infiltration of rainwater and storage of groundwater in both shallow and deep aquifers, increase runoff, and limit the depth to which erosion can occur.

3.3.1 Affected Environment

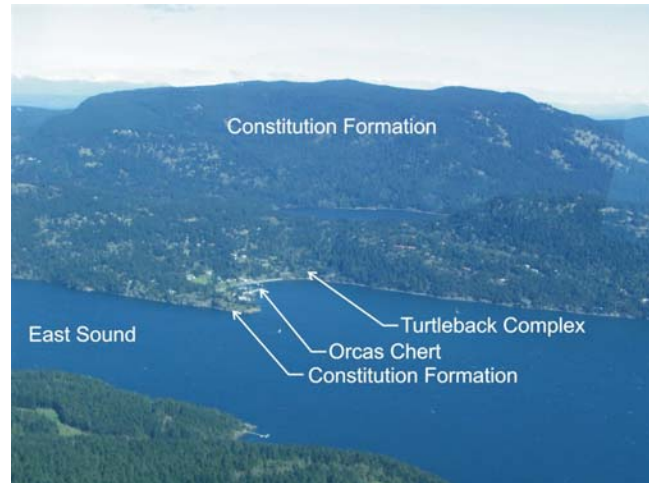
3.3.1.1 Geology

Bedrock

The study area being characterized for the Rosario Resort Master Plan EIS mainly has shallow soils and hard, relatively unweathered bedrock. The bedrock is composed of highly deformed

sediments without systematic preferential zones of weakness such as bedding planes or faults. The implications of this are important considerations relevant to site redevelopment: steep slopes are not subject to deep failures; stormwater cannot erode the bedrock; little or no shallow groundwater exists, especially on south facing slopes; and improvements may be anchored in steep slopes using rock keys, piles, or foundations attached to the bedrock.

The absence of thick unconsolidated sediments (like those of the East Sound area) or soils and presence of hard bedrock at or near the ground surface throughout most of the study area constrains geologic hazards and the environmental impacts of development. It creates conditions for construction that are somewhat unusual in the Puget Lowland, including unique opportunities for Low Impact Development and durable structures and infrastructure. However, the hardness of the bedrock also creates difficulties for the installation of utilities and deep excavations.



Aerial view of East Sound, Cascade Bay, and Mount Constitution from the west showing approximate location of units shown on the geologic map below.

Key aspects of the influence of strong shallow bedrock on the proposed development alternatives are that hard bedrock:

1. Greatly reduces the risks of mass wasting, including:
 - creep and settlement of structures,
 - landslides as a geologic hazard, and
 - changes in pore water pressure that causes slope instability.
2. Limits the depth to which surface water erosion can incise the landscape:
 - limited erosion means less risk of quality degradation in,
 - a. Cascade Lake
 - b. Bowman's Creek
 - c. Cascade Bay
 - water flowing over bedrock produces negligible turbidity.
3. Reduces the depth and significance of the groundwater table and thus:
 - reduces the volume of water stored in the shallow soil aquifer,
 - increases the need for shade to keep soil temperatures low and reduce the risk of duff fire,

- reduces the potential for construction dewatering, and
 - increases the challenge to infiltrate or detain stormwater.
4. Provides extraordinary support for structures and excavations:
- bedrock provides very high bearing capacity for foundations and piles,
 - structures can be anchored on steep slopes with minimal concern about creep, and
 - road cuts and other excavations would hold steep (vertical) cut faces.
5. Increases the size/power of the equipment needed for grading and excavating:
- larger equipment makes more noise, and
 - deep excavation might require blasting.

Composition of the Bedrock

The study area is underlain by rocks belonging to three major stratigraphic units.

The Mansion, Rosario Point, and employee housing are underlain by the Constitution Formation (KJm). The Constitution Formation consists of massive volcanoclastic sandstone and interbedded sequences of mudstone, pillow lava, tuff and ribbon chert. Thick beds of siltstone and shale are locally highly deformed. These rocks range in age from Jurassic to late Cretaceous, and thus are 100 to 200 million years old.

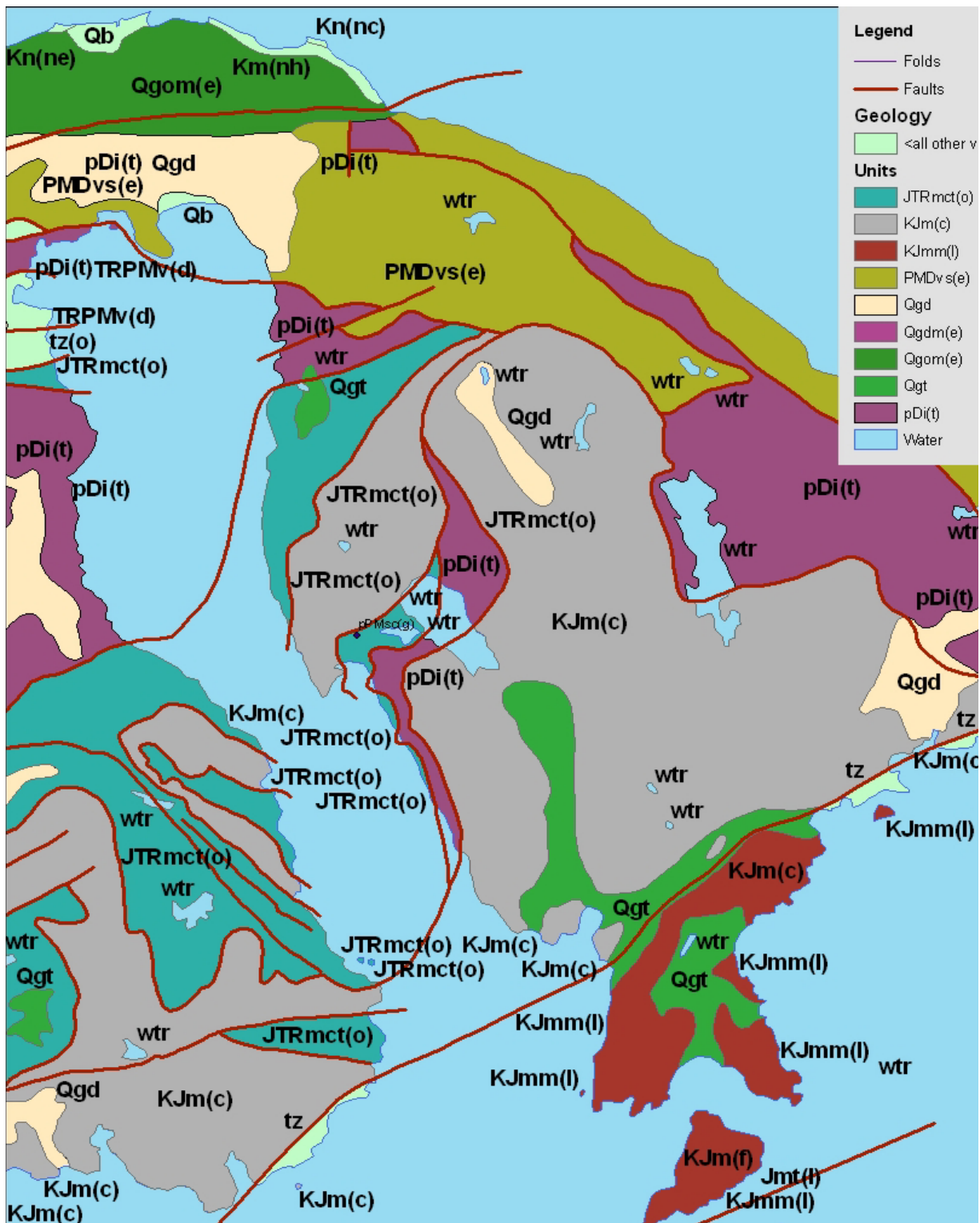
The Discovery House is built on Orcas Chert (JTRmct). The Orcas Chert is slightly older than the Constitution Formation, ranging from lower Jurassic to Triassic age, or roughly 225 to 175 million years old. It is composed predominantly of deformed chert and basaltic volcanic rocks with minor limestone and mudstone. Outcrops behind the Boatel expose ribbon chert (centimeter-thick bands of siliceous sediment) interbedded with mudstone.



Close-up view of centimeter-scale-beds of hard, siliceous sediments of the Orcas chert.

Some of the upper Woodland Cottages may be built on Turtleback Complex (pDi). The occurrence of Turtleback Complex rocks is limited to the area where the Hillside guest rooms and proposed cottages are located. They are the oldest rocks in the area, dating back to the Devonian, approximately 360 to more than 420 million years ago. The Turtleback Complex differs from the two groups of younger rocks described above, as it consists mainly of plutonic and volcanoclastic units.

All three groups of rocks have been heated, compressed and deformed into hard metamorphic rock that resists weathering and erosion.



The faults around Cascade Bay are thrust faults that have carried masses of older rock north to northwest over younger rocks. Note absence of Quaternary glacial drift, which is favorable for forming deeper soils and aquifers, in the Cascade Bay area.

Faults in the Bedrock

The tectonic map of the San Juan Islands (Mark Brandon) shows numerous faults cutting through Orcas Island including major thrust faults that moved huge masses of rock many miles. Active thrust faults can cause large tsunamis like the 2004 wave that originated in Indonesia and devastated coastal areas around the Indian Ocean. However, the faults in the study area are all ancient thrust faults and there is no seismic risk presently associated with them. Furthermore, subsequent alteration has healed these ancient faults, and they are not zones of weakness that could create a higher risk of slope instability.

The greatest risk from an earthquake likely comes from ground motion related to movement of the shallow crustal South Whidbey fault and from tsunamis generated by deeper crustal motion along the Cascadia subduction zone. The South Whidbey fault has ruptured the ground surface 10 to 20 times in the past 14,000 years (Craig Weaver) but it is unknown if it resulted in any tsunamis that moved northward into the San Juan Islands. Buildings in the Shoreline Management Zone, especially the harbor, could be inundated by large locally or regionally-generated tsunamis. Cascade Lake could also suffer a seiche - an oscillation of water in the lake that could cause large waves of water to come down Bowman's Creek.

Geologic Hazards and Mass Wasting from Bedrock

Even on steep slopes, the long-term susceptibility of roads and structures to mass wasting is very low if they are keyed into the bedrock. Vertical cuts in the bedrock should have long-term stability.

Surface Water and Erosion of Bedrock

The bedrock is hard and composed of minerals that are relatively stable within the range of temperatures and water compositions that occur on Orcas Island and thus, they resist chemical weathering. Bedrock lacks uniformly oriented planes of weakness and is not subject to freeze-thaw cycles that promote mechanical weathering. Erosion potential of bedrock, therefore, is very limited.

Groundwater in the Bedrock

Widely-dispersed, small-aperture bedrock fractures limit groundwater storage for sustaining stream flows and wetlands and reduce the potential for slope instability. In areas like East Sound, where groundwater occurs in glacial sediments, there is space between the grains of sand and other rock fragments and the volume of water held in the sediments is much greater than that held by the fractures in the Rosario bedrock. This groundwater slowly moves downhill towards streams and wetlands. However, when the pore space in a sediment is filled with water, the friction between rock fragments is reduced and thus the ability of the sediment to hold steep slopes also declines. Because the bedrock holds very little groundwater and its strength is not affected by pore water pressure, groundwater has a very limited influence on both stream flows and the geomorphology landscape.

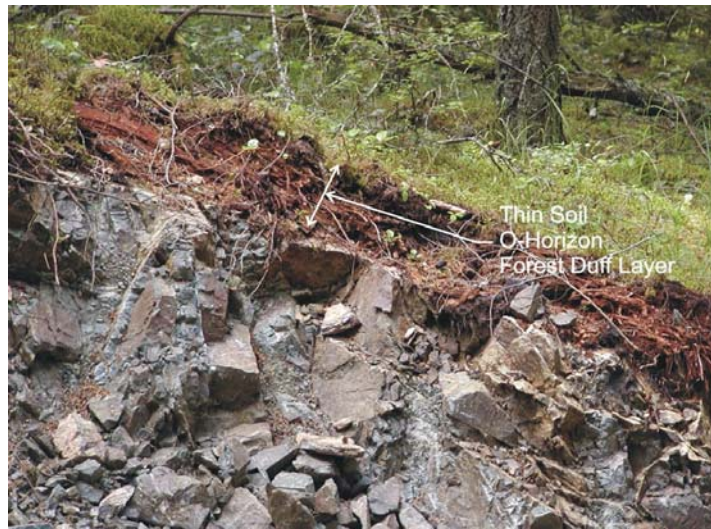
Grading and Excavation of Bedrock

The limited soil thickness and shallow bedrock would make the installation of subsurface utilities difficult, especially gravity sewer mains and water pipelines which are commonly installed 4.0 feet or more below ground surface.

Soils

Soils in the study area are generally very thin and derived from limited chemical and physical weathering of bedrock that alters and disaggregates the rock into mineral soil. Penetration of plant roots and tunneling by animals incorporates and mixes available organic material into the mineral soil. The amount of organic material declines with depth.

The uppermost layer or “O-horizon” of soil may consist almost entirely of organic material. The thickness of soil depends upon the amount of time it has had to develop, the climate and corresponding vegetation, the slope and the composition and hardness of the rock material. At Rosario, the time to develop soil has been geologically brief, just 14,000 years, since aggressive erosion by the Vashon ice sheet stripped away all weak or loose rock and soil. The cool Maritime climate does not promote rapid alteration and weathering of hard, chemically-stable bedrock. Furthermore, it appears that occasional wildfires burn off and limit development of deep organic soils. These thin and fragile soils are very susceptible to being entirely destroyed by dry season wildfire which would consume the resource leaving behind only a layer of ash. The dusty ash lying on the impervious to bedrock would quickly wash away and if the burned area drains to Cascade Lake, significant water quality degradation could occur.



Because the bedrock is hard and siliceous and resists weathering and root penetration, little mineral soil has formed in the past 13,000 years. The soil that exists is predominantly organic and highly combustible during dry conditions.

The thickness and composition of the soils control the site hydrogeology. In many parts of the Puget Lowland, soils developed on glacial till or outwash are 3 to 10 feet thick and absorb and store precipitation that falls on them so effectively that they are called “the shallow aquifer,” and groundwater movement through the soil is called “intraflow”. The ability of a soil to store water and slowly discharge it to wetlands and streams depends upon its thickness, extent, grain size and permeability. Sand and silty sand can hold of large volumes of water, about 1 foot of water in every 4 feet of soil.

Soils and Infiltration

The lack of soil to form a significant shallow aquifer accentuates the environmental impact of human structures on the natural hydrogeology. The soils at Rosario are commonly less than 1 foot thick, contain little or no sand and consist mainly of organic material (O horizon) overlying a thin gravelly mineral soil (A and B horizons) and hard impervious bedrock. This soil is too thin and impervious to hold water for long periods of time. Rainfall infiltrating the O, A and B soil horizons quickly penetrates to an undeveloped C horizon and fractured bedrock. The bedrock discussion noted fractures are the only significant groundwater reservoir. The absence of soil and the tight, impermeable bedrock presents an engineering challenge to infiltrate stormwater. Large and long level spreaders built into imported fill may be required to achieve distributed infiltration and storage of stormwater (see Stormwater section).



This road cut shows uniformly gray bedrock, which has been broken apart using heavy equipment. The absence of orange (hematitic) staining extending from the ground surface into the bedrock indicates the rock is resisting weathering and still hard.

Mapped Soils Units

Soils data and GIS mapping for the project area were obtained from the USDA-NRCS Soils Data Mart (<http://soildatamart.nrcs.usda.gov/>)-Soils survey of San Juan County, Washington. Soils properties and stormwater runoff analysis was conducted for the three sub-areas of the Rosario property, as shown in the following figure:



Soils descriptions and hydrologic properties for the units shown in the previous figure are outlined in the following table:

**TABLE 3.3-1:
MAPPED SOILS UNITS**

Map Unit Symbol	Name	Soil Texture	Percent Area within Project Vicinity	Hydrologic Soils Group
PrD	Pickett-Rock Outcrop Complex, 0 to 30 percent slopes	Stony Silt Loam	47%	C
PrE	Pickett-Rock Outcrop Complex, 30 to 70 percent slopes	Stony Silt Loam	38%	C
Rz	Rock land, steep	Unweathered Bedrock	15%	D

Erosion risk and usage limitations for roads are portrayed in the following table:

**TABLE 3.3-2:
SOILS ERODABILITY AND LIMITING FACTORS**

Map Unit Symbol	Name	RUSLE K-Factor	Hazard of off-road or off-trail Erosion	Hazard of Erosion on Roads and Trails	Limiting Factors	Native Surface Road Suitability	Limiting Factors
PrD	Pickett-Rock Outcrop Complex, 0 to 30 percent slopes	0.28	Moderate	Moderate	Slope/erodability	Moderately suited	Slope, low strength
PrE	Pickett-Rock Outcrop Complex, 30 to 70 percent slopes	0.28	Severe	Severe	Slope/erodability	Moderately suited	Slope, low strength
Rz	Rock land, steep	N/A	Not Rated	Not Rated	Not Rated	Poorly suited	Slope

Erosion

In general, the soils of the project area exhibit moderate to severe erosion hazards. Limiting factors for road or trail development include steep slopes, erodability, and low shear strength. The thin soils of the project area can easily be eroded by a concentrated discharge of water; but, at the same time, they are so thin, and the bedrock under them is so hard, that the depth and thus the volume of material that can be eroded is small. Furthermore, because the soils are thin they can quickly become saturated during heavy precipitation and produce runoff comparable to an impervious surface (see Stormwater section below).

Vegetation and Soil

Forest vegetation is important for protecting the soil because the canopy intercepts and stores precipitation in the root structure and detritus holds the soil together to prevent it from eroding. The adverse impacts of clearing, grading, and creating impervious surfaces can be mitigated by amending in-situ soils and importing soil and pervious fill. Created soils and fill can absorb and

retain more water than the natural soils, thus ensuring that the post-development volume of soil and the shallow aquifer is greater than that of existing conditions.

Planting and Preserving Trees and Topsoil

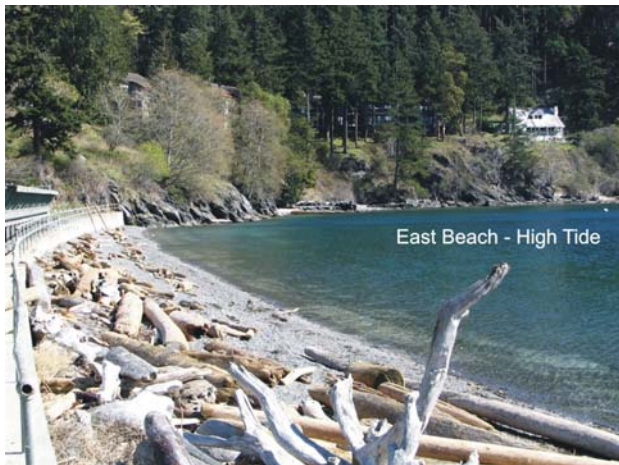
Planting new trees and getting them to grow quickly would require significant soil enhancement and irrigation. The challenges for planting new trees include thin native soil, numerous southern exposures that can be hot and dry in the summer, and an absence of a shallow aquifer that sustains springs, seeps, and soil moisture. If large trees are needed for screening or their canopies are needed for shade in the summer and to store stormwater in the winter, it may be decades before they grow large enough to have a significant impact. Therefore, large trees, especially evergreens which have foliage that can hold water during the winter and large, soil-stabilizing root systems, should be retained as much as possible within the study area.

Beach and Shoreline

The slope of the beach depends on grain size of the beach sand and rock and the size (energy) of the waves hitting the beach. The slope of the beach in June 2005 was 12 to 13 percent and the substrate consisted mainly of gravel less than 2.0 inches in diameter. If a sandy beach is desirable, then either a longer setback into the existing bulkhead towards the Boatel or shallowing of the harbor immediately below the beach is required. A larger marina with more docks and a floating jetty would reduce wave energy, allowing more sand to accumulate. It is uncertain whether the sandy component of the beach would increase by removal of the two groins to the East. One groin is a rather subtle feature (a jumble of rocks) at the east end of the beach. The other is the foundation of the old box factory 50 to 100 yards farther to the East. Re-naturalization of this portion of the beach could be considered as mitigation for improvements of the marina.



The existing rip-rap wall and cobbly beach rock sustain a steep beach profile that is favorable for maintaining deep water in the Marina and maximizing the area of the Marina terrace, but it is too steep to accumulate or hold sand.



The concrete bulkhead reflects wave energy and this contributes to movement of sand out of the intertidal zone. However, the driftwood helps dissipate wave energy allowing a shallower beach profile.



East Beach is predominantly composed of a sub-angular pea gravel. Crushed shells help form sand, but recruitment of sand from other sources is very limited. Bowman's Creek transports very little sediment to the shoreline because the channel is incised bedrock and sediment from the headwaters is trapped in Cascade Lake.



Existing bulkheads protecting Marina terrace prevent the natural transport of sand inside Cascade Bay and the shoreline to the east is dominated by hard bedrock. A jetty and the foundation of the old box factory (jetty 2) also limit longshore transport of sandy sediment.

While the coastal cliffs in the bedrock appear to be largely stable, there has been significant coastline erosion west of the point lawn. In just 14,000 years, wave action has cut cliffs into the glacially smooth and polished bedrock, and undercut blocks of rock up to 5 feet across are peeling off the top of the cliff.

3.3.1.2 Geomorphology

Terraces and Midden

Walkway around the Figure 8 Lagoon shows some unevenness potentially indicating settling due to decay of the organic sediment in the midden area.



The existing wall and sidewalk have settled probably because of decay of organic material or compaction of very loose sediments.



Prior to grading, the terrace area likely had an undulating surface, abundant driftwood and shell debris, and a shallower and sandier intertidal zone.

3.3.1.3 Stormwater Drainage and Groundwater Affected Environment

Natural Water Budget

The study area receives approximately 30 inches of rainfall, falling primarily during October to April. Tree canopies intercept approximately 20 percent of winter precipitation and return it to the atmosphere via evaporation. In undeveloped conditions, the other 80 percent of rain water reaching the ground surface would infiltrate into soil and fractured bedrock or runoff these surfaces when they become saturated. Under developed conditions, much of the rainfall would run off compacted soil and impervious surfaces into stormwater system or streams. During the dry season, soil pore water is absorbed and evaporated by vegetation at rates higher than summer rainfall.

Surface Water Runoff

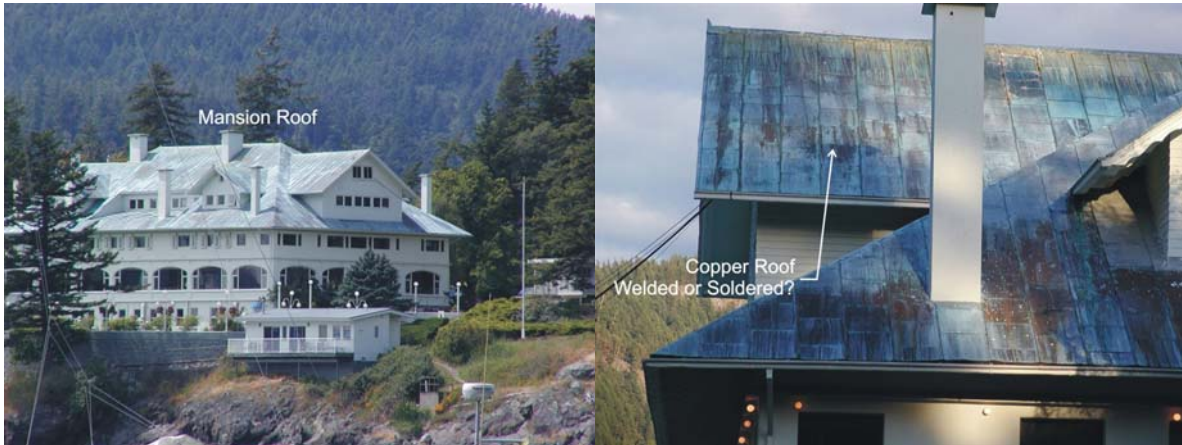
In the post-development condition, nearly 100 percent of stormwater falling directly upon impervious surfaces runs off into gutters and the existing stormwater system. Stormwater runoff from impervious surfaces must be conveyed from Hilltop and Hillside areas to receiving water without causing erosion from peak flow or degradation of water quality in the receiving waters. Swales and or detention systems could mitigate potential erosion-inducing peak flows.

Many of the existing roads and parking areas do not have adequate pipes or ditches to control the quantity or quality of stormwater runoff. While deep erosion may not occur because of the shallow bedrock, some soil is being eroded and runoff from certain road segments may have high turbidity during storms. This is particularly true of Firehouse Lane, which is suffering from both rain-splash erosion across its entire surface as well as incision by small meandering rills. For paved roads, like the entrance road to the Resort, erosion is locally undermining the edge of pavement.



Stormwater runoff from this existing road surface spills onto adjacent land and is not collected in swales for water quality treatment and control.

The University of Washington Friday Harbor labs have raised the issue of contamination of shoreline ecosystems due to the untreated discharge of stormwater from developed areas. The copper, with possible traces of lead, from the soldered copper roof of the Mansion is a potential source of heavy metals discharge to surface and marine water, although no known investigations have been conducted to evaluate this possible extent of contamination.

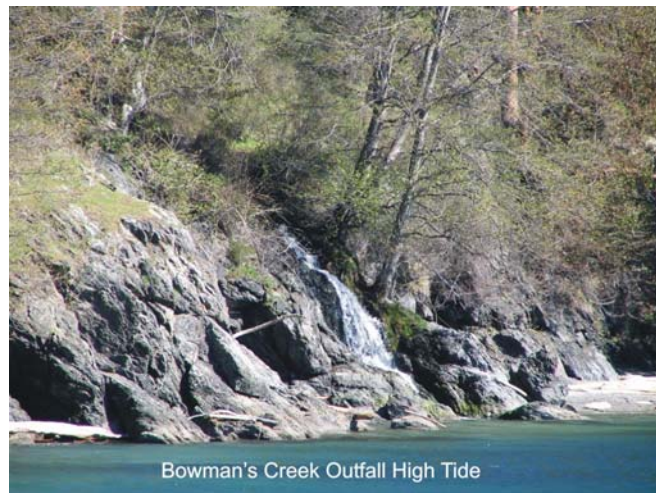


The existing Mansion roof is copper plate that has been welded or soldered together. If solder was used, it may contain lead.

Drainage at the garage across the street from the Figure 8 Lagoon is embedded into a natural swale in the bedrock. Because the source of this drainage is upslope of the MPR, proposed resort redevelopment would not directly affect this condition.

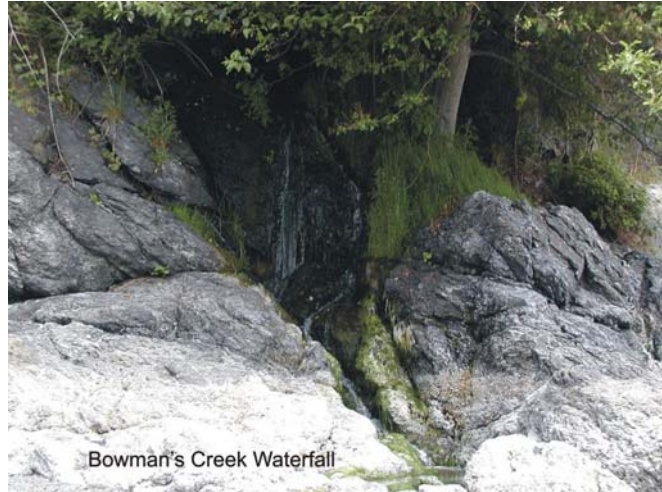
Potential for Salmonid Habitat

Bowman's Creek has not been documented to support, and currently does not support, anadromous salmonids because of its unfavorable fluvial geomorphology and hydrogeology. Overall, the gradient is too steep for fish to swim up. At moderate and low tides the stream flows onto the beach where it infiltrates into the sand and gravel. At high tide, the stream falls into Cascade Bay over an approximately 10-foot high waterfall. Within the first quarter-mile upstream from Cascade Bay, there are numerous other waterfalls. Bowman's Creek responds rapidly to rainfall events for several reasons: Cascade Lake is large and due to its limited storage capacity, behaves like an impervious



At high tide, when fresh water from Bowman's Creek directly enters the marine environment, it does so from a waterfall that is too high for anadromous fish to navigate.

surface, flushing additional water from rain events into the stream; and the surrounding landscape is dominated by shallow soils and nearly-impervious bedrock, which provide little soil storage capacity, thereby releasing storm flows into the stream. As a result of the “flashy” watershed above Bowman’s Creek, high-peak flows flush out the channel and create plunge pools in rock rubble. In addition, several culverts have outfalls positioned above the channel, and they are so long and steep it is unlikely that the fish could swim up them. Finally, an historic dam prevents access to Cascade Lake.



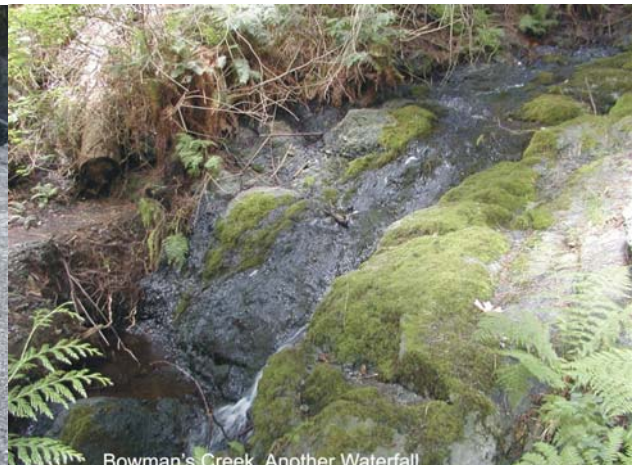
Bowman's Creek Waterfall

This waterfall is not passable by anadromous fish.

Bowman’s Creek is ephemeral, drying up in the summer and after other dry spells. There are no pools deep enough to hold cold water all summer, and any pools that might persist are so small and exposed that predation would be devastating. There is no side channel refuge, because, overall, the channel is cut in bedrock and cannot meander. Thus, there is a lack of refuge and forage during both high and low flows. Rather than being an area of net productivity, it is likely the stream is a death-trap or a productivity sink for fish.



Bowman's Creek Outfall Low Tide



Bowman's Creek Another Waterfall

At low tide, Bowman’s Creek infiltrates into beach travels, making it inaccessible to anadromous fish. Even if a fish were to successfully jump the first waterfall, there are numerous other waterfalls, steep shallow reaches, and limited pools that are unfavorable to anadromous fish habitat.

Groundwater Hydrogeology

Low-permeability, thin soil and impervious bedrock absorb a small fraction of the rain falling on the site. Groundwater seeps through the shallow soil and bedrock fractures. Seepage rates and storage capacity are low. Groundwater and pore water in shallow soil drains fairly rapidly from sloping areas and is absorbed by root systems. The limited storage and seepage causes streams to go dry in summer.

Infiltrating precipitation creates the shallow and volumetrically small saturated zone in the bedrock, resulting in a shallow regional water table. No water supply wells are recorded with Ecology for the study area, and no deeper aquifers exist in the study area. This groundwater regime is unfavorable for potable water supply because of the limited volume available, the likelihood that springs and shallow wells would be classified as “groundwater under the influence of surface waters” by Department of Health which would require costly treatment, and a diversion large enough to serve the employee housing in the Hilltop would be denied a water right from the Department of Ecology.

Any groundwater discharging from infiltration systems will be based on bedrock permeability and the thickness and composition of the soil.

Stormwater Analysis

Stormwater drainage under existing conditions was evaluated using the Western Washington Hydrologic Model, version 2.5f. The WWHM was designed by the Washington State Department of Ecology and AQUA TERRA Consultants. This version is faster, more flexible and in many ways easier to use than its predecessor. The WWHM computer model includes the following beneficial features:

- A uniform method for western Washington
- A more representative method than single-event design storms (such as TR-55)
- WWHM includes the following features:
 - Continuous simulation hydrology (HSPF, or EPA’s Hydrologic Simulation Program-Fortran)
 - Actual recorded precipitation
 - Measured pan evaporation
 - Historic vegetation
 - Regional HSPF parameters



Even small volumes of surfacing groundwater can create seeps that support lush growth of plants.

The simulation developed assumptions for land cover and usage via a GIS coverage that was developed from Rosario planning documents. Throughout the remainder of the stormwater discussion, results will be analyzed and disclosed for Sub-Area C (as shown above) only. As evaluated using the WWHM, land-use changes for Sub-Areas A and B under Action Alternative B would be so minor that there would be no detectable change in stormwater drainage under proposed conditions. Therefore, the remainder of this discussion focuses on Sub-Area C only.

Existing land cover within Sub-Area C was divided into the following classifications:

**TABLE 3.3-3:
EXISTING LAND USE**

Landcover	Existing	Percent
Forested vegetation	41.90	79%
Building	2.43	5%
Paved roads, paths, parking	8.89	17%
Trail	0.00	0%
Water	2.51	5%
Total	55.73	100%

WWHM analysis was conducted for both pre-developed (fully forested), and existing conditions. The model computed stormwater flows, in cubic feet per second (cfs) for each of these scenarios. The model results represent a conservative analysis, because it did not factor in any currently existing stormwater facilities such as detention ponds. The results for the duration flow corresponding to each specified return interval, are portrayed in the following table:

**TABLE 3.3-4:
EXISTING STORMWATER FLOWS**

Year	Pre-Developed Flow (cfs)	Existing Conditions (cfs)	Percent Change
2	0.8	2.9	270%
5	1.3	4.0	198%
10	1.7	4.7	174%
25	2.3	5.8	156%
50	2.7	6.6	148%
100	3.1	7.5	143%

As shown in the table, existing stormwater conditions reflect a change ranging from 143 to 270 percent in the computed duration flow, in comparison to pre-developed conditions, depending on the recurrence interval. This increase reflects historic changes in land use associated with the construction of roads, buildings, and other impervious surfaces.

3.3.2 Environmental Impacts

3.3.2.1 No Action Alternative

Soils, Slopes and Geology

The No Action Alternative proposes no improvements that would alter soils or slopes. No new trails, roads, or building pads are proposed so removal of trees, clearing and grading, and creation of new impervious surface would not occur. No new structures are planned, so disruption of the thin, undisturbed soils would not occur.

Failure of the Resort could lead to residential development without a Master Plan. It is possible this could result in significant clearing, grading, construction, and removal of soil and trees, on a piecemeal basis on private property, to maximize lawns and views.

Drainage and Groundwater No Action Environment Impacts

The No Action Alternative proposes no improvements that would alter existing surface water and groundwater flow paths. County and State stormwater regulations require that erosion and sedimentation be controlled during construction. However, there is no requirement for the retroactive installation of stormwater treatment facilities. Consequently, under the no action alternative, no improvement to the quality of stormwater runoff could be expected.

The soldered copper roof of the Mansion would continue to shed metal-containing stormwater directly to the intertidal ecosystem. The beach would continue to experience wave erosion.

3.3.2.2 Action Alternative A

Soils, Slopes and Geology

Because development proposed under this alternative is focused in areas that are already altered and relatively flat, the impact of clearing and grading would be small. Investments in trail improvements and road expansion may occur. This may lead to more stable road shoulders and drainage improvements. Proposed structures built on the main terrace, from the convention center around the marina to the quarry for the jetty, would need geotechnical exploration to ensure that earth and fill underlying this area could support large structures such as the proposed conference facility expansion. Archaeological studies would evaluate whether Native Americans and early settlers filled a low beach environment that may contain buried driftwood, lagoonal organic muds, Indian artifacts, and abundant shell debris.

The eight homes proposed for the Hillside are quite large and benches would need to be cut into the bedrock or large structural pads built. Cutting benches into the bedrock, even with steep faces, can be done without reducing slope stability and increasing geologic hazards. However the placement of fill and routing of stormwater through and around filled areas must be done carefully to avoid increased risk of mass wasting. The owners of the large homes may demand the cutting of trees to improve their views. Loss of trees, especially evergreens with significant canopies, would result in increased precipitation reaching the ground surface, loss of restructure to hold the soil together and increased erosion and mass wasting. More residences with

barbecues and campfires and more walking trails may result in an increased risk of wildfire. However, increased profitability could pay for upgrades to the recreational areas and parking at the Hilltop employee housing that may reduce the risk of wildfire and contamination of surface and groundwater flowing to Cascade Lake from the parking area.

Improvements to the marina may reduce the frequency and duration of larger waves reaching the beach and allow more sand to accumulate.

Drainage and Groundwater Impacts

Improvements to trails and roads to better accommodate more guests may result in better control of stormwater runoff from the surfaces. The use of a more inert material for the Mansion roof would reduce the potential for the introduction of heavy metals into the environment. There would be more cars than in the No Action Alternative (see Section 3.9 – Transportation), so the overall potential for petroleum contamination of surface and groundwaters would be greater under Action Alternative A. Areas where old vehicles and other junk are presently stored could be eliminated as potential sources of contamination to surface and groundwater. New roads and parking areas may increase impervious surface and stormwater runoff from these surfaces. More cars mean more potential for leaks of engine fluids that could contaminate surface water and groundwater. Parking areas would expand substantially and these could create higher peak flows of degraded stormwater. Roof areas would also considerably expand, but most of the proposed buildings are close to Cascade Bay so that, if roofs are composed of contaminant free materials, roof stormwater could be discharged directly to Cascade Bay or East Sound.

However, all direct discharge of stormwater to Cascade Bay or East Sound has the potential for reducing groundwater recharge, especially in the main terrace area where the shelly fill is deeper and more pervious than elsewhere on the site. If parking areas are paved with impervious asphalt and roof drains are routed to Cascade Bay then the ground under them may be starved of groundwater and this may affect local vegetation. The recreation improvements close to Cascade Lake would increase the number of people intruding on the shoreline, and therefore the potential for disturbance to the shoreline.

3.3.2.3 Action Alternative B

Soils, Slopes and Geology

Action Alternative B proposes numerous alterations to the project area and at all levels: from approximately sea level at the Mansion and marina terrace to the steep slopes of the hillside; to the Utility Tract, and up to the Hilltop employee housing. Less proposed development on the marina terrace would reduce the risk of buildings settling due to compaction of mud, middens, driftwood, etc. Elsewhere, new and improved trails, driveways, parking areas, and roads would require considerable clearing and grading, as well as add new impervious surface that would drain to Cascade Lake or the steep slopes of the hillside. Increased soil saturation or runoff on steep slopes can lead to mass wasting. The cottages on the Hillside are smaller than in Action Alternative A, but they are also more numerous. Roads and driveways would need to be cut to each of the proposed Woodland Cottages and slope Hillside cottages. Conventional construction of roads in some of these areas would result in broad areas of severe disturbance due to

placement of fill or reduction of the slopes of cut faces to those typical of unconsolidated sediments. The Hilltop employee housing would undergo a major expansion in both the area of the building and parking. Upgrades to employee recreation areas could reduce the risk of wildfire originating from a campfire, but more people and more cars increase the risk of accidental adverse-environmental impacts. And more people using barbecues or building campfires more often increases the risk of wildfire, which could reduce or eliminate the shallow organic soil. Major improvements to the docks and a floating jetty may reduce wave action on the beach, allowing more sand to accumulate.

Drainage and Groundwater

Action Alternative B would require various connections between scattered cottages, mini-mansions and condominiums. Numerous trails, driveways, and roads would be constructed and would require clearing, grading, and in some cases, the breaking of bedrock. To the East, in the Hillside area, relatively-pristine forests would be disturbed by construction, and more precipitation would reach the ground surface where trees with large canopies are cut down. Access roads to the Resort may be improved by reducing erosion in roadside ditches and thus water quality degradation. Impervious surfaces would replace some areas covered by absorptive but shallow soils. Renovation of the Mansion and installation of new condominiums in the resort core would change the configuration of parking lots and provide an opportunity for the treatment of stormwater before it goes into Cascade Bay. The use of a more inert material for the Mansion roof would reduce the potential for the introduction of heavy metals into the environment. Parking areas would be relatively small and would not be as heavily used as the centralized parking of Action Alternative A. This provides a greater opportunity for the use of pervious pavers and reduced stormwater runoff. Distributed infiltration of stormwater, small amounts in many places, may help sustain seepage through the bedrock. There would be more cars than in the No Action Alternative (see Section 3.9 – Transportation), so the overall potential for petroleum contamination of surface and groundwaters would be greater under Action Alternative B and similar to Action Alternative A. Areas where old vehicles and other junk are presently stored could be eliminated as potential sources of contamination to surface and groundwater. Installation of utilities may capture groundwater flow in trenches and divert surface waters from their natural flow paths. Roof areas would not be as large as in Action Alternative A, so the volumes of stormwater to manage would be individually smaller. Routing of stormwater directly to Cascade Bay may reduce groundwater recharge. Concentrated discharge of stormwater on steep slopes can cause erosion and mass wasting. The recreation improvements close to Cascade Lake would increase the number of people intruding on the shoreline, and, therefore, the potential for disturbance to the shoreline.

Stormwater Analysis

The proposed land cover for Action Alternative B, the applicants' preferred alternative, is shown in the following table:

**TABLE 3.3-5:
ACTION ALTERNATIVE B PROPOSED LAND USE**

Landcover	Existing	Percent
Forested vegetation	39.64	76%
Building	5.31	10%
Paved roads, paths, parking	7.11	14%
Trail	1.16	2%
Water	2.51	5%
Total	55.73	100%

As shown in the above table, development of buildings, roads, and trails under Action Alternative B would reduce forested vegetation by approximately 2.3 acres. Stormwater runoff for the proposed land cover under Action Alternative B was analyzed using WWHM. The results are shown in the following table:

**TABLE 3.3-6:
ACTION ALTERNATIVE B STORMWATER FLOWS**

Year	Existing Conditions (cfs)	Developed Un-Mitigated (cfs)	Percent Change
2	2.9	3.4	18%
5	4.0	4.6	17%
10	4.7	5.5	17%
25	5.8	6.7	16%
50	6.6	7.7	16%
100	7.5	8.7	15%

As shown in the above table, the increase in impervious surfaces under Action Alternative B would increase stormwater flows by 15 to 18 percent, depending on the recurrence interval, without mitigation. In order to portray compliance with WDOE stormwater standards, as outlined in the Stormwater Manual for Western Washington, February 2005 edition, two conceptual storage optimization analyses were performed using WWHM. These scenarios analyzed the storage that would be required under the following conditions:

- Attainment of existing conditions stormwater flows
- Attainment of pre-developed stormwater flows

In each case, the WWHM pond optimization routine was conducted on a conceptual basis, meaning that actual stormwater facilities or structures were not planned or designed, nor was detailed routing via ditches, pipes, or other conveyance structures considered. In addition, stormwater treatment mechanisms as outlined in the conceptual stormwater management plan were not considered. Instead, a theoretical understanding of the amount of potential storage was developed by optimizing the sizing of a conceptual trapezoidal pond, and assuming that all storm

drainage would be routed through that pond. The pond was assumed to have 3:1 sideslopes, with an 18-inch riser weir. Detention was optimized assuming medium to high detention times (in the 5 to 10 minute range). This conceptual analysis provides conservative estimates of the potential detention needs, because it does not take into account many of the beneficial design elements such as bioswales, as well as the management practices outlined in the conceptual stormwater management plan.

Using the above assumptions, the following table portrays the results of the detention optimization analysis:

**TABLE 3.3-7:
DETENTION ANALYSIS**

Scenario	Detention Volume (Acre-feet)
Attainment of existing conditions stormwater flows	0.8
Attainment of pre-developed stormwater flows	4.4

As shown in the above table, to offset the changes associated with Action Alternative B, approximately 0.8 acre-feet of storage would be required. Alternatively, to meet the more ambitious goal of returning stormwater flows to pre-developed conditions, 4.4 acre-feet of detention would be required. This could be attained by combining management practices as outlined in the stormwater management plan with structural components such as storage that would need to be distributed amongst various detention facilities as indicated by planning and engineering constraints.

The WWHM modeled flows under the mitigated scenarios are portrayed in the following table:

**TABLE 3.3-8:
MITIGATED STORM WATER FLOWS**

Year	Developed-Mitigated to Existing (cfs)	Developed-Mitigated to Pre-Developed (cfs)
2	1.9	0.6
5	2.9	0.9
10	3.6	1.2
25	4.6	1.7
50	5.5	2.1
100	6.4	2.6

As shown in the above table, inclusion of the storage volumes computed by the optimization analysis mitigates stormwater flows to levels slightly less than encountered under the existing, and pre-developed conditions, respectively. This result derives from the optimization process, which meets storage needs by sizing a facility for flows of a broad range of return intervals.

3.3.2.4 Analysis and Conclusions

Soils, Slopes and Geology

Much of Rosario Resort was built without regulatory environmental compliance. While Mr. Moran was ahead of his time with many of his environmental ideas, the existing Resort does not adequately control stormwater quality and quantity. Shallow bedrock has precluded soil erosion or mass wasting; otherwise, soil creep and erosion would have damaged most of the roads and buildings constructed on steep slopes. The fact that the infrastructure is old and has deteriorated creates an opportunity for the improvements proposed in the Preferred Alternative to reduce the adverse environmental impacts of the current condition. Enhanced stormwater management, use of low impact development techniques, and better management of areas used by motorized vehicles can reduce environmental impacts from the Resort. Examples of site-specific and innovative development techniques are outlined in the mitigation actions listed below.

3.3.3 Mitigation Measures

3.3.3.1 No Action Alternative

Soils, Slopes and Geology

Under the No Action Alternative, no new impacts to soils, slopes and geology or drainage and groundwater would result beyond those described in Section 3.3.1 – Affected Environment. No mitigation measures are proposed under the No Action Alternative.

3.3.3.2 Action Alternative A

Soils, Slopes and Geology

Although trails are not specifically shown as part of Action Alternative A, the expanded Discovery House/Convention Center may also be a hub of recreational activity. People booking convention facilities in a resort area are presumably interested in enjoying some healthy activities between their meetings. Trails are an appropriate element of mitigation for the expansion of the resort core and convention facility, as well as needed pedestrian connections between the new single-family lots in the waterfront activity area.

Because Action Alternative A proposes the greatest increase in the number of guests, it should therefore have the highest impact in terms of motor vehicle use as described in



The bedrock is hard and, subject to outcrop-specific analysis of texture and structures, will support near vertical cuts. Benches cut in bedrock will provide excellent support for roads and structures.

Section 3.9. Road improvements to serve the guests can also be done in a manner that has environmental benefits (see drainage and groundwater below).

ES-M-1: Where slopes are steep, roads, utilities and building pads should be excavated into bedrock maximizing the bench cut into bedrock rather than filling on steep slopes.

ES-M-2: To minimize the need for blasting and/or use of a hoe-pack to dig utility trenches, shallow trenches with backfill placed over conduits may be utilized.

Large fills are potentially unstable. The roads cuts can be nearly vertical within the constraints of the bedrock. Geotechnical analysis or services during construction can determine if slopes less than vertical are required. If slopes are substantially less than vertical, then the capture area above the road can be large due to the steep slope.

ES-M-3: Where supporting a road requires a prism of fill, the fill can be keyed into the bedrock with a back slope, and confined by a nearly vertical masonry and rock wall done in the style of the original Moran walls. The fill material inside the wall can be stabilized with a geotextile fabric to minimize creep and spillage of the fill. These walls can incorporate aesthetic design, and the subgrade would be stable enough to infiltrate and store stormwater.

ES-M-4: Development on both sides of the Figure 8 Lagoon would require excavation into the marina terrace. At present, portions of the Figure 8 Lagoon are settling and need repair. New landscaping and improved walkways could improve shade and aesthetics while also reducing soil temperatures and glare.

ES-M-5: Adverse impacts of single-family lot development can be mitigated by positioning the lots between large evergreen trees and minimizing the cutting of trees with significant canopies. Although blasting may be costly and noisy, excavation into the hillside to build pads will ensure that the structures are well secured to bedrock and that the risk of mass wasting of fill, including slumping and creep, is minimized. Covenants attached to the single-family lots can preclude the cutting of large trees and require planting of new trees to replace old ones. Removal of underbrush can help reduce the risk of fire.

ES-M-6: Increased investment will be required for upgrades to the recreational areas and parking at the Hilltop employee housing in order to reduce the risk of wildfire and contamination of surface and groundwater from the parking area.

ES-M-7: Improvements at the marina may reduce the force of wave action and allow more sand to accumulate on the beach and restore a more natural lower gradient profile that likely existed before the riprap and bulkheads were installed.

Drainage and Groundwater

Action Alternative A would create a resort “core” close to Cascade Bay that is well suited for managing and treating stormwater. In the Shoreline Management Zone, stormwater from impervious roof surfaces may be directly discharged to Cascade Bay without retention or detention if high standards for water quality can be maintained. But treatment of stormwater

runoff from trails, parking areas and roads will likely be needed throughout the Shoreline Management Zone. Runoff from larger roads and parking areas may have to pass through a fairly long system of bioswales to ensure that water quality standards are met.

ES-M-8: Water from roofs may not need treatment if structures are built using nonpolluting roofing materials. The locations of the bioswales can be optimized within the existing topography for both aesthetics and improvement of water quality. Bioswales can be elevated above grade within berms constructed with amended soils to absorb stormwater during the winter and support attractive xeriscaping even during dry summers.

ES-M-9: Development of the buildings could emulate the style of the Eastsound Library, surrounded by bioswales and extensively use roof trellises and climbing vines (wisteria) to create the appearance and shade of a roof without the impervious surface. Clean stormwater from roofs can be discharged directly to Cascade Bay a short distance away. Runoff from trails, parking areas and roads can be routed through the bioswales.

ES-M-10: Renovation of the Mansion provides an opportunity to eliminate any heavy-metal discharge that is occurring from the roof. Roofing materials should be carefully chosen and some north-facing roofs on new buildings could be “green” roofs that support vegetative cover, such as sedum or grasses.

ES-M-11: Action Alternative A would create a 10,000-square foot conference center that would require increased parking in the area. Increased impervious surface and stormwater runoff could be mitigated with treatment through long bioswales before it is discharged into Cascade Bay. Multiple small parking lots may allow more effective use of bioswales than a single-long bioswale for a large parking lot.

ES-M-12: Roadside stormwater pipes are not recommended because they provide little or no water quality treatment, attenuation of peak discharge or infiltration. Roadside ditches can be lined with gravel, and trench dams can slow and filter stormwater where it moves downhill, thus reducing erosion and turbid runoff. Roads that are securely keyed into the hillside (described in the previous section), can be designed to accept stormwater by constructing subgrades with a thick blanket of crushed rock that will accept stormwater and seepage flowing into and through the road subgrade. Road grades can be specified during design by an engineering geologist to achieve a gentle undulating surface that distributes, rather than concentrates stormwater runoff. The shallow bedrock and thick layer of crushed rock would reduce the risk of water saturating and weakening the road subgrade. “Alligator cracking” will not occur if adequate crushed rock (3/4 inch to 1¼ inch minus) is placed. There would be a moderate to low risk of frost action damaging such a road.

ES-M-13: Action Alternative A would add eight large home sites. Stormwater in this area could be collected and infiltrated in order to achieve no net loss to groundwater. Mitigation measures for loss of trees and increase in impervious surfaces could include building on piles to preserve soils, use of level spreaders for infiltration, and use of contaminant-free building materials. With the foundation firmly anchored on bedrock (see previous section), roof drains can be connected to level spreaders on the uphill side of the foundation to restore infiltration and detain stormwater

runoff. The topography of the bedrock will be evaluated in a geotechnical or engineering geology study to determine how infiltration can occur in a manner that maximizes the saturated blanket of soil. The blanket of soil can also be amended in order to enhance the absorption of stormwater.

ES-M-14: To effectively control stormwater, a Conceptual Stormwater Management Plan has been developed according to the standards and guidelines contained the Stormwater Management Manual for Western Washington (Ecology 2005) and the San Juan County Unified Development Code (see Appendix G).

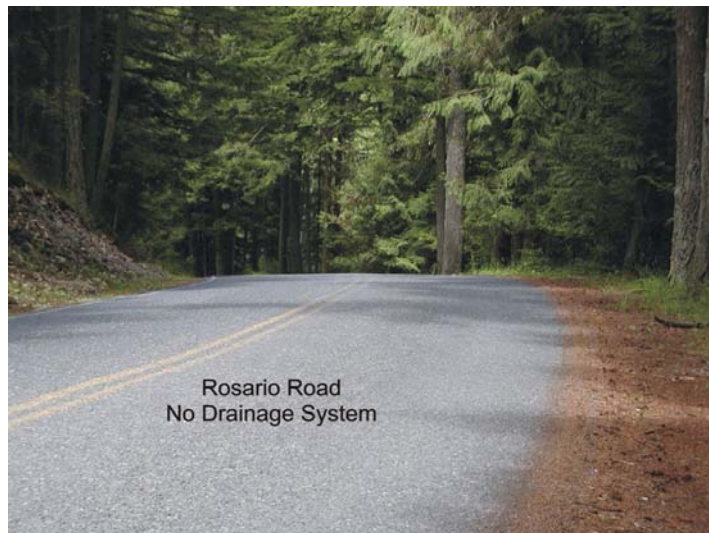
3.3.3.3 Action Alternative B

Soils, Slopes and Geology

ES-M-15: Service of infrastructure to all of the units under Action Alternative B would require more extensive grading and excavation than the other proposals. To minimize the need for blasting and/or use of a hoe-pack to dig utility trenches, shallow trenches with backfill placed over conduits may be utilized.

ES-M-16: A geotechnical or engineering geology evaluation will be conducted during the design phase of stormwater plans for specific development proposals, to identify the best method for meeting State and County stormwater management requirements.

ES-M-17: Construction of traditional two-lane roads in areas of steep slopes could require significant blasting and removal of hard rock to adequately secure them on hillsides. Conventional road design that balances cut and fill is inappropriate where steep slopes are crossed because the fill side of the road prism should be graded to slopes of not less than 2H:1V in order to support the road shoulder and remain stable. If the slope being crossed is close to 2H:1V, or steeper, then the fill would have to spill far down the hillsides in order to achieve a safe slope. Such fills would substantially increase the volume of fill required, the cost of the road construction and the disturbed area. Furthermore, such a road fill may be difficult to compact and the fill itself might have to be keyed into the hillside creating even more disturbance. Extensive road fills of unconsolidated earth could significantly increase the risk of mass wasting in a landscape that otherwise has too little soil to have significant



Small roads with large trees close by may not need stormwater collection systems but treatment, detention, and infiltration should be improved where road grades cause stormwater to concentrate and form point discharges.

landslide hazards. Where roads cross steep slopes, most of the road bed should be cut into bedrock and the shoulder of the downhill lane supported by rock walls constructed in the same historic style as the walls originally built by Moran.

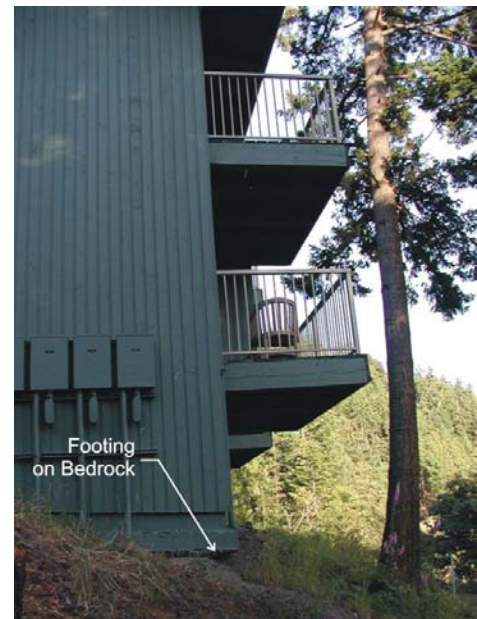
ES-M-18: Small cottages can be built almost anywhere on the site. Some may require daylight basements, piles or other structures to firmly anchor them to stable bedrock. Cottages and homes on steep slopes can be safely and securely supported by piles and posts attached to the bedrock. Because the bedrock is close to the ground surface, the depth to which footings and piles need to be buried before they firmly support structures is generally small. Individual building pads may also be prepared by pouring footings directly into bedrock or by placing a blanket of crushed rock directly on the bedrock and forming the footings on top of the crushed rock. The bedrock is so strong that foundations for structures of the size proposed for this site are constrained by the strength of the concrete not the bearing capacity of the earth. Thus, it is highly feasible to build cottages even on steep slopes as long as safety issues associated with decks and walkways elevated above the ground surface are acceptable to the owners and meet building codes.



Beautiful cottages can be fit intimately among the trees with minimal impacts to the surroundings and maximum aesthetic appeal to the occupant.

hazard. Construction on the bench would not have adverse impacts on natural slope processes and the bedrock of the bench is highly suitable for supporting structures. Soils toward the base of slopes may be somewhat thicker than those on the bench due to creep and erosion from the slope above. It is also possible that seepage down the slope created local areas of dampness that may not have burned during past wildfires, and promoted thickening of the O, A and B soil horizons.

ES-M-19: The Action Alternative B Hilltop employee housing and support complex is planned for a relatively flat bench at the base of a long steep slope. The site for Hilltop housing is broad, largely cleared and relatively flat. The shallow bedrock would support additional development without significant adverse impacts from grading or clearing. The steep slopes to the north are underlain by strong bedrock with a very low landslide



The hard bedrock provides superior support for footings and foundations and the structures they support, even on very steep slopes.

Drainage and Groundwater

ES-M-20: Though difficult to achieve on steep slopes with little soil, some infiltration of stormwater can be expected in the upland areas. Backfilled bioretention areas with weep walls are one feasible option of attenuating peak flows and removing stormwater contaminants from runoff. Traditional swales or grassed infiltration areas will likely be suitable for development in the “core” area, though if soils are too permeable they may need to be amended to provide better treatment.

ES-M-21: Because Action Alternative B would create a less extensive expansion to the hotel “core”, parking requirements would be less extensive than under Action Alternative A. Action Alternative B has a distinct advantage over Action Alternative A because it does not require large parking areas. Smaller parking lots require smaller bioswales which can perform better and be more easily integrated into landscaping. The Eastsound Library and Island Bank are good examples of buildings and parking lots that use small bioswales blended into landscaping. Most people do not realize that the landscaping is treating stormwater runoff.



The bioswale/infiltration trench is in the foreground and crossed by a pedestrian bridge to the left. The use of wisteria or other vegetation to extend the roofline creates cover without creating more impervious surface. Bioswales can be attractively landscaped.

The amount of impervious surface created by Action Alternative B is greater than for the No Action Alternative, but this would be offset by the environmental benefits of improving the management of existing stormwater runoff. Action Alternative B allows treatment of existing stormwater runoff with bioswales and the use of less toxic roofing materials. Less stormwater would be created in the hotel “core” than in Action Alternative A.

Action Alternative B does not include the additional 5000-square foot conference center and associated parking proposed in Action Alternative A. Again, the smaller parking areas allow for smaller bioswales, and these can be easily excavated in the relatively permeable shelly earth of the marina terrace.

ES-M-22: New roads in the upper basin areas serving proposed Woodland Cottages should be as narrow as possible, using thick blankets of crushed rock, pervious pavers, or pervious pavement to reduce or eliminate runoff. Lining roadside ditches with quarry spalls or crushed rock would minimize soil erosion. Where possible, road surfaces can be outsloped to allow stormwater to sheet flow into vegetation.



Existing roads cut directly into native earth, without the placement of a gravel mat or asphalt pavement, are a source of turbid stormwater runoff.

ES-M-23: Action Alternative B would add 83 vacation cottages dispersed throughout the “core” area and in the upland/woodland areas. Mitigation measures for loss

of trees and increase in impervious surfaces can include building homes and cottages on piles to minimize disturbance of soils and increase the area available for infiltrating stormwater, use of level spreaders for infiltration (where there is adequate soil), and use of rain barrels, earth roofs, mound systems, pervious paved surfaces, and pollution-free building materials.

ES-M-24: New development will be required to satisfy state and local stormwater management regulations pertaining to the control and treatment of stormwater runoff. On areas of steep slopes, special engineered structures may be necessary. Examples include conveying stormwater from roofs to level spreaders uphill of structures. Foundations or piles could be directly attached to the bedrock so that seepage of water around foundations would not weaken them. Daylight basements could be designed to resist fluid pressures associated with sandy backfill, and instead of footing drains roofs can discharge to the sand foundation backfill for infiltration. Stormwater could be routed to the fill around the structure and/or to fill within the footing itself. Alternatively, if attachment to bedrock is not possible, foundations will be poured on crushed rock overlying bedrock to allow migration of runoff along natural flow paths. The use of backfilled weep walls down slope of the building could also be considered. The use of any of the methods outlined above and other similar methods would be subject to structural engineering review and approval by the County Building Official.

ES-M-25: In addition to the mitigation examples included in ES-M-24, stormwater runoff could be stored in basement-like storage space under buildings. These spaces could be constructed as cisterns or as sand filled foundations, capped with a vapor barrier to prevent moisture from affecting wooden floor joists etc. Cisterns under residential structures are used elsewhere in the County to provide a potable water source, but in this application it would be used for stormwater detention. The use of this method of stormwater management would need to be engineered and would be subject to structural engineering review and approval by the County Building Official.

ES-M-26: Cottages will be located on sites where excavation will have minimum impacts on groundwater flow (e.g., knobs, dry slopes).

ES-M-27: The dispersed Woodland Cottages will require subsurface utilities. Utility trenches that are successfully excavated into the bedrock may also serve as French drains, which will capture groundwater diverted to new points of discharge creating locally wetter and drier areas. Trench dams may be needed to prevent the capture of groundwater and sustain natural groundwater flow paths. Shallow trenches back filled with CDF will require less blasting and hoe-ramming. Thus noise will be minimized, the excavation may cost less and interruption of groundwater flow paths can be minimized.

ES-M-28: Action Alternative B would increase capacity to 120 seasonal employee beds and add a resort overflow parking area near the employee housing (see Section 3.9 – Transportation). Cascade Lake is downstream so discharged stormwater must be treated before it flows into this lake. Mitigation measures include installation of an infiltration system to collect stormwater from a paved parking area and roofs in order to filter and reduce contaminated runoff going into Cascade Lake. Parking areas will not be sealed, but instead will use a blanket of 6 to 12 inches of crushed rock or sandy crushed rock. Pervious pavement and pavers will be utilized as permitted by County codes. The Hilltop parking and storage areas will also be surrounded by bioswales to treat runoff and provide some detention. Using bioswales and minimizing the area of detention/retention ponds will minimize the temperature gains typically experienced in open ponds and maximize infiltration and groundwater storage.

ES-M-29: Employees will not be allowed to perform vehicle maintenance activities that would potentially release contaminants to the ground at the Hilltop. To prevent potential wildfire and resulting damage to the watershed, outdoor fires will not be allowed on the hilltop. These provisions will be enforced by Rosario’s Human Resources Department which oversees employee housing.

ES-M-30: On-site sewage disposal systems, if they can be made to work in the shallow soil environment, may help the summer groundwater budget and mitigate for some of the clearing.

ES-M-31: To effectively control stormwater, a Conceptual Stormwater Management Plan has been developed according to the standards and guidelines contained the Stormwater Management Manual for Western Washington (Ecology 2005) and the San Juan County Unified Development Code (see Appendix G).

3.3.3.4 Analysis and Conclusions about Mitigation Measures and Management Practices

Soils, Slopes and Geology

Under the No Action Alternative, existing erosion and runoff problems will likely continue to effect surface water quality. If the Resort were sold and the area converted to other uses, there would be additional impacts from the new development.

Development associated with Action Alternatives A and B will also have negative consequences to soils, slopes, and geology. These can, however, be minimized through the use of careful site

design and planning, by the use of effective erosion control practices, and by incorporating proven stormwater management technologies that promote infiltration and treatment of runoff. Under Action Alternatives A and B, the negative consequences of new development will be partially offset by improvements to the Resort properties.

Drainage and Groundwater

The No Action Alternative would not improve existing stormwater treatment facilities for the Resort. The amount of impervious surfaces would remain the same or increase if the site were sold and redeveloped, though new development would be required to meet current regulations governing stormwater management.

Action Alternative A would create a more centralized resort development in the “core”, which requires more space for treatment of runoff. Swales in the “core” area may be more difficult to locate due to the outcroppings of bedrock and higher density of development. Action Alternative A has fewer employees living at the Hilltop facilities than Action Alternative B, and this may reduce the potential for forest fires and contamination of Cascade Lake. Both Action Alternatives A and B will include the use of non-toxic roofing materials and pervious pavements that would minimize the quantity of contaminants in runoff.¹

Action Alternative B utilizes more dispersed development and places a greater emphasis on smaller cottage development. The Growth Management Act strongly promotes densification, although attendant centralized treatment and infiltration can be less effective than the benefits of distributed systems. Infiltration in the wooded areas farther from the shorelines, and distributed bioswales treating runoff in the shoreline management zone, will serve to preserve the natural hydrogeologic conditions and reduce contaminant runoff.

3.3.4 Other Management Practices

3.3.4.1 No Action Alternative

ES-OMP-1: The No Action Alternative will not require management practices to control storm, surface or ground water quantity or quality.

3.3.4.2 Action Alternative A

ES-OMP-2: Action Alternative A will require the monitoring of bioswales receiving stormwater from large parking areas.

ES-OMP-3: All new construction will meet the Department of Ecology’s Stormwater Manual for Western Washington.

ES-OMP-4: A larger marina will require U.S. Army Corps of Engineers permits and 401 Certification from the state Department of Ecology, thus the project will meet the very strict state water quality standards addressing impacts pursuant to WAC 197-11-158, which encourages lead

¹ While no specific studies have been conducted to measure the effects of the copper roof and solder on the Mansion, elimination of these roofing materials are expected to reduce the level of contamination.

agencies to rely on local, state or federal laws that provide analysis of and mitigation for specific adverse environmental impacts.

3.3.4.3 Action Alternative B

In addition to the Other Management Practices listed under Action Alternative A, this alternative will require:

ES-OMP-5: Action Alternative B will also minimize invasive species in cleared areas by retaining tree canopies. Additionally, the control of campfires and automobile repairs at the Hilltop is proposed to limit impacts to soils and hydrology.

3.3.5 Cumulative Impacts

3.3.5.1 Soils Slope and Geology

Building pads and the structures they support, can be designed in a way to have minimal long-term impacts on the environment. However there is a threat of potential long-term and cumulative impacts if on-site cottage and surrounding land owners demand clearing in upland areas in order to improve views. Removal of large conifers with robust canopies would reduce canopy storage of precipitation and increase the volume of water reaching the ground surface and also reduce shade. Thus, in the winter, the ground may be wetter and more susceptible to erosion and shallow sloughing; in the summer it may be drier and more susceptible to a fire which could burn off and sterilize the soil.

3.3.5.2 Drainage and Groundwater

Cumulative impacts of the hilltop development include increased risk of fire, the potential for invasive species in the warmer soils at the edges of the clearing and the risk of groundwater or water quality degradation due to release of contaminants from vehicles. Persistent higher runoff peaks from cleared areas and impervious surface could cause limited incision in streams leading to Cascade Lake, with resulting turbidity and potential development of small alluvial fans into Cascade Lake. The alluvial fans may actually be a habitat enhancement for the lake given that past raising of lake levels drowned alluvial fans and deltas that developed over the 14,000 years since glaciation, and that may have been important habitat for aquatic animals.

3.3.6 Unavoidable Significant Adverse Impacts

3.3.6.1 Soils Slope and Geology

No unavoidable significant adverse impacts were identified. Adverse impacts include increased recreational use of the site resulting in a potential increase in the risk of wildfire. Clearing will provide sunshine to the forest floor and raise soil temperatures which can encourage the germination of invasive species.

3.3.6.2 Drainage and Groundwater

No unavoidable significant adverse impacts were identified. Natural surface water and groundwater flow paths will be subject to disruption where the subsurface soils are disturbed or altered by construction, and the volume of water reaching the ground surface during the winter may increase. However, infiltrating runoff without causing flooding or erosion would not adversely impact water quality. Limited clearing could allow summer rain to reach the ground surface without canopy interception, possibly benefiting existing vegetation and increasing groundwater storage and seepage. The risk of a wildfire caused by human activity increases with the number of people visiting the Resort and the number of employees at the Hilltop tract. Burning of the forest and loss of the shallow soil in areas draining to Cascade Lake could result in significant water quality degradation that would harm wildlife and could make water treatment for potable supply difficult and costly.

3.4 WATER AND SEWER

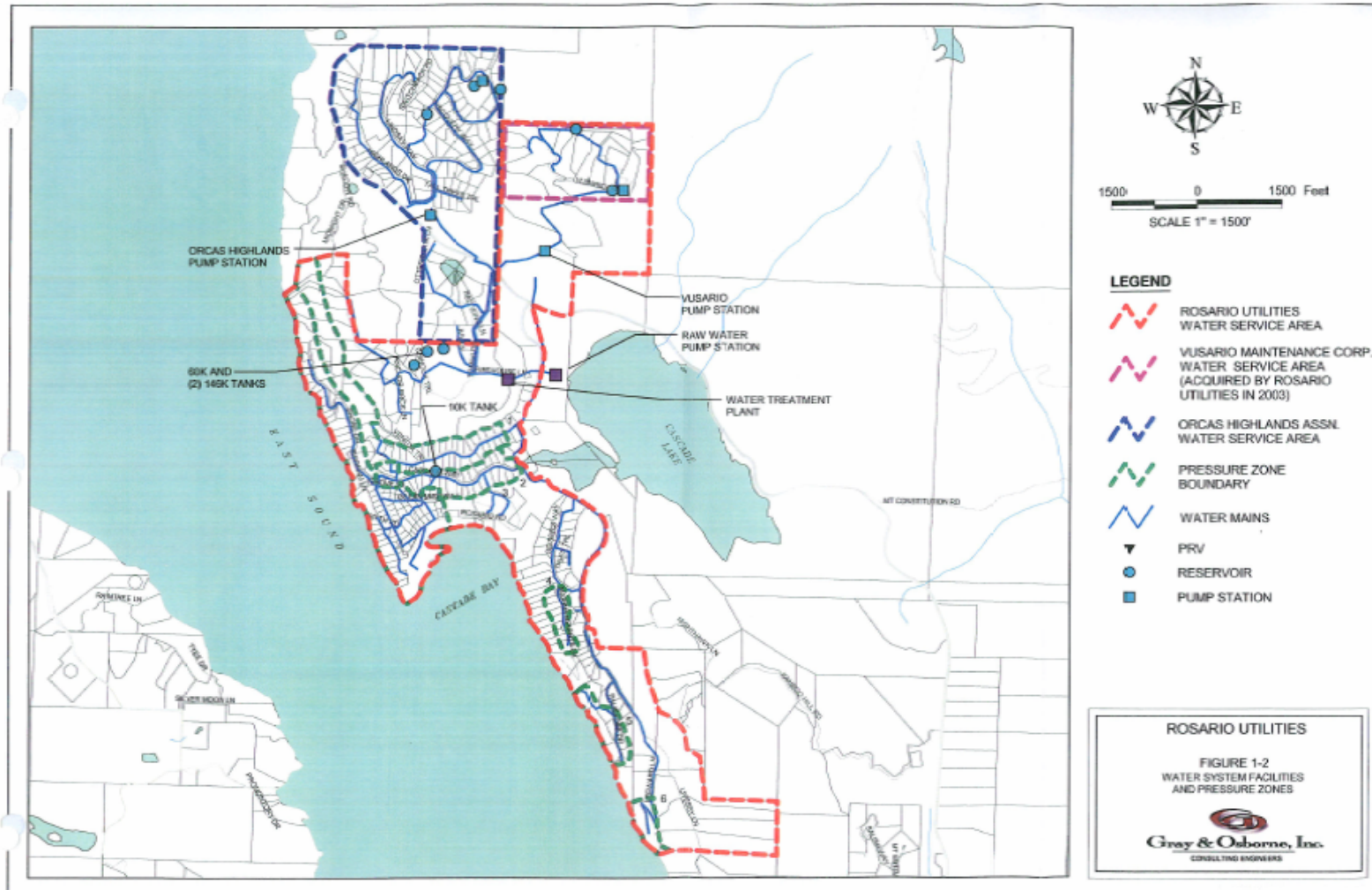
This section addresses potential impacts to supply, treatment, and distribution of potable water and sanitary sewer service. The calculations, unit counts, and tables provided in this section are based on data contained in the February 2005 Rosario Utilities General Sewer Plan and Engineering Report and the March 2004 Rosario Utilities Water System Comprehensive Plan. The 2005 General Sewer Plan was based on unit counts provided in the 2004 version of the proposed Rosario Master Plan. The 2004 comprehensive water plan uses unit counts that are different than those currently proposed. The differences in unit counts do not materially affect the demand versus supply analysis set out below. In general, the water treatment plant and portions of the water system would require upgrades under all three alternatives. Fewer upgrades would be required under the No Action Alternative than in either of the Action Alternatives. The sewer treatment plant and sewer system will also require upgrades under all three alternatives. Under the No Action Alternative, the upgrades would be confined to correcting existing system deficiencies. No additional treatment plant capacity would be required. Under both Action Alternatives, existing deficiencies would need to be corrected. Additionally, the treatment plant capacity would also need to be increased.

3.4.1 Affected Environment

3.4.1.1 Domestic Water Supply, Treatment Capacity, and Distribution

The Master Planned Resort (MPR) planning area and other properties outside the MPR are served by the Rosario Utilities water system, which is a Group A water system owned by the same company that owns the Resort. The Rosario Utilities water system is regulated by both the Washington Utilities and Transportation Commission, which oversees customer service charges and rates, and by the Washington State Department of Health, which oversees the design, construction, and operation of Group A water systems. The approved water service area of the Utility is larger than the area covered by the RMP. Most of the water service connections provided by Rosario Utilities outside the RMP area are residential connections.

Rosario Utilities has a responsibility to provide water service within its designated service area under the terms of its operating rules. The Utility has an approved Comprehensive Water System Plan, as required by Department of Health regulations. The plan was updated in March, 2005, by Gray & Osborne, Inc. Figure 1-2 taken from the water system plan shows the current water service area boundary.



Rosario Utilities Water Service Area (Figure 1-2 from Comprehensive Water System Plan)

The water system source of supply is Cascade Lake, with supplemental diversion from Mountain Lake at a point on Cascade Creek. Both lakes are managed by use of control dams. Water is withdrawn from Cascade Lake by a pump station. Several reports indicate that the Rosario Utilities' water system has excess supply and the potential to provide potable water supply to broader use on Orcas Island (San Juan Water Resource Management Plan, San Juan County Multi-Purpose Surface Water Storage Assessment WRIA 2), as discussed in Rosario Utilities' 2003 6-Year Water Plan.



Rosario Utilities Water Intake on Cascade Lake

RH2 Engineering performed an independent water budget assessment in 2005. Utilizing existing precipitation data, and given the large storage capacity of both Mountain Lake and Cascade Lake, it was concluded that the water system does have surplus supply as well as adequate supply to meet current demands, even in dry years. Rosario Utilities has significant water rights of approximately 1,879 acre-feet (or 612,274,000 gallons) per year. The total water right includes 1,591 acre-feet per year for power generation, 5 acre-feet per year for irrigation, and 283 acre-feet per year for domestic use. Total withdrawals over the past several years have been about 1,300 acre-feet per year. Currently withdrawals for domestic water use are about 128 acre-feet per year.

