

Guenoc Valley Resort - Floor Area

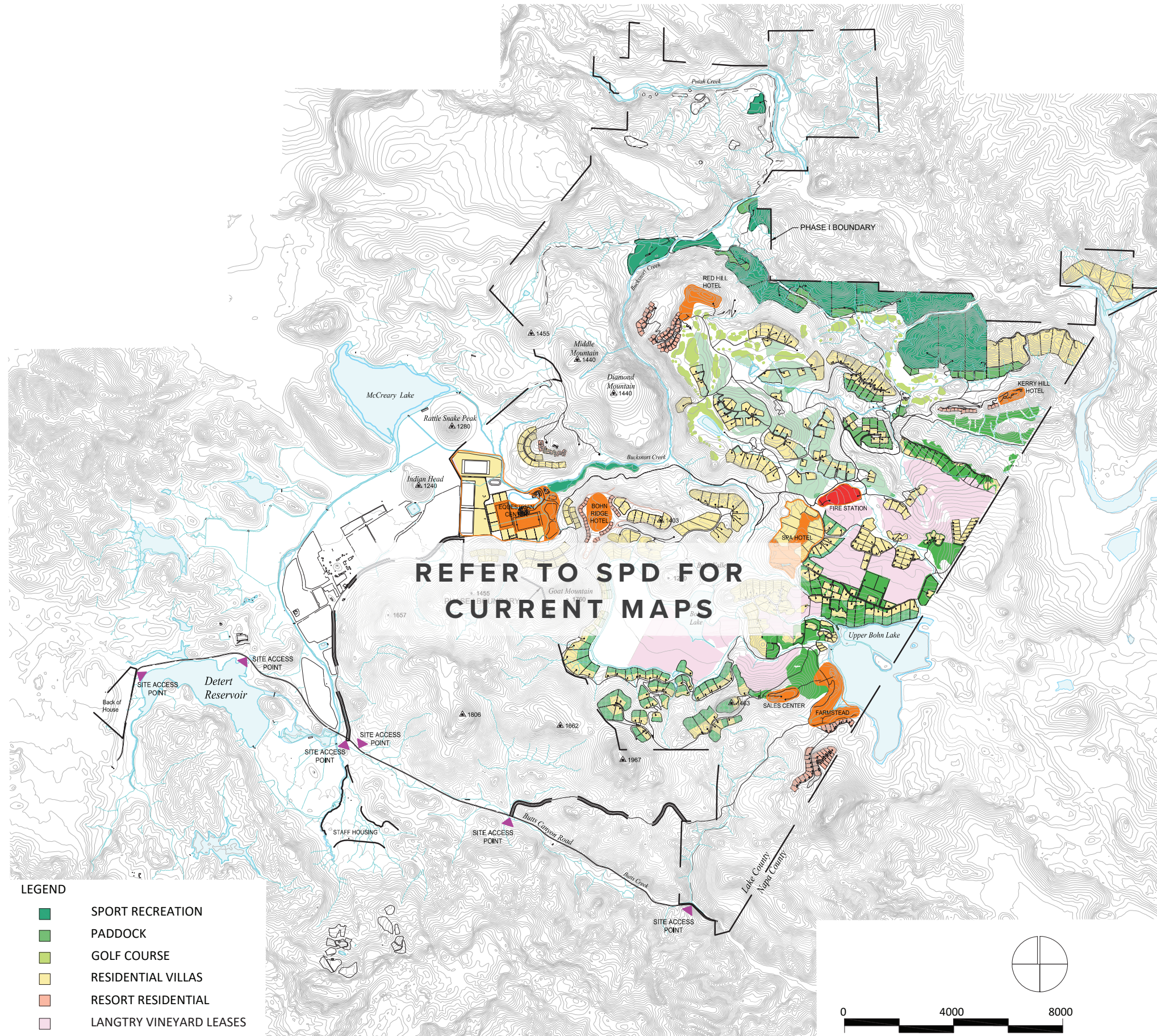
	Gross Indoor Area	Outdoor Area (2025 SPD)*
Resorts		
Maha Farm (Including sales center)	119,900	74,900
Bohn Ridge Resort	149,800	62,100
Equestrian Center Hotel	156,700	TBD
SUBTOTAL	426,400	137,000
Maha Farm		
Maha Farm Village	58,000	76,400
Maha Farm Winery	98,000	16,000
Maha Farm Resident's Club	65,500	60,200
Maha Farm Special Event Center	8,500	30,000
SUBTOTAL	230,000	182,600
Estate Winery Area		
Estate Winery	77,200	10,800
Back of House	116,800	23,000
Workforce Housing (100 co-housing units)	54,100	TBD
Emergency Response Center	16,600	600
Golf Course Facilities	65,500	22,700
Equestrain Center	103,000	55,800
Aerial Site Access	1,400	2,100
TOTAL	1,091,000	434,600

Residential Development accessory to the resort

	# of units	Residence size range	Average size of residences	Total average square footage
Type				
Resort Residential units vary in size	141	1,500 - 5,000	3,500	493,500
Residential Villa units vary in size	385	3,000 - 20,000	6,500	2,502,500

* Does not include parking, pedestrian paths, helipad or helicopter landing safety zones.

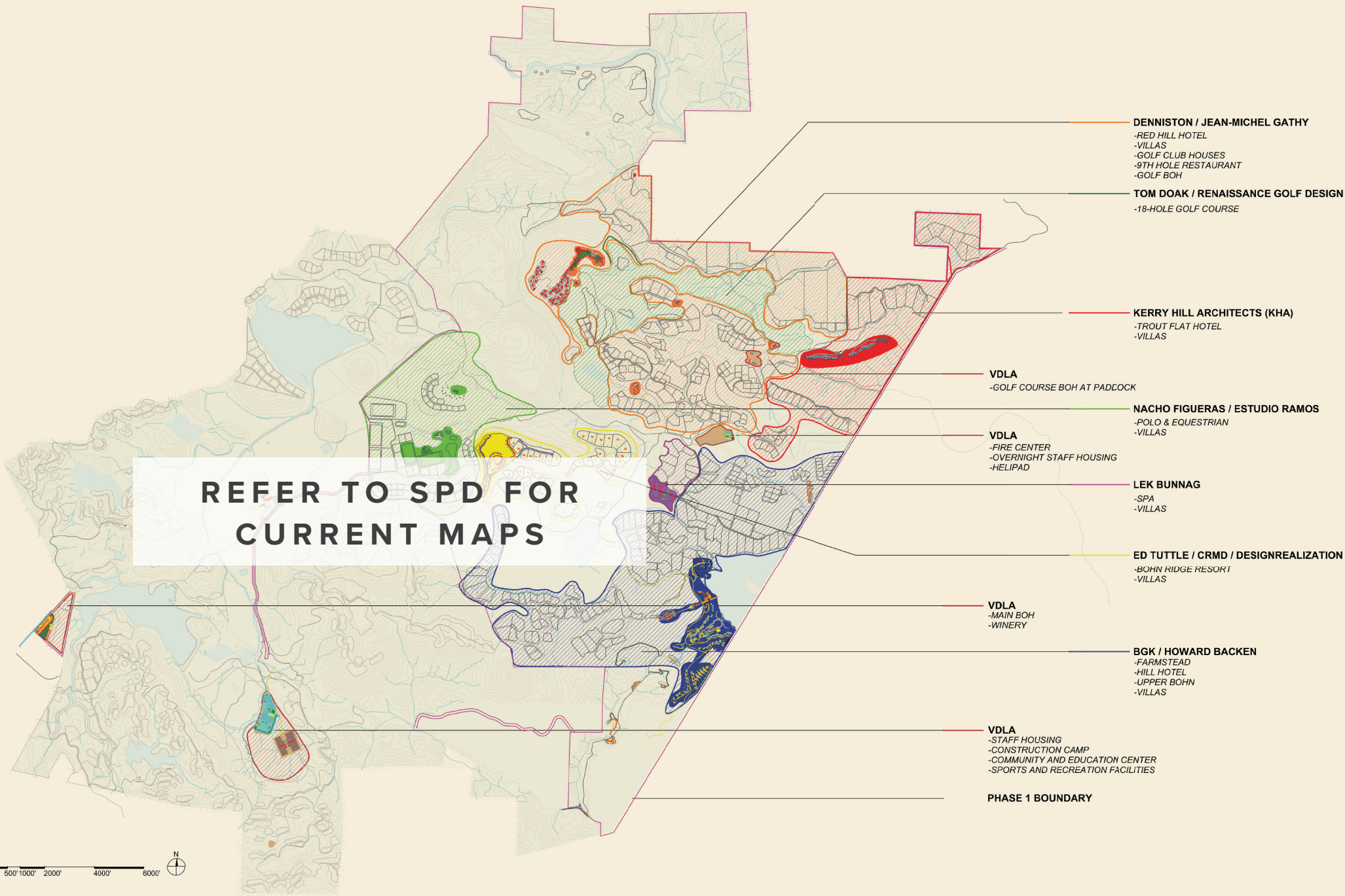
Please note that exact acreage will be determined at the time of tentative mapping.



