



## 5.0 DESIGN AND FUNCTIONAL STATEMENT

The overall strategy for Resort design will be to provide an appropriate distribution of Resort products in a way that is complementary to both the site and the market. Accordingly, the highest levels of activity will be concentrated near the shoreline, with less active uses distributed to the upland parts of the Resort.

The magnitude of long-term growth for the Resort was determined by several factors, including operational efficiencies, historical and natural integrity, the scenic capacity of the site, the volume of available treated water, anticipated market demand, and ratio of projected revenues to redevelopment costs.

The site analysis process included an Environmentally Sensitive Areas review and an opportunities and constraints assessment of available development areas within the Resort area. Important natural features such as character-defining trees and rock outcrops were identified and geo-located using GPS technology. The visual characteristics of the available site were also considered. The scenic character of the Resort area, East Sound, and Orcas Island is an irreplaceable amenity that is highly valued. When considering new development, views from existing development to the water and views from the water back toward the Resort were considered. Building site locations and heights were evaluated to produce minimum visual impact and maximize potential views.

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Existing significant site features and views overlain by proposed building footprints are mapped on Figure 5.0-1.

The optimal size for the Resort is a compact village of 79 cottages and flats plus 21 guest suites occupying the lower part of the site closest to the Moran Mansion, with the remaining 206 guest suites and cottages located on the surrounding hillsides. This concept will create a nucleus of activity easily accessible to all guests and will facilitate efficient services, protect important view corridors, preserve valuable open space, and protect historic resources.

Ancillary facilities and infrastructure will support the proposed cottages and condos. The most important and costly element will be the restoration of the Moran Mansion. Other examples include an improved system of paths and trails to facilitate walking, new interpretive signage, restaurant and spa facilities, an enlarged Marina, landscaping upgrades, centralized and satellite parking, expanded water and sewer treatment systems, and other improvements.

This chapter provides guidance on key issues related to Resort development necessary to accomplish the program of use based on the goals and objectives. The chapter includes development plans for Resort and harbor facilities, access, circulation and parking, landscape treatments, architecture, and utilities along with numerous environmental mitigation measures.

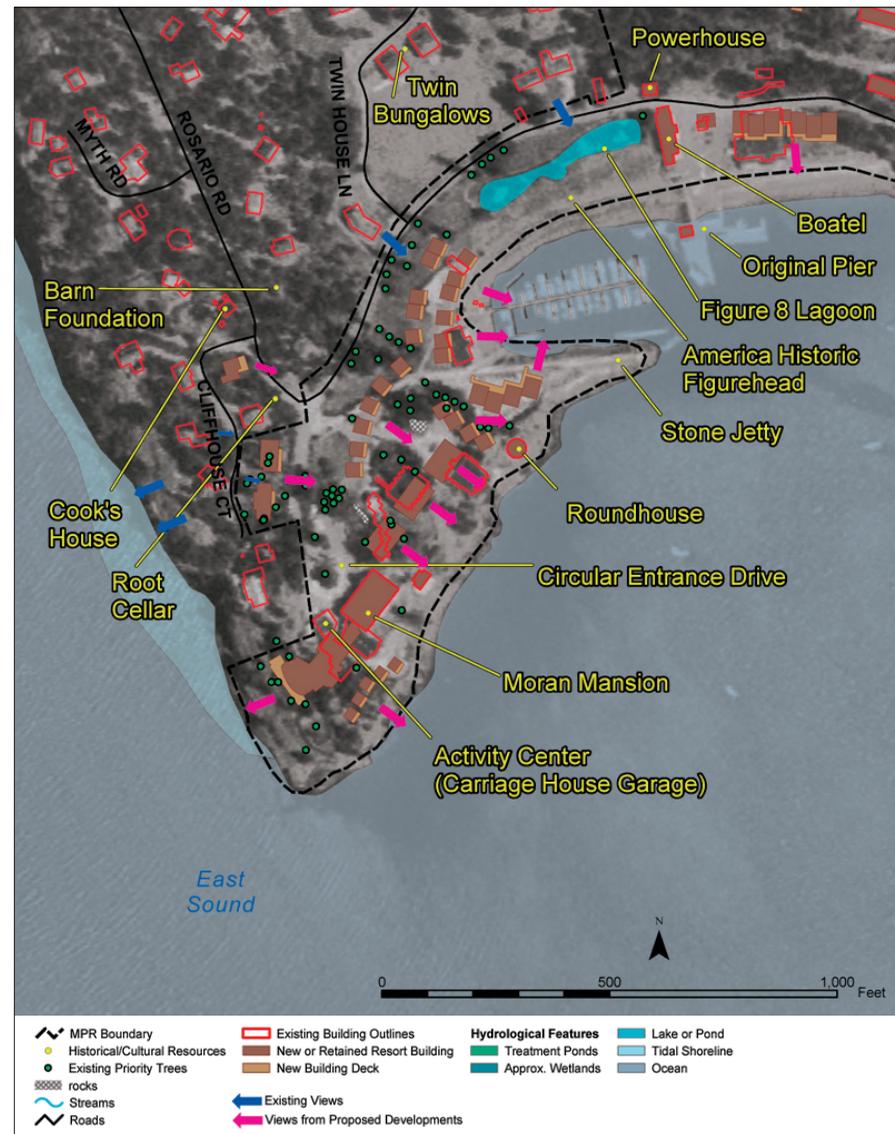


Figure 5.0-1: Existing Site Features and Proposed Development

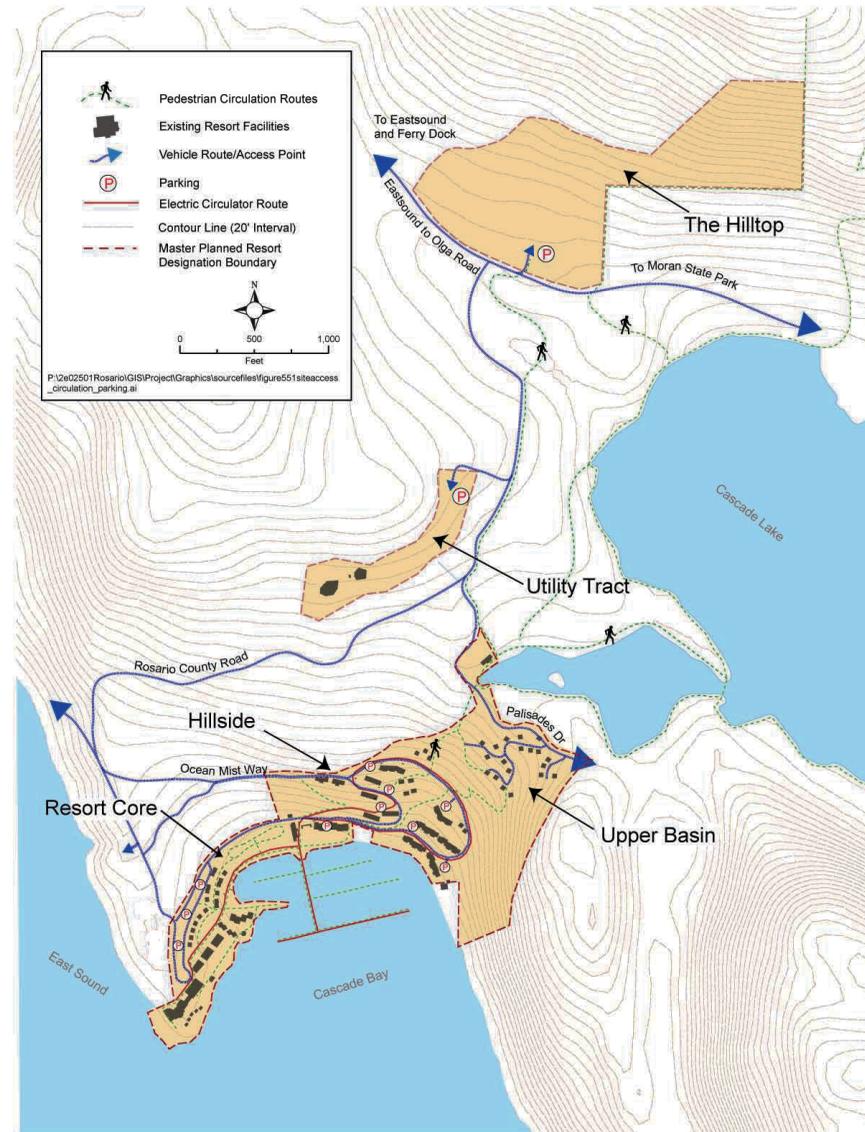


Figure 5.1-1: Site Access, Circulation, and Parking

## 5.1 CIRCULATION AND PARKING

Walking is intended to be the primary mode of transportation throughout the Resort. Guests, many of whom arrive by air or water, will not need to depend on motorized transport to get between Resort accommodations and activities. The network of planned trails, roads, and parking is illustrated in Figure 5.1-1.

### 5.1.1 Pedestrian Circulation

The existing network of sidewalks, trails, and pathways will be upgraded concurrent with redevelopment of the Resort. Consistent with the landscape principles discussed in Section 5.3 below, a system of separate trail networks will support different uses such as primary circulation and access routes throughout the Resort, secondary pathways, and recreational trails. All pathways and trails within the Resort will be between 4 and 10 feet wide, in compliance with Section 18.60.110 of the Unified Development Code and employ pervious materials to allow stormwater infiltration.