The water is treated at the Rosario Utilities' Water Treatment Plant located on the Utility Tract. The treatment process is a conventional filtration plant with coagulation, removal of the coagulated particles with dissolved air floatation, and filtration through a media bed. The water is then disinfected using Ozone, circulated through a large diameter pipe to allow disinfection contact reaction time, treated with ultra violet light to remove excess Ozone, and chlorinated to provide the required measurable chlorine residual in the distribution system. The existing treatment plant is producing water that meets the standards for a public water supply.



Rosario Utilities Water Treatment Plant

Rosario Utilities has three large storage reservoirs with 352,000-gallon total capacity and a small 10,000-gallon tank.² The distribution system is 40,250 feet of pipe ranging from 2.0 to 8.0 inches. Pipe material is predominantly PVC and C-900, although there is some Asbestos Cement and Polyethylene pipe in the system.³ The system information provided indicates there is higher-than-normal, “unaccounted-for” water. The cause is not clear, and may be true leakage, inaccurate water accounting or metering, or a combination. Leakage is an ongoing maintenance issue due to aging infrastructure that will need to be addressed as part of system expansion.



Rosario Utilities Water Storage Reservoirs

A common method for analyzing a water system is to define water demand in terms of Equivalent Residential Unit (ERU). The value of an ERU is calculated for an individual water system by taking the total average daily residential water use for the system and dividing by the number of residential connections. The result is an average daily consumption rate for a residential unit measured in gallons per day. The water use by non-residential water users such as the Resort, can then be equated to a whole number and/or fraction of an ERU by dividing the user’s average daily water use by the calculated ERU value. This results in an equivalent ERU number that can be used to provide a convenient comparison of water demand for different types of water users. Based on water usage figures for the years 2000 and 2001, the ERU value for the Rosario Water System was 273 gpd (Grey & Osborne, Inc 2004). This figure was calculated using demand based on water system readings and production based on the amount of treated water that was produced at the plant. The method used results in an ERU value that is a combination of actual demand per residence as determined by meter readings (193 gpd) and “unaccounted-for” water (about 80 gpd average for the years 2000 and 2001).

3.4.2 Water Rights

3.4.2.1 Sanitary Sewer Treatment

The RMP planning area and other properties outside the MPR are served by the Rosario Utilities sewer system, which is also owned by the owners of the resort. Rosario Utilities sewer system is regulated by the Washington State Department of Ecology, which approves the design, engineering and operation of the facility and issues the requisite National Pollution Discharge Elimination System (NPDES) permit for the discharge of treatment plant effluent to Cascade Bay. Unlike the water system, the sewer service area is almost completely comprised of the Rosario Resort and the Cascade Harbor properties. The system serves ten private residences and

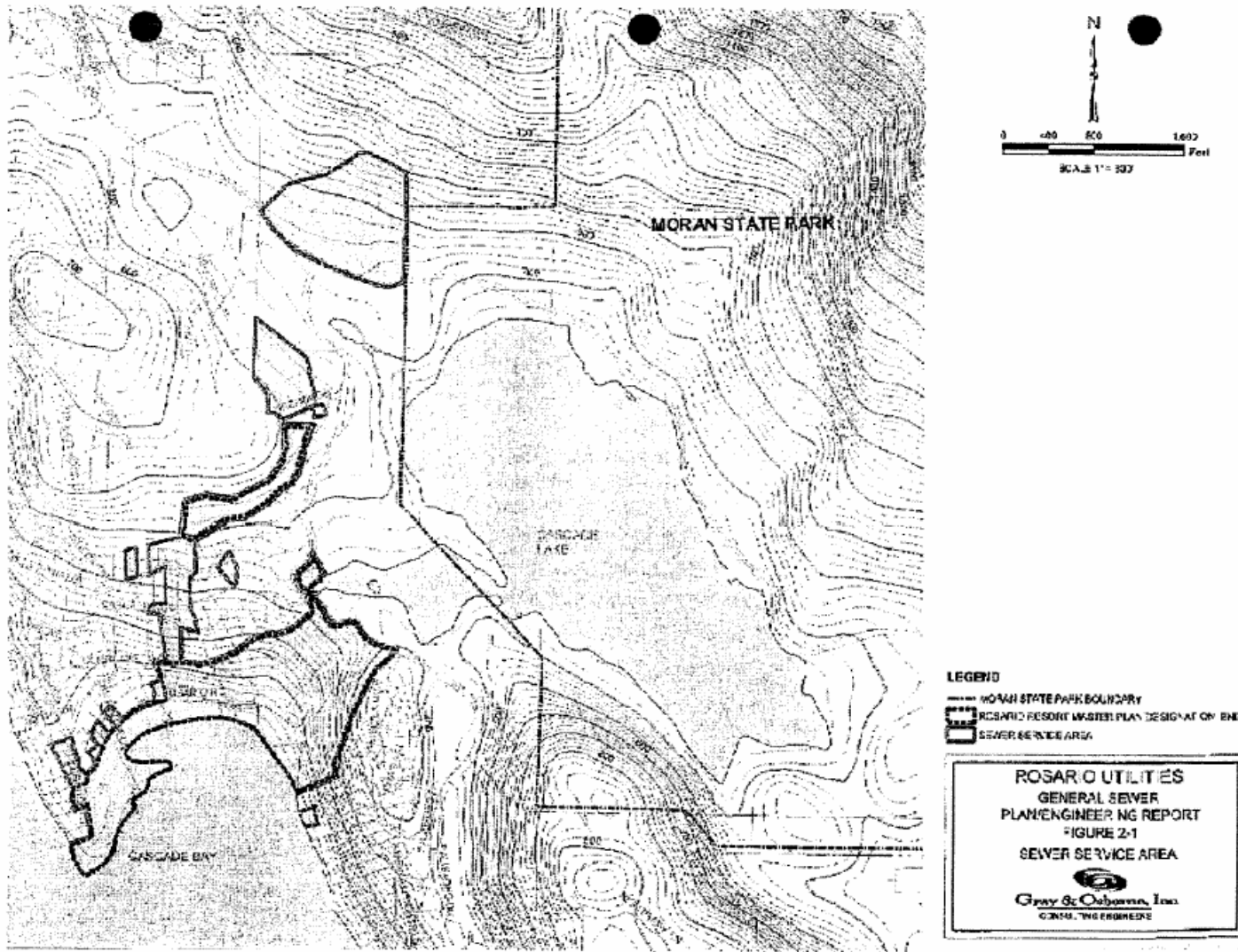
² Gray & Osborne, Inc., 2004. Rosario Utilities Water System Comprehensive Plan. Table 1-4, p 1-8

³ Ibid. Table 1-6, p 1-10

a fire station that are not located in the RMP but are located adjacent to the sewer force mains that connect the lift stations to the treatment site. The utility has agreements to serve ten additional existing lots and 12 future building sites on a plot of land north of the treatment site.⁴ The treatment plant also serves Moran State Park and provides treatment for the backwash from the water treatment plant. The utility is operating under a Draft General Sewer Plan/Engineering Report. The report was completed in February 2005 by Gray & Osborne, Inc. Figure 2-1 from that document is provided to illustrate the sewer service area.

The wastewater treatment facility has had violations of its NPDES permit over the last several years, including exceedances of effluent limitations and bypass (release) of sewage from lift stations. Rosario Utilities has an administrative order from the Washington State Department of Ecology issued September 15, 2003, requiring short-term improvements. Rosario Utilities is implementing these short-term improvements. Oly-Rose LLC, as the owners of Rosario Utilities, also entered into a consent decree with Puget Soundkeeper Alliance in August 2003 to make certain improvements to the wastewater treatment facility to assure compliance with their NPDES permit.

⁴ Gray & Osborne, Inc., 2005. Draft General Sewer Plan/Engineering Report. p 2-8, 9



Rosario Utilities General Sewer Plan (Figure 2-1 from Draft General Sewer Plan/Engineering Report)

The wastewater system is comprised of sewer force mains, four lift stations, a grinder pump station, two cell lagoon treatment plants (aerated and facultative), a chlorine contact chamber, a Parchal flume and a marine outfall.⁵ The point of the outfall is listed in the NPDES permit as being 200 feet offshore at a depth of 60 feet below MLLW. Customers are responsible for connecting to the sewer lines owned and maintained by the Utility. The Utility owned Mansion and Dockside Lift Stations discharge via force main to the Boatel Lift Station,⁶ which pumps the wastewater from that service zone up the hill to the treatment facility site. The Hilltop lift station pumps wastewater from the employee housing area via force main to the treatment plant. A gravity sewer line connects the Hillside Condominiums to the Boatel Lift Station. Treated sludge that accumulates in the lagoons over a period of years and is periodically removed and disposed of at an approved disposal site.

The marine waters of San Juan County are all classified as AA (excellent) under Washington State Code. However, water quality studies conducted on Orcas Island indicate localized water quality violations. Water quality samples at stations in Buck Bay, East Sound and West Sound show fecal coliform, TSS and temperature reading that exceed standards for AA waters (DOE Water Quality Data Compilation and TMDL Ranking for the San Juan Islands).⁷ Low dissolved oxygen and high nutrient levels were also recorded by DOE at an ambient monitoring station near Rosario (Part 1: San Juan County Watershed Management Action Plan).⁸

Wastewater treatment plants are designed to effectively treat a maximum specific volume of water with maximum contaminant loadings. The Biological Oxygen Demand (BOD₅) is the measure of biological content of the incoming flow, and the Total Suspended Solids (TSS) is a measure of the solids content of the flow. Both measures are stated in pounds per day of load, and the plant is designed to treat those components at the design flow rate to at least achieve the discharge permit conditions. The design criteria for the existing plant are summarized in Table 3.4-1.⁹

**TABLE 3.4-1:
DESIGN CRITERIA FOR EXISTING WWTF**

Parameter	Design Criteria
Design Flow (maximum month)	71,000 gal/day
Influent BOD ₅ Loading (maximum month)	237 lbs/day
Influent TSS Loading (maximum month)	178 lbs/day

Discharge from the plant is regulated under the NPDES permit administered by the Department of Ecology. The permit establishes maximum values for several sewage components for average

⁵ Ibid. p 1-2

⁶ Ibid. p 6-8

⁷ DOE Water Quality Data Compilation

⁸ San Juan County Health and Community Service and the Washington Department of Ecology, 2000. San Juan County Watershed Management Action Plan.

⁹ Gray & Osborne, Inc., 2005. Draft General Sewer Plan/Engineering Report. Table 4-3, p 4-7

monthly, average weekly and maximum daily. The NPDES permit limitations for the existing plant are summarized in Table 3.4-2.¹⁰

**TABLE 3.4-2:
CURRENT NPDES EFFLUENT LIMITATIONS**

Parameter	Average Monthly	Average Weekly	Maximum Daily
BOD ₅	30 mg/L (18 lbs/day)	45 mg/L (27 lbs/day)	N/A
TSS	75 mg/L (45 lbs/day)	110 mg/L (65 lbs/day)	N/A
Fecal Coliform	200/100 mL	400/100 mL	N/A
pH	6.0 to 9.0	6.0 to 9.0	6.0 to 9.0
Total Residual Chlorine	N/A	N/A	1.0 mg/L

The comprehensive sewer plan contains several projects to upgrade the condition of the sewer system. The largest item, replacement of the leaking liner of Pond #2, was completed in 2005.

The planning and comparison purposes, wastewater flows, BOD₅, and TSS have been computed for an Equivalent Residential Unit (ERU) for the Rosario Utility sewer system. These ERU's are based on treatment plant data. The flow ERU is 268 gallons per day The BOD₅ ERU is 0.44 pounds per day and the TSS ERU is 0.44 pounds per day.¹¹

3.4.3 Environmental Impacts

3.4.3.1 No Action

Domestic Water Supply, Treatment Capacity and Distribution

The water system service area includes customers and future customers that must be served regardless of the RMP decision. The utility also has a responsibility to provide adequate water for existing customers, including the RMP components, whether or not they actually are using the water. With this condition as a basis, the evaluation of the No Action Alternative's impact to the water system is based on total development build-out of the service area under the existing land use designation.

To be conservative, the No Action Alternative for the water system assumes the Rosario Resort and Cascade Harbor Inn operations will remain with no greater water demand than today. The remainder of the service area will develop at an overall rate of 4 percent per year.¹² Included in the analysis is the assumption that approximately 16 percent of the single-family residential connections will also have an Accessory Dwelling Unit (ADU), as is typical for San Juan County overall. Due to lack of data, an ADU is assumed to use the equivalent water as an ERU.¹³ Rosario Utilities has sold several connections that have not yet connected to the water system.

¹⁰ Ibid. Table 4-4, p 4-8

¹¹ Gray & Osborne, Inc., 2004. Rosario Utilities Water System Comprehensive Plan. p 5-4

¹² Ibid. p 2-10

¹³ Ibid. p 2-13

These are listed as reserved connections. Table 3.4-3 summarizes the values for the various customer classes for the build-out condition.

**TABLE 3.4-3:
SUMMARY OF EQUIVALENT RESIDENTIAL UNITS – NO ACTION**

Customer Type	2004 ERU	Reserved ERU	Growth ERU	Build-Out ERU
Rosario Resort	118	0	0	118
Cascade Harbor Inn	14	4	0	18
Residential	251	37	99	387
Residential w/ADU	NA	12	38	50
TOTAL	383	53	137	573

Note: Build-Out in this table refers to the Resort, not the utility.

Most components of a water system are directly related to the number of connections and the water demand as expressed by the ERU value. Water rights typically have two controlling values: the instantaneous quantity (Qi), expressed in gallons per minute (gpm); and the annual quantity (Qa), expressed in acre-feet per year (a-f/y). Neither value can be exceeded legally under the conditions of the water right. Other water system considerations are treatment plant capacity, storage volume and the distribution system pipe network. A summary of the water utility under current conditions and build-out without the RMP is provided in Table 3.4-4.

**TABLE 3.4-4:
SUMMARY OF WATER UTILITY FACILITIES – NO ACTION^A**

Parameter	Existing ^b	2004 Required	Surplus/ (Deficit)	MPR Build- Out ^c	Surplus/ (Deficit)
Source of Supply - Qi	330 gpm	199 gpm	131 gpm	298 gpm	32 gpm
Source of Supply - Qa	283 a-f/y	128 a-f/y	155 a-f/y	192 a-f/y	91 a-f/y
Treatment Capacity	200 gpm	190 gpm	10 gpm	285 gpm	(85) gpm
Storage	352,000 gal	147,150 gal	204,850 gal	292,300 gal	59,700 gal

a - Ibid. Chapter 3

b - Does not include ADU values.

c - Includes ADU projection.

Note: Build-Out in this table refers to the Resort, not the utility.

As shown, with no increase in current Resort-water use, there is the need for Rosario Utilities to provide additional treatment capacity in order to provide for growth in the remaining portions of the system. The existing water treatment plant is rated at 220 gallons per minute, but is limited to 200 gallons per minute by the capacity of the raw water supply pipe.

Several pipe size deficiencies were identified in the water system plan under the planning conditions, which included the Rosario Resort and Cascade Harbor Inn expansions identified under the 2000 Edition of the RMP (Action Alternative A). Although the model run with the “no change” scenario was not discussed in the Water System Plan, the small pipe sizes present in the distribution system indicate that a water main upgrade program should be considered for the water system under the No Action Alternative. A computer simulation of the No Action

Alternative conditions will provide definitive answers. The water system plan also identified several locations where the water system has excessive pressure and additional pressure reducing valves should be installed.

Sewer Treatment

Similar to the water system, for analysis and comparison purposes, wastewater flow rates are often converted to equivalent residential units ERU's. In addition to flow rates, certain constituents of the wastewater flow, particularly the 5-day BOD₅ and TSS, are also converted to residential equivalent units. This results in three separate ERU types: flow-based ERUs, BOD₅-based ERUs, and TSS-based ERUs. Therefore, after determining the flow-based ERU, a BOD₅-based ERU and TSS-based ERU are also calculated.

To be conservative, the No Action Alternative for the sewer system assumes that the operation of Rosario Resort and Cascade Harbor Inn remain no greater than current water use. With the limited service area for the sewer utility, and no plans to expand that area, the build-out condition will consist of only adding the connections for which there are current contractual obligations to serve. This will increase the Utility's connected units by approximately 10 percent. Table 3.4-5 summarizes the No Action impact on the Utility's unit count.

**TABLE 3.4-5:
SUMMARY OF CURRENT UNITS – NO ACTION ALTERNATIVE^A**

Customer Type	2004 Units	MPR Build-Out
Rosario Resort (rooms/suites)	130	130
Rosario Resort (cottages)	2	2
Cascade Harbor Inn	50	50
Hilltop Housing	5	5
Single Family Homes	11	33
Marina Slips	0	0
Moran State Park	1	1
Water Treatment Backwash	1	1
TOTAL	200	222

a - Gray & Osborne, Inc., 2005. Rosario Utilities Draft General Sewer Plan/Engineering Report. Table 2-3, p 2-12

Note: Built-Out in this table refers to the Resort, not the utility.

The unit count must be converted to an ERU for analysis of the system's ability to provide adequate service. As with the water system, the condition for the sewer utility is the build-out of the service area. Table 3.4-6 summarizes the flow and BOD₅ relationship based on the respective ERU calculation, using the values presented in the General Sewer Plan. Flow factors used for conversion are the same as used in the General Sewer Plan.

**TABLE 3.4-6:
EQUIVALENT RESIDENTIAL UNITS – NO ACTION**

Parameter	ERU	Flow Factor	Flow ERU	BOD ₅ Unit Factor	BOD ₅ ERU
Rosario Resort (rooms/suites)	130	0.95	123.5	0.95	123.5
Rosario Resort (cottages)	2	1.00	2	1.00	2
Cascade Harbor Inn	50	0.95	47.5	0.95	47.5
Hilltop Housing	5	1.00	5	1.00	5
Single-Family Homes	33	1.00	33	1.00	33
Marina Slips	0	0.07	0.0	1.00	0
Moran State Park	1	69	69	1.5	103.5
Water Treatment Backwash	1	67	67	0	0
TOTAL ERU	222		347		314.5

To understand the impact of the build-out condition on the existing facilities, the plant design criteria are compared to the future conditions. Table 3.4-7 summarizes the flow, BOD₅ and TSS peak-day treatment plant loadings for current conditions and the build-out condition compared to the plant design values.

**TABLE 3.4-7:
SUMMARY OF TREATMENT PLANT UTILIZATION – NO ACTION**

Parameter	Design Value	Current Peak	Percent Utilization	Build-Out Projected	Projected Percent Utilization
Influent BOD ₅ (lbs/day)	237	120	50.6%	153	64.5%
Influent TSS (lbs/day)	178	89	50.0%	98	55.0%
Flow (gal/day)	71,000	48,300	68.0%	59,496	83.8%

Note: Build-Out in this table refers to the Resort, not the utility.

No capital facility improvements are necessary to accommodate the No Action Alternative. At build-out, the current facility will operate at a Level of Service (LOS) B.¹⁴ As previously discussed, there are several projects noted in the sewer plan that are currently in process, but they do not provide for additional growth.

3.4.3.2 Action Alternative A

Domestic Water Supply, Treatment Capacity and Distribution

This analysis includes the MPR developments identified for Action Alternative A. Included in the analysis is the assumption that approximately 16 percent of the residential connections will also have an Accessory Dwelling Unit (ADU), as is typical for San Juan County overall. Due to

¹⁴ EDAW, Inc., 2004. Draft Rosario Resort Master Plan, Volume II, Appendix D, SEPA Checklist. p D-15

lack of data, an ADU is assumed to use the equivalent water as an ERU.¹⁵ Rosario Utilities has sold several connections that have not yet connected to the water system. These are listed as reserved connections. Table 3.4-8 provides the summary of resort expansion expressed as ERU.

**TABLE 3.4-8:
RESORT EXPANSION EQUIVALENT RESIDENTIAL UNITS – ACTION ALTERNATIVE A^A**

Action	Master Plan Units	Replaced Units	Net Growth Units	Growth Unit ERU Factor ^b	Net Expansion ERU
New Guestrooms near Mansion	250	43	207	95%	197
New Home Sites (Hillside)	8	0	9 ^c	100%	9
Expand Cascade Harbor Inn	48	0	48	95%	46
Replace and Expand Marina	145	34	111	33%	37
TOTAL Resort ERU	451	77	375		289

a - Adapted from Table 2.3-1 in Section 2.3

b - Gray & Osborne, Inc., 2004. Rosario Utilities Water System Comprehensive Plan. p 2-11

c - Assumes 1 lot with ADU per San Juan County 16% typical.

Evaluation of the future impact of the proposed project is best illustrated by adding the proposed growth in ERU to the existing ERU basis. Table 3.4-9 summarizes the value for the build-out condition for the various customer classes.

**TABLE 3.4-9:
SUMMARY OF EQUIVALENT RESIDENTIAL UNITS – ACTION ALTERNATIVE A**

Customer Type	2004 ERU	Reserved ERU	Growth ERU	Build-Out ERU
Rosario Resort & Staff Housing	118	0	243	367
Cascade Harbor Inn	14	4	46	64
Residential	251	37	99	381
Residential w/ADU	NA	12	38	50
TOTAL	383	53	426	862

Note: Build-Out in this table refers to the Resort, not the utility.

The important considerations for a water utility are instantaneous and annual water supply, treatment capacity and finished water storage. A summary of the water utility under current conditions and the future build-out status with RMP Action Alternative A is provided in Table 3.4-10.

¹⁵ Gray & Osborne, Inc., 2004. Rosario Utilities Water System Comprehensive Plan. p 2-13

**TABLE 3.4-10:
SUMMARY OF WATER UTILITY FACILITIES – ACTION ALTERNATIVE A**

Parameter	Existing ^a	2004 Required	Surplus/ (Deficit)	Build-Out Alternate A	Surplus/ (Deficit)
Source of Supply - Qi	330 gpm	199 gpm	131 gpm	453gpm	(123) gpm
Source of Supply - Qa	283 a-f/y	128 a-f/y	155 a-f/y	292 a-f/y)	(9) a-f/y
Treatment Capacity	200 gpm	190 gpm	10 gpm	473 gpm	(273) gpm
Storage	352,000 gal	147,150 gal	204,850 gal	506,400 gal	(154,400) gal

a - Does not include ADU values.

Note: Build-Out in this table refers to the Resort, not the utility.

As shown, Action Alternative A requires Rosario Utilities to provide additional instantaneous and annual water supply as well as significant treatment capacity and potable water storage, in order to provide for projected growth. Since this is the modeled condition used in the Water System Plan, the Capital Improvement Plan contained in the plan is assumed appropriate. The Utility has adjudicated water rights for other water uses, such as irrigation and hydropower, which should be easily converted to domestic water supply. There is not a significant cost anticipated for this water right change in use. Expansion of the treatment plant will be required, which will probably require expansion of the existing building. Additional storage can be accommodated at the existing reservoir site.

Sewer Treatment

Action Alternative A, presented in the 2000 Resort Master Plan document, is not the scenario addressed in the 2005 Draft General Sewer Plan/Engineering Report prepared by Gray & Osborne, Inc. Unit values from that document were used to develop the analysis of the Action Alternative A Sewer System Analysis. As with the No Action Alternative, resort expansion is stated in units. Table 3.4-11 compares the current sewer utility unit configuration with the projected unit count at build-out.

**TABLE 3.4-11:
SUMMARY OF CURRENT UNITS – ACTION ALTERNATIVE A**

Customer Type	2004 Units	Build-Out Units
Rosario Resort (rooms/suites)	130	250
Rosario Resort (cottages)	2	8
Cascade Harbor Inn	50	98
Hilltop Housing	5	5
Single-Family Homes	11	33
Marina Slips	0	145
Moran State Park	1	1
Water Treatment Backwash	1	1
TOTAL	200	541

Note: Build-Out in this table refers to the Resort, not the utility.

The unit count must be converted to ERU values for analysis using flow and load factors. Table 3.4-12 summarizes the flow and BOD₅ relationship based on the respective ERU calculation, using the values presented in the General Sewer Plan. The future water treatment plant backwash flow is estimated to be approximately 2.3 times the current flow, due to necessary plant expansion based on the relative treatment capacity.

**TABLE 3.4-12:
EQUIVALENT RESIDENTIAL UNITS – ACTION ALTERNATIVE A**

Parameter	ERU	Flow Factor	Flow ERU	BOD ₅ Unit Factor	BOD ₅ ERU
Rosario Resort (rooms/suites)	250	0.95	238	0.95	238
Rosario Resort (cottages)	8	1.00	8	1.00	8
Cascade Harbor Inn	98	0.95	93	0.95	93
Hilltop Housing	5	1.00	5	1.00	5
Single-Family Homes	33	1.00	33	1.00	33
Marina Slips	145	0.07	10	1.00	145
Moran State Park	1	69	69	1.5	103.5
Water Treatment Backwash	2.3	67	154	0	0
TOTAL ERU	542.5		610		625.5

The number of ERU’s for build-out must be converted to plant flow and loading values to evaluate the impact. Peak flow is assumed to be 268 gallons per day for each ERU. TSS and BOD₅ are assumed to be 0.44 pounds per day per ERU, as used in the General Sewer Plan. Table 3.4-13 summarizes the flow, BOD₅ and TSS peak-day treatment plan loadings compared to the plant design values.

**TABLE 3.4-13:
SUMMARY OF TREATMENT PLANT UTILIZATION – ACTION ALTERNATIVE A**

Parameter	Design Value	Current Peak	Percent Utilization	Build-Out Projected	Projected Percent Utilization
Influent BOD ₅ (lbs/day)	237	120	50.6%	275	116%
Influent TSS (lbs/day)	178	89	50.0%	268	150%
Flow (gal/day)	71,000	48,300	68.0%	163,480	230%

Note: Build-Out in this table refers to the Resort, not the utility.

The current Boatel pump station and the treatment plant are not adequate for Action Alternative A development. Expansion of both facilities will be required.

3.4.3.3 Action Alternative B

Domestic Water Supply, Treatment Capacity and Distribution

Action Alternative B is the applicants’ preferred alternative for Rosario Resort and Cascade Harbor Inn. Rosario Utilities has sold several connections that have not yet connected to the

water system. These are listed as reserved connections. In the following analysis the build-out date is assumed to be 2017. Based on estimates provided in the 2004 water system plan, by the year 2017 there would be approximately 437 retail and wholesale residential customers in addition to the estimate Resort build-out of 293 ERU's for a total of 730 ERU's by the year 2017. Table 3.4-14 provides the summary of resort expansion expressed in Units and ERU's.

**TABLE 3.4-14:
RESORT EXPANSION EQUIVALENT RESIDENTIAL UNITS – ACTION ALTERNATIVE B^A**

Action	New Units Planned	Number of Units Replaced	Net Growth in # of Units	Unit to ERU Conversion Factor	Net Increase in ERU's
New Employee Housing	40 ^b		40	25%	10
Renovate Mansion and build Mansion Annex	21	44	(23)	95%	(22)
Moran Cottages, Mini-Mansions, Penthouses	27		27	100%	27
Marina View Facilities	51		48	95%	46
Hillside Cottages	16		16 ^c	100%	16
Build Marina	165	34	131	33%	43
Woodland Cottages	21		21	100%	21
Cascade Harbor Inn Expansion	48		48	29%	14
TOTAL Resort ERU	389	78	310		157

a - Adapted from Table 2.3-2 in Section 2.3

b - 2 beds per suite, personal communication with Mike Usen.

c - Assumes 2 lots with ADU per San Juan County 16% typical.

This Action Alternative results in less future ERU's from the RMP than Action Alternative A. This reduction will reduce the size of water system improvements necessary. Table 3.4-15 provides a breakdown of the service area water demand in ERU's by customer class. The Resort total of 293 ERU's is obtained from that table below by combining the total for Cascade Harbor Inn (32 ERU's) and the total for Rosario Resort (261 ERU's). The ADU value is calculated as a percentage of single-family residential development only.

**TABLE 3.4-15:
SUMMARY OF EQUIVALENT RESIDENTIAL UNITS – ACTION ALTERNATIVE B**

Customer Type	2004 ERU	Reserved ERU	Growth ERU	Build-Out ERU
Rosario Resort	118	0	143	261
Cascade Harbor Inn	14	4	14	32
Residential	251	37	99	387
Residential w/ADU	NA	12	38	50
TOTAL	383	53	294	730

Note: Build-Out in this table refers to the Resort, not the utility.

Table 3.4-16 provides a summary of the capacity of the current system in relationship to the year 2004 (current) demand and the build-out demand (year 2017). Using the projected number of ERU's and a value of 273 gpd per ERU, the daily water demand on the system at build-out of the resort (year 2017) would be about 199,290 gpd or about 223 a-f/yr as shown in the table below. Assuming a peaking factor of about 2.5 percent, the system would need to be capable of providing for an instantaneous demand of about 346 gpm. The storage requirement is calculated using Department of Health standards and assumes that the additional water supply rights are obtained and the treatment capacity is built. The comparison of the build-out condition to the current use is summarized in Table 3.4-16.

**TABLE 3.4-16:
SUMMARY OF WATER UTILITY FACILITIES – ACTION ALTERNATIVE B**

Parameter	Existing ^a	2004 Required	Surplus/ (Deficit)	Build-Out Year 2017 Alternative B ^b	Surplus/ (Deficit)
Source of Supply - Qi	330 gpm	199 gpm	131 gpm	346 gpm	(16) gpm
Source of Supply - Qa	283 a-f/y	128 a-f/y	155 a-f/y	223 a-f/y	60 a-f/y
Treatment Capacity	200 gpm	190 gpm	10 gpm	330 gpm	(130) gpm
Storage	352,000 gal	147,150 gal	204,850 gal	481,700 gal	(129,700) gal

a - Does not include ADU values.

b - Gray & Osborne, Inc., 2004. Rosario Utilities Water System Comprehensive Plan. Chapter 3

Note: Build-Out in this table refers to the Resort, not the utility.

As Table 3.4-16 shows, if the capacity of the system were to remain unchanged, by the year 2017 the Utility would have a shortage in instantaneous water supply, treatment capacity and storage. In order to provide for the additional growth anticipated from the build-out of the resort and the additional demand of retail and wholesale water users, the Utility will need to provide additional treatment and storage capacity and would need to apply for and receive an increase in the instantaneous withdrawal portion of its domestic water right. The current annual withdrawal portion of its domestic water right of 283 a-ft/yr appears to be adequate at least to the year 2017. As noted previously, in addition to the domestic water rights, the Rosario Utility has a substantial water right to the same water sources for the production of electricity. In the past, rights have been transferred from the electrical production water rights to domestic water rights. It is anticipated that additional domestic water rights would be obtained in the same fashion.

Sewer Treatment

The sewer system analysis process used for Action Alternative A was also used for Action Alternative B. As with the No Action Alternative, Resort expansion is stated in units. Table 3.4-17 compares the current sewer utility unit configuration with the projected unit count at build-out.

**TABLE 3.4-17:
COMPARISON OF CONNECTED UNITS – ACTION ALTERNATIVE B**

Customer Type	2004 Units	Build-Out Units
Rosario Resort (rooms/suites)	130	100
Rosario Resort (cottages)	2	118
Cascade Harbor Inn	50	98
Hilltop Employee Housing	5	25
Single-Family Homes	11	33
Marina Slips	0	165
Moran State Park	1	1
Water Treatment Backwash	1	2.3
TOTAL	200	542.3

Note: Build-Out in this table refers to the Resort, not the utility.

Table 3.4-18 summarizes the flow and BOD₅ relationship at build-out, based on the respective ERU calculation, using the values presented in the General Sewer Plan.

**TABLE 3.4-18:
EQUIVALENT RESIDENTIAL UNITS – ACTION ALTERNATIVE B**

Parameter	Units	Flow Factor	Flow ERU	BOD₅ Unit Factor	BOD₅ ERU
Rosario Resort (rooms/suites)	100	0.95	95	0.95	95
Rosario Resort (cottages)	118	1.00	118	1.00	118
Cascade Harbor Inn	98	0.95	93	0.95	93
Hilltop Employee Housing	25	1.00	25	1.00	25
Single-Family Homes	33	1.00	33	1.00	33
Marina Slips	165	0.07	11.5	1.00	165
Moran State Park	1	69	69	1.5	103.5
Water Treatment Backwash ^a	2	67	134	0	0
TOTAL ERU	542		578.5		632.5

a - Provides for expansion of water treatment plant required for this alternative.

Table 3.4-19 summarizes the flow, BOD₅ and TSS peak-day treatment plant loadings compared to the plant design values.

**TABLE 3.4-19:
COMPARISON OF TREATMENT PLANT UTILIZATION – ACTION ALTERNATIVE B**

Parameter	Design Value	Current Peak	Percent Utilization	Build-Out Projected	Projected Percent Utilization
Influent BOD ₅ (lbs/day)	237	120	50.6%	278	104%
Influent TSS (lbs/day)	178	89	50.0%	255	143%
Flow (gal/day)	71,000	48,300	68.0%	155,100	218%

Note: Build-Out in this table refers to the Resort, not the utility.

The current Boatel and Hilltop pump stations and the treatment plant are not adequate for the projected Action Alternative B development.

3.4.3.4 Summary

Domestic Water Supply, Treatment Capacity and Distribution

For ease of comparing the alternatives, Table 3.4-20 summarizes the impacts of the actions as they relate to water supply, treatment capacity and distribution.

**TABLE 3.4-20:
COMPARISON OF WATER UTILITY DATA – ALL ALTERNATIVES**

Parameter	Existing	No Action	Action Alternative A	Action Alternative B
Equivalent Residential Units	383	574	862	730
Source of Supply - Qi	330 gpm	199 gpm	453 gpm	346 gpm
Qi Surplus/(Deficit)	131 gpm	33 gpm	(123) gpm	(16) gpm
Source of Supply - Qa	283 a-f/y	128 a-f/y	292 a-f/y	a-f/y
Qa Surplus/(Deficit)	155 a-f/y	91 a-f/y	(9) a-f/y	24 a-f/y
Treatment Capacity	200 gpm	285 gpm	473 gpm	384 gpm
Capacity Surplus/(Deficit)	10 gpm	(85) gpm	(273) gpm	(184) gpm
Storage	352,000 gal	292,300 gal	506,400 gal	481,700 gal
Storage Surplus/(Deficit)	113,448 gal	59,700 gal	(154,400) gal	(129,700) gal

Sewer Treatment

For ease of comparing the alternatives, Table 3.4-21 summarizes the environmental impacts of the actions as they relate to sewer treatment.

**TABLE 3.4-21:
COMPARISON OF SEWER UTILITY DATA – ALL ALTERNATIVES**

Parameter	Existing	No Action	Action Alternative A	Action Alternative B
Connected Units	200	222	541	542.3
Flow ERU	335	347	610	578.5
Peak Flow (gallons per day)	48,300	59,496	163,480	155,100
Percent of Design Value Used	68.0%	83.8%	230.0%	218.0%
Peak BOD ₅ ERU	312.5	314.5	625.5	632.5
Projected Peak BOD ₅ Demand	120	153	275	278
Percent of Design Value Used	50.6%	64.5%	116.0%	104.0%
Projected TSS Load (lb)	89	98	268	255
Percent of Design Value Used	50.0%	55.0%	150.0%	143.0%

Action Alternative A and Action Alternative B will require additional sewer treatment capacity. The General Sewer Plan/Engineering Report prepared by Gray & Osborne discusses the ability of the sewer system to approximately double the treatment capacity (flow) by the addition of baffles in the second facultative lagoon. Non-construction related impacts of the treatment plant expansion are minimal. The Comprehensive Plan does not indicate that modification or replacement of the existing marine outfall is necessary. There are other relatively minor improvement projects described more completely in the previously referenced sections of the EIS with full details in the referenced comprehensive sewer planning document.

The treated water discharge to the waters of the State is regulated by a NPDES Permit issued by the Department of Ecology. The most recent permit is dated October 19, 2005, and is valid for a 5 year period. The permit contains limits on the rate and total loading of parameters regulated by the permit and is intended to provide protection of the receiving water.

3.4.4 Mitigation Measures

3.4.4.1 No Action Alternative

Domestic Water Supply, Treatment Capacity and Distribution

Although the No Action Alternative does not require mitigation for RMP activities, there is a documented need for water system improvements. The estimated capital costs to the water system for the identified improvements are listed in Table 3.4-22. These are costs the water utility will incur to provide water service to its service area, as required, without any additional demand from the RMP development.

**TABLE 3.4-22:
WATER SYSTEM CAPITAL COSTS – NO ACTION ALTERNATIVE^A**

Improvement	CIP Project No.	Cost Estimate
Install additional Filter Unit at Water Treatment Plant	T-1	\$98,100
Replace existing 10,000 gallon reservoir with 20,000	ST-1	\$76,800
Construct additional 25,000 gallon reservoir	Replaces ST-2	\$100,000
Inspect and reline existing corrugated metal reservoirs	ST-3	\$91,600
Water Main Replacement and Upgrade (raw water supply)	D-1	\$119,100
Water Main Replacement and Upgrade (small main replacement)	D-5	\$95,400
4-inch PRV on Palisades Drive	PRV-1	\$5,600
4-inch PRV near Mansion	PRV-2	\$5,600
4-inch PRV below Cascade Way	PRV-3	\$5,600
Update Mapping		\$5,000
TOTAL		\$602,800

a - Gray & Osborne, Inc., 2004. Rosario Utilities Water System Comprehensive Plan. Table 2-12, p 2-13

WS-M-1: A water rate impact analysis should be performed if the resorts do not continue to operate at the same level of water use as current. Only the commodity-related rate components will decrease with a decrease in water sales. The majority of the Utility’s expenses is independent of quantity and is allocated to the user classes.

WS-M-2: If Rosario Resort closes, the utility operating costs will need to be reallocated and a rate increase is probable.

Sanitary Sewer Treatment

No capital facilities for sewer treatment are necessary for the No Action Alternative. The Utility has a major maintenance project, Lagoon #2 liner replacement that was recently accomplished. Capital maintenance costs that are necessary for the No Action Alternative are listed in Table 3.4-23.

**TABLE 3.4-23:
SEWER TREATMENT CAPITAL COSTS – NO ACTION**

Improvement Name	Description	Cost Estimate
WWTF Short-Term Lagoon Project	Remove sludge and replace liner	\$583,500
TOTAL		\$583,580

As in the water portion of the utility, operational costs are distributed to the various users in the form of rates. The existing Rosario Resort operation is the major component of the sewer utility rate income. If Rosario decreases or eliminates its operation, the allocation of costs will need to be redistributed.

WS-M-3: In the case of the sewer utility, the loss of Rosario Resort income will significantly increase the rates for the few remaining customers.

3.4.4.2 Action Alternative A

Domestic Water Supply, Treatment Capacity and Distribution

The implementation of Action Alternative A will require additional water system improvements beyond those necessary for the No Action.

WS-M-4: There will also be the need to convert a portion of the existing water rights from power generation and irrigation to domestic supply. The change in purpose of use is typically a routine event. The utility has significant adjudicated water rights that are not subject to relinquishment. The development will not require additional water withdrawal rights, only a change in the use of the water.

The estimated capital costs to the water system for the identified improvements are listed in Table 3.4-24.

**TABLE 3.4-24:
WATER SYSTEM CAPITAL COSTS – ACTION ALTERNATIVE A^A**

Improvement	CIP Project No.	Cost Estimate
Install additional Filter Unit at Water Treatment Plant	T-1	\$98,100
Replace DAF unit and upsize raw water pump system	T-2	\$690,200
Replace existing 10,000 gallon reservoir with 20,000	ST-1	\$76,800
Construct New 100,000 gallon Reservoir	ST-2 Modified	\$270,000
Inspect and reline existing corrugated metal reservoirs	ST-3	\$91,600
Water Main Replacement and Upgrade (1400 lf)	D-1	\$119,100
Water Main Replacement and Upgrade (1800 lf)	D-2	\$276,800
Water Main Replacement and Upgrade (1100 lf)	D-3	\$89,100
Water Main Replacement and Upgrade (850 lf)	D-4	\$68,500
Water Main Replacement and Upgrade (small main replacement)	D-5	\$95,400
Water Main Replacement and Upgrade (Cascade Way to small Reservoir)	D-6	\$130,100
4-inch PRV on Palisades Drive	PRV-1	\$5,600
4-inch PRV near Mansion	PRV-2	\$5,600
4-inch PRV below Cascade Way	PRV-3	\$5,600
Update Mapping	MISC-1	\$5,000
TOTAL		\$2,027,500

a -Gray & Osborne, Inc., 2004. Rosario Utilities Water System Comprehensive Plan. Table 9-1.

Sanitary Sewer Treatment

Action Alternative A will result in flow and sewage loading well in excess of the current plant and pumping facilities ability to provide. Table 3.4-25 summarizes the capital costs projected necessary to provide service.

**TABLE 3.4-25:
SEWER SYSTEM CAPITAL COSTS – ACTION ALTERNATIVE A**

Improvement	Cost Estimate
Boatel Lift Station Upgrade	\$413,000
Standby Power for Mansion, Dockside and Boatel Lift Stations	\$183,000
Boatel Force Main Replacement	\$39,000
Treatment Plant Expansion ^a	\$610,900
TOTAL	\$1,245,900

a - Gray & Osborne, Inc., 2004. Rosario Utilities Water System Comprehensive Plan. Table 9-1.

The treatment plant expansion value used in the Comprehensive Plan assumes that flow will be reduced through conservation and more efficient use of water, so it is not sized to accommodate the non-conservation projected flow value used in this analysis.

WS-M-5: Increased treatment capacity may result in increased levels of fixed nitrogen in the effluent. However, any increase in capacity at the sewer treatment plant would require state (and local) review of the comprehensive sewer treatment plan of that facility, which would include review of the effluent impacts. The facility must also obtain an updated NPDES permit from the Department of Ecology, which will insure that the outfall from that plant meets all applicable water quality standards under the federal and state Clean Water Acts.

3.4.4.3 Action Alternative B

Domestic Water Supply, Treatment Capacity and Distribution

Since the future scenario condition used in the Water System Plan is the same as Action Alternative B, the Capital Improvement Plan contained in the plan is assumed appropriate. In addition to the identified capital projects, a change in purpose of use for a portion of the existing non-domestic water rights will be necessary. This will not result in additional withdrawal authorization, only a change in the purpose the water is used for.

WS-M-6: The Utility has adjudicated water rights for other uses, such as irrigation and hydropower, which should be easily converted to domestic water supply. There is no significant cost anticipated for this water-right change.

The estimated capital costs to the water system for the identified improvements are listed in Table 3.4-26.

**TABLE 3.4-26:
WATER SYSTEM CAPITAL COSTS – ACTION ALTERNATIVE B^A**

Improvement	CIP Project No.	Cost Estimate
Install additional Filter Unit at Water Treatment Plant	T-1	\$98,100
Replace DAF unit and upsize raw water pump system	T-2	\$690,200
Replace existing 10,000 gallon reservoir with 20,000	ST-1	\$76,800
Construct New 60,000 gallon Reservoir	ST-2 Modified	\$130,000
Inspect and reline existing corrugated metal reservoirs	ST-3	\$91,600
Water Main Replacement and Upgrade (1400 lf)	D-1	\$119,100
Water Main Replacement and Upgrade (1800 lf)	D-2	\$276,800
Water Main Replacement and Upgrade (1100 lf)	D-3	\$89,100
Water Main Replacement and Upgrade (850 lf)	D-4	\$68,500
Water Main Replacement and Upgrade (small main replacement)	D-5	\$95,400
Water Main Replacement and Upgrade (Cascade Way to small Reservoir)	D-6	\$130,100
4-inch PRV on Palisades Drive	PRV-1	\$5,600
4-inch PRV near Mansion	PRV-2	\$5,600
4-inch PRV below Cascade Way	PRV-3	\$5,600
Update Mapping	MISC-1	\$5,000
TOTAL		\$1,887,500

a - Gray & Osborne, Inc., 2004. Rosario Utilities Water System Comprehensive Plan. Table 9-1.

Sanitary Sewer Treatment

The sewer system cost for Action Alternative B is anticipated to be the same as that for Action Alternative A with the addition of the Hilltop lift station project.

**TABLE 3.4-27:
SEWER SYSTEM CAPITAL COSTS – ACTION ALTERNATIVE B**

Improvement	Cost Estimate
Boatel Lift Station Upgrade	\$413,000
Standby Power for Mansion, Dockside and Boatel Lift Stations	\$183,000
Boatel Force Main Replacement	\$39,000
Hilltop Lift Station Replacement	\$90,000
Treatment Plant Expansion ^a	\$610,900
TOTAL	\$1,335,900

a - Gray & Osborne, Inc., 2004. Rosario Utilities Water System Comprehensive Plan. Table 9-1.

The treatment plant expansion value assumes that flow will be reduced through conservation and more efficient use of water, so it is not sized to accommodate the non-conservation projected flow value.

Before and after future wastewater treatment plant expansion, Rosario Utilities will continue to meet all discharge level requirements of all regulated substances administered by the State Department of Ecology.

3.4.4.4 Summary of Mitigation

Table 3.4-28 is provided as a quick summary of the mitigation costs to Rosario Utilities for build-out development of the three planning scenarios. Not all of the costs, especially the water related ones, are directly attributable to the RMP. Cost allocation for major maintenance and capital components will be distributed to the classes of users in accordance with applicable regulations and industry standards. However, to mitigate the demands for increased overall usage of the RMP development, a systematic approach to infrastructure that will benefit Rosario Utilities’ customers regardless of whether they are Resort guests or locally served residents will be required as part of project implementation. In addition to system upgrades, this will also include addressing existing leaks.

**TABLE 3.4-28:
COMPARISON OF UTILITY MITIGATION COST – ALL ALTERNATIVES**

Parameter	No Action Alternative	Action Alternative A	Action Alternative B
Water Supply, Treatment and Distribution	\$602,800	\$2,091,500	\$1,887,500
Sewer Treatment	\$583,500 ^a	\$1,245,900	\$1,335,900
Total Fiscal Impact	\$1,186,300	\$3,337,400	\$3,223,400

a - Major Maintenance cost, common to all alternatives, does not increase capacity.

3.4.4.5 Concurrency and Level of Service¹⁶

Domestic Water Supply, Treatment Capacity and Distribution

The Capital Facilities Element of the San Juan County Comprehensive Plan (SJCCP) defines the Rosario Utilities water system as a Category A capital facility. Category A services must meet the concurrency requirement of the SJCCP, which means that adequate water services and facilities must be available as development occurs. The Plan states, “For those Category A capital facilities that the County does not provide but which are necessary for development, the concurrency requirement will be implemented through the issuance (or denial) of development permits” (Section 7.1.D). Goals and policies related to planning for community water systems, as well as level of service (LOS) standards, are set forth in Section 7.3.B of the Plan.

The SJCCP provides LOS standards for community water systems serving Master Planned Resort activity centers. LOS Standards for Rosario Utilities as provided in the SJCCP are listed in Table 3.4-29.

¹⁶ EDAW, Inc., 2005. Rosario Resort Master Plan, Volume 2, Appendix D.

**TABLE 3.4-29:
LEVEL OF SERVICE STANDARDS**

Category and Capital Facility	LOS A	LOS B	LOS C	LOS D	LOS E	LOS F
Rosario Utilities Water System	< 80%	80%	85%	90%	95%	> 95%

According to the SJCCP, the water system is currently operating at LOS B, or 82 percent capacity. Because the water treatment plant needs to be upgraded in time to be able to provide sufficient capacity to service the Resort expansion, Rosario Utilities plans to expand the water treatment plant in conjunction with upgrading the 4-inch line to an 8-inch line. These improvements will be sufficient to increase the system’s design capacity to handle development planned through Phase 1. Rosario Utilities was awarded a loan from the State of Washington to finance these two projects in mid-2004 and upgraded the plant to 280 gpm in 2005. A second treatment plant expansion will be required before beginning Phase 2 of the Resort development.

Consistent with 7.3.B-7 of the SJCCP Capital Facilities Element, Rosario Utilities has formal plans that address growth, system upgrades and build-out of its clearly defined service area in the form of its 6-year water system plan. These plans consider the two phases of water plant expansion up to and including build-out proposed in the Resort Master Plan, at which time the system will be at approximately 90 percent capacity and no additional development within the MPR boundaries will be allowed to occur. The 6-Year Water Plan has also considered the development capacity of the portion of the Rosario Activity Center within the boundaries of Rosario Utilities service area. All existing undeveloped lots have been accounted for and average densities exceed local permitted densities, so further subdivision is not possible. In addition, this service area is bordered by physical and jurisdictional limits including Moran State Park and East Sound, so expansion of the service area is not practical. For these reasons, there is no need to provide additional spare capacity at the time of build-out.

Sewer Treatment

No concurrency analysis of County-regulated LOS determination is necessary for the sewer system since this system is non-public and regulated by the State Department of Ecology.

Before and after future wastewater treatment plant expansion, Rosario Utilities will continue to meet all discharge level requirements of all regulated substances administered by the State Department of Ecology.

3.4.5 Other Management Practices

3.4.5.1 No Action Alternative

WS-OMP-1: The No Action Alternative does not propose additional management practices to provide improvements to water supply and treatment.

3.4.5.2 Action Alternatives

WS-OMP-2: The RMP proposes to implement the plan in phases to allow Rosario Utilities adequate time to design, permit and construct the necessary capital facility improvements.

3.4.6 Cumulative Impacts

3.4.6.1 Domestic Water Supply, Treatment Capacity and Distribution

The cumulative impact on the water system is the need to provide adequate water supply for the designated land uses within its service area. The land use and resulting development intensity are the controlling factors in the Water Utility's planning for the future. Because of the significant water rights held by the Utility, no additional water rights will be necessary; thus, no projected impact would occur to Cascade Lake from the change from power and irrigation to domestic supply. RH2 Engineers is completing a study (Rosario Water Budget Supply Analysis Report, 2005) that evaluates the available supply for domestic water of the existing Rosario Utilities' service area and other potential users (i.e., Eastsound). Preliminary results indicate that this supply is sufficient for projected demands.

Additional land coverage will be necessary for construction of additional water treatment capacity that cannot be contained in the existing structure. The same may be also true for the necessary additional storage, although that will depend on the location and design decisions made by the Utility.

3.4.6.2 Sanitary Sewer Treatment

There will be an increase in total discharge to Cascade Bay from the treatment plant expansion. The concentration of the discharge will be within the current NPDES limits.

3.4.7 Unavoidable Significant Adverse Impacts

3.4.7.1 Domestic Water Supply, Treatment Capacity and Distribution

Significant adverse impacts can be avoided or mitigated by sensitive design and project execution. There will be short-term impacts related to construction activities, which can be mitigated by use of appropriate Best Management Practices.

3.4.7.2 Sanitary Sewer Treatment

All significant adverse impacts can be avoided or mitigated by sensitive design and project execution. Alternate treatment methods, such as a modular treatment facility, could be considered that would likely result in a net reduction of area used for waste treatment, even at the increased capacity. However, alternative treatment methods are not reasonably foreseeable at this time. Future considerations may be made by the Resort based on system requirements and capacity. There will be short-term impacts related to construction activities, which can be mitigated by use of appropriate Best Management Practices.

3.5 PLANTS AND ANIMALS

This section describes general vegetation types and wildlife occurring within the Resort.

3.5.1 Affected Environment

3.5.1.1 Introduction

Rosario's natural environment is typical of coastal areas in the San Juan Islands, consisting of marine, intertidal, and upland areas. In general, most of the shoreline at Rosario has been developed, while steeply sloping upland areas are covered by dense, mature second-growth mixed coniferous forest. Lands comprising the Rosario MPR contain no flood-prone areas or significant aquifer recharge areas. Wetlands documented by the Washington Department of Fish and Wildlife (WDFW) in the vicinity of the Resort are limited to those associated with Cascade Lake. Cascade Lake is drained by Bowman's Creek (a.k.a. Cold Creek), an intermittent stream bisecting the center of the Resort. There is also a considerable amount of deepwater marine habitat along the 2,166 feet of shoreline, as well as shallow water habitat in Cascade Bay. In addition, a small percentage of the MPR has gradients exceeding 50 percent slopes. The steepest parts of the site are shoreline bluffs and hillside outcrops on the higher elevations of the site.

Portions of the site also contain terrestrial wildlife habitat. Priority species known to occur in the vicinity of Rosario include bald eagles, osprey, and Great Blue Herons. Cascade Bay is within territory transited by bald eagles, but observed nesting sites are more than 2,000 feet away from the center of the Resort (EDAW 2004). Bowman's Bluff and the other rocky cliffs on the east margin of the Rosario property are identified as potential suitable habitat associated with bald eagle and peregrine falcon nesting sites (EDAW 2004). However, these species have never been observed nesting on the Resort property during any recorded site visit.

3.5.1.2 General Wildlife and Vegetation

Table 3.5-1 lists plant species detected in the Rosario RMP study area with notes on their occurrence in the vicinity of the Resort.

**TABLE 3.5-1:
PLANT SPECIES OBSERVED DURING ENVIRONMENTALLY SENSITIVE AREAS RECONNAISSANCE**

Common Name	Scientific Name	Comments
Canopy Species		
Douglas-fir	<i>Pseudotsuga menziesii</i>	Mature 2 nd growth coniferous forest.
Western hemlock	<i>Tsuga heterophylla</i>	Mature 2 nd growth coniferous forest.
Bigleaf maple	<i>Acer macrophyllum</i>	Mature 2 nd growth coniferous forest.
Black cottonwood	<i>Populus balsamifera</i>	Disturbed forest and riparian areas.
Shore pine	<i>Pinus contorta</i>	Coastal grassland along Rosario Point.
Red alder	<i>Alnus rubra</i>	Disturbed forest and riparian areas.
Western red cedar	<i>Thuja plicata</i>	Mature 2 nd growth coniferous forest.
Understory Species		
Ocean spray	<i>Holodiscus discolor</i>	Coniferous forest understory species.
Salal	<i>Gaultheria shallon</i>	Coniferous forest understory species.
Oregon grape	<i>Mahonia nervosa</i>	Coniferous forest understory species.
Snowberry	<i>Symphoricarpos albus</i>	Coniferous forest understory species.
Salmonberry	<i>Rubus spectabilis</i>	Coniferous forest understory species.
Vine maple	<i>Acer circinatum</i>	Coniferous forest understory species.
Indian plum	<i>Oemleria cerasiformis</i>	Coniferous forest understory species.
Red elderberry	<i>Sambucus racemosa</i>	Coniferous forest understory species.
Sword fern	<i>Polystichum munitum</i>	Coniferous forest understory species.
Licorice fern	<i>Polypodium glycyrrhiza</i>	Coniferous forest understory species.
Lady fern	<i>Athyrium filix-femina</i>	Coniferous forest understory species.
Bracken fern	<i>Pteridium aquilinum</i>	Coniferous forest understory species.
Large leaf avens	<i>Geum macrophyllum</i>	Coniferous forest understory species.
Trailing blackberry	<i>Rubus ursinus</i> .	Native blackberry. Groundcover vine.
Thimbleberry	<i>Rubus parviflorus</i>	Coniferous forest understory species.
Wetland Areas		
Slough sedge	<i>Carex obnupta</i>	Hilltop parcel. Obligate wetland indicator status.
Soft rush	<i>Juncus effusus</i>	Hilltop parcel. Obligate wetland indicator status.
Stinging nettle	<i>Urtica dioica</i>	Hilltop parcel and disturbed forest. FACW status.
Skunk cabbage	<i>Lysichiton americanum</i>	Hilltop parcel. Obligate wetland indicator status.
Disturbed Areas		
Himalayan blackberry	<i>Rubus discolor</i>	Disturbed areas. Established at Rosario Point.
Evergreen blackberry	<i>Rubus laciniatus</i>	Disturbed areas. Established at Rosario Point.
Scotch broom	<i>Cytisus scoparius</i>	Disturbed areas. Established at Rosario Point.

Source: EDAW 2004

Table 3.5-2 below lists wildlife species detected in the RMP study area with notes on local occurrence as well as Threatened, Endangered, or Sensitive (TES) status.

**TABLE 3.5-2:
WILDLIFE OBSERVED DURING ENVIRONMENTALLY SENSITIVE AREAS RECONNAISSANCE**

Common Name	Scientific Name	Notes
Birds		
Common loon	<i>Gavia immer</i>	Cascade Bay. State Sensitive.
Western grebe	<i>Aechmophorous occidentalis</i>	Cascade Bay. State Candidate.
Double-crested cormorant	<i>Phalacrocorax auritus</i>	Common marine avian species.
Bufflehead	<i>Bucephala albeola</i>	Cascade Bay. Marine duck species.
Osprey	<i>Pandion haliaetus</i>	No status.
Bald eagle	<i>Haliaeetus leucocephalis</i>	Federally Threatened.
Glaucous-winged gull	<i>Larus glaucescens</i>	Common nearshore gull species.
Pigeon guillemot	<i>Cepphus columba</i>	Cascade Bay. Marine alcid species.
Rhinoceros auklet	<i>Cerorhinca monocerata</i>	Cascade Bay. Marine alcid species.
Great blue heron	<i>Ardea herodias</i>	Along shoreline.
Red-tailed hawk	<i>Buteo jamaicensis</i>	Breeds in vicinity.
Belted kingfisher	<i>Ceryle alcyon</i>	Shoreline avian species.
Northern flicker	<i>Colaptes auratus</i>	Forest woodpecker species.
Pileated woodpecker	<i>Dryocopus pileatus</i>	Forest woodpecker species. State Candidate.
Steller's jay	<i>Cyanocitta stelleri</i>	Forest and disturbed habitat.
American crow	<i>Corvus brachyrhynchos</i>	Forest and disturbed habitat.
Common raven	<i>Corvus corax</i>	Forest and disturbed habitat.
Black-capped chickadee	<i>Parus atricapillus</i>	Coniferous forest species.
Chestnut-backed chickadee	<i>Parus rufescens</i>	Coniferous forest species.
Bushtit	<i>Psaltiriparus minimus</i>	
Brown creeper	<i>Certhia americana</i>	Coniferous forest species.
Red-breasted nuthatch	<i>Sitta canadensis</i>	Coniferous forest species.
Winter wren	<i>Troglodytes troglodytes</i>	Coniferous forest species.
Golden-crowned kinglet	<i>Regulus satrapa</i>	Forest and disturbed habitat.
Ruby-crowned kinglet	<i>Regulus calendula</i>	Forest and disturbed habitat.
American robin	<i>Turdus migratorius</i>	Forest and disturbed habitat.
European starling	<i>Sturnus vulgaris</i>	Non-native invasive competitor species.
Orange-crowned warbler	<i>Vermivora celata</i>	Coniferous forest species.
Yellow-rumped warbler	<i>Dendroica coronata</i>	Forest and disturbed habitat.
Spotted towhee	<i>Pipilo erythrophthalmus</i>	Coniferous forest species.
Song sparrow	<i>Melospiza melodia</i>	Habitat generalist.
Dark-eyed junco	<i>Junco hyemalis</i>	Coniferous forest species.
White-crowned sparrow	<i>Zonotrichia leucophrys</i>	Forest and disturbed habitat.
Red-winged blackbird	<i>Agelaius phoeniceus</i>	Associated with wetlands and freshwater shorelines.
Brown-headed cowbird	<i>Molothrus ater</i>	Parasitic nester.

**TABLE 3.5-2:
WILDLIFE OBSERVED DURING ENVIRONMENTALLY SENSITIVE AREAS RECONNAISSANCE**

Common Name	Scientific Name	Notes
Pine siskin	<i>Carduelis pinus</i>	Forest and disturbed habitat.
American goldfinch	<i>Carduelis tristis</i>	Forest and disturbed habitat.
House finch	<i>Carpodacus mexicanus</i>	Disturbed and developed habitat.
Mammals		
Black-tailed deer	<i>Odocoileus hemionus</i>	WDFW game species.
Townsend's chipmunk	<i>Eutamias townsendi</i>	Coniferous forest species.
Harbor seal	<i>Phoca vitulina</i>	Cascade Bay. Marine mammal.

Source: EDAW 2004

3.5.1.3 Threatened, Endangered, and Sensitive Wildlife Species

Table 3.5-3 lists TES wildlife species and other state or federally listed species potentially occurring in the vicinity of Rosario Resort. Table 3.5-3 also includes information on the potential of occurrence for each species on Orcas Island and in the vicinity of Rosario Resort.

**TABLE 3.5-3:
TES WILDLIFE SPECIES POTENTIALLY OCCURRING IN THE VICINITY OF ROSARIO RESORT**

Common Name	Scientific Name	Group	State Status	Federal Status	Local Occurrence, Status and Distribution
Bald eagle	<i>Haliaeetus leucocephalus</i>	Bird	St	Ft	Commonly occurs in the vicinity of Rosario Resort. WDFW documented nest sites on Orcas Island greater than 2,000 feet from Resort property.
Black-crowned night-Heron	<i>Nycticorax nycticorax</i>	Bird	Sm	None	Known to occur on Orcas Island.
Brandt's cormorant	<i>Phalacrocorax penicillatus</i>	Bird	Sc	None	Potential occurrence in East Sound.
Caspian tern	<i>Sterna caspia</i>	Bird	Sm	None	Known to forage in and around East Sound.
Clark's grebe	<i>Aechmophorus clarkii</i>	Bird	Sm	None	Known to forage in and around East Sound.
Common loon	<i>Gavia immer</i>	Bird	Ss	None	Species is known to overwinter in East Sound. Detected during reconnaissance field study.
Common murre	<i>Uria aalge</i>	Bird	Sc	None	Known to occur in East Sound and Cascade Bay.
Forster's tern	<i>Sterna forsteri</i>	Bird	Sm	None	Known to occur in East Sound and Cascade Bay.
Great blue heron	<i>Ardea herodias</i>	Bird	Sm	None	Known to occur in East Sound and Cascade Bay. Detected during reconnaissance field study.
Great egret	<i>Ardea alba</i>	Bird	Sm	None	Known to occur in East Sound.
Green heron	<i>Butorides virescens</i>	Bird	Sm	None	Known to occur in East Sound.
Horned grebe	<i>Podiceps auritus</i>	Bird	Sm	None	Known to occur in East Sound and Cascade Bay.
Loggerhead shrike	<i>Lanius ludovicianus</i>	Bird	Sc	Fco	Uncommon species on Orcas Island.
Marbled murrelet	<i>Brachyramphus marmoratus</i>	Bird	St	Ft	Known to overwinter and forage on East Sound.
Merlin	<i>Falco columbarius</i>	Bird	Sc	None	Known to occur on Orcas Island.
Osprey	<i>Pandion haliaetus</i>	Bird	Sm	None	WDFW documented nest sites on Orcas Island greater than 2,000 feet from resort property.
Peregrine falcon	<i>Falco peregrinus</i>	Bird	Ss	Fco	Identified by WDFW as potentially occurring in the rocky cliffs surrounding Rosario resort. No documented nests on Orcas Island.
Pileated woodpecker	<i>Dryocopus pileatus</i>	Bird	Sc	None	Known to occur in the second growth forest of Orcas Island.

St=State Threatened Species; Ft=Federal Threatened Species; Sm=State Monitor Species; Sc=State candidate Species; Fco=Federal Species of Concern; Ss=State Sensitive Species. Washington State listings per WDFW. Federal listings USFWS birds and mammals.

**TABLE 3.5-3:
TES WILDLIFE SPECIES POTENTIALLY OCCURRING IN THE VICINITY OF ROSARIO RESORT**

Common Name	Scientific Name	Group	State Status	Federal Status	Local Occurrence, Status and Distribution
Red-necked grebe	<i>Podiceps grisegena</i>	Bird	Sm	None	Known to occur in East Sound and Cascade Bay.
Vaux's swift	<i>Chaetura vauxi</i>	Bird	Sc	None	Known to occur on Orcas Island during the breeding season.
Black rockfish	<i>Sebastes melanops</i>	Fish	Sc	None	Range includes the waters of Puget Sound and East Sound.
Bocaccio rockfish	<i>Sebastes paucispinis</i>	Fish	Sc	None	Range includes the waters of Puget Sound and East Sound.
Brown rockfish	<i>Sebastes auriculatus</i>	Fish	Sc	None	Range includes the waters of Puget Sound and East Sound.
Bull trout (Coastal/Puget Sound)	<i>Salvelinus confluentus</i>	Fish	Sc	Ft	Range includes the waters of Puget Sound and East Sound.
Canary rockfish	<i>Sebastes pinniger</i>	Fish	Sc	None	Range includes the waters of Puget Sound and East Sound.
China rockfish	<i>Sebastes nebulosus</i>	Fish	Sc	None	Range includes the waters of Puget Sound and East Sound.
Chinook salmon (Puget Sound)	<i>Oncorhynchus tshawytscha</i>	Fish	Sc	Ft	Range includes the waters of Puget Sound and East Sound.
Copper rockfish	<i>Sebastes caurinus</i>	Fish	Sc	None	Range includes the waters of Puget Sound and East Sound.
Yelloweye rockfish	<i>Sebastes ruberrimus</i>	Fish	Sc	None	Range includes the waters of Puget Sound and East Sound.
Dall's porpoise	<i>Phocoenoides dalli</i>	Mammal	Sm	None	Known to occur in East Sound.
Harbor seal	<i>Phoca vitulina</i>	Mammal	Sm	None	Known to occur in East Sound. Detected during reconnaissance field study.
Killer whale	<i>Orcinus orca</i>	Mammal	Sc	None	Known to occur in waters around the San Juan Islands including East Sound.
Steller sea lion	<i>Eumetopias jubatus</i>	Mammal	St	Ft	Known to occur in waters around the San Juan Islands including East Sound.
Myotis bat species	<i>Myotis sp.</i>	Mammal	Sm	Fco	Potential occurrence throughout the San Juan Islands.
Townsend's big-eared bat	<i>Corynorhinus townsendii</i>	Mammal	Sc	Fco	Potential occurrence throughout the San Juan Islands.

St=State Threatened Species; Ft=Federal Threatened Species; Sm=State Monitor Species; Sc=State candidate Species; Fco=Federal Species of Concern; Ss=State Sensitive Species. Washington State listings per WDFW. Federal listings USFWS birds and mammals.

Source: EDAW 2004

According to the WDFW Priority Habitat and Species database, the only species occurring within the Study Area that are federally listed as Threatened or Endangered by the U.S. Fish and Wildlife Service are the bald eagle (*Haliaeetus leucocephalis*) and the marble murrelet (*Brachyramphus marmoratus*).

Bald Eagle

The bald eagle is listed as threatened by the USFWS, although this species has been proposed for removal from the federal list of endangered and threatened wildlife (Federal Register 1999b, Vol. 64, No. 169). The species breeds across much of Canada, the Pacific Northwest, throughout the Great Lake states, and along the Eastern and Gulf coasts. Bald eagles are recovering as a breeding species in other areas of the interior of North America. Washington hosts one of the largest populations of wintering bald eagles in the lower 48 states as well as one of the largest populations of nesting pairs. The majority of birds occur in forested areas west of the Cascade Mountains (USDA 1990).

Early declines in bald eagle populations were attributed to human persecution and destruction of riparian, wetland, and conifer forest habitats. However the widespread use of organochlorine pesticides that caused eggshell thinning and subsequent reproductive failure was the most important factor in the decline of the species (Detrich 1985). Various legal and management measures, including restrictions placed on the use of organochlorine pesticides in 1972, development and implementation of the Pacific Bald Eagle Recovery Plan (USFWS 1986), and local bald eagle management plans, have contributed to the continuing recovery of bald eagle populations.

Bald eagles typically nest in stands of old-growth trees near large water bodies. Nests are often constructed in the largest tree in a stand with an open view of the surrounding environment. Nest trees are usually near water and have large horizontal limbs. Snags and dead-topped live trees may be important in providing perch and roost sites within territories. Because of their large size, eagles require ready access to an abundant supply of medium sized to large fish during breeding (Johnsgard 1990). Bald eagles winter along rivers, lakes, and reservoirs that support adequate fish or waterbird prey and have mature trees or large snags available for perch sites. Bald eagles often roost communally during the winter, typically in a stand of mature trees with an open branching structure and well developed canopies. Winter roost areas are usually isolated from human disturbance (Johnsgard 1990).

Bald eagles were observed within the Study Area during site visits (Robinson, personal communication 2005). It is likely that the mature second growth forest within and adjacent to the Resort provides perch and resting sites. There are no known bald eagles nests within the Study Area. The WDFW PHS database indicates that bald eagles are known to nest on Orcas Island – although no nest sites exist within 2,000 feet of the Resort property.

Marbled Murrelet

The marbled murrelet is listed as threatened by the USFWS. The North American subspecies of marbled murrelet occurs from the Aleutian Islands south along the coasts of Alaska, Washington, Oregon, and California. Its distribution is closely correlated with the presence of late

successional coastal forests (Carter and Erickson 1988, Nelson 1989, Paton and Ralph 1988, Sealy and Carter 1984). When at sea, marbled murrelets are mostly found within 1 mile of shore (Strachan et al. 1995). In Washington, the marbled murrelet is found in all near-shore marine environments, with the greatest concentrations found in the northern Puget Sound area (Washington Department of Wildlife 1993a).

The primary factor contributing to declines in populations of marbled murrelets is the loss and alteration of late successional coniferous forests, the species' primary nesting habitat, due to commercial timber harvest. Additional factors potentially contributing to population declines include reduced food availability (Burkett 1995) from human over-harvesting of fish (Ainley et al. 1995), direct mortality associated with gill-net fishing, predation, urbanization, and the effects of oil spills (Fry 1995, Carter and Kuletz 1995, Washington Department of Wildlife 1993a).

Murrelets live primarily in a marine environment but during the nesting season fly inland to nest in older forests. Murrelets typically nest in low-elevation old-growth and mature coniferous forests (Hamer 1995, Hamer and Cummins 1991). Once at sea, murrelets can be found as dispersed pairs or in flocks or aggregates (Strachan et al. 1995, Strong et al. 1996). Strong et al. (1996) found that most murrelets occurred within 1 mile of the shoreline, regardless of their age. However, hatch-year fledglings were closer to shore than the general population.

Marbled murrelets establish their nests high in older conifers with wide horizontal limbs. In Washington State, murrelets have been detected up to 50 miles inland from the coast, most typically adjacent to major drainages (Hamer and Cummins 1991). However, over 90 percent of all observations have been within 37 miles of the coast in the northern Washington Cascades (57 FR 15328-45337).

Although marbled murrelets have been known to nest in stands as small as 7.5 acres, the average nest stand size in Washington is 515 acres (Hamer and Nelson 1995), and large contiguous stands of suitable habitat are considered important to marbled murrelet recovery (USFWS 1996c). Marbled murrelet nests in Washington are usually found at elevations below 3,500 feet, within 40 miles of the nearest body of salt water (Hamer 1995), and in stands with old growth characteristics (Raphael et al. 1995).

Potentially suitable habitat exists within the Resort in Area 3 described below. There have been no reports of nesting murrelets within the Study Area; however U.S. Fish and Wildlife Service (USFWS) protocol-level surveys have not been conducted. USFWS protocol-level surveys are required for Federally listed species such as marbled murrelets. Because of its management history (i.e., logging) and development (i.e., no large stands of mature trees), the likelihood of nesting on the RMP site is low.

3.5.1.4 Other Species of Concern

The peregrine falcon (*Falco peregrinus*), a Washington State sensitive species and a Federal Species of Concern, and osprey (*Pandion haliaetus*), a Washington State monitor species, are known to occur within the Study Area. These two species would likely be the primary considerations for regulated management and required mitigation in association with proposed

development. Such mitigation would include timing restrictions on construction activities to avoid disturbing nesting adults with young. Prior to the initiation of development, consultation with both WDFW and San Juan County would be necessary to identify appropriate mitigation targeting protection of these two avian species.

WDFW identifies the rocky cliffs and bedrock ledges located along the east shore of East Sound as potential nesting habitat for the peregrine falcon. Osprey nests are generally built near productive bodies of water, and estimates of osprey hunting ranges extend to distances of 10 to 15 km (16-24 mi.) from the nest (Henny 1986, Poole 1989). Ospreys usually construct large stick nests in live trees or dead snags with flat, broken tops. These trees are typically as tall as, or taller than surrounding structures.

Sites that offer accessory perches within view of the nest are preferred (Zarn 1974).

There are no known nests for either of these species within the vicinity of the Resort.

The WDFW PHS database designates Cascade Lake as an area used by large aggregations of over-wintering waterfowl. Cascade Lake itself and its habitat value for area waterfowl is protected as a San Juan County Environmentally Sensitive Area.

A field reconnaissance of the entire MPR site and the Hilltop site divided the natural environment into six Areas of Concern: Rosario Point, Intertidal and Subtidal Shoreline Habitat, Upper Basin, Bowman's Creek, The Hilltop, and Tennis Court Site. Each of these is addressed below in greater detail.

3.5.2 Areas Associated with the Proposed Action

Figure 3-3 shows the location of six Areas of biological study. Areas were identified as areas potentially meeting criteria for San Juan County Environmentally Sensitive Areas and/or with natural resources that could affect site planning and regional development. Identified Areas are described in detail below.

3.5.2.1 AREA-1 – Rosario Point

The undeveloped areas of Rosario Point consist of grassland habitat unique to the San Juan Islands. This habitat type is defined by dry, open grassland with both native and exotic annual and perennial grass species, developed in a notably shallow soil base that has been wind-deposited over shoreline bedrock (see Section 3.3 – Earth and Stormwater). The shallow soil base often restricts the establishment of trees and vegetative species with a substantial root base. Tree species occurring in this habitat type are typically limited to sparse, weather-arrested hardy species such as shore pine (*Pinus contorta*) and madrone (*Arbutis menziesii*).

The nearshore grassland habitat of Rosario Point does not meet San Juan County Environmentally Sensitive Areas criteria due to the presence of invasive plant species. However AREA-1 is identified because of its potential for habitat restoration and mitigation. Non-native invasive weed species including scotch broom (*Cytisus scoparius*), Himalayan blackberry (*Rubus discolor*), and evergreen blackberry (*Rubus laciniatus*) have become established in the

nearshore grassland habitat of Rosario Point, especially in those areas located immediately adjacent to resort development. The value of this area to local wildlife is somewhat diminished in that it is a narrow strip of land located between the East Sound and the resort development. Efforts to restore this area would increase the benefits to local wildlife, including many bird species that utilize unique near-shore habitat for foraging. Without actions to remove and control these weed species, they will likely continue to be recruited into the Rosario Point nearshore grasslands, further diminishing the value of this unique habitat type for local wildlife.