ARCHITECT CLUSTERS
(PHASE I)

Cluster development is a guiding technique of the Guenoc Valley Resort and serves both to promote environmental preservation as well as to create different experiences of place within the property.

Each world renowned architect will design one of five resort clusters, containing a boutique hotel, resort residential units and related residential villas and/or estates, all of which will be linked by a similar design aesthetic. The project anticipates that the Farmstead cluster will be the first constructed portion of phase one of the project.



MAHA FARM - BACKEN & GILLAM
[REFER TO SPD FOR CURRENT DESIGNS]

The Farmstead is the community village, and the heart of the Guenoc Valley Resort. The Farmstead is the first cluster that visitors to the property will encounter, and the experience of entering the property is carefully designed to enhance and preserve indigenous wildlife and vegetation and to gradually introduce visitors to a more populated area while showcasing the natural surroundings. The main entry sequence is conceived as a tribute to the rich legacy of farming and cattle and a reflection of the natural beauty of the region.

Buildings will be one story in height and vernacular in nature, echoing traditional ranch and cattle barns, with pitched metal roofs and wood or stone exteriors. Gates and fences, where strictly necessary, will be made of natural materials, with unfinished or rustic woods or metals. A low visual impact will be achieved by utilizing natural colors that blend with the surroundings.

Access elements may include signs and lighting that similarly blend with the natural surroundings while serving their practical purpose. The illumination of buildings and paths will be minimal and low impact, being controlled by daylight systems, motion sensors and/or, installed at low level. These elements will conform to the Design Standards submitted under separate cover.

The Farmstead village is located near Upper Bohn Lake and designed to appear as if it had grown naturally over many years as a response to the terrain. The main feature of the village is an agriculturally themed open air barn that may accommodate a makers market, artisan boutiques, musicians stage, outdoor theater, farmers market with locally sources agricultural products. Throughout the village a theme of running water will be introduced by utilizing water collected from runoff surfaces and delivered back to the lake, thus minimizing the loss of rainfall due to development, and incorporating year-round live wetlands for the enjoyment and education of visitors.

A significant portion of the farmstead will restore creeks and replant oak trees native to the property and featuring new planted areas, to continue the educational effort embedded in the project surrounding native plants and natural edible vegetation. The natural elevation of the terrain is incorporated to create up to two story buildings only where

they may be accessed at grade on each level. Otherwise, the highest elevation of all buildings remains one story high.

Use of asphalt or concrete pavement will be constrained to emergency access requirements; other drivable surfaces, such as parking and circulation areas will be constructed using planted or permeable surfaces. Medium sized trees reduce visual impact when areas are not in use.

The Farmstead will extend along the shore of Upper Bohn Lake to create a natural walk, which will also serve as a connection to other areas of the property. Public Paths and relaxation areas within the Village will be separated from the wildlife and creek protection zones to preserve environmental habitats.

The road system will take visitors to the Farmstead winery, the Residents’ Club and the Sales Center, where similar concepts of low impact development, education of visitors, and use of natural resources and locally grown or produced food and materials will be emphasized and showcased.

The Farmstead winery will be nestled against the hill and surrounded by the same grapes it will process. The building will provide a generous, planted roof terrace for the enjoyment of visitors.

The Sales Center will be perched atop a hill maximizing views to the greater property. The hotel is configured around a large vegetable garden that echoes the gardens and open spaces of the Farmstead Village at a smaller scale.

The planned residences will emulate the same feel as the Farmstead Village by maximizing the site conditions at each location, incorporating potential green roofs and terracing the properties where appropriate, and prioritizing water resilient and native vegetation. The materials used will be similar to those in the Farmstead Village.

**BOHN RIDGE RESORT – C.R.M.D.,
ED TUTTLE
[REFER TO SPD FOR CURRENT
DESIGNS]**

The guiding principles of the proposed Bohn Ridge Resort is minimum disruption of the landscape. The architectural program created by Ed Tuttle is articulated in small-scale elements to emphasize the vast beauty of Bohn Ridge and to celebrate its panoramic views.

Upon entering the Bohn Ridge cluster, guests will progress through a valley and up to the highest point on the property. The proposed hotel and related community amenities are aligned on the ridge and allow visitors and guests to discover the richness of Bohn Ridge’s geological footprint.

Adopting the local vernacular of barns—the simplicity of shapes and volumes, and the strong bond between indoor and outdoor living—the rusticity of understated natural materials and a respect for nature prevail in the design. Typology of different building styles are defined according to the geological footprint, minimizing built form in respect to the site while optimizing views. Throughout the project, the treatment of horizontal surfaces consists of pitched roofs or planted roofs with pitched eaves, stone paved terraces or pools. All vertical elements are either clad in wood or filled in with glass panels. The height of the different structures is kept low in response to the context of site with exception of the main circular building on top of the ridge.



GOLF ESTATES-
DENNISTON INTERNATIONAL,
JEAN-MICHEL GATHY
[REFER TO SPD FOR CURRENT DESIGNS]

Respecting the existing natural beauty of Guenoc Valley is paramount in Denniston’s approach to their work. Their design approach is rooted in the acknowledgement that many different ‘micro’ environments exists throughout the property. Denniston’s design encourages existing agricultural activities in harmony with the natural environment. Every design decision is based on minimal impact to existing site conditions and low-density development with limited footprint disturbances to the land. The built forms are strategically located for maximizing vistas yet remaining unobtrusive to each other.

The master plan is intentionally designed as general clusters of development for efficient services networks and creating different communities that resonate with the different ‘micro’ environments within the property. The master plan respects the open space corridor while creating outdoor low impact, non-motorized recreation. Vast areas are intentionally untouched not only to preserve the natural beauty of the place but to benefit resident and guest vistas and emphasize the natural characteristics of the site. Efficient road networks are designed to follow natural topography and existing tracks which limits cut and fill disturbance to the land and maintains natural surface water runoff. Existing topography and vegetation were used to screen views between buildings. The overall intention is to enhance the existing natural environment by encouraging indigenous flora and fauna.

Architecturally, there will be a combination of different styles which provides a sense of place for the individual communities within the overall development. In this diversity there is a common DNA aesthetic throughout emphasizing clean lines, contemporary lifestyle options and sustainable material palette and colors. Building heights are carefully designed not to dominate the landscape with combinations of roof lines, both flat and pitched, that provide a vibrancy in the development elevations and overall project silhouette.



**EQUESTRIAN CENTER –
FIGUERAS DESIGN GROUP (FDG)
[REFER TO SPD FOR CURRENT DESIGNS]**

Immersed in a valley of unparalleled beauty, surrounded by indigenous plants and an exceptional ecosystem, the Polo and Equestrian Center Project aims to generate a respectful and honest dialogue between the current environment and the proposed architecture.

The Polo and Equestrian Center program includes two main areas: the Clubhouse with social activities, and the Stables for the different horse activities. In recognition of the preciousness of water, FDG proposed a 9-acre body of water as the central element that organizes the different buildings around it. As the universal symbol of life, purity and harmony; the element of water is used to connect, articulate and give life to the different buildings.

The architecture proposed has a pure and simple language. The intention is to make the buildings blend with the landscape whereby all roofs are green roofs and conceived as natural extensions of the existing landscape. In response to the simplicity and beauty of the site, in addition to the materiality of plants, three natural materials of local stone, concrete, and wood are proposed for their restrained aesthetic expression.