#### Main Pedestrian Route

A main pedestrian route is proposed to link all key activities on the site. This route will extend from the Moran Mansion to Cascade Harbor Inn and the 2100 Building. Much of the route will parallel the shoreline, functioning as a waterfront promenade. This route will have a firm, slip-resistant surface to accommodate public access in all weather conditions and to provide universal accessibility

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to the extent possible. The western portions of the main pedestrian route, which follow more gentle grades and will be heavily used, will be wheelchair and stroller accessible. Stairs and handrails will be constructed to assist pedestrians on steeper portions of the route adjacent to Buildings 1500, 1600, 1700, 1900, 2000, and 2100, as well as the Cascade Harbor Inn.

Although its purpose is utilitarian, as the Resort's primary connector, walking this route is envisioned as an aesthetically pleasing experience. Amenities such as benches, drinking fountains, house phones, shade trees, public art, interpretive signage, night-time lighting, and viewing spots will enhance the experience and increase apparent proximity. In addition, grades on the steeper portions of the site will be moderated through the use of switchbacks and stairs to heighten the appeal of the trail. Where feasible, the trail could bridge Bowman's Creek, providing scenic interest to walkers. Connector pathways, discussed below, will branch off from this route to provide access to destinations off the main route as well as to recreational trails, also discussed below.

## Connector Pathways

Access to the main pedestrian route in more remote portions of the Resort, such as the Woodland Cottages area, will be provided by a network of connector pathways. These secondary pathways will have a firm and slip-resistant surface (such as crusher fines), appropriate drainage, stable and attractive stairs, and night-time lighting.

## Recreational Trails

The primary purpose of the recreational trail network is to provide linkage to specific facilities and use areas. The recreation trails are also intended to provide a place for leisurely strolling, jogging, or hiking. The recreational trail network is comprised of existing trails along the water as well as trails climbing the Hillside through the woods. In its entirety, this trail network will link Rosario Point with the tennis courts and Moran State Park. These soft-surfaced trails will be narrower than the other two trail networks and support walking, running, and, where possible, wheelchairs and strollers, although not necessarily during adverse weather conditions. Trail design standards will specify appropriate drainage to minimize erosion potential.

## Commuter Trail

To facilitate commuting by foot between the Hilltop and workplaces within the Resort Core and Utility Tract, Rosario will explore the development of a non-motorized trail. This trail could allow employees to walk or potentially bicycle between the employee housing and parking at the Hilltop and their jobs elsewhere at the Resort. The trail could follow the existing utility alignment that runs alongside the upper part of Rosario Road, through the edge of Moran State Park, connecting the Hilltop parcel with Palisades Drive. From there, trail users would follow Palisades Drive a short distance to Cascade Lake Trail, which leads down to the Resort Core.



3-D model employed to evaluate horizontal and vertical site relationships

### 5.1.2 Wayfinding

Guests and visitors should never feel lost when visiting different parts of the Resort. Wayfinding will be assisted by strategically located directional signs, distribution of Resort maps, and using views to the harbor as an orientation device. Signage is addressed below in Section 5.3.3 of this plan.

### 5.1.3 Roads

This plan anticipates limited new road construction, including several short roads accessing the Woodland Cottages and the interior of the lower Resort. In addition, some road areas or intersections may be reconfigured slightly to improve access and safety or facilitate new construction, parking, or maintainability. In addition, certain road segments could be widened or sidewalks added to facilitate pedestrian and bicycle use, especially where grades prohibit construction of separate trails. New roads within the Resort would be private. Consistent with the County Comprehensive Plan, these roads will be designed to provide adequate vehicular safety, low maintenance, and meet anticipated vehicular demand. Road improvements must also comply with San Juan County Road Standards (Sections 18.60.080 through 18.60.140 and Table 6.3 of the Unified Development Code), including San Juan County's Scenic Roads Manual.

### 5.1.4 Parking

Adequate parking is essential to Resort operations; the quantity of parking will be sufficient but not excessive. Parking will balance convenience with aesthetics; thus, stalls will be located as close to activities as possible without having a negative aesthetic impact. Accordingly, parking will be distributed in several small lots rather than concentrated in large lots, especially within the Resort Core. Surface parking will be screened from sight with vegetation, buildings, or outdoor art. Parking lot runoff could drain into bioswales to prevent water quality degradation.

In the future, a satellite parking lot may be needed for long-term guest or Marina parking as well as surge events such as larger weddings, festivals, concerts, and other popular events. The preferred location for this function would be in a screened location at the Hilltop. Likewise, employee parking capacity at the Hilltop will likely be expanded to reduce parking demands within the Resort Core.

The proposed number of parking stalls is closely based on San Juan County's parking requirements (SJCC 18.60.120, Table 6.4). Because of the relatively large (and growing) percentage of Resort guests arriving without personal automobiles, a reduction factor of 20 to 30% has been applied to all Rosario lodging. For related facilities such as the restaurants, conference, spa, Marina, and recreation facilities, a reduction factor has been applied

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to adjust for the integrated nature of Resort operations. The specific number of stalls and their location within the Resort is summarized in Table 5.1-1. Key parking requirements are summarized in Exhibit 5-1.

For example, hotel guests typically dine in the restaurants and thus do not need parking stalls at both lodging and dining facilities. Specifically, hotel dining room patronage is comprised of 70% Resort guests; thus, a 30% factor is applied to provide parking for restaurant patrons who are not Resort guests. The reduction factor ranges from 0% for the Woodland Cottages and Cascade Harbor Inn to 90% for the Marina Village Cabana, which will be used nearly exclusively by Resort and Marina guests and

neighbors. The proposed parking quantities should be more than sufficient since a large proportion of Resort guests arrive without personal vehicles, and personal vehicles will not be necessary for most guests.

### 5.1.5 Circulator

The Resort is designed to be an automobile-free experience for as many guests as possible. To address the steep grades and geographic distribution of guest lodging, restaurants, and other activities around the Resort, a mini transit system or circulator will convey guests around the Resort. Like other components of the Resort, getting around the Resort should be a fun and convenient experience for guests and cost-effective for the Resort

Table 5.1-1: Summary of Future Parking.

Location	Parking Generators	Stalls Required
Mansion Area	Hotel rooms, penthouses, restaurant, Spa, Cottages, Mini-Mansions	63
Marina Village West	Cottages, Condos, Cliffhouse Court Homes	50
Marina Village East	Condos, Cabana, Marina & Marina Retail Center	67
Hillside Condos	Existing Condos and Proposed Hillside and Bowman’s Bluff Cottages	99
Cascade Harbor Inn	Existing and proposed hotel rooms	95
Upper Basin	Proposed Woodland Cottages	42
Hilltop and Utility Tract	Employee Housing and work sites	60
Total Stalls:		476

Source: SJCC 18.60.120, Table 6.4 and Rosario Resort and Cascade Harbor Inn employment and occupancy data.

### Exhibit 5-1: Parking Requirements

Consistent with the San Juan County Comprehensive Plan, all parking facilities at Rosario will meet the following criteria (from the San Juan County Comprehensive Plan Parking Policies):

- P*afe ingress and egress
- T*creened or well set back from roads
- A*dequate design for ease of use
- P*rovide for the physically impaired
- P*rovide for alternative forms of transportation

Parking at the Resort must also comply with Section 18.60.120 of the Unified Development Code, including Table 6.4, which specifies a minimum of one stall per 300 square feet of building area. Parking within 200 feet of the shoreline must also comply with SJCC 18.50.090, which stipulates shoreline-specific parking requirements. Bicycle parking must comply with Section 18.60.130 of the Unified Development Code. All parking must be landscaped in compliance with SJCC 18.60.160.



Figure 5.1-2: Electric People Mover

operators. During periods of peak Resort activity such as summer weekends and holiday periods, the circulator will operate continuously around the main Resort loop, connecting the Cascade Harbor Inn and the Hillside Condos with the Moran Mansion. The circulator will also provide periodic trips to the remote parking on the Hilltop and the tennis court. The circulator will also make runs to the Hilltop, shuttling employees between the Resort Core, the Utility Tract, and employee housing and parking during shift changes. During slower periods, the circulator will operate less frequently or on an on-call basis. Electric people movers are being considered for this role since they have the advantage of being easy to load and unload and are relatively narrow, making them suitable for the Resort's narrow roads, paths, and docks (Figure 5.1-2). Electric motors also have the high torque needed to ascend the steep grades on the upper part of the site, and are quiet and non-polluting.

## 5.2 ACCESS

Visitors are expected to arrive at the Resort using the three existing modes (ferries, private boat, and aircraft). However, the modal split is likely to shift away from drive-on ferry passengers due to the lack of additional vehicular capacity on the Washington State Ferry Service. In addition, an increasing percentage of guests is expected to take advantage of a proposed water shuttle service.

### 5.2.1 Ferry Access

The Washington State Ferry Service currently operates three "super" class ferries (*Illahee*, *Kaleetah*, and the *Hyak*) on the San Juan route. The super class ferry has a vehicle capacity of 100 and a passenger capacity of 1,200. During the summer months, the vessels typically run at vehicle capacity, and long waiting times for vehicular traffic are common during the weekends. For walk-on traffic, the vessels typically run under passenger capacity, with trip growth available in this mode. As the Washington State Ferry System plan does not anticipate expanded vehicle capacity, Resort growth will depend on walk-on ferry passengers and alternative access modes in the future. Rosario is one of the few resorts in San Juan County and the only one on Orcas Island that operates either a shuttle van service or a fleet of vehicle and bicycle rentals. As a result, the walk-on option is expected to become increasingly popular for Resort visitors wishing to spend more time enjoying themselves and less time waiting for ferries.