3.5.2.2 AREA-2 – Intertidal and Subtidal Shoreline Habitat

Several sources of marine habitat information were consulted to determine the habitat characteristics of the intertidal and subtidal shoreline area of Cascade Bay. Neither the San Juan County Sensitive Area Maps nor the Washington State Department of Fish and Wildlife Priority Habitat and Species Database (WDFW PHS) show the presence of sensitive marine habitat areas in the immediate vicinity of Cascade Bay. Habitat mapping information available on the web sites of two local marine resource protection organizations (Friends of the San Juans and the San Juan County Marine Resource Committee) does not indicate that Cascade Bay is a significant marine habitat area. However, a staff person at Friends of the San Juans identified Cascade Bay as an area that in the past contained an eelgrass population (Whitman 2006). An underwater survey of a portion of the bay was conducted about 10 years ago in September of 1997 (see Appendix F). No eelgrass was observed in the study area, however, macroalgae specifically *Laminaria*, *Gracilaria*, *Ulva* and *Hedophyllum* was identified. Expansion of the existing marina will require that an up-to-date marine survey be completed based on the final design of the marina to document the tidal and subtidal habitat and to evaluate and mitigate potential impacts of the final design on the marine environment.

Washington Department of Fish and Wildlife has documented the presence of a herring spawning area along the west shore of East Sound across from Rosario Point. Although San Juan County Critical Area regulations do not classify or protect herring spawning areas per se as marine habitat areas, the County does classify eelgrass beds and kelp beds, both principal spawning habitat for herring, as marine habitat areas.

The environment of the bay shore and Rosario Point contains a Native American shell midden and has been extensively modified, dating back to the Newhall settlement in the latter part of the 1800s (see Section 3.8 – Historic and Archaeological Resources). Most of this part of the site is landscaped with grass and ornamental plantings or covered by impervious surfaces; thus, its habitat value is limited for wildlife. Nevertheless, such species as black-tailed deer, red-tailed hawks, squirrels, raccoons, eagles, robins, kingfishers, Great Blue herons, and river otters are commonly sighted (EDAW 2004).

In contrast to the landscaped grounds of the upland portions of the former Moran Estate, portions of the shoreline remain in a natural state as grass and forb covered cliffs. The undeveloped areas of Rosario Point, for example, consist of grassland habitat unique to the San Juan Islands (see Section 3.5.2.1 – AREA-1).

Priority species identified by the WDFW that utilize Cascade Bay are Dungeness crab and Pandalid shrimp. A review of the WDFW PHS database confirms that Cascade Bay has not been identified as a location for baitfish spawning grounds or known eelgrass or kelp beds. Geoduck clams were not observed in the study area during either preliminary or intermediate surveys (Cascade Environmental Services 1997).

Most of the harbor shoreline is lined by a revetment; however, east of the existing pier, Cascade Bay is lined by a shingle and sand beach. No intertidal or subtidal shoreline areas along Cascade Bay meet San Juan County criteria for Environmentally Sensitive Areas.

3.5.2.3 AREA-3 – Upper Basin

As indicated in Figure 3-3, the upper basin includes the forested slopes extending from the southern boundary of the RMP study area across to the Palisades Drive. The majority of this area consists of old-growth and second-growth mature coniferous forest dominated by Douglas-fir (*Pseudotsuga menziesii*). The area was specifically identified prior to field review because of the presence of a potential wetland in its southeast corner and because steep slopes and soil conditions in localized areas may meet geologically hazardous area criteria. Both jurisdictional wetlands and Geologically Hazardous Areas are regulated as San Juan County Environmentally Sensitive Areas under SJCC 18.30.110.

A review of San Juan County Environmentally Sensitive Areas maps, the WDFW PHS database, and National Wetlands Inventory data confirmed that no jurisdictional wetlands are documented in the vicinity of Area-3. Field review for this study verified that conditions of hydrology, hydric soils, and hydrophytic vegetation meeting jurisdictional wetland criteria were not met anywhere within Area-3 (EDAW 2004). Specifically in the area of the isolated seep, there was no evidence of recent surface hydrology (no gravel sorting or channelization) indicating that this area is likely influenced by vernal or ephemeral surface saturation associated with periods of extensive seasonal precipitation. Vegetation in the immediate vicinity is dominated by less than 50 percent facultative (FAC) or wetter species, and is therefore not hydrophytic observed plant species include big leaf maple (*Acer macrophyllum*) - FACU, red alder (*Alnus rubra*) - FAC, oceanspray (*Holodiscus discolor*) - NI, nettle (*Urtica dioica*) - FAC+, sword fern (*Polystichum munitum*) - FACU, and bracken fern (*Pteridium aquilinum*) - FACU. Soils in the immediate vicinity were found to be non-cohesive sandy loams with Munsell chroma values greater than two, indicating non-hydric soil.

Area-3 also includes the Study Area's only concentration of undeveloped, mature second-growth coniferous forest. This habitat type is characterized by a tree canopy dominated by Douglas-fir, with western red cedar (*Thuja plicata*), western hemlock (*Tsuga heterophylla*), and big-leaf maple as secondary tree species. Common understory shrub species in this ubiquitous habitat type include vine maple (*Acer circinatum*), oceanspray, salmonberry (*Rubus spectabilis*), salal (*Gaultheria shallon*), and Oregon grape (*Mahonia nervosa*). The majority of the plant and animal species listed in tables 2-1 and 2-2 were detected in this Area (EDAW 2004).

Mature second-growth coniferous forest dominated by Douglas-fir is the common forested habitat type found throughout San Juan County. In the vicinity of Rosario Resort, this habitat

type is unique for its age. The majority of the San Juan Islands have been previously logged for timber, and second-growth forest currently predominates in most undeveloped areas. However, many of the forested stands in the vicinity of Rosario have been preserved and protected prior to and since the construction of the Resort. Thus, much of the coniferous forest and isolated stands of Douglas-fir around the Resort and in the contiguous forest of Moran State Park represent the oldest forested areas on Orcas Island and in San Juan County in general. Much of the local forest is estimated at over one hundred years in age; these stands provide some important wildlife habitat characteristics such as downed woody debris and multiple story canopies. In addition, it should be noted that this land is nearly contiguous to the 5,175.5-acre Moran State Park, the largest public land holding in San Juan County. The contiguous nature of this hillside with the State Park makes it a likely connectivity corridor for wildlife on the island.

Mature second-growth coniferous forest is not protected as an Environmentally Sensitive Areas under SJCC. However, the occurrence of many of the area wildlife species, including the TES wildlife species described below, is largely predicated upon the preservation of this forested habitat type. Therefore, prior to initiating proposed development, specific habitat features important to target TES wildlife species such as bald eagle, marbled murrelet, and osprey perch trees and nest sites will need to be identified for continued protection. Mitigation Measures have been included to require that protocol-level surveys are conducted prior to any proposed activities. These measures would ensure that the presence of marbled murrelets, bald eagles, and other TES species is determined and appropriate protective action is taken.

3.5.2.4 AREA-4 – Bowman’s Creek

Bowman’s Creek, an intermittent stream that drains Cascade Lake in Moran State Park, bisects the forested part of the site. Originating at the Cascade Lake Dam spillway, Bowman’s Creek descends through a steeply forested ravine, crossing the County Road, Palisades Drive, and finally Rosario Road via 48-inch culverts, before plummeting over a 15-foot waterfall onto the cobble seashore of Cascade Bay near the Rosario/Cascade Harbor Inn property line. Although the WDFW PHS database indicates that Bowman’s Creek is designated as having a “Priority Anadromous/Resident Fish Presence,” field review determined that the flow regime and natural topography of Bowman’s Creek within the RMP study area likely prevents the passage of anadromous fish and the establishment of resident fish stocks in the stream channel. Bowman’s Creek stream channel from Cascade Lake to Cascade Bay largely consists of rugged, steep (greater than 100 percent slope) exposed bedrock with a series of large vertical-to-overhanging plunges. Bowman’s Creek passes through a 48-inch culvert under Rosario Road and another 48-inch culvert before flowing over a final vertical bedrock plunge to the cobble seashore. No flow was noted in Bowman’s Creek stream channel during field reconnaissance except in a localized reach, approximately 20 feet in length, where marginal subsurface flow was evident (EDAW 2004). A second field visit in June of 2005 found the stream to be flowing in all reaches. However, even prior to the placement of culverts and the development of the Resort, the extreme topography of the natural stream channel would have prevented the establishment of anadromous fish runs in this portion of Bowman’s Creek.

Bowman’s Creek is not classified on San Juan County Environmentally Sensitive Areas maps. The stream meets Washington State Department of Natural Resources (DNR) criteria for a Type

4 Water and would be regulated under SJCC 18.30.160(B) as a Freshwater Habitat Area. In accordance with San Juan County requirements for the regulation of a Type 4 stream, the jurisdictional Freshwater Habitat Area would extend 25 feet from mean high water mark on each side of the channel. The jurisdictional corridor around Bowman's Creek stream channel would be subject to protection standards outlined in SJCC 18.30.160(B). These protection standards include mitigation sequencing to avoid, minimize, rectify, reduce, or eliminate and compensate for any potential impacts resulting from development proposed within 300 feet of the Freshwater Habitat Area. Such mitigation requirements may limit plans for the extension and enhancement of a streamside trail winding along and, potentially, over Bowman's Creek stream channel.

3.5.2.5 AREA-5 – The Hilltop (Employee Housing Parcel)

Area-5 contains a potential wetland complex located northwest of the employee housing building at the Hilltop site. Downslope of this clearing, the site is dominated by low brush and stands of small-diameter trees on gently sloping, poorly drained soils. A potential wetland complex is located northwest of the employee housing building, in a broad forested drainage supported by a complex hydrology of surface channels and piped springs. Although the unnamed streams running through the drainage may meet DNR criteria for Type 4 waters and could individually be designated as a Freshwater Habitat Area similar to Bowman's Creek, a larger contiguous area meeting San Juan County requirements for a jurisdictional wetland would most likely encompass these surface drainage features.

The wetland complex includes hydrophytic vegetation dominated by plant species with wetland indicator statuses wetter than FAC, including *Carex* sp. and *Equisetum* sp., were located throughout the drainage. Soils between the stream channels and along open water ponded areas were evidently hydric, characterized by dark organic mucks with Munsell chroma values of one or two with localized redoximorphic features. Wetland hydrology was also evident with significant surface flows – even after a notable period of minimal precipitation prior to the field study – feeding ponded areas with emergent wetland vegetation. This area would likely be delineated as a Category II wetland with Freshwater Habitat Areas extending as corridors along the stream channels leading to and from the wetland complex. Per SJCC 18.30.150, delineated Category II wetlands require 75-foot-wide protective buffers within which development is not permitted. San Juan County may issue a waiver from delineation if 125-foot-wide protective buffers are maintained, extending from the nearest estimated wetland boundary.

Wetland delineation would be necessary prior to the approval of any Planned Unit Development (PUD) application that covered this area. Mitigation of potential impact to the wetland would include no development in the wetland or in the wetland buffer. Wetland buffer width would need to meet the requirements of the San Juan County Code. As noted above, if further analysis shows that the wetland is indeed a category II wetland, the buffer requirement would be 75 feet.

In addition to the wetland complex described above, the Hilltop parcel may contain isolated areas meeting San Juan County criteria for Geologically Hazardous Areas. Slopes in the area range from gentle inclines to greater than 50 percent. A geotechnical analysis should be conducted to assess slopes and soil stability as they apply to Geologically Hazardous Area criteria prior to the initiation of proposed development in this area.

3.5.2.6 AREA-6 – Tennis Court Site

As indicated in Figure 3-3, Area-6 encompasses the area around the current location of the Rosario Resort tennis courts. This site was identified as an Area of Concern prior to field review because of its proximity to Cascade Lake and its potential suitability for future Resort development. No isolated San Juan County Environmentally Sensitive Areas exist within Area-6. However, Cascade Lake itself is regulated as a Class I wetland requiring protective no-development buffers with widths of 150 feet from a delineated wetland boundary, or 200 feet from an estimated wetland boundary if a waiver from delineation is sought. In addition, the WDFW PHS database designates Cascade Lake as an area of importance to large aggregations of waterfowl. Although this designation has no direct regulatory implications per se, it may result in additional mandated mitigation requirements associated with development proposed in the vicinity of Cascade Lake.

3.5.3 Environmental Impacts

This section discusses the potential impacts of the Alternatives to Threatened, Endangered, and Sensitive species and their habitat.

3.5.3.1 No Action Alternative

Under this alternative, the Resort would continue its present operations with no immediate changes to existing facilities or activities. The Resort would likely continue to shrink over time until it loses operational functionality and either reduces its service offerings or closes altogether. If Rosario were to cease to function as a resort, the property would likely be re-designated from *MPR* to *Rural Residential* or possibly included within the adjacent *Rosario Activity Center*. In either case, much of the property would presumably be developed for private residential use. Higher density year-round development would most likely increase the year-round noise activity levels within the Study Area potentially leading to avoidance of the area by local wildlife. Construction activity would result in potential short-term disturbances to nesting birds known to occur within the vicinity of the Resort as well as disrupt the potential connective wildlife corridor located on the forested hillside.

3.5.3.2 Action Alternative A

AREA-1 – Rosario Point

Under Action Alternative A there would be minimal impacts to the native vegetation at Rosario Point. Restoration would aid in returning this area to a more native state, a benefit to local wildlife that utilize unique nearshore habitat. Short-term construction impacts to wildlife would include increased noise and disturbance from construction activities such as demolition and the use of large earthmoving equipment.

AREA-2 – Intertidal and Subtidal Shoreline Habitat

Impacts to the intertidal and subtidal shoreline habitat from Action Alternative A exclusive of the marina include potential runoff and pollution from construction activities. Additionally, construction activities such as demolition would result in disturbance to marine organisms such as herring, sea lions, and marble murrelet. The primary approach of both proposed Action

Alternatives toward addressing impacts to the marine environment is prevention. Proper installation and regular maintenance of erosion control and stormwater runoff Best Management Practices (BMPs) would reduce the likelihood of fuels, oils, and other chemicals from contaminating the area. A selection of sample BMPs to control erosion and protect water quality during the project's construction phase are described in Appendix I of this FEIS. Listed methods include Silt Fencing, Straw Bale Sediment Barriers, Water Bars, Drainage Ditch/Swales, Rock Check Dams, Sediment Traps, Outlet Protection, Straw Mulch and Erosion Control Blankets.

A conceptual Stormwater Management Plan has been developed to control runoff that will guide development of a project-specific Stormwater Management Plan closely based on the Washington Department of Ecology's 2005 Stormwater Management Manual for Western Washington (see Appendix G). Additional discussion and analysis included in Sections 3.3 – Earth and Stormwater, 3.4 – Water and Sewer. Also, this section, as well as 3.3 and 3.4, contain mitigation measures calling for the replacement of existing toxic building materials that may be contributing harmful substances to the surrounding marine environment. Mitigation Measures included in these sections require the removal of these substances (such as the copper roof of the Moran Mansion), their replacement with environmentally appropriate materials, and additional measures to contain and treat runoff both during the construction process and after completion of construction. Additional mitigation measures will likely be identified as project-specific impacts become better known during project-level environmental review as required during the permitting phase.

Impacts potentially resulting from Resort operations would include an increase in litter and rubbish in the water. Many items that get thrown out or blown out into the harbor can harm wildlife by entrapping, choking, and injuring fish, birds, and mammals and smothering plants. Use of the pier and docks may result in the discharge of small amounts of gas, oil and grease from inboard and outboard marine engines. Additionally, a potential increase in boat and seaplane traffic would elevate the noise disturbance to marine organisms.

An increase in the capacity of the docks as proposed in phase II – Marina Development would result in increased shading on the seabed due to an almost two-thirds increase in new over-water dock structures and boat moorage. Plant populations on the harbor floor provide habitat for various sessile and motile invertebrates as well as provide shelter, shade, breeding and rearing areas and feeding areas for various fish and other aquatic organisms. However, increased shading from docks and standing boats could potentially harm some aquatic organisms by preventing adequate amounts of sunlight from reaching plants. Once diminished, the remaining plant populations are less effective at providing important food and habitat for marine organisms.

It should be noted that the majority of the new docks comprising the marina will likely be built off-shore from important intertidal shallows and be located in deeper water approximately 30-60 feet in depth. Although at this depth there is generally not an abundance of plant life on the harbor floor, many plants that attach to the bottom send up foils to reach the euphotic zone (i.e., the zone of effective photosynthesis). In addition, many factors besides depth must be considered when determining the level of impacts due to overwater structures including the surface area of the dock, the grounding of the dock, materials used, construction techniques, and existing light penetration. Light readings would need to be taken at various depths throughout the marina to

determine existing light penetration. Marina construction will be required to comply with all local, state, and Federal guidelines as established in PA-OMP-2. It is additionally important to note that separate project-level environmental review of the proposed new overwater development would be completed prior to marina development permitting, which would occur subsequent to adoption of the Rosario Resort Master Plan by San Juan County.

AREA-3 – Upper Basin

Action Alternative A would concentrate the majority of development within the existing Resort footprint, thus minimizing new impacts to vegetation. However, permanent impacts to vegetation would result through the construction of individual homesites in the forested hillside of the Upper Basin. Removal would include mature forest trees such as Douglas fir, western red cedar, and western hemlock as well as understory vegetation such as vine maple, Indian plum, red alder, and sword fern.

Construction activities would increase noise and human activity within the area leading to avoidance of the area by local wildlife. Operational impacts would also increase noise and human activity, although to a lesser degree than construction; the development of the small cottage community would likely result in wildlife seeking alternate areas to nest, den, roost, breed, and travel. Although the cottages are not expected to be occupied year-round, the primary season of occupation would be during the summer which coincides with many breeding and nesting activities. Additional vegetation would be removed for the clearing of new footpaths linking the Resort to Moran State Park. In both cases vegetation removal diminishes habitat quality.

Removal of vegetation and new development would result in the alteration of wildlife habitat within the affected areas. The mature, forested hillside provides habitat for many species including pileated woodpecker and great horned owl. Important habitat components include large, mature trees, snags, and downed wood. Mitigation Measures designed to protect large trees and preserve snags whenever possible would lessen the impact on species utilizing these important forest features. In addition, the forested hillside may provide a corridor for the movement of wildlife to and from Moran State Park. Development within this corridor would introduce increased noise and human activity to the area and potentially lead to avoidance of the area by wildlife.

AREA-4 – Bowman’s Creek

Impacts to Bowman’s Creek under Action Alternative A would be expected to be minimal. Bowman’s Creek is a steep, cascading seasonal stream that is unlikely to support any threatened, endangered, or sensitive fish species. Impacts would be limited to potential runoff and pollution from construction activities. Best Management Practices, properly installed and maintained, would decrease the risk of contamination.

AREA-5 – The Hilltop (Employee Housing Parcel)

No new development is proposed for the Hilltop under Action Alternative A. Therefore, there would be no new impacts to vegetation or wildlife.

AREA-6 – Tennis Court Site

In response to concerns raised by the community, no new development is proposed for the Tennis Court Site under Action Alternative A. Therefore, there would be no new impacts to vegetation or wildlife.

Threatened and Endangered Species and Other Species of Concern

The Pacific Bald Eagle Recovery Plan (USFWS 1986) recommends a protective buffer of 0.25 mile (1,300 feet) between screened nests and construction activities during the critical nesting season. Given the distance from Rosario to currently active nests, this protective buffer width would be met regarding any construction activities within the RMP study boundary. Prior to site planning and development, however, a qualified biologist would be required to survey areas to identify potential perch trees, active nest sites, and communal roost sites to develop appropriate preservation and mitigation strategies for these important habitat features as necessary. Additional surveys for nesting marbled murrelet, peregrine falcon, and osprey would also be conducted to ensure there would be minimal disturbance to these species.

Results of a recent study suggest that marbled murrelets may be most susceptible to human disturbance when humans are on foot, as opposed to operating vehicles or machinery, with visual impacts being the highest (Hamer and Nelson 1998). For this reason, operational and maintenance activities that include humans walking through the stands of potentially suitable habitat may have the greatest disturbance impact on marbled murrelets that may be utilizing the stand. Since the Upper Basin would be constructed under both Action Alternatives, the number of people and the amount of activity potentially occurring in this area would increase under all alternatives. Mitigation Measures requiring surveys of all potential murrelet habitat prior to activity would determine whether additional protective measures are necessary.

The increased capacity associated with the expansion proposed under Action Alternative A would increase the seasonal noise and human activity levels within the Resort and surrounding areas. Potential increases in vehicle traffic from ferry passengers would likely result in an increase in traffic-related wildlife mortality. Construction activities would elevate noise levels in the Study Area and disturb habitat on the forested hillside leading to avoidance of the area by local wildlife. Construction activities are considered to be short-term in nature; however, those activities occurring within the breeding and nesting season of the many shorebirds, waterfowl, and raptors that frequent the island would result in disturbance of wildlife and possible abandonment of nest or young. Mitigation Measures sensitive to these breeding seasons would reduce the likelihood of nest disturbance. Additionally, it should be noted that there is currently abundant wildlife use of the Study Area, which indicates that many resident species have grown accustomed to the current noise and activity levels of the Resort. While some species may avoid the area during the elevated noise and activity caused by construction, it is not expected that the increased resort operations proposed under Action Alternative A would result in permanent abandonment of the area, especially with the implementation of Mitigation Measures and Other Management Practices (see Table 2-6).

Construction related runoff could result in the introduction of pollutants into the streams and seeps in Study Area. Such runoff could reach the Marina and potentially affect marine fishes and

ecosystems. Other Management Practices, including properly installed and maintained BMPs (see Appendix I), would reduce the likelihood of potential pollutants from reaching water systems. In addition, Mitigation Measures designed to ensure ecologically sound building materials are used for restoration and proper handling and disposal of material removed from the historic buildings would help ensure that potentially toxic substances are not introduced into the water.

Mitigation Measures and Other Management Practices would keep potential disturbance of vegetation and wildlife to a minimum in most of the six areas; only the forested hillside would undergo significant alteration of habitat.

3.5.3.3 Action Alternative B

AREA-1 – Rosario Point

Under Action Alternative B there would be minimal impacts to the native vegetation at Rosario Point. Restoration would aid in returning this area to a more native state, a benefit to local wildlife that utilize unique nearshore habitat. Short-term construction impacts to wildlife would include increased noise and disturbance from construction activities such as demolition and the use of large earthmoving equipment.

AREA-2 – Intertidal and Subtidal Shoreline Habitat

Impacts to the intertidal and subtidal shoreline habitat from Action Alternative B would be similar to Action Alternative A and would include potential runoff and pollution from construction activities. Proper installation and regular maintenance of BMPs (see Appendix I), would reduce the likelihood of fuels, oils, and other chemicals from contaminating the area. Additionally, construction activities such as demolition would result in disturbance to marine organisms such as herring, sea lions, and marble murrelet.

Impacts potentially resulting from Resort operations would include an increase in litter and rubbish in the water. Many items that get thrown out or blown out into the harbor can harm wildlife by entrapping, choking, and injuring fish, birds, and mammals and smothering plants. Use of the piers or docks may result in the discharge of small amounts of gas, oil and grease from inboard and outboard marine engines. Additionally, a potential increase in boat and seaplane traffic would elevate the noise disturbance to marine organisms. As discussed under Action Alternative A, an increase in the capacity of the docks as proposed in phase II – Marina Development, would result in increased shading on the seabed due to an almost two-thirds increase in new over-water dock structures and boat moorage. Marina construction would comply with all local, state, and Federal guidelines as established in PA-OMP-2. It is additionally important to note that separate project-level environmental review of the proposed new overwater development would be completed prior to marina development permitting, which would occur subsequent to adoption of the Rosario Resort Master Plan by San Juan County.

AREA-3 – Upper Basin

Action Alternative B, unlike Action Alternative A, would be spread out over the entire Resort rather than concentrating development within the primary Resort footprint around the Moran

Mansion. Permanent impacts to vegetation would result through the construction of cottages in the forested hillside of the Upper Basin. Removal would include mature forest trees such as Douglas fir, western red cedar, and western hemlock as well as understory vegetation such as vine maple, Indian plum, red alder, and sword fern. Impacts to vegetation under Action Alternative B would be greater than under Action Alternative A largely because of the additional Hillside and Woodland Cottages proposed for the forested hillside. These vegetation impacts would be similar in nature to those described under Action Alternative A but would be carried out on a larger scale.

The removal of mature forest and associated understory would result in disturbance and alteration of wildlife habitat potentially leading to avoidance of the area, as described under Action Alternative A. Construction-related activities would increase noise and human activity in the area, also resulting in avoidance. Construction and operational activities could also potentially lead to abandonment of nests or young during breeding season. Mitigation Measures designed to accommodate breeding and nesting season would greatly reduce impacts to birds. Operational impacts would also increase noise and human activity, although to a lesser degree than construction; the development of the small cottage community would likely result in wildlife seeking alternate areas to nest, den, roost, breed, and travel. Although the cottages are not expected to be permanently occupied year-round, the primary season of occupation would be during the summer, which coincides with many breeding and nesting activities. Additional vegetation would be removed for the clearing of new footpaths linking the Resort to Moran State Park. In both cases vegetation removal diminishes habitat quality.

Removal of vegetation and new development would result in the alteration of wildlife habitat within the affected areas. The mature, forested hillside provides habitat for many species including pileated woodpecker and great horned owl. Important habitat components include large, mature trees, snags, and downed wood. Mitigation Measures designed to protect large trees and preserve snags whenever possible would lessen the impact on species utilizing these important forest features. In addition, the forested hillside may provide a corridor for the movement of wildlife to and from Moran State Park. Development within this corridor would introduce increased noise and human activity to the area and potentially lead to avoidance of the area by wildlife.

AREA-4 – Bowman’s Creek

Impacts to Bowman’s Creek under Action Alternative B would be expected to be minimal. Bowman’s Creek is a steep, cascading seasonal stream that is unlikely to support any threatened, endangered, or sensitive fish species. Impacts would be limited to potential runoff and pollution from construction activities. BMPs, properly installed and maintained, would decrease the risk of contamination (see Appendix I).

AREA-5 – The Hilltop (Employee Housing Parcel)

The expanded employee housing and other support facilities proposed for the Hilltop would result in short-term disturbances to wildlife. Construction-related activities, including large earth moving equipment and increased noise, would result in avoidance of the area by wildlife. Potential abandonment of nests could also occur. Mitigation Measures and Other Management

Practices would require wildlife surveys prior to construction to determine if seasonal restrictions are necessary and if replacement habitat is necessary.

AREA-6 – Tennis Court Site

No new development is proposed for the Tennis Court Site under Action Alternative B. Therefore, there would be no new impacts to vegetation or wildlife.

Threatened and Endangered Species and Other Species of Concern

Impacts to bald eagle, marble murrelet, peregrine falcon, and osprey would be similar to Action Alternative A and would be expected to be minimal with the implementation of proper Mitigation Measures and Other Management Practices. Mitigation Measures requiring surveys of all potential bald eagle and marble murrelet habitat prior to activity would determine whether additional protective measures are necessary. There are currently no known nesting sites within the vicinity of the Resort and surveys would be required prior to construction activity to determine if new nests have been occupied or constructed.

Action Alternative B is designed to increase year-round use of the Resort thereby increasing the amount of human noise and activity within the Study Area. The increase in use is not expected to be dramatically different from existing conditions however the additional activity could lead to avoidance of the surrounding area by wildlife, especially on the forested hillside. Also, additional traffic resulting from resort expansion would potentially lead to increased vehicle-related wildlife mortality. The expansion of the trail system to and from Cascade Lake and Moran State Park would also contribute to increased activity and disturbance; however the effect of additional trails is expected to be minimal.

Action Alternative B is also designed to be more spread out over the Study Area than Action Alternative A. The more diffuse nature of this plan would increase the area in which human noise and activity would potentially disturb wildlife. Mitigation Measures and Other Management Practices would keep potential disturbance of vegetation and wildlife to a minimum in most of the six Areas, only the forested hillside would undergo significant alteration of habitat. Additionally, it should be noted that there is currently abundant wildlife use of the Study Area, which indicates that many resident species have grown accustomed to the current noise and activity levels of the Resort. While some species may avoid the area during the elevated noise and activity caused by construction, it is not expected that the increased resort operations proposed under Action Alternative B would result in permanent abandonment of the area, especially with the implementation of Mitigation Measures and Other Management Practices.

3.5.4 Mitigation Measures

3.5.4.1 No Action Alternative

PA-M-I: Signs will be erected along trails connecting the main Resort to Cascade Lake and Moran State Park informing hikers of the importance of wildlife habitat and connectivity.

PA-M-2: All building materials used in renovation and new construction will be selected so as to minimize potential toxins and pollutants from entering fish habitat (i.e., replacement of copper roofing with non-polluting substitute materials, use of porous paving materials, etc.).

PA-M-3: Removal of snags and down woody material will be restricted to that necessary to meet safety standards. Snags will be removed only where they pose a safety hazard. Where possible, snags will be topped instead of removed. Large down woody material will be left where felled whenever feasible.

3.5.4.2 Action Alternative A

PA-M-4: Protocol-level surveys for threatened, endangered, and sensitive species will be conducted by a qualified wildlife biologist prior to any construction activities in order to determine the presence of these species. If species are found to be present, WDFW and/or U.S. Fish and Wildlife Service would be consulted as to the proper course of action.

PA-M-5: Surveys to determine the proximity of nesting birds on Cascade Lake will need to be conducted by a qualified wildlife biologist prior to any construction activities in order to minimize effects to breeding individuals.

PA-M-6: Signs should be erected along trails connecting the main Resort to Cascade Lake and Moran State Park informing hikers of the importance of wildlife habitat and connectivity.

PA-M-7: All building materials used in renovation and new construction will be selected so as to minimize potential toxins and pollutants from entering fish habitat (i.e., copper shingles, concrete, etc.).

PA-M-8: Removal of snags and down woody material will be restricted to that necessary to meet safety standards. Snags will be removed only where they pose a safety hazard. Where possible, snags will be topped instead of removed. Large down woody material will be left where felled whenever feasible.

PA-M-9: In areas where additional night lighting is proposed, directional lighting designed to reduce ambient reflection or night glare will be used to reduce potential impacts to nocturnal animals.

PA-M-10: To reduce potential impacts to mature forest, avoid clearing buffer areas of parking lots, roads, and buildings within mature forest habitat to the extent feasible and design utility trenching such that overstory trees do not have to be removed.

PA-M-11: A Vegetation Management Plan will be developed prior to ground-disturbing activities. The plan will include vegetation removal techniques and restrictions, revegetation techniques, and appropriate plant species, and will be used as guidance for maintaining vegetation during construction and operation phases.

PA-M-12: To reduce potential impacts to mature, second-growth forest in the Upper Basin, tree clearing for construction will not occur outside a 25-foot buffer surrounding each building except

for trees that would be potentially dangerous to structures. Temporary construction fencing would be erected along the buffer line prior to the start of construction. The fencing would remain in place through completion of construction activities.

PA-M-13: County Critical Area regulations and the state and federal marine habitat protection regulations provide programmatic mitigation for the potential impacts of a marina expansion. These regulations will require that additional marine habitat studies be completed and appropriate mitigation be developed prior to obtaining approval for the development of the marina. An updated tidal and subtidal survey will need to be conducted. Local, state and federal permitting requirements will be compared with the results of the survey. The marina would only receive approval if appropriate measure can be implemented to mitigate any identified significant adverse impacts of the marina design and operation.

3.5.4.3 Action Alternative B

Action Alternative B would implement the same Mitigation Measures as Action Alternative A.

3.5.5 Other Management Practices

3.5.5.1 No Action Alternative

No management practices are proposed under the No Action Alternative.

3.5.5.2 Action Alternative A

PA-OMP-1: Best Management Practices (BMPs) will be implemented and maintained throughout the development process in order to ensure protection of environmental resources. A selection of sample BMPs to control erosion and protect water quality during the project's construction phase are described in Appendix I of this FEIS. Listed methods include Silt Fencing, Straw Bale Sediment Barriers, Water Bars, Drainage Ditch/Swales, Rock Check Dams, Sediment Traps, Outlet Protection, Straw Mulch and Erosion Control Blankets.

PA-OMP-2: Construction of the new Marina will need to comply with all appropriate local, state, and Federal regulations and guidelines including those enforced by the U.S. Army Corps of Engineers and U.S. Fish and Wildlife Service.

3.5.5.3 Action Alternative B

Action Alternative B would implement the same management practices as Action Alternative A.

3.5.6 Cumulative Impacts

No past, present, or future projects either within or outside of the Resort were identified; therefore, there will be no known cumulative impacts to vegetation, wildlife, or fish. However, it is likely that additional development will occur on Orcas Island, especially single-family homes. It can be speculated that new home construction and associated amenities would contribute to the fragmentation of wildlife connectivity corridors especially in the vicinity of Moran State Park.

3.5.7 Unavoidable Significant Adverse Impacts

No unavoidable significant impacts were identified. Potential significant adverse impacts can be avoided or mitigated by implementing the mitigation measures or other management practices discussed above in Section 3.5.3. In order to insure that there are no unavoidable significant adverse impacts, all site specific projects will be assessed to ascertain any changing on-site conditions in regards to wildlife, wildlife habitat, native plants, and any state or federally threatened or endangered species.

3.6 AESTHETICS

This section addresses impacts on visual resources including aesthetic character, views of and through the Resort and impacts related to light and glare.

3.6.1 Affected Environment

The aesthetics of the Resort and the surrounding viewshed vary throughout the property, ranging from manicured and formal to rustic and natural. The aesthetic character of each component of the Resort and the surrounding viewshed are discussed below. These areas and important viewsheds are illustrated on Figure 3-4.

3.6.1.1 Entrances

The Resort has always had two entrances since guests and visitors arrive by boat or seaplane as well as by road. Both entrances are rather understated. The drive to the Resort follows roads with beautiful scenery all the way from the ferry. At a turn clearly marked by a large illuminated driftwood Rosario Resort sign, motorists approach the Resort down Rosario Road, a long and winding County-owned road. Rosario Road is designated by San Juan County as a “scenic road”. This unlit but attractive winding road with peekaboo views increases the sense of anticipation as the road descends the hill toward the Resort. The view of the Resort as seen from the water as seen by visitors arriving by boat or seaplane is dominated by Moran Mansion and adjacent buildings along the bluff.

3.6.1.2 Rosario Point

The Resort’s southwest corner is a point of land dividing Cascade Bay from East Sound. A small, hedge-enclosed lawn area occupies the center of this small peninsula, offering exceptional water, island, and sunset views. The landscape below the lawn has been left in its natural state. The rock outcrops and native salt-tolerant vegetation reflect the natural aesthetics of the San Juan Islands. The Point Lawn is lit at night with low-level pathway lighting.

3.6.1.3 Moran Mansion

The area in the vicinity of the Moran Mansion has the most formal aesthetic qualities of any part of the MPR. The Mansion itself is the Resort’s principal landmark. It is a large, well-proportioned former residence built of poured concrete and frame construction, finished in white-painted stucco. The entire first floor was once a verandah, with repeating arched openings forming an arcade that have since been glazed by large windows. The second floor is fenestrated by moderately sized fixed center windows flanked by operable side lights located just below the generous soffit. The large hipped roof clad in standing-seam copper with an aging green patina is visually enhanced by dormers serving the third floor as well as a number of white-painted chimneys.

From the land side, the Mansion is partly obscured by vegetation, particularly a massive chestnut tree in the center of the circular drive. From the water, the Mansion towers above Cascade Bay and its rocky shoreline, easily visible from the entrance to Eastsound. The landscaping surrounding three sides of the Mansion is carefully manicured including large, mature shrubs,

trees, lawn areas, and planted beds. Along with these formal plantings are a large circular drive and some historical remnants such as the anchor-chain railing, the electric cluster lights, and the thick poured concrete walkway.

Adjacent to the Resort's focal point of the Mansion are the small adjoining structures on the southwest. These buildings are inconsistent with the Mansion's architectural style, building form, quality materials, or general proportions, and they obstruct potential views of Cascade Bay. At night, the exterior of the Mansion is lit with a row of historic globe lights above the windows of each floor which bathe the Mansion in a warm glow visible from the surrounding neighborhood. The drive approaching the Mansion is flanked by historic pedestrian scale cluster lights. Glare from existing lighting sources is minimized by vegetation.

3.6.1.4 1100, 1200 & 1300 Buildings

The shoreline bluff between the Moran Mansion and the Harbor is the location of three guestroom buildings surrounded by landscaping and parking. These buildings were constructed in the early 1970s, around the same time the kitchen/dining room wing of the Mansion was constructed. These box-like buildings are also insubordinate in size and inconsistent with the Mansion's architectural style, building form, and quality. The 1100 and 1200 Buildings are well buffered by landscaping but the 1300 Building appears to extend over the water on one side and is bordered by a dirt parking lot on the other. Pedestrian and foot path lighting is visible in this area at night.

3.6.1.5 The Harbor

At the head of Cascade Bay is Rosario Harbor. The center of the harbor consists of a small Marina with a central floating dock flanked on both sides by finger piers. The slips are enclosed by a riprap jetty to the south which terminates with a concrete pad on which a flagpole is mounted. The rest of the harbor's shoreline is characterized by a revetment backed by a gravel access road. A small grill/cafe surrounded by a fenced enclosure overlooks the dock. A wharf is located in the center of the bay with a modest building occupied by a small grocery store and concessionaire office with a gangway leading down toward the fuel docks. The visual character of the harbor fluctuates significantly depending on the season as a result of differing levels of boat activity. During the winter and shoulder seasons, the harbor is practically empty of boats, however during the summer and especially on weekends, the slips and adjacent mooring field are crowded with boats. Lighting and resulting glare impacts from the harbor are minimal.

3.6.1.6 The Green

A generous lawn area extends from near the entrance to the Mansion all the way past the Discovery House Conference Center to the edge of the hillside. This swath of flat or gently sloping land is bordered by a path running parallel with the Cascade Bay shoreline and the Resort access road on the other side. The area also includes the Cascade Bay Grill, a fenced swimming pool complex, the Figure 8 Lagoon, the Boatel, and the Discovery House Conference Center. The Green serves as the Resort's principal usable open space, connecting the Mansion area to the rest of the Resort. As irrigated lawn, the Green provides a sense of lushness during the busy but dry summer season. In addition, the Figure 8 Lagoon provides a unique water feature

that contributes to the resort-like scale of the setting. A large white tent is erected for festivals and gatherings during the summer next to the Boatel. Limited pedestrian scale globe lights and pathway lighting do not create glare impacts affecting surrounding properties.

3.6.1.7 Buildings 1500-2100 and Cascade Harbor Inn

A scattered collection of newer condo buildings contrast visually with the historic parts of the Resort clustered below. Unlike the white-painted buildings and trimmed landscaping elsewhere on the Resort, these guest accommodations have a rustic lodge appearance that blend into the wooded hillside. The uphill side of each two-story, single-loaded building faces a parking lot, while the other opens onto a balcony overlooking the impressive water views. Building materials include moss-covered shake roofs, stained and painted wooden surfaces, and sliding glass doors. Views from these buildings of Cascade Bay, Eastsound and the Resort Core are excellent, though partially obstructed by large evergreens. The parking lots and pathways accessing these buildings are illuminated, but this glare is obscured from most surrounding properties by vegetation.

3.6.1.8 Upper Basin

Much of the eastern half of the site consists of a steeply sloping forested hillside, which climbs to an elevation of 351 feet. Most of this area remains in its natural state, forested by century-old Douglas-firs. In the central portion of the Upper Resort, a more gently graded and semi-cleared area is accessed from above by an old road. This area is bordered to the north by a steep ravine drained by Bowman's Creek.

3.6.1.9 Utility Tract

The site of Rosario's water and sewer treatment facilities is an 8-acre parcel known as the Utility Tract. The Utility Tract cannot be seen from Rosario Road and, with the exception of several nearby residences, is generally hidden from the public. Visually dominant features on the site include two wastewater aeration ponds, a small metal building and a cleared and graded area formerly used for equipment and materials storage.

3.6.1.10 The Hilltop

The Hilltop is a 39-acre parcel accessed from the Orcas to Olga Road – the main County road providing access to the eastern half of Orcas Island. The Hilltop is accessed from a gravel driveway immediately past the entrance to Rosario Road. The only building on the site is a non-descript prefabricated dormitory building containing 20 units of employee housing and a gravel parking area near the center of the parcel. The existing housing compound is set back from the road and surrounded on all sides by a generous vegetative buffer, obscuring the compound from public view.

3.6.1.11 The Surrounding Neighborhood

As described in Section 3.1 of this EIS, the Resort is surrounded by residential subdivisions of varying densities which are largely built-out with single family homes of varying styles and ages. Rosario Estates is located between the Resort Core to the south and the Utility Tract to the north. This subdivision occupies a generally south-facing slope with views through the trees toward the waters of the Resort Core as well as Cascade Bay and East Sound depending on the particular

aspect, elevation, vegetation and proximity. The Rosario Palisades neighborhood located on an elevated ridge crest to the east of the Resort offers spectacular views of the Mansion area and the surrounding waters in the foreground as well as dramatic views of surrounding waters and islands.

3.6.2 Environmental Impacts

The analysis of aesthetics addresses both short-term and long-term impacts to views, visual character and light and glare.

3.6.2.1 No Action Alternative

No significant aesthetic changes would likely occur as long as the Resort remains operational. Maintenance problems that create minor visual impacts on close inspection such as broken light fixtures, cracked concrete, peeling paint, dead trees, etc. would likely continue for some time. If Rosario were to close and the site redeveloped for low density residential uses, the generous landscaped areas would likely be bifurcated by fences or hedges along property boundaries, reducing the sense of openness. Due to high property values for water-view real estate, new homes would likely be large and may occupy existing building footprints in order to maintain close proximity to the water.

3.6.2.2 Action Alternative A

Short-Term Impacts

Short-term impacts would result from demolition, site re-grading, utilities installation, and new construction. The extensive level of development proposed under Action Alternative A would result in the appearance of a major construction site for at least one year during the first phase alone.

Views and Visual Character

This alternative was developed based on a site analysis process that included an assessment of available development zones within the resort area. When considering new development near the Resort, views from existing development to the water and views from the water back toward the Resort were considered as shown in Figure 3-5. Building site locations and heights were evaluated to produce minimum visual impact. Action Alternative A's goal of providing a compact lodging facility operation achieved by locating future development near the Moran Mansion to create a "resort core" would concentrate future development in a compact area leaving the hillside largely undisturbed.

Thus, the "visual basin" of the harbor would become the main image of the resort development, while much of the forested hillside would remain as an undisturbed green backdrop.

At build-out under Action Alternative A, the Resort would have a very different appearance relative to existing aesthetic conditions. A number of non-historic existing buildings (the Cascade Bay Grill, the kitchen/dining room wing, the Dockside, the bathhouse, and the 1100, 1200, and 1300 Buildings) would be demolished and replaced by new construction and the

increase in guest rooms and conference room space would consume existing open space. For example, the Moran Mansion would be flanked on two sides by a large interconnected hotel structure. This two- to three-story building would be more architecturally compatible with the Moran Mansion than the existing kitchen/dining room wing and 1100, 1200, 1300 Buildings it would replace, but its massing would represent a noticeable increase in scale.

Due to its alignment and relatively low profile, few existing views would be blocked by this structure. Some views from the rear sides of houses on Cliffhouse Court toward the marina would be obstructed. Other areas proposed for development of new hotel and conference facilities would also have minimal affect in terms of view blockage but would increase the scale of development at the Resort. Architecturally, these new buildings would likely represent an improvement over existing non-historic and tired buildings which would hopefully offset the negative aspects associated with loss of open space and vegetation.

Light and Glare

Improved pedestrian lighting after sunset is expected to increase ambient light on parts of the site, without adversely affecting neighboring properties. No glare should result from implementation of the Resort Master Plan since glare-producing building materials would not be compatible with the desired aesthetics.

3.6.2.3 Action Alternative B

Short-Term Impacts

Short-term impacts result from implementation of the Resort Master Plan would be similar to those described under Action Alternative A.

Views and Visual Character

Development of Action Alternative B utilized the same site analysis process that was used in the development of Action Alternative A in order to prevent obstructions to prime water views from neighboring homes as shown in Figure 3-5. At build-out under Action Alternative B, the Resort as it currently appears would have a very different appearance relative to either the Resort or as it would appear under Action Alternative A, although some views from the rear sides of houses on Cliffhouse Court toward the marina would also be obstructed under this alternative.

In order to appeal to the vacation home market, this alternative envisions very attractive clusters of small cottages, condos, and mini-mansions that would be functionally related and visually cohesive. Existing inefficient parking lots would be extensively redeveloped and future paved surfaces would be minimized and well-screened in order to create a family-friendly, environmentally sustainable, pedestrian oriented landscape. Terracing of the site would allow views over the parking lots rather than through them.

As with Action Alternative A, a number of non-historic existing buildings including the Harbormaster's office, the kitchen/dining room wing, the Cascade Bay Grill, the bathhouse, and the 1100, 1200, and 1300 Buildings would be demolished and replaced by new construction. Following this demolition and re-grading of the site, new cottages, mini-mansions, and condo

buildings would be constructed. If structurally sound and economically feasible, the Boatel would be restored rather than demolished. If not, a new building of similar scale and proportions would be constructed on the same site.

To maintain congruity with Rosario's historic nautical craftsman aesthetic, the design of all new construction would be inspired by Moran's designs. Although a considerable amount of open space would be consumed by new development, the controlled scale and careful siting to preserve existing significant trees and rock outcrops should further minimize view blockage and prevent significant aesthetic impacts. For example, the tallest proposed buildings (the Mansion Annex and the Marina Village Condos) would be located on sites that would have minimum view impacts and whose scale would be appropriate to their site context. Specifically, the Mansion Annex would be subordinate to the adjacent Moran Mansion and some of the Marina Village Condos would be located at the foot of the hillside while the others would occupy the quarry pit.

The portion of the Hilltop adjacent to the Moran State Park entrance is currently vegetated with trees and shrubs that provide an appropriate natural setting for the park entrance. Proposed uses at the Hilltop such as an employee housing complex, overflow parking, landscaping, housekeeping, laundry, maintenance, administration and storage facilities could potentially have a negative visual impact on the entrance to Moran State Park and its historic arch if existing vegetation were replaced by un-screened new development. As proposed in the 2006 RMP, all access and egress to the expanded employee housing complex, overflow parking lot and other possible uses would utilize the existing driveway. In addition, any future development would be screened from view from the road in compliance with SJCC 18.60.190. A. 13. As a result of these measures, the aesthetic appearance of the Moran State Park entrance should not be adversely affected by the proposed Hilltop uses.

Light and Glare

No glare should result from implementation of Action Alternative B since glare-producing building materials would not be compatible with the Moran-inspired aesthetics. Improved pedestrian lighting after sunset is expected to increase ambient light on parts of the site, but is not expected to spillover onto adjacent properties.

3.6.3 Mitigation Measures

3.6.3.1 No Action Alternative

No mitigation measures are proposed for the No Action Alternative.

3.6.3.2 Action Alternative A

A-M-1: To mitigate any possible impacts to views and to provide parking screening exceeding those required by UDC SJCC 18.60.160, Screen-A landscaping (i.e., the "full screen") between residential and non-residential uses, and Screen-C landscaping between the multiple family developments, performance-based design guidelines will be required for all new development within the MPR.

3.6.3.3 Action Alternative B

A-M-2: To ensure compatibility with the rural setting and the cottage architecture, performance-based design guidelines will be required for all new development within the MPR. As in Action Alternative A, these design guidelines will also provide parking screening exceeding those required by UDC SJCC 18.60.160 Screen-A landscaping (i.e., the “full screen”) between residential and non-residential uses, and Screen-C landscaping between the multiple family developments.

3.6.4 Other Management Practices

3.6.4.1 No Action Alternative

Management practices employed to address impacts to views, light and glare include continued building and landscape efforts employed by Resort operators. As views and aesthetics are very important to the Resort’s market appeal, such efforts should be sufficient to prevent aesthetic impacts.

A-OMP-1: If Rosario were to be closed and redeveloped, provisions in the Unified Development Code such as glare and light pollution avoidance regulations (SJCC 18.50.170), landscape and screening requirements (SJCC 18.60.160), and numerous other standards will continue to be enforced by San Juan County.

3.6.4.2 Action Alternative A

Action Alternative A contains the following management practices to address visual impacts:

A-OMP-2: The second objective of the Resort Master Plan is to “Maintain views of water, landscapes, and sunsets especially Cascade Bay, East Sound, and the Moran Mansion by limiting development in identified view corridors.” In keeping with this objective, all future development sites have been selected to avoid or minimize view impacts.

A-OMP-3: Whenever possible, future development areas have been located to minimize impacts to existing views from existing structures, including private homes. As illustrated in Figure 3-5, future building locations have been sited horizontally away from existing view corridors, or lower on the slope where existing views are over any potential building envelopes.

A-OMP-4: Design guidelines will be developed to ensure that future development is aesthetically compatible with the Resort’s historic buildings and structures as well as contextually appropriate for an Orcas Island water-oriented resort. These design guidelines will ensure a sense of cohesiveness in order to maintain a distinctive identity of a Resort based largely on the legacy of Robert Moran, as illustrated by the following examples:

- The height of new construction (when measured from finished grade to roof peak) will not exceed that of the Moran Mansion, approximately 40 feet.
- New structures will be built using architectural forms and building materials that enhance the historic quality of the Mansion and site.

- Building siding, roofs, and glazing systems will be sympathetic to the historic image of the Mansion, but using modern materials.
- The architectural quality of site features such as signage, light standards, curb designs, and outdoor furniture will also be selected to reinforce the historic character of the site.
- Light fixtures will be shielded to avoid glare and light pollution and be located discreetly so as not to create visual clutter during daylight conditions consistent with the provisions of SJCC 18.60.170. In addition, directional lighting designed to reduce ambient reflection or night glare will be used to reduce potential impacts to nocturnal animals.

3.6.4.3 Action Alternative B

Action Alternative B contains the same or very similar management practices to address visual impacts including design guidelines discussed above under Action Alternative A and suggested in Section 7.2.4 of the 2005 RMP. The design guidelines will address architecture, landscape architecture, signage, as listed under Action Alternative A as well as the following:

A-OMP-5: In general, new construction proposed under this alternative will be limited to modest building massing on most of the Resort. Most new construction will be limited to one, one and a half, or two stories. Taller structures such as the Marina View Condos and Mansion Annex will be located in areas that have minimal effect on views due to location or local topography, such as on the Discovery House site, west of the Moran Mansion, or in the old quarry by the jetty.

A-OMP-6: The Resort will be screened from Rosario Road by a 20' wide vegetative buffer consistent with SJCC 18.60.190 A.11 and SJCC 18.60.160 D & E. In addition to compliance with these code provisions, vegetative screening will help delineate the Resort boundaries and provide privacy for resort guests and neighbors alike.

A-OMP-7: The main parking lot serving the Marina Village will not be easily visible from the Rosario Road side of the Resort as a result of its location on the downhill side of a retaining wall topped by a vegetative buffer compliant with SJCC 18.60.190 A.13.

A-OMP-8: Potential visual impacts to the Moran State Park entrance from proposed future MPR development at the Hilltop will be screened from view from the road in compliance with SJCC 18.60.190 A.13.

3.6.5 Cumulative Impacts

Adverse cumulative impacts to aesthetic character, views of and through the Resort, and anticipated impacts related to light and glare could result from any of the alternatives as a result of increased development on and around the MPR, as well as from increased vehicular, boat, and pedestrian activity.

3.6.6 Unavoidable Significant Adverse Impacts

No significant adverse impacts to visual resources are anticipated to result from any of the alternatives analyzed. Management practices proposed by both Action Alternatives should be sufficient to prevent adverse impacts to aesthetic character, views, and glare.

3.7 NOISE

Following a brief background discussion on noise measurement and regulation, this section evaluates short-term noise impacts to surrounding property as well as such long-term noise sources as Seaplane Operations, Vehicle and Marine Traffic, and Resort Activity.

3.7.1 Affected Environment

Several sound descriptors have been developed to summarize how people hear sound and to measure the effect of environmental noise on public health and welfare. The day-night sound level (Ldn) is the sound level for a 24-hour period with an additional 10 decibels (dBA) weighting imposed on the equivalent sound levels occurring during night-time hours (10 p.m. to 7 a.m.). The added sound level to this noise descriptor is used to account for the greater sensitivity of people to noise during these evening and night-time periods.

In general, humans can perceive noise level differences of about 3 dBA or greater; however, a change in the noise level of at least 5 dBA is required before any noticeable response is expected. A difference of 10 dBA is perceived as a doubling of loudness and would almost certainly cause an adverse community response. The EPA suggests the use of the Ldn noise descriptor to relate noise in residential environments causing interference with speech, sleep, and other activities. EPA studies indicate that non-construction related levels of 55 Ldn or lower are acceptable, levels of 55 to 65 Ldn cause some effect, levels of 65 to 70 Ldn cause adverse effects, and levels of 70 Ldn or higher are unacceptable (EPA 1978). Various guidelines have also been developed by other federal agencies.

The Washington State Department of Ecology (Ecology) has also established environmental noise limits defined in terms of an Environmental Designation for Noise Abatement, which considers the use of the property and adjacent lands for determination of applicable noise standards. However, noise generated at temporary construction sites as a result of construction activities (between the hours of 7 a.m. and 10 p.m.) is exempt from these limits. Ecology regulates motor vehicle noise through implementation of Washington Administrative Code (WAC), Chapter 173-62, which limits the noise generated by motor vehicles at specified distances (Ecology 1998).

Noise is regulated in San Juan County by the Noise Ordinance (SJCC Chapter 9.06). According to the San Juan County Noise Ordinance:

It is the express intent of the Board of County Commissioners to control the level of noise in a manner that promotes commerce, the use, value and enjoyment of property, sleep and repose, and the quality of the environment. (SJCC Chapter 9.06)

The County Noise Ordinance prohibits frequent, repetitive, or continuous noise considered to be a public nuisance at any time of the day and strictly regulates noise between the hours of 10:00 p.m. and 7:00 a.m. The County Noise Ordinance does not regulate certain noise such as “noise originating from aircraft in flight, and sounds which originate at airports and are directly related to flight operations.” (SJCC 9.06.050 A.)

The natural topography of Rosario is bowl-shaped. The Resort is located at the bottom of the bowl along the shore of Cascade Bay. Surrounding neighborhoods line the sides of the bowl. Under typical conditions, sound attenuates with distance and with buffering. However, sounds are easily transmitted throughout the area by the open water of Cascade Bay which carries the sound relatively greater distances than on land due to the water surface's lack of obstruction or absorption. In addition, the natural bowl shape facilitates echoes off the steep hillsides, creating the impression of amplification. Fortunately for the Resort and surrounding neighborhoods, natural buffering is provided by an abundance of large trees and other dense vegetation throughout the area. The ambient noise level near the center of the Resort averages approximately 46 dBA.

3.7.1.1 Seaplane Operations

The loudest source of year-round noise at Rosario is commercial seaplane activity. Kenmore Air operates scheduled float-plane service to Rosario from the Seattle area and from other destinations within the San Juan Islands. Kenmore Air operates six daily float-plane flights to and from Seattle during the summer months. These float-planes provide service directly to Rosario's Marina. After the summer peak season, float-plane access directly to Rosario's dock is available four times daily in the fall and spring and two or three times daily during the winter.

During the summer, the majority of passengers consist of visitors to the Resort, including overnight guests, visitors on day trips, and a small number of boaters accessing boats in the marina. During other times of the year, a larger percentage of Kenmore's passengers consist of island residents and their guests. In addition to scheduled flights, Kenmore Air also flies charter service to Rosario. Most charter flights are flown in conjunction with packaged group activities such as weddings and business gatherings.

Under the terms of Shoreline Substantial Development Permits issued By San Juan County to Kenmore Air and Lake Union Air, each airline was authorized to fly up to 49 take-off and landing cycles per week. When Kenmore Air acquired Lake Union Air in 1990, Kenmore Air added these 49 weekly flight cycles to its own and is now authorized to fly a total of 98 weekly or 14 average daily take-off and landing cycles.

Kenmore Air flies four models of planes: piston and turbine DeHavilland Beavers, turbine DeHavilland Otters, and piston Cessna 180s. The Beavers have a capacity of seven passengers, the Otters have a capacity of ten, and the Cessnas carry three. Most flights occurring at Rosario use piston Beavers and Turbo Otters. When measured from Rosario's seaplane dock (the closest location to take-off,) approximately 400 feet from take-off, the piston Beaver generated a peak volume averaging approximately 67 dBA during a south-bound take-off. From the MPR boundary, a piston Beaver seaplane generated a peak volume of approximately 58 dBA. A turbo-Otter generated a peak volume of approximately 64 dBA when measured from the Seaplane dock. The duration of this peak is very brief and depends on payload and weather conditions. On glass-smooth water, a fully-loaded piston Beaver takes approximately 30 seconds at full throttle to become airborne and more lightly loaded planes on water with a slight chop can become airborne much more quickly. Because takeoffs are flown away from land, the noise subsides very quickly. Due to the acoustics of the terrain and the echo, take-off noise can be briefly heard

throughout the surrounding neighborhoods and is more noticeable in some areas than others. Most seaplane noise is generated by propeller rotation thus the loudest location is perpendicular to the direction of takeoff. For this reason, Rosario Point is disproportionately impacted by seaplane noise from both south-bound and north-bound takeoffs.

As mandated by Kenmore's Shoreline Substantial Development Permit, all aircraft are fitted with FAA-certified three-bladed propellers which are quieter than the longer two-bladed propellers used by other seaplanes. The permit also prohibits flights before 8:00 a.m. on weekdays or Saturdays or before 9:00 a.m. on Sundays and all scheduled flights must take place during daylight hours. In addition, Kenmore's pilots are required to employ a number of other noise abatement operations practices that are discussed below in Section 3.7.3.

3.7.1.2 Vehicular and Marine Traffic

Cars, trucks, SUVs and motorcycles generate engine and wind noise and the occasional automotive stereo while operating on local roads and parking areas. Currently, Rosario Road experiences 1,163 Average Annual Daily Vehicle Trips (TSI 2004). Most vehicle-related noise is audible on portions of the Resort and surrounding neighborhoods closest to Rosario Road. A smaller percentage of vehicle noise is audible near Palisades Drive and other neighborhood roads.

Marine traffic has been a source of noise since before Moran came to the island. Powerboats with large engines maneuvering into slips or accelerating away from the marina typically generate the loudest boat-related noises. Most boat noise occurs during the day but can begin early in the morning. Night time boat noise includes conversations and generators operated by boats on anchor or occupying moorings. In addition, large commercial passenger vessels visiting Rosario have had to operate their engines or generators while in port due to insufficient shore power. Boat-related noise carries for relatively long distances due to the amplifying effect of open water, and can be heard throughout the Resort and parts of the neighborhood.

3.7.1.3 Resort Activity

During much of the year, the Resort is relatively quiet. Noise from human voices and music is minimal due to the lack of activity during the fall, spring and especially winter months. Cool wet weather significantly reduces both the Resort's popularity for events and distance noise can travel. The Resort is used occasionally for large events such as 2004's Primal Quest, but such events are the exception rather than the rule. During the summer and especially on weekends, activity at the Resort increases significantly.

In previous years, Rosario featured live music performances 6 nights per week in the Discovery House which generated significant night-time noise, especially during warm weather when the doors to the deck were open. Until 2004, the loudest event was Festival Friday, a festive event featuring live, amplified music conducted in an outdoor tent adjacent to the Boatel. Festival Fridays have been conducted for several years on Friday afternoons and evenings during the summer with live music scheduled from approximately 7:00 p.m. to 10:00 p.m., prior to being discontinued in 2004. The music amplified during this event was audible throughout the Resort as well as in parts of the surrounding neighborhood.

Rosario has long been a popular wedding venue with most weddings held during summer weekend afternoons and evenings. Noise generated by weddings at Rosario varies significantly. Smaller weddings are conducted indoors in the Discovery House or the Mansion's Music Room and outdoors on the Point Lawn or in the tent on the Eagle Lawn below the Point Lawn. Small weddings are often relatively quiet events, especially if the reception is hosted indoors during cooler weather. Large weddings are held indoors in the Discovery House and outdoors in the tent near the Boatel. Large weddings usually include amplified music and have the potential to continue later into the night than permitted. Rosario administers rules for entertainment although they are not always followed. Live and/or amplified music within the Discovery House is allowed until midnight, but only until 10 p.m. for outdoor performances but often continues later. If conducted in the tent or the Discovery House with the doors open, the amplified sound can be audible throughout the Resort and many parts of the neighborhood.

Voices and laughter are common sources of Resort-generated noise during the summer. Much of this noise emanates from the family pool complex and adjacent lawn areas where shuffleboard, horseshoes, volleyball and other games are played. These activities can be heard during the daytime throughout the Resort core and on some bordering parcels, but is generally not objectionable to most guests and neighbors.

Another source of Resort-related noise is maintenance activity such as lawn mower and other equipment operations as well as hammering and other labor activities. With the exception of emergencies, Resort management prohibits such noise-generating activities at night, early mornings or weekends.

Localized noises on the Resort include the kitchen air handlers audible at Rosario Point, various compressors, and back-up alarms on shuttle vans. These noises are not exceptionally loud, but do detract from the sense of serenity.

Although not currently within the MPR boundaries, the Hilltop is used by Rosario to house employees in a 20-room dormitory. Each room is accessed from the exterior via a covered wooden deck. Walking across this deck generates loud footsteps, thus it is impossible for employees to enter their rooms without creating noise. Also, there are no common indoor facilities on the Hilltop for socializing, cooking, eating, or recreation. As a result, all group recreation activities and parties occur outdoors, generating occasional noise associated with games and rowdy behavior. The Hilltop is well-buffered from sensitive land uses such as the Resort or single-family residential portions of the Rosario Activity Center. Despite the Hilltop's proximity, it is also well-buffered from resort guest accommodations and neighboring single-family residences, allowing Rosario's employees needed space and freedom. Even though there are currently no neighboring residents, the Hilltop is adjacent to uninhabited portions of Moran State Park and other large parcels of land, so Rosario attempts to prevent noise impacts at the Hilltop by enforcing rules by prohibiting pets and loud music as well as an 11:00 p.m. to 11:00 a.m. "Quiet Time". The Hilltop is also patrolled by the County Sheriff's Office at Rosario's request.

3.7.2 Environmental Impacts

The analysis of noise impacts compares noise sources identified during project scoping and through qualitative and quantitative site monitoring.

3.7.2.1 No Action Alternative

Existing sources of noise such as seaplane operations, traffic, lawn-mowing, and weddings at the Resort would likely remain relatively unchanged for some time under the No Action Alternative. There are no plans to re-start Festival Fridays but Rosario has plans for occasional live music at the Cascade Bay Grill. Due to smaller anticipated audience size, music volumes generated by Cascade Bay Grill performances would probably be lower, especially for acoustic performances.

If Rosario were to close and be re-developed for residential use, short-term noise impacts would result from demolition and construction activities. Once development of the new homes is complete, noise sources and levels would mimic those of surrounding neighborhoods, thus no significant adverse noise impacts are anticipated under this alternative.

3.7.2.2 Action Alternative A

Short-Term Impacts

Implementation of Action Alternative A would create additional short-term noise associated with demolition and construction activity. Under this alternative, new construction activities would be concentrated in the Resort core between Rosario Point and the Discovery House. This work would include demolition of numerous existing buildings and extensive site work followed by construction of up to 250 hotel rooms and a major addition to the Discovery House. (Marina expansion construction work could also generate short-term noise, but this issue will be addressed in a separate environmental review process.) The most significant short-term noise would result from blasting and excavating the ledge between the Rosario entrance drive and Cascade Court to prepare the site for a structured tennis court over parking. The only anticipated construction work occurring outside the resort core would be utility upgrades on the Utility Tract and residential construction on the 8 home sites. Construction-related noise would occur during daytime hours as regulated by the San Juan County Noise ordinance (SJCC Chapter 9.06).

Short-term noise generated by demolition, site preparation, and construction activities would include noise from the use of heavy equipment such as trucks hauling material, cranes, generators, compressors, earth moving, equipment, and the like. Construction noise typically occurs intermittently and varies depending on the nature or phase of construction (e.g., demolition/land clearing, grading, excavation, and construction). Noise generated by construction equipment, including earth movers, material handlers, and portable generators, can reach high levels. Although noise ranges would be similar for all construction phases, the initial site preparation phases tend to involve the most equipment. The EPA has found that the noisiest equipment types operating at construction sites typically range from 88 dBA to 91 dBA at 50 feet (15 m). Typical operating cycles may involve 2 minutes of full power, followed by 3 or 4 minutes at lower settings (EPA 1971). Table 3.7-1 below lists noise levels generated by typical construction equipment at a distance of 50 feet (15 m).

Noise from localized point sources (such as construction sites) typically decreases by about 6 dBA with each doubling of distance from source to receptor. Given this noise attenuation rate, outdoor receptors within approximately 1,000 feet (305 m) of construction sites could experience maximum instantaneous noise levels of greater than 65 dBA when on-site construction-related noise levels exceed 91 dBA at the MPR site boundary (EPA 1971).

**TABLE 3.7-1:
CONSTRUCTION EQUIPMENT NOISE LEVELS (DBA)**

Equipment Type	Noise Level at 50 Feet	
	Without Noise Control	With Feasible Noise Control ^a
Earthmoving		
Front Loaders	79	75
Backhoes	85	75
Dozers	80	75
Tractors	80	75
Scrapers	88	80
Graders	85	75
Truck	91	75
Pavers	89	80
Materials Handling		
Concrete Mixers	85	75
Concrete Pumps	82	75
Cranes	83	75
Derricks	88	75
Stationary		
Pumps	76	75
Generators	78	75
Compressors	81	75
Impact		
Pile Drivers	101	95
Jack Hammers	88	75
Pneumatic Tools	86	80
Other		
Saws	78	75
Vibrators	76	75

a - Estimated levels obtainable by selecting quieter procedures or machines and implementing noise control features requiring no major redesign or extreme cost (e.g., mufflers and equipment enclosures).

Source: EPA 1971

Seaplane Operations

In the long-term, resort expansion coupled with increased reliance on alternative transportation modes would likely result in increased demand for access to the Resort by Kenmore Air. As passenger demand increases, Kenmore Air would likely increase the percentage of use of the 9-passenger De Havilland Otter relative to the 6-passenger De Havilland Beaver aircraft. The Otter's turbine engine generates 10 decibels less noise volume than the Beaver's radial piston-driven engine. This difference means that the Otter's sound carries approximately half as far as the Beaver. As a result, the anticipated increased reliance on Otter aircraft facilitated in part by Resort expansion may neutralize or decrease aircraft noise associated with flight operations. In addition, the proposed marina expansion would re-locate the seaplane dock farther out into Cascade Bay away from surrounding residences.

Vehicular and Marine Traffic

Based on the project description of Action Alternative A submittal including the assumption of 5,000 additional square feet of conference facilities and the assumption that the necessary employee housing expansion would occur off-site, the expected trip generation of Action Alternative A on Rosario Road would be approximately 882 additional Average Annual Daily Trips. Significant traffic-generated noise impacts do not typically occur until several thousand vehicles per day are on a roadway. In addition, noticeable increases in ambient noise levels (3 dBA or greater) are generally not noticeable until a doubling of the number of daily trips on a roadway occurs. The projected increase in Annual Average Daily Trips from the 2010 no-action projection of 1,447 to the 2010 estimate of 2,312 trips on Rosario Road would remain below the threshold of significant noise increases from project-generated traffic.

The marina expansion of 111 new boat slips would attract more boats to Rosario which constitutes a distinct noise source on the waters of East Sound. The increase in boat noise may be offset to some degree by the greater distance from shore of the proposed marina location, especially for seaplanes and larger, noisier vessels.

Resort Activity

Long-term noise levels associated with resort activity are not expected to change significantly as no new noise-generating activities are proposed. However, the increase in guest room capacity from 164 to 438 rooms, the expansion of the marina from 54 slips and moorings to 145 slips, and doubling of the conference facilities from approximately 5,000 to 10,000 square feet as proposed under this alternative would increase size of the Resort and by extension, its capacity for activities that could generate noise. A larger conference-oriented hotel would likely attract larger groups of people for large gatherings such as weddings, conferences, conventions, seminars, reunions, etc. Such large gatherings tend to be noisier due to the need for public address systems, the increased use of busses and passenger ferries along with additional vehicular traffic and noisy group-oriented activities. Much of these noise-generating activities would be contained in expanded indoor conference facilities but attendees would likely be lured outdoors during periods of favorable weather, especially during the summer season when adjacent homeowners would also be outside or have their windows open.

3.7.2.3 Action Alternative B

Short-Term Impacts

Additional short-term noise associated with demolition and construction activity associated with implementation of the 2005 RMP would be similar to short-term noise impacts resulting from Action Alternative A. One difference is that construction proposed under the 2005 RMP is more geographically distributed than Action Alternative A. For example, new cottage construction is proposed for sites accessed from Palisades Drive, on Cliffhouse Court, and in the vicinity of the Hillside Condos. New employee housing and other support functions would also be built at the Hilltop and new utility construction would occur on Utility Tract as well. As a result, short-term noise generated by construction activities would likely be audible in numerous parts of the neighborhoods surrounding the Resort. Relative to the large building construction proposed under Action Alternative A, the small-scale construction such as the Woodland Cottages proposed by the Preferred Alternative may not need as much noisy, heavy equipment. As regulated by the San Juan County Noise ordinance, construction-related noise will be limited to daytime hours.

Seaplane Operations

Long-term seaplane generated-noise under Action Alternative B would likely be proportionate to flight activity and aircraft composition. As with Action Alternative A, resort growth proposed under this alternative would likely increase seaplane service to Rosario which would largely be facilitated by larger, quieter turbo DeHavilland Otters. In addition, the proposed marina expansion would re-locate the seaplane dock to the outside of the floating breakwater. This would re-position this noise source further from most residential properties surrounding the Resort. This increased distance would provide greater attenuation for seaplane noise.

Based on experience at Roche Harbor, large boats berthed at the Roche Harbor marina are a significant draw for Seaplane passengers who constitute the majority of seaplane passengers between the Seattle area and Roche Harbor during the summer. As proposed under Phase 2 of the Rosario Resort Master Plan, expansion of the Rosario Marina would likely increase passenger demand for seaplanes. As discussed above, the noise impacts associated with this change may be largely offset by increased use of quieter turbo DeHavilland Otters.

Vehicular and Marine Traffic

Action Alternative B is projected to increase road noise proportionate to approximately 420 additional Annual Average Daily Trips to Rosario Road. The projected increase in Annual Average Daily Trips from the 2010 no-action projection 1,447 to the 2010 estimate of 1,859 on Rosario Road would not double vehicle traffic on area roadways. As described above under Action Alternative A, this would not result in significant traffic-generated noise impacts since this change would not double traffic volumes and the total volume would be well below several thousand vehicles per day. Therefore, no significant increase in projected noise is expected to result from project-generated traffic. In addition, the Applicants' Preferred Alternative is intended to reduce noise associated with internal vehicular trips and vehicular trips between the Hilltop and the Resort Core through the use of electric-powered people movers. These high-

occupancy vehicles would be much quieter to operate than a large number of private car trips that they are intended to replace.

Action Alternative B would expand the marina to 165 slips, 20 more than proposed under Action Alternative B. The proposed marina configuration would include large slips and side ties intended to attract larger vessels that have loud engines and generators.

Resort Activity

Long-term noise levels associated with resort activity are not expected to change significantly as no new noise-generating activities are proposed by Action Alternative B. However, the source and location of noise would be redistributed as the Resort is redeveloped from a traditional resort hotel configuration to combination resort hotel and vacation home community with improved support functions.

Under this alternative, Rosario would primarily be marketed toward vacation home buyers rather than group-oriented travelers participating in meetings, reunions and large weddings. Consistent with this business model, the Discovery House Conference Center would be demolished and replaced with new condos and the Cabana. Without the Discovery House, group facilities would be limited to tents, the Moran and Music rooms and smaller, flexible meeting rooms proposed for the Mansion Annex. As a result, the Resort would most likely experience a decrease in large, noisy gatherings.

The area around the Moran Mansion would become the center of the Moran Club catering to those seeking a more luxurious and serene vacation experience with a relatively subdued level of activity and noise. Noise levels in this area of the Resort would likely be the same or less than those generated by the other alternatives.

By contrast, the Marina Village encircling the marina would cater to families and others seeking a more active type of holiday experience. The epicenter of activity would be the Cabana located at the head of the wharf. The Cabana would include an outdoor swimming pool and activities complex with a variety of other amenities oriented toward family activity. The Cabana would serve Marina Village Club members, resort guests, visiting boaters, condominium owners, and eligible local residents of all ages seeking outdoor activities such as swimming, sunbathing, soaking, and casual dining and drinking. The new Cabana would feature a casual outdoor bar and grill with patio seating oriented around a new pool with water slide and adjacent hot tub as well as a teen center, children's play area, and a variety of outdoor patio and lawn games. Voices, laughter, and other noise generated by the Cabana would be similar to those generated by the existing family pool complex and adjacent lawn areas. Like the existing facilities, most of this future activity and resulting noise would occur during summer afternoons. Unlike the existing facilities, much of this noise would be blocked by the Boatel to the west, the steep hillside to the north and the condo complex to the east, thus fewer area residents would likely be affected than by the Resort's current configuration.

Another noise redistribution would result from relocation of the maintenance shop, laundry, and landscaping operations located at the Satellite Hall site on the Hillside to the Hilltop. Since most

of these uses occur in enclosed buildings, adjoining land uses would be no more affected by these noises than the surrounding guest rooms are currently. Truck deliveries to the proposed storage facilities would reduce the noise of trucks on Rosario Road, resulting in an overall net reduction in truck-related noise within the study area.

The proposed employee housing expansion would increase employee occupancy but would not necessarily increase associated noise. This is because new indoor facilities for cooking, dining, laundry, socializing, and recreation would be provided. These new facilities would prevent the need for additional employee vehicle trips and noise that would have been caused by these trips as well as for noise generated by outdoor parties.

3.7.3 Mitigation Measures

3.7.3.1 No Action Alternative

N-M-1: Kenmore Air will continue to practice noise abatement. Accordingly, pilots are instructed to avoid overflying the Resort (or the surrounding neighborhood), instead conducting flight operations over East Sound. Depending on wind direction, pilots must taxi in an out of Cascade Bay, with take-offs and landings conducted on East Sound, a significant distance from shore. (It is unknown at this time if Kenmore Air would continue to operate at Cascade Bay if Rosario were to close.)

3.7.3.2 Action Alternative A

N-M-2: Kenmore Air will continue to practice noise abatement as described for the No Action Alternative. In addition, resort expansion may decrease aircraft noise associated with flight operations due to the anticipated increased use of the quieter De Havilland Otter relative to the noisier De Havilland Beaver aircraft. Also, the proposed seaplane dock would be located further from surrounding residences. As seaplane use expands as a result of resort and marina expansion, Kenmore Air will conduct periodic monitoring to ensure that noise levels due not increase to unacceptable levels. If warranted by measurable noise increases, noise abatement practices could be modified to further decrease incidental noise impacts.

3.7.3.3 Action Alternative B

Action Alternative B contains the same mitigation measures to address noise impacts discussed above under Action Alternative A.