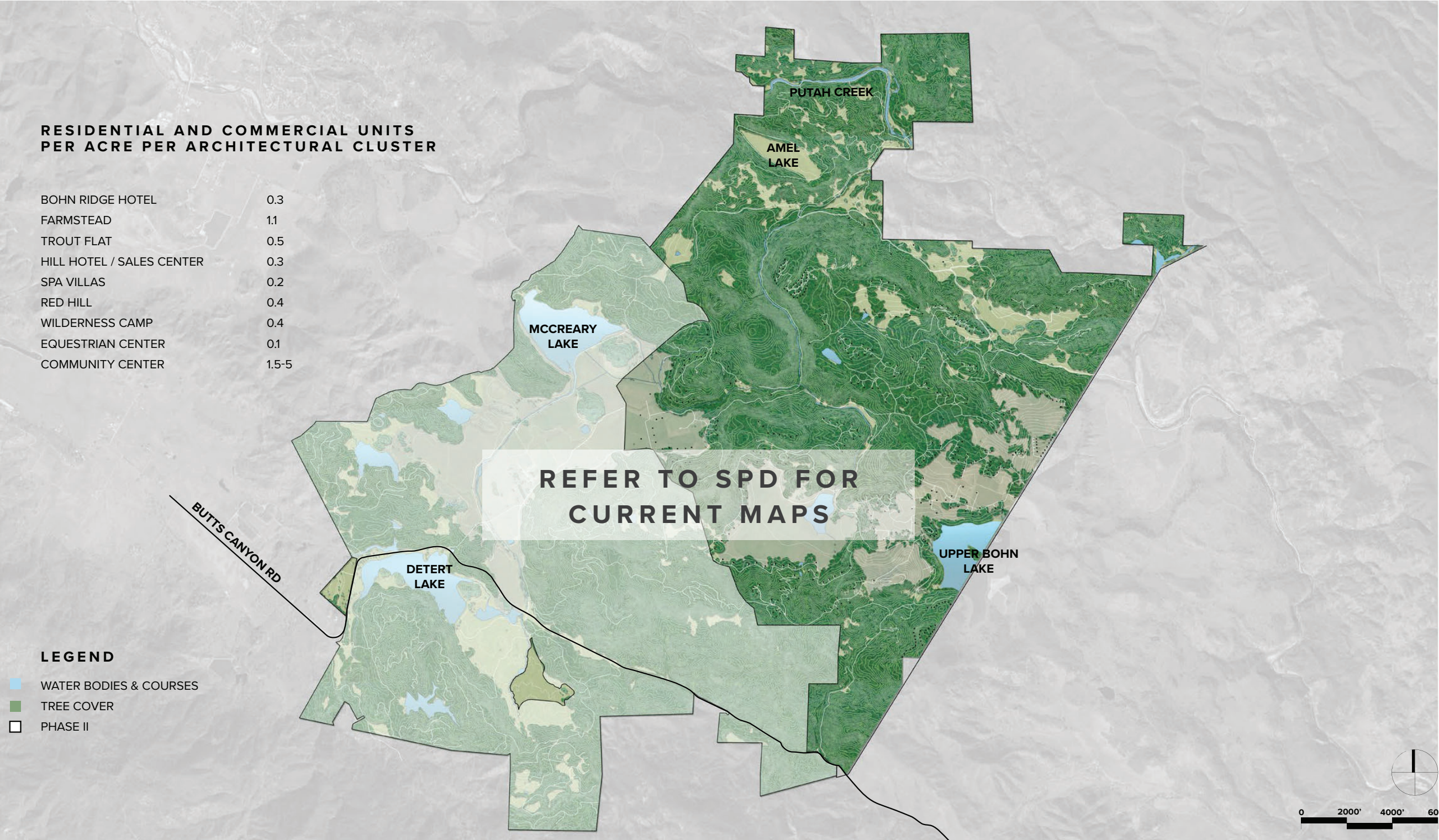
WILDERNESS CAMP
[REFER TO SPD FOR
CURRENT DESIGNS]

An experiment unlike any other, Maha farms offer an amazing luxurious eco-tourism glamping experience. Settled in a sun-dappled oak woodland, featuring a library, a lounge and an authentic dining experience. Canopied tents are equipped with separate sleeping, dressing and bathing sections under your own tented pavilion. Maha Farms Wilderness Camps will be situated in some of the most extraordinary locations within the property, carefully selected for their beauty, exclusivity and sense of remoteness.

The encampments are to be fully functioning accommodations with amenities and supporting facilities reflecting that of the Guenoc Valley Resort destination and hospitality standards. This not only creates an exclusive guest experience, but a sustainable and environmentally sensitive establishment, that leaves minimal impact on the site.



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LOW IMPACT DEVELOPMENT

As narrated in the Middletown Area Plan, innovative development and Smart Growth techniques are an ideal fit for Guenoc Valley. Low Impact Design (“LID”) is a tool used in green infrastructure that emphasizes land conservation and on-site natural management to protect water quality. LID mimics natural processes of the landscape and incorporates support systems such as infiltration, evapotranspiration or use of stormwater in order to protect water quality. Not only will the Guenoc Valley Resort maintain the existing landscape, but by mimicking and augmenting natural systems the project will enhance the landscape’s resilience and adaptability.

FARM TO TABLE

The Guenoc Valley Resort will incorporate a farm-to-table experience by including a working farm within the luxury resort amenities. The farm will be designed with ecological features, including locally-adapted plant selection and heirloom seeds, minimal-tillage, water conservation strategies, and hedgerows for pollinator and bird habitat. The farm manager and chef(s) will work closely together to curate world-class meals that maximize onsite food production, reducing truck traffic for imported produce. What cannot be grown onsite will be purchased locally from artisan growers (with the goal of sourcing within a 150-mile radius) and purveyors to create sustained economic benefits to the local community and reflect the character of the surrounding landscape.

An attraction for culinary travelers, the farm-to-table experience highlights seasonal, regional, and local foods and helps to integrate the resort experience more fully into the land. Complementing the restaurant and garden/farm experience will be a tasting room serving wine made from grapes grown on the property and a curated cheese board from local dairies, as well as a farmers’ market in the community center.

LOCAL FOOD PRODUCTION

The proposed farm will be managed onsite and will produce a variety of fruits, vegetables and nuts to serve the restaurant, tasting room, and retail outlets, which will also stock artisan goods and shelf-stable products. These products will be grown in an ecologically sustainable manner. Items that cannot be grown on-site, or where additional volumes are needed, will be sourced by a network of local artisans, wherever possible within a 150 mile radius. In addition to the farm being able to satisfy the needs of restaurant clients, the onsite farms will also provide an opportunity to grow a CSA (or Community Supported Agriculture) weekly fresh produce box share, which will be offered to residents and community members and will showcasing local products and on-site produce. Refer to section 3.4 for more information.

ANIMAL HUSBANDRY

Animal husbandry will provide meat, wool, and milk products for processing onsite and offsite and for consumption by resort clientele and visitors. Resident herds of well-managed livestock keep land open, and allow for targeted grazing so that fire does not threaten buildings, infrastructure, and human lives. The herds will be raised to precise specifications to yield meat and wool, and the presence of these herds will contribute to the rural ambience of the project. In addition, the animal husbandry will promote landscape resiliency, diversity, and health.

The site will provide ongoing support for livestock grazing and management, including sheep and cattle.



FARMSTEAD CONCEPT

In addition to the farm itself, a farmstead compound will be located adjacent to the farm. It will likely include the following elements:

- Farmers market for fresh local produce and artisanal goods, farm raised meats
- Cafe with fair trade coffee/tea
- Restaurant and bar
- Retail stores/ boutique shopping
- Corporate retreats and events, weddings and celebrations
- Live music and performances in the outdoor amphitheater
- Health & Wellness center
- Residences and lifestyle accommodations
- Artisan market





REINFORCE AND CELEBRATE EXISTING LANDFORM AND LANDSCAPE CHARACTER. LANDSCAPE TAKES CUES FROM THE SITE.



PRESERVE AND ENHANCE HABITAT. (WETLANDS, SENSITIVE COMMUNITIES, ETC.)



MINIMIZE GRADING AND DEVELOPMENT IMPACTS. PROMOTE A “LIGHT TOUCH” APPROACH.



USE ONSITE MATERIALS WHENEVER POSSIBLE.