### 5.2.2 Aircraft Access

The fastest and most glamorous mode of travel to the Resort will continue to be by float-plane. Joint marketing efforts by Rosario and Kenmore Air including package deals will continue to entice increasing numbers of the Resort's more affluent guests as well as guests with restrictive schedules. In addition to regularly scheduled Kenmore flights, charter flights can be arranged, offering a

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relatively affordable and fast option for small group travel. The Marina expansion will be designed to improve float-plane operations at the Resort.

## 5.2.3 Road Access

All vehicular access to the Resort will continue to be via Rosario Road. Accessed from Olga Road just west of the entrance to Moran Sate Park, Rosario Road winds its way down the steep hillside, providing access to the Resort and surrounding neighborhood. Rosario Road averaged 1,163 daily trips in 2003 and has experienced relatively high accident rates due to steep grades, lack of shoulder, and limited line of sight. Proposed mitigation measures that could improve the safety of Rosario Road include: additional warning signage near the intersection with Olga Road, placement of type II (reflectorized) buttons on the center and edge lines, chevron signage along the curves, and establishment of a trail system to and from the employee housing. The selection of traffic control devices needs to be balanced with the principles outlined by the San Juan County Scenic Roads Manual.

Vehicular safety and traffic capacity improvements along this road network are addressed in further detail as part of the concurrency analysis (FEIS, Appendix C). Pedestrian improvements will include new pathways and trails described in Section 5.1.1.

## 5.2.4 Boat Access

The proposed harbor expansion will greatly increase the capacity for marine access. A significant portion of the new slips will be available for transient use. In addition, a new floating concrete breakwater will facilitate visits by larger yachts and commercial vessels capable of transporting larger numbers of passengers.

## 5.2.5 Water Shuttle

As discussed under Section 4.3, a large power yacht would be one of the amenities of membership in either the Moran or Marina Village Clubs. One of this yacht's most important functions would be to provide scheduled sailings from the mainland, most likely Anacortes, but possibly Bellingham or even the Seattle area on certain occasions. The concept is to provide a dependable, convenient, fast, scenic, and fun alternative transportation mode for conveying Club members and their guests to the Resort.

In one possible scenario, Moran Club members and Marina Village Club members could have a designated parking area in Anacortes where, during the peak summer season, the concierge would meet them at a specified time each day and load all luggage onto the Club yacht, which would then sail directly to the Resort, where passengers would disembark and the concierge would then have all luggage transported directly to each unit. All Club members and Moran Mansion Inn guests would be required to pay a nominal fee to offset the costs of offering

Exhibit 5-2: Natural Integrity Guidelines

*N*ew development should be sited on previously developed or modified sites (rather than on undeveloped land) with adequate setbacks from shorelines, riparian corridors, and critical wildlife habitat.

*D*evelopment areas should include clear definition of building zones and undisturbed surrounding land areas.

*C*onstruction should follow best management practices (BMPs) consistent with the Washington Department of Ecology Storm Water Management Manual for the Puget Sound Basin, as amended, to avoid excessive runoff, siltation, and suspended particulates.

*L*andscaping should prioritize native, drought-tolerant, and deer-resistant plants.

*R*oads, parking, roofs, and other impervious surfaces should be kept to a minimum.

*N*ew construction and rehabilitation should maximize opportunities for water conservation and reuse.

*D*evelopment should maximize compliance with the U.S. Green Building Council's Leadership in Energy and Environmental Design (LEED) rating system.



this service. Depending on demand, this service could be offered year-round; however, it would likely only be critical during the peak summer months when congestion on the State ferries results in extreme waits. Not only will this improve the Resort experience, but it will reduce dependence on limited-capacity public infrastructure such as Washington State ferries and County roads.

5.2.6 Valet Service

Rosario plans to continue to operate its fleet of shuttle vans, offering scheduled valet service between the Resort, the Orcas landing ferry terminal, and Orcas Island Airport. These vans are also used for shuttling guests and their belongings around the Resort, reducing guests' need for automobiles. Following employee housing expansion at the Hilltop, the vans will also be used to transport commuting employees who live or park at the Hilltop. These vans can also be used for shuttling drivers to and from the remote parking lot at the Hilltop.

5.3 LANDSCAPE AND SITE DESIGN

The Resort's character is determined as much by its landscape as it is by its architecture. In addition to complying with Section 18.60.160 of the Unified Development Code, the Resort's landscape design and maintenance will be based on the Olmstedian Principles evident in the original landscape design.

Frederick Law Olmsted developed guiding design principles that influenced his designs and that of his successors, son Frederick Law Olmsted Jr. and stepson John Charles Olmsted. The Olmsted Brothers of Brookline, Massachusetts were hired by Moran in 1907 to lay out the Rosario grounds and waterfront. John Charles Olmsted first visited Rosario during the Mansion's construction in April 1907. During his visit, Olmsted made careful notes and numerous recommendations which later resulted in Rosario's first site plan. Moran's design aesthetic was influenced both directly and indirectly by the Olmsteds. Accordingly, it is appropriate that the design principles inspired by Olmsted and listed in Exhibits 5-2 and 5-3 continue to guide the design of the Resort's landscape.

The Resort has a number of specific landscape conditions that warrant more detailed treatment. These include: Entrances, Open Space, Signage, Public Art, Lighting, Vegetation, Shoreline Protection, and Historic Landscape Elements, as discussed below.

The following landscape design issues should be explored in more detail in separate design guidelines proposed in Section 7.2.3.

5.3.1 Entrances

The Resort has always had two entrances, one by land and the other by sea. Both will be treated equally in importance and given high priority since first impressions are everlasting.

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## From Water

Visitors and guests arriving by boat or float-plane will be greeted by well-designed and maintained docks. Getting from the dock to the front desk will be easy and obvious and preferably not require a vehicle.

## From Land

After driving down a well-maintained Rosario Road, guests and visitors will be greeted by a welcoming sign at the foot of the hill that clearly heralds their arrival at the Resort. The sign will point the way to the Mansion, which will be made more visible by design modifications to the entrance alignment and landscaping and to Cascade Harbor Inn. Coordinated signage will indicate other destinations such as the Marina, Spa, restaurant, Cabana Complex, Resort concessions, and private homes also accessed by this shared entrance.

### 5.3.2 Landscape and Site Design - Open Space and Shoreline Access

The Resort's busiest season is during the summer months when fair weather makes outdoor activity most appealing. Outdoor open spaces serve both as centers of activity as well as places of refuge and solitude. The most popular activity spots include the lawn on Rosario Point, which is popular for wedding ceremonies, the Mansion's terraced lawn overlooking Cascade Bay and the swimming pool, the Green by the Figure 8 Lagoon where volleyball and other sports take place, and the lawn and deck by the

## Exhibit 5-3: Olmstedian Principles

*P*lant Selection - Biodiversity and the use of native plants are important to landscape design. Incorporate native tree species such as the Pacific madrona and Garry oak that exemplify San Juan Island vegetation into the landscape.

*S*cenery - Employ "passageways of scenery" and the balanced use of grass, wood, and water to enhance visual interest.

*S*uitability - Incorporate existing topography and limit grading that distorts the natural sense of place. For example, a rock outcrop may be used by a landscape designer for its sculptural elements.

*S*anitation - Design the landscape to promote the physical and mental health of the user. This is particularly true of Rosario, which was built, in Moran's words as "a

wonderful place to get back to nature...to regain health—physical, mental, and spiritual." As a destination resort, Rosario continues to attract guests seeking those same qualities.

*S*ubordination - Whenever possible, architecture should be integrated into the landscape instead of remaining separate from it.

*S*eparation - Separate different modes of use such as walking and driving. For example, use grade-separated trails to allow guests and visitors to walk anywhere at Rosario without fearing vehicle conflicts.

*S*paciousness - Use design to make the landscape seem larger and draw the visitor in a definite direction. This will be particularly important as Resort facilities are added to the limited site.

Source: *Massachusetts Land Trust Website*



Exhibit 5-4: Open Space Guidelines

- I*mprove pathways to better link indoor and outdoor spaces to increase apparent proximity between different parts of the Resort.
- L*ocate plantings to buffer roads and views that do not enhance the Resort experience.
- S*trategically locate shade trees to provide cover for those trying to avoid sun exposure.
- P*lace vegetation and structures to block excessive wind exposure.
- I*ncorporate outdoor lighting to improve personal safety and assist wayfinding.
- P*rovide improved landscape maintenance.
- S*eparate new buildings with usable courtyards allowing light and air to penetrate each building and allow spaces for gatherings between them.
- P*reserve all significant trees whenever possible, especially those with historic significance.
- C*ontrol invasive weeds and plant native vegetation.

Discovery House Conference Center which are used in conjunction with functions there. More contemplative spaces include the beach and other waterfront areas with their majestic water views toward distant islands.

Some open space will inevitably be lost to development, but this loss can be offset if the remaining open space is improved to better serve Resort guests and visitors. Landscape enhancements to open space are listed in Exhibit 5-4.

The majority of Rosario’s shoreline has always been accessible to the public, thanks to a concrete walkway that parallels the shore of Cascade Bay, extending from the Discovery House to the Mansion. Under this RMP, access to these same portions of the Cascade Bay shoreline will be enhanced and maintained for the benefit of resort guests and the general public alike. Restored and enhanced pedestrian facilities that provide access to Rosario’s shoreline shall be designated and signed for public access.

5.3.3 Signage

Signs at the Resort will assist wayfinding, notify guests and visitors about Resort activities, and provide interpretive information about the site’s history and natural environment. Signage within the shoreline zone, which includes most of the Resort Core, is subject to SJCC 18.50.120.