3.7.4 Other Management Practices

3.7.4.1 No Action Alternative

N-OMP-1: The San Juan County Noise Ordinance (SJCC Chapter 9.06) would continue to be enforced by San Juan County. This Ordinance prohibits frequent, repetitive, or continuous noise considered to be a public nuisance at any time of the day and strictly regulates noise between the hours of 10:00 p.m. and 7:00 a.m. As long as the Resort continues to operate, the No Action Alternative would contain the following management practices to address noise impacts:

N-OMP-2: Rules administered by Rosario limit live and/or amplified music performances to end by midnight for indoor performances and by 10:00 p.m. for outdoor performances (although these rules are not always followed).

N-OMP-3: The use of noise-generating maintenance equipment is limited by Rosario to normal business hours.

N-OMP-4: Rosario attempts to prevent noise impacts at the Hilltop by enforcing rules prohibiting loud music and an 11:00 p.m. to 11:00 a.m. “Quiet Time”.

3.7.4.2 Action Alternative A

In addition to continuing to comply with the County Noise Ordinance and apply the existing rules for music performances and noise-generating maintenance equipment limitations, Action Alternative A would be similar to the No Action Alternative and contains the following management practices to address noise impacts:

N-OMP-5: The Action Alternative A seeks to reduce the use of private automobiles at the Resort which would help reduce traffic noise.

N-OMP-6: Doubling the indoor conference facilities would increase activity but an increasing percentage of events including noisy weddings would likely occur indoors where amplified music and other noise can be better contained.

N-OMP-7: By providing shorepower of adequate amperage, large yachts and other vessels would not need to operate noisy generators. The marina will not permit the operation of audible gensets on vessels berthed in the marina.

3.7.4.3 Action Alternative B

Action Alternative B contains the same or very similar management practices to address noise impacts discussed above under the No Action Alternative and Action Alternative A. In addition, under Action Alternative B:

N-OMP-8: Landscape buffers will be provided along the boundaries of the MPR which would further attenuate noise trespass.

N-OMP-9: An electric people mover will replace existing gas-powered vans and private guest and employee automobile use, likely reducing vehicular noise.

N-OMP-10: The Resort will be repositioned away from group-oriented hotel business toward the vacation home market. This would likely attract a reduced percentage of large, noisy gatherings relative to the other alternatives. Instead, smaller, quieter weddings would be pursued as primary market for catering operations.

N-OMP-11: New indoor facilities will be developed at the Hilltop for employee socializing and recreation to prevent outdoor noise impacts. Existing wooden decking could also be covered in indoor/outdoor carpeting to dampen acoustics.

3.7.5 Cumulative Impacts

Vegetation removal and new construction resulting from the Action Alternatives may affect local acoustics. Also, future development in the neighborhoods surrounding the Resort and elsewhere on this part of the island would likely increase traffic, seaplane use, boats, and other sources of noise.

3.7.6 Unavoidable Significant Adverse Impacts

Construction noise can be reduced in intensity and duration but not completely prevented. Because of their relatively short-duration, unavoidable adverse noise impacts resulting from blasting, demolition and construction activities are not considered significant. No other significant adverse noise impacts that cannot be avoided or mitigated are anticipated under any of the alternatives.

3.8 HISTORIC AND ARCHAEOLOGICAL RESOURCES

This section discusses potential impacts to onsite historical and archaeological resources.

3.8.1 Affected Environment

3.8.1.1 Historical Overview

Native Americans have occupied Orcas and the other San Juan Islands for millennia, taking advantage of marine and terrestrial resources that the varied landscape offers. Shell midden deposits within resort property along Cascade Bay provide evidence that the beach site was occupied by Native Americans well before Euroamerican contact, and finds of isolated stone tools near Cascade Lake indicate that they utilized nearby upland environments as well. Human occupation of the San Juan Islands began with settlement by Native Americans some time after glacial retreat. Archaeological sites dating prior to 5000 BP (years before present) are rare on the Islands, while more recent sites are represented most frequently and visibly by shell midden deposits that suggest growing human populations developing increasingly complex social networks and economic pursuits over time. The descendants of these people, the Lummi, hunted, fished, and gathered seasonally on Orcas and the surrounding islands at the time of Euroamerican contact (Kopperl 2005).

A small settlement on Cascade Bay known as Newhall pre-dated Robert Moran's acquisition of the site. Newhall was home to the Cascade Bay Lumber and Manufacturing Company incorporated in 1887 to manufacture barrel stock, boxes, and dressed and rough lumber for local trade. A modest frame dwelling dating from 1888, which may have been occupied by the superintendent, is the only remaining structure of the Newhall enterprise. The company appears to have been in operation at least as late as 1901, and the property was sold by Andrew Newhall to Robert Moran in 1905 (NRHP Nomination 1974).

Robert Moran was a highly successful shipbuilding magnate and Seattle politician. His Moran Brothers shipyard produced a fleet of vessels vital to the Yukon trade during the 1898 Alaska gold rush and built U.S. naval warships, including the battleship Nebraska, the first battleship launched from a Puget Sound shipyard. In 1887, Moran was elected to the Seattle City Council at the age of 30 and successfully ran for Mayor the following year, ultimately serving two terms in that office during and after the great Seattle Fire of 1889. By 1904, at the age of 46, Moran was mentally and physically exhausted, and his doctors gave him only a few years to live. Moran transferred his business to his brothers, purchased over 6,000 acres of land on Orcas Island, and built his retirement home, which he named Rosario in 1906. Wealthy and free from the pressures of his business, Moran recovered completely and lived to the age of 86, most of that time at Rosario. He died on Orcas Island in 1943 after selling Rosario in 1938 to Donald Rheem a California industrialist and inventor of the domestic water heater (Peacock 1985).

Rheem added the Carriage House and Honeymoon Suite Cottage to Rosario before selling the property to the Falcon Corporation in 1958. Intending to create a land development rather than a hotel or resort, the Falcon Corporation created the first plat known as Rosario Estates and sold several homes and lots, when they ran into financial problems and sold the entire Rosario properties to Gilbert Geiser of Seattle in April of 1960. Gilbert Geiser converted Rosario into a

public resort soon after acquisition. He built a family swimming pool with concrete deck and bathhouse in 1962, as well as the Cascade Bay Grill, a frame building on a concrete foundation with a wooden front deck in 1963. Construction of detached rental units began in 1965 with the single-story 1100 Building off the northeast end of the Mansion along with the 1200 and 1300 Buildings, a pair of two-story buildings with balconies sited farther to the east, near the Roundhouse. A two-story dining room wing with flat roof and white painted plywood exterior veneer was added to the Mansion in 1968. In 1971, the original kitchen at the core of the Mansion was replaced by a concrete block kitchen wing that extended from the southwest elevation of the new dining room wing. The former kitchen area was then developed as storage and lobby/office space. Tennis courts were added in 1968, and the Discovery House Conference Center and Hillside Condominiums were erected in the 1970s (NRHP Nomination 1974).

Geiser sold the resort in 1980 and the two buildings comprising the Cascade Harbor Inn were built in 1982 by former owners of Rosario as additional resort lodging. Geiser resumed control of Rosario in 1984. The 9.1-acre parcel containing the Cascade Harbor Inn buildings was sold to its current owner in 1989 but functioned as part of Rosario until late 1994 when the Cascade Harbor Inn became an independently managed hotel. These two motel buildings remain the newest Resort buildings within the MPR (Geiser personal communication 2000-2005).

3.8.1.2 Historical Resources

Rosario was originally nominated to the National Register of Historic Places in 1974. Rosario would also likely qualify as an historic district. The boundaries of the district are shown on Figure 3-6 and extend along the shoreline around and along “point lawn,” and generally conform to the shoreline configuration that extends to the end of the concrete walkway east of the boathouse. The boundary also extends up to and around the “root cellar,” cook’s house, and barn foundation.

Contributing buildings shown on Figure 3-6 include a number of buildings that remain from the time when the estate was owned by Robert Moran. Of these, only the Moran Mansion, the powerhouse, the Roundhouse, the Boatel, and the original section of the carriage house/garage are located within the boundaries of the MPR designation. The others are privately held and not subject to the Resort Master Plan, yet their interrelationship is important to the entire site's historical integrity. In addition to historic buildings, a number of other features shown on Figure 3-6 of the RMP contribute to the Resort's historic integrity. Examples include the Figure 8 Lagoon and a network of concrete walkways near the Moran Mansion and along the waterfront.

Contributing historic resources evaluated by the Washington State Department of Archeology and Historic Preservation (DAHP) are located within the MPR designation and are listed and described on Table 3.8-1 below.

**TABLE 3.8-1:
CONTRIBUTING HISTORIC RESOURCES AT ROSARIO**

Date	Historic Resource	Historic Information Summary
1909	Moran Mansion	Centerpiece of Moran Estate designed by Robert Moran and built under supervision of Robert's eldest son John from 1906-1909 and occupied by the Moran family from 1909-1938.
1914	Roundhouse	Built of solid concrete by Robert Moran as a family get-away and location for children's activities.
1921	The powerhouse	Contains the generator equipment installed by Robert Moran to supply DC power to the Moran estate.
c1938	Original section of carriage house/garage	Garage built by Donald Rheem.
1926	Boatel	Built of concrete by Robert Moran as workshop.
1907	General site layout and views of the water	Moran's site layout emphasized minimal disturbance to natural setting, views of and over Cascade Bay and East Sound, and open space.
1915	Canoe pond (Figure 8 Lagoon)	Robert Moran built the 360-foot long concrete Figure 8 shaped lagoon with an island at each end and a bridge crossing the center for his wife to swim in.
c1909	Street lights	Robert Moran installed the three-globe streetlights which were reportedly salvaged from Seattle following the great fire of 1889.
1907-1950s	Original concrete walkways and circulation systems;	Roads and pathways of poured concrete were laid out by Moran.
1909	Circular entrance drive with chestnut tree and anchor chain railing	A high-grade rolled lawn created by the circular carriage drive in front of the Mansion. The anchor chain used for a horse hitch came from Battleship Nebraska, built by Moran Brothers.
1916	America figurehead	This figurehead was salvaged by Moran from the Clipper Ship America which wrecked on San Juan Island in 1915 and installed at its present location by Moran the following year.
c1909	DC power poles with green glass insulators	DC electricity from powerhouse to Mansion carried on overhead lines built by Moran.
c1909-1952	Stone Jetty	Recommended to Moran by J.C. Olmsted in 1907 and subsequently built by Moran.
1907-1950s	All rock walls and original rock features, including the "Panda Pond" and retaining wall to the point lawn	Extensively rebuilt by Rheem. Landscaping begun by Robert Moran and continued during resort development.
c1887	Original docks and/or pilings	1st Pier served Cascade Lumber Co. at Newhall.
1950	"1950" marker, etc.	Marker placed by Donald Rheem during marina construction.
1907+	Historic plantings	Several plantings dating to Newhall period include 3 Duchess apple trees and Orcas pear and plantings by Moran including, 3 horse chestnut trees, naturalized German irises, Japanese peonies, and rosebushes transplanted from the original rose garden.

Source: Washington State Department of Archeology and Historic Preservation

3.8.1.3 Archaeological Resources

One previously recorded archaeological site is located within the Rosario Resort, a Native American shell midden designated 45SJ242. The site was initially described as covering a 300-

yard long, 15-foot wide area between a lagoon (now the Figure 8 Lagoon) and the Cascade Bay beach. When first recorded in 1951, significant modern disturbance was noted as well as informant recollections of human remains and artifacts being present at the site. Removal of two underground tanks in 1991 between the Boatel and the Discovery House exposed a very thick deposit of apparently intact, albeit petroleum-contaminated, shell midden. Recent disturbance to the midden includes installation of a shallow utility line between the pond and the beach, noted in a 2005 survey of parcels north of the Resort and by Northwest Archaeological Associates (NWAA) archaeologists for this assessment. Archaeological remnants of the early historic settlement of Newhall may potentially exist in this area as well. The discovery of a chipped stone tool on the ground surface in 1980, designated site 45SJ305 along the shore of Cascade Lake outside Rosario Resort, gives an indication of possible archaeological resources that may be found in a similar setting within the property.

Archaeological assessment and recommendations for RMP components within and near the previously recorded boundaries of site 45SJ242 take into account state laws regulating the treatment of archaeological resources. These state laws include the Indian Graves and Records Act (RCW 27.44) which prohibits knowingly disturbing a Native American or historic grave, and the Archaeological Sites and Resources Act (RCW 27.53) which requires that anyone proposing to excavate into, disturb, or remove artifacts from an archaeological site on public or private land obtain a permit from the Office of Archaeology and Historic Preservation.

3.8.2 Environmental Impacts

The Proposed Action includes ground-disturbing activities that have the potential to result in direct impacts to archaeological resources within the project area. Ground disturbance destroys the relationships among artifacts, features, and their contexts found within intact archaeological deposits. Ground-disturbing activities would occur during demolition and removal of existing buildings and foundations; excavation for new foundations and below-ground construction; grading for new roads, pathways, and parking; installation of utility poles or subsurface utility lines; removal of shoreline construction such as the revetment; and staging and stockpiling equipment for other construction activities.

The probability of impact to archaeological resources is considered low in areas of the Resort in which the pre-development ground surface would not likely have had or retained remains of Native American or early historic occupation, or where extensive historic modification has disturbed native sediments. Steep slopes, exposed bedrock, or significantly graded platforms are such low-probability areas, and no further investigation is recommended. Areas with a moderate probability are those which have been significantly modified by resort development but are in sensitive locations that still retain enough intact native sediments to warrant subsurface survey before construction activities begin. High probability areas are either in the *vicinity* of known archaeological resources and should be thoroughly surveyed, or are *within* the known extent of a previously recorded archaeological site, in which case any ground disturbing activity may cause damage to the site. In high-probability areas, survey should be used to determine specific effects of the project on the site, and testing and data recovery will likely be necessary as well.

3.8.2.1 No Action Alternative

Historic Resources

As long as Rosario Resort and Spa remain operational, existing historic resources would likely continue to be protected and displayed to the public. Rosario is proud of its listing on the National Register of Historic Places which it prominently displays on all its literature. Rosario is also a member of the Historic Hotels of America. The Historic Hotels of America is a program of the National Trust for Historic Preservation for a limited number of quality hotels that have faithfully maintained their historic architecture and ambience. To be selected for this program, a hotel must be at least 50 years old, listed in or eligible for the National Register of Historic Places or recognized locally as having historic significance.

Unfortunately financial limitations have prevented Rosario from undergoing overdue maintenance projects such as replacement of the Mansion's heavily weathered copper roof or upkeep of the long-vacant Boatel building. Though falling short of an adverse effect classification, such maintenance concerns threaten the long-term viability of the Resort's historic legacy unless substantial investments are made by the Resort's owners. Because both of these projects would require substantial investments but offer little opportunity for new revenue, neither project is likely to get funded.

One potential scenario is closure of Rosario Resort. This would likely pose a significantly greater threat to historic resources at Rosario that may not be avoidable. The Mansion and other contributing historic resources suffered damage during previous closures and irreplaceable artifacts from the Moran period were lost or stolen. Without the substantial marketing and financial incentives offered by Rosario's listing on the National Register or membership in the Historic Hotels of America, future owners would likely be less inclined to protect and restore unique historic resources. Even if they did, privatization of the property could make these cultural treasures inaccessible to the public.

If the property were subdivided into a collection of private residential estates permissible under a *Rural-5* land use designation, the expansiveness and contiguity of the historic landscape would be lost and replaced with new, private individual developments.

Archaeological Resources

The current level of protection for archaeological resources within the Resort would likely continue under the No Action Alternative, resulting in no additional impact to archaeological resources beyond those they are currently subject to by natural processes and resort operation. Closure of the Resort in the future is one possible outcome of this alternative, however that may result in division of the resort property and resale of the parcels. Such an action would complicate protection of known archaeological resources and additional survey for resources within the MPR boundaries.

3.8.2.2 Action Alternative A

Historic Resources

Action Alternative A recognizes the drawing power of the Mansion for resort guests. A frequent guest complaint is disappointment resulting from unmet expectations of staying in the Mansion reconciled with the reality that their actual accommodations are a van ride or healthy walk away in a Hillside condo. To address this issue, Action Alternative A would convert the upper floors of the Moran Mansion into guest rooms and cluster new hotel buildings on both sides of the Mansion. Dislocated by the conversion, the museum would be relocated to a new building near the Mansion. Moran-era artifacts and memorabilia now displayed in their historic context within the rooms of the Mansion would remain on display but without the benefit of their historic setting in this new building. This change would adversely affect the site's historic context and value.

Adaptive reuse of the Mansion as a hotel would likely result in significant structural and aesthetic changes in order to meet the needs of contemporary guests as well as the requirements of building codes and insurance carriers. Such modifications would likely include interior reconfiguration, a new elevator, new bathrooms and fire exits along with associated plumbing, wiring, and HVAC installation. Given the unique configuration of the Mansion's interior, it is difficult to envision how such modifications would preserve the Mansion's historic integrity and avoid adverse effects to the Mansion's interior.

The Mansion would be flanked on either side by new buildings housing the restaurant, museum, and guest rooms. Even if these new additions to the site were designed to be architecturally compatible with the Mansion, their massing and proximity would alter its appearance as a singular structure, potentially affecting its integrity and the character of the landscape.

The other significant historic resources likely to suffer adverse effect would be the wharf and the Boatel, both of which are proposed for demolition under Action Alternative A. The wharf (which has been substantially rebuilt in 2004 following storm damage) dates to the Newhall period and the Boatel was built by Moran. The Boatel would be razed to clear the site for conference center expansion and the wharf would be removed as part of the marina's expansion and reconfiguration. A variety of identified contributing historic landscape features would also likely be altered or destroyed under this alternative.

Archaeological Resources

Action Alternative A concentrates development of hotel units near the Mansion and expands conference facilities near the Discovery House and Boatel Building. Construction in most areas near the Mansion will have a low probability of impacting archaeological resources. Given the prominence of Rosario Point as a landmark and the possibility of some relatively level, intact native sediments in places, however, there is a moderate probability of impacting archaeological resources in places such as the Eagle Lawn. Re-development of harbor facilities on the western edge of the marina area is another component of Action Alternative A. Much of the area is level, created from quarrying rock for the jetty. Construction there will have a low probability of impacting archaeological resources within the RMP area.

Proposed expansion of conference facilities in the vicinity of the existing Discovery House and Boatel building under Action Alternative A will likely impact 45SJ242. Also, this alternative proposes future development in the vicinity of the Cascade Bay Grill and pool area immediately west of the marina. Although the area is west of site 45SJ242 as previously recorded, that boundary (with the exception of the 1991 tank removal), was based on surface observations. Therefore there is a moderate to high probability of impact to this archaeological resource, especially the western boundary of the midden which is likely to be found within this area.

Limited additional residential development is proposed under Action Alternative A in the wooded hillside above the lower resort. Although the forests in the Hillside and Upper Basin areas represent some of the oldest stands on Orcas Island, this land had been cleared of trees prior to establishment of the Resort. Thus, there is a low probability of Native American cultural resources such as remnants of modified trees and tree burials being present in the area today, and a low probability of impact to archaeological resources.

Aside from new building construction, improvements to circulation, landscaping, and utilities will be implemented under Action Alternative A. Circulation improvements include limited expansion of vehicular roads, extensive pedestrian walkway and trail additions, and moderate expansion of parking. Even open space that will not be developed may undergo ground-disturbing landscape and utility improvements that have the potential to impact archaeological resources. Any planned circulation, landscaping, or utilities improvements that may involve ground disturbance near site 45SJ242 have a high probability of adversely impacting the site deposits.

3.8.2.3 Action Alternative B

Historic Resources

This alternative would renovate the Moran Mansion but no proposed changes in its future use would require major interior modifications affecting its integrity. The most significant change would be a new four-story Mansion Annex addition to be located on the site of the existing kitchen/dining room/spa wing. This addition would share a small portion of a common wall with the Mansion and connect via a corridor on each floor to its interior. By locating new facilities such as the spa and guest rooms and elevator in this new wing, the Mansion itself would be spared from major interior modifications.

The Mansion has never undergone a major renovation in its 100-year history. Several million dollars would be spent under this alternative to perform major interior restoration and rehabilitation of the building's electrical, communications, plumbing, and mechanical systems as well as roof replacement, and numerous interior and exterior repairs. Associated with this work would be significant reconfiguration required to move the spa retail from the basement to the main floor, convert the Moran Room back into a lounge and function room, replace the administrative offices on the upper floors with the Moran Clubhouse, etc.

The other notable change would be the expansion of the existing swimming pool from a fully enclosed pool to an indoor/outdoor pool. This would be accomplished by using existing window

portals as swim-through passageways between the indoor and outdoor portions of the pool. If structurally feasible, such modification would enhance the pool's year-round appeal. This change would not adversely affect historic integrity because no new building penetrations would be required and the existing northeast façade would remain in place although it would replace an existing lawn with a swimming pool and deck.

The circular entrance drive would be returned to its original configuration and re-landscaped to provide more functional and attractive loading facilities and improve the sense of arrival. This modification would eliminate the historic carriage house. The carriage house is considered a contributing resource but is not an original building having been added by Rheem, not built by Moran. Over the years, it has been extensively modified, and may no longer retain its historical integrity. While its loss may constitute an adverse effect, this impact would be relatively minor and offset by restoration of more valuable contributing historic resources in the immediate vicinity such as portions of the Moran Mansion and the circular entrance drive.

The area of the Resort between the Moran Mansion and the family pool complex currently containing the main parking lots, lawns, and the Cascade Bay Grill would be redeveloped as the "Marina Village", a pedestrian-oriented cluster of terraced cottages. This development would require extensive site re-configuration which would reduce the general sense of openness in this area. However, most of the existing character-defining natural features such as large trees and rock outcrops would be left in place and a network of trails would allow access throughout this part of the Resort. The only identified contributing historic resources in this area are the DC power poles with green glass insulators and several historic plantings. The wooden power poles and electrical lines are in poor condition and may be beyond repair, but the distinctive green insulators could be salvaged. As stated above, most of the living significant trees would remain as required by SJCC 18.60.190 A.11.

The Boatel building has stood vacant for many years and is in a serious state of disrepair. The 2005 RMP proposes adaptive reuse of this historic building if the building is determined to be salvageable. Under this plan, the Boatel would be converted into a complex of retail and other support services serving the adjacent marina and Marina Village with recreation and Resort administrative functions on upper floors. Reuse of this decrepit building will require extensive remodeling efforts and modifications such as new windows and an entire new interior for the currently gutted structure. If the Boatel cannot be saved, it would likely be replaced with new construction of similar proportions on the same footprint serving the proposed uses.

Archaeological Resources

Renovation of the Moran Mansion and surrounding buildings and features are key components of Action Alternative B. This part of the Resort is built upon a rocky promontory with exposed bedrock outcrops and thin sediments between graded terraces on which the existing buildings and lawns have been constructed. The Mansion and surrounding parking lot and grounds have significantly altered the original ground surface. Renovation and restoration of the Mansion and construction of the Mansion Annex will have a low probability of impacting archaeological resources. Construction of several cottages and mini-mansions is proposed adjacent to the Mansion and the proposed Mansion Annex. Some of these buildings would occupy the area of

the existing Eagle Lawn below the Point Lawn. Much of this level area was created by grading and filling parts of the rocky point. However, given the prominence of the landmark and the possibility of relatively level, intact natural ground surface in places, there is a moderate probability of impacting archaeological resources here.

The relatively low-lying and level area at the head of Cascade Bay is the most archaeologically sensitive portion of the MPR area. Under Action Alternative B, this area is proposed for development as the Marina Village. The proposed Central Village and Cabana Condominiums, and improvements to the green-space, Figure 8 Lagoon, and marina facilities, have a high probability of impact to the shell midden site 45SJ242. Construction activities within the known boundary of the site that involve disturbance to or excavation into the ground surface would damage the archaeological deposit, some of which is likely to be intact and possibly contain human remains. Development of the Jetty Site and Bowman's Bluff Cottages on either side of the marina have a low probability of impact to archaeological resources, given their prior grading in steep settings. Another component of Action Alternative B, renovation of the Boatel building as a retail and administrative center, will not have an impact on archaeological resources if construction is limited to above-ground activities.

The hillside and upper basin encompass the relatively steep slope on both sides of Bowman's Creek that drains Cascade Lake into Cascade Bay, and are proposed for development under Action Alternative B. Much of the area is undeveloped, with utility lines, an access road, and graded platforms the only existing constructed features. Although the forests in the Hillside and Upper Basin areas represent some of the oldest stands on Orcas Island, this land had been cleared of trees prior to establishment of the Resort. Thus, there is a low probability of Native American cultural resources such as remnants of modified trees and tree burials being present in the area today. The existing Hillside condominium buildings are proposed to remain on the platform-cut slope. Improvements will be limited to pedestrian connections. Given the steep slope and prior development, this component of Action Alternative B has a low probability of impacting archaeological resources. Continued use of the existing Cascade Harbor Inn facilities is also proposed under Action Alternative B, although the Cascade Harbor Inn may expand by constructing additional facilities across the street. That area is a level and manicured grassy yard graded into the hillside. Construction here has a low probability of impacting archaeological resources. Hillside and Woodland Cottages are proposed within the existing Hillside complex and in several steep, forested areas surrounding the complex along the existing road. Given prior development in some proposed locations and steep slopes throughout, this component has a low probability of impacting archaeological resources.

The Hilltop and Utility Tract occupy the sloped hillside of woods and exposed bedrock above Cascade Lake. Both have been significantly altered by historic logging, grading, utility installation, and construction of existing buildings and auxiliary features of the Resort. Development proposed in these two areas under Action Alternative B has a low probability of impacting archaeological resources.

Aside from new building construction, improvements to circulation, landscaping, and utilities are components of the RMP. Circulation improvements include limited expansion of vehicular roads, extensive pedestrian walkway and trail additions, and moderate expansion of parking.

Even open space that will not be developed may undergo ground-disturbing landscape and utility improvements that have the potential to impact archaeological resources. Any planned circulation, landscaping, or utilities improvements that may involve ground disturbance near site 45SJ242 have a high probability of adversely impacting the site deposits.

Probable impacts and mitigation recommendations for components of Action Alternative B are summarized below in Table 3.8-2.

**TABLE 3.8-2:
SUMMARY OF PROBABLE IMPACTS AND RECOMMENDATIONS FOR RMP COMPONENTS**

RMP Component		Probable Archaeological Impact	Recommended Measures
Mansion Vicinity	Mansion	Low	None
	Mansion Annex	Low	None
	Waterfront Cottages	Moderate	Subsurface Survey
	Mini-Mansions	Moderate	Subsurface Survey
Marina Village Vicinity	Central Village Condos	Moderate to High	Subsurface Survey and Monitoring, Possible Data Recovery
	Jetty Site Condos	Low	None
	Cabana Condos/ Conf. Center	High	Subsurface Survey and Monitoring, Possible Data Recovery
	Cabana	High	Subsurface Survey and Monitoring, Possible Data Recovery
	Green	High	Subsurface Survey and Monitoring, Possible Data Recovery
	Figure 8 Lagoon	High	Subsurface Survey and Monitoring, Possible Data Recovery
	Marina Center Retail	High (Alt. A), Low (Alt. B)	Subsurface Survey and Monitoring, Possible Data Recovery
	Marina	High (on-shore only)	Subsurface Survey and Monitoring, Possible Data Recovery
	Bowman's Bluff Cottages	Low	None
Hillside/Upper Basin	Hillside Condos	Low	None
	Cascade Harbor Inn	Low	None
	Hillside Cottages	Low	None

**TABLE 3.8-2:
SUMMARY OF PROBABLE IMPACTS AND RECOMMENDATIONS FOR RMP COMPONENTS**

RMP Component		Probable Archaeological Impact	Recommended Measures
	Woodland Cottages	Low	None
	Tennis Courts	Moderate to High	Subsurface Survey
Hilltop & Utility Tract	Housing & Parking	Low	None
	Utility Tract	Low	None
Other	Circulation, Landscape, Utilities	High Near 45SJ424, Moderate Near Shore of Cascade Lake	Subsurface Survey and Monitoring, Possible Data Recovery

3.8.3 Mitigation Measures

3.8.3.1 No Action Alternative

HAR-M-1: Rosario plans to continue to maintain, protect, and display historic and archaeological resources through the duration of resort operations.

3.8.3.2 Action Alternative A

Historic Resources

The 2000 Resort Master Plan is generally sensitive to historic resources, emphasizing how maintaining historic integrity is critical to the Resort, whose very identity is based on its past. It proposes appropriate archaeological and historic preservation practices and mitigation measures including:

HAR-M-2: The very first objective of the 2000 Resort Master Plan reads: “Avoid actions which compromise the historic integrity of the site, especially the works of Robert Moran, by protecting historic and archaeological resources and restoring recognized historic features.”

HAR-M-3: In addition, potential adverse effects on the Moran Mansion and Boatel could be mitigated by recordation according to Historic American Building Survey (HABS) protocols.

Archaeological Resources

HAR-M-4: Because site 45SJ242 contains intact shell midden deposits under pavement/fill at the site, it is eligible for NRHP listing under Criterion D. As a result, the updated NRHP nomination form to be submitted as a Resort Master Plan implementation action will include site 45SJ242.

HAR-M-5: Avoidance of identified archaeological sites is the primary mitigation measure available in any project development context. For some components of Action Alternative A,

however, adverse effects are likely to the shell midden deposits of site 45SJ242. Unavoidable damage to the site will need to be mitigated by data recovery excavation prior to construction activity that recovers information about the lifeways of Native American and early Euroamerican residents of Cascade Bay that makes the site significant. Because there is a possibility of human remains being found in shell midden sites, archaeological monitoring of construction activities is another measure that may be necessary even after data recovery excavations have taken place. Appropriate mitigation measures will be tailored to specific circumstances of the resource and developed in consultation with the Washington State Historic Preservation Officer (SHPO) and, if the resource is Native American, the Lummi Nation Tribal Historic Preservation Officer (THPO).

HAR-M-6: Implementation of a Management Plan will help avoid adverse effects to archaeological resources by outlining a protocol for archaeological survey in sensitive areas (e.g., the Eagle Lawn and existing swimming pool and Cascade Bay Grill areas) and steps to be taken in the event of an inadvertent discovery of archaeological material. In the Management Plan, steps will need to be outlined for treatment of newly discovered sites involving testing for content, integrity, and its relationship to other known archaeological resources. The plan will need to outline the steps for data recovery excavations of significant newly discovered sites that cannot be avoided by project activities, and monitoring during construction activities for the presence of human remains. The Management Plan will be developed in consultation with the Lummi Nation, DAHP, and San Juan County.

3.8.3.3 Action Alternative B

Historic Resources

HAR-M-7: Adverse effects on historic resources could be mitigated through the development of a Historic Resources Management Plan. The plan would include a catalogue of the historic resources of the Resort and establish preservation protocols. The plan could also include architectural design, massing and scale guidelines for new development in the vicinity of the Mansion to preserve and enhance the historical character of the Resort. The Historic Resource Management Plan should be developed under the guidance of an historic preservation specialist and include consultation with the Department of Archeology and Historic Preservation.

Archaeological Resources

HAR-M-8: For some components of the Rosario Resort Master Plan under Action Alternative B, adverse effects are likely to the shell midden deposits of site 45SJ242. Unavoidable damage to the site could be mitigated by data recovery excavation prior to construction activity that recovers information about the lifeways of Native American and early Euroamerican residents of Cascade Bay that makes the site significant. Because there is a possibility of human remains being found in shell midden sites, archaeological monitoring of construction activities is another measure that may be necessary even after data recovery excavations have taken place. Appropriate mitigation measures will be tailored to specific circumstances of the resource and developed in consultation with the SHPO and, if the resource is Native American, the Lummi Nation THPO.

HAR-M-9: Implementation of a Management Plan will help avoid adverse effects to archaeological resources. Exhibit 7-1 in the 2005 RMP is an example of such a plan, outlining a protocol for archaeological survey in sensitive areas (e.g., the Eagle Lawn, the proposed Marina Village area, and vicinity of the tennis courts) and steps to be taken in the event of an inadvertent discovery of archaeological material. In the Management Plan, steps should be outlined for treatment of newly discovered sites, involving testing for content, integrity, and its relationship to other known archaeological resources. The plan will need to outline the steps for data recovery excavations of significant newly discovered sites that cannot be avoided by project activities, and monitoring during construction activities for the presence of human remains. The Management Plan will need to be developed in consultation with the Lummi Nation, DAHP, and San Juan County.

3.8.4 Other Management Practices

3.8.4.1 No Action Alternative

HAR-OMP-1: Rosario plans to continue to maintain, protect, and display historic and archaeological resources.

3.8.4.2 Action Alternative A

HAR-OMP-2: The 2000 Resort Master Plan is generally sensitive to historic resources, emphasizing how maintaining historic integrity is critical to the Resort, whose very identity is based on its past. In addition to protecting Rosario's historic resources, the 2000 Resort Master Plan recommends installing interpretive signs to inform interested guests and visitors about Rosario's history.

3.8.4.3 Action Alternative B

The proposed 2005 Master Plan proposes numerous appropriate archaeological and historic preservation practices including:

HAR-OMP-3: Goal #2 “Preserve, restore, and enhance what is most unique and cherished about Rosario, especially the works of Robert Moran” which is reiterated through Objectives 2.1-2.5 especially Objective 2.1 and 2.2 presents a clear statement of intent regarding the importance of historic and archaeological resource protection.

HAR-OMP-4: Restoration of the Moran Mansion in accordance with the Secretary of Interior's Standards for the treatment of historic properties to upgrade the historic building's contemporary functionality as well as restore its original early-20th-Century décor is a key component of this alternative.

HAR-OMP-5: Restoration and adaptive reuse of the Boatel as part of the marina complex housing a small chandlery, general store, and other retail and services.

HAR-OMP-6: Specific guidance on cultural resource issues presented as exhibits such as: History Brought to Life (Exhibit 4-2); Design and Historic Preservation (Exhibit 5-4); The

Secretary of Interior's Standards for Rehabilitation (Exhibit 5-5); The Secretary of Interior's Standards for Restoration (Exhibit 5-6), and; Archaeological Procedures (Exhibit 7-1).

HAR-OMP-7: As described in Exhibit 5-4 of the 2005 RMP, the design team for new facilities at Rosario will include a qualified historic preservation architect with an understanding of the Secretary of Interior's Standards as they apply to rehabilitation, new construction, and setting. The design team will also include a qualified professional in historic cultural landscape design to assist in identifying historic and other significant landscape features that should be preserved and integrated into the site plans.

HAR-OMP-8: The issue of historic compatibility is specifically addressed by Section 5.4.1 of the 2005 RMP which explains how new construction should be designed to be compatible with the Mansion and other Moran designs.

HAR-OMP-9: In addition to protecting and restoring Rosario's historic resources, the 2005 RMP recommends installing interpretive signs to inform interested guests and visitors about Rosario's history.

HAR-OMP-10: The historic lighting in the Resort Core would be retained to maintain the site's historic integrity, and new exterior lighting would be of a compatible design.

HAR-OMP-11: Rosario will participate in informed design review of construction and landscape plans. The Resort supports the formation of a historic preservation commission or landmarks board by San Juan County to perform such review as Rosario recognizes the importance of historic preservation on attracting visitors to Orcas Island. Alternatively, Rosario would support and facilitate creation of an independent design review committee modeled after the advisory committee but with additional specialized expertise in design and historic preservation of architecture and landscape architecture.

HAR-OMP-12: Rosario intends to apply for 20 percent federal historic preservation tax credit for rehabilitation of the Moran Mansion and Boatel and recognizes that eligibility for this significant financial incentive will depend on adherence to the Secretary of Interior's Standards.

3.8.5 Cumulative Impacts

Under Action Alternatives A or B, some impact is likely to at least one known archaeological site, by its nature a non-renewable resource in which damage may be mitigated by data recovery excavations yet may not be available for study in the future when methods have been improved and research questions have been refined.

3.8.6 Unavoidable Significant Adverse Impacts

No unavoidable significant adverse impacts were identified for either Action Alternative. Significant historical and archaeological impacts could be mitigated by data recovery and/or a memorandum of agreement with the Lummi Nation, DAHP, and San Juan County addressing cultural resource protection. However, loss of contributing historic buildings and features, and potential loss of integrity of the Moran Mansion may result in significant adverse impacts.

3.9 TRANSPORTATION

This section discusses potential traffic and transportation impacts associated with the No Action, Action Alternative A, and Action Alternative B. In response to questions raised by the San Juan County Public Works Department (see comment letter in Chapter 6), the traffic analysis prepared for the DEIS was revised to include new information and additional analysis (see also Appendix D of the FEIS). As in the original study, traffic and transportation impacts are evaluated using standards and guidelines of San Juan County to maintain acceptable levels of mobility and safety.

For the purpose of this analysis, the year 2010 was selected as the full build out of the Master Plan.

3.9.1 Affected Environment

This section describes existing transportation system conditions in the study area. It includes an inventory of existing roads and intersections, safety issues, ferry service, as well as other alternate modes of transportation.

3.9.1.1 Roads and Intersections

The roadway study area includes the county arterial roadway system from the ferry dock at Orcas to the Resort. Traffic from the ferry terminal to the Resort is expected to use Orcas Road to Eastsound and Olga Road from Eastsound to the Resort entrance. Existing and future traffic volumes were evaluated at several mileposts along Orcas and Olga Roads. The mileposts, identified below, were selected because they correspond to established San Juan County Road Inventory locations and traffic data is available at these locations. Traffic through Eastsound is expected to affect several intersections.: The roadway study mileposts are as follows:

- Orcas Road (milepost 0.75)
- Orcas Road (milepost 3.92)
- Orcas Road (milepost 6.93)
- Orcas Road (milepost 7.00)
- Olga Road (milepost 9.45)
- Olga Road (milepost 11.50)
- Rosario Road (milepost 0.10)

Measurements show that the majority of the roadway between the ferry landing and Rosario Road which includes Orcas Road to Eastsound and Olga Road to Rosario Road has 11-foot wide lanes and 4-foot wide shoulders. The terrain at all points on both roads is defined as rolling, which affects the ability for cars to pass slower moving vehicles.

Rosario Road from Olga Road to the Resort, consists of a combination of steep grades and tight radius horizontal curves. In addition to the difficult roadway geometry, there are a number driveways along its approximate 1.3 miles of length with poor site visibility both from vehicles entering the roadway and vehicles traveling along Rosario Road.

Several private roads including Cascade Way, Ocean Mist and Palisades Road serving existing residential and vacation lodging will also provide access to new development proposed for the Resort. Access to twenty one single-family vacation cottages known as the Woodland Cottages is planned via Palisades Road. The proposed non-motorized trails between the resort core and these cottages are expected to serve many of the intra-resort trips that would otherwise be made by car.

In addition, to the mileposts along Orcas Road and Olga Road, several key intersections in Eastsound were evaluated. These intersections were selected in consultation with San Juan County Staff, based on the likelihood that Resort generated trips would pass through these intersection on the way to and from Rosario, to the airport and for shopping. The intersections evaluated include the following:

- Lover's Lane at Main Street
- Prune Alley/Haven Road at Main Street
- Terrels Beach Road at Crescent Beach Road
- North Beach Road at Mount Baker Road
- North Beach Road at 'A' Street

All of the intersections listed above are un-signalized, stop-controlled intersections where major flows of project-generated traffic volumes shift directions and/or intersect with larger existing traffic flows. Intersections with lower volume neighborhood streets were not included in this analysis because the impacts of the added project-generated traffic volume, while potentially noticeable, are not expected to be appreciably changed over existing conditions. Existing volumes are shown in Figure 3-7.

3.9.1.2 Safety

Based on the Orcas Accident database supplied by San Juan County Engineering Department, in October 2003, the primary location identified as a potential safety problem was along Rosario Road, which connects the Resort to the surrounding road network. This road consists of a combination of steep grades and tight radius horizontal curves. Although this road has a posted speed limit of 25mph, 85th percentile speed studies have shown speeds of 35 mph as reported by San Juan County staff and documented in the Rosario Road Study prepared by Hart Pacific Engineering for San Juan County, January 2004. In addition, many driveways with limited sight distance are located along this 1.3-mile stretch of roadway, due to the road's geometric layout.

Historical data supplied by San Juan County from the year 2001 thru the year 2003, shows that there were a total of two accidents reported along Rosario Road. This translates to an accident

rate of roughly 1.24 accidents per million vehicle miles traveled within the last 3 years along Rosario Road. Anything over one accident per million vehicle miles traveled may indicate a safety issue. However, both accidents were single vehicle accidents, one of which involved a driver of a moped who lost control of the vehicle and the other accident involved an uninsured motorist. While the factors may indicate these accidents were more related to the driver than to Rosario Road, the roadway is considered substandard by San Juan County (per San Juan County Staff comments on pre-draft, received August 8, 2005) A more detailed summary of recorded accidents since 1990 is presented in Appendix D, which shows the majority, (over 60%), of accidents involve vehicles driving off the road due to speed or driver error or vehicles have lost control, and driven off the road or collided with a fixed object. About 20% of these accidents appear to be precipitated by animals crossing or standing in the road. Approximately 20% of the accidents involve mopeds. Despite the limitation of sight distance at driveways, none of the accidents recorded involve right angle accidents associated with vehicles turning in or out of private driveways or intersecting streets.

3.9.1.3 Ferry, Air and Marine

The Washington State Ferries (WSF) provides primary automobile and passenger connections with Orcas Island. As noted in the Comprehensive Plan, Section 6.4.B.15, San Juan County uses SEPA analysis to identify impacts on the ferry system since a formal Concurrency Standard has yet to be jointly adopted for ferry service and ferry parking. The most reliable approach for describing the impact of incremental development is expressed as the proportional increases in ferry patronage (expressed as a percent of automobile capacity) and ferry-related parking demand levels. The traffic study examined two aspects of this transportation service: 1) Additional demand on the ferry runs serving Orcas Island and 2) impact on the Orcas Ferry Landing parking facilities.

There are several aspects of air travel that could be impacted by the demand generated by the Action Alternatives proposed. These include impact on the Eastsound Airport and an increase in activity by seaplanes at Rosario. Kenmore Airlines offers scheduled as well as charter flights to Rosario. A brief summary of the characteristics of these two primary airports is summarized in Table 3.9-1.

Kenmore Air flies four models of planes: DeHavilland piston and turbo driven Beavers, DeHavilland Otters, and Cessna 180s. The Beavers have a capacity of six or seven passengers, the Otters have a capacity of ten, and the Cessnas carry three. Most flights occurring at Rosario use Beavers and Otters.

**TABLE 3.9-1:
AIRPORT INVENTORY**

Air Facility	Type	Runway Length/Condition	Based Aircraft	Average Airport Operations	Airport Operation Capacity
Eastsound Airport	Land Based	2900 ft./good	93	160/day	335/day
Rosario Airport	Sea Based	--	--	8/day	98 flight cycles/week

Note: The reported operations represent the average daily operations and fluctuate considerably by season. Rosario operations are limited by Shoreline Substantial Development Permits issued by San Juan County. Functional limitations to the number of flight operations relate to the number of daylight hours and actual passenger demands.

Rosario is unique in its ability to also be directly accessed by private watercraft such as pleasure boats, water taxis and yachts. The existing marina has a total 34 slips and 20 mooring buoys. Currently, all modes including commercial water taxi service from the mainland serve Rosario Resort residents and guests. These services will continue and will likely adjust to accommodate fluctuations in Resort activity.

3.9.1.4 Pedestrians, Bicycles, and Mopeds

There is a private contractor on Orcas Island who rents mopeds, which can be rented by guests of the Resort. The contractor requires all users to wear helmets and educates the users in the safe operation of these vehicles.

Outside of the existing Resort, pedestrian and bicycle facilities are limited to the existing roads, some paved and others unpaved shoulders of the surrounding road network. A limited network of trails and sidewalks currently exists on-site.

3.9.1.5 Parking

Parking demand is currently met by the existing approximate 230 surface parking stalls supplied on site in the form of both paved and striped stalls and unpaved, unmarked stalls.

3.9.2 Environmental Impacts

3.9.2.1 No Action Alternative

For the purpose of this analysis, the No Action Alternative assumes the Resort will not generate any increase in activity (although it may decline). To be conservative, this alternative also assumes continuation of historical traffic volume growth or decline to 2010.

Short-Term Impacts

Short-term transportation impacts are not expected under the No Action Alternative.

Roads and Intersections

Under the No Action Alternative, all modes of transportation are expected to be utilized at or slightly below existing levels by Rosario Resort reflecting the historical trend over the past several years. However, volumes not associated with Rosario Resort are expected to change on

the island. Table 3.9-2 summarizes the No Action Alternative volumes and the ability of the road network to comply with adopted Transportation Concurrency Standards. This shows that all road segments pass concurrency. An adjustment was made to the adequate LOS capacity at milepost seven on Orcas Road to reflect the wider lanes and shoulders in this road segment. Similar adjustments were made to the adequate LOS capacity for Rosario Road to reflect zero passing opportunities and the mountainous terrain.

**TABLE 3.9-2:
NO ACTION ALTERNATIVE ROAD CONCURRENCY STANDARD EVALUATION**

Traffic count location	Orcas Road – MP 0.75	Orcas Road – MP 3.92	Orcas Road – MP 6.93	Orcas Road – MP 7.001	Olga Road – MP 9.45	Olga Road – MP 11.5	Rosario Road – MP 0.101
Current AADT ^a	1854	2020	2670	3798	2907	2707	1213
Additional capacity	0	0	0	0	0	0	0
Adequate LOS capacity	4399	7657	4399	68101	7657	4399	3490 ^b
Planned capacity	0	0	0	0	0	0	0
Available capacity	2545	5637	1729	3012	4750	1692	2277
Reserved capacity	371	404	534	760	581	541	243
Reinstated capacity	0	0	0	0	0	0	0
Reduced capacity	0	0	0	0	0	0	0
Adj avail capacity	2174	5233	1195	2252	4169	1151	2034
Concurrency results	Pass	Pass	Pass	Pass	Pass	Pass	Pass

a - As listed in County's 2005 Currency Evaluation Worksheets

b - This location analyzed using actual road geometry, resulting in a more appropriate Adequate LOS Capacity than that stated when default input values are used for analysis.

Level of service analysis was also conducted to assess the operational characteristics of road segments associated with the No Action Alternative. Table 3.9-3 reflects a LOS summary that applies a LOS methodology consistent with the approach used to establish San Juan County Transportation Concurrency Standards.

**TABLE 3.9-3:
NO ACTION ALTERNATIVE ROAD LEVEL OF SERVICE (LOS) SUMMARY**

Road Name	M.P.	Existing AADT ^a	Existing LOS	No Action 2010 AADT	No Action 2010 LOS
Orcas Road	0.75	2285	C	2409	C
Orcas Road	3.92	1893	C	2599	C
Orcas Road	6.93	3011	C	3419	D
Orcas Road ^b	7.00	4260	C ^b	5842	D ^b
Olga Road	9.45	3355	D	3672	C
Olga Road	11.50	3012	C	3332	D
Rosario Rd	0.10	1249 ^c	B	1447	B

a - AADT includes traffic volumes generated from the existing Rosario Resort as supplied by San Juan County.

b - This location was analyzed using actual road geometry.

c - Based on volume trend of counts obtained from San Juan County for the years 2002, 2003, 2004

All roadway segments would continue to meet San Juan County Transportation Concurrency Standards and LOS standards with the implementation of the No Action Alternative.

Like two-lane roads, the Transportation Concurrency LOS standard is LOS D or better for intersections inside activity centers such as Eastsound, but is expressed as the delay experienced by minor movements (from the side street and left turns off the main street) and is expressed in terms of seconds of average vehicle delay. For the purpose of this analysis this delay used to describe LOS reflects the worst (highest delay) approach to the intersection rather than an average vehicle delay for all approaches to the intersection. The LOS is determined using methods unique to un-signalized intersections that are defined by the Highway Capacity Manual (2000). The forecasted traffic volumes described above (without the Resort expansion) were used to evaluate intersection LOS. These intersections are forecasted to operate as shown in Table 3.9-4 below.

**TABLE 3.9-4:
NO ACTION ALTERNATIVE LEVEL OF SERVICE (LOS) SUMMARY**

Intersection	Existing 2005		2010 No Action Alternative		Concurrency (Pass/Fail)
	LOS	Delay ^a	LOS	Delay ^a	
Lover's Ln/Main St	B	11.7	B	14.6	Pass
Prune Alley Rd/Main St	C	16.5	C	24.6	Pass
Terrels Bch Rd/Crescent Bch Rd	B	11.7	B	13.0	Pass
N Beach Rd/Mt Baker Rd	B	11.5	B	13.2	Pass
N Beach Rd/'A' St	B	12.4	C	18.3	Pass

a- Represents approach of intersection which experiences highest delay; Delay - average seconds per vehicle. 2003 data was found to be more conservative than 2005 data and has therefore been maintained as the base of intersection analysis.

This analysis shows that an increased level of delay would be experienced at all intersections analyzed within Eastsound with the implementation of the No Action Alternative. This increase in delay is not related to Rosario Resort. Rather, the increase in delay is based on expected growth on Orcas Island within the Eastsound Urban Growth Area. No Action Alternative 2010 volumes are shown in Figure 3-8.

The change in volume on local roadways adjacent the Resort, other than Rosario Road, such as Palisades Drive and Cascade Way, are expected to be minimal under the No Action Alternative. An estimate of the LOS along these roads has been prepared under existing and the No-Action Alternatives and both roads were found to operate at LOS B.

Safety

With the implementation of the No Action Alternative, an increase in non-resort vehicular and pedestrian activity can be expected along Rosario Road, which has been identified as a corridor of concern related to safety. With the expected increase of vehicular and pedestrian activity along Rosario Road, a proportionate increase in conflicts may occur. This could potentially lead to a slight increase in accidents.

Ferry, Air and Marine

Under the No Action Alternative, all modes of transportation are expected to be utilized at or slightly below existing levels by Rosario Resort. This could especially hold true for air and marine modes, as fewer resort guests would be expected to patronize the Resort over time. Any decline in ferry demand with the implementation of the No Action Alternative would likely go unnoticed by the average ferry rider.

Pedestrians, Bicycles, and Mopeds

As stated previously, all modes of transportation are expected to be utilized at or slightly below existing levels by Rosario Resort.

Parking

The existing parking supply would remain unchanged or decrease under the No Action Alternative.

3.9.2.2 Action Alternative A

Short-Term Impacts

Short-term impacts associated with construction traffic can be expected as part of Action Alternative A. Construction traffic is expected to generally be confined to the Horseshoe Highway and Rosario Road. However, minimal construction traffic can be expected along Ocean Mist Way and Palisades Drive as part of Action Alternative A.

Roads and Intersections

An average annual daily vehicular trip generation estimate has been established as part of the proposed 2000 Resort Master Plan. This estimate is based on the types of land uses to be

incorporated as part of this development plan. Applicable trip generation rates have been selected from the Institute of Transportation Engineers (ITE) *Trip Generation Manual, 6th Edition*. In order to account for the unique characteristics and location of the development, trip reduction factors have been introduced. These factors account for internal trips between multiple land uses on-site, the seasonality of the Resort as well as the various other modes of travel to and from the Resort used by patrons. A summary of Action Alternative A trip generation is shown below in Table 3.9-5.

**TABLE 3.9-5:
ACTION ALTERNATIVE A
AVERAGE ANNUAL DAILY VEHICULAR TRIP GENERATION ESTIMATE**

Use	ITE Land Use Code	Units	Gross ITE Trip Rates	Average Annual Occ.	External Auto Mode Split	Percent Internal Trips	Adjusted Trip Rate	Dev. Plan Net Change	Trips
Resort Hotel	330	Occ. Rooms	10.15	65%	70%	35%	3.00	207	621.39
Conference Facility	495	1000 s.f.	22.88	65%	70%	75%	2.60	5	13.01
Second Homes	210	DU	9.57	40%	85%	25%	2.44	8	19.52
Marina	420	Berths	2.96	65%	95%	85%	0.27	111	30.43
Motel	320	Occ. Rooms	9.11	55%	100%	25%	3.76	48	180.38
Subtotal									865
Moped and Shuttle							factor	+2%	17
TOTAL									882

Notes: DU – Dwelling Unit, Occ. Rooms – Occupied Rooms, sf – square feet

This Action Alternative is expected to generate an additional 882 average annual daily trips to and from the site to the surrounding road network. This trip generation includes an additional 2% of the forecasted traffic volume demand that was added to account for mopeds and shuttle vehicle trips to ensure that traffic forecasts would not be underestimated.

Using observed distribution of existing Resort trips, these additional trips were then assigned to the roadway segments and intersections within the study area. The expected assignment of these additional trips associated with this alternative is shown in Figure 3-9.

Action Alternative A was evaluated for concurrency by adding correct AADT, reserved capacity, and the additional capacity associated with this alternative together. Adjacent available capacity would still exist with this alternative in place. Table 3.9-6 summarizes the road concurrency evaluation for this development.

**TABLE 3.9-6:
ACTION ALTERNATIVE A ROAD CONCURRENCY STANDARD EVALUATION**

Traffic Count Location	Orcas Road – MP 0.75	Orcas Road – MP 3.92	Orcas Road – MP 6.93	Orcas Road – MP 7.001	Olga Road – MP 9.45	Olga Road – MP 11.5	Rosario Road – MP 0.101
Current AADTa	1854	2020	2670	3798	2907	2707	1213
Additional Capacity	264	264	264	264	793	793	882
Adequate LOS Capacity	4399	7657	4399	68101	7657	4399	3490 ^b
Planned Capacity	0	0	0	0	0	0	0
Available Capacity	2545	5637	1729	3012	4750	1692	2277
Reserved Capacity	371	404	534	760	581	541	243
Reinstated Capacity	0	0	0	0	0	0	0
Reduced Capacity	0	0	0	0	0	0	0
Adj Avail Capacity	1910	4969	931	1988	3376	358	1152
Concurrency Results	Pass	Pass	Pass	Pass	Pass	Pass	Pass

a - As listed in County's 2005 Currency Evaluation Worksheets

b - This location analyzed using actual road geometry, resulting in a more appropriate Adequate LOS Capacity than that stated when default input values are used for analysis.

A more detailed LOS analysis was also conducted to assess the operational characteristics of road segments associated with Action Alternative A. Table 3.9-7 reflects a LOS summary that applies a LOS methodology consistent with the approach used to establish San Juan County Level of Service Standards.

**TABLE 3.9-7:
ACTION ALTERNATIVE A ROAD LOS SUMMARY**

Road Name	M.P.	Existing 2005 AADT^a	Existing LOS	Action Alt A 2010 AADT^a	Action Alt A 2010 LOS
Orcas Road	0.75	2285	C	2668	C
Orcas Road	3.92	1893	C	2858	C
Orcas Road	6.93	3011	C	3678	D
Orcas Road ^b	7.00	4260	C ^b	6101	D ^b
Olga Road	9.45	3355	D	4450	D
Olga Road	11.50	3012	C	4110	D
Rosario Rd ^{b,c}	0.10	1249 ^c	B	2312	C

a - AADT includes traffic volumes generated from the existing Rosario Resort as supplied by San Juan County.

b - This location was analyzed using actual road geometry.

c - Based on volume trend of counts obtained from San Juan County for the years 2002, 2003, 2004

The added project-related traffic volumes will represent an approximate 4 percent to 73 percent increase in traffic volume with the higher proportional impact occurring closer to the Resort. The larger traffic volume increases will likely be very noticeable to residents living closer to Rosario Resort. There will also be added congestion during summer months and particularly during summer weekends.

However, this comparison also shows that the LOS with Action Alternative A in place would be LOS D or better at all traffic count locations. Accordingly, traffic study concludes that the San Juan County Transportation Concurrency Standards and LOS standards for roads are met at all locations analyzed for this Action Alternative. As noted in the footnotes to each table, refinements to the adequate LOS capacity were made add both Orcas Road (milepost 7.0) and Rosario Road (milepost 0.10) to reflect the unique road cross-section and alignment conditions.

Like two-lane roads, the Transportation Concurrency LOS standard is LOS D or better and is expressed as the delay experienced by worst controlled approach (this is in contrast to the average delay for the entire intersection) and is expressed in terms of seconds of average vehicle delay for that worst approach. The LOS is determined using methods unique to un-signalized intersections that are defined by the Highway Capacity Manual (2000). The forecasted traffic volumes described above (with the Resort expansion) were used to evaluate intersection LOS. These intersections are forecasted to operate as shown in the following Table 3.9-8.

**TABLE 3.9-8:
ACTION ALTERNATIVE A LEVEL OF SERVICE SUMMARY**

Intersection	Existing		2010 No Action Alternative		2010 Action Alternative A		Concurrency (Pass/Fail)
	LOS	Delay ^a	LOS	Delay	LOS	Delay ^a	
Lover's Ln/ Main St	B	11.7	B	14.6	C	15.2	Pass
Prune Alley Rd/ Main St	C	16.5	C	24.6	D	25.2	Pass
Terrels Bch Rd/ Crescent Bch Rd	B	11.7	B	13.0	B	14.0	Pass
N Beach Rd/ Mt Baker Rd	B	11.5	B	13.2	B	13.6	Pass
N Beach Rd/ 'A' St	B	12.4	C	18.3	C	20.0	Pass

a - Represents approach of intersection which experiences highest delay; Delay - average seconds per vehicle. 2003 data was found to be more conservative than 2005 data and has therefore been maintained as the base of analysis.

Table 3.9-8 above shows that the added traffic generated by Action Alternative A will change the expected LOS at some of the intersections in 2010. However, the actual increase in delay is relatively minor. Because all intersections operate at LOS D, all intersections satisfy San Juan County concurrency standards with the implementation of Action Alternative A.

The change in volumes on local roadways adjacent to the Resort, other than Rosario Road, is expected to be minimal under Action Alternative A. Cascade Way and Palisades Drive would

provide access for an additional eight single-family homes under this alternative. With this additional development, the LOS would remain at LOS B for both roads. Transportation impacts associated with these homes are expected to be minimal.

Safety

With the implementation of Action Alternative A, an increase in vehicular and pedestrian activity can be expected along Rosario Road, which has been identified as a corridor of concern related to safety. With the expected increase of vehicular activity along Rosario Road, a proportional increase in conflicts can be expected. This could potentially lead to a slight increase in accidents.

Pedestrian accidents along Rosario Road were not recorded. Nonetheless, Action Alternative A includes trails that will be separate from Rosario Road. As a result, pedestrian conflicts should be kept to a minimum.

Ferry

An estimate of the volumes using the WSF service between Orcas Island and Anacortes was made since the majority of guests will use the ferry to access Orcas Island. This forecast assumed that the increase in off-island resort support services (food delivery, waste hauling, laundry, etc.) would not generate an appreciable number of new ferry trips since they already serve the existing Resort. For example, the number of food service providers will not likely increase but they may deliver more product during each trip to accommodate the increased demand due to expansion. Resort guests, including the Cascade Harbor Inn guests, would generate the majority of the ferry ridership increase created by resort expansion. Accounting for trips to and from the Eastsound Airport, Moran State Park, the village of Eastsound and all other recreational trips, it is assumed that 50 percent of all daily vehicle trips generated by Rosario Resort are to and from the Orcas ferry landing. Accounting for increasing shuttle service and private drop-off and pick-up and other origins and destinations at Orcas Landing it is estimated that 80 percent of these automobile trips actually board or disembark from the ferry. A summary of the forecast is presented in Table 3.9-9 below. The most current data available from Washington State Ferries was year 2002 data. While it is possible that the ferry system capacity could increase as larger-capacity vessels replace older smaller-capacity vessels on the existing runs, such an increase was considered speculative and was not included in this analysis to ensure a conservative review.

**TABLE 3.9-9:
IMPACT ON AUTOMOBILE TRIPS BY FERRY (ANACORTES/ORCAS)**

Drive-On AADT	2002 AADT	AADT Capacity	Capacity Used W/O	Capacity Used With	Increase of Demand on Capacity
185	791	2340	34%	42%	8%

The estimate of new automobile trips made during the summer peak period was based on the Average Annual Daily Traffic Volume forecast developed above. The ferry volume forecast was

then refined to reflect peak summer conditions. The approach to this ferry traffic forecast was developed in consultation with staff at WSDOT using the following assumptions:

- Peak period demand was 15 percent to 30 percent of the Average Annual Daily Traffic generated by the Resort expansion.
- Walk-ons represented 11 percent of the ferry volume.
- Off-island trips represented 20 percent to 70 percent of the total peak period trips.
- Summer traffic was increased from 5 percent to 95 percent of average traffic conditions.
- Adjustments to reflect the different weekday versus weekend patterns of residents and hotel guests respectively.

This forecast shows the average annual weekday volumes would be expected to increase by about 38 vehicles in both the morning and afternoon peak periods. On weekends, the peak demands would be expected to increase by 46 vehicles.

In terms of ferry system parking at Orcas, there are 40 parking stalls to serve walk-on passengers at the terminal and an additional 16 parking non-ferry system parking stalls near the terminal. This development is not expected to noticeably generate the commuter type trips that would create a demand for parking at the Ferry Terminal as with permanent island-residents who commute to off-island employment. However, the Resort currently and will continue to help mitigate this deficiency by offering three shuttles operated by the Resort to guests and residents to shuttle them back and forth between the Resort and the Orcas terminal.

San Juan County staff acknowledges the problem the lack of available parking creates, particularly during peak summer parking demands, when it is estimated that the population of Orcas Island can double in size. This impact is higher on weekends. Because the Resort is a destination, which provides shuttle service to and from the ferry terminal, and is not expected to generate commuter trips from the island to off-island employment (all employees housed on-site will work on-site), the added demand for ferry use associated with the Resort will not measurably add to the parking demand at the Ferry Terminal. Long-term parking is more likely to be used by residents of the island commuting on a day-to-day basis to off-island employment.

Air and Marine

Based on the existing mode split showing that 30 percent of all trips generated by the Resort are by direct access marine or air travel that utilize the existing pier and marina, the combination of private air and private marine modes of travel are estimated to be approximately 147 one-way trips per average annual day. Assuming one-fourth of these trips are made by air, the increase in trips due to the Resort expansion would represent the equivalent of a 10 to 20 percent increase in person trip activity over existing levels. A large portion of these trips are expected to be served by existing scheduled carriers on existing schedules, which may increase planeload factors but would only marginally increase the number of plane operations, reducing the impact further.

The Eastsound airstrip has an average of 160 operations per day. It is expected that the number of private plane operations would increase by up to ten operations per day during the summer days. This increase will represent a minimal impact on this airfield.

Demand for scheduled seaplane service is not expected to noticeably increase due to Action Alternative A, although load factors on some scheduled flights by Kenmore Air are expected to accept the majority of the increase. Chartered floatplane activity would be expected to increase with one or two more landings each day on peak summer days. These added flights must operate within existing floatplane operation parameters and are not expected to create a noticeable impact on boat activity in the bay.

The Resort is unique in its ability to be accessed by private watercraft. Under Action Alternative A, the Resort will add 111 slips to the existing 34-slip marina, for a total of 145 slips. Supply for mooring demand by private boats is expected to increase by more than three times that of the existing slip area. However, the overall demand increase of Cascade Bay is expected to be much less. It is merely expected to shift closer to shore. A very important benefit of the marina expansion is that it will also facilitate improved access by commercial seaplanes and water shuttles in addition to private yachts. This will further improve access by alternative transportation modes.

Pedestrians, Bicycles, and Mopeds

Action Alternative A would increase pedestrian and bicycle trips. This increase is expected to be accommodated on the walkways and trails that are to be constructed concurrent with development. This system of trails (separate from existing roadways) and walkways will reduce the numbers of persons who walk along the shoulders of Rosario Road and will provide a safer environment for these activities and the linkages to off-site trail connections and destinations.

Moped activity could also increase proportionally with the increase in the number of visitors to the Resort under Action Alternative A. An incremental increase in traffic volumes was added to account for this increase in moped activity.

Parking

The proposed number of parking stalls to be located on-site with the implementation of Action Alternative A was determined based on San Juan County's parking requirements of each individual land use proposed for the Resort. Then, in order to ensure that the parking supply is realistic, it is necessary to introduce reduction factors to account for the unique nature of the Resort uses and the sharing that occurs between complementary land uses.

When multiple land uses exist on one site, a phenomenon known as "shared parking" takes place, reducing the amount of necessary parking supply for each land use. This phenomenon has been documented by The Urban Land Institute.

... While the peak ratios reflect the differences in parking demand generated by separate land uses and under certain conditions, they do not reflect the fact that total or combined peak parking demand can be significantly less than the sum of

the individual demand values. That is, parking requirements may be overstated if they require space for the peak parking accumulations of each individual land use. (Shared Parking, The Urban Land Institute, page 3)

Contributing factors to parking demand reduction include the following:

- The internal trips throughout the Resort between the various land uses are expected to take place as people walk or use the Resort shuttle between on-site activities.
- The remote location greatly reduces the amount of non-guest patronage of the amenities offered at the Resort.
- Many of the amenities on-site will be for guest use only, further reducing non-guest patronage.
- The various modes of transportation offered for trips to and from origins/destinations off-site, such as marine vessel, float plane and increasing shuttle service, particularly to and from the ferry landing, reduces the need for individuals to bring their privately owned vehicles to the Resort.
- Seasonal employees (the majority of Resort staff) reside on the site and do not generally own cars but rely on Resort transportation which reduces external trips and parking demand.
- Employee parking supply is provided away from the Resort center in the Hilltop and Utility Tract.

From this, the net parking stalls that will accommodate the parking demand experienced by the proposed Resort were established. The proposed parking supply has been summarized in the Table 3.9-10.

This amount of available parking is expected to be sufficient but not excessive and will be strategically placed throughout the site according to where demand is expected rather than in one centralized location. To avoid parking spill over onto local roads and in the event there are temporary surges in on-site parking demand associated with special events, the Resort has already designated space in the Hilltop area of the Resort for temporary spillover parking which could accommodate an additional 100 vehicles as well as up to 110 trailers. If this were to occur, shuttle service would be provided between the spillover parking area and the Resort's core. In the event that the Hilltop area is not available for this use, spillover parking would be accommodated within the Utility Tract area of the Resort.

As noted later in the mitigation section, a formal parking management strategy will be developed in coordination with San Juan County Public Works to minimize peak parking, spill over onto public streets and all parking facilities at Rosario will be consistent with the San Juan County Comprehensive Plan and Unified Development Code.

**TABLE 3.9-10:
ACTION ALTERNATIVE A SUMMARY OF SUGGESTED PARKING SUPPLY**

Location	Description	Land Use	Minimum Stalls ^a	Quantity	Total Stalls	Adj. Factor ^b	Net
Mansion Area	Luxury hotel rooms	Hotel/Motel	1/room	250 rooms	250	0.7	175
Mansion Area	Moran Museum	Museum	1/800 sf	5000 sf	16.6	0.5	8.3
Mansion Area	Hotel/Conference Ctr. Restaurant	Sit down Restaurant	1/3 seats	160 Seats	53.3	0.3	16
Mansion Area	Hotel Conference Facilities	Conference Center	3/1000 sf	10,000 sf	30	0.4	12
SUBTOTAL					349.9		211.3
Central Cascade Bay	Marina	Administrative Discretion	1/2 slips	145 Slips	72.5	1	72.5
SUBTOTAL					72.5		72.5
Hillside	Private Home Sites	SF Residential	2/Unit	8 Units	16	1	16
Hillside	Condominiums	Condominiums	2/Unit	87 Units	174	1	174
SUBTOTAL					190		190
East Cascade Bay	Cascade Harbor Inn Rooms	Hotel/Motel	1/room	48 rooms	48	1	48
East Cascade Bay	Cascade Harbor Inn Suites	Hotel/Motel	1/room	2* rooms	4	1	4
East Cascade Bay	Cascade Harbor Inn Proposed	Hotel/Motel	1/room	48 rooms	48	1	48
SUBTOTAL					100		100
Hilltop	Employee Housing	MF Residential (3+ Units)	2/D.U.	40 rooms	80	0.2	16
All areas	Max. employees per shift	1/employee	1/employee	120 employees	120	0.5	60
SUBTOTAL					200		76
TOTAL					912.4		650

Notes:

a - San Juan County parking requirements for stand-alone uses.

b - Adjustment factor accounts for shared demand on-site, remote location, and high alternative modes of transportation.

This table encompasses all land uses, not just the net change in land use.

D.U. – Dwelling Unit; sf – square feet; SF – single-family; Max. – Maximum

3.9.2.3 Action Alternative B

Short-Term Impacts

Short-term impacts associated with construction traffic can be expected as part of Action Alternative B. Construction traffic is expected to generally be confined to the Horseshoe Highway and Rosario Road. However, minimal construction traffic can also be expected along Ocean Mist Way and Palisades Drive as part of Action Alternative B. Construction traffic can be expected during the implementation of both phases of this alternative.

Roads and Intersections

An average annual daily vehicular trip generation (AADT) estimate has been established as part of the 2005 Resort Master Plan. This estimate is based on the various types of land uses to be incorporated as part of this development plan. Applicable trip generation rates have been selected from the Institute of Transportation Engineers (ITE) *Trip Generation Manual, 6th Edition*. In order to account for the unique characteristics and location of the development, trip reduction factors have been introduced. These factors account for internal trips between multiple land uses on-site, the seasonality of the Resort as well as the various other modes of travel to and from the Resort used by patrons. A summary of Action Alternative B trip generation is shown below in Table 3.9-11.

**TABLE 3.9-11:
AVERAGE ANNUAL DAILY VEHICULAR TRIP GENERATION ESTIMATE**

Use	ITE Land Use Code	Units	Gross ITE Trip Rates	Average Annual Occ.	External Auto Mode Split	Percent Internal Trips	Adj. Trip Rate	Dev. Plan Net Change	Trips
Resort Hotel	330	Occ. Rooms	10.15	65%	70%	50%	2.31	-35	-80.82
Quality Restaurant	931	Seats	2.86	65%	85%	95%	0.08	40	3.16
Conference Facility	495	1000 sf	22.88	65%	70%	75%	2.60	-4	-10.41
Rec. Facilities	492	1000 sf	32.93	65%	85%	95%	0.91	9	8.19
Fractional Ownership Condo and Cottage	230	Units	5.86	75%	85%	45%	2.05	73	149.99
Whole Ownership Condo and Cottage	230	Units	5.86	40%	85%	35%	1.30	48	62.16
Second Homes	210	Units	9.57	40%	85%	25%	2.44	3	7.32
Marina	420	Berths	2.96	65%	95%	85%	0.27	131	35.92
Motel	320	Occ. Rooms	9.11	55%	100%	25%	3.76	48	180.38
Staff Housing	230	Units	5.86	95%	100%	75%	1.39	40	55.67
Subtotal									412
Moped and Shuttle							factor	+2%	8
TOTAL									420

Notes: DU – Dwelling Unit, Occ. Rooms – Occupied Rooms, sf – square feet

This Action Alternative is expected to generate an additional 420 average annual daily trips to and from the site to the surrounding road network. This includes an additional 2% of the forecasted traffic volume demand that was added to account for mopeds and shuttle vehicle trips to ensure that traffic forecasts would not be underestimated.

Using the observed distribution pattern of existing resort trips, these additional trips were then assigned to the roadway segments and intersections within the study area. The expected assignment of these additional trips associated with this alternative is shown in Figure 3-9.

Action Alternative B was evaluated for concurrency by adding current AADT, reserved capacity, and the additional capacity associated with this alternative together. Adjacent available capacity would still exist with this alternative in place. Table 3.9-12 summarizes the road concurrency evaluation for this development.

**TABLE 3.9-12:
ACTION ALTERNATIVE B - ROAD CONCURRENCY STANDARD EVALUATION**

Traffic count location	Orcas Road – MP 0.75	Orcas Road – MP 3.92	Orcas Road – MP 6.93	Orcas Road – MP 7.001	Olga Road – MP 9.45	Olga Road – MP 11.5	Rosario Road – MP 0.101
Current AADT ^b	1854	2020	2670	3798	2907	2707	1213
Additional capacity	126	126	126	126	377	377	420
Adequate LOS capacity	4399	7657	4399	68101	7657	4399	3490 ^a
Planned capacity	0	0	0	0	0	0	0
Available capacity	2545	5637	1729	3012	4750	1692	2277
Reserved capacity	371	404	534	760	581	541	243
Reinstated capacity	0	0	0	0	0	0	0
Reduced capacity	0	0	0	0	0	0	0
Adj avail capacity	2048	5107	1069	2126	3792	774	1614
Concurrency results	Pass	Pass	Pass	Pass	Pass	Pass	Pass

a - As listed in County's 2005 Currency Evaluation Worksheets.

b - This location analyzed using actual road geometry, resulting in a more appropriate Adequate LOS Capacity than that stated when default input values are used for analysis.

For a more in-depth LOS analysis, future AADT with the Action Alternative B in place was determined by adding existing, forecasted new traffic volumes without the project and forecasted project related volumes together. Table 3.9-13 summarizes the LOS for road sections analyzed under Action Alternative B conditions.

**TABLE 3.9-13:
ACTION ALTERNATIVE B ROAD LOS SUMMARY**

Road Name	M.P.	Existing 2005 AADT ^a	Existing LOS	Action Alt B 2010 AADT ^a	Action Alt B 2010 LOS
Orcas Road	0.75	2285	C	2532	C
Orcas Road	3.92	1893	C	2722	C
Orcas Road	6.93	3011	C	3542	D
Orcas Road ^b	7.00	4260	C ^b	5965	D ^b
Olga Road	9.45	3355	C	4042	C
Olga Road	11.50	3012	D	3702	D
Rosario Rd ^{b,c}	0.10	1249 ³	B	1859	C

a - AADT includes traffic volumes generated from the existing Rosario Resort as supplied by San Juan County.

b - This location was analyzed using actual road geometry.

c - Based on volume trend of counts obtained from San Juan County for the years 2002, 2003, 2004

The added project-related traffic volumes will represent an approximate 2 percent to 35 percent increase in traffic volume with the higher proportional impact occurring closer to the Resort. The larger traffic volume increases will likely be noticeable to residents living closer to Rosario Resort.

However, the comparison also shows that the LOS with Action Alternative B in place would be LOS D or better at all traffic count locations. Accordingly, TSI concludes that the San Juan County Transportation Concurrency Standards and Level of Service Standards for roads are met at all locations analyzed for this Action Alternative.

Like two-lane roads, the Transportation Concurrency LOS standard is LOS D or better but is expressed as the delay experienced by minor movements (from the side street and left turns off the main street) and is expressed in terms of seconds of average vehicle delay. The LOS is determined using methods unique to un-signalized intersections that are defined by the Highway Capacity Manual (2000) The forecasted traffic volumes described above (with the Resort expansion) were used to evaluate intersection LOS. These intersections are forecasted to operate as shown in Table 3.9-14. As was shown for the other alternatives, this analysis reflects the LOS for the approach with the highest average vehicle delay.

Table 3.9-14 below shows that the added traffic generated by Action Alternative B will not change the expected LOS to be experienced in 2010 as compared against the No-Action Alternative. The average vehicle delay will change by less than one second. Because all intersections operate at LOS C or better which is above LOS D, all intersections satisfy San Juan County concurrency standards with the Resort expansion.