ELEVATE THE AGRICULTURAL HERITAGE OF THE SITE: VINEYARDS, WINERIES, LIVESTOCK/RANCHING, ORCHARDS AND OTHER CROPS



PROMOTE GRAZING AS AN INTEGRAL PART OF OVERALL LAND MANAGEMENT FOR FIRE AND RESTORATION.

VIEWSHED PRESERVATION

As discussed above, the project preserves approximately thousands of acres of open space and rural areas, thus protecting the viewshed from the County roads and surrounding properties. In addition, and most importantly, the project is primarily designed to be invisible from any of the County right of ways.

WILDLAND GRAZING

A primary tenet of sustainable agriculture and fire prevention, the grazing of livestock in open space and designated corridors will further the project's commitment to land management, fire mitigation, and sustainable agricultural practices. Well-managed grazing incorporates a variety of closely related systems of forage management in which animals are regularly and systematically moved to fresh rested areas with the intent to maximize the quality and quantity of forage growth. Such grazing promotes grassland health and diversity, and reduces susceptibility to disastrous wildfires, while also increasing soil organic carbon and helping to retain water on-site.

Livestock Grazing for Fire Mitigation is one of the tools Guenoc Valley Resort utilizes in their comprehensive fire management plan. Kaos Sheep Grazing, a Lake County locally-owned and operated contract grazing outfit currently grazes sheep on the property, and we hope to continue working with this local operator to enhance and sustain grazing efforts. Targeted grazing with both cows and sheep measurably increases soil health and water infiltration, while reducing and/or eliminating fire ladders to promote fire resiliency.

NATIVE TREE RESTORATION

Trees help manage stormwater, improve water quality, create wildlife habitat, and provide multiple other social and economic benefits. An Oak seed collection program and native species nursery form the basis for the native oak tree preservation and vegetation restoration plans of the Guenoc Valley project. In addition to these programs, the entire landscape will include native vegetation and trees for riparian buffers, street tree plantings, and open space management. Use of native species will limit the introduction of invasive species into the timeless landscape of Guenoc Valley. In some cases when a mature tree has to be removed for development it will be root pruned to transport and replant.



EDIBLE NATIVE PLANTS

In addition to local produce and on-site agriculture, the resort experience will include immersive activities to promote education and the enjoyment of products derived from native plants. Wherever possible, edible native plants will be propagated to increase availability of bioregionally-appropriate edibles for both humans and wildlife consumption. Varieties include Native California Bay Laurel (*Umbellularia californica*) to make a roasted chocolate/coffee alternative, wild berries including blue elderberry (*Sambucus nigra* ssp. *caerulea*), mountain strawberry (*Fragaria virginiana*), western thimbleberry (*Rubus parviflorus*) and others. Mushrooms and seaweeds will also be propagated, foraged and included in world-class culinary experiences and as ecosystem enhancement plants for wildlife, fire resilience and carbon sequestration.

FRUIT TREES

Fruit tree varieties will include: Pome fruit (apples, pears, etc), nut trees, pomegranates, stone fruit (including plums, peaches, nectarines, apricots), cherries, and other orchard varieties will be established within areas all over the ranch.

NATIVE NURSERY

As part of its landscape stewardship program, the Guenoc Valley Resort has prioritized the preservation and replanting of native plants. There will be a designated nursery within agriculturally zoned land to cultivate local plants for the resort development. The program focuses on native oak restoration and includes acorn collection throughout the property and re-oaking in a designated nursery area within the project site.



RESTAURANT & CAFE

The restaurant will showcase ingredients fresh from the gardens, ranch, and onsite vineyards. The menu will be curated by renowned chefs with a focus on seasonal and regionally produced items.





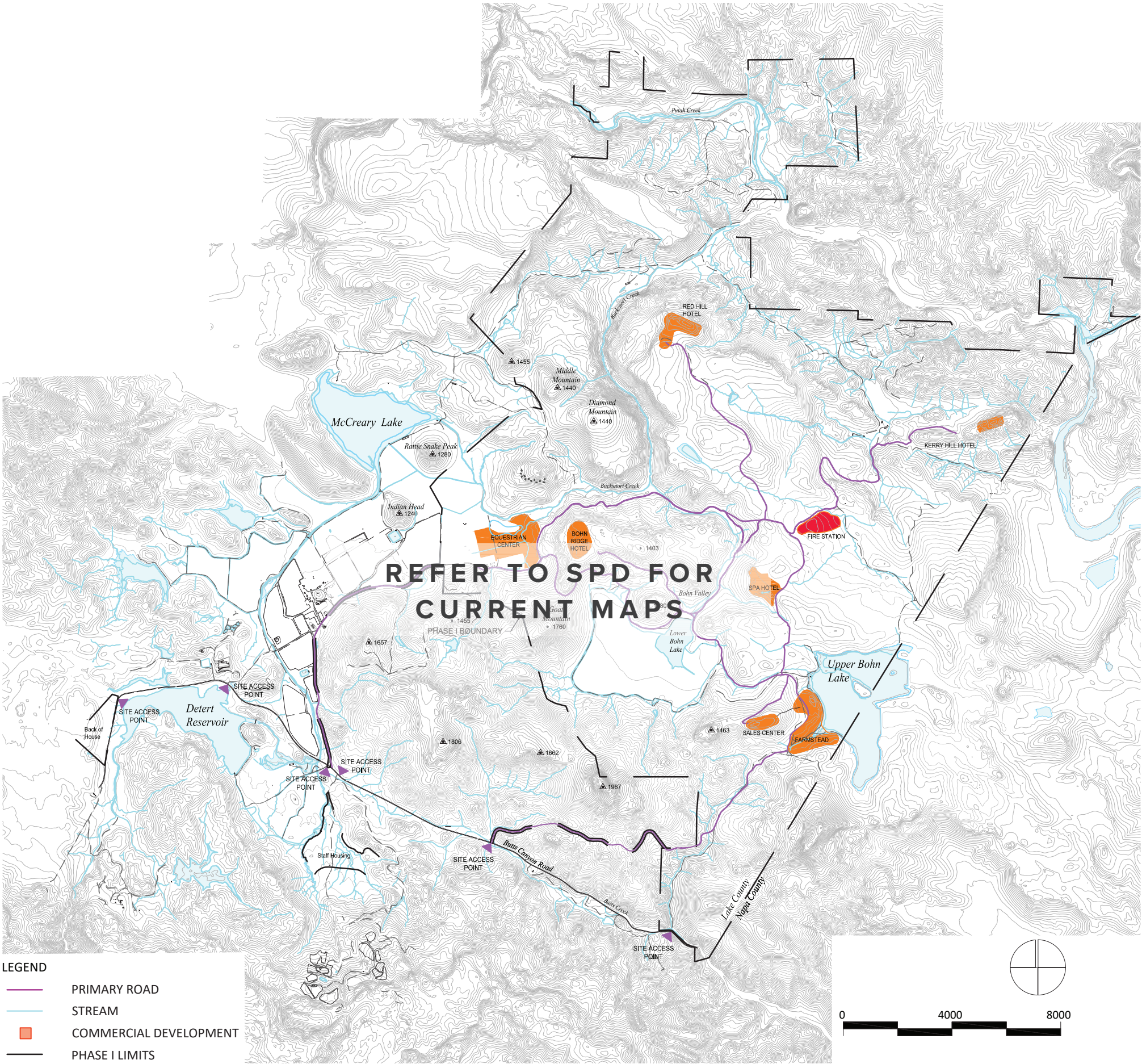
COMMUNITY SUPPORTED AGRICULTURE

In addition to providing produce for the onsite restaurants, the onsite farms will also provide an opportunity to grow a CSA (or Community Supported Agriculture) weekly fresh produce box program, which will be offered to residents and community members and will showcase local products and on-site produce. Research indicates that access to CSA opportunities creates beneficial health outcomes by helping customers increase consumption of fruits and vegetables, changes in household food environment, and changes in meal planning.