Wayfinding

Tastefully designed directional signs for motorists and pedestrians will be located at appropriate intersections and be illuminated for night-time use. These signs will contain a Resort map with a "you are here" marker as well as the location of all key activities and distances to them clearly marked. Lettering for motorists will be large enough to be able to read them from a stationary vehicle but not so large as to create aesthetic impacts. In addition, buildings will have names rather than numbers to help guests remember where they are staying. In general, signage will be pedestrian-oriented in design and scale and constructed of a uniform, high quality design using durable materials. Road signs must conform with design standards listed in Section 18.40.370-18.40.400 of the Unified Development Code.

Activity Kiosks and Bulletin Boards

Information kiosks and indoor bulletin boards will be strategically located at popular activity nodes to inform guests of upcoming activities. These are to remind visitors and guests of the many opportunities at the Resort, from the spa to the restaurant to the outdoor recreational opportunities. The times and days of regularly scheduled events such as the Friday night concert/lecture or Saturday morning nature walks will be listed. Information kiosks will be placed at appropriate locations such as intersections of major trails and other key nodes such as the Marina, Cabana Complex, and Mansion.



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## Interpretive Displays

The natural and social history of Rosario will be expressed in museum exhibits and other interpretive displays throughout the site. Historical interpretation of the Resort grounds and historically significant features (see Section 4.2.1) will be explained using interpretive displays. Complete with historical photographs, quotes, and technical information, these display panels will bring Rosario’s history alive for guests and visitors of all ages. Interpretive displays will also be installed to provide guests and visitors with information about the site’s natural environment and prehistoric human activity and archaeology. For example, 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.

## 5.3.4 Public Art

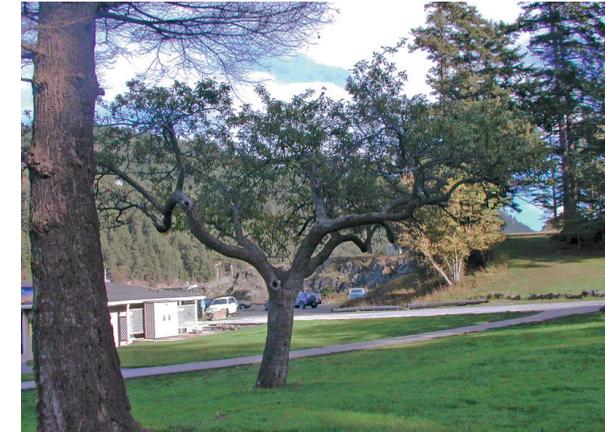
The Resort is an ideal venue for displaying outdoor art. Art would be a low maintenance and cost-effective way to attract a sophisticated clientele. Landscaping will create opportunities to highlight sculptural displays with designated spaces and in-place outdoor lighting, as well as pre-installed structural supports. Due to the Resort’s unique surroundings, art displayed at the Resort will be site-specific to complement local features.

## 5.3.5 Lighting

Outdoor lighting will be used where needed to improve the safety of guests and visitors, enhance aesthetics, and assist security. Lighting is particularly critical along pedestrian pathways as well as outdoor terraces, lawn surfaces, and play areas. Softer accent lighting will also be used to illuminate significant visual features such as the Moran Mansion, gardens, specific trees, and signage. Luminaries will be shielded to avoid glare and light pollution consistent with the provisions of SJCC 18.60.170 and be located discreetly so as not to create visual clutter during daylight conditions. Also, 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. The historic lighting in the Resort Core will be retained to maintain the site’s historic integrity, and new exterior lighting will be of a compatible design.

## 5.3.6 Vegetation

The Resort’s planting scheme will generally remain informal, consistent with Robert Moran’s design aesthetic and San Juan Island traditions. Plant selection and landscaping design will consider the Resort’s limitations on maintenance resources and irrigation water; thus, the majority of plants will be drought-tolerant. In general, native plants are best suited to these conditions and also offer the best habitat value; however, resistance to deer browsing is also important. Plants such as manzanita,



Several trees remain from Moran's original plantings such as this apple tree. As described below, as many of these trees as possible will be preserved

## Exhibit 5-5: Design and Historic Preservation

*In* historic preservation, there is often a very difficult balance between new design that is architecturally balanced and compatible and forms that mimic or replicate historic characteristics of significant properties. For these reasons, the design team for new facilities at Rosario should include a qualified historic preservation architect with an understanding of the Secretary of the Interior's Standards as they apply to rehabilitation, new construction, and setting. Likewise, it is very important that the design team 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. Rosario will also participate in informed design review of construction and landscape plans. Rosario 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.

madrona, garry oak, Oregon grape, foxglove, native rhododendron, ornamental grasses (Cerixes), and salal are good examples of plants that are visually suited to the Resort's specific aesthetics. In addition, a number of plantings established by Moran that have naturalized to the site, such as German iris and Japanese peonies, would be appropriate plantings due to proven success and their aesthetic and historical continuity.

As required by SJCC 18.60.190 A.11, all significant trees within the project area and its buffer areas will be retained whenever feasible.

In addition, 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.

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.

#### 5.3.7 Shoreline Protection and Restoration

The need to protect the shoreline from erosion must be balanced with design aesthetics and protection and

restoration of intertidal habitat. To prevent longshore sediment transport from filling in the harbor, small groins may need to be constructed along the shoreline. In general, the least amount of shoreline modification possible is preferable. All shoreline protection measures are required to comply with the County's Shoreline Master Program, especially SJCC 18.50.200, which regulates breakwaters, jetties, and groins.

#### 5.3.8 Historic Landscape Elements

Historic landscape elements are discussed above in Section 4.2.1. Protection of these resources is important to maintain the Resort's historic identity and ensure continued listing on the National Register of Historic Places (Exhibit 5-5). Restoration of these features will be consistent with the Secretary of the Interior's Standards for the Treatment of Historic Properties with guidelines for the Treatment of Cultural Landscapes.

#### 5.3.9 Utility Infrastructure

Resort redevelopment offers an exceptional opportunity to improve the aesthetics of the site through removing existing visual clutter in the form of propane tanks, electrical transformers, sewer lift stations, vaults, and other utility structures. While essential to the Resort's operations, these facilities will be located in less visually prominent locations, preferably underground or within buildings. If this approach is not feasible, these facilities will be painted to blend into the landscape and be screened from view with vegetation or other methods.

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Personal wireless communications service facilities (commonly known as cellular telephone antennas) are needed within the Resort Core to provide wireless communication services for Resort guests and employees. Because standard cellular tower designs are not visually compatible with the Resort's desired aesthetic character, future personal wireless communications service facilities must be disguised within new Resort construction or adequately camouflaged.

The MPR will be buffered and visually screened from neighboring properties. For example, the Resort Core 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 and the Hilltop will be screened from view from the road in compliance with SJCC 18.60.190. A.13 to protect the entrance to Moran State Park. 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. Visual screening between land uses is required by SJCC 18.60.160. Applicable screening includes Screen-A landscaping (i.e., the "full screen") between residential and non-residential uses, and Screen-C landscaping between the multiple family developments.

## 5.4 ARCHITECTURE

From an architectural perspective, the Resort's redevelopment offers an opportunity to remove numerous buildings that detract from Rosario's historic character

and dramatic waterfront setting. These non-contributing buildings will be replaced with new construction that complements the Moran Mansion and other surviving historic architecture, better serves their intended uses, is more sensitive to the environment, and enhances the Resort's image. The following architectural design issues will be explored in more detail in the design guidelines proposed in Section 7.2.3.

### 5.4.1 Historic Compatibility

It is critical that restoration of the Resort's historic elements comply with the Secretary of Interior's Standards For Historic Rehabilitation and Restoration (Exhibits 5-6 and 5-7) and that all new construction be compatible with the Moran Mansion and other historic architecture built by Robert Moran. For example, to ensure compatibility with its historic neighbor, the exterior of the Mansion Annex will be constructed of similar building materials and employ complementary proportions, but will clearly delineate old from new construction. The Annex should not, however, include new treatments or elements, such as towers or cupolas, that may compete with or draw attention away from the historic Moran Mansion. Historic compatibility does not mean that Moran's designs should be duplicated but rather reinterpreted with consideration for contemporary building materials and lifestyle. For example, the general building forms and attention to detail of craftsman-style cottages would be appropriate at the Resort. Nevertheless, new cottages and condos need to



The general proportions, roof forms, and siding materials of the Twin Craftsman Bungalows will inspire the design of the cottages



The roof pitches, gables, chimneys, and archways of the Moran Mansion could be reinterpreted in the design of the Mansion Annex and other new construction

Exhibit 5-6: The Secretary of the Interior’s Standards for Rehabilitation

1. A property shall be used for its historic purpose or be placed in a new use that requires minimal change to the defining characteristics of the building and its site and environment.
2. The historic character of a property shall be retained and preserved. The removal of historic materials or alteration of features and spaces that characterize a property shall be avoided.
3. Each property shall be recognized as a physical record of its time, place, and use. Changes that create a false sense of historical development, such as adding conjectural features or architectural elements from other buildings, shall not be undertaken.
4. Most properties change over time; those changes that have acquired historic significance in their own right shall be retained and preserved.
5. Distinctive features, finishes, and construction techniques or examples of craftsmanship that characterize a historic property shall be preserved.
6. Deteriorated historic features shall be repaired rather than replaced. Where the severity of deterioration requires replacement of a distinctive feature, the new feature shall match the old in design, color, texture, and other visual qualities and, where possible, materials.