**TABLE 3.9-14:
ACTION ALTERNATIVE B LEVEL OF SERVICE SUMMARY**

Intersection	Existing		2010 No Action Alternative		2010 Action Alternative B		Concurrency (Pass/Fail)
	LOS	Delay ^a	LOS	Delay	LOS	Delay ^a	
Lover's Ln/ Main St	B	11.7	B	14.6	B	14.9	Pass
Prune Alley Rd/ Main St	C	16.5	C	24.6	C	24.6	Pass
Terrels Bch Rd/ Crescent Bch Rd	B	11.7	B	13.0	B	13.5	Pass
N Beach Rd/ Mt Baker Rd	B	11.5	B	13.2	B	13.3	Pass
N Beach Rd/ 'A' St	B	12.4	C	18.3	C	19.2	Pass

a - Represents approach of intersection which experiences highest delay; Delay - average seconds per vehicle. 2003 data was found to be more conservative than 2005 data and has therefore been maintained as the base of analysis.

The change in volumes on local roadways adjacent to the Resort, other than Rosario Road, is expected to be minimal under Action Alternative B. Palisades Drive and possibly Cascade Way would provide access for an additional 21 cottage-type homes under this alternative and would continue to operate at LOS B. Transportation impacts associated with these cottages are expected to be minimal.

Safety

With the implementation of Action Alternative B, an increase in vehicular and pedestrian activity can be expected along Rosario Road, which has been identified as a corridor of concern related to safety. With the expected increase of vehicular and pedestrian activity along Rosario Road, an increase in conflicts can be expected. This could potentially lead to a proportional increase in accidents without additional mitigation.

Ferry

An estimate of the volumes using the WSF service between Orcas Island and Anacortes was made since the majority of guests would use the ferry to access Orcas Island. This forecast assumed that the increase in off-island resort support services (food delivery, laundry, etc.) would not generate an appreciable number of new ferry trips since they already serve the existing Resort. For example, the number of food service providers will not likely increase but they may deliver more food products during each trip to accommodate the increased demand due to expansion. Resort guests, including the Cascade Harbor Inn guests, would generate the majority of the ferry ridership increase created by resort expansion. Accounting for trips to and from the Eastsound Airport, Moran State Park, the village of Eastsound and all other recreational trips, it is assumed that 50 percent of all average annual daily vehicle trips generated by Rosario Resort are to and from the Orcas Island Ferry Landing. Accounting for increasing shuttle service and private drop-off and pick-up and other origins and destinations at Orcas it is estimated that 80

percent of these automobile trips actually board or disembark from the ferry. A summary of the forecast is presented in Table 3.9-15 below. The most current data available from Washington State Ferries was year 2002 data. As noted for Action Alternative A, it is possible that ferry system capacity will increase as larger vessels replaced smaller older vessels that retire from the fleet.

**TABLE 3.9-15:
IMPACT ON AUTOMOBILE TRIPS BY FERRY (ANACORTES/ORCAS)**

Drive-On AADT	2002 AADT	AADT Capacity	Capacity Used Without	Capacity Used With	Increase of Demand on Capacity
88	791	2340	34%	38%	4%

The estimate of new automobile trips made during the summer peak period was based on the Average Annual Daily Traffic Volume (AADT) forecast developed above. The ferry volume forecast was then refined to reflect peak summer conditions. The approach to this ferry traffic forecast was developed in consultation with staff at WSDOT using the following assumptions:

- Peak period demand was 15 percent to 30 percent of the AADT generated by the Resort expansion.
- Walk-ons represented 11 percent of the ferry volume.
- Off-island trips represented 20 percent to 70 percent of the total peak period trips.
- Summer traffic was increased from 5 percent to 95 percent of average traffic conditions.
- Adjustments to reflect the different weekday versus weekend patterns of residents and hotel guests respectively.

This forecast shows the weekday volumes would be expected to increase by about 18 vehicles in both the morning and afternoon peak periods. On weekends, the peak demands would be expected to increase by 22 vehicles.

In terms of ferry system parking at Orcas, there are 40 parking stalls to serve walk-on passengers at the terminal and an additional 16 parking non-ferry system parking stalls near the terminal. This development is not expected to noticeably generate the commuter type trips that would create a demand for parking at the Ferry Terminal as with permanent island-residents who commute to off-island employment. However, the Resort currently and will continue to help mitigate this deficiency by offering three shuttles operated by the Resort to guests and residents to shuttle them back and forth between the Resort and the Orcas terminal.

San Juan County staff acknowledges the problem the lack of available parking creates, particularly during peak summer parking demands, when it is estimated that the seasonal population of Orcas Island can double in size. This impact is higher on weekends. Because the Resort is a destination, which provides shuttle service to and from the ferry terminal, and is not

expected to generate commuter trips from the island to off-island employment (all employees housed on-site will work on-site), the added demand for ferry use associated with the Resort will not significantly add to the parking demand at the Ferry Terminal. Long-term parking is more likely to be used by residents of the island commuting on a day-to-day basis to off-island employment.

Air and Marine

Based on the existing mode split showing that 30 percent of all trips generated by the Resort are by direct access marine or air travel utilizing the existing marina and pier, the combination of private air and private marine modes of travel are estimated to be approximately 70 one-way trips per average annual day. Assuming one-fourth of these trips are made by air, the increase in trips due to the Resort expansion would represent a five to ten percent increase in activity. A large number of these trips are expected to be served by existing scheduled carriers on existing schedules, which may increase planeload factors but would only marginally increase the number of plane operations, reducing the impact further.

The Eastsound airstrip has an average of 160 operations per day. It is expected that the number of private plane operations would increase by up to two operations per day during the summer days. This increase will represent a minimal impact on this airfield.

Demand for scheduled seaplane service is not expected to noticeably increase due to Action Alternative B although load factors on some scheduled flights by Kenmore Air may increase slightly. Chartered floatplane activity may increase but will be substantially less than Action Alternative A since Action Alternative B will have fewer conference visitors. These added seaplane flights must operate within existing floatplane operation parameters and are not expected to create a noticeable impact on boat activity in the bay.

The Resort is unique in its ability to be accessed by private watercraft. Under Action Alternative B, the Resort will add 131 slips to the existing 34 for a total of 165 slips. Supply for mooring demand by private boats is expected to increase by more than three times that of the existing slip area. However, the overall demand increase of Cascade Bay is expected to be much less. It is merely expected to shift closer to shore. A very important benefit of the marina expansion is that it will also facilitate improved access by commercial seaplanes and water shuttles in addition to private yachts. The Resort will include a Resort-based water shuttle and an on-site rental car fleet that compliments access to the Resort by water instead of by car. This will further improve access by alternative transportation modes.

Pedestrians, Bicycles, and Mopeds

Action Alternative B would increase pedestrian and bicycle trips. This increase is expected to be accommodated on the walkways and trails that are to be constructed concurrent with development. This system of trails and walkways will reduce the numbers of persons who walk along the shoulders of Rosario Road and will provide a safer environment for these activities and the linkages to off-site trail connections and destinations. The Resort also proposes to include an available fleet of bicycles for use by guests.

Moped activity could also increase proportionally with the increase in the number of visitors to the Resort under Action Alternative B over existing levels of activity. The Resort will maintain an electric people mover to shuttle people within the Resort. This will contribute to a reduction in on- and off-site automobile use.

Parking

The proposed number of parking stalls to be located on-site with the implementation of Action Alternative B was determined based on San Juan County's parking requirements of each individual land use proposed for the Resort. Then, in order to ensure that the parking supply is realistic, it is necessary to introduce reduction factors to account for the unique nature of the Resort.

When multiple land uses exist on one site, a phenomenon known as “shared parking” takes place, reducing the amount of necessary parking supply for each land use. This phenomenon has been documented by The Urban Land Institute.

... While the peak ratios reflect the differences in parking demand generated by separate land uses and under certain conditions, they do not reflect the fact that total or combined peak parking demand can be significantly less than the sum of the individual demand values. That is, parking requirements may be overstated if they require space for the peak parking accumulations of each individual land use. (Shared Parking, The Urban Land Institute, page 3)

Contributing factors include the following:

- Many of the internal trips throughout the Resort between the various land uses are expected to occur by means other than private automobile.
- The remote location and limitations related to ferry access greatly reduces the amount of non-guest patronage of the amenities offered at the Resort.
- Many of the amenities on-site will be for guest use only, further reducing non-guest patronage.
- The various modes of transportation offered for trips to and from origins/destinations off-site, such as marine vessel, floatplane and increasing shuttle service, particularly to and from the Ferry Landing, reduce the need for individuals to bring their privately owned vehicles to the Resort.
- The electric guest shuttle and on-site rental car fleet will reduce reliance on having a private automobile.
- Seasonal employees (the majority of resort staff) reside on the site and do not generally own cars but rely on resort transportation which reduces external trips and parking demand.

- Employee parking supply is provided away from the Resort center at Hilltop.

From this, the net parking stalls that will accommodate the parking demand experienced by the proposed Resort were established. The proposed parking supply has been summarized in Table 3.9-16.

This amount of available parking is expected to be sufficient but not excessive and will be strategically placed throughout the site according to where demand is expected rather than in one centralized location. To avoid parking on public streets due to temporary surges in on-site parking demand associated with special events, the Resort has already designated open space in the Hilltop area of the Resort for temporary spillover parking which could accommodate an additional 100 vehicles as well as up to 110 trailers. If this were to occur, shuttle service would be provided between the spillover parking area and the Resort's core. In the event that the Hilltop area is not available for this use, spillover parking would be accommodated within the Utility Tract area of the Resort. A formal parking management program will be developed in coordination with San Juan County Public Works to minimize impact on the public road network.

**TABLE 3.9-16:
ACTION ALTERNATIVE B SUMMARY OF SUGGESTED PARKING SUPPLY**

Location	Description	Land Use	Minimum Stalls ^a	Quantity	Total Stalls	Adj. Factor ^b	Net
Mansion Area	Luxury hotel rooms	Hotel/Motel	1/room	21 rooms	21	0.5	10.5
Mansion Area	Cottages	SF Residential	2/Unit	9 Units	18	0.5	9.0
Mansion Area	Mini-Mansion	MF Residential (3+ Units)	2/Unit	12 Units	24	0.8	19.2
Mansion Area	Restaurants	Drinking and Eating Est.	1/3 seats	186 Seats	62	0.3	15.5
Mansion Area	Spa & Retail	Retail Sales & Svcs.	1/300 sf	6,250 sf	20.8	0.1	2.1
Mansion Area	Moran Museum	Museum	1/800 sf	5000 sf	16.6	0.1	1.7
SUBTOTAL					168.4		63
Marina Village	Jetty Condos	MF Residential (3+ Units)	2/Unit	12 Units	24	0.7	16.8
Marina Village	Village cottages	SF Residential	2/Unit	19 cottages	38	0.7	26.6
Marina Village	Cliffhouse Homes	SF Residential	2/Unit	3 Units	6	1	6
SUBTOTAL					68		49.4
Central Cascade Bay	Marina	Administrative Discretion	1/2 slips	165 Slips	82.5	0.5	41.3
Central Cascade Bay	Waterfront Condos	MF Residential (3+ Units)	2/Unit	18 Units	36	0.7	25.2
Cabana and Retail	Redeveloped Boatel	Resorts	1/300 sf	7500 sf	25	0.1	2.5

**TABLE 3.9-16:
ACTION ALTERNATIVE B SUMMARY OF SUGGESTED PARKING SUPPLY**

Location	Description	Land Use	Minimum Stalls ^a	Quantity	Total Stalls	Adj. Factor ^b	Net
SUBTOTAL					143.5		66.45
Hillside Condos	Existing guest rooms	Hotel/Motel	1/room	87 rooms	87	0.8	69.6
Hillside Cottages	New Cottages	SF Residential	2/Unit	16 Units	32	0.8	25.6
Bowman's Bluff	New Cottages	SF Residential	2/Unit	3 Units	6	0.8	4.8
SUBTOTAL					129		101.6
Upper Basin	Woodland Cottages	SF Residential	2/Unit	21 Units	42	1	42
SUBTOTAL					42		42
East Cascade Bay	Cascade Harbor Inn Rooms	Hotel/Motel	1/room	45 rooms	45	1	45
East Cascade Bay	Cascade Harbor Inn Proposed	Hotel/Motel	1/room	48 rooms	48	1	48
SUBTOTAL					95		95
Hilltop	Employee Housing	MF Residential (3+ Units)	2/D.U.	60 rooms	120	0.2	24
All areas	Max. employees per shift	1/employee	1/employee	120 employees	120	0.5	60
TOTAL				356	789.9		411

Notes:

a - San Juan County parking requirements for stand-alone uses.

b - Adjustment factor accounts for shared demand on-site, remote location, and high alternative modes of transportation.

This table encompasses all land uses, not just the net change in land use.

D.U. – Dwelling Unit; sf – square feet; SF – single-family; Max. – Maximum

3.9.3 Mitigation Measures

3.9.3.1 No Action Alternative

Mitigation measures for the No Action Alternative are not proposed.

3.9.3.2 Mitigation Measures Common to both Action Alternatives

T-M-1: Short-term traffic impacts will be mitigated through the implementation of good construction practice, which includes the limitation of construction traffic to daylight hours during off-peak time periods.

T-M-2: As part of this analysis, other options were examined to mitigate the increased traffic, pedestrian, and parking demand that will be generated by this proposal. A combination of policies, programs and physical improvements are proposed to be incorporated in a comprehensive Transportation Management Plan (TMP). These programs were organized into groups, including the following:

- Management
- Reduce or Divert Demand
- Manage Demand
- Make Physical Improvements

These measures will also address the already existing problems with the often-stressed Washington State Ferry System as well as the roadway network during peak seasons.

Management - To accomplish this, Rosario Resort management will continue to assign an individual to serve as a Transportation Management Coordinator. This part-time position can be incorporated in the duties of a relatively senior management staff person. This individual will be responsible for coordinating with San Juan County in developing, implementing, and monitoring the effectiveness of the TMP. This is already in place as part of the Director of Hotel Operations job profile.

Reduce or Divert Demand - Programs shall be developed to reduce or divert demand. By emphasizing and creating incentives to encourage use of alternate modes and reduce demand on the Washington State Ferry System and San Juan County road network. These will include:

- Internalize travel demand by maintaining a fleet of on-site electric shuttles that are on-call so guests can seamlessly take advantage of Resort activities and services. This will serve the Resort in its effort to make Rosario a full-service destination Resort and will preclude the need or desire for guests to leave the Resort site, thus reducing volumes on the roads.
- Maintain and expand the shuttle system to reduce individuals from making trips to Eastsound, Orcas Landing, and other primary activity centers. Rosario currently has a good working relationship with Orcas Island Shuttle, in 2005 the Resort began subsidizing this service to help eliminate the need for private autos.
- Continue and encourage private tour operators to augment the shuttle system with specialty tours to Moran State Park, Mt. Constitution, and other points of interest on and off Orcas Island.
- Implementation of programs to ensure the 30 percent mode split by marine and air transportation.
 - Resort management will continue to work with the private transportation providers to establish Resort/transportation packages, which will be seen as favorable by guests by creating direct connections and reducing the delays associated with Washington State Ferry access. The following existing private transportation providers are expected to provide service to and from the Resort:

- San Juan Airlines
- Rose Air
- Kenmore Air Seaplanes
- Rugby Aviation
- Paraclete Charters
- Airporter Shuttle
- Island Express Charters
- Victoria Clipper
- Orcas Island Shuttle

As Resort activity increases, it is likely that other operators will emerge and Rosario Resort will explore similar travel/resort packages to enhance the guest experience and give them additional flexibility.

- Continue to actively engage water shuttle systems already serving Rosario Resort. By utilizing existing systems, cost can be controlled, making travel via these operators more cost effective than operating an independent service. In order to maintain a quality guest experience, Rosario intends to establish a Resort-based marine vessel(s), that would have the capability of transporting groups of guests to and from Anacortes, etc. without the restrictions of an external operators prescheduled runs. This can be accomplished using the existing pier which historically served the Mosquito Fleet and currently serves large passenger vessels until the marina can be expanded during Phase II of the project, following project level environmental review.
- When the WSF system is the preferred form of transportation by the guests, Resort management will encourage non-peak arrival and departure times to and from the Resort. Rosario Resort will also inform guests of the departure times of the ferries, travel time to reach the terminal, and information on how far in advance they should plan to arrive for the traffic conditions of that day or season. This could be as simple as a suggestion when making over the phone reservations or including a suggested travel time leaflet with the guest's itinerary or an updated posting on an information board in the lobby.
- Rosario Resort staff will inform their guests and suppliers to observe the posted speed limit and of the need to drive carefully on Rosario Road. This information will be displayed on their website. In addition, Rosario staff will include this cautionary information in their guests' registration packet and review it with their guests at check-in time. Rosario Resort staff and the Public Works Department will work together to develop this information.
- A parking management plan will be developed in coordination with San Juan County. This will include remote and free park and shuttle alternatives utilizing either the Hilltop or Utility Tract parcels for overflow parking. This program will be particularly emphasized when special events are scheduled at the Resort (weddings, seminars or regattas, etc.). This program should also include courtesy no-parking enforcement of cars that attempt to park on the public road network near the entrance to Rosario Resort as well as potential parking by visitors to Moran State Park parking at the Hilltop to avoid

park entrance fees that will be managed by Rosario Staff. A package of educational materials will be developed for distribution to guests as they check in to the Resort. Periodic updates of this information will be distributed to all owners in the Rosario Resort community.

Physical Improvements - Although the Action Alternatives add a substantial volume to the roadway network, the impacts fall within the standards established by San Juan County. However, these measures will serve to mitigate and reduce the impact associated with new development.

A variety of options were examined in an effort to reduce impacts on the road network beyond those outlined above. This effort concentrated on Rosario Road because this road has been identified as a corridor of concern from a safety perspective and because traffic volumes associated with the Action Alternatives are highest along this road section. Options considered included the following:

- Constructing a new road from the Resort to the Olga Road.
- Making major physical improvements to the alignment of Rosario Road.
- Making traffic operations and maintenance improvements.
- A New Road – The master planning team examined an alternate road connection to reduce dependence on the lower section of Rosario Road. An alignment was explored that connected the vicinity of Cascade Harbor Inn up the hill to connect with Palisades Drive. Guests would then travel along Palisades Drive to Rosario Road and on to Olga Road. This road alignment involved substantial cuts and fills that would require extensive removal of mature trees leaving a scarred hillside as it traverses the steep slope up the hill to Palisades Drive. There would have been a small travel time savings (less than 30 seconds) by using this road versus Rosario Road but assuming both roads were available for use by guests, the incremental travel time advantage associated with trips to Eastsound or the Orcas Landing would be imperceptible to the average driver. Finally, because a section of Palisades Drive would also need to be widened and realigned, it is anticipated that resident along Palisades Drive would strongly oppose such improvements. Since the benefit of this option was marginal as compared to the adverse environmental impacts associated with the construction, this option is not recommended as mitigation.
- Road Realignment – Examination of realignment of Rosario Road was also evaluated. Such realignment would serve to increase the radius of several of the tight radius curves along the alignment and remove some but not all of the sight distance restrictions. Several challenges existed in accomplishing such realignment including the requirement to secure numerous properties from many of the lots that front along Rosario Road and the need to remove numerous large trees. Property acquisition would likely require San Juan County to use its authority of eminent domain and condemnation to secure a contiguous frontage sufficient to realign Rosario Road. Further road realignment would

require removal of a substantial number of trees. Such removal would be in conflict with the Scenic Road Manual that is intended to retain the rural and natural character of this area. Unless all residents could come together with the Resort and San Juan County Public Works to voluntarily agree upon a plan to realign the roadway, this option appears to be almost as strongly opposed as construction of a new road. Finally, an often unintended consequence of improving a road alignment like the one along Rosario Road is that the smoother alignment will result in an increase in speed. If there is a reduction in accidents, the severity of those accidents will almost inevitably increase resulting in significant personal injuries as well as more severe damage to vehicles.

- Traffic Management Improvements – Since speed and driver error are the predominant factor relating to accidents along Rosario Road, measures to slow vehicles down, provide drivers with better guidance and keep cars in their lane appear to be some of the most effective options for enhancing safety along Rosario Road. Because these techniques are not as substantial as major reconstruction or new road construction, they are not always considered effective mitigation. Research and practice strongly suggests otherwise. Measures that would address the types of accident and safety problems exhibited along Rosario Road could include the following:
 - In addition to the signage recently placed along Rosario Road by San Juan County, warning signage will be placed at the intersection of Rosario Road and Olga Road and at curves or points where sight lines are restricted along Rosario Road while still adhering to the guidelines set forth in the Scenic Road Manual. The Public Works Department will assist in identifying these locations.
 - An additional sign, similar to the Scenic Road Sign at the Rosario Resort entrance, should be placed at the lower end of the road for guests departing the Resort.
 - Paint edge of pavement lines along the entire length of Rosario Road so drivers perceive narrower lanes and reduce their speeds.
 - Installation of depressed type II (reflectorized) markers on center and edge lines along Rosario Road at curves to provide visual and tactile reference for drivers so they stay in their traffic lane and avoid crossing over the centerline or driving on shoulders or into drainage ditches. Depressed markers will eliminate the potential for removal by snow plowing equipment.
 - Installation of chevron signage along curves. This should be coupled with roadside delineators with reflective markers.
 - Guard rails at selected and qualified locations should also be considered as a part of a comprehensive set of improvements. Where guard rails are inappropriate, some minor filling to create wider shoulders could be an appropriate solution option.

- Trees within the 5-foot clear zone of Rosario Road will be identified for potential removal. The Public Works Department will work with Rosario Resort to identify those trees that must be removed to eliminate hazards to the public.
- Establishment of an off-road trail system to and from the employee housing, which would be preferable to walking back and forth along Rosario Road.
- A specific design recommendation for these improvements is outside the scope of this environmental review so it is recommended that a design study be commissioned as part of the planned Resort expansion. This study should be coordinated very closely with San Juan County Public Works staff and affected property owners in the Rosario area particularly those with property along Rosario Road.
- In addition to the traffic management practices to be put in place by Rosario Resort staff, San Juan County Public Works will ask the County Sherriff to increase speed enforcement along Rosario Road.
- San Juan County Public Works will also ask the County Council to reduce the posted speed limit along Rosario Road from 25 mph to 20 mph.

Then, as part of the maintenance agreement associated with establishing the Plat of Rosario Estates, Rosario “*shall assume ½ of any and all expenses incurred in maintaining, widening, or otherwise improving the main access Road from Olga-Eastsound Road, to and through the plat of Rosario Estates*”. In addition, on-site mitigation measures that would help address the expressed concerns of guests wandering onto surrounding private property and surrounding private roadways will include the implementation of additional way-finding signage with the posting of private property signage where appropriate.

The selection of traffic control devices and other types of signage needs to be developed with the principles outlined by the San Juan County Scenic Roads Manual.

Implementation of these voluntary mitigation measures will assure that impacts associated with the proposed Action Alternatives as well as some existing conditions will be moderated or eliminated.

3.9.4 Other Management Practices

Parking Considerations - T-OMP-1: Consistent with the San Juan County Comprehensive Plan and Unified Development Code, all parking facilities at Rosario will meet the following criteria:

- Safe ingress and egress
- Screened or well set back from roads
- Adequate design for ease of use
- Provide for the physically impaired

- Provide for alternative forms of transportation

Parking within 200 feet of the shoreline must also comply with SJCC 18.50.090, which stipulates shoreline-specific parking requirements.

3.9.5 Cumulative Impacts

Neither unrelated transportation improvements nor significant development is expected within the near vicinity of Rosario Resort.

There is the possibility of significant development within the Eastsound Urban Growth Area. The traffic impacts of unrelated development in Eastsound and elsewhere on Orcas Island are reflected by background traffic volume growth assumptions provided by San Juan County. These background volumes are included in the analysis of the No Action Alternative and are incorporated as part of the cumulative impact of Action Alternatives A and B. Therefore, cumulative impacts, not otherwise disclosed as part of this analysis, are not expected.

3.9.6 Unavoidable Significant Adverse Impacts

With implementation of the mitigation measures outlined, no significant unavoidable adverse impacts are anticipated.

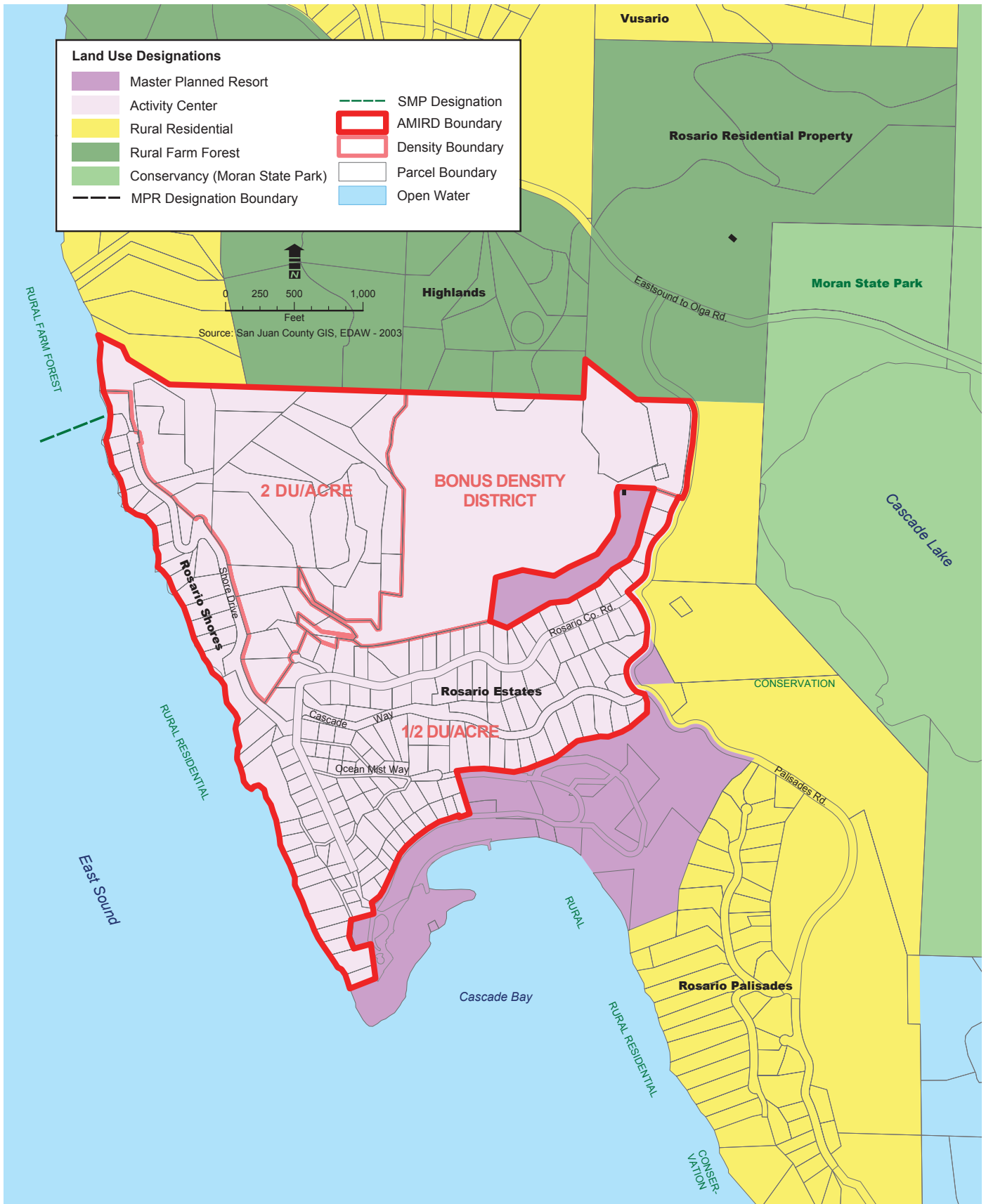


Figure 3-1

Surrounding Land Use Designations



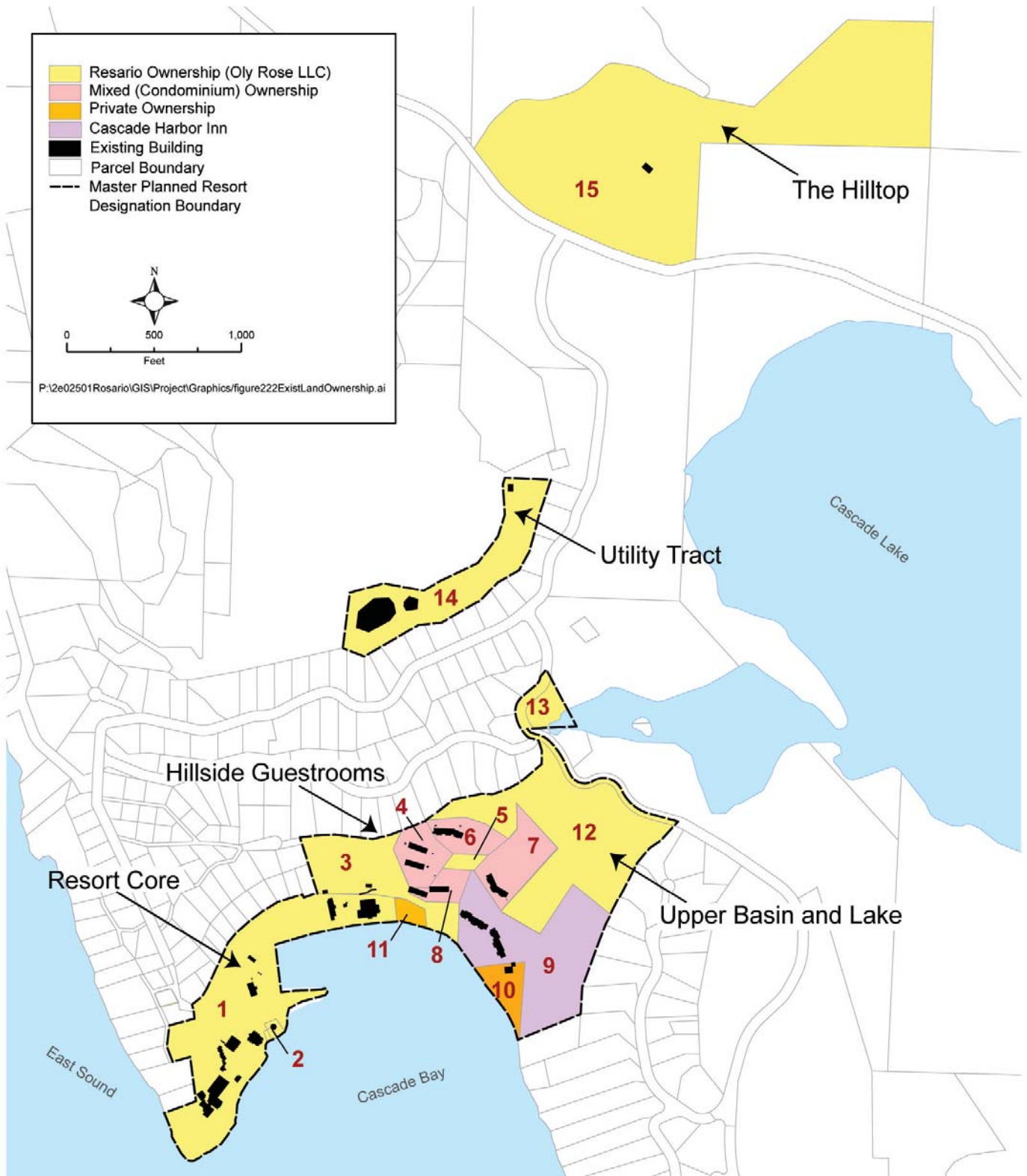
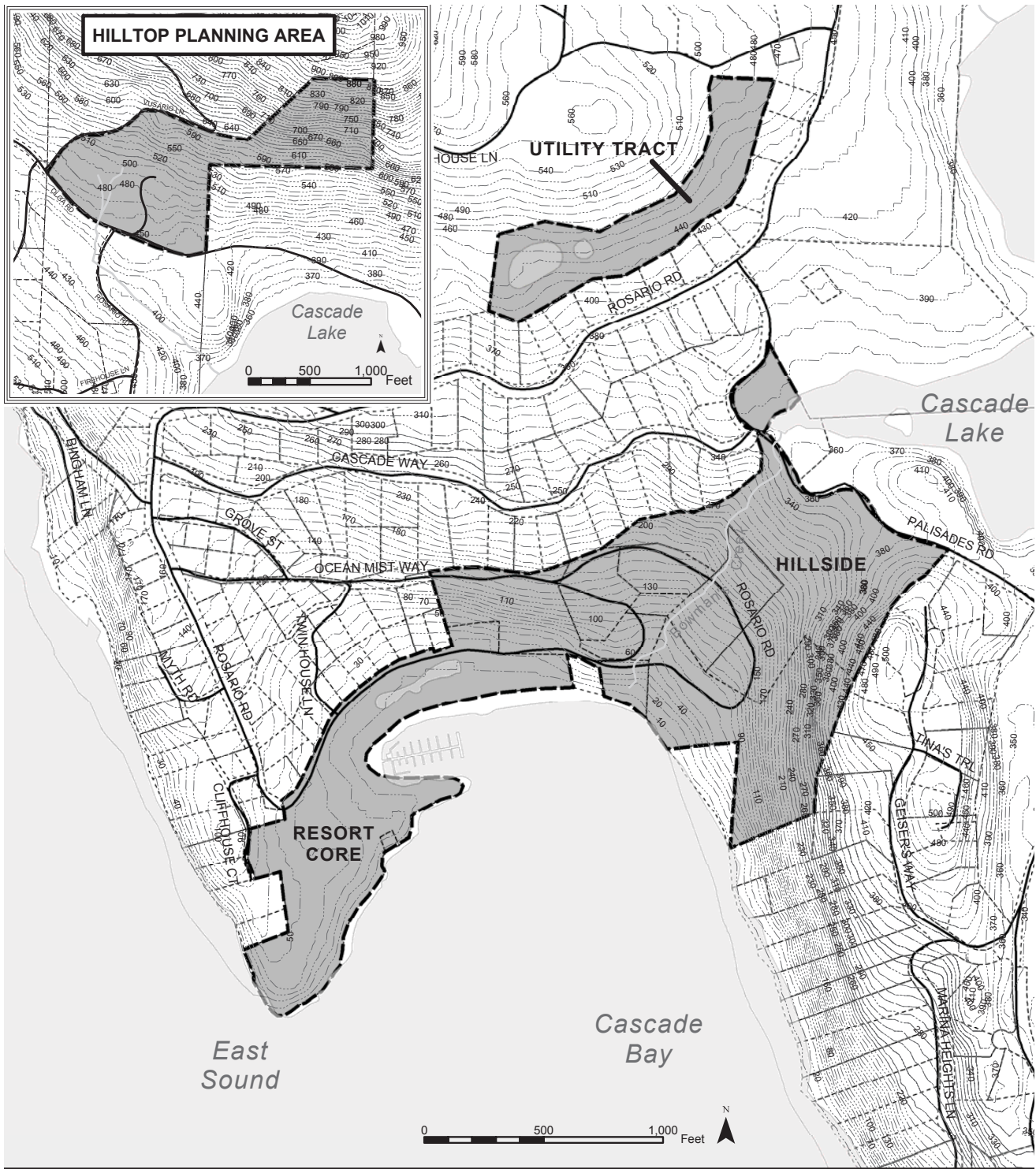









Figure 3-2

Existing Land Ownership





- | | |
|---|---|
|  Future Rosario MPR Boundary | Hydrological Features |
|  Roads |  Open Water |
|  Contours - 10 Ft. |  Treatment Ponds |
|  Parcel Lines |  Streams |

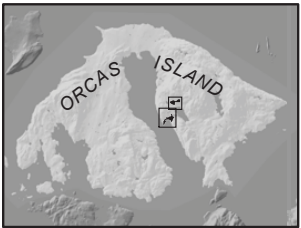


Figure 3-3
Biological Study Areas

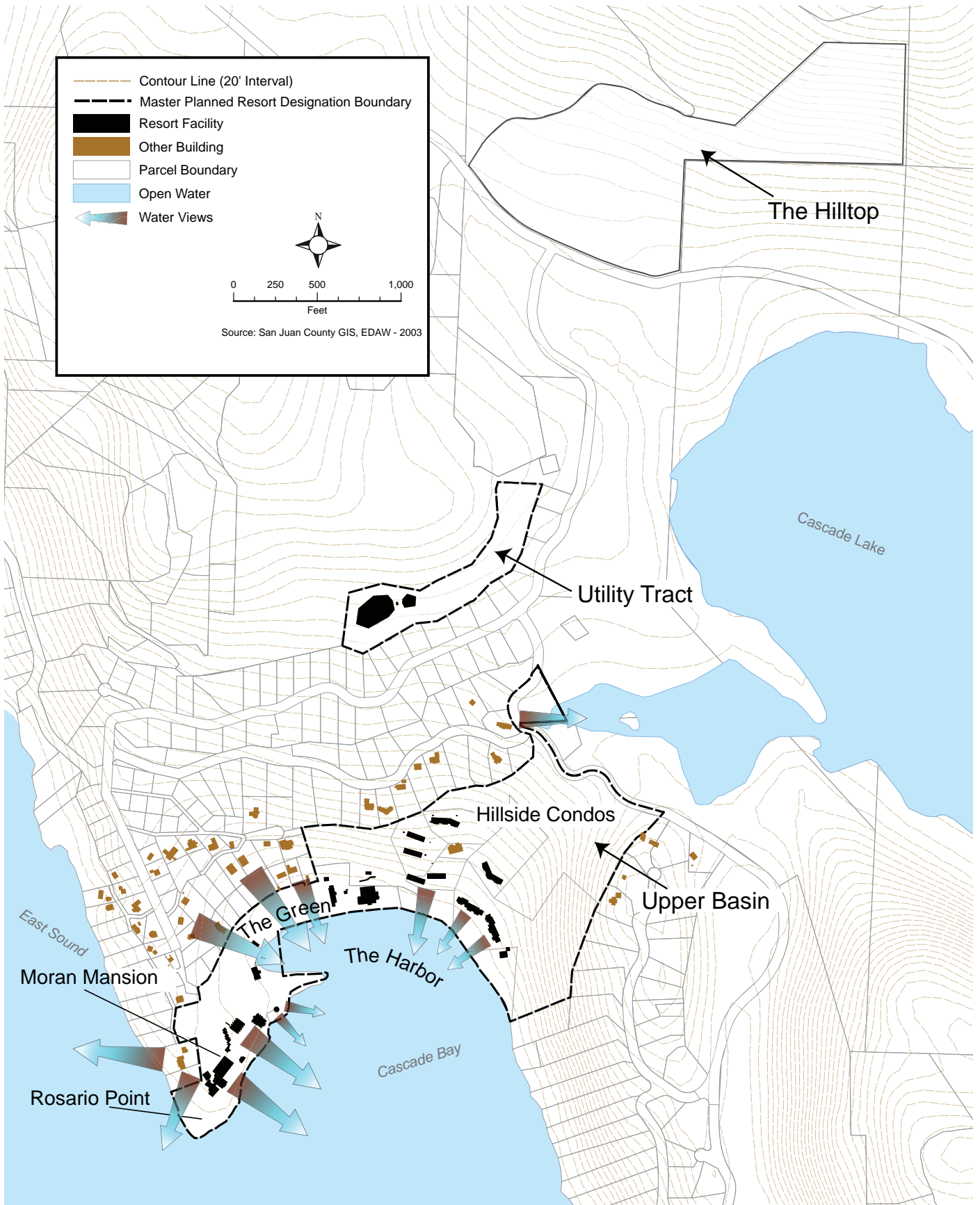


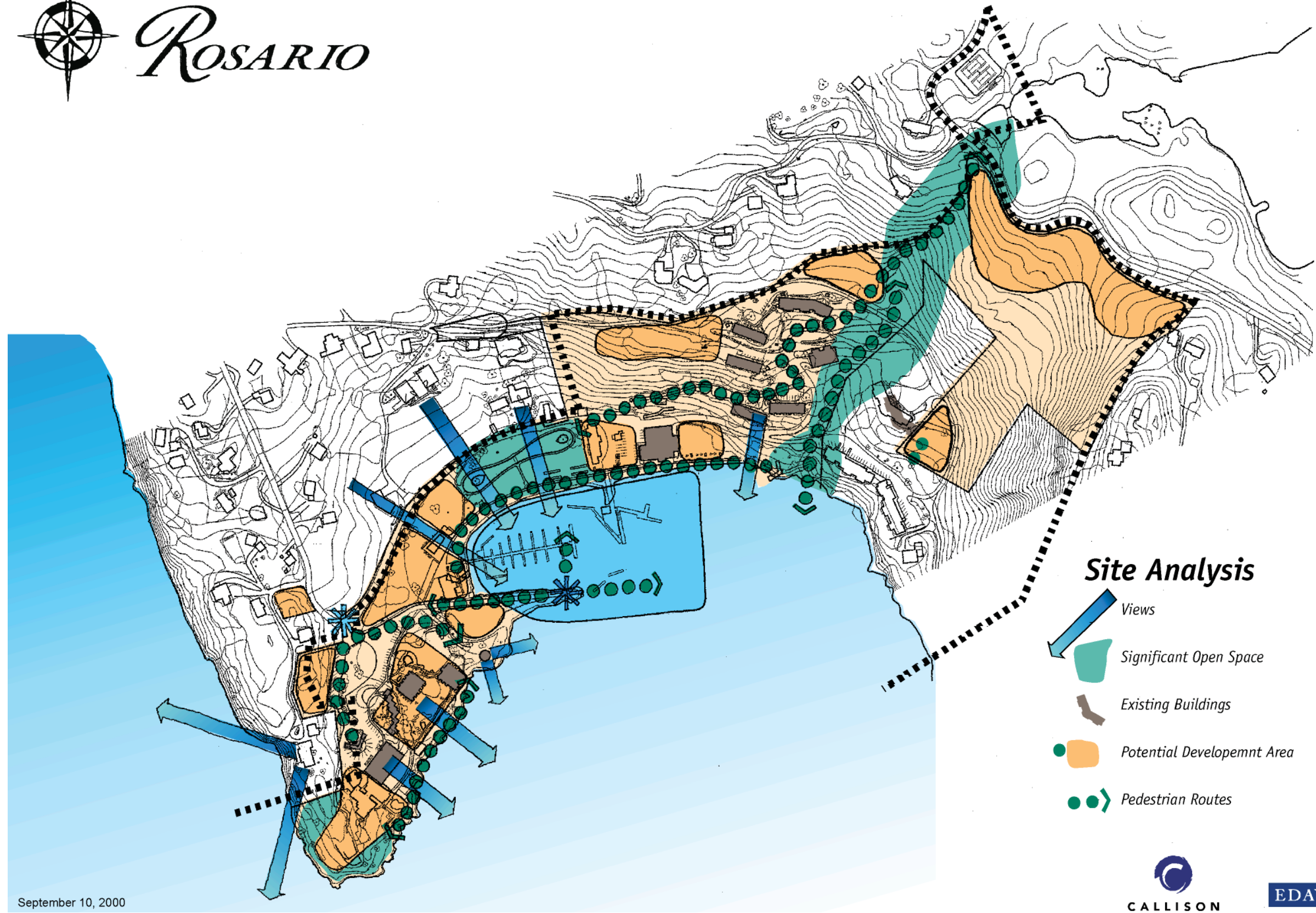
Figure 3-4

Existing Views










ROSARIO






September 10, 2000

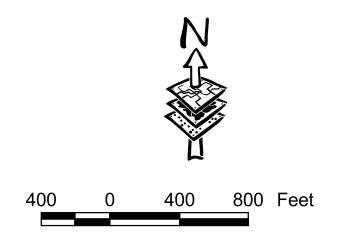
Site Analysis

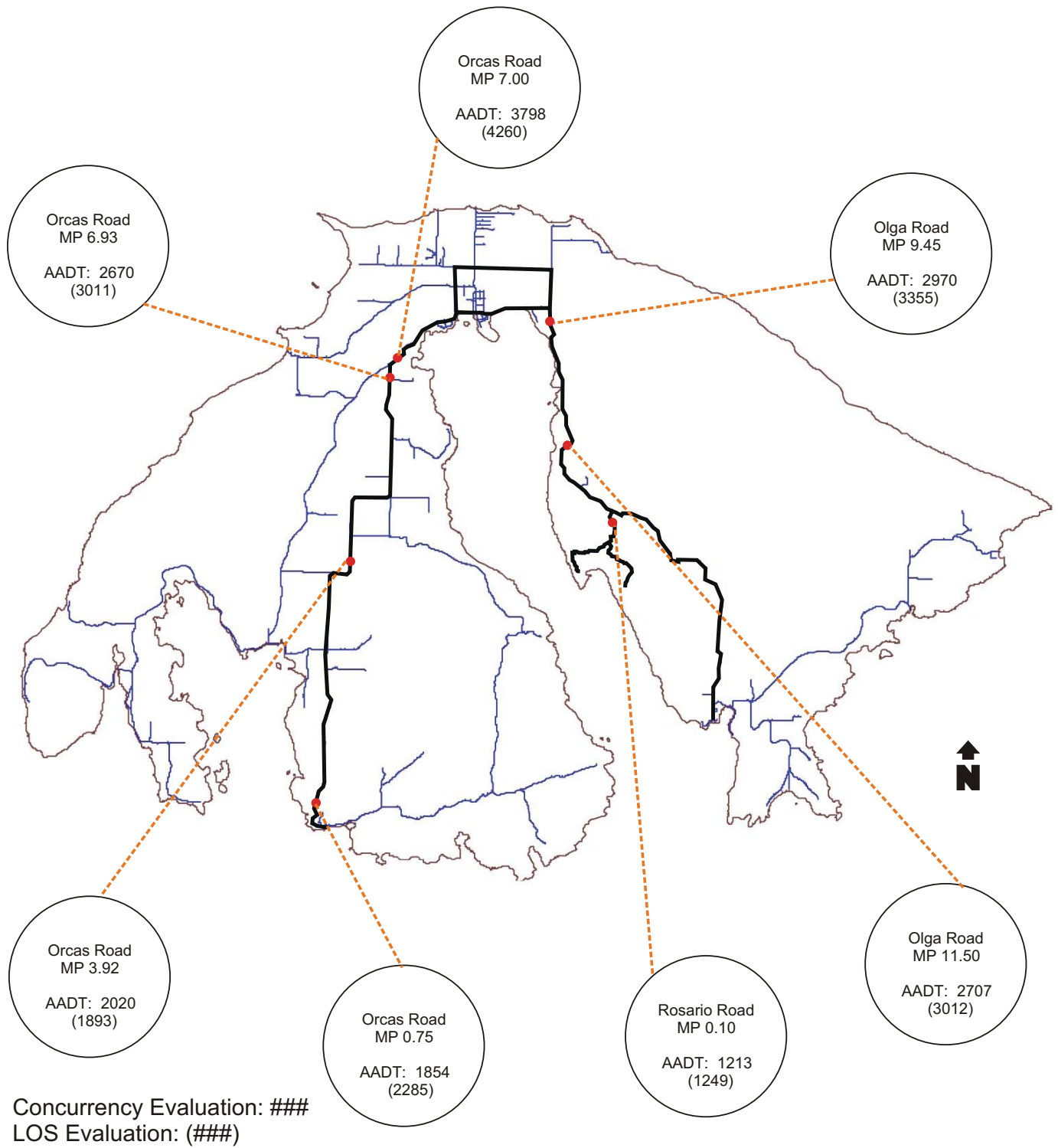
-  Views
-  Significant Open Space
-  Existing Buildings
-  Potential Development Area
-  Pedestrian Routes





-  Contributing Historic Resources
-  Historic District Boundaries
-  Resort Master Plan Boundary





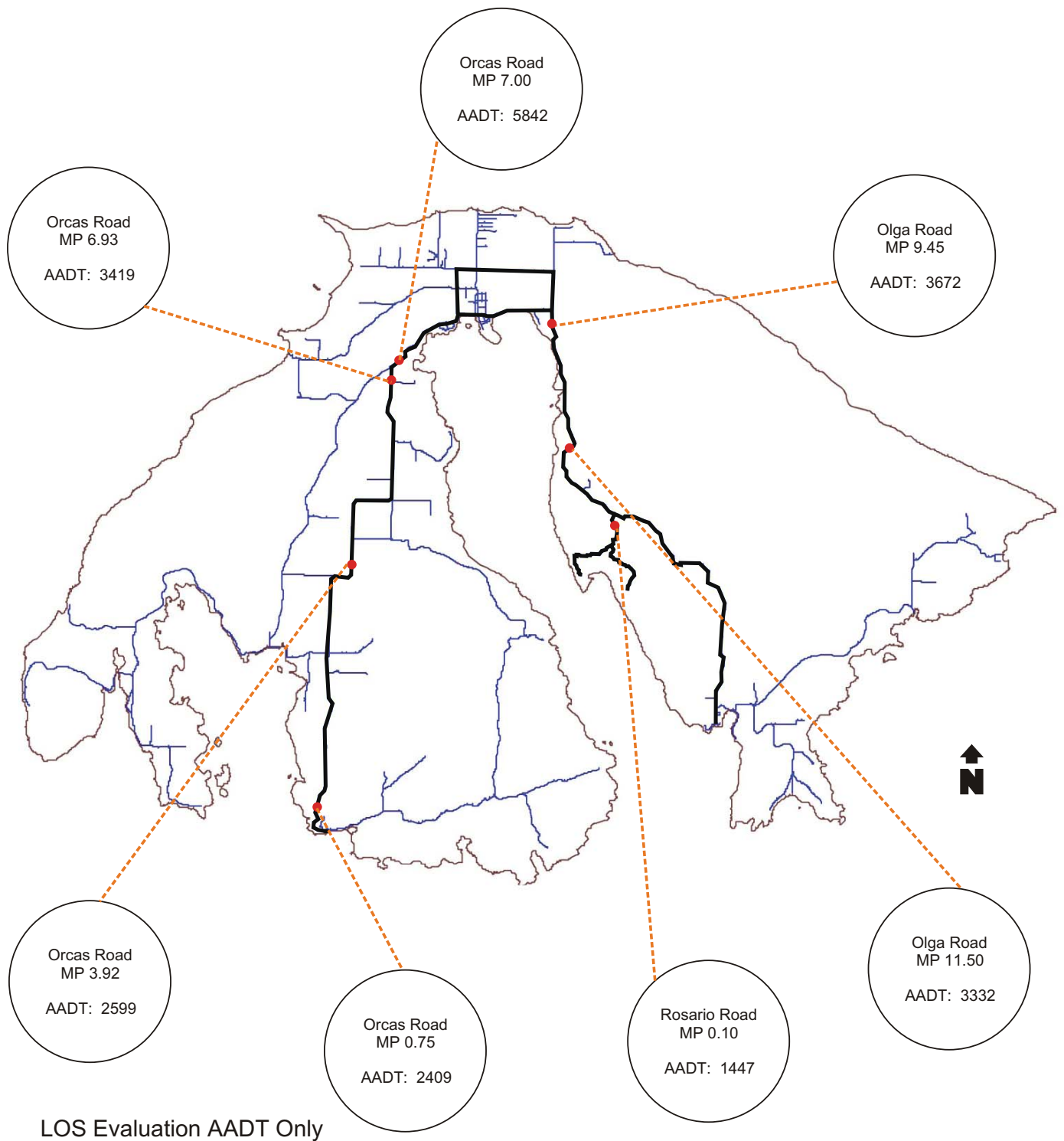
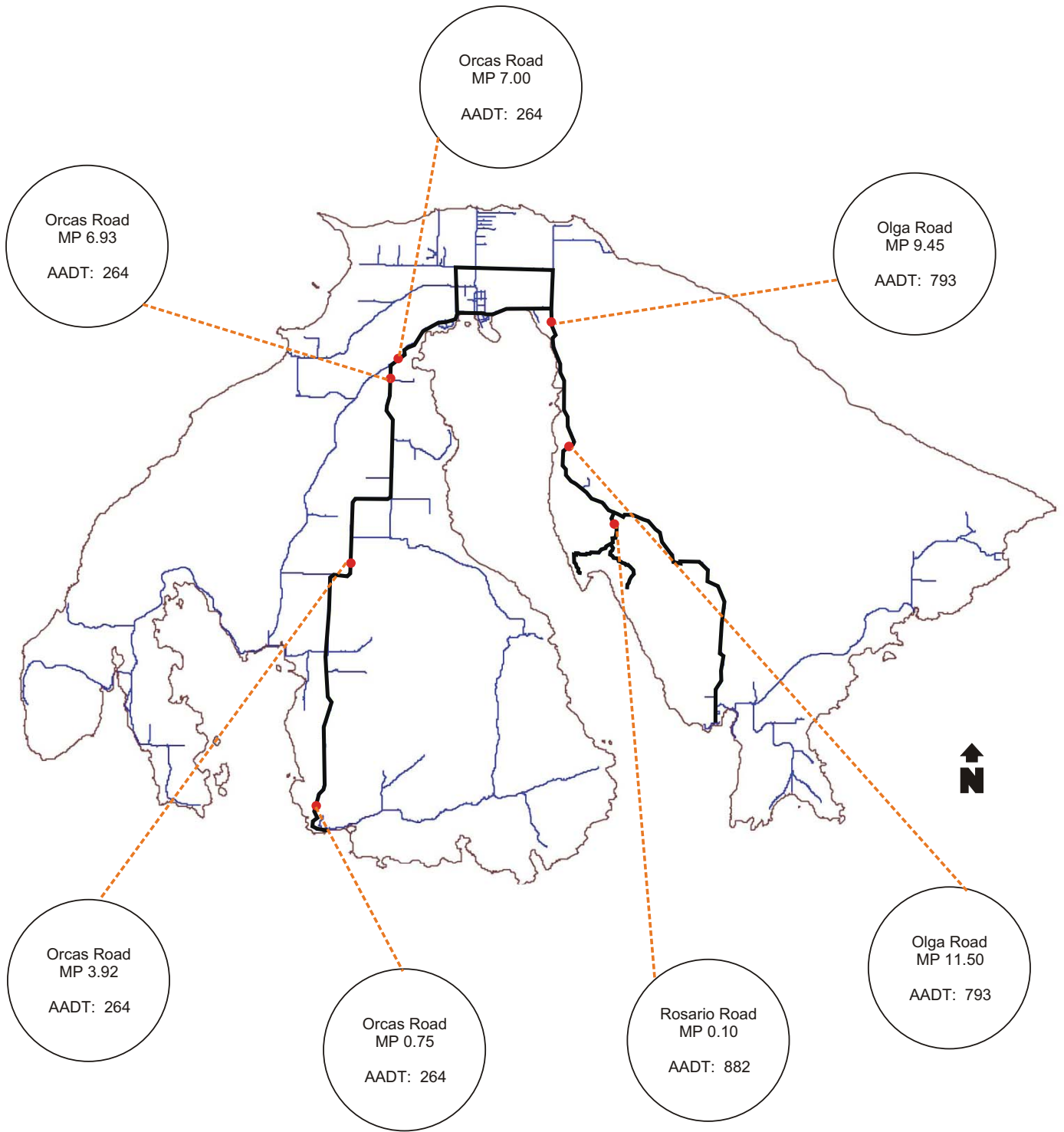
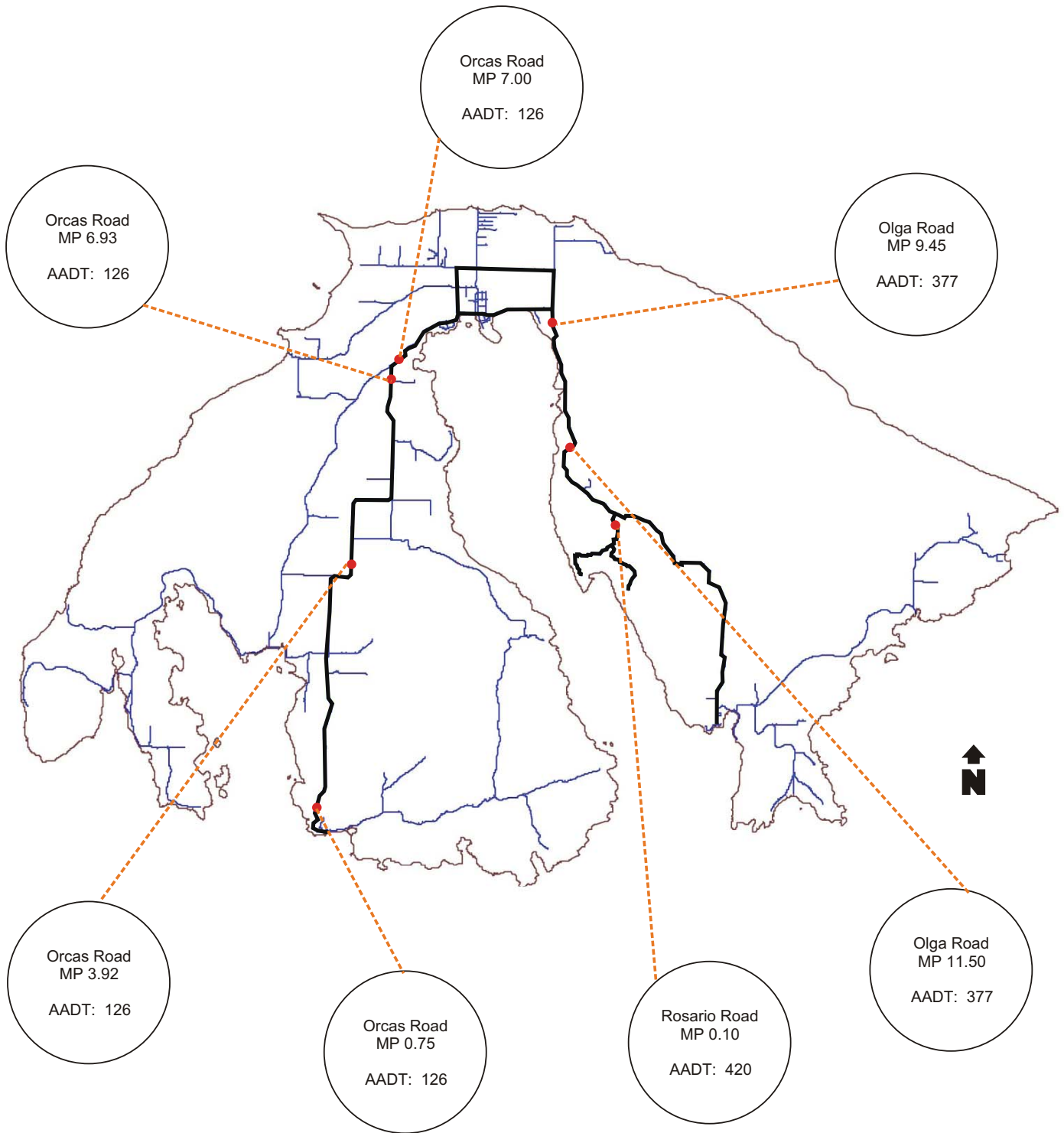


Figure 3-8





CHAPTER 4

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4.0 REFERENCES

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CHAPTER 5

DEIS DISTRIBUTION LIST

5.0 DEIS DISTRIBUTION LIST

5.1 INTRODUCTION

This chapter contains the distribution list of agencies and other parties to whom the DEIS document was distributed., Additional appendices have been compiled under a separate cover (*Rosario Resort Master Plan, Draft Environmental Impact Statement, Volume 2 Appendices - Supplemental Reports*). Included are the following supporting documentation:

- Appendix A: National Register of Historic Places Nomination Form
- Appendix B: Archeological Assessment for the Rosario Resort Master Plan
- Appendix C: The Concurrency Analysis
- Appendix D: The Traffic Impact Analysis 2005
- Appendix E: Public Comment Letters (Non-Substantive)
- Appendix F: Marina Biology Report
- Appendix G: Stormwater Management Plan
- Appendix H: Economic Analysis of Alternatives
- Appendix I: Construction Phase Best Management Practices

The appendices are on file with San Juan County Community Development and Planning and public libraries.

5.2 DEIS DISTRIBUTION LIST

5.2.1 FEDERAL, STATE, AND LOCAL AGENCIES

Department of Aquatic Lands/SEPA

Department of Archaeology and Historic Preservation Stephanie Kramer

Department of Ecology/SEPA Barbara Richey

Department of Ecology/Shoreline Bob Fritzen

Department of Fish and Wildlife Brian Williams

Department of Fish and Wildlife Laura Praye

Department of Natural Resources David Roberts

Department of Natural Resources NW Region

Department of Natural Resources/Aquatic Lands JoAnne Gustafson

Eastsound Planning Review Committee

Eastsound Sewer District

Eastsound Water Users	
Fire District #2	
Friends of the San Juans	Stephanie Buffum
Lummi Historic Preservation Office	Isaac Blume
Lummi Indian Business Council	Darrell Hilliare
Lummi Sche'lang'en Department	Al Scott Johnnie
National Park Service	Peter Dederich
Orcas Island Library	
Orcas Power and Light Company	
Rosario Water Association	
Samish Indian Nation	Russel Barsh
San Juan Conservation District	
San Juan County Board of County Commissioners	
San Juan County Community Development and Planning	
San Juan County Health Department	Vicki Heater, Mark Tompkins
San Juan County Parks	Dona Wuthnow
San Juan County Planning Commission	
San Juan County Prosecutor's Office	
San Juan County Public Works	Joanruth Baumann, Jon Shannon
Swinomish Tribal Commission	Brian Cladoosby
U.S. Army Corps of Engineers	John Pell
U.S. Army Corps of Engineers	Rozwin Liera
University of Washington – Friday Harbor Labs	Richard Strathman
Washington State DOT – Ferries	Mike Anderson
Washington State Parks	Chris Regan

CHAPTER 6

SUBSTANTIVE DEIS COMMENT LETTERS AND RESPONSES

6.0 SUBSTANTIVE DEIS COMMENT LETTERS AND RESPONSES

6.1 INTRODUCTION

The DEIS was distributed to the public agencies and tribes listed in Section 5.2 of this FEIS for review and comment on August 19 and the notice of DEIS availability was published by San Juan County in the Islands Sounder on August 24. The public comment period for the DEIS began on August 19, 2005 and expired at 4:30 PM on October 6, 2005 after being extended by approximately two weeks after the original comment deadline of Friday, September 23. During this review period, the lead agency, San Juan County, received a total of 53 comment letters including 12 substantive comment letters by reviewing agencies, as well as 41 letters and e-mails submitted by interested citizens. All of the agency comment letters addressed issues related to the DEIS. Of the 41 letters submitted by interested citizens, approximately 21 letters addressed the DEIS or substantive environmental issues. The remainder of the letters addressed issues other than the adequacy of the DEIS and therefore, required no response under SEPA. Responses to the 33 letters that addressed the adequacy of the DEIS or raised other environmental concerns have been prepared consistent with SEPA protocols. Copies of the comments letters, together with responses, are published in this chapter. Copies of the remaining 20 letters that were not responded to have been published in Appendix E of this EIS.

6.2 AGENCY LETTERS AND RESPONSES

This section presents each comment letter submitted by an agency followed directly by the response.

Comment Date	Agency	Author	FEIS Page
September 12	Department of Archaeology and Historic Preservation	Stephanie Kramer	Comment: 6-3 Response: 6-5
September 12	Friday Harbor Laboratories – University of Washington	Richard Strathmann	Comment: 6-6 Response: 6-8
September 12	Department of Archaeology and Historic Preservation	Steven Mathison	Comment: 6-10 Response: 6-12
September 14	Washington State Department of Fish and Wildlife	Laura Praye	Comment: 6-13 Response: 6-15
September 19	Lummi Nation Tribal Historic Preservation Office	Nicole Baker	Comment: 6-16 Response: 6-17
September 20	Department of Ecology	Bob Fritzen	Comment: 6-18 Response: 6-20
September 21	San Juan County Public Works	John Van Lund	Comment: 6-21 Response: 6-22
September 21	San Juan County Marine Resources Committee	Mary Masters	Comment: 6-23 Response: 6-26
September 27	Rosario Utilities	Chris Vierthaler	Comment: 6-30 Response: 6-32

Comment Date	Agency	Author	FEIS Page
September 28	San Juan County Public Works Department (Transportation)	Jon Shannon and John Van Lund	Comment: 6-33 Response: 6-38
October 5	Washington State Parks and Recreation Commission	Terry Doran	Comment: 6-41 Response: 6-50
October 5	Friends of the San Juans	Amy Trainer	Comment: 6-55 Response: 6-59



STATE OF WASHINGTON

Department of Archaeology and Historic Preservation

1063 S. Capitol Way, Suite 106 • PO Box 48343 • Olympia, Washington 98504-8343
(360) 586-3065 • Fax Number (360) 586-3067

September 12, 2005

Mr. Martin Blackman
Senior Planner
San Juan County Community Development & Planning
PO Box 947
Friday Harbor, WA 98250

Log: 042905-07-SJ
Re: Rosario Resort Master Plan DEIS

Dear Mr. Blackman:

I have reviewed the archaeological survey report and the DEIS forwarded to our office for the proposed project referenced above. I am responding about the archaeological issues only; Stephen Mathison of this Department is responding concerning the above-ground historic resources. We have the following comments, concerns and requests:

1. We request an additional mitigation measure in the form of updating the National Register Nomination, including adding archaeological site 4SJ242 to the nomination. We also ask that Rosario Resort commit to not encouraging artifact collection by guests and owners.
2. Although the DEIS appears to be offering a commitment to protect the archaeological site, or conduct mitigation, a recent, unauthorized disturbance to the archaeological site on the premises contradicts these assertions. A linear extent of what appears to be recently disturbed midden, possibly the result of some type of pipeline installation (see picture on page 15 of the discipline report), has been identified near the Figure 8 pond. We have no record of a permit being issued by this office for this disturbance. This disturbance needs to be addressed by Rosario Resort. A damage assessment and mitigation will be necessary.
3. The archaeological site 45SJ242 also sustained significant damage in 1991 when large quantities of the site were excavated for a tank removal. According to our records, hundreds of cubic yards of archaeological material were removed. Where is this material today? Is it still on the Rosario property? We have no record of any mitigation being conducted for that disturbance either.
4. We concur with the recommendations of the professional archaeologist for all alternatives. We would like to see more detailed monitoring and survey plans for those areas deemed Moderate or High probability, or that have known archaeological deposits, as the project progresses.



DEPARTMENT OF ARCHAEOLOGY & HISTORIC PRESERVATION

Protect the Past. Shape the Future

These comments are based on the information available at the time of this review and on behalf of the State Historic Preservation Officer. Should additional information become available, our assessment may be revised. Thank you for the opportunity to comment on this project.

Sincerely,



Stephanie Kramer
Assistant State Archaeologist
(360) 586-3083
Stephanie.Kramer@dahp.wa.gov

cc: Nicole Baker, Lummi Nation
James Hillaire, Lummi Nation
Mike Usen, SE Group
Robert Koppert, NWAA

Response to Stephanie Kramer, Assistant State Archaeologist, Department of Archaeology and Historic Preservation

1) Updating the NRHP nomination to include 45SJ242 and measures to address unauthorized digging and artifact collection at the site:

In response to Ms. Kramer's comment, updating the National Historic Register nomination to include 45SJ242 and establishing a program to discourage resort guests from collecting artifacts has been added to the list of mitigation measures in Section 3.8.3 of this EIS.

2) Regarding the possible recent disturbance of site 45SJ242:

Ms. Kramer's comment regarding a previous, and apparently unauthorized, excavation on the site and the resulting possible disturbance to cultural resources is noted. As suggested in Ms. Kramer's comments (comment number four), mitigation for impacts to cultural resources that might result from future construction or other land disturbing activities could be achieved through the development of a DAHP approved Cultural Resource Management Plan for the site and by providing an appropriate level of monitoring by a professional archaeologist during construction work in areas of the site where cultural resources may be present. Mitigation measures HAR-M-6 and HAR-M-9 include the preparation of a management plan with monitoring protocols.

3) Issues regarding the 1991 tank excavation:

See Response to Comment 2 above.

4) Alternative recommendations:

Ms. Kramer's comment is noted. Mitigation Measure HAR-M-6 and HAR-M-9 include the preparation of a management plan and monitoring by a professional archaeologist, in accordance with a monitoring protocol established in the plan. The management plan and monitoring protocol would need to be developed in consultation with the Lummi Nation, DAHP, and San Juan County and then approved by the County prior to the approval of any construction activities on the site.

FRIDAY HARBOR LABORATORIES
UNIVERSITY OF WASHINGTON
620 UNIVERSITY ROAD
FRIDAY HARBOR, WA 98250
September 12, 2005

S.J.C. COMMUNITY
SEP 15 2005
DEVELOPMENT & PLANNING

San Juan County Community Development and Planning
P. O. Box 947
Friday Harbor, WA 98250

Comment on draft EIS for Rosario Resort Master Plan

These comments are restricted to impacts on fully aquatic animals and plants of East Sound. The draft EIS says little about these impacts.

The resort plans include additional housing units and marina slips and therefore additional people, automobiles, and boats. Plan A and Plan B both appear to have greater increases and therefore greater marine impacts than no action. Greater input of materials into East Sound is a source of marine impacts. Increased inputs to East Sound will include sewage, runoff from impermeable surfaces, runoff associated with landscaping near housing units, and materials associated with docks and boats.

The summary on page 3-67 indicates lower quantities of sewage (as flow, BOD, and TSS) with no action than with plans A or B. In the appendix on Concurrency Analysis (page 16) the possibility of using treated wastewater for toilets or landscape irrigation is discussed, but it is noted that the present level of treatment does not meet the standard for those uses. It therefore appears that nutrient inputs into East Sound will be greater under plans A or B. East Sound is a narrow fjord with restricted exchange. Dense phytoplankton blooms occur in summer when vertical mixing is reduced by the presence of less dense surface water. One source of warmer, less saline water entering East Sound is the plume from the Fraser River, to the north (Alldredge, AL, et al. 2002. Marine Ecology Progress Series 233:1-12). Conditions favoring algal blooms are interrupted when the water is mixed by winds. Sewage contributes more fixed nitrogen, which promotes algal blooms. Density stratification is especially well developed in summer (and mixing correspondingly reduced) at the season of peak numbers of people living at Rosario. The effect of nutrients in sewage will depend on the depth of the outfall, vertical stratification and mixing in East Sound, amounts relative to nutrients already in the water, and amounts relative to other sources from East Sound watershed. The EIS does not indicate the probable quantities of fixed nitrogen that would enter East Sound under the different plans. Fertilizing nutrients are not the only inputs in treated sewage that could affect marine life, but the impacts of nutrients are among the most studied. East Sound is not as extreme a situation as the Hood Canal, but the present situation at the Hood Canal demonstrates that high-density development can greatly affect marine life and quality of marine waters in the Northwest.

The EIS mentions metals from the old Moran house roof as one source of materials in runoff. Other materials in runoff will increase with additional development. These include motor oil and the fertilizers and pesticides associated with landscaping.

The impacts on marine life that are associated with inputs from the people living on a water shed are cumulative. The relative impacts of plans A, B, and no action depend on the eventual development of the East Sound water shed and methods of sewage disposal. The town of East Sound discharges its sewage into President Channel rather than East Sound. Mixing is more rapid in President Channel than in East Sound. High-density development at Rosario does not have the advantages of the town of East Sound for sewage disposal.

Inputs from marinas include preservatives and antifouling materials, small spills of fuel, debris, and other losses from boats and docks. The impacts also include increased harvesting of marine life. Economic viability appear to be the justification for plans A and B. If economic viability requires a marina expansion, then the impacts of the marina are part of the impact of plans A and B. No expansion of the marina (the no action plan) will have less impact on marine life than plans A and B, which include expansion of the marina.

The EIS indicates no eelgrass or kelp in the areas of the marina expansion, but I saw no eelgrass and kelp survey in the EIS. Discussion of impacts on land included the possibility of restoration of areas that presently have invading non-native species (scotch broom and blackberry). Similarly, suitability of substratum for eelgrass, not just its current presence or absence, affects the impacts of marina expansion.

Sincerely,



Richard R. Strathmann
Resident Associate Director, FHL

Response to Richard Strathmann, Resident Associate Director, Friday Harbor Laboratories – University of Washington

1) Relationship of resort growth to marine impacts:

In response to comments received regarding stormwater runoff, additional information has been developed regarding the anticipated increase in stormwater runoff resulting from development under Action Alternative A or Action Alternative B. That information has been added to Section 3.3 of this EIS. Development under either of these alternatives will increase the amount of impervious surfacing including pollution generating surfaces such as roads and parking areas. Under Action Alternative A, the increase would range from about 15 to 21 percent. Under Action Alternative B the increase would range from about 15 to 18 percent. An increase in impervious surfacing will result in an increase in the volume of stormwater runoff generated from the site and an increase in stormwater pollutant loadings. In addition, an increase in the number of guest accommodations, fractional ownership vacation housing, and resort amenities will result in greater use of the Resort and higher occupancy levels, ultimately resulting in an increase in the volume of sewage.

2) Addressing eutrophication:

Dr. Strathmann's comments regarding pollutant loadings, particularly nutrient loadings, are noted. With respect to stormwater runoff, the types and concentrations of pollutants in the stormwater runoff are expected to be those typically associated with residential-type development. Stormwater runoff must be managed in accordance with the provisions of SJCC 18.60.070 Storm Drainage Standards. Section 18.60.070 SJCC requires compliance with the Washington State Department of Ecology's Stormwater Manual, which requires that stormwater treatment measures be installed to protect downstream resources. These treatment methods are established in the stormwater manual as Best Management Practices (BMP's). The developer will be required to prepare a stormwater management plan including proposed treatment methods prior to receiving approval for construction related permits. Because the Resort was built prior to the requirement for stormwater treatment, the addition of stormwater treatment facilities required for new development has the potential to improve the water quality characteristics of stormwater runoff from the site.

With respect to sewage treatment, the treatment plant operates under an approval issued by the State's Department of Ecology. The Department of Ecology regulates effluent discharge through the NPDES permit process. Maximum values for pollutant concentrations in the effluent discharged by the plant is established in the NPDES permit. The plant operator is required to monitor the effluent in compliance with the standards established under the permit.

3) Other potential contaminants:

The comprehensive stormwater management plan will address, among other issues, the use of pesticides and fertilizers along with facilities such as bioswales, vegetated buffers, and other treatments along the shoreline, and includes mitigation measures requiring the replacement of the copper roof on the Moran Mansion with non-toxic building materials. In addition, these mitigation measures address other toxic materials which may potentially be present in resort

buildings and property, requiring their removal and/or replacement with non-toxic materials or suitable containment and treatment of runoff from these areas before runoff is allowed into the environment.

4) Sewage issues:

Regarding increased quantities of wastewater treatment plant effluent into the bay, there has been no engineering analysis of how much additional fixed nitrogen would be released into the bay. As stated in Section 3.4.3 of the FEIS, before and after future wastewater treatment plant expansion, Rosario Utilities will continue to meet all discharge level requirements of all regulated substances administered by the State Department of Ecology.