COMPREHENSIVE CIRCULATION PLAN

The primary and secondary vehicular circulation routes throughout the first phase as described in previous sections will serve as multimodal circulation routes providing shared access to standard vehicles, minor commercial delivery vehicles, emergency response vehicles like fire trucks and ambulances, recreational vehicles, and bicycles. While equestrian and pedestrian use may occur on smaller, more remote roads, they will be accommodated separately via alternative pathways and trails. Speed limits and traffic calming techniques will be implemented along all vehicular roads to prohibit speeding and promote a safe, shared access atmosphere. Reliance on alternative and sustainable transportation and traffic measures such as roundabouts and resort car parking that encourages reliance on provided bikes, electric carts, and resort vehicles.

A non-vehicular circulation system will be developed by connecting all development areas to each other and to the extensive natural destinations throughout the project area. There will also be “off-road” trails traversing more rugged terrain to be used for hiking, horseback, and mountain bike riding, with varying combinations of widths and trail uses. Additionally, the need to utilize and maintain existing and newly proposed gravel or dirt fire roads for wildland fire protection will allow for dual purpose recreational use.



- LEGEND
- PRIMARY ROAD
 - STREAM
 - COMMERCIAL DEVELOPMENT
 - PHASE I LIMITS

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SHARED VEHICULAR



MULTI-USE PATH



FOOTBRIDGES



FIRE ACCESS / EVA



EQUESTRIAN TRAILS



VEHICULAR ROUTES

WILDFIRE PREVENTION PLAN

The Guenoc Valley Resort will include a Emergency Action Plan including a “Living Document” Fire Mitigation Plan that commits to fire ecology, sustainable fire prevention techniques, and protection and management of the landscape. This plan outlines development standards and practices for employees, residents and fire officers. Envisioned as a living document, it will contain guidelines, goals, and information vital to exemplary design, safety, fire mitigation techniques, and response plans.

As part of this fire plan, the Guenoc Valley Resort will include an onsite emergency response center, emergency heliport and onsite emergency medical services, response and evacuation planning, cooperative fuel reduction projects, landscape buffers, vegetation management, livestock grazing techniques, defensible space planning, and material red lists.

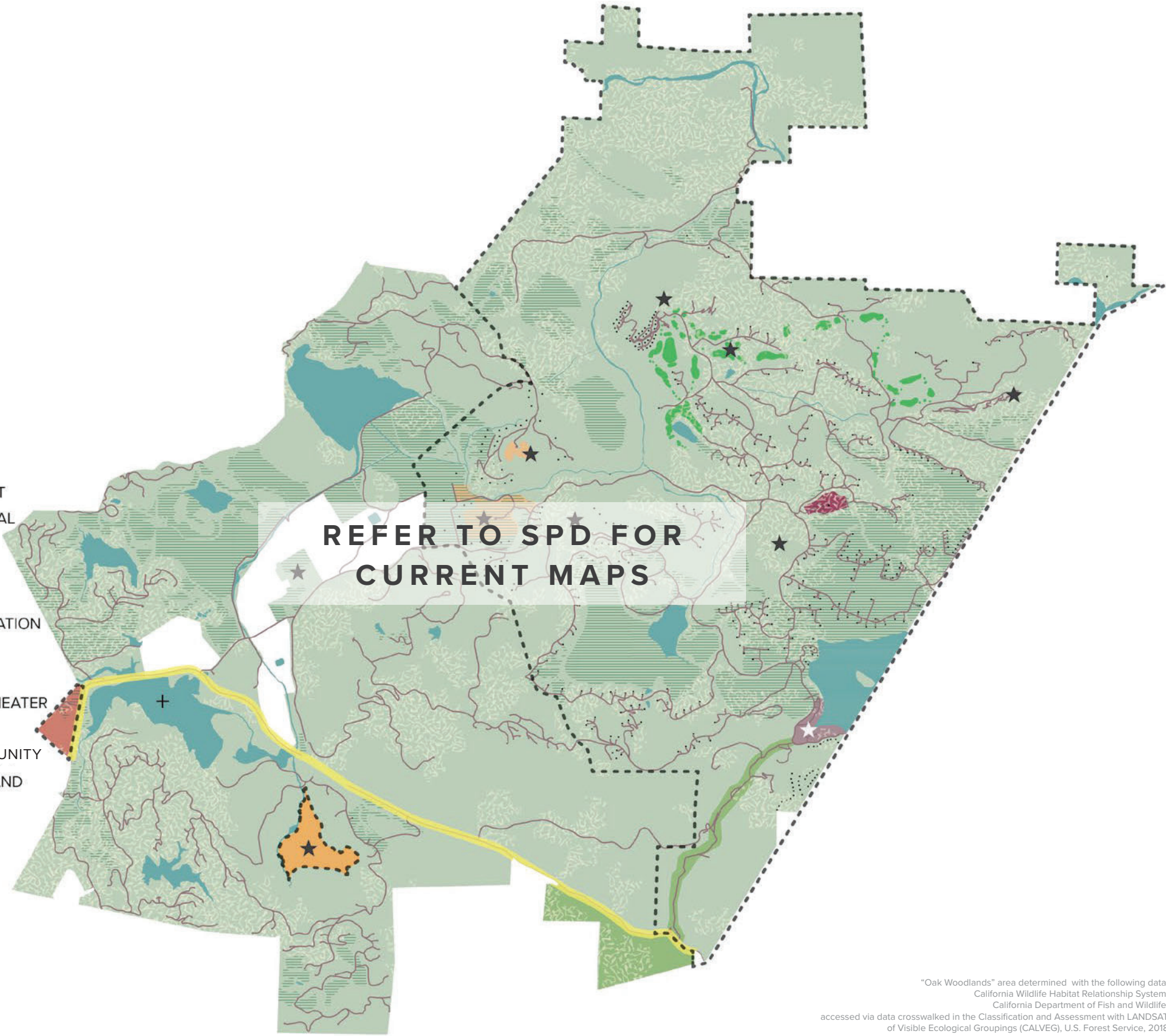
The plan will utilize best available Geographic Information System (GIS) data, wind pattern studies, statewide building code requirements, and Wildland Urban Interface Codes to assess risks and best preemptive measures. Recognizing that wildland fires are affected by weather, topography and fuel, as well as human behavior, the plan focuses on fuel managements, vegetative and structural preparation and precautions, and the proximity of quick response teams. This proactive approach will endeavor to create a fire-safe environment for tourists, residents, and the natural flora and fauna.



COMMUNITY & ENVIRONMENTAL BENEFITS

LEGEND

- SUSTAINABLE AND FIRE RESILIENT LAND MANAGEMENT
- RENEWABLE ENERGY GENERATION WITHIN COMMERCIAL AND RESIDENTIAL DEVELOPMENT
- OAK WOODLANDS LAND MANAGEMENT
- AGRICULTURE
- LAKES AND CREEKS: RIPARIAN AND WETLAND RESTORATION
- TRAILS AND OPEN SPACE
- GOLF COURSE
- COMMUNITY VILLAGE, FARMSTEAD, AND OUTDOOR THEATER
- EQUESTRIAN FACILITIES AND FIELDS
- COMMUNITY CENTER WORKFORCE HOUSING, COMMUNITY CENTER, SPORTS AND RECREATION FACILITY, AND LOCAL NATIVE NURSERY
- CENTRALIZED BACK OF HOUSE OPERATIONS
- EMERGENCY RESPONSE CENTER
- TRAFFIC CALMING [BUTTS CANYON ROAD]
- RECYCLED WATER DISTRIBUTION POTENTIAL
- WASTEWATER RECLAMATION CENTERS
- ECONOMIC EMPLOYMENT OPPORTUNITIES
- LOCAL ARTISAN OPPORTUNITIES
- FLOAT PLANE LANDING AREA & DOCK
- PROJECT PHASE I BOUNDARY



SUSTAINABLE AND FIRE RESILIENT LAND MANAGEMENT



LOCALLY SOURCED FOOD PRODUCTION



HIKING AND WALKING TRAILS

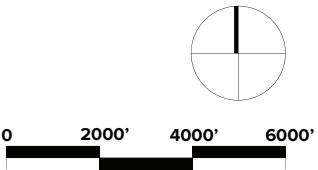


WETLAND RESTORATION



LOCAL ARTISAN MARKETS

"Oak Woodlands" area determined with the following data:
California Wildlife Habitat Relationship System,
California Department of Fish and Wildlife,
accessed via data crosswalked in the Classification and Assessment with LANDSAT
of Visible Ecological Groupings (CALVEG), U.S. Forest Service, 2018