- Replacement of missing features shall be substantiated by documentary, physical, or pictorial evidence.
7. Chemical or physical treatments, such as sandblasting, that cause damage to historic materials shall not be used. The surface cleaning of structures, if appropriate, shall be undertaken using the gentlest means possible.
  8. Significant archaeological resources affected by a project shall be protected and preserved. If such resources must be disturbed, mitigation measures shall be undertaken.
  9. New additions, exterior alterations, or related new construction shall not destroy historic materials that characterize the property. The new work shall be differentiated from the old and shall be compatible with the massing, size, scale, and architectural features to protect the historic integrity of the property and its environment.
  10. New additions and adjacent or related new construction shall be undertaken in such a manner that if removed in the future, the essential form and integrity of the historic property and its environment would be unimpaired.



address today’s preference for light-flooded, open interior floor plans, large view windows, and easy access to uncovered outdoor decks.

5.4.2 Appropriate Scale and Massing

The relatively large numbers of new units on the rather constrained site will increase unit density. This can work well in a resort setting like Rosario with modest-scale buildings such as the proposed cottages. Massing can be architecturally softened with details such as well-designed fenestration, bracketed soffits, slight variation in roof heights, articulated facades, a variety of colors and contrasting exterior building materials. For example, contrasting colors and generous decks on the water-side of the Marina View Condos would help break up the massing of these relatively large structures.

5.4.3 Materials

Moran’s aesthetic largely resulted from his choice of materials—poured-in-place concrete walls and walks; solid teak and mahogany doors, floors, and furniture; cast bronze hardware; heavy plate glass windows; and standing seam copper roofs. Such choices were not surprising considering his history as the mayor whose term in office included the great fire or a battleship builder. Moran’s masculine materials palate could be reinterpreted today with similar materials along with such contemporary materials as stainless and galvanized steel, cast aluminum, and a variety of masonry products. Moran’s

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environmental concerns could also be incorporated into the selection of reused/recycled content building products and energy efficient lighting, glazing, and insulation. In addition, building materials used in renovation and new construction need to be selected so as to minimize potential toxins and pollutants from entering fish habitat. Examples include replacement of the Mansion's deteriorating copper roofing with non-polluting substitute materials and use of porous paving rather than impervious surface materials, etc.

## 5.4.4 Building Heights and Rooflines

Buildings height will be appropriate to the specific setting; thus, the Mansion Annex will be subordinate to the adjacent Moran Mansion and the Waterfront Cottages will not block the views of their landward neighbors. Rooflines will reflect building function and architectural style; therefore, cottages will have peaked roofs with pitches of mimicking those on the Moran Mansion or the Twin Craftsman Bungalows.

## 5.4.5 Fenestration

One particular design challenge will be fenestration. A careful and appropriate balance must be sought between the desire to maximize water views and interior light with energy efficiency, historical compatibility, and privacy. In recognition of these potential conflicting demands, larger view windows should be oriented toward preferred views while other walls should have more modest fenestration.

## Exhibit 5-7: The Secretary of Interior's Standards for Restoration

- 1.** A property will be used as it was historically or be given a new use that reflects the property's restoration period.
- 2.** Materials and features from the restoration period will be retained and preserved. The removal of materials or alteration of features, spaces, and spatial relationships that characterize the period will not be undertaken.
- 3.** Each property will be recognized as a physical record of its time, place, and use. Work needed to stabilize, consolidate, and conserve materials and features from the restoration period will be physically and visually compatible, identifiable upon close inspection, and properly documented for future research.
- 4.** Materials, features, spaces, and finishes that characterize other historical periods will be documented prior to their alteration or removal.
- 5.** Distinctive materials, features, finishes, and construction techniques or examples of craftsmanship that characterize the restoration period will be preserved.
- 6.** Deteriorated features from the restoration period will be repaired rather than replaced. Where the severity of deterioration requires replacement of a distinctive feature, the new feature will match the old in design, color, texture, and, where possible, materials.
- 7.** Replacement of missing features from the restoration period will be substantiated by documentary and physical evidence. A false sense of history will not be created by adding conjectural features, features from other properties, or by combining features that never existed together historically.
- 8.** Chemical or physical treatments, if appropriate, will be undertaken using the gentlest means possible. Treatments that damage historic materials will not be used.
- 9.** Archaeological resources affected by a project will be protected and preserved in place. If such resources must be disturbed, mitigation measures will be undertaken.
- 10.** Designs that were never executed historically will not be constructed.





The Rosario Marina will continue to function as a port of call for San Juan Island excursion vessels such as the *Viking Star*

In addition, historically appropriate window styles and materials will be selected for most applications; however, operable roof windows would be an appropriate method of providing natural ventilation and daylighting to the cottages and other modestly proportioned buildings. Contemporary glass walls should be limited to view-dependant applications such as the restaurant/bar and other semi-public commercial applications.

## 5.5 HARBOR FACILITIES

The existing harbor facilities will be enhanced to improve the Resort as a popular boating destination. All improvements will comply with SJCC 18.50.190, which regulates boating facilities. The most substantial improvement will be an enlarged Marina occupying much of the central portion of Cascade Bay. In recognition of the exposure of Cascade Bay to prevailing wind and fetch, the Marina probably needs to be oriented so that most slips face directly into the prevailing wind. In addition, the Marina's docks will be augmented with appropriate shore facilities.

The Marina design process is expected to begin subsequent to submittal of this RMP to San Juan County. The design process will address engineering feasibility and environmental considerations while integrating as closely as possible the Resort planning and design concept presented in this RMP. Two preliminary conceptual design alternatives are illustrated in Figures 5.5-1 and 5.5-2 and described below.

### 5.5.1 Marina

A range of potential Marina configurations are under consideration, as illustrated in Figures 5.5-1 and 5.5-2. The Marina docks and finger piers will be constructed of treated wood or concrete and will be anchored by pilings of concrete or steel or anchored to the bottom. In general, smaller (30- to 40-foot) slips will be closer to the shore, while the larger (50- to 60-foot) slips will be farther out.

An Americans with Disabilities Act (ADA)-accessible gangway will provide access to the main walkway docks. Moorage slips will be aligned in a northwest-southeast orientation, corresponding to prevailing winds to provide for ease of handling and maneuvering of vessels within the harbor. All slips will be provided 30 or 50 amp power and water service. A dinghy float will be installed parallel to the shoreline.

The proposed Marina expansion will contain approximately 165 moorage slips, including side-tie moorage for a variety of sail and power boats. The total moorage capacity can be expanded during calm weather with additional side-ties on the outside of the proposed floating breakwater and by rafting during popular boating events such as class rendezvous and regattas. End-tie moorage can accommodate multi-hull or longer vessels, while the largest vessels would use the outside of the floating breakwater. A breakdown total of moorage slips is shown in Table 5.5-1 for two potential Marina configurations.

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## Float-Plane Facilities

Movable wooden float-plane docks will be attached to the western end of the floating breakwater. This design and placement will allow for seaplanes to approach and tie up to the dock in different directions depending on weather and sea conditions. In times of adverse weather, seaplanes could tie to the inside of the breakwater and be afforded more protection from the chop.

## Fuel Dock

Rosario Marina’s fueling facility will consist of a single concrete dock on the main walkway dock. In this location, protection from wind and wave elements for fueling vessels will be provided by the breakwater and slips. Both diesel and gasoline will be available to boaters. Fuel will be stored in U.S. Environmental Protection Agency (EPA) approved, double-walled storage tanks located upland from the Marina.

## Sanitary Pump-Out Facilities

An approved sanitary pump-out station will be located at the fuel dock. Pumped sewage will be transported via new sewage lines to treatment facilities on the Utility Tract. A number of the transient slips will be plumbed with a vacuum sewer terminal, allowing boats to couple in and constantly drain their tanks, or even flush directly to Rosario’s sewer system. In addition, a rolling, portable supplemental pump-out unit will be provided to go directly to berthed boats and pump them out without the need to move to the fuel dock.

Table 5.5-1: Proposed Marina Slips.

Slip Length	Concept A		Concept B	
	Approx Quantity	Approx %	Approx Quantity	Approx %
30'	24	15	12	7
40'	53	32	70	41
50'	38	23	42	25
60'	38	23	32	19
Over 60'	12	7	12	7
Total:	165	100	168	100

## Marina Office

The existing Marina office on the pier would be expanded to two stories to allow close monitoring of fueling and other marine activities throughout the harbor. This building will provide customer counter space, a small waiting area, storage, and a Marina office. Power, water, and telephone service will be provided to the building.