5) Relationship between the proposed Resort Master Plan and the proposed marina expansion:

Adoption of a Resort Master Plan is the first step of the review process for the future development of Rosario Resort. This EIS is the first phase of a phased environmental review under SEPA for the Rosario Resort expansion. Whether the Resort can remain economically viable without an expansion of the marina is an issue beyond the scope of this EIS. Economic necessity is typically not a factor that would be given substantial weight when the County and other agencies with jurisdiction, including the Corps of Engineers, subsequently review an application for the construction of a marina. Under the County's shoreline regulations, marinas are a permitted use on shorelines designated Rural and consequently, may be proposed as part of the Resort Master Plan. At this level of review, the potential impacts of a marina are presented in general terms and include the points that were raised in the comment being responded to here. If the Master Plan is approved, the applicant will be required to obtain the necessary permits, including shoreline permits for development in the shoreline and specifically, a shoreline permit for development of the marina. Additional and more detailed environmental review under SEPA will be required for approval of future development including the marina, at which time more specific information will be required and more specific analysis conducted.

Additional language has been added to sections 2.1 and 2.3 (and elsewhere) of the RMP Final Environmental Impact Statement to better explain the relationship between the proposed Resort Master Plan and the proposed marina expansion and why these two related proposals require two separate environmental analyses consistent with phased environmental review as stipulated by WAC 197-11-060(5).

6) Eelgrass and kelp:

Information regarding eelgrass surveys can be found on page 3-84 (Section 3.5 Plants and Animals) of the DEIS. Underwater surveys were conducted by Cascade Environmental Services in September 1997. No eelgrass was found during these surveys. The survey report has been included in Volume II of the FEIS as Appendix F. However, the survey is somewhat dated. The applicant would be expected to update the survey if they were to pursue the necessary local, state, and federal permits required for the Marina. Section 3.5 of the EIS has been revised to note that there are historic indications of eel grass in Cascade Bay.



STATE OF WASHINGTON

Department of Archaeology and Historic Preservation

1063 S. Capitol Way, Suite 106 • PO Box 48343 • Olympia, Washington 98504-8343
(360) 586-3065 • Fax Number (360) 586-3067 • www.dahp.wa.gov

September 12, 2005

Mr. Martin Blackman
Senior Planner
San Juan County Community Development & Planning Department
135 Rhone Street
Courthouse Annex
Post Office Box 947
Friday Harbor, Washington 98250

S.J.C. COMMITTEE
SEP 14 2005
DEVELOPMENT & PLANNING

In future correspondence please refer to:

Log: 090705-01-SJ

Property: Rosario Resort Master Plan

Re: Draft Environmental Impact Statement (DEIS)

Dear Mr. Blackman:

Thank you for contacting the Washington State Department of Archaeology and Historic Preservation (DAHP). The above referenced project has been reviewed on behalf of the State Historic Preservation Officer under provisions of the State Environmental Policy Act (SEPA). My review is based upon documentation contained in your communication. Please note that my comments below relate only to above ground cultural resources. Further comment on below ground cultural resources should be forthcoming. My review is also limited to comments on the preferred Alternative B, which results from the Master Plan developed by consultants, a committee (on which staff of DAHP served) and the public.

Generally, the Master Plan recognizes the historic significance of the Moran Estate, and the importance of preserving its cultural landscape, which includes its contributing buildings, structures and landscape features.

While recognizing the need to make the resort economically viable, we have always been concerned about certain program requirements, most notably those used to develop the Plan that require such a large expansion of the number of guest units. This leads to our concern about the density of proposed new construction at the resort, particularly into areas where buildings do not currently exist and that have historically been open lawns, landscaped areas and other forms of open space.

And while it is not necessarily the purpose of a Master Plan or the DEIS to go into specifics, we are very concerned about the potential for inappropriate treatments to the Mansion and other contributing properties at Rosario. Both the DEIS and the Master Plan state that plans to restore and rehabilitate the Mansion and other contributing properties and to design the Mansion's new annex, would be based on the Secretary of the Interior's Standards for the Treatment of Historic Properties (particularly the Standards for Rehabilitation). However, without some process or methodology in place to encourage and enforce compliance, what assurance is there that those Standards will be appropriately met?



Mr. Blackman
September 12, 2005
Page Two

For example, removal of the existing non-historic, incompatible addition to the Moran Mansion is not a concern. However, to meet the aforementioned Standards, the new annex must not only be compatible in design, it must not detract from the significance of the Mansion. This means it must not be too large in mass, scale or footprint; include large new features that draw attention away from the historically significant residence; or contain materials and finishes that either mimic or conversely, contrast too sharply.

Retention of historically significant interior fabric is also a concern. The Master Plan singles out certain areas of the Mansion for preservation, but other areas also contain historically significant features. Accommodating new and updated electrical communications, plumbing and mechanical systems could by themselves seriously compromise significant existing historic fabric. While portions of the first floor have been extensively modified, careful planning will be required to make room for the move of the Spa Retail from the basement without further compromising existing historic fabric and character. It is also difficult to conceive how 21 new luxury suites for Moran Club members can be incorporated into the second floor former bedrooms/offices without adversely affecting the historic layout and other significant building fabric and features.

In order to assure adherence to the Secretary's Standards, we recommend that the project proponent and county, together with other interested parties, develop a process that would involve at least two components. The first would require the resort to retain a qualified preservation professional or professionals to be involved in preparing plans for the redevelopment of historic properties, proposed new construction, and the historic cultural landscape. The second would assure some form of informed design review for those plans. This could be a local process, in which a qualified design review board is formed to review this project, and perhaps others in the county or specifically on Orcas Island. It may include review by the National Park Service (Western Regional Office in Seattle) or DAHP (subject to their agreement), either solely or in collaboration with local design review.

The project proponent should also be encouraged to consider utilizing the 20% federal historic preservation investment tax credit program for the rehabilitation of the Mansion and other contributing properties, which requires compliance with the Secretary's Standards.

Thank you for the opportunity to review and comment. If you have any questions, please contact me.

Sincerely,



Stephen A. Mathison
Historical Architect
(360) 586-3079
Stephen.Mathison@dahp.wa.gov

Response to Steven Mathison, Historical Architect, Department of Archaeology and Historic Preservation

Mr. Mathison's comments with regard to the need for a coordinated preservation plan are noted. As a point of clarification, Action Alternative B includes the development of guest rooms in a new structure adjacent to the Moran Mansion and not in the Mansion itself. Under Action Alternative B, no guest accommodations would be provided in the Mansion. In response to Mr. Mathison's comments, a Mitigation Measure HAR-M-7 has been added which reads as follows:

HAR-M-7: Adverse effects on historic resources could be mitigated through the development of an Historic Resources Management Plan. The plan would include a catalogue of the historic resources of the Resort and establish preservation protocols. The plan could also include architectural design, massing and scale guidelines for new development in the vicinity of the Mansion to preserve and enhance the historical character of the Resort. The Historic Resource Management Plan should be developed under the guidance of an historic preservation specialist and include consultation with the Department of Archeology and Historic Preservation.



State of Washington

Department of Fish and Wildlife

Mailing Address: 16018 Mill Creek Blvd, Mill Creek, WA 98012-1296, (425) 775-1311, TDD (360) 902-2207

S.J.C. COMMUNITY
SEP 16 2005
DEVELOPMENT & PLANNING

September 14, 2005

San Juan County
Community Development and Planning
Attention: Martin Blackman
PO BOX 947
Friday Harbor, WA 98250

Dear Mr. Blackman;

**SUBJECT: Hydraulic Project Application; DRAFT EIS for Rosario Resort Master Plan;
San Juan County, WRIA 02**

Thank you for the opportunity to provide comments on the Draft Environmental Impact Statement for the Rosario Resort Master Plan. After reviewing information provided in the Draft EIS dated August 2005, the Washington Department of Fish and Wildlife (WDFW) has some concerns specifically regarding salmon and the nearshore habitat. Chinook salmon have been federally listed as threatened in Puget Sound since 1999. Since then new biological information has become available regarding juvenile salmonids and the importance of the nearshore environment.

Of major concern are shading impacts to the intertidal and subtidal zone from the proposed increased overwater coverage in the marina. Studies have shown that shading caused by overwater structures may force juvenile salmonids to travel around the structure into deeper water increasing their risk to predation. Shading also reduces light penetration necessary for vegetation such as macroalgae and eelgrass to grow. This habitat provides many marine species, including juvenile salmonids, refuge from predators, rearing habitat, and a food source. In addition, light is necessary for benthic organisms such as phytoplankton to grow, which juvenile salmonids feed on.

To help minimize shading impacts in the nearshore the WDFW recommends keeping the float/slip width to 6 ft or less. For floats greater than 6 ft wide, grating shall be required that allows a minimum of 60% open space. Additional alternatives include moving the greatest over water coverage into deeper subtidal waters, using ramps with grating to connect transfer spans to land, and orienting the docks/slips in a north/south orientation.

Mr. Blackman
September 2, 2005
Page 2 of 2

A preliminary eelgrass/macroalgae vegetation survey will be required in order to determine if marine vegetation is located in the footprint of the proposed overwater structure. The applicant shall contract a qualified diver/biologist to conduct the preliminary eelgrass/macroalgae survey.

When submitting plans please include a vicinity map, and scaled drawings with cross section views showing all dimensions and distances to the affected water body- ordinary high water (OHW), and prominent natural features. Specifications shall be developed relative to Mean Lower Low Water (0.0 MLLW) including bathymetric depths. This information will help us to evaluate impacts and mitigation relevant to the proposed project.

The goal of the WDFW is to achieve no net loss of habitat functions and values. The WDFW discourages the use of pilings, lumber, and other materials treated with creosote and other wood preservatives and recommends instead the use of steel, concrete, or recycled plastic. Potential mitigation may include removing any existing in-water structures consisting of creosote treated timber and styrofoam floats. Temporal losses may increase mitigation due to lost habitat function. Constructing a new marina with increased shading impacts will result in lost habitat function in the nearshore. Providing equal and functioning habitat prior to construction impacts will reduce temporal losses and potentially greater mitigation.

Please note the in-water work closure period is from March 15 to June 15 in the Rosario area for the protection of migrating juvenile salmonids.

Thank you for the opportunity to provide this information. If you have any questions, please contact me at prayemp@dfw.wa.gov or (425) 379-2306.

Sincerely,



Laura Praye
Habitat Program

LP:lp

Response to Laura Prave, Washington State Department of Fish and Wildlife

1) Concerns regarding potential shading impacts:

As discussed in this EIS, the proposed marina expansion would increase the overall square footage of docks and therefore, increase the relative percentage of shading. As discussed below, and in the Resort Master Plan and EIS, several mitigation measures such as shoreline restoration are proposed. When marina design is undertaken, the project-specific environmental analysis can address the detailed impacts of that design. Marina construction will require permits from the U.S. Army Corps of Engineers and Washington Department of Ecology that will require review of impacts to marine and near-shore habitat and impact mitigation. Suggestions listed in your letter will be incorporated into the proposed marina design.

2) Eelgrass/macroalga vegetation survey:

Information regarding eelgrass surveys can be found on page 3-84 (Section 3.5 Plants and Animals) of the DEIS. Underwater surveys were conducted by Cascade Environmental Services in September 1997. No eelgrass was found during these surveys. The survey report has been included in Volume II of the FEIS as Appendix F. However, the survey is somewhat dated. The applicant would be expected to update the survey if they were to pursue the necessary local, state, and federal permits required for the marina. Section 3.5 of the EIS has been revised to note that there are historic indications of eelgrass in Cascade Bay.

3) Plans and specifications:

While both action alternatives that are addressed by the EIS include conceptual marina layouts, neither marina concept has been presented as an actual design. The adoption of the Rosario Resort Master Plan will not be an endorsement or approval by the County of any of the marina layouts presented in the plan. The County considers these layouts to be illustrative rather than definitive. As noted previously, if the Master Plan is approved and the owner decides to proceed with the marina expansion, additional local, state, and federal approvals will be required, including Hydraulics Permit Approval from WDFW. The applicant has received a copy of WDFW's comments and will presumably take those comments into consideration during the design process.

4) Goal of no net loss of habitat function and values:

WDFW's comment regarding no net loss of habitat function and values is noted. State and federal resource agency review of any subsequent application for approval of a marina is an important programmatic mitigation measure for identifying and mitigating potential impacts to marine habitat. State and federal regulations, as well as agency rules, provide standards for protecting endangered species and preserving habitat that would need to be met before approval to construct a marina would be permitted.

Martin Blackman

From: Nicole Baker [NicoleB@lummi-nsn.gov]
Sent: Monday, September 19, 2005 3:22 PM
To: Martin Blackman
Cc: Stephenie.Kramer@DAHP.WA.GOV; James Hillaire
Subject: Rosario RMP DEIS

Dear Mr. Blackman,

The LNTHPO is in receipt of the Draft Environmental Impact Statement (DEIS) Rosario Resort Master Plan. On Page 3-117: Historical Overview - what sources were used? None are cited or listed in the References.

Page 3-120: Has the "pipeline" work gone through any permit review? (Pictured on pg. 15) This issue was also addressed in Stephenie Kramer's letter dated September 12, 2005 (#2).

These comments are based on the information available at the time of the review. The LNTHPO should review any changes related to the proposed project activities. Should you have any questions or concerns, please do not hesitate to call me at (360) 384-2298.

Sincerely,

Nicole Baker

Interim Tribal Historic Preservation Officer
Lummi Nation Tribal Historic Preservation Office
Phone (360) 384.2298
Fax (360) 380.1850

9/21/2005

Response to Nicole Baker, Interim Tribal Historic Preservation Officer, Lummi Nation Tribal Historic Preservation Office

1) Sources of historical data:

The historical overview on page 3-117 of the DEIS is a summary of the historical discussion based on Section 2.4 of the Rosario Resort Master Plan. Sources used to prepare this discussion include the National Register of Historic Places Inventory Nomination form filed with the State Office of Archaeology and Historic Preservation (OAHP) in 1974; *Rosario Yesterdays: A Pictorial History* written by Christopher Peacock in 1985; the Archaeological Assessment for the Rosario Resort Master Plan by Robert Kopperl, Ph.D. in 2005, as well as numerous discussions with the Christopher Peacock, former Rosario owner Sarah Geiser, and long-time Rosario Resort and Rosario Utilities employee Chris Vierthaler. Appropriate in-text references and citations have been incorporated into Chapter 4 of the FEIS document.

2) Status of the pipeline - possible recent disturbance of site 45SJ242:


Disturbances to the ground in the vicinity of the Figure 8 Lagoon resulted in 2004 from trenching needed to repair and/or replace previously installed irrigation lines & sprinklers needed to encourage growth of grass. Most of these lines are buried approximately 8 to 12 inches below the surface. The trench did not exceed these depths and averaged approximately 6 inches in width. Holes that were dug around irrigation heads were about 16 inches in diameter and 12 inches deep. These actions were the result of ongoing resort operations not associated with the proposed action addressed by the EIS.

The applicant will provide a damage assessment made by a professional archaeologist to ascertain the extent of trenching by the placement of shovel probes adjacent to the trench to see what kinds of deposits it actually went through. Specific remediation measures will be determined if necessary following consultation with the Lummi Nation and DAHP.



STATE OF WASHINGTON
DEPARTMENT OF ECOLOGY

Bellingham Field Office • 1204 Railroad Avenue, Suite 200 • Bellingham, Washington 98225
(360) 738-6250 • FAX (360) 738-6253

TO: Martin Blackman, Senior Planner for San Juan County
FROM:  Bob Fritzen, Environmental Planner for the Department of Ecology
SUBJECT: Comments on the Draft Environmental Impact Statement
Rosario Resort Master Plan
DATE: September 20, 2005

Authority and Scope

The Shoreline and Environmental Assistance (SEA) Program of the Department of Ecology (Ecology) has the authority to comment on the proposal through the Shoreline Management Act (SMA) and San Juan County Shoreline Master Program (SMP). My comments will be limited to the precepts of the SMA, and the policies and regulations found in the SMP. The comments also do not include the future marina or the viability of the proposal, and are limited to the preferred alternative. Shoreline jurisdiction under the SMA extends only 200-feet landward of the shoreline, however, the SMA allows for review of the effects of the entire proposal on shorelines of the state.

The DEIS was forward to Ecology's Water Resources and Water Quality Programs for comments regarding water rights, stormwater issues, and waste treatment facilities. The only comment received was the suggestion to comply with the various elements of the Puget Sound Action Team comprehensive stormwater management program, the Puget Sound Plan.

Comments

Although not addressed in any detail, resorts such as Rosario are specifically mentioned in the SMP under the *Shoreline Environments*, *Commercial Use*, and *Boating Facilities* sections. The marine shorelines of Rosario lie in the Rural Environment. The Rural Environment allows mixed use development such as:

"...marinas, restaurants, resorts, and rural commercial and industrial activities"

SMP commercial regulations state that:

"Commercial resorts and campgrounds shall provide adequate access to water areas for their patrons and adequate on-site recreation facilities so that such resorts and campgrounds will not be dependent on nor place undue burdens on

public recreational facilities "

SMP policies and regulations would control mixed use resort activities under respective sections such as *Recreation, Residential Development, Transportation Facilities*, etc. The activities proposed within the Draft Environmental Impact Statement (DEIS) would be allowed with some limitations and requirements. Overall, if the proposed improvements and mitigation are implemented, adverse environmental impacts should be minimal. Additionally, the proposal will create opportunities for restoration and enhancement. The County may wish to consider requiring LEED Certification (Leadership in Energy and Environmental Design) for the proposal.

The existing tennis courts that lie in the Conservancy Environment are nonconforming. Essentially this means they are "grandfathered". Generally, nonconforming uses and development may be maintained and repaired, but not enlarged.

Due to the changing nature of the resort, it is assumed that public access will become more restricted. Details regarding public access will be helpful for future comments.

Indirect Regulatory Concerns

The SMA does not specifically address noise or traffic. Except for noise related to the taxiing patterns of float planes and for aquaculture, the same is true for the SMP. However, both noise and traffic may have adverse impacts from regulated shoreline activity and should be considered in a shoreline approval process where it can be demonstrated a concern exists. Based on the *Traffic Impact Analysis*, the increased number of average annual daily trips (412) does not appear to be excessive, even if concentrated in the summer months. Of bigger concern may be the noise. With increased accommodations, the resort will see greater boat and air traffic, as well as greater numbers of guests and social functions. The proponent has offered suggestions that may reduce noise, but it will likely be an ongoing issue for those living year round in the area.

Response to Bob Fritzen, Environmental Planner, Department of Ecology

1) Redevelopment of the tennis court site:

In response to public and agency concerns, the proponent has opted to remove the proposed site improvements at the tennis court site from Action Alternative B. This change is addressed in the FEIS.

2) Public shoreline access:

As discussed in the RMP and EIS, implementation of either action alternative is likely to increase public access to the shoreline. The applicants' preferred alternative, Action Alternative B, includes a waterfront promenade that follows the Rosario shoreline. The applicant is also proposing a community boat launch. Construction of a marina would provide additional public access. Development in the shoreline will require the approval of shoreline permits. The public access provisions of the County's shoreline regulations, as applicable, would need to be met by any new development proposed in the shoreline.

3) Shoreline noise:

Noise impacts are discussed in Section 3.7.2 of the EIS. Some of the potential noise impacts identified in Mr. Fritzen's letter would be related to increased marine activity associated with the proposed marina expansion. The project-specific environmental review that will address environmental impacts specific to the marina expansion will need to evaluate noise impacts associated with increased boat traffic. The Resort will comply with County regulations regarding any potential noise issues associated with increased resort guests and social functions.



Public Works Department
San Juan County

915 Spring St. • P. O. Box 725 • (360) 378-0500 • www.co.san-juan.wa.us/publicworks
Friday Harbor, WA 98250 • Fax (360) 378-6405 • email: pubwrks@sjcpbublicworks.org

DATE: September 21, 2005
TO: Matt Zybas, Interim Director of Community Development and Planning
FROM: John A. Van Lund P.E., County Engineer *John A. Van Lund*
RE: Rosario Resort Master Plan Review

Our department has been asked to review and respond to the Draft Environmental Impact Statement (DEIS) developed for the Rosario Resort Master Plan published August 2005. Enclosed are our comments on the Earth and Stormwater section of that plan.

Our department requires that any development within the county follow the Unified Development Code (UDC) Section 18.60.70 Storm drainage standards which states:

"All new development and redevelopment must conform to the standards and minimum requirements set by the Washington Department of Ecology Stormwater Management Manual for the Puget Sound Basin (now the Stormwater Management Manual for Western Washington) as amended."

The general criterion presented in this MPR provides a workable foundation. At this stage in the planning process our department cannot site specific concerns regarding these plans. When a development option is adopted a more specific Stormwater site plan will need to be submitted for further consideration.

S.J.C. COMMUNITY
OCT. 03 2005
DEVELOPMENT & PLANNING

**Response to John Van Lund, County Engineer, San Juan County Public Works
Department (Stormwater)**

The FEIS has been updated to state that proposed resort development will comply with stormwater regulations contained in the San Juan County UDC and the stormwater management manual for Western Washington. Additionally, a Conceptual Stormwater Management Plan has been developed to guide future development of stormwater plans at the project-level analysis. This has been included as Appendix G to the FEIS.

In addition, examples of Best Management Practices to control erosion and protect water quality during the project's construction phase have been added to the FEIS to provide greater clarity. Methods such as Silt Fencing, Straw Bale Sediment Barriers, Water Bars, Drainage Ditch/Swales, Rock Check Dams, Sediment Traps, Outlet Protection, Straw Mulch and Erosion Control Blankets are described in Appendix I.



**San Juan County
Marine Resources Committee**

PO Box 947
Friday Harbor, WA 98250
Email: sjcmrc@rockisland.com
Web site: www.sjcmrc.org

September 21, 2005

TO: Matt Zybas, San Juan County Community Development and Planning Interim Director
FROM: San Juan County Marine Resources Committee
CC: Martin Blackman, Senior Planner
RE: Rosario Resort Master Plan DEIS Comments

As an advisory body to the San Juan County Commissioners on topics relevant to the marine environment, the San Juan County Marine Resources Committee (MRC) submits the following comments on the Draft Environmental Impact Statement (DEIS) for the Rosario Resort Master Plan. The MRC is concerned about the potential impacts of the Rosario Resort Master Plan on the marine environment due to the fact that Rosario Resort encompasses over 2,100 feet of marine shoreline, Cascade Bay and East Sound waterfront. These potential impacts from proposed development of Rosario must be clearly defined and addressed, to ensure that development activities that adversely effect the county's marine environment will be avoided. We appreciate your consideration of our primary concerns described below.

1. All Proposed Development Activities Have Potential Impacts to the Marine Environment.

The watershed associated with Rosario Resort is characterized by steep slopes and impermeable soils. These conditions mean that most proposed activities related to the extensive shoreline development plans described in the Rosario Resort Master Plan DEIS directly impact the marine environment and must be addressed in this context. The DEIS does not give adequate attention to marine impacts from upland, shoreline and marine land uses and development activities. These impacts must be disclosed and mitigation approaches addressed in the EIS before a resort master plan can be approved.

2. Marina Expansion Integral Part of Resort Master Plan.

As major expansion of the marina is an integral component of both the preferred alternative action B and alternative action A, it is not appropriate to allow formal submission and review of the substantial marina expansion to occur separately and at a later date.

"Alternative A: net increase of 271 guest lodging units, 5,000 feet of conference space and 111 marina slips" (Rosario Resort Master Plan DEIS page F-2)

"Alternative B: net increase of 139 guest lodging units, 131 additional marina slips, housing for an additional 53 employees and a modest reduction in conference space." (Rosario Resort Master Plan DEIS page F-3)

To resolve this issue the marina expansion needs to be addressed at this phase sufficiently to establish the elements of the environment to be affected, the magnitude of impacts anticipated, and the mitigation approaches to be detailed in a project-level EIS.

In addition, the EIS should clearly disclose the fact that adoption of a Rosario Resort Master Plan cannot ensure that local, state or federal permits will be granted for marina expansion anticipated in either alternative and that implementation of elements of the master plan which may rely on marina facility enhancements are also subject to modification at a later date, and may be subject to supplemental SEPA review and amendments to the master plan.

3. Stormwater and Water Quality.

With approval of either Action Alternative, the DEIS states that a *"comprehensive stormwater and drainage plan will be developed"* (Rosario Resort Master Plan DEIS pages 3-43 and 3-47). Due to the substantial stormwater and water quality impacts of either proposed action alternative and the history of water quality problems at Rosario Resort, the EIS must provide stormwater and drainage plan details and ensure they are subject to review prior to acceptance of a proposed alternative. Substantial runoff is anticipated from construction activities as well as over the long term from expanded impermeable surfaces throughout the watershed. Examples of potentially problematic stormwater and sewer management practices mentioned without detail in the report include *above grade swales with imported soils* (Rosario Resort Master Planned Resort DEIS page 3-42); *subsurface utility systems through bedrock* (Rosario Resort Master Planned Resort DEIS page 3-47); and *direct discharge of roof stormwater to marine waters* (Rosario Resort Master Planned Resort DEIS page 3-38).

4. Eelgrass and Kelp

The DEIS does not adequately define or address protection of kelp and eelgrass resources. The document states that *"dense aggregations of these species are protected under SJCC 18.30.160 as Marine Habitat Areas"* (Rosario Resort Master Planned Resort DEIS page. 3-84). This interpretation is contrary to both the intent and the language of the county regulation. The relevant section 18.30.160 of SJCC reads:

"Marine Habitat Areas. These areas include the following:

a. All kelp and eelgrass beds."

In addition, Washington State Code identifies both eelgrass and kelp as *Saltwater Habitats of Special Concern* (WAC 220-110-250) without regard to density or bed size.

5. Opportunity to Address Shoreline Armoring.

The proposed major redevelopment of the shoreline provides an opportunity to address substantial rip rap (west beach) and concrete bulkheading (east beach) of the marine shoreline. We encourage you to recommend a redesign of shoreline armoring structures to address negative impacts to shoreline habitat character and function.

6. Shoreline Development.

Both alternatives addressed in the DEIS include extensive new shoreline development within 100 feet of the ordinary high water mark (OHWM). The county's SMP (SJCC 18.50.220) allows this only with approval of a shoreline conditional use permit. The very summary section of the DEIS on consistency with county plans and regulations omits evaluation of shoreline conditional use criteria in relation to the types and magnitude of new development planned for the shoreline of Cascade Bay - some of it within as little as 25 feet from the OHWM.

There is little discussion of the impacts of development planned for the shoreline and no discussion of mitigation. Again, if the county is to rely on this EIS to approve the RMP the EIS should disclose the nature and magnitude of impacts and state that the RMP is no assurance that project permits will be approved without supplemental environmental review.

The danger we foresee is that project permits will be applied for on a piecemeal basis for individual resort components, and the subsequent environmental analyses will not be made comprehensively. This programmatic EIS is the appropriate stage to disclose the impacts and mitigation approaches. If they are to be relegated to review at a later date, then a mitigation measure should be to require the comprehensive evaluation of all shoreline components upon submittal of the first project application.

Thank you very much for the opportunity to comment on the Rosario Resort Master Plan DEIS. Please address any questions and/or comments you have regarding this submittal to Mary Masters, Vice Chair at (360) 376-5529 or mmasters@stanfordalumni.org.

San Juan County Marine Resources Committee

Response to San Juan County Marine Resources Committee

1) Potential impacts to the marine environment:

In response to the comment concerning impacts to marine habitat, additional discussion of potential impacts to intertidal and subtidal habitat has been added to Section 3.5.3 of the EIS. The expansion of the Resort will result in an increase in the amount of pollution generating surfaces. Stormwater runoff from these surfaces can impact the water quality of receiving water, which includes Cascade Bay and East Sound. Additional information about the anticipated increase in stormwater runoff has been included in Section 3.3.1.4 of the EIS.

From a qualitative standpoint, based on the type of land uses and activities proposed, stormwater runoff from the site is not expected to contain unusual types of contaminants or contaminants in concentrations greater than what would normally be anticipated in similar stormwater runoff uses elsewhere. As described in the EIS, potential water quality impacts to receiving water resulting from stormwater runoff can be mitigated by installing stormwater treatment facilities consistent with the County and State stormwater management regulations. The applicant has prepared a conceptual stormwater management plan for this Master Plan. Included in the conceptual stormwater management are examples of Best Management Practices typically employed to control and treat stormwater runoff prior to discharge to receiving waters.

Potential impacts of a marina expansion include an increase in potential impacts to water quality and potential impacts to the physical characteristics of the existing marine habitat. Potential water quality impacts include polluted runoff from dock surfaces, accidental fuel spills, illegal sewage disposal, grey water discharges from sinks and bilges, leaching of antifouling paint and preservatives used in dock construction, underwater exhaust emission from marine engines, and litter from the actions of careless boaters.

Potential non-water quality impacts to the characteristics of the existing marine habitat include primarily the potential impact of shading on tidal and subtidal marine species created by docks and floats and the breakwater effect on wave action along the shoreline. The letter submitted by the Washington State Department of Fish and Wildlife that was responded to previously in this section of the EIS describes the potential impact of shading.

The potential impacts listed above are similar for most marinas in the region and are presented here as a range of types of potential impacts. The actual magnitude of potential impacts and specific mitigation measures for a marina expansion at Cascade Bay would be assessed by local, state, and federal agencies through their respective permit review processes at the time an actual design is proposed and more detailed environmental analysis based on that design is completed.

The primary approach of both proposed Action Alternatives toward addressing impacts to water quality in Cascade Bay is prevention. Consequently, the EIS includes a discussion of mitigation measures intended to address impacts and other management practices intended to prevent potential impacts. For example, a selection of sample Best Management Practices to control erosion and protect water quality during the project's construction phase have been added to the FEIS in response to concerns addressed in your comment letter. Methods such as Silt Fencing, Straw Bale Sediment Barriers, Water Bars, Drainage Ditch/Swales, Rock Check Dams, Sediment

Traps, Outlet Protection, Straw Mulch and Erosion Control Blankets are described in Appendix I.

Another example of such a mitigation measure is discussed under 3) *Stormwater and water quality* below.

2) *Relationship between the proposed Resort Master Plan and the proposed marina expansion:*

The Rosario Resort Master Plan proposal includes the development of additional overnight accommodations and expansion of the existing marina. Some, but not all, of the upland development is integral to the development of the marina. Approval of the Master Plan is a non-project action under SEPA and the discussion of proposed impacts of the adoption of the Master Plan is based on the level of detail required to submit for Master Plan approval. The size and location of residential structures and the marina designs included in the plan have been presented as a concept to illustrate what the uplands development and 165 slip marina might look like. Approval of the plan does not confer development approval for any aspect of the plan and no project permits are being granted as a result of the adoption of this Master Plan. The discussion of impacts in this EIS has been geared toward identifying the range of potential impacts that might occur and providing a range of mitigation options for minimizing potential impacts. With the exception of traffic, stormwater, and sewer and water service, the discussion of impacts is generally qualitative. A more detailed analysis of impacts and a project level environmental review under SEPA will be conducted at the time the owner makes application for Planned Unit Development approval for the first development phase. Project level impacts will be assessed and mitigation measures specific to the project proposal will be identified. It is likely that the mitigation measures identified at the project level will be consistent with the measures identified in this EIS. Additional or different mitigation may be employed as necessary to address project level impacts.

In the event the owner does not proceed with the expansion of the marina or is unable to obtain the necessary project permits to allow the expansion of the marina, then those components of the Master Plan that rely on the marina expansion would likely not be developed or not allowed to develop or allowed to develop at a scale in keeping with the existing marina. Depending on the magnitude and extent of the changes a Master Plan amendment may be required.

Additional language has been added to sections 2.1 and 2.3 (and elsewhere) of the RMP Final Environmental Impact Statement to better explain the relationship between the proposed Resort Master Plan and the proposed marina expansion.

3) *Stormwater and water quality:*

Please see the response to Dr. Strathmann's comments in this section of the EIS. Additional information about stormwater runoff has been developed in response to comments received on the draft EIS. Calculations of estimated stormwater runoff have been made for both Action Alternative A and Action Alternative B and are included in Section 3.3 of this EIS. Section 3.3 also includes a discussion of potential stormwater runoff impacts and mitigation measures to minimize impacts to receiving waters. In general, enforcement of the County's stormwater

regulations can provide effective programmatic mitigation of the potential impacts of stormwater runoff on receiving waters. County regulations require the installation of stormwater treatment facilities consistent with the standards of the State stormwater manual, which includes a range of Best Management Practices (BMP's) that can be employed to minimize stormwater impacts on the quality of receiving waters (Cascade Bay) both during and after construction. As identified in this comment, one such method mentioned in the EIS is a biofiltrations swale with an underlying soil specially formulated to maximize treatment effectiveness. This is a fairly common method used to treat surface runoff. In many instances, soils formulated with the characteristics suitable for effective treatment may need to be imported.

At the present time, stormwater runoff from the site receives little treatment. The existing system was constructed prior to the adoption of stormwater runoff treatment requirements. Implementation of County stormwater regulations for new development is expected to improve the water quality of stormwater runoff from the existing site. As new development occurs, the existing stormwater system will be required to tie into the new treatment system.

The sewage treatment plant operates under a State approved wastewater treatment facilities plan and under the terms of an NPDES permit issued by the Department of Ecology. The Resort sewage treatment system has experienced problems in the past that have resulted in untreated sewage discharges to Cascade Bay. Development under the Master Plan will increase the amount of effluent requiring treatment, thus requiring improvements to the sewage treatment plant. Impacts to sewer service are discussed in Section 3.4 of this EIS. Treatment plant and pump station improvements are proposed to mitigate the potential for accidental discharge of untreated sewage and to provide sufficient capacity to meet the concurrency requirement for future development.

4) Eelgrass and kelp:

Information regarding eelgrass surveys can be found on page 3-84 (Section 3.5 Plants and Animals) of the DEIS. Additional information has been added to this section to clarify the regulatory requirements. Underwater surveys were conducted by Cascade Environmental Services in September 1997. No eelgrass was found during these surveys and consequently, eelgrass has not been identified by this EIS as an impact resulting from marina expansion. The survey report has been included in Volume II of the FEIS as Appendix F. Follow-up surveys and review will be conducted during the project-level environmental analysis for the proposed marina expansion.

5) Opportunities to address shoreline armoring:

Action Alternative B recognizes the desirability of restoring the natural shoreline of Cascade Bay by removing existing rip-rap. These restorations would be conducted as part of the marina expansion. A shoreline restoration program has been proposed and efforts are now underway to develop this plan in conjunction with Friends of San Juans, WDFW, USFWS, and other appropriate agencies to ensure proper techniques and work windows are observed. An objective of this plan will be to restore and maintain the quality of the shoreline and to manage it for the long-term. The shoreline restoration plan has been added as a mitigation measure for the marina expansion.

6) Shoreline development:

Discussion in the EIS regarding consistency with County plans and regulations has been revised. The Master Plan does not provide a level of detail sufficient to determine whether a particular component of the project is or could be consistent with the approval criteria for a shoreline substantial development permit or Conditional Use Permit. No shoreline permit approval is being granted by the approval of the Master Plan. The proposed location of buildings and other improvements in the shoreline and elsewhere on the property are illustrative; the final design and location of structures and improvements will be evaluated at the project level in accordance with the application and approval criteria of the shoreline regulations and other County development standards. Without project level details, there is insufficient information available to comment on whether the shoreline permit or Conditional Use Permit criteria has been met.

However, the uses proposed in the shoreline, are uses allowed in a rural shoreline. This is sufficient information at the non-project level to comment that the uses are eligible to be considered for approval at the project level and that the use could be approved if it met the permit criteria. The owner is responsible for preparing a final project design that meets the permit criteria for each component to be located in the shoreline. Since the criteria can be satisfied in a number of ways and impacts mitigated in a number of ways, the owner has choices. The County Hearing Examiner will ultimately determine whether the choices made satisfy the criteria. Programmatic mitigation at the project level for potential shoreline impacts is provided through the shoreline permit process and the associated project level environmental review under SEPA.

With regard to piecemeal development on the shoreline, the applicant is required to submit a Planned Unit Development (PUD) application for each development phase. The area covered by a PUD application would need to be generally consistent with the Master Plan. The review of any subsequently submitted applications for shoreline permit approval would include an evaluation of consistency with the plan. At the project level, a particular shoreline development proposal could be found consistent with the Master Plan insofar as the proposed use but might not be found consistent with the shoreline permit approval criteria, in which case approval of that component would be denied unless the design of that component could be modified to meet the criteria and the proponent was willing to make the necessary modification.

Rosario Utilities, L.L.C.

1400 Rosario Road, Eastsound, Washington 98245 (360) 376-2700 Fax (360) 376-2289

S.J.C. COMMUNITY
OCT 03 2005
DEVELOPMENT & PLANNING

September 27, 2005

San Juan County Community Development & Planning
Attn: Martin Blackman, Senior Planner
P.O. Box 947
Friday Harbor, WA 98250

Dear Mr. Blackman;

Your department has forwarded a copy of the Rosario Resort Master Plan DEIS to Rosario Utilities, as the "Rosario Water Assn", for agency comment.

I believe that the development plan in "Action Alternative B" is the only way Rosario Resort can maintain its viability. I say this after working at Rosario Resort itself and the Utility for over 30 years. Through a series of owners, management companies and general managers, there has been a lack of master planning and cohesiveness to bring Rosario up to its potential. And, of course, there was always a lack of money. After 30 years, here is finally a physical and economic plan that provides for construction and continued maintenance of the facilities, and the preservation of Robert Moran's legacy.

The Utility has planned for concurrence with the Rosario development, in various stages of the master planning process, as outlined in Rosario Utilities "Water System Comprehensive Plan", appendices to the Master Plan submittal and the DEIS report. As stated in these documents, Rosario has the water rights and the Utility has phased its treatment plant expansion to be concurrent with both the resort and neighborhood growth. Water main upgrades that will be made by the resort developer will benefit the entire neighborhood.

Rosario Utilities has recently completed a "General Sewer Plan" to provide costs and guidance for the expansion process to maintain concurrency with resort development. At this time, as a private sewer system, the Dept. of Ecology's policy (WAC 173-240-104) does not allow the utility to expand for residential services. Wastewater connections for neighborhood residents could be provided in the future if existing legal restrictions change or the Utility becomes public.

To comment on the Land Use, Housing and Capital Facilities elements of the DEIS, from the Utility's viewpoint, it makes more sense to combine all the utility treatment plants on the Utility Tract, and all the staff housing together on the Hilltop parcel. Currently the Hilltop parcel is not included within the County's Master Planned Resort (MPR) land use designation, so staff housing and maintenance buildings have been proposed on the

San Juan County Community Development & Planning
Rosario DEIS review
September 27, 2005

Utility Tract, which is within this designation in the event that the Hilltop is not included in the MPR as proposed under Action Alternative B. Water treatment plant expansion is proposed for the Hilltop parcel since this is a permitted use of that property and the Utility Tract is not big enough for all proposed utility treatment, and other uses. For these reasons, the Hilltop parcel really needs to be designated MPR!

Based on the comments of local residents, it appears the neighboring property owners would also prefer to have staff housing on the Hilltop parcel. The long-narrow Utility Tract cannot provide as much buffer area between staff housing activities and the nearby homes as the Hilltop parcel.

Sincerely yours,

ROSARIO UTILITIES, LLC


Chris Vierthaler
General Manager

Response to Chris Vierthaler, General Manager, Rosario Utilities

Ms. Vierthaler's comments regarding concurrency of utility services are noted. Section 3.4 of the EIS describes potential impacts to utility services and discusses mitigating measures. A concurrency analysis has been completed for the proposed development and is provided in Appendix C of this EIS.

The FEIS also addresses land use and other Elements of the Environment with regard to the proposed use of the Hilltop for expanded employee housing and for support functions.

In response to agency comments, the RMP has been updated to include the provision that the support functions such as employee housing expansion, laundry, housekeeping, maintenance, storage, resort administration, and parking be relocated from the resort core to the Hilltop instead of to the Utility Tract. This change is also addressed by the FEIS.



Public Works Department
San Juan County

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Friday Harbor, WA 98250 • Fax (360) 378-6405 • email: pubwks@sjcpbublicworks.org

MEMORANDUM

DATE: September 28, 2005
TO: Matt Zybas, Interim Director of Community Development and Planning
FROM: for Jon Shannon, Public Works Director
John A. Van Lund, County Engineer *John A. Van Lund*
S.J.C. COMMUNITY
RE: Rosario Resort Master Plan Review

SEP 29 2005

DEVELOPMENT & PLANNING

Our department has been asked to review and respond to the Draft Environmental Impact Statement (DEIS) developed for the Rosario Resort Master Plan published August 2005. Enclosed are our comments on the Transportation section of that plan.

Our department has deep concerns about the impacts of this plan on our County road system, especially Rosario Road, Orcas Road and Olga Road. We expressed many of these same concerns in our July response to the previous DEIS. Our concerns have not been addressed by this final document. Here is a summary of some of the major concerns.

Analysis to UDC Standards

Road Capacity

For the purposes of road capacity, our department looks at two related classifications of 'capacity'. If we analyze 'capacity' purely in terms of the Concurrency standards set forth in the San Juan County (SJC) Unified Development Code (UDC), we measure capacity per the guidelines set forth in the Highway Capacity Manual. By this standard, roads of this classification, with rolling terrain, should be able to handle a maximum of 4,399 Average Annual Daily Trips (AADT). Based on this factor alone, Rosario Road with a current volume of 1213 AADT passes our analysis for Concurrency even though the proposed development may increase volume by approximately 71%.

However, in Tables 3.9-2, 3.9-5, and 3.9-10, Road Concurrency Evaluation, the work was not done to UDC specifications. The study states that there was an "absence" of identified substantial Reserved Capacity (or Planned Capacity). That data (243 AADT Reserve Capacity for Rosario Road) is readily available at both the San Juan County

Community Development and Planning Department (CDPD) and the Public Works Department. Addition of the proper numbers could impact the volumes shown in the referenced table.

Similarly, Olga Road could sustain traffic increases of up to 52% with this development, to roughly 3485 AADT, but below the UDC limit of 4,399 AADT. On a basis of Concurrency only, this proposed volume increase passes. But these numbers are also missing the Reserve Capacity for the relevant segments of Orcas Road and Olga Road.

Road concurrency analysis was not done for Main Street and Eastsound streets as requested by our department in our July response.

Moped usage cited in the DEIS does not seem to figure into the road volume calculations.

Roads and Intersections

In the Level of Service Summary for Intersections, Tables 3.9-3, 3.9-6 and 3.9-11, SE Group measures intersection delay by averaging all approaches. The UDC specifically requires that intersections be measured by average delay time per approach. The averaging done in this study does not provide an accurate description of each leg of the intersection. One leg may pass and one may fail, but on average the intersection may pass.

Ferry, Air and Marine

In table 3.9-7 and 3.9-12, Impact on Auto Trips by Ferry, the impact is measured by the increase in demand by capacity, while the UDC requires that the impact be measured by the percent of sailings overloaded.

Parking

These parking calculations need to be examined by a professional as the numbers seem low for this level of development, even considering the concept of "shared" parking. The plan reduces the minimum parking requirements for stand-alone uses by a factor which results in a net reduction of 262 stalls. Over-flow parking for peak periods will be provided in open space and utility tract areas. We feel that in peak periods spill-over may occur onto private residential roads.

Safety Considerations

Road Capacity

Criteria used in the UDC for the calculation of Concurrency may not always be the proper measure of the actual capacity of a road when other impacts are considered. That volume threshold does not take into account horizontal curvature, road design, road width, site distance, clear zones, driveway entrances, horizontal and vertical alignment, etc. Rosario Road was only a driveway to the main resort buildings until 1958. There are over 38 driveways and road intersections on Rosario Road and at many of them there is

insufficient sight and stopping distance for approaching cars. Were the County to establish updated clear zones retroactively it would significantly impact private property.

Rosario Road is currently sustaining relatively high traffic volumes for its configuration and roadside obstructions. The road has marginal sight distance and there have been 26 accidents in the last 15 years, six in the last five years. This road, unlike most others in the County, has had an in-depth analysis by a professional engineer. The 2004 study recommends a design traffic volume of 1205 AADT for Rosario Road; the current AADT of 1213 exceeds this design volume. The DEIS, which acknowledges that this road is considered a substandard road by the County, estimates that the proposed development may add between 412 to 865 additional trip ends per day. Given the vertical and horizontal alignment, driveway density, sight distance, roadside obstructions, accident history, width and safety concerns on this road, we believe that Rosario Road cannot safely sustain an increase of 71% over the current traffic volume in its current configuration.

The mitigation offered for the traffic impacts to Rosario Road are to place warning signs, reflective markers and chevrons, paint edge of pavement lines on the road and build internal resort trails. The suggestion to put reflector markers on the road is one that would have to be redone almost annually because, as the road is snowplowed and resurfaced, markers are routinely damaged or lost. This mitigation is inadequate. Based on these observations and the impacts to road safety, additional significant mitigation is required to improve capacity of Rosario Road before this development can be approved.

The DEIS says that the action alternatives "...are not expected to have a significant impact on the Orcas Island's road network under the context of AADT...". However, the traffic impacts to Olga Road are that its LOS would be decreased to "D" in two locations. A level of mitigation may also be required at these sites. This impact needs to be determined by further engineering analysis.

Miscellaneous Observations

Pedestrian, Bicycles and Mopeds

The development of a pedestrian trail system is one way to create alternatives to increased road traffic within the resort. However, it is not clear whether this trail system will create a walking path next to Rosario Road to ease pedestrian-vehicle conflicts. We request clarification of that point.

The study cites the use of an electric people mover to shuttle people within the resort. Then the plan states that "This will contribute to a reduction in on and off-site automobile use". How would the shuttle, moving people *within* the resort, reduce *off-site* automobile trips?

The DEIS states that, outside of the resort proper, "pedestrian and bicycle facilities are limited to the existing roads, some paved and others and [sic] unpaved shoulders of the

surrounding road network." The surrounding roads, Rosario Road and Olga Road, have an acknowledged lack of sight distance and alignment difficulties that indicate that increasing such bicycle, pedestrian and moped traffic would most likely lead to additional safety and accident impacts. The DEIS acknowledges that: "With the expected increase of vehicular and pedestrian activity along Rosario Road, an increase in conflicts can be expected. This could potentially lead to an increase in accidents."

Further analysis is recommended by an independent traffic engineer. In the meantime, the plan does not adequately mitigate the proposed compounding of safety problems for pedestrians, bicyclists and moped riders.

Data

Out-dated growth rates and traffic volume data were used in the Transportation section of this report. Traffic data was obtained by TSI from the Public Works Department in 2003; newer data exists. Section 3.9.2.1 states, for example, "All roadway segments are expected to experience an increase in volume, expect for Rosario Road at milepost 0.10 and Olga Road at milepost 9.45." Growth rates and traffic volume have in fact increased at these two locations since 2003. Traffic volume on Rosario Road, at milepost 0.10, has grown 20% in last 6 years. Olga Road, at milepost 9.45, has grown by 7% in the last 5 years.

While traffic volume trends typically have year-to-year fluctuations, road sections in San Juan County, overall, are following a general increase in traffic volumes and growth rates. Population in San Juan County is increasing at a rate somewhat over 2% per year and, according to the Washington State Ferries, is expected to increase by 71% by 2030. The impact of this one development on Rosario Road would be the equivalent of 25 years of projected growth.

Language

In our department's August response to the 1st draft EIS, we made recommendations for changes and needed analysis. While language in the latest draft shows that our response was read, few if any of our recommendations have been incorporated in the 2nd draft.

Mitigation language remains soft and has no guarantee of action. For example:

- "Mitigations measures *that would help* expressed concerns..."
- "Resort management *will encourage* non-peak arrival and departure times to and from the resort. This could be as simple as *a suggestion* when making phone recommendations".
- "*If feasible*, establish a resort owned or operated vessel".
- "...will be retained, *whenever feasible*".
- "Another option *considered*, in the hopes of addressing..."

This language does not create an obligation to make the necessary improvements. The County will need to see concrete projects that will alleviate the expected congestion, safety problems and impacts to neighbors.

Rosario County Road Background

Rosario County Road was built as the driveway for the Moran residence, which is now the Rosario Resort. Ownership of the road was transferred to the County in 1958 when the property south of the road was platted into ½ acre lots. The Agreement as to Roads on the face of the Rosario Estates Long Plat notes that the Falcon Corporation, its successors or assigns agrees to assume ½ of any and all expense incurred in maintaining, widening or otherwise improving the main access road (Rosario Road) from Olga Road. (AFN 48562, July 1958) To the best knowledge of the Public Works Department, this agreement is still valid.

Recommendations

Our department has concerns about the safety impacts that the large additional volume of traffic in this proposed development would impose on local roads without significant mitigation. In this response we have attempted to identify areas which are of concern. This response is not intended to imply that, by omission, there are no further issues to be identified and resolved with this plan. Our department strongly feels that the transportation portion of this study needs to be reviewed by an independent traffic engineering firm. As now written, it is not acceptable to this department.

Response to Jon Shannon, Public Works Director and John Van Lund, County Engineer, San Juan County Public Works Department (Transportation)

In response to comments from the Public Works Department, the traffic analysis has been updated (Transportation Solutions Inc. 2005). The update addresses many of the issues raised in this comment letter. The updated traffic study is included as Appendix D to this EIS. Section 3.9 of the FEIS has been revised to reflect the information provided in the updated traffic analysis.

1) Analysis to UDC standards:

Road Capacity: The reserve capacity methodology as defined in the UDC and the Highway Capacity Manual methodology are included in the updated analysis documented in Section 3.9 and Appendix D of the FEIS.

The results of this analysis showed no change in the findings. All road sections comply with adopted level of service (LOS) standards. The one section of roadway on Orcas Highway was found to be noncompliant using default values. However, when the road cross-section data unique to this section of roadway was input, this section of highway was found to be compliant both today and in the future with the Resort's Action Alternatives. Likewise, data reflecting the unique geometry of Rosario Road was used to reflect the capacity limitation associated with the sharp radius turns, grade, and limited shoulder width.

Traffic volumes in the updated analysis have been revised to reflect the additional incremental volume associated with mopeds and shuttle vans. While we believe these volumes have already been reflected by the trip generation analysis, an incremental increase was added to ensure that traffic forecast along roads serving the proposed Resort expansion would not be underestimated.

Roads and Intersections: A Road Concurrency Analysis in Eastsound was performed at intersections instead of road segments because the two-lane rural highway methodology does not accurately reflect the capacity of a street network. In a street network, the capacity of the streets is defined by the intersection capacity not the road capacity. The intersection capacity was evaluated at several locations in Eastsound and all were found to operate at, or better than, adopted road standards. Although it was not specified in the initial analysis, the average vehicle delay (the numerical indicator of LOS) reflects the average vehicle delay for the "worst approach" rather than an average of all approaches.

Ferry, Air, and Marine: Information relating to overloaded sailings could not be assembled from the Washington State Department of Transportation as a basis for evaluating capacity. Based on previous resort analysis for San Juan County and consistent with Section 6.4 B.15 of the Comprehensive Plan, the SEPA analysis should be used to identify impacts on the ferry system since a formal concurrency standard has yet to be jointly adopted by the WSDOT and San Juan County. Accordingly, the impact of additional ferry use by automobiles was identified in the terms of the percent increase in automobile travel demand using the ferry.

Parking: As noted in the RMP and DEIS, one of the objectives of this Resort expansion is to create a destination resort where the majority of activities can occur on the site. It is anticipated that once guests arrive at the Resort, the majority of their movements would occur within the

Resort by foot, bicycle, or electric shuttle. This internal trip making among various uses within the Resort means that trips, as well as parking stalls, can be reduced. Nonetheless, during peak season and for special events, additional overflow parking program with shuttle service to the Hilltop will be implemented. Further mitigation measures including a parking management strategy that is part of a comprehensive Transportation Management Program are included in the FEIS to ensure that resort management is working with San Juan County Public Works to effectively guard against overflow parking on nearby roads.

2) Safety considerations:

Road Capacity: A more detailed review of historical accident experience was made in response to comments from the Public Works Department, with particular attention to conditions along Rosario Road. While safe stopping sight distance and safe entering sight distance standards are not satisfied at most driveways and intersections intersecting with Rosario Road, the accident pattern since 1990 suggests that none of accidents are related to vehicles turning in and out of driveways, but relate to excessive speed and driver error. Alternatives to mitigate these and other impacts included:

- Examination of an alternative road alignment;
- Realignment of Rosario Road; and
- Traffic operations improvements.

Based on careful examination of all options, neither an alternative road alignment nor major road realignment along Rosario Road was found to be viable. Neither of these options would generate a travel time advantage (as compared to the use of Rosario Road) or other measurable benefits and were found to be inconsistent with adopted Scenic Road Standards because they would require significant removal of trees and other natural features to develop an alignment that met acceptable geometric design standards. Further, both alternatives would require substantial acquisition of right-of-way, including taking of properties already developed as permanent and vacation residences. Since the vast majority of documented accidents relate to speed, driver error, and driving off the road, traffic operations and safety measures, including better delineation of the roadway, selected filling to create wider shoulders, guard rails in selected locations, and minor realignment within existing right-of-way will serve to mitigate many of these historical safety issues. Such improvements must be balanced to ensure that improvements do not encourage speed (by making the roadway feel safer than it actually may be) that precipitates much of the problem. As noted above, the capacity of the roadway, including adjustments for the winding horizontal alignment, road grade, lane width, and shoulder width, show this road section can operate well within the available capacity.

3) Miscellaneous observations:

Pedestrians, Bicycles, and Mopeds: There are several pedestrian and non-motorized trails planned as part of the Resort. One trail section is proposed to parallel Rosario Road but be separated from the road itself to enhance safety for pedestrians.

How will the electric people mover reduce off-site trips? The electric people mover, in combination with non-motorized trails and bicycles, will facilitate internal movement within the Resort. This will make the various opportunities within the Resort more accessible to guests, and will reduce their need or desire to seek recreational opportunities off-site, thus reducing external trips.

What is the likelihood that accidents will increase particularly considering that bikes will utilize existing shoulders on several public roads leading to and from the resort? While there is no generally accepted method for forecasting new accidents, it is generally found that the number of accidents will change in rough proportion to the change in traffic volume. This means the accident rate stays constant unless there is a significant change in the design of the road or shift in the traffic pattern. Accordingly, accidents would likely increase in rough proportion to the increase in volumes. The accident rate, however, will likely remain about the same as the recent past, assuming none of the mitigation measures are proposed. With the mitigation measures included in the FEIS, the number of accidents may still increase, but the accident rate would be expected to drop. Unfortunately, there is no generally accepted method for estimating the specific effectiveness of the mitigation.

Data: The data contained in the initial analysis was based on a Master Plan analysis performed over a year ago. This older data was used in the DEIS. The data contained in the FEIS has been updated to correspond to the most current information available through San Juan County.

Language: An attempt to modify the language to be more “active” was made. It is typical however, that mitigation is presented in a qualified form so that the responsible decision maker (San Juan County) can determine the final conditions associated with the planned development in the context of the entire development proposal. This approach is typically used to ensure that recommendations associated with each technical specialty are not at cross purposes with each other.

Rosario County Road Background: Rosario Resort acknowledges their obligation found on the face of the Rosario Estates Long Plat to “assume ½ of any and all expenses incurred in maintaining, widening, or otherwise improving the main access road (Rosario Road) from Olga Road.” As noted in the revised analysis, it is recommended that Rosario Resort identify an individual who is responsible for coordinating with San Juan County to develop a comprehensive improvement and maintenance plan to improve the safety along this essential connection.



STATE OF WASHINGTON
WASHINGTON STATE PARKS AND RECREATION COMMISSION
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October 5, 2005

Martin Blackman, Senior Planner
San Juan County Community Development and Planning Department
135 Rhone Street (Courthouse Annex)
P.O. Box 947
Friday Harbor, WA 98250

Dear Mr. Blackman:

Thank you for providing the Draft Environmental Impact Statement on the Rosario Resort Master Plan for our review and comment. As you are aware, Moran State Park is adjacent to much of the proposed Master Plan Resort (MPR) area. Our Northwest Region staff and a consultant have reviewed the DEIS and have many concerns about the analysis and impact conclusions in the document. We believe the County should prepare a *Supplemental DEIS* that incorporates information requested subsequently in this letter, rather than prepare a Final EIS. This approach would provide the opportunity for adequate analysis of environmental impacts of the proposed action (which is currently lacking in this DEIS), and would require another public comment period. Our specific concerns are addressed below.

Inadequate Description of the Alternatives and Resulting Inadequate Analysis of Environmental Impacts

The description of each Alternative (particularly the preferred Alternative) is seriously lacking in project detail. The information provided about Alternative B would be acceptable if this were a programmatic EIS. However, the proposed action is stated as "adoption of the Rosario Resort Master Plan and implementation of all components of the plan other than the marina expansion". These components are not clearly described in the text, nor are they included at a sufficient level of detail on figures or maps for us to get an idea of what is actually proposed to be developed on the ground. The Rosario Resort Master Plan was not incorporated by reference into the DEIS, nor was it sent to reviewing agencies along with the DEIS. If that document contains the description of Alternative B, I wonder why wasn't it sent to all agencies for review along with the DEIS?

According to SEPA, the project description should contain enough information and project detail to allow complete analysis of potential environmental impacts of the entire proposal and related projects. This DEIS does not provide the required detail or sufficient analysis. As an example, the only information about plans for the tennis court area is hidden on Page 2-8, under "Enhanced Landscaping" and states "renovated tennis courts". On Figure 2-3, there is a label for the tennis court area that says "tennis courts and owner pavilion". We assume then, that some sort of pavilion will be constructed southeast of the existing tennis courts, adjacent to Cascade Lake, a biologically sensitive area and part of Moran State Park. No mention of the square feet, height, construction materials, lighting, etc., is ever made anywhere in the document, nor is "upgraded" defined. However, there are references to the tennis court area scattered throughout other sections of the DEIS. Proposed components at the tennis court apparently include "boat and bicycle rentals" (Page 3-7); "other court sports, catered functions, covered deck, and secure storage for hand-launched watercraft" (Page 3-8); and finally, "a pavilion would be installed for gatherings and entertainment;" (Page 3-92). On Page 3-125, in the Archaeological Resources section, we read that "the area of the pavilion is expected to be relatively small, roughly corresponding to the bleacher platform that currently extends to the southeast from the tennis courts". More specific information is needed.

It appears that the DEIS section authors had varying information about what the project at the tennis courts could entail. The impact section of each Element of the Environment in the DEIS should have discussed the project components individually instead of the entire plan/project as a whole. It is impossible to tell from this DEIS which components are actually proposed to be implemented and which have been analyzed for impacts.

If all of the components described on the DEIS pages referenced above are to be implemented, considerably more information must be provided before the County can approve the MPR and project components. If the tennis court is to be upgraded for other court sports, does that mean a larger court and additional buildings? If there will be boat and bicycle rentals, will there be buildings, parking and restrooms? If there are catered functions and entertainment, does that include a kitchen, lighting, amplified music, weddings, parking, etc.? If there will be a storage building, what is the size, location, etc.? What is the total area of impervious surface? What is the area of ground disturbance and how close is it to the shoreline? Where are these facilities to be located and what are their sizes? Most important of all, where is the environmental impact analysis of these specific components as required by SEPA? Why didn't the County include a complete project description and full environmental impact analysis of all proposed project components in the DEIS as required by SEPA?

We realize that the County may require individual permit applications by Rosario Resort for specific project components if the MPR designation is approved. However, it is not unrealistic to assume that these project components would receive a Determination of Non-Significance (DNS) with references to this DEIS as having already analyzed impacts to the project. *This DEIS does not provide full analysis and disclosure of potential environmental impacts of the proposed project components,*

whose implementation is included in the action to be taken by the County. Therefore, this DEIS is inadequate and cannot be used in the future for the purpose of granting a DNS for specific projects simply because they are within the MPR.

State Parks is concerned that the County will approve the MPR based on the programmatic level of detail and analysis provided in this DEIS, when, in actuality, it will be approving many different projects for which there is insufficient environmental impact analysis. The fact that the County Comprehensive Plan accommodates the unique land use needs of self-contained resorts, including planning flexibility, with the special MPR land use designation, does not preclude the County from disclosing environmental impacts associated with the project components identified in this DEIS or the Resort Master Plan.

We recommend NOT adopting this DEIS until a complete project description is provided and further environmental analysis of all project components is prepared and provided in a *Supplemental DEIS* to be submitted to the public for review and comment.

Hilltop Property

State Parks has concerns similar to those expressed above about facilities proposed for the Hilltop property. This almost 40-acre property is not even shown on Figure 2-3, Action Alternative B. Almost half of this parcel is adjacent to State Parks land, and the open space area of the parcel is adjacent to the historic arch at the Park entry. The project description for Alternative B states only that "... additional housing and cafeteria, and parking intended to be located on the Hilltop parcel." However, in the Land and Shoreline Use section on Page 3-8, further description of the proposed Hilltop components is provided. This section describes facilities that could be built if the parcel was re-designated from Rural Farm Forest to MPR. These include:

- Additional employee housing (up to 4 dwelling units per acre, but apparently only 40 units are proposed)
- Employee storage and parking
- Employee recreational and dining facilities
- Remote/long-term/fleet, and surge parking
- Overflow parking (in the Transportation section we find that the Resort has already designated parking for an additional 100 vehicles and up to 110 trailers)
- Equestrian facility
- New water treatment and storage facilities

How many of these components were included in each impact analysis section of the DEIS? Where is the description of these proposed facilities (size, location, materials used, area of disturbance, etc.)? Why aren't these components located on a map in the project description of Alternative B in the DEIS so the public can see what is proposed? Does the County assume that analysis of environmental impacts at a programmatic level

of detail provides sufficient information for adoption of the MPR and implementation of all components of the plan?

Land Use: On Page 3-8, the DEIS states that "re-designation of this parcel from *Rural Farm Forest* to MPR would result in positive land use impacts". We fail to follow the subsequent logic in the paragraph explaining how this is so. In fact, the purpose of the Hilltop parcel seems to be a dumping ground for the facilities and uses that are too noisy or offensive to Resort guests. Implementing the project components listed would likely *not* have a positive land use impact. We disagree that parking for vehicles and boat trailers, the addition of storage buildings, and a new water treatment and storage facility would have a positive land use impact on a parcel consisting of open space, wetlands, and forested areas. The resulting increase in people, dwellings, noise, traffic, potential for fires, and unauthorized use of Moran State Park trails by horses would have a negative impact on surrounding land uses and would not be compatible with adjoining quiet Park uses.

On Page 3-16, the DEIS states that rezoning the Hilltop parcel to MPR would be consistent with County land use policy and the State Growth Management Act because it would replace the existing Conditional Use Permit with a land use designation supporting continued resort support functions. Please explain how this consistency is possible, particularly when a primary purpose of the Growth Management Act is to retain open space and habitat areas.

Other Hilltop Issues: Development at the Hilltop parcel would have other significant impacts on Park resources due to increased pedestrian and vehicle traffic, loss of revenue, and visual impacts from parking and other new facilities at the historically significant entrance to the Park.

Traffic and Revenue: Currently, Park users sometimes park outside of the entrance to the Park along Olga Road, to avoid paying the parking fee of \$5.00. Then people walk along the roadway, which has no shoulder, into the Park. Under the MPR, the proposed parking lot at the Hilltop parcel would be used by many more people, not just Rosario Resort users, to avoid paying the entry fee. It would not take long for people to discover this "free" parking lot. This would cause a loss of revenue to the Park, as well as create an increased public safety risk from people walking along the busy roadway.

Trails: If an equestrian facility is proposed for the Hilltop area, where will the people ride? There are no equestrian trails that tie into that area of the Park so riders would be inclined to ride on closed trails, an enforcement issue for Park Rangers. In addition, there is no existing trail from the Hilltop property through the Park property that continues to the Resort. State Parks has not authorized the development of any new trails in the Park or connecting the Park to the Resort.

Visual: State Parks agrees that the proposed parking lot near the entrance to the Park would have a significant visual impact on the historic arch Park entrance (Page

3-10). Instead of natural vegetation, appropriate for entering a State Park, the visitor would see a mass of parked vehicles and boat trailers, and potentially other facilities (the DEIS doesn't indicate where these facilities are planned to be located or their size). This would be an adverse impact to the Park regardless of whether or not the existing driveway was used for access to the parking lot. Visitors entering the Parks in this region of the State expect natural undeveloped areas full of trees, dense vegetation, and peace and quiet, among other things. This experience would not be provided with development of the Hilltop property.

It is interesting that the DEIS (Page 3-101) indicates that only *future* development would be screened from views from the road. Does this mean that the parking lot would not be screened from view but other facilities built after that would be screened? If so, please explain why the parking lot would not be screened from view in compliance with SJCC 18.60.190.A.13. To prevent the stated visual impacts (and seemingly as a mitigation measure) the DEIS goes on to recommend that this parking lot could be located elsewhere, such as at Parks property next to the tennis courts. The DEIS states that "as a result of these measures, the aesthetic appearance of the Moran State Park entrance *should* not be adversely affected by the proposed Hilltop uses". Yes, if the parking lot was moved elsewhere, it would not affect the Park entrance. Therefore, the parking lot should be located elsewhere; however, not on State property near the tennis courts. There is not room, nor is it desirable, to have parking for 100 vehicles and 110 trailers in the tennis court area, adjacent to Cascade Lake. (See issues with Tennis Court Area subsequently.)

Construction Staging: Using the Hilltop parcel as a staging area for construction of project components would also not be compatible with surrounding uses because of the increased noise and public safety issues associated with large construction vehicles entering, exiting, and crossing Olga Road very near the entrance to Moran State Park. Construction staging would also create visual impacts to the entrance of the Park.

General: Moran State Park already has noise concerns regarding the employee residence at the Hilltop parcel. Adding another 40 units of housing and 80 additional employees would significantly increase the noise from after-hours parties, cause more traffic and vehicle noise, and potentially increase the risk of wildfire (as stated on Page 3-49 of the DEIS). The DEIS states on Page 3-114 that providing facilities for cooking and dining would prevent the noise generated by outdoor parties. It is unlikely that these facilities will curtail outdoor parties; they are a fact of life in the summer. There will be more frequent and likely louder parties when the population triples at the Hilltop residence. The County will need to provide enforcement of noise ordinances on a continual basis to prevent these noise impacts to adjacent properties such as the Park.

Drainage and Groundwater: We agree with the cumulative impact analysis on Page 3-49 that states that potential impacts from the Hilltop development include increased potential for invasive species, risk of groundwater or water quality

degradation due to release of contaminants from vehicles, and increased runoff. The statement at the end of Section 3.3.4.3 on this page should be revised as a mitigation measure to read: "Campfires will not be allowed on the Hilltop property. Automobile repairs will not be allowed on the Hilltop property" The project proponent should then state *how* they plan to enforce these measures. The assumption that turbidity and potential development of small alluvial fans into Cascade Lake could be a habitat enhancement is erroneous (3.3.5.2, Page 3-49). The streams already have well-established alluvial fans and will not benefit from additional fine sediments.

Summary: Based on the lack of information about what facilities would actually be located on the almost 40-acre Hilltop property, the lack of consistent environmental impact analysis of these facilities among DEIS section analysts, and the fact that the Hilltop parcel is not located near the rest of the Resort, we ask that the Hilltop parcel be permanently excluded from a MPR land use designation. The substantial development that could occur under this designation would not be compatible with surrounding land uses such as Moran State Park.

Tennis Court Area

The DEIS does not indicate what exactly is planned for the tennis court area, nor is there a map showing the extent of the "upgrades" or how close they are to the shoreline. However, assuming that the components mentioned in the DEIS are planned to be implemented, we have numerous concerns with this type of development adjacent to Park property and Cascade Lake. Park users seeking quiet along the trails, in the lagoon, or in campgrounds would be affected by the noise from operations such as boat and bike rentals, weddings, parties, and live or amplified music. These potential noise impacts are not addressed in the DEIS. Additionally, Rosario Resort has had difficulty enforcing nighttime noise levels in the past. The waterfront adjacent to the tennis court site is designated by the County as "Conservancy". Except for boat rentals, the facilities proposed for this area are not compatible with this land use designation, nor are they compatible with directly adjacent Park uses. Lighting at night could also adversely affect birds in the lagoon area.

Development in the tennis court area is not included in the Consistency Analysis of the Action Alternatives – Shoreline Master Program Element on Page 3-16. Please provide information on how development at the tennis court area would be consistent with the Shoreline Master Program Element. If and when a Shoreline Substantial Development Permit and Shoreline Conditional Use Permit application for this area of the project are submitted to the County, we would like to receive a copy.

Increased runoff from the area could affect the lake and surrounding habitat areas. Were plans for the tennis court area analyzed for drainage impacts? It does not appear so. Please provide this analysis in the Supplemental DEIS. We agree with the statement in the DEIS on Page 3-47 that states "discharged storm water must be treated before it flows into Cascade Lake". Why is this not a mitigation measure to ensure compliance?

Along the same lines, the "Other Management Practices" listed on Page 3-49, Section 3.3.4.3 should be restated as mitigation measures. Additionally, the measures should say *how* they will be implemented and enforced. It seems there would also be an additional need for water and wastewater facilities at the tennis court location, which is also not addressed in the DEIS. There are no provisions made for sanitary facilities even though the development options significantly increase the potential number of users at this location.

Water and Sewer

The water and sewer section is unnecessarily confusing and should be revised with more text and fewer tables so the lay reader can understand the analysis. This section should provide readers with the amount of water that is currently drawn from Cascade Lake by Rosario Utilities (baseline condition) and the amount that will be needed with full build-out of the Resort.

The Concurrency Analysis in Appendix D provides existing (from 2001) water consumption for domestic purposes (73,884 gpd) but does not provide water consumption amounts for power generation, irrigation, storage, or fire protection. How much water has Rosario Utilities been drawing from Cascade Lake on an annual basis for all uses during the past five years? How much water is estimated to be drawn from the lake for the proposed full build-out under Alternative B for all uses? What will be the average seasonal draw-down of Cascade Lake? In addition, the Department of Ecology or the County Water Conservancy Board should determine whether any water rights (such as for power generation) have been relinquished due to non-use over the past five years. This analysis, together with relevant water rights documents, should be included in an appendix to the Supplemental DEIS.

The DEIS scoping comments clearly request an analysis of impacts to Cascade Lake from increased water draw at full build-out. The DEIS and Concurrency Report do not provide this analysis, but simply state that water rights for power generation will be transferred to domestic uses. The cumulative impact analysis on Page 3-74 states that there will not be an impact on Cascade Lake from the change in water rights. The analysis misses the point entirely. We know that the utility is currently using about 30% of its allowable water right. We want to know how much water will be used at build-out (compared to existing conditions) and what impact this would have on Cascade Lake. SEPA requires the environmental analysis to compare baseline conditions to project conditions to determine the impacts. Cascade Lake and Mountain Lake only have so much water – it is not an infinite resource. A water resources professional should conduct this analysis and it should be included in the Supplemental DEIS appendix. In addition, an explanation of what Rosario Utilities will do to protect Cascade Lake resources during drought years should also be included.

The DEIS states that Rosario Utilities has rights of *1879 acre-feet per year* (or 672,274,000 gallons per year). The Concurrency Report states that the water rights are *283 acre-feet per year* or 252,629 gallons per day. This is a big difference; which is

correct? On Page D-6 of the Concurrency Report it states that under existing water rights the instantaneous withdrawal from Cascade Lake is 330 gpm or 475,200 gallons per day. What is correct for the maximum gallons per day allowed, and what is the maximum instantaneous withdrawal allowed?

The Concurrency Report also states that "it may not be feasible to maintain the minimum lake elevation levels required by water rights if water is used for irrigation purposes as well". This potentially adverse impact should be discussed in the Supplemental DEIS. The minimum lake elevations levels must be maintained as required. We suggest planting native drought-tolerant species to avoid the need for irrigation.

Even minor draw downs on Cascade Lake (and Mountain Lake) will affect biological, recreational, and aesthetic resources in Moran State Park. The swimming beach, boat rental dock, newly installed ADA fishing dock, boat launch ramps, and campsites along the lake shore are all dependant on maintaining a certain lake level. The Park has also spent several years building up the fisheries in the Park with help from the Washington Department of Fish and Wildlife. We also started raising thousands of Kokanee from eggs and releasing them into the lake with the hope that they will imprint on the various stream sources and start spawning again in the lake. Several suitable spawning areas are already being compromised with a slight draw down in the lake. The mouth of Moran creek in the day use area has been building up with sediment and if the lake level continues to decrease the fish will not be able to pass over the sediment bar. Presently boat launches at each lake are almost unusable due to low water levels. Two summers ago we had to close the boat dock at Mountain Lake because the ramp was too steep to safely walk down because of the low water level. As requested above, what will Rosario Utilities do to protect water resources and habitat in drought years?

State Parks would like a copy of the *Rosario Water Budget Supply Analysis Report, 2005*.

There is absolutely no impact analysis provided for sewer treatment in the DEIS. There is one table provided but no text or analysis. According to Table 3.4-21, there will be significant increases in all parameters identified. Please provide a description of all plans related to the sewer system and a complete analysis of environmental impacts of the proposed plans or improvements in the Supplemental DEIS.

Miscellaneous

Page 3-92: State Parks has not authorized the development of any new trails or footpaths linking the Resort to the Park and does not agree with the removal of vegetation to create any new paths. Trail development would have to be coordinated with the Park Manager at Moran State Park. We would also like a copy of any wildlife surveys that will be conducted and feel that they should be conducted prior to project approval, not prior to construction as mentioned on Page 3-92 under Area 5. Under Area 6, surveys of nesting birds should also be required prior to project approval. Why

didn't the County require these surveys to be completed for the DEIS so that environmental impacts could be evaluated prior to project approval?

Page 3-93: "The expansion of the trail system to and from Cascade Lake and Moran State Park would also contribute to increased activity and disturbance; however the effect of additional trails is expected to be minimal". This statement is found under analysis for Threatened and Endangered Species and Other Species of Concern; however, it appears to be summary of impacts. To reiterate, State Parks has not authorized any new trails connecting the Resort to the Park or Cascade Lake. The vegetation removal of such trails could create an impact to wildlife and bird habitat. More noise, litter, and general degradation of the existing environment could result.

Page 3-39: The old vehicles and other junk presently posing a contamination source to surface and groundwater should be eliminated regardless of the Alternative that is implemented.

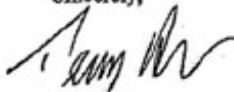
Page 3-47: State Parks would like to review the plans for the infiltration system for stormwater collection in the Hilltop area to ensure that there is no contaminated runoff to Cascade Lake.

Wherever ground disturbance occurs, invasive plant species will likely crop up. The spread of these invasive species to the Park and other areas can be controlled and mitigated and a plan to do so should be prepared by the project proponent.

Summary

The Washington State Parks and Recreation Commission believes that approval of the Proposed Action (Alternative B) on the basis of this DEIS could result in significant environmental impacts to the Park and its resources. We recommend that the County exclude the Hilltop parcel from consideration of a MPR designation, deny implementation of the tennis court area components, and prepare a Supplemental DEIS to address the substantial analysis that is presently lacking.