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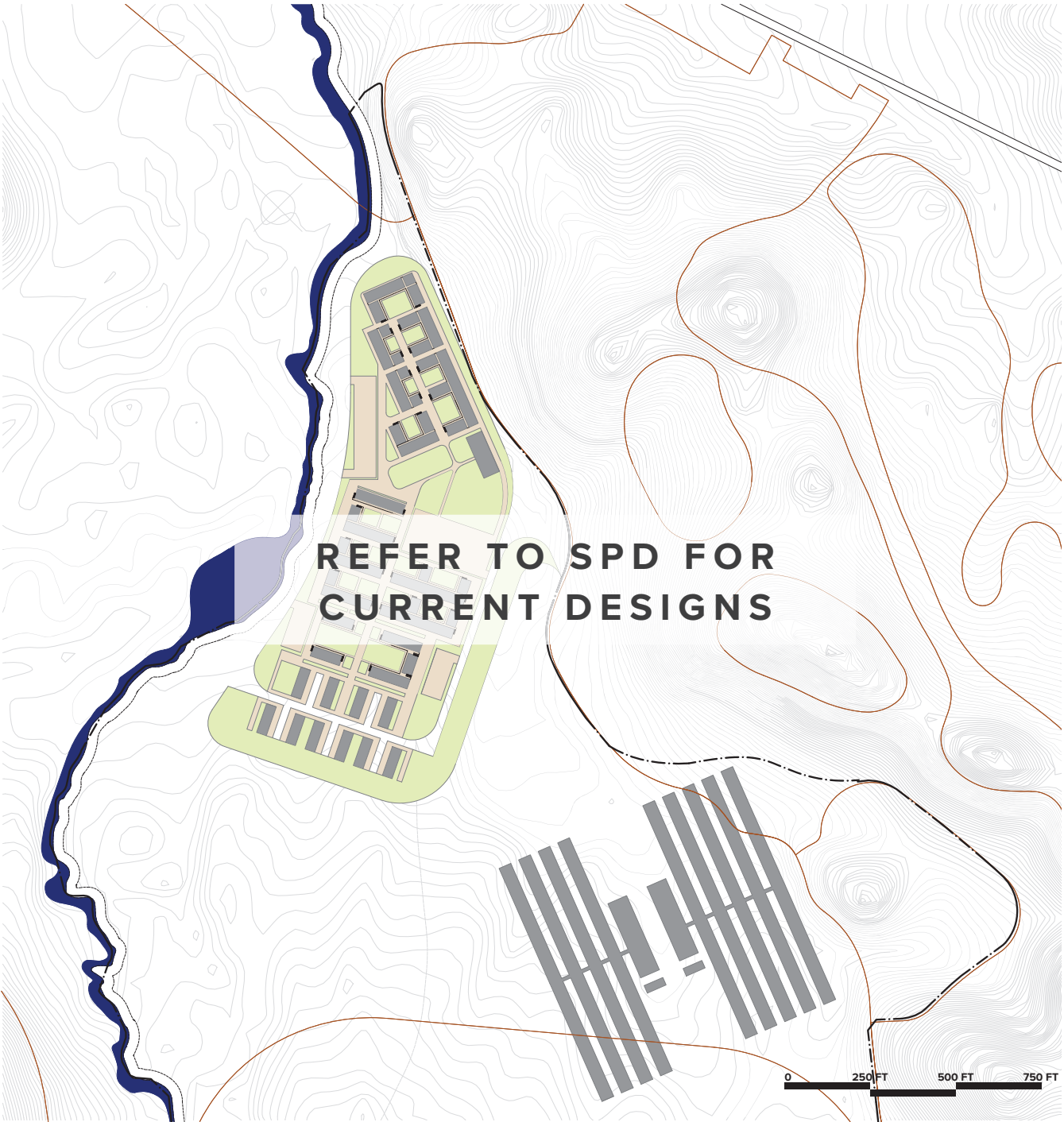
HOUSING STOCK

The Middletown Area Plan EIR (MAP EIR) recognized that increased development would encourage the creation of more housing projects. The MAP EIR also recognized that the increase in commercial activity would increase residential uses within the community. The Guenoc Valley Resort intends to hire within the community and rely on the existing workforce as much as is feasible. Due to the unique features of the resort, there will be a varied staff both seasonal and short term. Therefore the project will offer a variety of housing options and opportunities within the community area. The sizes and styles of these housing units will drive the affordability and contribute to the housing options within Lake County.

The project plans to develop a community area for the employees of Guenoc Valley Resort to enjoy. Beyond the inclusion of 300 workforce housing units of varied sizes, this area may include a sports and recreation facility, training center, and a community gathering area for employees of the Guenoc Valley Resort.

In addition to the workforce housing, as part of construction the property requests allowance for a temporary housing camp during the resort construction. The site plan of this community area depicts a conceptual layout of the temporary housing camp and a potential site layout of the workforce housing.

AREA TYPE	GROSS AREA GROUND LEVEL
ENCLOSED (AC)	422,576 SF
HARDSCAPE	277,922 SF
LANDSCAPE	352,368 SF



JOBS

The first phase of the Guenoc Valley Resort project anticipates 565 employees at full buildout; this is in addition to temporary employees for the construction of phase one.

IMPROVEMENTS

The proposed access points for the Guenoc Valley Resort community will all be located along Butts Canyon Road on the Southwest and South sides of the project. The primary resident and guest access will occur at a new intersection. All new intersections will include turning lanes or roundabouts and deceleration/acceleration lanes as needed, as well as speed reduction measures along Butts Canyon Rd. Traffic studies have been completed that will inform further improvements to the intersections (signalization, stop signs, etc.) Regardless of the outcome of the study, there is a clear intent to ensure that adequate and improved safety measures will be incorporated into Butts Canyon Road as it travels through the proposed GVD district.

A tertiary intersection and access road is proposed at Guenoc Road, which will be primarily used by construction and back of house staff as well as emergency vehicles. A further tertiary access point will also extend from the proposed Back of House facility westward along Butts Canyon Road, adjacent to Detert Reservoir, to converge with Guenoc Road and then run westward toward the Phase One project area. At each of these two intersection locations, traffic and circulation improvements on Butts Canyon Road will be incorporated for improved safety, which in these instances may include roundabout configurations pending further traffic analysis. An additional access road known as the Grange Road Connector that would be used only for emergency ingress and egress will connect the property to SR-29 via Grange Road through an off-site property to the northwest.

CIVIL ENGINEERING DESIGN

The underlying goal of the project’s civil engineering design is to develop core infrastructure that enhances the project’s construction methods and supports long-term operations, while maintaining the aesthetic sophistication established by the project architecture. The first focus is on optimal efficiency, with infrastructure systems located in geographic proximity to project needs, and with pipe and conduit routings consolidated and aligned with roadway infrastructure. This will streamline installation and allow for convenient maintenance access.

A second focus will be to utilize locally sourced materials of the appropriate quality wherever feasible, including aggregates sourced and processed on site. Selection of high quality utility piping materials will significantly improve the long term efficacy of pressurized distribution systems. As an example, utilizing Polyethylene, despite the slightly higher upfront cost, will in turn save energy and resources that can be wasted by installations of lesser quality materials like PVC. A third focus will be the incorporation of the industry leading available technologies and processes to minimize the disruption to the site. While the project will utilize reliable methods of natural resource acquisition, treatment/processing, distribution and management, the focus on new technologies will result in systems that are more integrative, holistic and sustainable in nature.



EMERGENCY RESPONSE
CENTER

Recognition of the site as a High Risk area has helped guide the commitment to fire resiliency that will exceed minimum requirements. Development will include an on-site fire response center that includes an emergency helispot landing station and medic/fire building infrastructure. The emergency response center will also be planned within close proximity to overnight resort staff housing facility to house emergency personnel in case such need arises.

In conjunction with both the circulation plan and the Emergency Response Center the project proposes sustainable transportation via a float plane concierge service from Sausalito and other water bodies. Developments could include a float plane dock, welcome kiosk, and parking area.



OPEN SPACE

Landscape preservation is a guiding principle of the Guenoc Valley Resort. The project includes existing 2,675 acres of designated open space. As part of the environmental review more open space designations will be determined. The proposed development will include multi use recreational trails as well as single use equestrian trails.