## Marina Activity Center

A multi-purpose Marina Activity Center will be co-located with other facilities near the shoreward end of the pier or jetty to house facilities needed by visiting boaters, including showers and restrooms, a small coin-operated laundry, and a repository for solid waste and recyclables, as well as a variety of Resort-operated or leased marine businesses. As discussed under Section 4.5.4, these businesses will likely include kayak tours, sailing instruction and charters, a dive shop, Marina market, seaplane service, and fishing



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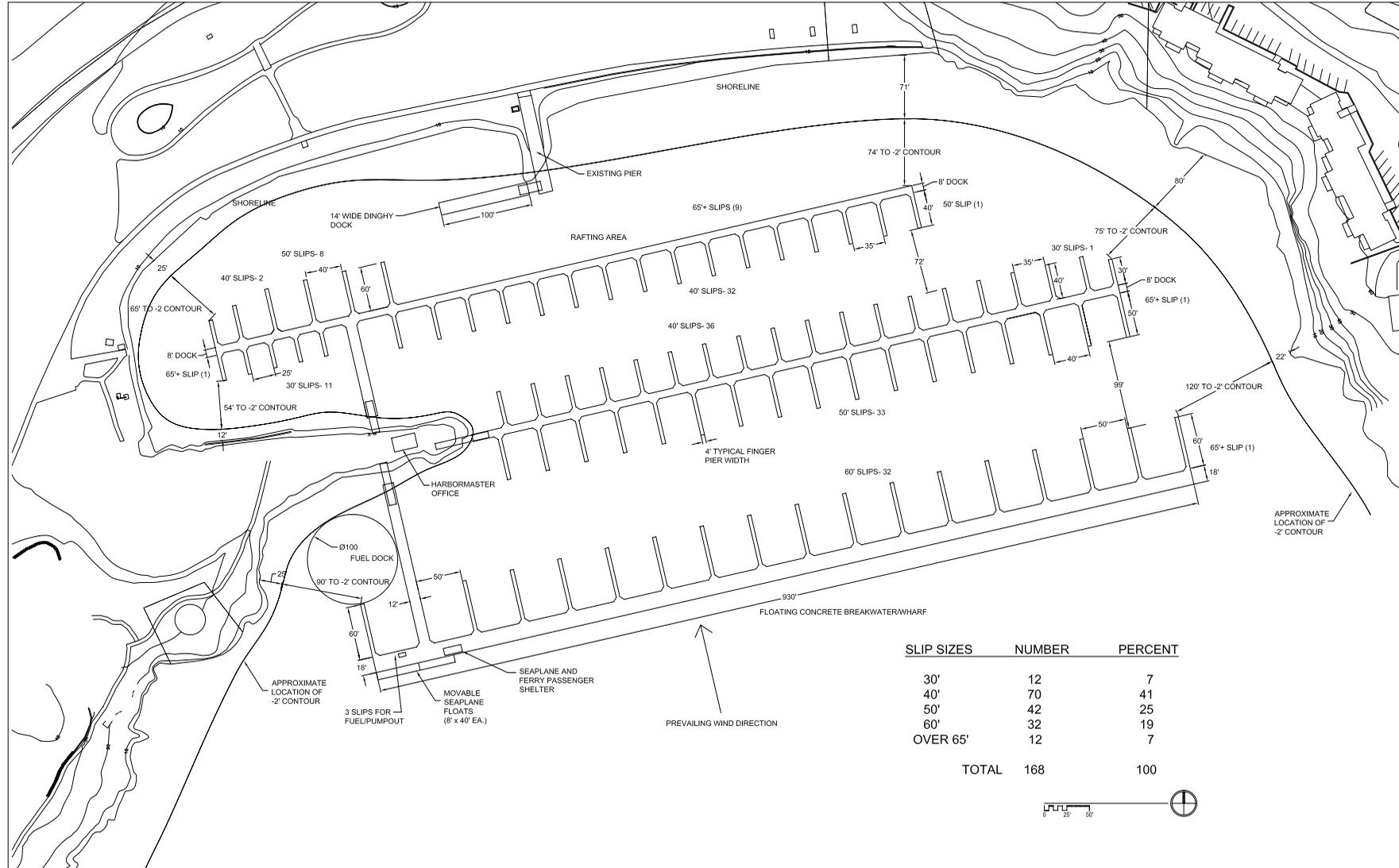


Figure 5.5-2: Marina Concept B

Under this configuration, three separate floating docks including the proposed floating breakwater all connect to the existing stone jetty on the west side of the harbor.

Note: Approval of the Marina expansion with an upper limit of 164 slips should not be construed as approval of a 164-slip marina. The upper limit of 164 slips is for planning purposes only. The actual number of slips to be developed shall be based on the additional environmental studies and review, including environmental review under SEPA, that will need to be completed to obtain the necessary Federal, State and local permits required for the Marina expansion. However, regardless of the results of future environmental analysis no more than 164 slips shall be developed.

and whale watch charters. These businesses and services are intended to expand the marine-related activities available to Resort guests and visitors. Small kiosks will be located on the floating breakwater so the different vendors can service their operations from a location near their vessels.

### Floating Breakwater

Protection of the Marina and other marine facilities will be provided by the installation of a concrete floating wave attenuator. This structure, commonly called a floating breakwater, will provide all-season protection from wind and wave attack, allowing year-round operation of the marine facilities. It will be oriented in a northeast-southwest alignment to provide maximum protection for the harbor. Due to the depth of the water, the breakwater will be anchored to the bottom of the seabed, as opposed to being secured with pilings. The protected side of the breakwater will support the majority of the Marina's 60-foot moorage slips. The water-side will contain movable wooden seaplane floats and a covered waiting area for the convenience of seaplane, ferry, or water taxi passengers who will load and disembark on the outside of the breakwater. These facilities will allow for transportation of guests and luggage from ferries and seaplanes via electric carts. The outside of the breakwater will also provide side-ties and possible fueling for large private vessels.

A community boat launch will be built and maintained for use by the Rosario Resort community (Resort guests, cottage/condo owners, Rosario Property Owners Association, etc.). To minimize consumption of waterfront land or generating excessive activity, this boat launch would likely be limited to a single lane for small hand and trailer-launched boats and be limited to community use. The ramp would follow the natural grade and be located adjacent to a float alongside the exiting pier. Limited trailer parking would be provided at the Hilltop with access provided by the Resort shuttle.

### 5.5.2 Protection of the Marine Environment

A number of measures are necessary to minimize net loss of habitat function and values in Cascade Bay. These include the use of Best Management Practices to control erosion and protect water quality during the project's construction phase, a Conceptual Stormwater Management Plan to intercept, detain, and treat stormwater runoff before it enters Cascade Bay and a proposed shoreline restoration program for the Cascade Bay shoreline. Additional environmental measures will be incorporated into the marina's design to ensure proper techniques and work windows are observed. For example, to minimize shading impacts on nearshore habitat, slips will be generally oriented north/south and located in deeper subtidal waters. Gratings will be used for gangways and floats exceeding 6' in width. Also, the existing marina contains 44 aging creosote pilings and another 80 that support the historic pier. In addition,

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many of the existing docks contain Styrofoam floats. All of these will be replaced with non-polluting replacement materials such as steel, concrete or recycled plastic.

## 5.5.3 Shoreline Treatment

The harbor layout would minimize environmental and pedestrian impacts to the shoreline and enhance its aesthetic appeal and habitat value. To ensure proper techniques and work windows are observed, shoreline restoration program will be developed in conjunction with Friends of the San Juans, WDFW, USFWS, and other appropriate agencies and stakeholders. The primary objective of this plan will 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 excellent 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. Guided by the shoreline restoration program, the existing rip-rap lining Cascade Bay will be removed and replaced with a soft shoreline once the floating breakwater is installed as part of the proposed marina expansion.

## 5.5.4 Site Preparation

Minimal site preparation would be required to construct the new harbor facility. Limited dredging in the existing inner basin would occur with accumulated sediments excavated from shore; however, no dredging is anticipated

as part of construction of the floating breakwater and docks. The historic wharf would be rebuilt and possibly shortened to reduce underwater shading. The Marina office and all existing docks and pilings would be replaced to improve function. Sediment transportation into the harbor would be controlled with groins, and the sand beach built up in this area would become a recreational and environmental benefit to the area. Upland construction would employ 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 of the FEIS.

## 5.6 UTILITIES

Utilities supporting the Resort will be expanded as required to meet the needs of Resort redevelopment. Consistent with requirements addressed in the Capital Facilities element of the San Juan County Comprehensive Plan, utilities expansion will be concurrent with Resort and background demand growth in order to prevent level of service impacts. The proposed utilities improvements are described and analyzed for concurrency in FEIS, Appendix C: Concurrency Analysis.

## 5.7 STORMWATER MANAGEMENT

A Conceptual Stormwater Management Plan (CSMP) has been developed according to the standards and guidelines contained in the Stormwater Management Manual for Western Washington and the San Juan County Unified Development Code. This CSMP (Appendix G of the FEIS,) provides a basis for the location and sizing of stormwater management facilities as Rosario Resort is redeveloped. The CSMP presents strategies for meeting the federal, state and local stormwater requirements as individual resort redevelopment projects are undertaken. Stormwater issues specific to Rosario addressed by the CSMP include building and roof surfaces; roads and parking lots; shallow soils; shorelines; fertilizers and pesticides. The CSMP also includes conceptual treatment alternatives and stormwater facility designs for proposed development within the Resort Core; the Hillside; the Upper Basin; the Utility Tract; and the Hilltop. Final design of these stormwater facilities, and final approval of such designs, will be included in the site-specific approval process as individual projects are designed and submitted for agency review and approval.

## 5.8 FIRE PROTECTION AND EMERGENCY PREPAREDNESS

As described below, Rosario Resort and Cascade Harbor Inn share a comprehensive fire protection and emergency preparedness system that will be updated through implementation of this Resort Master Plan. The existing fire protection system consists of fire hydrants in the Resort Core, Hillside and Hilltop areas; a centralized smoke/fire alarm system; and fire extinguishers and other apparatus located in each building and at the marina. Fire fighting services are provided to the MPR by the Orcas Fire Department. Specific requirements for updating and improving the system will be considered with each PUD, and may include installation of automatic fire sprinklers and/or lighting of the emergency helicopter landing zone. Additional actions which will be implemented to reduce potential fire risk and property damage are listed in Exhibit 5-8.