Sincerely,



Terry Doran
Northwest Region Manager
Washington State Parks and Recreation Commission

Cc: Moran State Park
NW Region Parks Development

Response to Terry Doran, Northwest Region Manager, Washington State Parks and Recreation Commission

1) Description of the alternatives and resulting analysis of environmental impacts:

The adoption of a Resort Master Plan (RMP) for the Rosario MPR is a non-project action under SEPA. Clarifying language has been added to the FEIS to make the non-project nature of the approval clear and to describe in more detail the relationship of the Master Plan to subsequent land use decisions. Approval of the Master Plan does not confer development approval. The plan is a guide for future development; it is intended to establish the basic character of the Resort including identification of areas to be developed, the type of uses to be developed in those areas, and the amount of development planned for each area. Under the County's Unified Development Code, once the plan is approved the owner is required to obtain the necessary land use permits including Planned Unit Development approval for each phase of development and shoreline permit approval for development in the shoreline. The review of subsequent land use applications includes a review for consistency with the land use and design character established in the Master Plan and a review for consistency with the County development standards and other land use approval criteria.

County action to review and approve future project level applications for Planned Unit Development(s) approval and shoreline permits are subject to environmental review under SEPA. The issuance of this FEIS and the subsequent approval of the Master Plan does not presume future project level development applications would be issued a Declaration of Non-Significance, and would require a Threshold Determination. As provided in the SEPA rules, environmental review under SEPA for a project action in Rosario Resort could be completed in several ways. After reviewing the environmental checklist and the project proposal, the SEPA official could issue a Declaration on Non-Significance or a Mitigated Declaration of Non-Significance; or the SEPA Responsible Official could require an addendum or supplement to the EIS. The appropriate action would depend on the nature and scope of the approval being sought.

The FEIS includes additional information about the alternatives and identifies more clearly that Action Alternative B is the applicants' preferred alternative. The description in the EIS, including supporting maps and tables provides a reasonable summary of the applicants' proposal (Action Alternative B) and other alternatives at the non-project level. The description of Action Alternative A and Action Alternative B both reference Master Plan documents submitted to the County. Action Alternative A March 2005 plan submittal. The description under each alternative is summarized from the Master Plans and the site plans provided in figures 2.2, 2.3 and 2.4 are taken from the Master Plan and visually illustrate the alternatives.

In response to comments received on the Draft EIS and other comments from the community and the County, the applicant has made revisions to the Master Plan since the issuance of the draft EIS. Those revisions have been incorporated in the description of the project in this FEIS and additional analysis provided as necessary to address the potential impacts of the change. In most instances changes were made to reduce potential conflicts or to provide additional clarifying information. One of the changes to the applicants' preferred plan, Action Alternative B, is to

remove the development proposed at the tennis court site. The plan now before the County for approval does not include new development at the tennis court site.

2) Hilltop property:

A site plan for the proposed use of the Hilltop has been included in the FEIS (Figure 2-4). This figure shows uses that are proposed for this site. As a result of issues raised regarding the use of the Utility Tract for activities other than sewer or water treatment, there has been a change in the range of uses proposed for the Hilltop property. The originally proposed water treatment facility has been removed and resort support functions including the laundry, maintenance, housekeeping, and supply storage have been added. The employee and overflow parking facilities remain generally the same. The proposal for an equestrian facility on this property has also been removed.

The current employee housing facilities are not now visible from Olga Road. The new conceptual site plan for this area (shown in Figure 2-4) shows a visual buffer of vegetation between Olga Road and development on the site. Mitigation for potential visual impacts includes providing and maintaining this visual buffer.

Land Use:

Although not within the existing boundaries of the MPR, the Hilltop has been used by Rosario for many years as employee housing. It already contains an access road, an employee dormitory, and supporting utilities. The area proposed for employee housing expansion and other uses are already disturbed. Recognition of these uses by including this parcel within the MPR boundary would result in positive impacts as discussed in the FEIS because the Hilltop parcel's zoning would finally be consistent with its long-term use. These uses would not affect wetlands as inferred by your letter, nor would "unauthorized use of Moran State Park trails by horses". The "resulting increase in people, dwellings, traffic, potential for fires" are impacts addressed by the EIS.

The requested response for an explanation on land use consistency "when a primary purpose of the Growth Management Act is to retain open space and habitat areas" is clear based on a review of the first five goals of the act under RCW 36.70A.040. These goals encourage development where adequate public facilities and services exist, as well as efficient transportation, affordable housing, and economic development, while discouraging conversion of undeveloped land into sprawling, low-density development. The proposed use of the Hilltop under Action Alternative B utilizes an existing developed site that is currently served by utilities, reduces employee commute trips, provides affordable housing on an island with a severe housing affordability crisis, and facilitates expansion of an existing business.

Other Hilltop Issues:

Traffic and Revenue: It is our understanding that the \$5.00 park fee has been removed. It seems unlikely that this will continue to be an issue.

Trails: The equestrian facilities have been removed from the proposed Action Alternative B. The issue of possible future trail connections across State Park property between the Hilltop has also

been clarified in the FEIS and Resort Master Plan. No new trail connections on park land would be allowed without the approval of the State Parks.

Visual: Aesthetic impacts on the entrance to the park as a result of development on the Hillside site are addressed by the applicants' proposed conceptual plan for the Hilltop property. As noted above, a visual buffer of vegetation will be maintained along Olga Road to shield development on the Hilltop property from the view of passing motorists. Access to the site will be via the existing driveway. No additional development, including additional parking, is proposed at the tennis court site.

Construction Staging: Use of the Hilltop parcel during construction will be limited to housing and feeding construction crews, just as the resort offers room and board to seasonal employees. Use of this site for staging heavy equipment is not proposed.

General: Impacts related to employee housing expansion are disclosed and analyzed in the EIS. Rosario has rules regarding employee behavior at the Hilltop and will continue to enforce these rules. The Resort is willing to work with Moran State Park to ensure that these rules address the needs of the Park. The County currently provides law enforcement at this site and will continue to do so.

Drainage and Groundwater: The suggested additional mitigation measure prohibiting outdoor campfires and automobile repairs that could contaminate the ground on the Hilltop parcel and appropriate enforcement mechanisms have been added to the FEIS in response to your letter.

4) Tennis Court Area:

As noted previously, the proponent has revised the Master Plan to remove the proposed improvements at the tennis court site from Action Alternative B and to leave the site as is. As a result, approval of the Master Plan would have no impact on this site with the exception of a possible increase in the use of the existing tennis courts. The number of courts will remain the same and, as a result, the capacity will not be increased. Because the number of persons able to play at any one time would not be increased, an increase in the use of the existing tennis courts is unlikely to result in a demand for additional parking or an increase in the amount of traffic at the evening peak hour. These changes are addressed in the FEIS.

5) Water and Sewer:

For the past few years, Rosario has withdrawn up to about 1,300 acre-feet out of a possible 1,879 acre-feet for hydropower, domestic, and irrigation uses. More has been withdrawn in previous years based on lake levels. The existing water right allows the withdrawal of a total of 1,879 acre-feet per year. Of this amount, 283 acre-feet per year is for domestic use. Without obtaining additional water rights, withdrawals are limited to 1,879 acre-feet per year. Withdrawal greater than that would be a violation of the water right. An evaluation of water demand is provided in Section 3.4 of this FEIS. Additional language has been added to this section to provide a clearer description of potential impacts of the preferred alternative. An evaluation of domestic water demand indicates that the existing domestic annual water right of 283 acre-feet per year is sufficient to supply water for domestic use at least until the year 2017, which is the anticipated

year that the build-out of the Resort will be complete. However, the instantaneous withdrawal right of 330 gpm would need to be increased by about 16 gpm to handle anticipated peak demand.

The seasonal draw-down of Cascade Lake remains unchanged since the adjudication in the 1970's – no more than 4 feet in a normal year and no more than 6 feet in a “dry” year. The adjudication hearings for water rights in Cascade Lake in the 1970's set a level of 347 feet in normal years and 345 feet in dry years to preserve the recreational uses of the lake. This level was set at the request of the Washington Parks & Recreation Commission, as well as for wildlife and aesthetics. The water rights do not specifically define “dry year” so in practice, officially declared drought years have been interpreted as dry years. 2005 is a recent example of an officially declared drought year.

The DEIS did not include an analysis of impacts to Cascade Lake for build-out because the water right requires the water user to maintain lake levels within the limits established in the water right, as described above.

Rosario is currently using about 1,300 acre-feet per year of water from Cascade Lake, about 70 percent of the water right. At build-out, no more than 1,879 acre-feet will be withdrawn – the limit of Rosario's water rights.

The water budget prepared by RH2 Engineers will be forwarded to the Parks Commission and the SEPA Lead Agency.

As described above, the 283 acre-feet of water rights is the domestic portion of the total 1,879 acre-feet per year water right supply only, which is a portion of the total water right of 1,879 acre-feet.

Regarding fluctuating lake levels, the proposed alternatives addressed by the EIS will not affect existing adjudicated water rights, thus no direct impacts to recreational and natural resources of the lake are expected to result from development under either alternative. Rosario is required to remain within its adjudicated water rights even in drought years.

Additional analysis regarding the sewer treatment system has been included in the FEIS.

The Table 3.4-21 referenced in the comment letter is a summary of the analysis provided earlier in the DEIS document. More detail for the No Action Alternative is provided on page 3-60. Similarly, detail for Action Alternative A is on page 3-63 and Action Alternative B is on page 3-66.

Action Alternative A and Action Alternative B will require additional treatment capacity. The General Sewer Plan/Engineering Report prepared by Gray & Osborn discusses the ability of the sewer system to approximately double the treatment capacity (flow) by the addition of a second facultative lagoon approximately the same size as the existing easterly lagoon. The construction of the additional lagoon is proposed on the existing site, and the non-construction related impacts of the treatment plant expansion are minimal. The comprehensive plan does not indicate that

modification or replacement of the existing marine outfall is necessary. There are other relatively minor improvement projects described more completely in the previously referenced sections of the DEIS with full details in the referenced comprehensive sewer planning document.

The treated water discharge to the waters of the State is regulated by a NPDES Permit issued by the Department of Ecology. The most recent permit is dated October 19, 2005 and is valid for a 5-year period. The permit contains limits on the rate and total loading of parameters regulated by the permit and is intended to provide protection of the receiving water.

6) *Miscellaneous:*

No trails on park property would be constructed without the approval of the park. While the park may not be interested in additional trails at this time, the possibility of additional trails has been included in the plan in the event that the State Park commission would support this development in the future.

The trail described on page 3-92 would generally follow an existing utility easement, thus little significant vegetation would need to be removed. Wildlife site reconnaissance was performed prior to development of the RMP and again during development of the DEIS. As described in the RMP and DEIS, protocol level wildlife surveys will be required as implementation actions of the RMP and mitigation measures required by the FEIS. Copies of the survey results will be shared with Moran State Park.

DEIS Page 3-39: Resort ownership has recently completed removal of the old vehicles and other junk.

DEIS Page 3-47: A comprehensive drainage and stormwater management plan will be prepared at the project level to address runoff from the Hilltop Parcel and other parts of the Resort. The plan will be submitted as part of the development permit application for development on the Hilltop. The plan will be available for review and comments as part of the public review of future development projects on this site.

In addition, a selection of sample Best Management Practices to control erosion and protect water quality during the project's construction phase have been added to the FEIS in response to your request. Methods such as Silt Fencing, Straw Bale Sediment Barriers, Water Bars, Drainage Ditch/Swales, Rock Check Dams, Sediment Traps, Outlet Protection, Straw Mulch, and Erosion Control Blankets are described in Appendix I.



October 5, 2005

Mr. Martin Blackman, Senior Planner
San Juan County Community Development & Planning Department
135 Rhone Street, P.O. Box 947
Friday Harbor, WA 98250

Re: Rosario Master Plan Resort Draft EIS Comment Letter

Dear Martin:

These comments are submitted by Friends of the San Juans (Friends), a non-profit organization dedicated to protecting the unique environment of Washington's San Juan Islands. Friends speaks for its 1600 members who cherish the pristine shorelines, wildlife, marine and terrestrial ecosystems, and forests that make the San Juan Islands so special. We appreciate the opportunity to comment on the Rosario Master Plan Resort Draft Environmental Impact Statement (Draft EIS), and thank you for your consideration of our serious concerns about this document.

Failure to comply with SEPA

Washington's State Environmental Policy Act (SEPA), requires that an environmental impact statement be prepared prior to the first governmental authorization of any part of a project or series of projects which, when considered cumulatively, constitute a major action significantly affecting the quality of the environment. RCW 43.21C.030(2)(c). The procedural provisions of SEPA constitute an environmental full disclosure law. SEPA's procedures promote the public policy of fully informed decision making by governmental bodies when undertaking major actions. RCW 43.21C.010 and .030. In an attempt by the people to shape their future environment by deliberation, and not by default, SEPA requires that the presently unquantified environmental amenities and values be given appropriate consideration in decision making along with economic and technical considerations. RCW 43.21C.030(2)(b).

The Draft EIS represents and proposes a major action that will significantly affect the quality of the San Juan County environment. The Draft EIS fails to comply with SEPA because the proposed marina expansion is an integral part of both Action Alternative A and B, yet is not fully or appropriately addressed, analyzed or evaluated for its adverse environmental impacts. The marina expansion should be subject to environmental review at this stage of the planning process so that the public and the County can make a decision based on full disclosure of the marina's environmental impacts.

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Additionally, the cumulative impacts of the resort and marina expansions should be discerned, evaluated and mitigated in the environmental impact statement at this stage of the planning process. An immense number of state and local permits would be required for both Action Alternatives, and the only opportunity for the public and the County to consider the cumulative impacts is during environmental impact statement review and comment process. Omitting an analysis of the marina expansion in the Draft EIS phases, and thus separates, review of the resort expansion from the interdependent marina expansion. Phased review is inappropriate, and counter to the purpose of SEPA, when it avoids consideration of the cumulative impacts of the total development project that is proposed. Here, the total project proposed includes a substantial expansion of the marina. Thus, a complete analysis of the marina expansion must be included in the Draft EIS before a fully informed decision inclusive of the cumulative impacts can be made.

Failure to Present a Reasonable Alternative

An environmental impact statement is required to present a no-action alternative, a preferred alternative and a reasonable alternative. WAC 197-11-440. A "reasonable alternative" is one that "could feasibly attain or approximate a proposal's objectives, but at a lower environmental cost or decreased level of environmental degradation." WAC 197-11-440(5)(b), (emphasis added). Under this standard, the Action Alternative A is not a "reasonable alternative" to the preferred alternative, Action Alternative B. Action Alternative A proposes a net increase of approximately twice the number of guest rooms over Action Alternative B. Action Alternative A proposes a net increase of 111 new marina slips, or just twenty (20) fewer than the 131 proposed under Action Alternative B. To fully and fairly evaluate the Draft EIS, a legitimate reasonable alternative must be presented to the public for review and comment prior to consideration by the County. Action Alternative A is not a reasonable alternative and should be modified accordingly.

Marine Life Impacts

The Draft EIS does not adequately address the impacts that will be borne by the multitude of marine species in and around Cascade Bay. Enhanced upland development and traffic will inevitably yield increased downstream impacts that are not fully addressed or mitigated. Increased boat and seaplane traffic, pedestrian use, trash, point and non-point source pollutants, and stormwater runoff will contribute to the impairment of Cascade Bay and its marine life by affecting water quality and noise. The development area conditions include exceedingly steep slopes and poor, easily erodible soils which affects down-slope water quality. Friends strongly encourages the County to require additional mitigation measures to ensure to the greatest degree possible that any new development at Rosario will not adversely impair the marine life.

Shoreline Impacts

Friends has concerns that the Draft EIS does not adequately address adverse impacts to the shoreline. Action Alternative B proposes widespread shoreline construction, yet does not address the full range of impacts to the shoreline or corresponding mitigation measures. Increased pedestrian traffic to the shoreline will result in trash, debris and pollutants degrading the quality of the shoreline. The introduction of vehicular access to the shoreline cottages will release contaminants into the water. There is little to no discussion of how the shoreline construction will comply with the County's Shoreline Master Program. Nor is there discussion of the need for a conditional use permit for all development within 100 feet of the ordinary high water mark. Thus, meaningful consideration of the magnitude of the impacts to the shoreline is wholly lacking.

Loss of Trees and Habitat

Study Area 3, the Upper Basin, as depicted on Figure 3-3 of the plan, includes the "only concentration of undeveloped, mature second-growth coniferous forest." Plan, p. 3-85. This tree canopy includes Douglas-fir, western red cedar, western hemlock and big-leaf maple and represents some of the oldest forested areas in the County. This area is nearly contiguous to Moran State Park and is undeniably a major wildlife corridor. While this area is not protected as an "environmentally sensitive area" under the San Juan County Code, construction of the 21 woodland/hillside cottages would disturb some of the oldest forest stands in the County. Wildlife breeding and nesting grounds, migratory routes and overall habitat would be adversely impacted. Development of this relatively undisturbed area would introduce noise and human activity that would lead to avoidance of the area by wildlife.

Noise

The majority of residents and visitors to the San Juans are drawn to the peace and serenity of the islands. The impacts to wildlife, marine life and the surrounding neighborhoods from increased noise levels have not been adequately analyzed or mitigated in the Draft EIS. Increased pedestrian traffic, car traffic, boat and yacht traffic, and seaplane traffic may have substantial impacts on terrestrial and marine wildlife. Noise from outdoor activity at the resort carries substantial distances, but insufficient mitigation measures are offered to counteract this affect.

Stormwater Run-off

Action Alternatives A and B propose significant upland development that will require substantial clearing, grading, cutting and filling. Large amounts of impervious surface will be introduced under both Alternatives. Friends has concerns that the amount of stormwater run-off will greatly increase, resulting both in less aquifer recharge and impaired surface water quality. More low-impact development measures, particularly around the Hilltop and Hillside parcels, should be required to manage stormwater. The thin soil is subject to erosion, and planting trees and vegetation required to keep the soil in place would require substantial irrigation and chemical soil enhancement. The maximum amount of existing trees should be retained to avoid undue soil erosion and its resulting water quality impairment. Constructing the hillside cottages would result in degraded water quality draining into Cascade Lake, thereby affecting wildlife. While the Draft EIS purports that a comprehensive stormwater plan will be developed, such plan should be reviewed now to ensure that its details sufficiently address the effects of stormwater run-off.

Water Quantity

The Draft EIS does not give adequate attention to water quantity issues. Rosario has industrial/commercial use water rights from Cascade Lake that it is transferring to domestic/commercial use. A contingency plan identifying other water sources is needed in the event that Cascade Lake could not provide all necessary water without falling below its state-mandated levels. The amount of water necessary to support an expanded marina of any size is not addressed, and the water usage rate of residents versus visitors is not identified.

Conclusion

Friends appreciates the vital economic role that Rosario Resort plays on Orcas Island and in the County. Friends supports the idea of expanding Rosario to provide for new amenities and much needed infrastructure updates. However, the Draft EIS, as submitted, does not meet its burden of fully and fairly analyzing the plethora of adverse environmental impacts that would be created and potential mitigation measures that would be necessary under either Action Alternative. Friends hopes that Rosario can amend and supplement its Draft EIS to address the concerns raised by it and the public so that full disclosure can occur.

We appreciate the opportunity to comment on the Draft EIS, and thank you for your consideration.

Sincerely,

Amy Trainer
Legal Director

Response to Amy Trainer, Legal Director, Friends of the San Juans

1) Compliance with SEPA:

The proposed marina expansion is a component of both action alternatives. The expansion has been identified in the project description and the potential impacts of the marina expansion are discussed in this EIS to the extent foreseeable at this time. This EIS is the first phase of a phased environmental review process as authorized by WAC 197-11-060(5). This EIS addresses the potential significant adverse environmental impacts that could result from the proposed action--adoption of the Rosario Resort Master Plan by San Juan County--including indirect and cumulative impacts to the extent those impacts are reasonably foreseeable at this time. Adoption of this plan is a non-project action as defined under WAC 197-11-704(b). As required by SEPA, primary, secondary, and cumulative impacts are identified to the degree that they can be accurately addressed at this point in the process. Additional environmental review would occur at project-specific design and permitting phases, when the detailed impacts of those project-specific impacts are knowable and more specific mitigation measures can be designed.

The Rosario Resort Master Plan would provide a framework for regulating land use and the redevelopment of lands within the MPR designation as well as redevelopment of the marina that serves the Resort. As required by SEPA, all impacts related to elements of the environment addressed during scoping are considered for both the terrestrial and marine components of the Resort Master Plan.

The marina redevelopment is a component of the Rosario Resort Master Plan and is therefore subject to non-project analysis in this EIS. As summarized in Table 2.1-1, non-project and cumulative impacts related to land and shoreline use, plans and policy consistency, earth and stormwater, utilities, plant and animals, aesthetics, noise, cultural resources, and transportation are addressed to the greatest degree practicable at this time based on available information. As the marina has yet to be designed, it is not possible at this stage in the development process to analyze project-level impacts of the marina or of the proposed buildings to be constructed on uplands until design-level information is available to evaluate. Design level information will need to be provided at subsequent stages in the Resort development process in order to receive approval from the County to construct the planned Resort facilities.

Because of the unique issues regarding marina construction, separate project-level environmental review will be necessary to ensure that all applicable resource issues are considered and analyzed consistent with phased environmental review as stipulated by WAC 197-11-060(5). This analysis would include a separate threshold determination process and would likely address environmental, engineering, and other issues related to the marine environment. Because the marina expansion would require permits issued by the Army Corps of Engineers, future review must comply with the National Environmental Policy Act (NEPA). In addition, compliance with shoreline and land use regulations administered by San Juan County would require compliance with the State Environmental Policy Act (SEPA).

Additional language has been added to sections 2.1 and 2.3 (and elsewhere) of the RMP Final Environmental Impact Statement to better explain the relationship between the proposed Resort

Master Plan and the proposed marina expansion and why these two related proposals require two separate environmental analyses consistent with phased environmental review as stipulated by WAC 197-11-060(5).

Cumulative impacts such as water consumption, traffic, and parking are addressed in the EIS. Project level impacts will need to be addressed in subsequent project level environmental review under SEPA at such time as a final design is prepared the necessary project permit applications are made.

2) Presentation of a reasonable Alternative:

Action Alternative A is the applicants' original proposal, as submitted in 2000. Action Alternative B, which is now the applicants' preferred alternative, was prepared in response to comments received from the County and the public and after the Resort completed additional financial analysis. The EIS identifies that Action Alternative B will have a somewhat lesser impact than Action Alternative A. The fact that Action Alternative B is now the applicants' preferred alternative does not require that a new lesser impact alternative be identified and included in the analysis.

3) Marine life impacts:

Potential direct impacts to the marine environment as result of the marina expansion are qualitatively identified in this EIS to disclose the types of impact to both water quality and tidal and subtidal habitat that might occur if the marina is expanded. A more extensive quantitative review of environmental impacts of the marina expansion will occur at the time the owners complete a final design and submit project permit applications to the County and other agencies with jurisdiction including Washington Department of Fish and Wildlife and the Corps of Engineers. Potential indirect impacts on the marine environment, particularly to water quality, associated with upland development, are discussed in the EIS. Mitigation measures and management practices intended to address water quality impacts of upland development have been included in Section 3.3 of the this FEIS.

In addition to the implementation of the State's stormwater manual Best Management Practices, the conceptual stormwater management plan addresses replacement of toxic building materials that may be contributing harmful substances to the surrounding marine environment. Mitigation Measures included in the conceptual stormwater management plan require the removal of these substances (such as the copper roof of the Moran Mansion), their replacement with environmentally appropriate materials, and additional measures to contain and treat runoff both during and after the construction process.

4) Shoreline impacts:

Under Action Alternative B, only paths would access the cottages closest to the shoreline, not roads and parking. These paths would be accessible to both pedestrians and small electric carts, but not to cars and trucks. An increase in pedestrian use is anticipated under the action alternatives, however littering is not acceptable in a high-end resort such as the one proposed for the site under these alternatives, and a full-time maintenance and grounds crew will be responsible for shoreline cleanup as has been the case at Rosario for many years.

Action Alternative B recognizes the opportunity for positive shoreline impacts. In particular, this alternative proposes replacement of existing rip-rap lining Cascade Bay with soft shoreline once the floating breakwater is installed as part of the proposed marina expansion. A shoreline restoration program has been proposed and efforts are now underway to develop this plan in conjunction with Friends of San Juans, WDFW, USFWS, and other appropriate agencies to ensure that proper techniques and work windows are observed. The objective of this plan would be to restore and maintain the natural quality of the shoreline and to manage it for long-term natural conditions. The current state of the shoreline presents an opportunity for Rosario to work together with the local agencies and local citizens to improve the natural qualities of the area that bring people to this island community. This shoreline restoration plan will need to be included as a mitigation measure in the marina expansion environmental review.

Discussion in the EIS regarding consistency with County plans and regulations has been revised to include evaluation of shoreline conditional use criteria in relation to the types and magnitude of new development planned for the shoreline of Cascade Bay. Section 3.2 of the FEIS now includes a detailed discussion of compliance with the Criteria for Approval of Substantial Development Permits (SJCC 18.80.110 H.) and Criteria for Approval of Shoreline Conditional Uses (SJCC 18.80.110).

Impacts and mitigation approaches to the proposed Resort Master Plan have been expanded and clarified in the FEIS to address concerns that have arisen during the public review and comment process. It is not the intent of Rosario Resort to avoid comprehensive environmental analysis of any proposed resort component. As a long-standing member of this island community, it is the responsibility and obligation of Rosario Resort to make all possible efforts to propose and maintain an environmentally sound landscape.

5) *Loss of trees and habitat:*

Impacts to the existing natural environment of the upper basin are discussed in Section 3.5.3.3 of the EIS and includes the points raised in this comment regarding impacts to wildlife and forest habitat. Mitigation measures include minimizing the amount of land and vegetation disturbed for the development of housing and the implementation of a vegetation management plan. In addition, the Master Plan has been revised to remove proposed development from the tennis court area. The tennis court area will remain unchanged under the currently proposed Master Plan. The project description in this FEIS has been revised to reflect that change.

6) *Noise:*

Noise is discussed in Section 3.7 of the EIS. The discussion includes a description of potential noise impacts and mitigation measures that could be employed to mitigate these impacts.

7) *Stormwater runoff:*

Section 3.3 of the EIS has been revised to provide additional information including estimates of stormwater runoff volumes and additional discussion of the potential impacts of stormwater runoff, including erosion and impacts to the water quality of receiving waters. The applicants have also prepared a Conceptual Stormwater Management Plan (Appendix G) that identifies a range of mitigation measures that could be employed to minimize stormwater impacts on

receiving waters. Examples of these mitigation measures include a selection of sample Best Management Practices to control erosion and protect water quality during the project's construction phase. Methods such as Silt Fencing, Straw Bale Sediment Barriers, Water Bars, Drainage Ditch/Swales, Rock Check Dams, Sediment Traps, Outlet Protection, Straw Mulch, and Erosion Control Blankets are described in Appendix I. At the present time, stormwater runoff from the site receives little treatment. The existing system was constructed prior to the adoption of stormwater runoff treatment requirements. Implementation of County stormwater regulations for new development is expected to improve the water quality of stormwater runoff from the existing site. As new development occurs, the existing stormwater system will be required to tie into the new treatment system.

The Hillside Cottages proposed under Action Alternative B, are located in the Upper Basin but are downgradient of Cascade Lake and no impacts to Cascade Lake are anticipated from the development of the Hillside Cottages. Action Alternative B originally proposed development in the tennis court area on the shoreline of Cascade Lake. As noted above, that area of the plan has been revised and no new development is proposed in this area. The tennis court will remain but no additional development is planned.

8) *Water quantity:*

The existing water right allows the withdrawal of a total of 1,879 acre-feet per year. Of this amount, 283 acre-feet per year is for domestic use. Without obtaining additional water rights, withdrawals are limited to 1,879 acre-feet per year. Withdrawal greater than that would be a violation of the water right. An evaluation of water demand is provided in Section 3.4 of this FEIS. Additional language has been added to this section to provide a clearer description of potential impacts of the preferred alternative. An evaluation of domestic water demand indicates that the existing domestic annual water right of 283 acre-feet per year is sufficient to supply water for domestic use at least until the year 2017, which is the anticipated year that the build-out of the Resort will be complete. However, the instantaneous withdrawal right of 330 gpm would need to be increased by about 16 gpm to handle anticipated peak demand.

Water demand calculations contained in Section 3.4 include water demand for the marina. For analysis purposes, each marina slip is assigned a water usage factor of one-third (0.33) of a residential unit of the equivalent water consumption of 54 single family residences. Equivalent Residential Unit demand for the Rosario Water System was calculated at 273 gallon per day, which means each marina slip is assumed to use about 90 gallons of water per day for each day of the year on average. This figure is believed to be conservative.

The seasonal draw-down of Cascade Lake remains unchanged since the adjudication in the 1970's – no more than 4 feet in a normal year and no more than 6 feet in a “dry” year. The adjudication hearings for water rights in Cascade Lake in the 1970's set a level of 347 feet in normal years and 345 feet in dry years to preserve the recreational uses of the lake. This level was set at the request of the Washington Parks & Recreation Commission as well as for wildlife and aesthetics. The water rights do not specifically define “dry year” so in practice, officially declared drought years have been interpreted as dry years. 2005 is a recent example of an officially declared a drought year.

The DEIS did not include an analysis of impacts to Cascade Lake for build-out because there will be no lake level fluctuation beyond the adjudicated seasonal draw-down and resulting impact as explained above.

6.3 CITIZEN COMMENT LETTERS AND RESPONSES

This section includes responses to comment letters on the DEIS submitted by individuals. If an individual submitted more than one comment letter, the letters were combined and commented on together.

Comment Date	Author	FEIS Page
undated	Bruce Heller	Comment: 6-66 Response: 6-69
August 29	Mary Poletti	Comment: 6-71 Response: 6-75
August 29	Gregg Stafford	Comment: 6-77 Response: 6-78
August 29	Barbara Harris-Evans	Comment: 6-79 Response: 6-80
August 30	Rolf and Ruth Nedelmann	Comment: 6-81 Response: 6-84
September 1	Mike Kaill	Comment: 6-87 Response: 6-88
September 6	Walter and Carmen Hauschildt	Comment: 6-90 Response: 6-92
September 7	Ruth Newman	Comment: 6-93 Response: 6-95
September 14	Thomas Burg	Comment: 6-97 Response: 6-100
September 20	Jim and Janet Bell	Comment: 6-102 Response: 6-103
September 8 and October 5	Andrea Hendrick	Comment: 6-104 Response: 6-108
September 1	Lesley Ann Liddle	Comment: 6-109 Response: 6-114
August 19 and October 6	Hugh Hendrick	Comment: 6-115 Response: 6-123
October 6	Gregg and Lisa Bronn	Comment: 6-125 Response: 6-127

Oral comments on the DEIS were solicited from the public at two public workshops including one hosted by the San Juan County Planning Commission on Monday, August, 29 and a second hosted by the San Juan County Community Development and Planning Department on Thursday, October 6. As stated in the DEIS and during both public meetings, only written comments have been reprinted and addressed in the Final EIS.

Along with the comment letters listed above, additional written comments, including, letters, e-mails and petitions were received that expressed either support or opposition to the proposal but did not include specific comments on the DEIS or substantive environmental issues. Non-substantive comment letters received from the public are tabulated and reprinted in Appendix E

contained in Volume 2 of this FEIS under a separate cover (*Rosario Resort Master Plan, Draft Environmental Impact Statement, Volume 2 Appendices - Supplemental Reports*). This public input will also be considered by San Juan County as part of the RMP review process.

From: Bruce L. Heller
356 Cascade Way
P.O. Box 1479
Eastsound, WA 98245
Attn: Mr. Martin Blackman, Senior Planner II
Community Development and Planning Department
Subject: Rosario Resort DEIS Environmental Concerns

I am exceedingly concerned with the pronouncement appearing early in the Draft Environmental Impact Statement regarding the Rosario Resort Master Plan that significant water rights of some 1879 acre-feet are owned by Rosario Utility. This is true and approximates to some 613 million gallons or the first three feet of water in Cascade Lake. Proponents would have us believe that this volume of water is obscenely excessive; however, there is only a four foot differential between the maximum volume of water the lake can hold at 351 feet above mean sea level and the minimum volume of water the State Health Department mandates at 347 feet. Cascade Lake is, in fact, a relatively shallow lake, only a very small portion of which is moderately deep at some 60 feet. Presently, Cascade and Mountain lakes are well below capacity and if you went to either lake right now you would observe that the both boat launches are totally exposed above the surface of the lakes. In June, 2004, the San Juan Water Resource Management Plan identified both the Eastsound area and Rosario as projected growth areas exceeding water supply and service capacity. Furthermore, recharge capacity of the aquifer is sustainable at 20 to 30% but the Department of Ecology has issued permits for groundwater that already equals 57%. If private wells, presently exempted, are included, then 174% of available recharge capacity is already allocated. Under the circumstances, it is very important for everyone to understand that water rights have absolutely nothing whatever to do with present water availability or future water availability. The preferred proposal in the Master Plan seeks a net increase of 139 guest lodging units, 131 additional marina slips and housing for 53 employees. It is disturbing that the DEIS does not attempt to quantify the added demands this real estate and marina development will make on the lake supply during the heavy drawdown months. There is no thought given to the environmental impact such a marina would have on the Sound itself. Toxicity in the form of oil, gasoline, sewage and other debris due to stratification and poor flushing ability will pollute the waters all the way up to Crescent Beach. In addition the DEIS is silent on the quantitative value of the "dry years" that are so briefly alluded to. What constitutes a dry year in terms of lake levels? What is the probability that Cascade Lake can drop to or below the mandated 347 foot level? Should that happen, what does the Department of Health require and how is the health of residents affected? We also need to keep in mind that global warming is changing weather and rainfall patterns worldwide and the Northwest will be no exception.

Even at present, any further lowering of Cascade Lake levels will impact both the Kokanee and Cutthroat Trout because they will not be able to get into their respective imprint streams for spawning. Further lowering will environmentally impact the water temperature, oxygen levels, food supply and vegetation. As water temperature increases, dissolved oxygen, a necessity for all aquatic life decreases, thereby causing fish to seek a depth where oxygen and temperature sustain life. Such temperature stratification occurs routinely in deep lakes; however, in shallow water lakes it becomes impossible and fish will die, particularly sensitive trout species. In winter, a different problem occurs in low water lakes. They become colder and more free carbon dioxide forms a weak carbonic acid which depresses the Ph levels. Ph is a measure of acidity/alkalinity where 7.0 is neutral and an ideal level for trout. But as acid increases the Ph decreases and at Ph5.0 to Ph4.5 all fish and most aquatic food forms die. Our on-going, problem with blue-green algae growth will be exacerbated due to increased water temperature and a reduced volume of water for flushing the lake itself. There will also be a negative environmental impact on Cascade Bay because Bowman's Creek will flow less or perhaps cease entirely, thereby impacting the near shore habitat which now supports aquatic life and forage for a variety animals including fish. An even greater environmental impact will be evident if the proposal to construct some kind of extensive water storage reservoir in the Cascade Creek Watershed comes to pass. This is the largest watershed on the island, supplying both Cascade Lake and Buck Bay, which in turn supports the islands only fish resources including Coho, Brook Trout, Resident Cutthroat, Sea-run Cutthroat and Sculpin.

Also consider the proposed sale by Rosario Utility to initially sell the Eastsound Water Users Association 100 million gallons of Cascade lake water per year. Let there be no doubt whatever that this volume will increase as the Eastsound Urban Growth Area expands. It came as an unpleasant surprise to many of us at our previous meeting with the Planning Board of County Commissioners and the Planning and Development Department when Ed Sutton announced that ESWUA would like to purchase all of the Rosario water rights in order to place them in the public domain and thereby supply the Eastsound Urban Growth Area as well as West Sound, Deer Harbor and Spring Point, three annually drought stricken areas of growth where water has had to be brought in by tanker truck for years.

Another DEIS statement that distresses me is that "UNAVOIDABLE, SIGNIFICANT, ADVERSE IMPACTS" will be addressed by the mitigation measures and management practices of the project developer or proponent. I have no faith in that assurance whatsoever! There are far too many serious, unaddressed environmental issues that will affect our entire island. The current owners of Rosario have admitted to having no interest in completing this real estate project. Their interest, and rightfully so, is in turning a profit for their investors. But, I believe such an admission constitutes persuasive argument against any honest, protective environmental concerns on their part!

Response to Bruce Heller

Rosario's total water right is 1,879 acre-feet per year, which includes water for hydroelectric power generation, irrigation, and domestic use. The domestic portion of the water right is 283 acre-feet per year and an instantaneous withdrawal rate of 330 gpm. Section 3.4 of the FEIS has been revised to provide additional information on current and future domestic water use. Current domestic water consumption is about 128 acre-feet per year. By the year 2017, when the resort expansion is projected to have been completed, domestic water consumption is estimated to be about 223 acre-feet per year. This is less than the current domestic water right and represents an increase of about 95 acre-feet per year over current withdrawals. Instantaneous demand, however, is expected to be about 346 gpm, which exceeds the current instantaneous demand water right by 16 gpm. The estimated annual water consumption by the Resort at build-out identified above and described in Section 3.4 of the FEIS includes water usage estimates for both the marina expansion and additional employee housing.

During the past several years Rosario has withdrawn up to approximately 1,300 acre-feet out of a possible 1,879 acre-feet for hydropower, domestic and irrigation uses. Additional water has been withdrawn in previous years based on lake-levels. Assuming an additional 95 acre-feet per year for domestic use by the year 2017, withdrawals could be expected to increase to 1,395, which is still about 400 acre-feet per year below the Rosario Utilities' water right. In addition to Rosario's water right, which limits the amount of water that can be withdrawn to 1,879 acre-feet per year, lake level limits were established for Cascade Lake as a result of water rights adjudication hearings held during the 1970's. The lake level limits are established at a minimum lake surface elevation of 347 feet in normal years (rainfall of 29.22 inches or more at Olga) and 345 feet in dry years. State-declared drought years, such as 2005, are understood to be "dry years". The water rights and lake level elevations are established by the Washington State Department of Ecology. Neither the local nor State health departments have jurisdiction over the water right or lake level. The State Department of Health does have jurisdiction over the operation of the Rosario Utilities' domestic water system and approval authority over the water system plan.

Rosario Utilities monitors water withdrawals and lake level elevations to assure compliance with the State requirements. At the end of September 2004, Rosario's gauge at Cascade Dam read 14 inches below spill; an above-average level for this time of year. According to Parks and Recreation, the boat launch should work down to 345 feet, which is 5 feet lower than September 2004's lake level.

The level of Cascade Lake has fluctuated over 4 feet for several decades, however, it has not fallen below the Park's minimum. Significant, additional lowering of lake levels below the minimum elevation of 345 feet could be harmful to fish and wildlife. However, as noted previously, Rosario's water rights includes a requirement to maintain the lake elevation at no less than 345 feet in dry years and 347 feet in normal years. Domestic use is considered a higher beneficial use of water than hydropower generation. Under the terms of the change in the surface water right to Certificate No. XIII-A page 2, approved by the Department of Ecology in 2002, hydropower operations shall be curtailed at lake levels no less than 1 foot above minimum in order to conserve stored waters for domestic purposes. Since hydropower generation is used

primarily for heating and lighting at the Moran Mansion, appropriations of water for power generation are greatest during the winter when lake levels are highest.

The comments regarding potential impacts of the marina are similar to those expressed by the San Juan County Marine Resources Committee and the Friends of the San Juans (see the responses to comments by those public interest groups in Section 6.2 of this FEIS).

I have a sort of who are the people in your neighborhood approach to all of this:

1. The Rosario Palisades were designed as single family lots, a Rosario Community around a Core Resort. In reading the DEIS, there is not adequate addressing of the impact of the development of Parcel #12 on the resort community.

It is bordered on Palisade Drive by 911.75 linear feet.
On the right it is border by 2 ½ lots, so say three residential lots.
On the left side, it is bordered by six residential lots.

It is proposed that 21 units be developed on 5.6 acres of a 13 acre parcel.

Just to give you a visual on this . . .
In order to drive by 21 units on Palisades Drive, you could start by turning left onto Palisade from Rosario Road. You will drive by five "units" on your left, then the creek, then the Parcel . . . at the point if you start counting "units" and including "units to yet be built" on both the left and right hand side of the road, you will have to go as far as the Wyngarden/Asher home on the left and two more lots beyond that on the right to get to 21 buildable units

Let me give you another visual:

If you drive to Marina Heights, turn left, and start counting at the property line between the Woods and Harpims, down to the end of the Murray lot, you will have 944 linear feet and eight houses/unit possibility.

So, I would say that the units are not consistent with the contiguous land, designed as the resort community apart from the resort itself.

That these units are only accessible by car from Palisades Drive.

That these units should be consistent with the density of the contiguous lots: and that acceptable density in this development should be consistent with the development of the detached from the core resort community in which it will exist.

The DEIS needs to address the possibility of 42 cars ingress and egress from this point on Palisades Drive which is particularly "windy" "curvy".

The DEIS needs to address the short-term construction impact on the road and neighbors.
The DEIS needs to address the worst/case scenario of 21 3/bedroom units with 42 parking places on this plat.
It needs to address the permanent impact of this particular development on the Resort Community in a portion of Rosario considerably removed from the Core Resort and Core Footprint itself.

The DEIS does not address the folding in the these units into the "Hillside" development which includes the Cascade Harbor Inn Extension. They simply cannot sweep the density of these units up the hill to Palisades Drive without a more complete review of the impact.

SEWER and SEPTIC

What is the environmental impact on the water source from the 21 Woodland Cottages.

NEIGHBORHOOD

Palisades development is a single-family home development, created by the resort in a resort community. It is NOT part of the core resort, it is not part of the main footprint of the old resort.

What is the impact on the neighborhood of inserting a maximum density resort complex of 21 Woodland Cottages in a residential community created by the resort.

What is the proper density for this piece of land?

Right now the property is designated on the DEIS charts as Open Space.
In Alternative Plan A it would remain Open Space.
In Alternative Plan B, it is 21 units.

My request is that the 13.3 acre parcel #12 be excluded in the RRMP because the impact on the environment and the neighborhood is not sufficiently addressed in the DEIS.

Can you move a major development component of the commercial resort (Woodland Cottages, 21 3-5 bedroom houses) up the hill to the neighborhood resort community, developed by that same resort, without the Draft Environmental Impact Report addressing the following:

1. No description of the road at this point on Palisades Drive
 - a. Very windy
 - b. Blind curves
 - c. Main and only thorough fare for Palisades residents to exit to Olga Road.
2. The transportation impacts on the area.
3. Safety ingress and egress issues of this parcel, especially during high season.
4. Maximum traffic from new development expected to increase from 5% to 95% (Page 3-140)
5. No automobile access to and from the resort.
6. Maximum occupation data in the high season and traffic impact.
7. Pedestrian crossings to Cascade Lake.
8. Addition maintenance vehicles (i.e. cleaning, repair, landscaping).
9. Construction time length and impact of such.
10. **THERE IS NO ACCESS BY AUTOMOBILE TO THE RESORT FROM THIS PARCEL and NONE IS PLANNED.**

This parcel is:

911.75 linear feet on Palisades Drive at the windiest point in the road.

Palisades Drive is approximately 1.4 miles long (odometer on Jeep).

From the intersection of Rosario Road and Palisades Drive,

1. you must drive approximately 1 mile before you reach a point on Palisades Drive where you have 21 houses counting not only currently existing houses and but houses that could be built.
2. 911.75 linear feet is 12.33% of 7392, 1.4 miles = approximate length of Palisades Drive.
3. 911.75 linear feet is 17.27% of 1 mile, the 21 house built-out point.

The parcel is 13.3 acres and is parcel #12 on the documents.

Page 3-3

Open Space (Alternative A)

Page 3-6

"The largest single land use projected for the MPR proposed by this alternative is open space. Much of the forested hillside and other undeveloped portions of the site would remain as undeveloped forest land.

In the DEIS, on Page 3-7 :
The Hillside

They have folded the Woodland Cottages into this portion of the development to justify the increased density. Even though they are in a "neighborhood" surrounding the Core Resort. They take the density of the new additions to the Cascade Harbor and sweep them all in together up the hill to Palisades Drive.

The environmental impact is not consistent, nor its treatment of this plat of land in the DEIS.

Under 3.2 Plans and Policy Consistency: Comprehensive

"It addresses the interrelationship among land, resources, people, natural systems etc. . . ."

The interrelationship of parcel #12 to its contiguous "neighbors" needs to be addressed in the DEIS. It currently does not.

AREA 3 – Upper Basin

Environmental impacts are spelled out. Page 3-89

Page 3-91

Upper Basin

Action Alternative B would be spread out over the entire Resort rather than concentrating development within the primary Resort footprint around the Moran Mansion. . . . largely because of additional hillside and woodland cottages proposed for the forested hillside.

Action Alternative B 3.6.4.3

Page 3-103

In general, new construction proposed will be limited to modest building massing on most of the Resort. Most new construction will be limited to one, one and a half, or two stories.

Low impact of impacting archaeological resources. Page 3-125

RRMP

Page 71

The majority of the cottages will probably contain three bedrooms for sale and rental to couples and small families. Depending on market demand, larger cottages containing as many as five bedroom, ideal for summer or vacation occupancy by extended families, or rented to large or multiple families for stay of up to one week may also be constructed. To limit footprint and enhance architectural cohesiveness, the large cottages would be similar in design and layout, except they would include a day-lit basement with three bedrooms and an attic bunk room.

The parcel is bordered by:

1. Palisades Drive (911.75 linear feet).
2. To left: six houses/lots on Cascade Way
3. Two and 2/3 lots whose access is Palisades to Geiser Way.
4. Approximately 5-6 acres (Mike Heusen figure) will be used to develop.
5. Rest is steep slope.

Electrical map indicates only a few "towers."

Referring to page 71 of the Rosario Master Plan.

21 houses at 5 people (Wall Street Journal reports that 3 is the new "2" in number of children in families; five would be considered then a "small" family.) = 105 people.

If all were built to five-bedroom, should the economy demand, the number would be larger.

The safety ingress and egress both by automobile and by pedestrians is not addressed in the DEIS. The impact of this development on the residential neighborhood is dismissed as minimal in the report. Who will be liable if children crossing the road to "jump off the bridge", an Orcas Island rite of passage, the fractionalized home-owners, the resort, or the county for not thoroughly investigating the topography and the line of site when driving?

Please look more carefully at the road that runs along this parcel.

Until this is done, I suggest that you:

1. Not include this parcel in the RRMP.
2. Zone it for lower density compatible with the environment and the surrounding properties.
3. Keep the designation as open space.
4. Keep high density resort developments in the CORE RESORT .
5. Insist that any high density developments have direct automobile access within the CORE RESORT.

Thank you.
Mary Poletti
P. O. Box 2003
Eastsound, WA 98245
360-376-6899

Response to Mary Poletti

1) Density:

The proposed Woodland Cottages are part of the Hillside land use and development area of the Resort and are not a separate development. They are proposed as a part of the mix of vacation units proposed for the Rosario Master Planned Resort. Master Planned Resorts are defined as “self-contained and fully integrated planned unit developments in a setting of natural amenities with primary focus on destination resort facilities consisting of short-term visitor accommodations associated with a range of on-site indoor or outdoor recreation facilities. They may contain other residential uses and commercial activities within their boundaries, but only if these uses are integrated into and support the on-site recreation nature of the resort.”

Master Planned Resorts are not expected to take on the character of surrounding properties. This is especially true for resorts located in rural areas. It is anticipated that development under the County’s Master Planned Resort (MPR) designation would be at a greater intensity than development on surrounding properties. The Master Plan, however, needs to be sensitive to uses on adjoining properties and incorporate design features that minimize impacts on surrounding properties. With regard to the Woodland Cottages, the proposal does not include the creation of individual single-family lots. The Woodland Cottages are planned as detached vacation units under condominium ownership. As the conceptual Master Plan shows, the individual cottages would not front on Palisades Drive. They would be located on sites in the Hillside area of the Resort away from the road. As described in the plan and identified in Section 3.7 of the FEIS, only a minimal amount of clearing is proposed to locate the units and construct the access driveway. The careful siting of units and the retention of natural vegetation will reduce the potential visual impact of these units while traveling Palisades Drive. Mitigating measure PA-M-12 is included to limit the amount of clearing.

2) Access:

Vehicular access to the proposed Woodland Cottages would be provided from Palisades Drive via no more than two private roads. Access from the individual units directly onto Palisades Drive is not shown on the Master Plan concept. Because of the steep terrain, it would be difficult and involve a significant amount of clearing and grading to create road access from the interior of the Resort to the upper basin. Access to the 21 Woodland Cottages has therefore been proposed off of Palisades Drive. Additional analysis has been conducted to determine the traffic impacts to Palisades Drive from these additional units. The traffic analysis determined that the increase in traffic would not result in a reduction in the roadway level of service (LOS) on Palisades Drive. This information was added to Section 3.9 of this FEIS.

3) Sewer and septic:

Impacts to the water supply as a result of the resort expansion are discussed in Section 3.4 of the FEIS. The 21 Woodland Cottages are included in the analysis. The analysis concluded that the Resort expansion would not affect the water supply but would require some improvements to the water treatment and storage system. These additional improvements have been identified in the

utility's water system plan and the implementation of these improvements appear feasible both financially and from an engineering standpoint.

With regard to sewer, the Woodland Cottages would be connected to the Rosario sewer system.

Response to Greg Stafford

The proposal does not include a change in the current zoning for the parcel adjacent to 67 Cliffhouse Court. Setback rules and other standards currently in place will not be changed as a result of the approval of the proposed Master Plan.

Comment Sheet Planning Commission Public Workshop August 29, 2005
Rosario Master Plan DEIS

Workshop for Environmental Impact Report
Not Public Hearing
on 9/26 - Public testimony - hearing -

1) Prior to implementing / approval of master plan - priority must be conditional to repair and replace broken and inadequate water delivery system prior to any additional Rosario Resort development to all existing Rosario Community residential households - AT NO additional expense to existing residents.

2) thorough planning ingress egress for 21 SF's - roads are inadequate. Drive through cottages which would include a condition imposed to the developer to require a bond to the building contractor to repair roads, tree damage (from construction site to Rosario Road) & safety issues must be mandated as the blind curves, narrow roads, and weather conditions are current safety issues.

3) impact artennis courts to adjacent property - there is no parking available. Noise, night time impact, train, pests etc. would devalue adjacent property & its property values.

Contact information:
Name Barbara Harris-Evans
Address 351 Leeward Lane E/S 98245
Phone 360/376-2751 e-mail _____
May we call you if we have questions about your comments? yes no

How to contact us:
San Juan County Community Development & Planning, 135 Rhone St., Friday Harbor, WA 98250, (360) 370-7581 martinb@co.san-juan.wa.us

Response to Barbara Harris-Evans

1) Water:

Rosario Utilities operates as an independent utility regulated by both the State Utilities and Transportation Commission and the Washington State Department of Health. The utility provides water service to the resort and other properties within its service area. The currently approved water system plan includes an analysis of the utilities service capabilities and the utilities' plans for future improvements to meet anticipated demand, including demand created by the resort expansion. The utility rate structure approved by the UTC provides the source of funding for maintenance and future improvements. The utility is currently completing upgrades to the water system and has or will have new connections available. Prior to receiving approval for specific projects within the Resort, the owner will be required to show that water service is or will be available at the time the project is completed.

2) Palisades Drive access:

At the time development of the Woodland Cottages is proposed, additional site specific traffic engineering will be required to show that site entrances are appropriately located to provide safe ingress and egress onto Palisades Drive. Traffic safety control during construction would be provided by signage and/or flaggers, as necessary, and would be made a condition of approval for construction.

3) Tennis courts:

In response to concerns raised about development at the tennis court site, the applicant has amended the Master Plan to remove the proposed development at that location. The Master Plan no longer includes development at the tennis court site. The tennis court site will continue to be maintained for that use but no new development is planned. This FEIS includes information describing this change.

Rolf C. and Ruth Nedelmann

P.O. Box 1090
Eastsound, WA 98246-1090
Phone: 360-376-3953
Fax: 360-376-3954
E-mail: nedelmann@rockisland.com
08-30-2005

Martin Blackman, Senior Planner
San Juan County Community Development and Planning Department
135 Rhone Street (Court House Annex)
P.O. Box 947
Friday Harbor, WA 98250

S.J.C. COMMUNITY
AUG 31 2005
DEVELOPMENT & PLANNING

**Subject: Rosario Resort Masterplan
Public Review and Comment on Draft EIS**

Dear Mr. Blackman:

Following the Public Workshop hosted by the San Juan County Planning Commission on August 29, 2005, we offer the following comments and concerns that remain in our minds. We ask that our concerns be addressed and that the impacts be mitigated in a manner that is binding upon the applicant as conditions of approval of the Masterplan.

WATER

Water remains a highly sensitive topic among property owners in the Rosario community, because for so many years nothing has been done by the applicant (who owns Rosario Utilities LLC) to satisfy the outstanding demand for new water connections to property owners who are waiting for them. The DEIS acknowledges the need to expand water treatment and upgrade the distribution system. Yet, how can the applicant expect the community to support the Masterplan, which imposes significant demands on water supply when implemented, before the outstanding demand of the community is satisfied?

Rosario Utilities' latest press release has us believe that added water treatment capacity is likely to generate availability of some 150 new water connections by the fall of 2006. The Resort wishes to retain 44 out of these for Phase 1 of the plan. This leaves plenty to go around and satisfy those, including some 40 neighbors who seek connections to their properties now. **This information is currently not included in the DEIS. It should be with appropriate commitments to mitigation. We advocate that approval of the Masterplan be tied to a condition binding upon the applicant to perform needed system upgrades and satisfy the known demand for water connections to Rosario area property owners as a matter of priority.**

SEWER

The impact of additional sewage remains a significant environmental concern. Conventional septic systems are not applicable. The disposal lines and treatment facilities of the existing sewer system have been troubled for years. At times they were out of compliance. Leaks do occur and the utility operating the sewer system has been cited time and again when mishaps occurred. The concern is the immediate proximity of our community water supply in Cascade Lake and the surrounding area. Contamination of the lake and nearby wells could have catastrophic consequences.

The DEIS refers to needs for upgrades and treatment facility expansion. There is the question of space availability in the Utility Tract for such expansion. The DEIS states that space limitation may lead the applicant to possible alternative methods of sewage treatment, but there is no indication as to what alternatives are being considered. **While no specification of the alternatives is called for at this time, the applicant should be required to explain his intentions as to type of treatment technology. This serious environmental concern of the community remains otherwise unresolved.**

HILLTOP

The inclusion of the Hilltop property as part of the RMP and its intended change to commercial use for employee housing, overflow parking and possibly even water treatment expansion remain serious concerns. The property is not contiguous to the remainder of the resort. It is separate, adjacent to park and residential land. **The intent and plans for this property described in the DEIS are not compatible with our understanding of the resort community in which we chose to live. We advocate that this part of the proposed plan be denied.**

NOISE

Construction noise would be temporary and is of somewhat lesser concern than noise emanating from continued resort operations, especially after plan implementation. Float plane noise has an impact on the immediate neighborhood and is addressed in the DEIS. Most aggravating, however, is noise from outdoor loudspeakers used for festivities at the resort during evening and night hours. The DEIS acknowledges that County ordinances and time restrictions on loud music have been violated. These violations during the summer season continue. The noise travels all the way from Palisades to the top of Tomihi Drive. **It is our view that most events, e.g. weddings, can be arranged indoors without major handicap or disruption of resort operations. There should be no detriment to economics either. We advocate a simple remedy and mitigation of this particular environmental impact as a condition of plan approval: The applicant should volunteer to abandon the use of outdoor loudspeakers altogether.**

SHORELINE SETBACKS

Many concerns have been raised about the exceptions the Masterplan seeks to the County's shoreline setback codes, yet the DEIS steadfastly retains the applicant's position that the plan would not be viable without consent to the exceptions. **If allowed at all, we advocate that approval severely restrict any exceptions to setback rules to construction immediately adjacent to Rosario Mansion. If fewer exceptions should mean the need for plan revisions to smaller, less extensive facilities and, thus, lower density, so be it!**

GENERAL

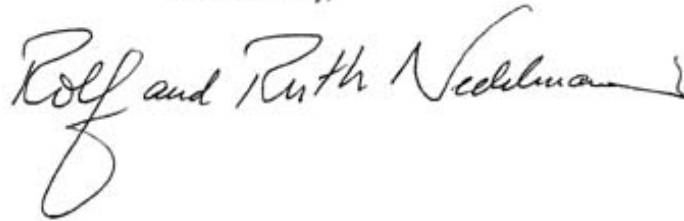
While understandable because of cost and lead time considerations, the lack of planning work on the **proposed marina** and its deferral to a later date is perplexing. The community was led to believe, and many of us hold the view, that the marina is a vital ingredient of the overall economic viability of the plans submitted for Rosario Resort. Now we are to understand that the plan, as currently drawn, can stand on its own without the marina. Is the implication that a marina if and when approved at a later date is merely "the icing on the cake"? **Is the Board of County Commissioners satisfied and clear as to what it is being asked to approve?**

The openness of the review process regarding the DEIS review in which San Juan County, Rosario Resort and its owners have involved the community is admirable and sincerely appreciated. We recognize that the resort is in need of significant improvement if it is to survive and prosper, and this is something we would like to see.

We support a Masterplan for Rosario Resort, with environmental impacts mitigated and approval conditioned as set forth above. We wish that the plans would be on a much smaller scale than proposed. Action Alternative B would result in environmental impacts greater than make us comfortable.

Thank you for this opportunity to again submit comments and questions. Your favorable consideration is earnestly solicited.

Yours sincerely,

A handwritten signature in cursive script that reads "Rolf and Ruth Needleman". The signature is written in dark ink and is positioned below the typed name "Rolf and Ruth Needleman".

Response to Rolf and Ruth Nedelmann

1) Water:

Rosario Utilities operates as an independent utility regulated by both the State Utilities and Transportation Commission and the Washington State Department of Health. The utility provides water service to the resort and other properties within its service area. The currently approved water system plan includes an analysis of the utilities service capabilities and the utilities plans for future improvements to meet anticipated demand including demand created by the expansion of the Resort. The utility rate structure approved by the UTC provides the source of funding for maintenance and future improvements. The utility is currently completing upgrades to the water system and has or will have new connections available. Prior to receiving approval for specific projects within the Resort, the owner will be required to show that water service is or will be available at the time the project is completed.

2) Sewer:

The sewage treatment plant operates under a state approved wastewater treatment facilities plan and under the terms of an NPDES permit issued by the Department of Ecology. The Resort sewage treatment system has experienced problems in the past that have resulted in untreated sewage discharges to Cascade Bay. Development under the Master Plan will increase the amount of effluent requiring treatment and require improvements to the sewage treatment plant. Impacts to sewer service are discussed in Section 3.4 of this EIS. Treatment plant and pump station improvements are proposed to mitigate the potential for accidental discharge of untreated sewage and to provide sufficient capacity to meet the concurrency requirement for future development. This FEIS includes additional information about the treatment plan upgrade. The proposal at the present time is to correct deficiencies and increase the capacity of the existing treatment system. Problems with the existing system in the past have been the result of several factors including the failure of the lagoon liner and intermittent pump station failures. The treatment technology currently being used is an approved technology. Corrective action has been taken to eliminate the deficiencies that have resulted in pollutant discharges in the past. The treatment capacity of the system will be increased to handle the increase in development under the proposed Master Plan and the additional residential development likely to occur in the service area over the next decade.

3) Hilltop:

Although not contiguous with the Resort Core, the Hilltop—like the Utility Tract, which is also not contiguous with the Resort Core—has been used for Resort support services (i.e., employee housing) for a number of years. The site is currently served by both water and sewer. The proposal is to continue to use the site for support services for the Resort including additional employee housing and other support services. Plans for the site have been revised in response to concerns about the use of the Utility Tract for non-utility related services. Support services originally proposed for the Utility Tract including the laundry, maintenance and warehouse facilities (but no utility development), are now proposed to be located on the Hilltop parcel. The Hilltop has been used by the Resort for many years as employee housing and is presently served by Rosario Utilities with both water and sewer. Although not contiguous, a new figure has been

added in the FEIS showing proposed uses for this site. This figure shows that uses proposed for this site are to be clustered around the existing employee housing area and separated from the parcel boundary by native woodlands to provide a visual barrier between these uses and uses on adjoining properties.

4) Noise:

As described in the DEIS, Rosario would maintain a 20-foot wide vegetative buffer consistent with SJCC 18.60.190 A.11 and SJCC 18.60.160 D & E (see Section 3.6.4). This buffer would provide for some noise attenuation. Additionally, under Action Alternative B, the Resort focus would shift from large group events towards vacation-oriented buyers (see Section 3.7.2.3). Under this model, it is assumed that wedding-sized events would decrease, as the Discovery House would be removed and large parties would be less compatible with Action Alternative B than the current operation or Action Alternatives A. As the size of events decreases, the associated noise generation would also decrease and smaller events would decrease dependence on loudspeakers.

5) Shoreline setbacks:

The County is approving a Master Plan for Rosario Resort. While all of the uses proposed within the shoreline are uses that would be generally allowed in a *Rural* shoreline designation, approval of the Master Plan does not confer shoreline permit approval. At such time, as a particular development project is submitted for shoreline approval under the Master Plan, an evaluation will be made of that particular project to determine if it meets the shoreline permit criteria. A separate public hearing process before the San Juan County Hearing Examiner will be required for future development under the Master Plan. The discussion in the DEIS regarding consistency with County plans and regulations has been revised to identify that approval of the plan does not confer shoreline permit approval.

6) General:

Adoption of a Resort Master Plan is the first step of the review process for the future development of Rosario Resort, and this EIS is the first phase of a phased environmental review under SEPA for the Rosario Resort expansion. Development projects under the Master Plan will require additional public review including a public hearing.

Whether the Resort can remain economically viable without an expansion of the marina is an issue beyond the scope of this EIS. Economic necessity is typically not a factor that would be given substantial weight when the County and other agencies with jurisdiction, including the Corps of Engineers, subsequently review an application for the approval of a marina. Under the County's shoreline regulations, marinas are a permitted use on shorelines designated *Rural* and consequently may be proposed as part of the Resort Master Plan. At this level of review, the potential impacts of a marina are presented in general terms. If the Master Plan is approved, the applicant will be required to obtain the necessary permits including shoreline permits for development in the shoreline and specifically a shoreline permit for development of the marina. Additional and more detailed environmental review under SEPA will be required for approval of

future development including the marina at which time more specific information will be required and more specific analysis conducted.

Martin Blackman

From: Mike Kaill [mkaill@rockisland.com]
Sent: Thursday, September 01, 2005 11:40 AM
To: Martin Blackman
Subject: Rosario

Greetings, Martin:

As I mentioned to you, my main issue with the Rosario DEIS is the flat-out lying and deception of the statement on page 3-84, bottom of 1st paragraph under 3.5.2.2. they say that low densities do not qualify as a "bed." State and county regs consider any quantity of eelgrass or bull kelp as significant, and as a "bed." UDC says "All kelp and eelgrass beds; "My take is that the presence as described is "remnant," and cries out for attention. That is, there used to be a lot, and now it is just hanging on. The folks doing the surveys at Friends of San Juans suggest that historically there was a large eelgrass bed where the marina is now.

Reading the sections on drainage, road conditions, storm water control, it is obvious that there is no effort at control of water borne pollutants from the uplands. Also, I register that the roof of the hotel is copper, with run-off going directly to the water.

It is not appropriate, I think, to put this off until the consideration of the marina, since the uplands and related development is when and where appropriate changes need to be made.

I am suspicious of the quantities of water suggested as being available for both the Rosario complex as well as Eastsound (!) Where do these estimates come from? The man from Eastsound that was talking about the sale of water talked about quantities (as in how much the lake holds), but I don't remember significant topics such as recharge rates.

Thanks for your good work.

Mike Kaill

9/9/2005

Response to Mike Kaill

1) Marine flora:

The language of the DEIS regarding eelgrass has been revised to more accurately reflect the circumstances. The paragraphs now read as follows:

Several sources of marine habitat information were consulted to determine the habitat characteristics of the intertidal and subtidal shoreline area of Cascade Bay. Neither the San Juan County Sensitive Area Maps nor the Washington State Department of Fish and Wildlife Priority Habitat and Species Database show the presence of sensitive marine habitat areas in the immediate vicinity of Cascade Bay. Habitat mapping information available on the web sites of two local marine resource protection organizations (Friends of the San Juans and the San Juan County Marine Resource Committee) does not indicate that Cascade Bay is a significant marine habitat area. However, a staff person at Friends of the San Juans identified Cascade Bay as an area that in the past contained an eelgrass population. An underwater survey of a portion of the bay was conducted about 10 years ago in September of 1997 (see Appendix F of this EIS). No eelgrass was observed in the study area, however, macroalgae specifically *Laminaria*, *Gracilaria*, *Ulva* and *Hedophyllum* was identified. Expansion of the existing marina will require that an up-to-date marine survey be completed based on the final design of the marina to document the tidal and subtidal habitat and to evaluate and mitigate potential impacts of the final design on the marine environment.

Washington Department of Fish and Wildlife has documented the presence of a herring spawning area along the west shore of East Sound across from Rosario Point. Although San Juan County Critical Area regulations do not classify herring spawning areas per se as marine habitat areas, the County does classify eelgrass beds and kelp beds, both principal spawning habitat for herring, as marine habitat areas.

2) Stormwater:

Please see the response to Dr. Strathmann's comments in the Section 6.2 of this FEIS. Additional information about stormwater runoff has been developed in response to comments received on the draft EIS. Calculations of estimated stormwater runoff have been made for both Action Alternative A and Action Alternative B and are included in Section 3.3 of this EIS. Section 3.3 also includes a discussion of potential stormwater runoff impacts and mitigation measures to minimize impacts to receiving waters. In general, enforcement of the County's stormwater regulations can provide effective programmatic mitigation of the potential impacts of stormwater runoff on receiving waters. County regulations require the installation of stormwater treatment facilities consistent with the standards of the State Stormwater Manual. The state manual includes a range of Best Management Practices (BMP's) that can be employed to minimize stormwater impacts on the quality of receiving waters (Cascade Bay) both during and after construction.

At the present time, stormwater runoff from the site receives little treatment. The existing system was constructed prior to the adoption of stormwater runoff treatment requirements. Implementation of County stormwater regulations for new development is expected to improve

the water quality of stormwater run off from the existing site. As new development occurs, the existing stormwater system will be required to tie into the new treatment system.

4) *Water quantity:*

Section 3.4 of the DEIS has been revised to include additional information regarding water supply. Domestic water is provided by Rosario Utilities. Rosario Utilities obtains its water from Cascade Lake through an adjudicated water right, which allows withdrawals of up to 1,879 acre-feet per year. This water right includes water for domestic use, power generation and irrigation. The domestic water right portion of the total is 283 acre-feet per year. The current domestic water right is sufficient for the most part to service development through at least the year 2017, which includes the build-out of the proposed Resort expansion. A recently completed hydrologic study of the Cascade/Mountain Lake system indicates that sufficient water is available to provide for the future needs of the Rosario Resort and the adjoining residential areas within the current service area of Rosario Utilities as well as most of the water needs of Eastsound. Although discussions have been held with the Eastsound water user's group, no final decision has been made on whether to provide water for their use. The utility is required to serve the needs of the customers within its current service area first before it can expand to serve other areas. Additional analysis is likely to be required before a determination of whether to provide service to Eastsound and how that service might be provided.

Walt Hauschildt

From: "Walt Hauschildt" <walth@rockisland.com>
To: "Martin Blackman" <martinb@co.san-juan.wa.us>
Sent: Tuesday, September 06, 2005 12:25 PM
Subject: Rosario Resort Master Plan

S.J.C. COMMUNITY
SEP 09 2005
DEVELOPMENT & PLANNING

September 6, 2005

To: Martin Blackman, Senior Planner, San Juan County

Fm: Walter Hauschildt, 348 Rosario Road, P.O. Box 1846,
Eastsound, WA 98245

Subj: Rosario Masterplan and EIS

This e-mail restates my testimony at the Planning Commission workshop of 8/29/05. At the workshop I spoke in opposition to the proposed land use changes within the Utility Tract.

I have owned and resided in my home on Rosario Road for the past ten years. My house is located directly adjacent to the Utility Tract on the narrow stretch of land between the Tract and Rosario Road. There are approximately 12+ other adjacent property owners who would also be potentially impacted by the proposed land use changes.

Until this time the Tract has been used solely for water and sewer treatment which are relatively benign in terms of noise, visual and traffic impacts. The proposed master plan and EIS would change these uses by adding resort and utility administration, laundry, indoor and outdoor storage, maintenance housekeeping and landscaping, parking and potentially 40 units of employee housing and related services. These additional commercial and industrial uses are clearly incompatible with existing adjacent residences. High density development of this tract would mean that lights, traffic, noise,

9/6/2005

rowdy employee behavior and all the inherent and obvious activities associated with a commercial dormitory, laundry, warehouse etc. would continue non-stop. In addition, because of the tract's narrow waist, these uses would be forced right against adjacent properties without resort to adequate set back and visual shielding.

Allowable uses on the Utility Tract are currently strictly limited for water and sewer as the parcel was originally segregated under a special exemption from County subdivision standards. It is strongly recommended that no additional incompatible commercial or industrial uses be allowed in the Utility Tract and that no commitment be made as part of the Master Plan EIS process to grandfather in such uses in the future.

My wife and I look forward to enjoying our retirement in the tranquility and beauty of the islands. Please help us make this a reality.

Sincerely,

Walter and Carmen Hauschildt

9/6/2005

Response to Walter and Carmen Hauschildt

1) Utility Tract:

Currently, the Utility Tract is zoned as Master Planned Resort (MPR) under the San Juan County code, therefore no rezone of this area is proposed under either Action Alternative. Because of concerns raised by the County and others, the Utility Tract is no longer proposed as a site for uses other than utility uses. The FEIS has been revised to reflect this change. The laundry and other non-utility uses proposed on the Utility Tract are being relocated to the Hilltop parcel. This parcel is approximately 40 acres in size and can accommodate the additional uses with minimal impact to adjoining properties because of the ability to cluster development in the central part of parcel. As a consequence, wide buffers of existing woodlands can be maintained along the perimeters of the parcel.

2) Noise:

Removal of non-utility related development from the Utility Tract will reduce the potential for noise and traffic impacts that would otherwise be present if other Resort support facilities were located on this parcel.

Sept. 7, 2005

Martin Blackman
San Juan County Community Development & Planning
135 Rhone St. Friday Harbor, WA 98250

S.J.C. COMMUNITY

SEP 20 2005

DEVELOPMENT & PLANNING


Subject: Rosario Master Plan DEIS

This letter is to express concern over the proposal in Alternative B regarding 21 new houses "cottages" off of Palisades Drive. The location borders on Bowmans Creek, runs 911 feet along Palisades Drive and is across the street from Moran Park. It falls very steeply down to Cascade Harbor Inn. The surrounding residential community was designed and sold by Rosario as half acre and larger lots for permanent, not transient ownership.

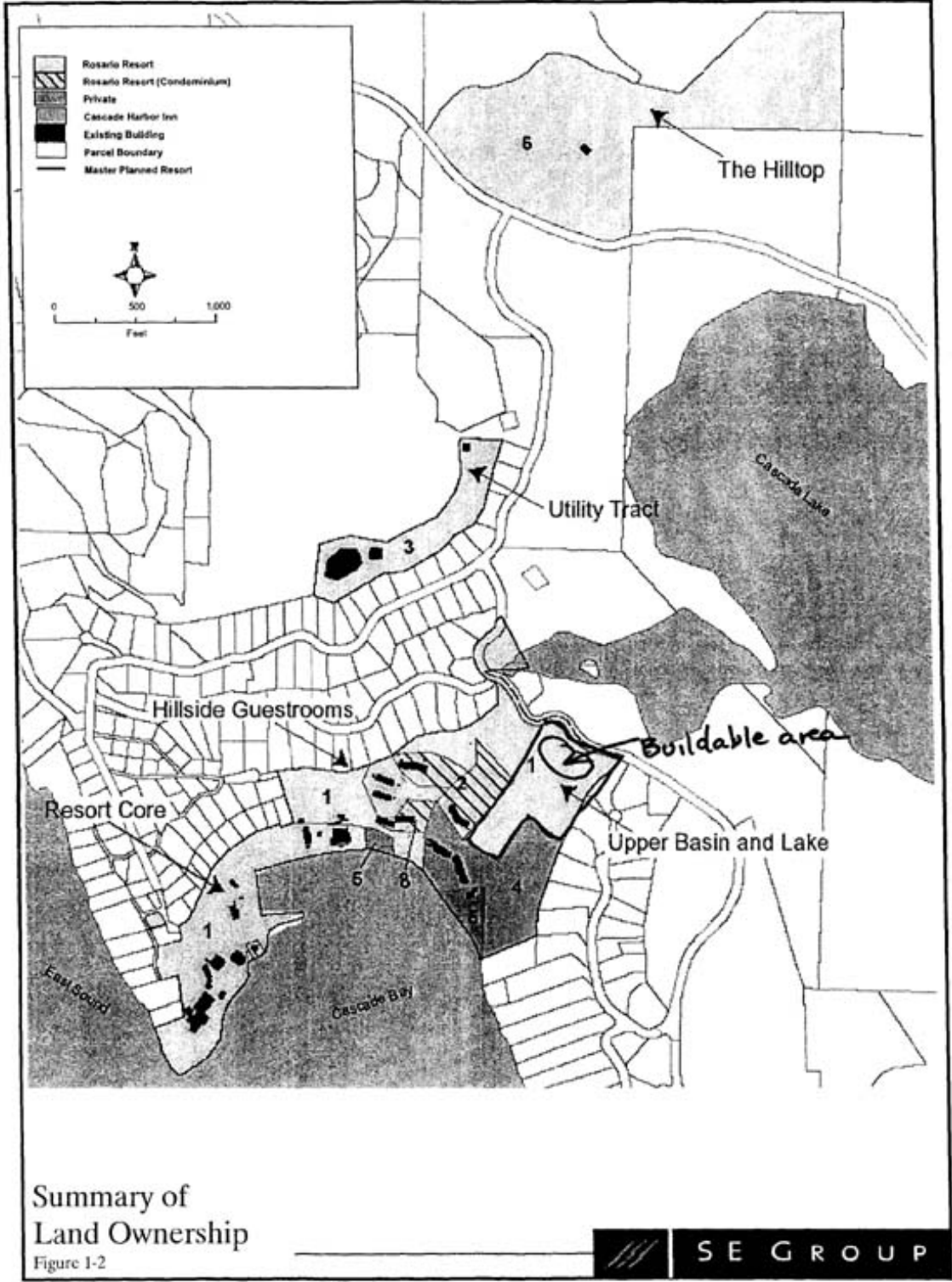
My objection to this plan:

1. 21 3-5 bedroom fractionally owned homes on the buildable 5 1/2 acres of a 12 acre steep parcel would amount to spot zoning to 1/4 acre per house including roads and driveways.
2. Septic tanks are not possible, sewers required, but no provision for sewers has been made.
3. Water piping and mains for fire protection are required but no provision has been made.
4. This property is not connected to the resort by road but will be part of the resort housing. A road directly up the steep slope has been found not feasible. Therefore the traffic will use the short cut down Cascade Way, a private, single lane partially unpaved road serving more than 17 private residences. (The DEIS states there will be no impact on the local roads.)
5. This area has been termed a wildlife corridor from Cascade Lake to the Sound. The DEIS admits, "Impacts to mature forested habitat and native plant communities, pollution and disturbance to wildlife and nesting birds" as well as added fire danger.