RENEWABLE ENERGY

The climate and soil conditions at Guenoc Valley are suitable to a closed-loop ground source heat pump system (Geogrid). Guenoc Valley receives approximately 35 inches of rain per year, experiences slightly greater seasonal temperature extremes than nearby areas, and fog is generally less severe than neighboring geographies, making it a prime area for implementation of solar energy.

Renewable energy enhances sustainability by relying on natural resources that are regenerative; they also have the added benefit of being largely non-polluting as direct energy sources. Accordingly, renewable energy is generally considered a preferred energy source over fossil fuel generated power due to its lower environmental impact, reduced greenhouse gas emissions, and lesser impact on climate change.

Guenoc Valley Resort will utilize strategies that are the most feasible for the Guenoc Valley location: 1) Solar-photovoltaics (PV) electrical generation; and 2) Ground source heat pump (GSHP) for load reduction; 3)research potential wind and geothermal activites. Both could be used as ways to generate large amounts of inexpensive and clean energy in conjunction with a primary electrical service to offset the additional production. Additionally, a portion of the power that will be provided to the Guenoc Valley site from PG&E will be provided from energy produced at the nearby geothermal power plant.



MINDFUL GRADING

Grading for the site will be limited to roadways, paths and building zones. The alignment of roads and paths and the placement of buildings and structures will be designed specifically to avoid excessive disturbance of the natural landscape. Site grading will be conducted where necessary to ensure adequate ADA access to and utilization of proposed site features and structures; however, care will be taken to balance displaced cut and required fills within immediate areas, with limited impact beyond the roadways or building pads. To limit the horizontal depth of cut slopes at roads, maximized steepness of sloped cuts with adequate planted stabilization will be implemented within the structural constraints of the localized soils. Fill slope steepness will also be maximized where possible, while maintaining slope stability and the desired aesthetic appearance. For conditions where retaining walls are required to ensure slope stability, the extensive amounts of stored native rock resources available on site will be used for construction.

Onsite Resources could include Rock Crushing. Rock crushing is use of rocks exposed from grading. This creates extremely high-quality cubic aggregate that can be used as substructure material for roads or flooring, filling trenches and cellar/cave excavations. It can also be used as aggregate in roads, concrete base, green roofing, and fill for uneven land.



GRAVEL QUARRY

The project also could incorporate an onsite gravel quarry, which has various benefits:

Reduction in Truck Traffic

An onsite quarry will greatly reduce the need for truck traffic on the county roads/highways. Most of the base rock materials used for construction can be excavated, screened, and distributed on the established private roads.

Keeping the material sourcing onsite:

An onsite quarry will enable the construction team to utilize larger distribution equipment, thus reducing the number of engines running and vehicles needed to achieve the delivery.

Natural Mineral Preservation

Redistributing the natural stone/gravel onsite will maintain the mineral content established in the natural geological development of the area.

The project could incorporate on-site recycling of a the variety of reusable material with a view to incorporating these materials into project construction. The use of compact mobile crushers and screens is a cost-efficient and ecologically friendly approach to construction. Instead of having to transport concrete, C&D waste, asphalt or reinforced concrete away from the site for disposal, crushers immediately convert these into reusable building materials.



WATER BALANCE

The Guenoc Valley Resort will generate several different water demands, including a need for domestic, fire, irrigation, and recreational water systems. The project is developing a comprehensive integrated water management plan (“Water Plan”) to facilitate sustainable water use and reuse strategies in order to ensure that long-term and reliable sources of water are available for project demands.

The project will have multiple sources of water used to meet these demands including surface water, groundwater, and recycled water. The project will implement a conjunctive use strategy to manage the use of groundwater, surface water and recycled water jointly, and this will be combined with water conservation practices to maximize groundwater recharge and yield a sustainable recharge system.

New domestic and fire water systems will include a network of water supply wells, groundwater treatment systems, above and/or below ground water storage reservoirs, and a water distribution system.

A separate water recycling system will be installed that will collect, treat and reuse recycled wastewater to meet non-potable reuse demands including irrigation, water features, indirect groundwater recharge, fire protection, dust control, and potentially, indoor reuse for toilets, urinals and cooling systems.

A surface water system will also be installed to supplement irrigation water supply to the golf course and polo grounds. These areas are primarily located in Place Of Use (POU) lands that have appropriate rights to be irrigated from stored water on the site.



**SURFACE WATER SUPPLY -
IRRIGATION AND FIRE WATER**

Site Improvements include improvement of a surface water systems to provide irrigation supply to a portion of the golf course, polo grounds and potentially other areas. The surface water systems will include booster pump stations, water conveyance lines, small water storage facilities, and water distribution systems. The pump stations will be installed adjacent to the existing surface water reservoirs. The water conveyance lines will be buried and installed in the road right-of-way or in new utility easements, and will be used to convey the surface water to the point-of-use. New storage reservoirs may include small holding ponds or storage tanks and booster pump systems may be installed close to the point-of-use. The booster pump system(s) will be used to pressurize the irrigation system at the final point-of-use. In some instances the booster pump systems from the existing lakes will pump directly into the irrigation system.

The surface water systems will be used to meet either all or a portion of the irrigation demands of the golf course, polo grounds and other areas. The surface water may also provide a supplemental source of fire water in the event of an emergency. The amount of water used from the surface water system will be maintained within the appropriative water rights of the system.

**GROUNDWATER SUPPLY - DOMESTIC, FIRE,
AND IRRIGATION WATER**

The Resort intends to develop a groundwater supply project that will involve the construction of multiple wells located throughout the Guenoc Valley and project site to supply the domestic and fire water needs of the project. In some locations groundwater may also be used for irrigation supply. The groundwater system will include a network of deep water supply wells installed in different locations across the site.

The wells will be connected via water conveyance lines to aboveground and/or belowground storage reservoirs. Stored water will be pumped into a new domestic and fire water distribution system(s) that will serve the residential and commercial parcels. Given the overall size, topography and distance of different project elements, it is likely that two or three different water systems may be installed on the site to serve the parcels.

Each system will include at least two wells, a primary and backup well, a small water treatment system, one or more storage reservoir, a booster pump system and a branched water distribution system. Each system will have at least two wells that will be used on an alternating schedule to minimize the extended use or reliance from a single well to supply the water system. This well management approach will be critical to avoid over pumping and stressing of the local groundwater aquifers and to provide for redundant water sources throughout the project area.

The groundwater may need to be treated to remove iron, manganese and other natural occurring contaminants. The groundwater treatment systems would likely include ozone oxidation and manganese-greensand filtration treatment systems. The small treatment systems would be housed in a small utility building adjacent to the water storage facilities.

The water storage reservoir will likely be a large tank ranging in size from 180,000 gallons to 500,000 gallons and will likely be a steel bolted aboveground tank, a cast-in- place concrete reservoir, or buried fiberglass tanks. Tanks are anticipated to be located on hilltops and will be either screened or buried so they will not be visible.

The booster pump systems will include either a duplex or triplex booster pump system to maintain system pressure in the distribution system. The booster pump system would likely be located in the same utility building that would also house the water treatment system. The booster pump system will include a backup electrical generator to provide continuous uninterrupted operation even during a system power outage.

The water distribution system will be designed to convey both domestic and fire water demand and will include fire hydrants, blow-offs, control valves and water quality sampling taps. The water distribution system will be installed in the road right- of-way and/or in a new utility easements.

The water system will be designed in accordance with the State Water Works Standards and Drinking Water Standards and the system will be permitted by the State Water Resources Control Board – Division of Drinking Water.

**RECYCLED WATER – IRRIGATION, FIRE, AND
IN-BUILDING WATER**

The project will be installing decentralized water recycling systems to treat wastewater to Title 22 recycled water standards to allow for the unrestricted reuse of this water for both external (irrigation and fire water) and internal building reuse (toilet flushing, cooling and commercial laundry washing). Based on the large distances between the various hotels and commercial centers of the project, several small decentralized water recycling systems will be installed at each cluster and the recycled water will be reused primarily for landscape irrigation, make up water for landscape water features, and in some instances for in-building reuse applications. In some locations recycled water may also be reused as a supplemental source of fire water.

The recycled water system will include small advanced wastewater treatment systems (consisting of small biological treatment systems), a recycled water storage facility and booster pump station and a recycled water distribution system.