### 5.8.1 Fire Flow and Hydrants

The Resort Core and Hillside areas are supplied by a 6" diameter water main that provides at least 1,000 gallons per minute (GPM) fire flow. There is also a hydrant by the Hilltop employee housing supplied by a 4" diameter line. Untreated water is supplied to this system directly from Cascade Lake via the Resort's 10" diameter penstock that also supplies the Resort's hydropower and irrigation. An existing drafting port near the Cascade Lake Dam provides

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a convenient and virtually limitless water source for fire fighting in the vicinity of the proposed Woodland Cottages and for re-filling the Fire Department's pumper and tender. Hydrants are located in close proximity to the following buildings and sites:

1. Moran Mansion
2. 1300 Building
3. Twin House Lane
4. Discovery House Parking Lot
5. 1600 Building
6. 2000 Building
7. 2100 Building
8. Cascade Harbor Inn

## 5.8.2 Building and Marina Fire Protection

All existing Rosario Resort buildings are connected to a centralized smoke/fire alarm system that is connected to the Orcas Island Fire Department and Resort administration. These buildings are also equipped with fire extinguishers. In addition, the marina is equipped with the standard number of fire extinguishers, an emergency fuel shutoff on the fuel pier and a large, rolling foam fire extinguisher used especially for fuel fires. As required by San Juan County regulations, all new construction will comply with the International Fire Code. As required by San Juan County Condition 22, to reduce the risks

associated with structural fires, the renovated Mansion and all new development shall be provided with automatic fire sprinklers.

## 5.8.3 Orcas Island Fire Department

The Rosario Master Planned Resort is within San Juan County Fire District No. 2, known locally as the Orcas Island Fire Department. Orcas Island Fire Department's Station No. 3 is centrally located adjacent to the Utility Tract, and between the Resort Core, the Hilltop and the Tennis Courts, on a site originally donated by Rosario Resort. Fire Station No. 3 is well staffed by volunteers from the Rosario neighborhood and equipped with a Class A pumper with a 1,000 gallon tank and a 2,000 gallon tender. A new self-filling 2,600 gallon tender is on order, with delivery scheduled for May of 2007.

## 5.8.4 Automatic External Defibrillators

Automatic External Defibrillators (AEDs) can make a critical difference in the outcome of heart attacks and other cardiac events. At a minimum, AEDs will be provided in the Mansion, the Mansion Annex and at the Marina.

## Exhibit 5-8: Rosario Fire Protection Guidelines

According to the Orcas Island Fire Department, Orcas Island experiences a low number of wildland fires. These are usually small and expand slowly due to the typically moist conditions, even during the dry summer season. Because of this, natural fuel sources have accumulated over the years, increasing the risk of fire. To diminish the potential risks, the following precautions will be implemented, with the concurrence of the Fire Chief, the Building Code Official and the Fire Marshal. Note: These are intended as suggestions and guidelines for the future design team and they should not be construed to limit the flexibility of agency officials in prescribing actions to minimize the risk of fire.

#### 1. Fuel Load Management

Dead trees and shrubs surrounding buildings provide fuel sources for fire. Rosario management will take the following actions to manage natural fuel sources:

- Within 100 ft. of developed portions of the site
  - a) All dead plants, trees and shrubs will be removed;
  - b) Dead wood, debris and tree branches below 10 ft. will be removed; and
  - c) Dense, flammable plants will be removed or replaced with more fire-resistant vegetation.
- No firewood or other exposed fuel sources will be stored within 30 feet of buildings.

#### 2. Fire-safe Landscape Design

The building layout and landscape design will include the following:

- “No Smoking” and “Fire Hazard” signs will be posted at trail heads to discourage smoking, open fires and other unsafe behavior during periods of elevated fire risk.
- A perimeter of defensible space will be created by thinning trees and brush within 30 feet surrounding each building.
- To prevent ground fires from jumping into tree crowns, small trees and plants growing under trees will be removed on a regular basis.
- To effectively break-up continuity of vegetation, at least 10 to 15 feet of separation will be maintained between islands of shrubs and plant groups.
- Fire-safe zones free of fuel sources such as masonry walls, patios, swimming pools, decks and roadways will be used to divide vegetated areas.
- Rock, mulch, flower beds and gardens will be used as ground cover for bare spaces to serve as effective firebreaks.
- To serve as a green belt and protect against fire, the Resort’s landscape will be irrigated and well-pruned during the dry season.
- Grass within 100 feet of buildings will be trimmed on a regular basis.

#### 3. Fire-resistant Vegetation

To prevent fire from spreading quickly, plants with fire-resistant characteristics will be selected for ground cover, shrubs and trees:

- To prevent ignition, only drought-tolerant vegetation will be selected for planting within three feet of structures, and shrubs will be pruned regularly. Plants will be selected, spaced and maintained to maximize defensible space and minimize fire hazards.
- High moisture plants that grow close to the ground and have a low sap or resin content will be used as ground cover.
- Fire-resistant species such as hedging roses, bush honeysuckles, cottoneaster, Western azalea, currant, ocean spray, snowberry, sumac, vine maple and Western spirea will be used as shrubs.
- Hardwoods, such as garry oak and big leaf maple are less flammable and will be used rather than pine, fir and other conifers.

#### 4. Fire-resistant Building Design

Where permitted by State adopted building and fire codes as administered by San Juan County, the Resort will use the following building design and construction techniques:

- New and renovated buildings will be constructed in compliance with applicable provisions of the International Fire Code, International Residential Code, and International Building Code.
- Only roof covering assemblies rated Class A, B, or C shall be used.
- Overhanging projections such as porches, decks and balconies shall be constructed of heavy timber.
- The underside of overhanging buildings shall be constructed of heavy timber, 2-hour fire-resistive-rated material, or noncombustible materials.
- Structures located within 100 feet of forested areas shall have exterior vertical walls constructed with a 20-minute fire-resistive-rated assembly.
- Exterior, glass windows, doors, and skylights potentially exposed to wildland fires shall have a fire resistance rating of no less than 20 minutes.
- Exterior doors potentially exposed to wildland fires shall be approved noncombustible construction, solid core wood no less than 1.75 inches thick, or have a fire protection rating of no less than 20 minutes.
- Every chimney, flue or vent for a solid fuel burning fireplace, stove or similar device shall be provided with an approved spark arrestor.



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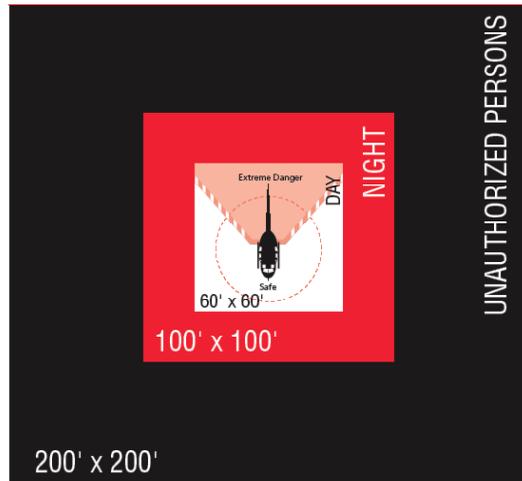
## 5.8.5 Emergency Helicopter Operations

Rosario shall continue to permit use of its existing helicopter landing zone for emergency flight operations. This currently consists of a concrete-paved area located on the center of the jetty. It is marked with a painted cross and is clearly visible from the air. To enhance operational safety, this site marker will be re-painted, the flag pole will be relocated, and the landing zone area will be maintained by the Resort as stipulated by Airlift Northwest and the Orcas Island Fire Department. This maintenance includes (but is not limited to) removal of debris, unsecured materials and tall vegetation. When flight conditions require, the grass lawn areas between the Figure-8 Lagoon and Cascade Bay can continue to function as alternate landing locations. Airlift Northwest's emergency helicopter landing zone guidelines are included in Exhibit 5-9 and diagrammed in Figure 5.8-1.

## 5.8.6 Wildfire Safety Zone

The entire Cascade Bay waterfront from the Discovery House to the jetty functions as a natural wildfire safety zone due to the firebreaks provided by the waters of the Figure-8 Lagoon and Cascade Bay, as well as the lack of ladder fuels (large dry vegetation) in this area. This waterfront area shall continue to serve as a wildfire safety zone under this RMP.

Figure 5.8-1: Rotary Wing Aircraft Landing Zone Requirements



- Remain clear of the aircraft unless signaled by flight crew.
- Approach the aircraft from the front, in view of the pilot. Never approach from the rear.
- No unauthorized persons within 100 feet of the aircraft.
- No smoking near the aircraft.
- No loose articles near aircraft.
- Do not approach the aircraft carrying anything above your head.

Exhibit 5-9: Emergency Landing Zone Guidelines

*Helicopter Landing Zone (LZ) Information*

The Resort will implement the following helicopter landing zone guidelines for use by emergency flight operations by Airlift Northwest or other agencies and operators:

*Before Helicopter Arrives*

- Conduct an inspection of the landing zone. The landing zone should be clear of:
  - Debris and unsecured materials
  - Brush taller than knee high
- Prepare a brief description of the landing zone.
  - Note flagpoles, overhead wires, light standards, radio towers, fences, obstructions, or other hazards in relation to compass bearings (N,S,E,W).
  - Note surface winds and visibility.
- Ensure the safety and security of the landing zone.
  - Fire department personnel should maintain a 200 foot perimeter for bystanders, from aircraft arrival through departure.
  - Personal protective equipment (vision and hearing protection) should be utilized.
- Landing zone lighting issues.
  - No white strobe lights
  - Red lights assist in noting location
  - Flares OK if not a fire hazard due to the helicopter downwash
  - All white lights (headlights) OFF during landing and takeoff, to protect pilot's night vision
  - Do not spotlight overhead hazards

*Helicopter Arrival and Landing Procedures*

- Brief the pilot prior to arrival, noting locations of known hazards in the LZ area.
- Remain in two-way radio contact throughout landing. Be prepared to call off landing if LZ or helicopter approach becomes unsafe.