Improvement to the RESORT CORE is not at issue here. It is the expansion of resort density into quiet residential and forested land.



Ruth O. Newman
429 Shore Dr. (Rosario)
Eastsound WA 98245 376-8538



Response to Ruth Newman

1) Density:

The proposed Woodland Cottages are part of the Hillside land use and development area of the Resort and are not a separate development. They are proposed as a part of the mix of vacation units proposed for the Rosario Master Planned resort. Master Planned Resorts are defined as “self-contained and fully integrated Planned Unit Developments in a setting of natural amenities with primary focus on destination resort facilities consisting of short-term visitor accommodations associated with a range of on-site indoor or outdoor recreation facilities. They may contain other residential uses and commercial activities within their boundaries, but only if these uses are integrated into and support the on-site recreation nature of the resort”.

Master Planned Resorts are not expected to take on the character of surrounding properties. This is especially true for resorts located in rural areas. It is anticipated that development under the County’s Master Planned Resort (MPR) designation would be at a greater intensity than development on surrounding properties and no specific density limits are contained in the UDC for Master Planned Resorts. The Master Plan however, needs to be sensitive to uses on adjoining properties and incorporate design features that minimize impacts on surrounding properties and internally between uses. Under the proposed Rosario Resort Master Plan, most of the vacation units are clustered to reduce the amount of land set aside for development.

With regard to the Woodland Cottages, the proposal does not include the creation of individual single-family lots. The Woodland Cottages are planned as detached vacation units under condominium ownership. As the conceptual Master Plan shows, the individual cottages would not front on Palisades Drive. They would be located on sites in the Hillside area of the Resort away from the road. As described in the plan and identified in Section 3.7 of the FEIS, only a minimal amount of clearing is proposed to locate the units and construct the access driveway. The careful siting of units and the retention of natural vegetation will reduce the potential visual impact of these units on persons traveling Palisades Drive. Mitigating measure PA-M-12 in included limiting the amount of clearing.

2) Septic:

The proposed Woodland Cottages would be connected to the Rosario sewer system. The 21 proposed Woodland Cottages are included in the calculation of sewage treatment demand in Section 3.4 of the EIS and the concurrency analysis provided in Appendix C of Volume 2 of the DEIS.

3) Water piping:

The Woodland Cottage site is within the service area of Rosario Utilities. Water service and water for fire flow will be provided in accordance with the Utilities water system plan as approved by the Washington State Department of Health.

4) Access:

Vehicular access to the proposed Woodland Cottages would be provided from Palisades Drive because the gradient below the upper basin is too steep to build a direct vehicular connection to the resort core without creating significant unavoidable adverse environmental impacts. Direct pedestrian connection to the resort core is proposed through a network of trails traversing and descending the hillside. Measures such as way finding signage to discourage use of Cascade Way to access Palisades Drive have been included in Section 3.9 of the FEIS.

5) Wildlife corridor:

The DEIS discusses impacts to the existing natural environment of the upper basin. The cottages will be clustered in an area of approximately 5 to 6 acres in the Upper Basin to help reduce potential impacts. In addition, other mitigation measures and management practices are identified in Section 3.5.4 of the FEIS that could further reduce impacts. No development is proposed within the riparian buffer along Bowman's Creek.

Thomas M. Burg
Box 1316
Eastsound, WA 98245

Sept. 24, 2005

Martin Blackman, Senior Planner II
Long Range Planning
Community Development & Planning Dept.
135 Rhone St.
Box 947
Friday Harbor, WA 98250

RE: Rosario Resort DEIS/Master Plan

Martin;

I would like to submit the following comments for inclusion to the files and for the Hearing Commission. I feel strongly that those of us who live in the Resort area and the general public are not being given all of the relevant facts which are extremely important for making an informed decision about the quality and character of our community as it will be affected by the outcome of a decision on the Rosario Resort Master Plan and the DEIS now under review.

It is particularly disturbing to see that articles in the paper, irrespective of the authorship, and letters and E-mails from the Resort management seldom carry all of the facts but rather gloss over the important issues and only show either the "Pretty Picture" of what "might" be done if the plan the Resort wants is approved or what "Will" happen if they are not given their way. In addition I have the uncomfortable feeling that there is a desire by the County to seek and end to the review process, without full consideration for anything other than the options listed in the applicants DEIS.

In truth there is, I believe, among a large segment of the local community (I refer to the last meeting at the Discovery House in which the majority voting showed real concerns and support for comments submitted which did not support "Plan B") an underlying feeling that the County will "cave" on the real issues and current regulations with an eye to "putting a feather in their hat" approach to appease the applicant based solely on the notion that what the applicant promises will come to pass.

The County should approach this with nothing more than the rules and regulations implemented for the protection of all, exceptions and variances for the sake of appeasement are uncalled for even a Resort Master Plan. Neither the promise for increased revenues nor the threat of economic problems for either the applicant or the County should be part

of the responsibility or review by the Planning Dept. or the Hearing Commission in determining the validity and viability for the Resort Master Plan and DEIS now before them.

1. The Master Plan has no guarantee of ever being completed. The Master Plan, if approved, does nothing more than set the upper limit on the options available to a new developer without going back to the Commissioners for revisions. The Master Plan has two primary objectives. The first is to provide a marketing document for Olympus to use in attempting to flip for a profit what has otherwise been an unprofitable investment. This approach was acknowledged by ownership during local meetings with local residents when they admitted they did not have the funds for development and that a "developer" would implement the plan. The second objective is to "sell" the local public on what marvelous things "might" happen if the new investor, with bundles of cash and no short term profitability requirements, followed the plan slavishly to full completion. What is much more likely is that a new owner of the Resort and Master Plan will "cherry pick" among all the plan components and do those things which allow the maximum return on the investment, and will neglect or ignore the least profitable components. For instance, the cost of the marina (which was not estimated in the plan) and the highly restrictive Environmental Impact regulations needed may be so prohibitive as to never be constructed. Yet, the Master Plan assumes this marina will be an attractant for condo or time share purchases. The Master Plan assumes no excess burden on public and private roads since people will sail or motor in. With no marina, this will never happen. Unless the timeshares and condos are sold, there will be insufficient traffic to make the old restaurant viable, much less provide a return on investment for the development costs for the new one. Under this circumstance, the extensive renovation of the Mansion and the restaurant extension will most likely not happen.
2. Residents of Rosario are being pushed into supporting this plan with the threats described in the "No Action" plan. First, since there is no guarantee when and if the new restaurant will be built, if ever, the assumptions about the loss of jobs are specious. Secondly, if some of the water front were developed by private investors with restaurants and shops into a new village, some of the sales tax and employment losses which the "No Action" plan assumes will disappear or might be mitigated. One might even argue that the visitors who presently come to the resort for reasons other than Rosario's marketing programs, might move out into the island B&B's and cause a broader based economic opportunity for

these establishments. The bottom line, however, is that the analysis of the “No Action” alternative against the preferred alternative is nothing more than playing with numbers, since there is no obligation for new investors to follow the Master Plan.

3. I am particularly disturbed by the threats implicit in the “No Action” plan for water and sewer. If the “No Action” plan happened, it would be ridiculous for Rosario Utilities to continue by simply raising the price on other users to offset the loss of the Resort water sales. Rosario Utilities controls so much water that enormous amounts are wasted each year by dumping it into the Sound through their unnecessary and antiquated electric generation plant. Rosario Utilities is the answer for virtually all the future water needs of the entire island. To argue “poverty” for Rosario Utilities in the “No Action” plan is to cast creditability on the entire document. The best of all possible worlds would be the takeover of Rosario Utilities by the Eastsound Water and Sewer District allowing the water to be shared island wide. If greed overran public interest, Rosario Utilities could sell sufficient water to cover all the incremental costs of the no action plan, and still make a hefty profit for the investors. I am surprised that Eastsound Water Users or Eastsound Sewer or the State has not already initiated condemnation proceedings on Rosario Utilities for the common good of the public.
4. It should also be pointed out that the “No Action” option is in fact not a valid concern since the core Master Resort area is designated as a LAMRID which with its inclusive ability for more intense rural development can include all of the items in the “Plan B” push with the exception of the attempts to commercialize beyond the core Resort area and build out in the area above Olga Rd. and in the Utility property (both of which by regulation/law are not zoned for commercial growth presently, in fact the Utility already got a special exemption to put the utility where it is from the County – they are now asking for additional exceptions for both in “Plan B”!!). The ownership has made no attempt to plan for or include a LAMIRD as a viable option as they are trying to hold locals and the island hostage on the “No Action” gloom and doom!!

Response to Thomas Burg

1) Marina:

This EIS discusses the potential environmental impact of three alternatives for the use of the site. Two of these, Action Alternatives A and B are Master Plan proposals that would expand the facilities at the Resort. The third alternative is the No Action Alternative. Under the No Action Alternative, no resort Master Plan would be adopted and as a result, under the provision of the County's Unified Development Code, the current MPR designation would be re-evaluated and the adoption of a new land use designation would be considered. An EIS is produced to disclose potential significant environmental impacts of an action and its alternatives, to the extent they are knowable, and to discuss measures to mitigate those impacts to the extent possible. Whether all or a portion of a proposal will actually be constructed is outside the scope of an EIS. However, the No Action Alternative, which discloses impacts of not taking action, represents the likely outcome if the proposal were approved but the owner decided not to go forward with development. With regard to the subject proposal, the No Action Alternative is essentially the alternative that would result if the Master Plan were approved but no development occurred. Under the provision of the County's UDC, once the Master Plan is approved, the owner must make application for planned unit development approval for the initial phase of development within two years of the approval of the Master Plan or the plan expires (the owner may apply for a one year extension). If the owner did not make the necessary application by the deadline date, the plan would expire and the result would be the No Action Alternative.

Whether the Resort can remain economically viable without an expansion of the marina is an issue beyond the scope of this EIS. Economic necessity is typically not a factor that would be given substantial weight when the County and other agencies with jurisdiction, including the Corps of Engineers, subsequently review an application for the construction of a marina. Under the County's shoreline regulations, marinas are a permitted use on shorelines designated *Rural* and consequently may be proposed as part of the resort Master Plan. At this level of review, the potential impacts of a marina are presented in general terms and include the points that were raised in the comment being responded to here. If the Master Plan is approved, the applicant will be required to obtain the necessary permits including shoreline permits for development in the shoreline and specifically a shoreline permit for development of the marina. As part of this permitting, additional and more detailed environmental review under SEPA will be required for approval of future development including the marina, at which time more specific information will be required and more specific analysis conducted.

2) Water and sewer:

Rosario Utilities is a private utility, regulated by the Washington Utilities and Transportation Commission regarding rates and procedures. The commission ensures that rates cover the utility's operating costs, so that costs are spread evenly across all customers. Economies of scale apply to water systems. Reduced usage will result in some cost saving, however there are fixed costs that are not affected by a reduction in usage. These costs are related primarily to certain treatment plant operation cost and the cost of maintaining the delivery system including pipes, pumps, and storage facilities. Rates are set based the cost of operating and maintaining the system. With the exception of connection fees, fees are generally charged on a per-unit of water

used basis. If the cost remains fixed and water usage is reduced, the fee per unit of water would need to increase in order to cover costs. The closure of Rosario Resort would necessitate Rosario Utilities to reallocate operating expenses to the remaining current users. This resulted in the determination of the probable rate increase referred to on page 3-68 of the DEIS (Section 3.4.3 – Mitigation Measures). Increasing the service area and adding new customers could mitigate the impact on revenues from reduced water usage by the Resort. Expanding the water service area beyond the activity centers adjacent to Rosario to serve new customers outside the LAMIRD is generally not permitted under the State’s Growth Management Act.

3) Land Use Designation:

Rosario Resort is designated as a Master Planned Resort Activity Center under the County’s Comprehensive Plan. The Master Planned Resort Activity Center is not a LAMIRD. Under the No Action Alternative, the MPR designation would be removed and a different land use designation applied to the property. Because most of the Resort was in existence prior to 1990, the year the Growth Management Act was approved, the Resort property could potentially meet the requirements to be designated a LAMIRD, either on its own or part of the existing North Rosario Residential Activity Center LAMIRD. In either event, the No Action Alternative assumes the Resort will continue its current operation. The language of Section 3.1 of the DEIS has been changed to add this information.

September 20, 2005

Martin Blackman, Senior Planner
San Juan County Comm Dev & Planning
135 Rhone St
PO Box 947
Friday Harbor, Wa 98250

Re: Rosario Report Master Plan

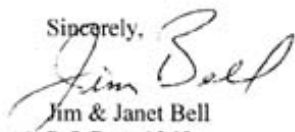
Dear Mr. Blackman,

I am responding to the Master Plan with comments from our household. Although I am in support of Alternate A, I still have some concerns of the following:

- 1) Commercial use of potential cottages on Cliffhouse Ct with regard to noise, Traffic, etc.
- 2) Potential loss of view corridors that we currently enjoy out to the bay over the existing 1100, 1200 & 1300 buildings. I am aware that view corridors are being planned for between the new buildings, however, if the new buildings were to be built at a greater height than the existing three buildings our view will be diminished greatly and we will suffer a loss of property value.
- 3) I am deeply concerned about the preservation of the resort grounds from the marina to the resort mansion. I believe we need to protect the historic entrance views that currently exist at the resort. We should look at the potential of moving some of these cottages to the hillside area to retain the character of the resort can be retained and the existing properties such as ours and our neighbors will not be impacted as severely.

I will follow this email up with a hard copy of this letter immediately.

Sincerely,



Jim & Janet Bell
P O Box 1265
1325 Rosario Rd
Eastsound, Wa. 98245
jamesbell@rockisland.com

S.J.C. COMMUNITY
SEP 23 2005
DEVELOPMENT DIVISION

Response to Jim and Janet Bell

1) Cliffhouse cottages:

Noise impacts are discussed in Section 3.7 of the EIS. With regard to the Cliffhouse Cottages, these residential units are proposed under Alternative B. They are planned as single-family residences to be developed on two former lots of record in the plat of Rosario Estates (lots 20E and 21E). Rosario currently owns these former lots which are part of the Rosario Master Planned Resort. The single-family homes would be sold together for use as single-family residences or summer homes. No commercial use of these residences is planned nor are they planned as part of the Resort rental pool. These residential structures are expected to be similar in use to neighboring single-family residential uses and would therefore not be expected to generate noise at levels incompatible with those uses.

2) View corridors:

As described in the Resort Master Plan, the 1100, 1200 and 1300 buildings will be replaced by what are referred to as mini-mansions in deference to the original Moran Mansion. These structures are designed as 2-story four-plex buildings. These structures would not exceed the height of the existing buildings they replace.

3) Historic entrance:

Mr. Bell's comment regarding the preservation of the character of the Resort is noted. While this comment is not a comment on the EIS, but rather on the Resort Master Plan proposal, the EIS does identify measures to help preserve the character of the Resort. These are described in Section 3.6 of the FEIS. The owners propose to preserve the Mansion and to carry the architectural character of the Mansion over into the design of the new vacation unit structures. New development will however, alter the existing visual appearance of the Resort. Good building design that includes sensitivity to neighboring land uses can help preserve the Resort character and perhaps even improve the visual appearance.

Sept. 8, 2005

Martin Blackman
San Juan County Community Development & Planning
135 Rhone St. Friday Harbor, WA 98250

S.J.C. COMMUNITY

SEP 16 2005

DEVELOPMENT & PLANNING

Subject: Rosario Master Plan DEIS

A small but significant issue in the Rosario Master Plan DEIS should be considered. This is the approximately one acre Tennis Court site adjacent to the Cascade Lake Lagoon and Moran St. Park. This small parcel is not part of the core Resort, but is set off 1 mile away in a private residential neighborhood.

The DEIS reads, "... will be upgraded for tennis and other court sports. In addition, a new "Owners' Pavilion" will include facilities for catered functions on a covered deck, with secure storage for hand-launched watercraft. No permanent water and sewer services are planned for this site."

In the previous Master Plan Rosario showed 5 large houses on this small lot, also without sewer. I called Moran Park and Rosario was immediately told to scrap this plan. Now Rosario claims this was their idea and that building a pavilion with snack bar and boat rentals is a great improvement.

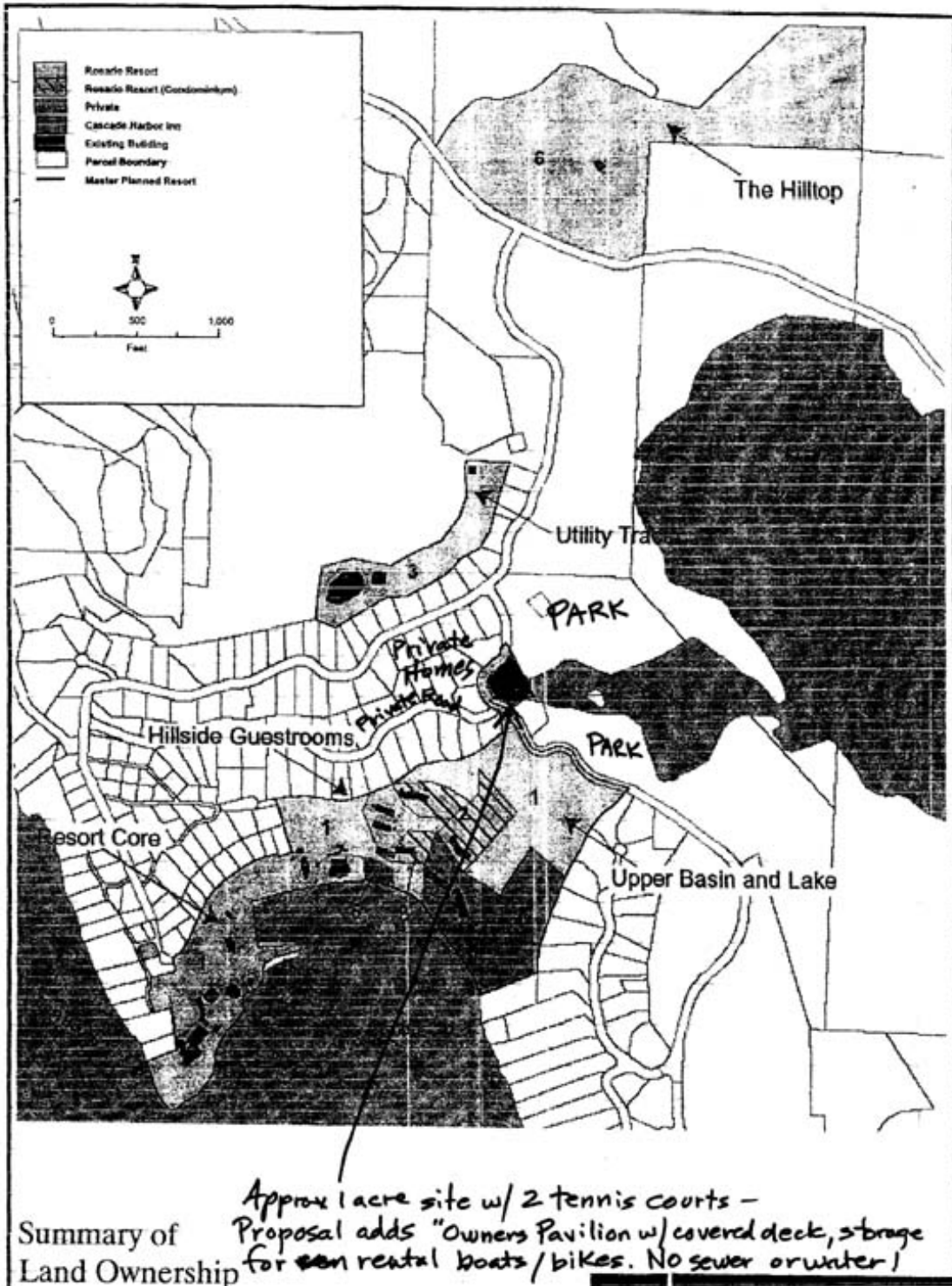
This small parcel should be disallowed from the Master Plan because:

1. It borders on the lake, our water source
2. There is no parking
3. The planned uses would impact the nearby homes with traffic, noise and inappropriate activity
4. There is no plan for water or sewer.

If disallowed this parcel will revert to "Conservancy" status and subject to very restricted uses. Hopefully it will become part of the surrounding parkland through purchase or donation.

Andrea Hendrick
400 Cascade Way
Eastsound, WA 98245
360-376-7166
ahendrick@rockisland





Summary of Land Ownership

October 5,2005

TO: Matt Zybas, San Juan Co. Planning Director

RE: Rosario Master Plan DEIS

The proposed Master Plan B is "B" - for too Big. The plan calls for an increase of 139 guest units, housing for 120 employees, and a large marina increasing the existing 34 slips to 165. The green lawns are to be covered with fractionally owned houses (timeshares) including flats combined into 8000 sq. ft. "mini-mansions" with necessary parking. This development reaches outside of the Resort Core to the shores of Cascade Lake with a party pavilion adjacent to the tennis courts, into established residential areas and wildlife corridors and even above Olga Rd. adjacent to Moran Park. The plan requests conditional use permits to build privately owned housing closer to the Sound than allowed under the legal setback limits, unfair to other property owners who cannot obtain conditional use permits to build as close as 25 feet from high water mark. Sewer and water needs will be extensive and are not adequately provided for in the plan.

Traffic, noise and public safety problems already exist and will increase with a project of this size. The growth plan states that expansion of employee housing at hilltop (above Olga Rd.) for construction crews will be followed by construction of the Mansion annex with 21 hotel rooms, 3 penthouse condos, expanded spa and fitness center, new restaurant and bar. Also construction of 40 new cottages and houses, 12 mini-mansion suites, 30 condos and replacement of both outdoor pools.

The plan indicates that its financial viability is dependent on a Marina expanded from 34 to 165 slips. The University of Washington Friday Harbor Labs and the County Marine Resources Committee have stated that the sewage, oil and toxic chemicals entering the Sound from the expanded resort and marina would impact all of East Sound due to stratification of the water and slow flushing action. It is also an unprotected harbor subject to severe storm damage.

There is not just one answer - either/or - to the future of the Rosario Resort. Some people seem to believe that either Master Plan B for maximum buildout of the remaining land owned by Olympus Corporation passes AS IS or the Resort will close, local islanders will be out of work and the beautiful surroundings will become a slum. Why not scale back and make the Resort a gem, not build a large real estate development. Do not destroy the reason people come here - natural beauty, open space, clean water, a handsome historic building - just to make a huge land sales profit for an absentee owner.

Andrea Hendrick
400 Cascade Way
Eastsound, WA 98245
360-376-7166
ahendrick@rockisland.com

TO: Matt Zybas, San Juan Co. Planning Director
RE: Rosario Resort Master Plan DEIS

The Rosario Master Plan States that the resort will include an expanded marina of 165 slips with supporting facilities as the “locus of activity at Rosario and major gateway to the resort.” It is an integral part of the master plan. Therefore formal submission and review of its environmental impact and mitigation approaches should be detailed in this EIS.

In addition the granting of local, state and federal permits cannot be assured. The County Marine Resources Committee as well as the Friday Harbor Labs of the University of Washington have raised questions as to the problems of a marina in this location. Quote from Friday Harbor Labs:

“The resort plans include additional housing units and marine slips; also presumably additional people and automobiles. Increased inputs to East Sound will include materials from treated surfaces of the marina and boats, small spills of fuel, and other losses from boats and docks. Inputs from sewage, impermeable surfaces, and landscaping associated with the housing units will include nutrients and also a variety of toxic chemicals used in housing units and on the grounds.

There have been studies of stratification of waters in East Sound, including thin layers. Thus materials entering East Sound will not be mixed throughout the water column. Stratification may be especially well developed in summer and mixing correspondingly reduced at the season of peak recreational use of the site.

Exchange between East Sound and neighboring channels occurs with tides and winds, but is slow enough that rate of exchange may also contribute to impacts on East Sound from increasing human use of the shore and watershed.”

In addition storm surges have already caused extensive damage to the existing small marina. At a previous informational meeting a local very experience boater said he would not keep his boat in such a marina for insurance and safety reasons. The noise impact on the surrounding quiet residential community of a large marina in a “sound bowl” should also be considered.

Environmental analyses should be made comprehensively. This information is vital both for consideration of the entire plan by the County and for parties involved in the future of the resort community.

Andrea Hendrick
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Eastsound, WA 98245
360-376-7166
ahendrick@rockisland.com

Response to Andrea Hendrick

1) Letter of September 8, 2005 Tennis court area:

In response to concerns raised by the community and State Parks with regard to development at the tennis court site, the proponent has removed development at the tennis court site from the proposed site improvements under Action Alternative B. Action Alternative A did not include development at the tennis court site. These changes are addressed in the description of Action Alternative B in this FEIS, elsewhere in the text, and in response to comments.

2) Letter of October 5, 2005 Stormwater, water recycling, water resources:

Ms. Hendrick's comments are noted. While the comments in this letter are not comments on the EIS but rather on the size and other characteristics of Alternative Plan B, the EIS provides discussion of the potential environmental impacts of Action Alternative B on traffic and public safety, noise, and stormwater runoff, as well as Elements of the Environment. No significant unavoidable impacts to the Elements of the Environment covered in the EIS were identified for Action Alternative B. As noted in the FEIS, the potential impacts of the marina expansion are discussed qualitatively because the marina is being proposed as a potential shoreline use. No project level details have been submitted for the marina proposal and no authorization to construct a marina will be conferred by the adoption of the Master Plan. This is consistent with the nature of the action being taken to adopt a Master Plan. The adoption of the Master Plan is a non-project action under SEPA. At such time the owner makes application for the necessary project permits for a marina expansion, a quantitative project level analysis will be conducted based on the specific proposal to determine the environmental impacts of the project.

Whether the Resort can remain economically viable without an expansion of the marina is an issue beyond the scope of this EIS. Economic necessity is typically not a factor that would be given substantial weight when the County and other agencies with jurisdiction, including the Corps of Engineers, subsequently review an application for the construction of a marina under SEPA. Under the County's shoreline regulations, marinas are a permitted use on shorelines designated *Rural* and consequently may be proposed as part of the resort Master Plan. At this level of review, the potential impacts of a marina are presented in general terms and include the points that were raised in the comment being responded to here. If the Master Plan is approved, the applicant will be required to obtain the necessary permits including shoreline permits for development in the shoreline and specifically a shoreline permit for development of the marina. As noted above, additional and more detailed environmental review under SEPA will be required for approval of future development including the marina, at which time more specific information will be required and more specific analysis conducted.

3) Undated Letter

Ms. Hendrick's comments regarding the marina in this undated correspondence are addressed in the response to her letter of October 5, 2005 above and Section 6.2 of the FEIS in the responses to comments received from the San Juan County Marine Resources Committee, the Friends of the San Juans, and from Dr. Richard Strathmann, Resident Associate Director, Friday Harbor Labs.

S.J.C. COMMUNITY

SEP 1 2 2005

DEVELOPMENT & PLANNING

Sept 1, 2005

From: Lesley Ann Liddle
32 Rossel Lane
Eastsound, Wa 98245
lal@rockisland.com

Attn: Martin Blackman, Senior Planner II
Community Development and Planning Dept.
135 Rhone St.
Box 947
Friday Harbor, Wa 98250

Re: Rosario Resort Master Plan

Dear Martin Blackman,

I am submitting this written statement with regard to the Rosario Resort Masterplan and DEIS. In researching the wisdom of this masterplan, I have read not only the DEIS but the Water Resource Management Committees Report dated June 2004, letters from Richard Strathmann of the University of Wash. Friday Harbor Labs, Stephanie Buffum Field, Director of Friends of the San Juans, and Jamie Glasgow, Director of Science and Research, Washington Trout. After much thought, I have come to the following concerns:

FRESH WATER: Before adding to our population density we must address a looming water shortage problem.

There is not enough fresh water county-wide. The following statements are quotes from the Water Resource Management Plan, June 2004:

"There are areas in the county where ground water usage exceeds what is available, and countywide the amount of groundwater allocated by water rights exceeds what is available.(pg 6)

"The WRMC identified the Area of Eastsound and adjacent Rosario as locations where projected growth exceeds water supply and/or service capacity." (pg 7)

"The Dept. of Ecology has issued permits for groundwater that equal 57% of the amount of recharge of groundwater. 20 to 30% is a sustainable level for recharge of the aquifer. If you add exempt wells, 174% of the available amount of recharge has already been allocated and "large portions of the county are at a point where demand for groundwater exceeds recharge. (pg 9) Furthermore, already numbers of the existent wells county wide are showing salt water intrusion. "Future build out will only exacerbate this problem." (pg 10)

There simply is not capacity or available fresh water to service the present landowners in the Rosario area who have been waiting to hook up and those who

1

already have water memberships, let alone service new proposed developments that will significantly add to the present and future fresh water shortage. This is perhaps our biggest future problem in the San Juan Islands. How can one add 1 ½ times the present population to the Rosario area without first addressing the needs of present Rosario and Orcas residential property owners? The actual amount and impact of water requirements for such a huge development will surely further burden an already delinquent situation.

Are there easy solutions? It does not appear so.

Raising dams on Cascade Lake or Mountain Lake would require extensive environmental studies particularly since they are both within State Park boundaries and are classified as significant wildlife areas. The possibility of removing water from Cascade Creek, which feeds both Buck Bay and Cascade Lake has been suggested as a solution to the island wide water problem; however "As the largest watershed on Orcas Island, Cascade Creek supports some of the island's most significant fish resources...Coho salmon, Brook trout, Cutthroat trout, Sculpin ...Sea run cutthroat trout have been observed in the lower creek and off the mouth of the creek in Buck Bay, and Cascade Creek has been established as a priority for sea run cutthroat trout and Coho salmon by Washington Department of Fish and Wildlife...Constructing a water storage reservoir in the Cascade Creek watershed has the potential to compromise the integrity of the watershed by altering the temperature and discharge regimes of the downstream flow...water storage dams typically reduce the magnitude and frequency of winter and spring high-flow events, and increase summer low flow conditions...altered flow regimes may affect fish directly... and affect salmonids directly by altering their metabolism, and indirectly by changing the life histories, abundance, and distribution of the their main food source, aquatic insects...Orcas Island's marine near shore habitats are known to support rearing and forage for a variety of fish, including salmon...in addition to altering watershed processes, the modification of discharge and temperature regimes associated with water storage dams will affect the marine habitat in the vicinity of the watershed's mouth. Consequently, the proposed water storage facility on Cascade Creek has the potential to compromise the integrity of the near shore environment in Buck Bay." (Jamie Glasgow, Washington Trout Director of Science and Research) Obviously this last would also be true for the near shore environment at the mouth of Bowman Creek. Cascade Lake, and thus Bowman Creek, is also fed by Cascade Creek. Bowman Creek flows right into the heart of the marina waters of Rosario and Eastsound Bay.

"The value of the San Juan Islands for salmonids is diverse near shore habitats that serve as nursery grounds to migrating juvenile salmonids from other watersheds and in their production of forage fish utilized by sub adult and adult salmon on return migration. (pg 14, 15 WRMC)

"In San Juan County near shore habitat is the most important factor in the salmon life cycle...the marine riparian zone."

Therefore it is clear that while there may not be spawning of salmon *up* the Bowman Creek, the creek feeds into and is crucial to the salmon's near shore habitat. Building out and contaminating this area should not be an option.

Area 2: VICINITY OF PRESENT RESORT

INTERTIDAL AND SUBTIDAL SHORELINE HABITAT DESTRUCTION:

We can not allow shoreline habitat destruction or further deterioration of our marine waters. Variances are not acceptable.

As noted previously, alterations to Cascade Creek or Bowman Creek, building high density housing in the Upper Basin, creating toxic run-off down the basin and into the Sound, will effect the riparian, near shore environment. As well, near shore construction and permanent near shore housing in Area 2 will effect the riparian environment. Tripling the marina will certainly negatively effect the riparian environment. Sewage and storm run off, boat waste, trash, oil and gas leaks - all will surely affect the near shore habitat for the salmon, marine mammals, herring and forage fish that are to be found off and around Rosario. In the DEIS these problems are freely admitted and then dismissed with the statement that Best Management Practices will mitigate the problems. But they won't because there is no guarantee as to who will be responsible or who is to monitor these best practices, and, although they are mentioned often, these practices are never actually described in any detail. They are "catch" words without apparent substance.

Eastsound Bay, and ultimately Crescent Beach - where everything from up Sound eventually washes ashore - will be impacted by the toxic run-off from additional housing, boating slips and an expanded marina. " Increased inputs to East Sound will include materials from treated surfaces of the marina, and boats, small spills of fuel, and other losses from boats, and docks. Inputs from sewage, impermeable surfaces, and landscaping associated with housing units will include nutrients and also a variety of toxic chemicals .. There have been studies of stratification of waters in East Sound, including thin layers. Thus materials entering East Sound will not be mixed throughout the water column. Stratification may be especially well developed in summer and mixing correspondingly reduced at the season of peak recreational use of the site...The EIS should examine the probable and possible impacts on the marine plants and animals of East Sound." (Friday Harbor Labs, Univ. Wash. Richard Strathmann, resident Ass. Dir.) To my knowledge this problem has not been addressed at all in the DEIS.

Area 3: UPPER BASIN COTTAGE DEVELOPMENT: HABITAT DESTRUCTION OF THE OLDEST MATURE CONIFEROUS FOREST IN SAN JUAN COUNTY – AN ESTABLISHED WILDLIFE CORRIDOR ADJACENT TO MORAN STATE PARK

We must make every attempt to preserve and protect what is left of the oldest mature coniferous forest in San Juan County.

Once again the DEIS freely admits the problems, saying, "The removal of mature forest and associated understory would result in disturbance and alteration of wildlife habitat, potentially leading to avoidance of the area...the development of the cottage community (of twenty-one up to five bedroom houses in close proximity to one another) would likely result in wildlife seeking alternate areas to nest, den, roost, breed, and travel (3-92) ".....the occurrence of many of the area wildlife species, including the TES wildlife species described below, is largely predicated upon the preservation of this forested habitat type." Pg 3-86), The problems are again dismissed with mitigation and BMPs, which, as far as I can tell, are mythical words without substance. Bald eagles, marbled murrelets, peregrine falcons, piliated woodpeckers, great horned owls, all manner of waterfowl and wild animals use this area. It has been demonstrated to be a wildlife corridor from the shore connecting up into the park which encompasses 5700 acres of pristine wilderness. Twenty-one up to five bedroom houses constructed in very close proximity to one another will obviously destroy this vital wildlife corridor.

Area 5:

WETLAND (The Hilltop employee housing proposal)

We absolutely must protect our watersheds and wetlands now and into the future. BMP and mitigation again suggest that building in this Wetland area is reasonable, as long as there is a variance and there are some sort of buffers. Wetland means watershed. To my mind it should not be built on. Period.

Area 6:

TENNIS COURT

This is right next to a Class 1 Wetland, Cascade Lake. Any construction near the lake would cause pollution, noise, be disruptive to wildlife, and raises serious issues of waste water, sewage, garbage and toxic building material run-off far into the future.

CONCLUSION:

Overused, diminishing Aquifer, present fresh water shortages and service incapacity, habitat destruction of rare, essentially old growth forest that adjoins the park, noise, litter, increased road, water and air congestion, traffic pollution, a significant increase in solid waste, service truck and related traffic accidents, higher taxes and increased county services to serve the new population, sewage and waste water, building contaminants and run-off of all the above into the marine waters - these are some of the real problems confronting the Rosario Proposed Development. All of these problems need to be confronted head on in advance. We won't get a second chance to enjoy this paradise once it is ruined, nor will our children. "Mitigation" and hypothetical "Best Management Practices" notwithstanding, these potential problems are in fact serious problems that will affect the entire island. Furthermore the applicants have no intention of seeing this project through to completion. They have been in repeated violation of water and

sewage regulations. This would neither suggest their honest concern for the environment nor their intention to protect it. The favored proposal, Active Alternative B, that disperses intense development throughout the presently undeveloped area rather than confining it to the already defined resort area around the Moran Mansion would be particularly detrimental in its impact because it is so close to the park.

It seems obvious that the present owners of Rosario are interested in a real estate development rather than a viable resort, which they will then sell in order to make money for their investors. They will do this without any future concern or commitment to Orcas Island. It is basically a Monopoly game. Who knows who we will be dealing with next? I do not think we as an island community are obligated to make the present Rosario owner's financial adventure successful at any and our cost, especially when that cost is the quality and beauty of our environment. This attitude is determining the future of too many once beautiful places. We must abide by our own Vision Statement of San Juan County.

"...Our islands have exceptional natural beauty and healthy diverse ecosystems surrounded by pollution-free marine waters. The air is fresh and clean, the water quality is excellent, and the soil is uncontaminated. As careful stewards of these islands, we conserve resources, preserve open space, and take appropriate action to assure healthy land and marine environments. Native plants and animals of the islands thrive, and are identified, appreciated, and conserved."

Response to Lesley Liddle

1) Letter of September 1, 2005

Water Supply: Ms. Liddle's comments regarding water supply are noted. The impacts of the proposed resort expansion on the existing water system are discussed in Section 3.4 of the EIS. Rosario Utilities, through its owner Oly-Rose LLC, has sufficient existing domestic water rights to provide the necessary domestic water for the resort expansion as well as the remainder of its service obligation through the year 2017, when build-out of the Resort is anticipated to be complete. Additional water rights for domestic use would likely be available by converting a portion of the water right for power generation to domestic use. This has been done on at least two previous occasions. Oly-Rose LLC is currently pursuing the conversion of additional power generation water right to domestic rights. The broader issue of county-wide, or at least island wide water supply is an issue that is beyond the scope of this EIS.

Intertidal and Subtidal Habitat: Ms Liddle's comments are noted. The concerns expressed in this comment are related to the project and not the content of the EIS. The potential impact of the resort expansion on intertidal and subtidal shoreline habitat is discussed in sections 3.3 and 3.5 of the EIS. Additional discussion of potential impacts to these resources are discussed in the responses to comments in Section 6.2 of the FEIS particularly to the comment letters received from Dr. Richard Strathmann, Friday Harbor Labs, San Juan County Marine Resources Committee, and the Friends of the San Juans. As noted previously, additional environmental analysis will be required to address the potential impacts of the marina expansion, the type of analysis that requires a more detailed project proposal.

Upper Basin cottage development: Ms Liddle's comments are noted. The concerns expressed in this comment are related to the project and not the content of the EIS. The potential impact of cottage development in the upper basin is discussed in Section 3.5 of the EIS. Cottage development will be clustered in an area of approximately 5 to 6 acres in the Upper Basin. Development will not occur in protected steep slope areas or within the buffered Bowman's Creek corridor. The reference to the 21 3- to 5-bedroom cottages was a mistake. It should read "21 cottages averaging 1,500 square feet and three bedrooms each". This change has been made to the FEIS and RMP.

Hilltop Wetlands: No development is proposed under either action alternative within wetlands. Proposed new construction on the Hilltop parcel is on an upland portion of the site adjacent to existing development well outside potential wetland buffers. A wetland delineation will be required at the project level to identify the wetland boundary adjacent to the proposed development are and to assure that the required wetland buffer is maintained.

Tennis Court Area: The development proposed at the tennis court site is no longer being proposed. The FEIS and the Resort Master Plan have been revised to reflect this change. The existing tennis court will remain and will continue to be used and maintained consistent with its current use.

*Rec'd at PC Workshop
Rosario DEIS 8/29/05*

TRANSPORTATION

Page 3-131 of RPM/ DEIS

This section addresses potential traffic and transportation impacts associated with the No Action, Action Alternative A, and Action Alternative B alternatives. It evaluates traffic and transportation impacts in accordance with standards and guidelines of San Juan County to maintain acceptable levels of mobility and safety.

3.9.1 Affected Environment

3.9.1.1 Roads and Intersections

“Local roadways, such as Cascade Way, Ocean Mist Way and **Palisades Road are expected to be minimally affected by proposed Resort expansion**. Twenty-one single-family vacation homes known as the woodland cottages are expected to be accessed via these local roadways. Little to no commercial traffic is expected to be generated by these homes. The proposed non-motorized trails between the resort core and these homes are expected to further minimize the amount of vehicular traffic along these roadways.

Table 3.9 1-3 (Page 3-151)

Action Alternative B Summary of Suggested Parking Supply
Upper Basin Woodland Cottages
2/Units
42 net 42

Table 3.9-13 (Page 3-151)

“Consistent with the San Juan County Comprehensive Plan, all parking facilities at Rosario will meet the following criteria:

Safe ingress and egress”

“There are no mitigation measures outline, no significant unavoidable adverse impacts are anticipated.” Page 3-155.

3.1.1 Surrounding Land Uses and Regulations]

“The Resort is surrounded on the uphill (north and east) side by a neighborhood of single-family homes within several Rosario plats. “

“The intent is to allow infill development at the same density and pattern of use as previously established.”

The largest parcel is the Resort Core.

Table 3.1-1: Ownership of Parcels Comprising Rosario RMP
Parcel #12
Forested hillside:
Use: Open Space

Re: 11/20/2013
2/20/2014

Construction within 200 foot shoreline zone

The "Frequently Asked Questions" (updated 8-24) provided by Rosario read in part

19. ... Most of the area is within the 200 foot shoreline zone. In fact, most existing buildings including the Moran Mansion and many of the proposed cottages and condos are within the 100-foot shoreline setback.

The majority of buildings that will be close to the shoreline are those that replace existing buildings already in those locations. Without this allowance, the master plan is not viable.

To comply with San Juan County's Shoreline Master Program, all new Resort development within the 100 foot setback from the Ordinary High Water Mark (OHWM) will require both Shoreline Substantial Development Permits and Shoreline Conditional Use Permits prior to construction as mandated by San Juan County's Shoreline Permit and exemption procedures (18.80.110 SJCC)

Issues:

1. The intent is to expand the physical area of developable land for construction of private housing in addition to facilities for resort guests
2. Private housing will be built inside the mandated setback solely to maximize the sales value of Olympus properties
3. The exemptions requested will be permanent and forever downgrade restrictions on use of the shoreline.
4. The only exemptions in County Code on page 18-51 are for "essential public facilities". Construction of private housing is not an "essential public facility." even if owner's have the option to rent their residence through Rosario's short term rental program.
5. 18.30.060 Section 10 reads " Preservation and Enhancement of Environmentally Sensitive Areas. The legislative finding is that such areas contribute to the value and appeal of the resort, and great emphasis is given to the protection of such areas in the resort.

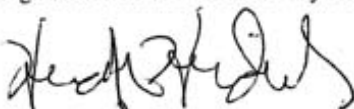
Discussion:

Any property owner is entitled to pursue options to maximize the return on property investment. In the instance of the Rosario Master Plan, the owners seek to expand an insufficient amount of land for a residence/condominium-based resort by utilizing the shoreline buffer. That said there is nothing in the County code which entitles a land owner to claim exemptions in order to maximize land value by building a resort around a property development.

Construction of private residences does not conform to 18.30.060. The greater question for the County becomes "If shoreline use for housing construction is allowed a private developer under the guise of a resort how can individuals continue to be restricted in the use of their shoreline? "

A greater issue is that the County is responsible for enforcing State and Federal shoreline use standards, The County therefore must look at the construction exemption request by Olympus from the perspective of State and Federal regulations and not in terms of a County real estate development which provides employment and tax revenues.

Hugh Hendrick 400 Cascade Way Rosario Eastsound 98245 376-7166



Prepared by Hugh Hendrick
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How much land will be needed for drinking water and sewage treatment? Is there really spare land at the conditionally permitted Utility Site for other resort uses? NO ONE KNOWS. The tract should not be rezoned for MPR uses.

Let's look at the DEIS Appendix D - Concurrency Analysis

Page 16 says "Rosario Utilities has projected sewer use in GPD through the year 2012, as summarized in Table 3.2-3. These projections assume that Phase 1 redevelopment of the Resort would occur by 2010, and Phase 2 would occur by 2020. The existing treatment design flow is currently 71,000 GPD. Capacity projections assume that the wastewater plant will be updated to accommodate up to an additional 70,000 GPD by 2006."

There is no projection sewage treatment capacity needed for 2020.

Then hidden in the the discussion of the use of wastewater from the sewer plan on page 17 is a discussion of the level of treatment for the projected 124,000 gallons a day of treated sewage to be discharged into the marina. ... "The quality of reclaimed wastewater is defined by four classes - Classes A, B, C, and D. The major difference among the classes is the degree of disinfections that is provided during the treatment process. Class A water requires a filtering process ... Potential uses of reclaimed water at the Resort are landscape irrigation, and toilet flushing, and laundry and other cleaning needs. These uses require Class A water, which is the highest treatment class. However, Rosario Utilities' current treatment plant, which does not include a filtering process, produces water at the Class B or Class C standard.

Irrigation with reclaimed water would, therefore, require upgrades to the treatment plant." The text goes on to say "Rosario Utilities will undertake a long-range study to examine the potential for wastewater reuse. Areas that would need to be examined include: an assessment of the potential demand for reclaimed water in terms of quantity, type (level of treatment), and specific uses at the Resort; costs for treatment and distribution infrastructure; and an analysis of the financial feasibility."

What this says is that Rosario will proceed to discharge a doubled volume contaminated water into the marina. And this is the very issue raised by the University of Washington Friday Harbor labs - that water stratification will cause the treated sewage to flow all the way to Eastsound wading beaches and the oyster beds.

So more utility land will likely be required for sewage treatment both for the buildout and for upgrade to cleanup the contamination of discharge as is likely for future plant expansion - even if not required now - despite what the University of Washington Friday Harbor labs has said about the sewage discharge problems.

Therefore, the Utility Tract should not be folded into the MRP but should continue to be used solely as permitted for water and sewer. Space must be retained to enlarge the water treatment plant for water storage, etc. Building out the tract for other uses when we know more utility space will be required in the future doesn't make sense.

Prepared by Hugh Hendrick
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Summary statement: DEIS and Master Plan call for nullifying State and County Regulations on permitting housing construction within the Resort's shoreline setback zone

- I Housing construction within the shoreline setback zone does not comply with State and County Regulations
- II Regarding the replacement of the Discovery House with condos, regulations do not allow the conversion of the land occupied by a non-conforming use to new uses.
- III Regulations require that a Substantial Development Permit is required for the entire proposed Rosario Masterplan development project.
- IV The 21 cottages proposed for Palisades Drive in a residential neighborhood appear to be in conflict with RCW36.70A.360 Master Planned Resorts (3)

I Housing construction within the shoreline setback zone does not comply with State and County Regulations

Washington State Shoreline Management Regulations do not allow exemptions from shoreline setback for commercial housing property development or for resorts. Furthermore the regulations specify that the ONLY allowance for housing construction is for a single family residence when the Substantial Development Permit is issued to a single family applicant.

Referencing WAC 173-27-040 Developments exempt from substantial development permit requirement.

- (1) Application and interpretation of exemptions.
 - (a) Exemptions shall be construed narrowly. Only those developments that meet the precise terms of one or more of the listed exemptions may be granted exemption from the substantial development permit process.
 - (d) If any part of a proposed development is not eligible for exemption, then a substantial development permit is required for the entire proposed development project.
 - (e) Local government may attach conditions to the approval of exempted developments and/or uses as necessary to assure consistency of the project with the act and the local master program.
 - g) Construction on shorelands by an owner, lessee or contract purchaser of a single-family residence for their own use or for the use of their family, which residence does not exceed a height of thirty-five feet above average grade level and which meets all requirements of the state agency or local government having jurisdiction thereof. "Single-family residence" means a detached dwelling designed for and occupied by one family including those structures and developments within a contiguous ownership.

II Regarding the replacement of the Discovery House with condos, regulations do not allow the conversion of the land occupied by a non-conforming use to new uses. The internet page on Shoreline Management on the Department of Ecology Internet Site specifically states:

Non-conforming Uses

A non-conforming use is a use or development that lawfully constructed or established but does not conform to present SMP requirements. These "grandfathered" developments may continue as long as they are not enlarged, intensified, increased, or altered in a way that increases the nonconformity.

Enlarging or expanding a non-conforming use

A non-conforming uses may be enlarged or expanded under very limited circumstance. Non-conforming single-family residences that are located landward of the ordinary high water mark may be enlarged or expanded in conformance with applicable bulk and dimensional standards in conformance with applicable bulk and dimensional standards by the addition of space to the main structure or by the addition of normal appurtenances upon approval of a conditional use permit.

Further down the page the Department of Ecology makes clear that conversion of the Discovery House to condos is **NOT ALLOWED**:

"Changing uses of nonconforming structures requires a CUP

... A conditional use permit may be approved only upon finding that:

- No reasonable alternative conforming use is practical; and
- The proposed use will be at least consistent with the policies and provisions of the act and the master program and as compatible with the uses in the area as the preexisting use."

County regulations implement the state rules within San Jan County and further specify:

"In all new land divisions and multiple-unit and multifamily developments, one of the following standards must be met:

- a. A common area of 75 feet measured landward from the ordinary high water mark shall be established along the entire waterfront of the property to be developed, and all other common area requirements of subsection (F)(2) of the section shall also be met. A minimum of one and one-quarter acres within shoreline jurisdiction shall be provided for each unit to be located within the shoreline jurisdiction. This is not a minimum lot size, however, and shall not preclude clustering of units within the shoreline jurisdiction; or
- b. At least 50 percent of the area within the shoreline jurisdiction shall be designated as common area, and all other common area requirements shall also be met. A minimum of two acres within the shoreline in the shoreline jurisdiction shall be provided for each unit to be located within the shoreline jurisdiction. This is not a minimum lot size, however, and shall not preclude clustering of units within the shoreline jurisdiction."

The construction proposed for the shoreline setback zone does not comply with these regulations.

III Regulations require that a Substantial Development Permit is required for the entire proposed Rosario Masterplan development project.

This is specified in WAC 173-27-040 Developments exempt from substantial development permit requirement.

- (1) Application and interpretation of exemptions.
 - (b) Exemptions shall be construed narrowly. Only those developments that meet the precise terms of one or more of the listed exemptions may be granted exemption from the substantial development permit process.
 - (d) If any part of a proposed development is not eligible for exemption, then a substantial development permit is required for the entire proposed development project.

There are no exemptions in WAC 173-27-040 which allow the Substantial Development Permit application to be applied for in phases as is proposed by Rosario – core housing now, then build-out, and then a marina development. The wording in (d) is the entire proposed development project.

This is in the County's best interests since the Marina is key according to the DEIS to minimizing traffic and parking requirements as well as to bring in boaters to use the resort facilities.

If the marina is not part of the total plan and is not built, then the plan may not comply with RCW 36.70A.360 requirement that the primary focus of a masterplan resort is on "destination resort facilities consisting of short-term visitor accommodations associated with a range of on-site indoor or outdoor recreational activities.". This is because the resort is not building a true indoor activity center for the roughly 8 months of lousy weather when the Peterson Economics study concedes NW resorts struggle to cover ongoing operations. In fact, without a marina as the "locus" specified by Rosario, the demand for high-end dense housing with only a restaurant and pool with exercise center as the "locus" would be questionable. An all year marina would be a reason to buy in Rosario and would probably be sufficient to satisfy the recreational focus requirements of WAC 173-27-0.

Should Rosario be unable to obtain the necessary permits to enlarge the marina, then the conceptual use of the shoreline could well change to bring in compensating revenues, the requirements for water and sewer service would change, and additional guest parking would have to be provided.

IV The 21 cottages proposed for Palisades Drive in a residential neighborhood appear to be in conflict with RCW36.70A.360 Master Planned Resorts (3)

- (3) "A master planned resort may include other residential uses within its boundaries, but only the residential uses are integrated into and support the on-site recreational nature of the resort."
- (4b) "The comprehensive plan and development regulations include restrictions that preclude new urban or suburban uses in the vicinity of the master planned resort, except in areas otherwise designated for urban growth under RCW 36.70A.110;"

While the land is a "up steep slope" extension of the core resort, it is only reachable by leaving the Resort and driving up Rosario Road, turning onto Palisades Drive for a total distance of approximately 1.4 miles. After allowing for roads, each site will be less a ¼ acre.

Clearly the area of downzoning to allow construction of dense housing "does not support the on-site recreational nature of the resort." It is a pure housing development. Steepness of the slope together with the very thin soil layer will cause homesite runoff problems into the stream which runs the entire length of the north side of the property.

SJC 18.50.330B. 5. Says:

"Drainage and surface runoff from residential areas shall be controlled so that pollutants will not be carried into water bodies. "

Pollutants include chemicals which ablate from building roofs and exteriors (including period painting), gardens, winter ice suppression, auto drippings, leaking garbage as well as chemicals which are sprayed on gardens and grounds to suppress weeds and enhance cultivated plant growing. In the absence of site plots, specific building descriptions, and provision for environmental policing of the owners and tenants, one has to assume there will be runoffs into the stream and into the salt water.

Response to Hugh Hendrick

1) Response to Letter Submitted August 29, 2005

The FEIS identifies that the Master Plan does not confer development approval and that shoreline permits will be required for development in the shoreline. With regard to the condominium development, the Resort Master Plan includes the development of vacation condominium units. The units would include fractionally owned units as well as individually owned units. The proposed Master Plan identifies that all of the proposed units, with the exception of the two single family homes in the Cliffside location will be part of a the rental pool and available for rental when not occupied by an owner (Table 4.3-1 RMP). This is similar to the current arrangement. The existing condominium units on the Hillside portion of the site are in private ownership but are available to the resorts rental pool when not being used by an owner. These existing condominium units are not considered single-family residences but rather transient accommodations. As identified in Section 3.1 of the EIS, approval of the Master Plan does not confer development approval. At the time a development proposal is made in the shoreline, the proposal would be evaluated to determine the type of use and whether it satisfies the criteria for the approval of a shoreline substantial development permit and, as applicable, shoreline conditional use approval and whether it conforms to the Master Plan. Based on the content of the Master Plan, the County is assuming that future proposed condominium development in the shoreline or elsewhere on the site, will be for privately owned (fractional or whole ownership) transient accommodations not used as a permanent residence, and available as a vacation rental (managed by the Resort) when not occupied by the owner. The intent of the County's Master Planned Resort (MPR) designation is that Rosario will continue to function as a commercial resort with transient accommodations and facilities available to the general public. The uses presented in the Master Plan are uses generally permitted in the shoreline, however as described above, development in the shoreline would only be permitted if the specific proposal meets the appropriate shoreline permit criteria and the necessary shoreline permit approvals have been obtained.

2) Response to undated letter submitted regarding the Utility Tract.

Utility Tract: In response to concerns expressed by the community and the County, the applicant has revised the plan for the Utility Tract to exclude uses that are not related to the use of the Utility Tract for the operation of the water treatment and sewer treatment facilities and accessory used thereto including water storage. The laundry and other uses originally proposed for the Utility Tract have been moved to the Hilltop parcel.

3) Response to undated letter submitted regarding Shoreline approvals and Hillside Cottages

Shoreline Approvals: The applicability of the shoreline regulations to the proposed Master Plan is described above. Adoption of the Master Plan does not confer development approval for any portion of the Resort including development in the shoreline. Approval of the Master Plan allows the Resort owner to make application for Planned Unit Development (PUD) approval and shoreline permit approval for the first phase of the resort expansion. No construction work can begin until PUD approval is obtained from the County and no development in the shoreline can begin until the necessary shoreline permits have been obtained.

Applications for PUD approval and shoreline permit approval require that notice of application be provided to the public and environmental review under SEPA be conducted. A public hearing before the San Juan County Hearing Examiner is required before either PUD or shoreline permit approval is granted. The approval authority for these permits is the Hearing Examiner. Adoption of the Master Plan will not affect the need for the owner to obtain the necessary planned unit development or shoreline permit approvals. However, adoption of the Master Plan establishes an additional set of criteria for the approval of a PUD or shoreline permit within Rosario, in that in addition to PUD criteria and shoreline permit criteria, future development proposals in the Rosario MPR will need to be consistent with the applicable provisions of the Master Plan including architectural character, developed versus open space areas, landscaping, range of uses etc.

Hillside Cottages: The Hillside Cottages are planned as vacation condominium units and are proposed to be included in the Resort's rental pool to be rented out when not being used by the owner. The use of these units for transient rental is consistent with the intended destination resort character of the Rosario MPR.

Stormwater and Water Quality: The San Juan County Unified Development Code (UDC) requires that new development include provision for the management and treatment of stormwater runoff to reduce impacts on receiving waters. The UDC requires that stormwater management plans be developed in compliance with the Department of Ecology's stormwater management manual. A Conceptual Stormwater Management Plan has been prepared since the publication of the DEIS, to describe in general terms the types of issues that would be addressed in a final management plan to be prepared for each phase of the expansion (see Appendix G). Included in the conceptual stormwater management plan are examples of the types of stormwater control and treatment structures that could be employed to treat runoff from the site. In addition, Section 3.3 of the DEIS has been revised to include additional information about stormwater runoff.

The installation of new stormwater treatment facilities will provide an opportunity to improve the quality of the existing runoff. The existing improvements were constructed prior to the adoption of state stormwater standards. As new stormwater treatment facilities are constructed to serve new development, where feasible, new stormwater treatment facilities could be designed and sized to collect and treat runoff from existing developed areas thereby improving the overall water quality of runoff.

October 6, 2005

Martin Blackman, Senior Planner
San Juan County Community Development and Planning
135 Rhone St.
P.O. Box 947
Friday Harbor, WA 98250

Re: Rosario Resort Master Plan Draft EIS

We have reviewed the DEIS documents and submit the following comments in regard to the elements of the environment;

Plans and Policy Consistency

The proposed plans do not adequately evaluate the Shoreline Master Program required shoreline building setbacks from top of bank. Page 3-13 and 3-14 of the DEIS discusses the UDC portion of the Shoreline Master Program and a 100-foot setback from but then simply states that the Resort predates the regulation and has therefore been grandfathered. Many of the proposed buildings appear to be well within the 100-foot setback and we suggest that the County and applicant determine the appropriate top of bank and setback location for the entire shoreline so that we can see which are existing non-conforming and which areas can be developed. The 50% of property width maximum build requirement should be evaluated for the site as well to help avoid significant impacts to the view of the property from the shoreline.

Earth and Stormwater

The DEIS does not address how the project will meet the minimum County requirements for treating and controlling stormwater. The UDC requires that developments comply with the requirements of the current version of the Department of Ecology Storm and Surface Water Manual (SWWM). This project should develop the required Stormwater Site Plan prepared as defined in the SWWM. All of the drainage basins within the project limits should be identified and evaluated to determine the expected increases in impervious surfaces and to evaluate downstream conditions. Thresholds for treatment and detention need to be evaluated for each basin. Stormwater treatment, detention and conveyance improvements should be proposed to mitigate the impacts of increased flow and decreased water quality. The sizing and siting of these facilities is critical and should be done at this stage of planning so that large enough areas are set aside for these purposes at the lower elevations in each basin. The Stormwater Site Plan needs to account for the eventual development upstream from the site which will continue to pass through the Rosario property on its natural flowpath to the sea. The plan must ensure that drainage pathways are identified and protected from development with drainage easements and improvements are made to the conveyance system so that erosion and property damage

does not result. The Stormwater Site Plan must also address the upper hillside area and utility tract properties to determine measures to protect adjacent properties, wetlands and stream courses.

Noise

A reasonable landscape buffer between the Resort activities and the surrounding residential area is essential and is not adequately evaluated or addressed in the DEIS. The noise generators should be identified and quantified and appropriate buffers proposed as mitigation. As a suggestion it would seem a landscape buffer of at least 100' around the entire perimeter would help to lessen the noise and glare impacts. On Cliffhouse Ct. and Ocean Mist Way existing houses are immediately adjacent to the Resort and no buffers are proposed.

Historic and Archeological Resources

The Volume 2 Appendix B assesses the archaeological resources of the site and generally categorizes the property into low moderate and high probable archaeological impact areas and concludes that the proposal would have "a high probability of impacting significant archaeological resources". The plan does not appear to make any attempt to avoid the high impact areas particularly between the jetty and the Bowman Creek outfall. It seems more work should be done to determine if development within the high impact areas can be accomplish without degrading this resource.

Transportation

Due to the complexity and calculations in the transportation element an independent transportation consultant should be selected by the County to evaluate all of the assumptions which have been made in preparing the calculations. The mitigation offered for traffic impacts do not appear adequate in our opinion. It seems the Resort should just commit to providing it's own vessel with adequate capacity to handle the peak flow of customers.

Thank you for consideration of these comments,

Gregg and Lisa Bronn
90 Cliffhouse Ct.
Eastsound, WA 98245

Response to Gregg and Lisa Bronn

1) Plans and policy consistency:

Please see the response to Mr. Hendrick's letter of September 1, 2005 regarding shoreline permit requirements. Commercial development is allowed in the shoreline with a Conditional Use Permit. The 100-foot setback for commercial development can be reduced through the shoreline Conditional Use Permit process as well. The grandfather rights apply to existing structures and improvements only. A Shoreline Substantial Development Permit and a Shoreline Conditional Use Permit as applicable would be required for new development other than normal repair and maintenance of existing structures.

2) Earth and stormwater:

The comment regarding stormwater management is noted. The applicants have prepared a preliminary stormwater analysis (see revised Section 3.3 of this FEIS) and a conceptual stormwater management plan (Appendix G) that discusses in general terms their plans for meeting the stormwater management and treatment requirements of the UDC. As part of the submittal process for Planned Unit Development and shoreline permit approval a more detailed stormwater analysis will be required to demonstrate that the development proposed for project permit approval meets the County's stormwater requirements. The requirement that future development meet the County's stormwater standards is one of the mitigation measures for future development under the plan. The issues described in this comment regarding impacts on surrounding properties, establishment of drainage easements and upstream development are issues that are typically covered a final engineered stormwater management plan developed under the state's stormwater management manual.

3) Noise:

As described in Section 3.7 – Noise, existing and potential sources have been identified and discussed. As discussed in the RMP and FEIS, the preservation of significant trees and vegetated buffers has been incorporated into the design. The retention of trees within the Resort will provide for some noise attenuation. The proposed pair of single-family residential structures on Cliffhouse Court are planned as single-family residences to be sold as such and used by the owner either year-round or seasonally. The use of these two residences will be the same as that of the adjoining properties. They are not planned as part the pool of rentals for the Resort.

4) Historic and archaeological resources:

As identified in Section 3.8 *Historic and Archaeological Resources* and in Appendix B of Volume 2 of the EIS, large portions of the Newhall settlement, the Moran Estate, and Resort waterfront occupy sites formerly inhabited by a Native American winter village and therefore have a high probability of archaeological impact. Mitigation for potential impacts to cultural resources are discussed Section 3.8 and in the response to comments letters from the Washington State Department of Historic and Archaeological Preservation (DHAP) in Section 6.2 of the FEIS. The principle means of protecting the resources will be through the development of a Cultural and Historic Resources Management Plan for the Resort. The management plan would be prepared by a cultural resources professional and reviewed by DHAP and the Lummi Nation.

5) *Transportation:*

Comment regarding transportation is noted. Please see response to the comment letter from San Juan County Department of Public Works in Section 6.2 of the FEIS. The traffic study had been revised based on additional information provided by the County Public Works Department. Their comments were based in part on a review of the traffic study by an outside consultant retained by the Public Works Department to review the traffic analysis. By memorandum dated July 25, 2006, the County Public Works Department concludes that their concerns regarding traffic on Rosario Road are now addressed with the revision made to the transportation section of the FEIS.

CHAPTER 7

SUMMARY OF IMPACTS, MITIGATION MEASURES AND OTHER MANAGEMENT PRACTICES FOR ACTION ALTERNATIVE B

7.0 SUMMARY OF IMPACTS, MITIGATION MEASURES AND OTHER MANAGEMENT PRACTICES FOR ACTION ALTERNATIVE B

To assist with future project permitting of the Applicant’s preferred alternative, the following table summarizes environmental impacts for each element of the environment and briefly lists applicable Mitigation Measures and Other Management Practices proposed by the EIS to address these impacts. The full text of these impacts and corresponding Mitigation Measures and Other Management Practices is located in the specific section of Chapter 3 shown in the left hand column below.

Land and Shoreline Use	
Summary of Environmental Impacts: FEIS Section: 3.1.2.3	Re-designation of Hilltop from Rural Farm Forest to MPR would correct the MPR mapping error, would intensify land use, and would result in additional resort related uses being developed on the property.
Summary of Mitigation Measures: FEIS Section: 3.1.3.3	LSU-M-3: Adjust MPR boundaries to exclude Geiser/Meade and Scharnhorst properties. LSU-M-4: San Juan County Shoreline Program would continue to regulate land use within the shoreline area to assure consistency with the Shoreline Management Act and the County’s Shoreline Program.
Summary of Other Management Practices: FEIS Section: 3.1.4.3	LSU-OMP-1: If Rosario operations cease or portions of the property are sold, such former portions of the Resort would need to be re-designated in compliance with county land use regulations. LSU-OMP-3: Perform careful site design, buffering and screening by developing and implementing design guidelines.
Plans and Policy Consistency	
Summary of Environmental Impacts: FEIS Section: 3.2.2.2	New development proposed within 100-foot shoreline setback will require CUP.
Summary of Mitigation Measures: FEIS Section: 3.2.3.2	Master Plan would guide future development consistent with adopted plans and policies. PPC-M-2: Shoreline Substantial Development Permits and Shoreline Conditional Use Permits as mandated by SJCC 18.80.110 to address SMP compliance. PPC-M-3: Planned Unit Development approval to assure consistency with the UDC.
Summary of Other Management Practices: FEIS Section: 3.2.4.2	Additional management practices or other permit conditions are likely to result from the required permit processes.
Earth and Stormwater	
Summary of Environmental Impacts: FEIS Section: 3.3.2.3	Clearing, grading, fills, cuts, and compaction or loss of topsoil alters surface and groundwater flow paths. Loss of trees and runoff from large upland homes results in erosion. Run-off from roads, parking and driveways to hillside cottages and loss of trees degrades water quality. Additional employees at Hilltop could increase risk of wildfire and ground water contamination from parked cars.

<p>Summary of Mitigation Measures: FEIS Section: 3.3.3.3</p>	<p>ES-M-15: Use of shallow backfilled utility trenches. ES-M-16: Conduct geotechnical or engineering study during the design phase of stormwater plans for specific development proposals, to identify the best method for meeting State and County stormwater management requirements. ES-M-17: Employ road building methods unique to local slope conditions. ES-M-18: Utilize stable existing bedrock for anchoring new construction ES-M-19: At Hilltop employee housing and support complex, construction of relatively flat bench. ES-M-20: Employ appropriate methods to attenuate peak stormwater flows and remove contaminants from runoff. ES-M-21: Use of bioswales surrounding small parking lots blended into landscape. ES-M-22: Design roads to treat and direct stormwater runoff. ES-M-23: Use of green development practices for woodland cottages. I.e., cottages can be built with minimal loss of tree canopy and on piles or anchored to bedrock to allow infiltration and preserve soil without causing mass wasting. Use low impact development and green building materials to minimize impervious surfaces. ES-M-24: Use various methods such as level spreaders for infiltration and footing drains that are approved by County building officials. ES-M-25: Use of additional approved methods such as stormwater storage vaults in basements. ES-M-26: Siting cottages to minimize groundwater impacts. ES-M-27: Use of shallow utility trenches to minimize groundwater interruptions. ES-M-28: Use of stormwater infiltration methods in Hilltop parking design. ES-M-29: Prohibitions of vehicle maintenance and outdoor fires at Hilltop. ES-M-30. Use of on-site sewage systems to help water budget. ES-M-31: Implementation of Conceptual Stormwater Management Plan to effectively control stormwater.</p>
<p>Summary of Other Management Practices: FEIS Section: 3.3.4.3</p>	<p>ES-OMP-2: Monitor soil and water quality in bioswales receiving stormwater from large parking areas. ES-OMP-3: Compliance with Department of Ecology’s Stormwater Manual for Western Washington. ES-OMP-4: U.S. Army Corps of Engineers permits and 401 Certification from the state Department of Ecology. ES-OMP-5: Minimize invasive species in cleared areas by retaining tree canopies. Control campfires and the car repairs at Hilltop.</p>
Water and Sewer	
<p>Summary of Environmental Impacts: FEIS Section: 3.4.2.3</p>	<p>Additional potable water (instantaneous supply, treatment, and storage) and wastewater treatment capacity will be necessary for assigned growth and RMP needs.</p>
<p>Summary of Mitigation Measures: FEIS Section: 3.4.3.3</p>	<p>WS-M-6: Conversion of existing water rights to domestic purposes. Compliance with Department of Ecology requirements for discharge.</p>
<p>Summary of Other Management Practices: FEIS Section: 3.4.4.2</p>	<p>WS-OMP-2: Stage RMP implementation to coincide with utility improvements.</p>

Noise	
Summary of Environmental Impacts: FEIS Section: 3.7.2.3	Short-term construction noise followed by geographic redistribution of noise sources.
Summary of Mitigation Measures: FEIS Section: 3.7.3.3	N-M-2: Continued Kenmore Air Noise Abatement, conversion to quieter turbo aircraft, seaplane dock moved further from sensitive receptors and periodic noise monitoring.
Summary of Other Management Practices: FEIS Section: 3.7.4.3	N-OMP-1: Enforcement of County Noise ordinance (SJCC Chapter 9.06). N-OMP-2: Rosario-administered rules on amplified music. N-OMP-3: Rosario-administered rules on noisy maintenance equipment. N-OMP-4: Rosario-administered rules at the Hilltop. N-OMP-5: Reduce use of private automobiles at Resort: N-OMP-6: Doubling indoor conference facilities to better contain noise indoors. N-OMP-7: Reduced dependence on generators by yachts relying instead on shorepower. N-OMP-8: Noise attenuation by landscaped buffers. N-OMP-9: Deployment of quieter electric people mover replacing engine-powered vans. N-OMP-10: Fewer large noisy gatherings. N-OMP-11: Less outdoor noise at Hilltop.
Historic and Archeological Resources	
Summary of Environmental Impacts: FEIS Section: 3.8.2.3	Modifications to Mansion, landscape, and loss of Carriage House will affect historic integrity. Modifications to Discovery House and other areas near Cascade beach could affect integrity of archaeological site 45SJ242.
Summary of Mitigation Measures: FEIS Section: 3.8.3.3	HAR-M-7: Programmatic Agreement based on consultation with DAHP. HAR-M-8: Recovery of archeological data, archeological monitoring of construction activities, and tailoring of mitigation measures developed in consultation with SHPO and tribes. HAR-M-9: Implementation of cultural resources management plan to protect archeological resources.
Summary of Other Management Practices: FEIS Section: 3.8.4.3	HAR-OMP-3: Adherence to RMP Goal #2 and RMP Objectives 2.1 and 2.2. HAR-OMP-4: Restoration of Moran Mansion in accordance with the Secretary of Interior's Standards. HAR-OMP-5: Renovation and adaptive reuse of the Boatel. HAR-OMP-6: RMP exhibits 4-2, 5-4, 5-5, 5-6 and 7-1. HAR-OMP-7: Inclusion of qualified historic preservation professionals on project design team. HAR-OMP-8: Historic compatibility as addressed by RMP section 5.4.1. HAR-OMP-9: Installation of interpretive signage addressing Rosario's history. HAR-OMP-10: Retention of historic exterior lighting. HAR-OMP-11: Future participation by Rosario in informed design review by independent design review committee. HAR-OMP-12: Application for 20% historic tax credit.

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Plants and Animals	
Summary of Environmental Impacts: FEIS Section: 3.5.3.3	Impacts to mature forested habitat. Impacts to native plant communities. Potential pollution and disturbance to wildlife. Potential disturbance to nesting birds. Increased human activity in the area.
Summary of Mitigation Measures: FEIS Section: 3.5.4.3	PA-M-4: Protocol-level surveys for TES species prior to construction. PA-M-5: Survey of proximity of nesting birds on Cascade Lake prior to construction. PA-M-6: Interpretive signs discussing wildlife habitat and connectivity. PA-M-7: Selection of environmentally sound building materials. PA-M-8: Removal of snags and woody debris restricted to meet safety standards. PA-M-9: Directional night lighting to reduce ambient reflection and night glare impacts. PA-M-10: Avoid clearing buffer areas of parking lots, roads, and buildings within mature forest habitat. PA-M-11: Development and implementation of Vegetation Management Plan addressing vegetation removal, re-vegetation and selection. PA-M-12: No tree clearing will occur outside of 25-foot buffer surrounding each building to reduce potential impacts to mature, second-growth forest. PA-M-13: Marine habitat studies and tidal and subtidal surveys would be conducted, and local, state and federal permitting requirements would be met prior to marina approval.
Summary of Other Management Practices: FEIS Section: 3.5.5.3	PA-OMP-1: BMPs (listed in Appendix I) implemented and maintained throughout the development process. PA-OMP-2: Construction of the new Marina will comply with all appropriate local, state, and Federal regulations and guidelines.
Aesthetics	
Summary of Environmental Impacts: FEIS Section: 3.6.2.3	Improved architecture but loss of open space and vegetation due to new cottages and condos.
Summary of Mitigation Measures: FEIS Section: 3.6.3.3	A-M-2: Development and implementation of Design Guidelines addressing architecture, landscape architecture, signage, adequate vegetative buffering etc.
Summary of Other Management Practices: FEIS Section: 3.6.4.3	A-OMP-2: Future development site selection to avoid or minimize view impacts. A-OMP-3: Future development areas located to minimize impacts to existing views from existing structures. A-OMP-4: Adherence to design guidelines covering building heights, improved architectural quality, selection of compatible building materials, signage, light standards, curbs, outdoor furniture and shielded lighting to prevent visual clutter and light pollution. A-OMP-5: Careful building massing to maintain compatible scale. A-OMP-6: Vegetative screening of Resort boundaries per UDC requirements. A-OMP-7: Vegetative screening of parking areas per UDC requirements. A-OMP-8: Protection of views of entrance to Moran State Park.

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Transportation	
Summary of Environmental Impacts: FEIS Section: 3.9.2.3	Increase of 420 Average Annual Daily Vehicle trips. Minimal decline in level of service but within acceptable levels. Slight increase in air and waterborne traffic operations due to marina expansion. Parking demand will increase.
Summary of Mitigation Measures: FEIS Section: 3.9.3.2	T-M-1: Short-term construction traffic limited by implementation of good construction practices. T-M-2: Development of Transportation Management Plan (TMP) implemented by Transportation Management Coordinator including programs to manage, reduce or divert transportation demand as well as physical improvements to enhance safety such as including signage and surface references.
Summary of Other Management Practices: FEIS Section: 3.9.4	T-OMP-1: Consistency with San Juan County Comprehensive Plan and Unified Development Code. Sufficient parking supply and design improvements to provide safe ingress and egress for all, including those with disabilities and screening improvements.

Note: Future developer is responsible for implementation of Mitigation Measures and Other Management Practices.