*While in the landing zone*

- Do not approach the helicopter until the rotor blades have stopped.
- Approach the helicopter only from the front, once directed by the flight crew.
- Do not walk around the tail, even when aircraft is shut down.
- Maintain the LZ security and light restrictions at all times.
- Review known hazards with the pilot before aircraft departure.

*Helicopter Departure*

- Clear all ground personnel away from the helicopter before engine start.
- No one may approach after engine(s) started.
- Re-establish two-way radio contact with pilot and confirm the LZ is secure.
- Notify the pilot immediately if an unsafe situation develops.



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## 5.9 SHORELINE PROTECTION

As a historically water-related resort, Rosario has a special obligation to protect the shoreline and waters of Cascade Bay. Aesthetic and environmental quality protection measures for application within 100 feet from the shoreline are summarized below.

### 5.9.1 Protecting Views from Cascade Bay and East Sound

Rosario occupies a premier site on a prominent point at the head of Cascade Bay, overlooking East Sound. The stately Moran Mansion, which can be seen from several miles to the south, dominates a boater's view of the Resort as he or she approaches from East Sound. As the Resort is redeveloped, it is important that the Moran Mansion continues to dominate the landscape of the Resort and that other buildings remain modest in scale and visually subordinate. This can be achieved by removing existing visual clutter along the waterfront such as the Mansion's kitchen and dining room wing, the Mansion swimming pool and deck structure, the 1300 Building, and the Discovery House. The Mansion can also retain its visual dominance by limiting the density and scale of new buildings proposed along the waterfront. Buildings themselves will require careful siting, complementary architectural design, and adequate vegetative screening. Specific methods to ensure the visual subordination of future construction within 100 feet of the ordinary high water mark (OHWM) of the shoreline are presented in Exhibit 5-10.

### 5.9.2 Low Impact Development Practices

A number of Low Impact Development (LID) practices will be followed during development along the shoreline, and in many cases throughout the MPR, to provide additional protection to the waters of Cascade Bay. LID is an ecologically friendly approach to land development designed to minimize changes to watershed hydrology and reduce impacts to aquatic resources through innovative stormwater management. LID is based on the premise that nature knows best. Rather than collecting and concentrating stormwater, native vegetation, landscaping, and small-scale hydrologic controls capture, treat and infiltrate the stormwater in small quantities. LID-designed sites will help protect the marine environment of Cascade Bay by preserving natural flow patterns and peak volumes of runoff. Trees and other native vegetation will also be preserved to help store and retain stormwater. Specially designed landscaped gardens will then be built to treat and infiltrate stormwater. Alternatives to asphalt and concrete roads, driveways and parking areas will also be used to infiltrate stormwater and improve groundwater recharge. Together these measures will not only help maintain site hydrology and reduce runoff, they will also reduce overall development costs and make the Resort more attractive and harmonious with its Orcas Island setting. Specific LID methods for application to future construction within 100 feet of the OHWM of the shoreline are listed in Exhibit 5-11.

## Exhibit 5-10: Shoreline Aesthetic Guidelines

*Note:* These are intended as suggestions and guidelines for the future design team and they should not be construed to limit the flexibility of agency officials in prescribing actions to minimize the visual and environmental impacts.

*Achieving Visual Subordination:* The following menu of design considerations will be used to ensure that new additions to the Resort are visually subordinate to the Moran Mansion.

- 1.** Building Locations: New buildings will be sited as far from shoreline and ridge-top locations as possible to appear set into the landscape rather than protruding from the landscape.
- 2.** Grading: Areas between new and existing land forms will be graded so as to gradually blend them in a natural appearing manner. This will be far less visually evident than abrupt geometric slopes or terraces. Where retaining walls are necessary for safety or desirable as a means of minimizing overall grading, the shape of the wall and material used on the exterior face of the wall will be designed to blend with the surroundings.
- 3.** Architecture and Massing: As is discussed in Sections 4.2.6 and 5.4, new Resort architecture will be historically compatible and well designed and constructed. This is particularly true of buildings visible from the water that will help define the Resort's character and make an important first impression on guests arriving by boat and seaplane. Massing should be modest and well articulated in order to be subordinate to the Moran Mansion and existing terrain features such as Rosario Point and Bowman's Creek Falls.
- 4.** Reflectivity and Exterior Colors: While colors can be changed, the reflectivity and texture of an exterior material is often determined by initial material selection and can be difficult or costly to alter once it is in place. Selection of dark earth tone colors present in the natural landscape is essential for development to blend with its surroundings.

Light colors reflect more light and appear even lighter when applied to most building surfaces. Even bright, open portions of the landscape include a lot of shadowing, richness in texture, and color variation that most structures and exterior materials do not or cannot mimic. To avoid selecting an earth tone color that is too light, one can look to shadows and other dark areas in the surrounding landscape for guidance. Generally speaking, the larger the area to which color is applied the lighter it appears. Colors that blend with the shadows and other dark colors in the landscape allow a development to recede rather than stand out. For these reasons, the Moran Mansion will remain relatively brightly painted while other waterfront buildings will be painted in darker, more subdued tones.

**5.** Building Materials: The selection of exterior materials significantly affects the visibility of a structure. Appropriate siding for buildings visible from the water include: rock masonry; rock veneer; board and batten wood plank; mill cut plank siding (V-groove, channel, shiplap etc.); concrete or stucco, and pre-weathered metal. Appropriate roofing for buildings visible from the water include: high profile composite shingle; slate or faux slate; Faux oxidized copper metal roofing, and green roofs planted with moss, sedum or grasses. Appropriate windows for buildings visible from the water should be limited to modestly sized, separated panes, shaded by overhangs, screened by vegetation and utilizing glass with an exterior visible light reflectance rating of 12% or less.

**6.** Exterior Lighting: Exterior lighting within 100 feet of the shoreline will be limited to low-level pedestrian lamps directed toward the ground and away from the water.

**7.** Vegetative Screening: Vegetation will be planted between new construction and the water to provide partial screening of buildings when viewed from the water. Salt-tolerant species native to Orcas Island shoreline areas are preferred for these locations.



# Rosario

## Exhibit 5-11: Environmental Quality Protection Guidelines

### *Low Impact Development Practices*

The following menu of design options will be used to reduce impacts to the water quality of Cascade Bay and East Sound. These are intended as suggestions and guidelines for the future design team and they should not be construed to limit the flexibility of agency officials in prescribing actions.

**1.** Elimination of Roads, Parking and Outdoor Storage: Existing parking and outdoor storage areas will be removed and no new roads, parking lots or large outdoor storage areas will be permitted within 100 feet of the shoreline. Even with the structures proposed for this area, there will be a reduction in the amount of impervious area.

**2.** Pervious Pavements: New trails, walkways and patios throughout the Resort will be constructed of pervious concrete, wooden boardwalks and other materials that allow infiltration of stormwater.

**3.** Protection and Replacement of Vegetation: Pre-construction clearing will be minimized throughout the Resort and building sites will be quickly re-planted with native plant species, preferably specimens salvaged from the site.

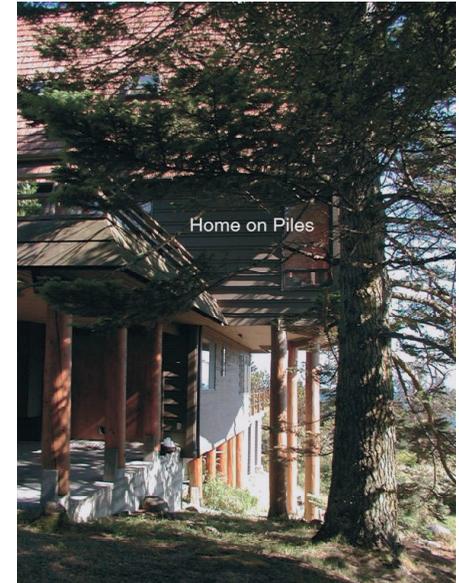
**4.** Bioswales: Bioswales will be located to fit into the existing topography and be aesthetically pleasing. When necessary, bioswales can be elevated above grade within berms, or constructed with amended soils to better absorb and treat storm water and support attractive xeriscaping.

**5.** Green Roofs: The use of green roofs will be considered for buildings close to the shoreline. This is an excellent way to provide visual camouflage and reduce stormwater impacts. Green roofs should be planted with mosses, sedum or grasses tolerant to salt spray and annual summer drought conditions.

**6.** Low Impact Foundations: In locations within 100 feet of the shoreline where relatively deep soils exist, new buildings will be set on piles rather than poured concrete foundations. With the building sub-structure firmly anchored on bedrock, roof drains can be connected to level spreaders which will distribute and infiltrate runoff. In areas with shallow soils, individual building pads may 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. This will allow for migration of runoff along natural flow paths.

**7.** Water Storage: Downspouts draining roofs may also be directed to cisterns or to vaults in sub-structure spaces which will temporarily store runoff for release between storms. The area within the footings can be filled with amended soil or sand to store water and release it slowly. To prevent moisture from damaging the overlying the wooden floor joists, etc., the earth underneath the structure should be covered with a vapor barrier. This will prevent evaporation of groundwater, maximize storage, and minimize the risk of mold and mildew growth. Water collected and stored can be used for irrigation during the summer and emergency uses or discharged slowly back into the environment between storm events.

**8.** Building Siting to Maintain Groundwater Flow and Prevent Surface Erosion: To the extent possible, cottages will be located on rocky knobs or previously graded sites such as Bowman's Bluff where excavation will have minimal impacts on groundwater flow and surface erosion.



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