The small advanced wastewater treatment systems will be biological treatment systems that will consist of either (i) a small package style plant that uses low-energy, high-rate biological treatment and advance recycled water treatment systems (filtration and disinfection) systems, and/or (ii) a small pond and wetland treatment system combined with advance recycled water treatment systems to allow for unrestricted reuse of water. The recycled water systems will be designed to conform with State requirements and will be permitted by the California Regional Water Quality Control Board and State Water Resources Control Board – Division of Drinking Water.

INTEGRATED WATER MANAGEMENT PROGRAM

The Water Supply Assessment (WSA), as required by California Environmental Quality Act (CEQA) will implement a comprehensive groundwater management and protection program as part of the overall water management program for the project. A key strategy of the integrated water resource program for the project will be to implement a conjunctive use strategy that will jointly manage the use of surface water, groundwater surface water and recycled water to maximize the recharge of groundwater in the local groundwater basins. Aspects of the program will include:

A. Use of green infrastructure measures to retain and infiltrate rain and stormwater runoff in the vicinity of new developed areas of the project site;

B. Installation of additional subsurface infiltration facilities to recharge groundwater with captured surface runoff and supplemental recycled water;

C. Supplementation of groundwater by periodically deep irrigation of recreational (golf courses, polo fields) and agricultural crops (vineyards and other fruit and vegetable crops);

D. Development and implementation of a comprehensive water conservation program as part of the water supply program.

Key aspects of the groundwater management goals of the project will be consistent with the Lake County Groundwater Management Plan and will be developed and implemented to:

A. Minimize the long-term drawdown of the groundwater levels;

B. Protect groundwater quality;

C. Minimize the effect of groundwater pumping on surface water flows and quality;

D. Design and integrate facilities for groundwater replenishments as integral components of the project; and

E. Develop a comprehensive groundwater monitoring and management program to monitor the groundwater levels, pumping rates, and quality in the project area on an ongoing basis to management groundwater usage in a balanced and sustain manner.

INTEGRATED STORMWATER

The development area, as well as the surrounding area, is characterized by an extensive network of lakes, creeks and associated riparian areas, fed by stormwater captured within localized watersheds throughout the rainy season. While Lower Bohn Lake and other lakes within and around the property have been artificially dammed many years ago to provide agricultural irrigation water supply and storage, this project protect the lakes as if they had been naturally

formed, as they currently support a variety of fish, plants and wildlife critical to the ecological success of the region. Stormwater management techniques throughout the Guenoc Valley Resort will focus primarily on maintaining or restoring existing hydrological patterns to best support the site’s ecological and groundwater health. Additionally, stormwater management features, like rocky conveyance swales and grassy micro-retention ponds as examples, will be leveraged to enhance the sensory and educational experience of its residents and visitors, while maintaining a minimum level of separation to safely convey water into appropriate management areas.

Overland flow and open channels, with capacity for larger storms, will be the main method of conveyance surrounding the developed areas, and in some cases will be routed to flow directly through the middle of development sites. Runoff that is associated with roadways and building roofs will be routed through passive management features like bioswales and vernal pool systems, mimicking the processes of the natural environment to achieve the State Water Quality Control Board’s goals for water quality and flow mitigation. Portions of the site’s lots and roadways traverse hilly terrain which include steep slopes and deep gullies. Since these gullies can often be concurrent with more sensitive environmental habitats, the project will make efforts to bypass them with arched open bottom culverts or bridges. At smaller water crossings and in addition to piped culverts where needed, pavement sections can also be designed to allow water to flow through pervious base sections so as not to create damned conditions behind roads, thus reducing concentrated flow throughout.

INNOVATIVE WASTEWATER

There are five (5) types of wastewater systems that will be implemented at the site. The type of system used will depend on the type of land use, site specific soil and groundwater conditions, and distance or adjacencies to other properties or land uses. There are three alternative residential systems planned for the project and two alternative commercial systems. In summary the five types of wastewater systems that are under consideration at this time include the following:

- Residential System Type 1A – Standard Septic System
- Residential System Type 1B – Onsite Enhance Treatment System
- Residential System Type 1C – Septic Tank Effluent Sewer System
- Sanitary Sewer and Community Wastewater Treatment and Recycled Water System
- Decentralized Greywater Treatment System

The following provides a brief description of the different types of wastewater systems planned for the project.

Residential System Type 1A – Standard Septic System. A Type 1A system is a standard septic system that will be used on residential parcels that have suitable soil and groundwater conditions and meets setback requirements that would allow for the installation of a standard septic system (septic tank and subsurface disposal system) to conforms to Lake County Rules and Regulations (LCR) for on-site Sewage Disposal and the State of California’s Onsite Wastewater Treatment Systems (OWTS) Policy.

Residential System Type 1B – Onsite Enhanced Treatment System. A Type 1B system will include an onsite enhanced treatment system (such as an aerobic treatment, textile filter, sand filter or other alternative treatment system) that will provide pretreatment of the wastewater before it is disposed on site in a subsurface disposal system. The enhanced treatment system will be required to address site specific issues, such as marginal soil conditions, high groundwater or other site constraints that will not allow for a standard septic system to be utilized. The enhanced treatment system will designed and operated to comply with both the LCR and the State’s OWTS Policy.

Residential System Type 1C – Septic Tank Effluent Sewer Systems. A Type 1C system will include an effluent sewer system to connect a residential parcel to a community wastewater treatment and recycled water system. The effluent sewer system is made up of an interceptor tank (septic tank) and a small-diameter collection pipeline that are designed to convey only the liquid portion of the household wastewater for off-site treatment and disposal or reuse. The septic tank is located close to the house and is used to remove solids from the wastewater and these tanks are periodically pumped by a vacuum truck and the solids are taken to a municipal treatment plant. The settled wastewater can either flow by gravity to the main collection system or a second pump tank with a pump system can be installed and the effluent can be pumped under pressure to the main collection system. The Septic Tank Effluent Gravity (STEP) and the Septic Tank Effluent pumping (STEP) systems would conform with Lake County and State of California’s standards.

SANITARY SEWER, WASTEWATER TREATMENT AND RECYCLED WATER SYSTEMS

The project is spread out over 16,000 acres and will include at least twelve (12) discrete areas that will require either individual and/or combined wastewater systems. Several areas will include mixed use developments including hotels, restaurants, commercial centers, pools and other related facilities. Wastewater management systems for these areas will include sanitary sewer collection system to collect the wastewater, small natural or package styled wastewater treatment and reuse systems, and recycled water distribution and reuse systems. The majority of recycled water will be used for landscape irrigation, make up water for water features, indoor water reuse for toilet flushing and potentially for indirect groundwater recharge via infiltration basins or trenches in selected areas on the property.

Some areas including the main back of the house area, the fire center and the golf course areas will be smaller areas that are relatively remote from the larger development clusters. These areas will be served by small onsite wastewater systems that will include small sewer collection systems, a small enhanced treatment system and small reuse systems, such as, a subsurface drip dispersal irrigation system to reuse treated water to irrigate landscape around the buildings.

The Phase I Development Summary Table presents a list of main project areas, the planned activities in each area, and the wastewater management approach for the area.

SANITARY SEWER SYSTEMS

Based on the variable topography and distances between facilities a combination of pressure and gravity sewer systems will be utilized. The pressurized sewer systems will include small lift stations located in strategic locations to pump wastewater to the main treatment system. Pressure sewers will be small diameter pressure lines that will likely be installed in the road right-of-way or in a utility Easement. Gravity sewers will generally be larger diameter pipelines that will also be located in the road right-of-way or a utility easement.

WASTEWATER TREATMENT AND RECYCLING SYSTEMS

The wastewater treatment and reuse system will include either a natural wastewater treatment system or a small biological package styled treatment system. The wastewater treatment systems will be energy efficient, easy to operate and maintain. The natural wastewater treatment that will be used will include a combined pond and wetland treatment system or a small multi-stage trickling filter and wetland treatment system. The small biological package style treatment system will include either a multi-stage trickling filter with a membrane filtration system or packed-bed textile filter and membrane filtration system. All of the wastewater systems will also include advance filtration and disinfection system and inline water quality monitoring system to comply with the State of California’s Recycled Water Laws.

RECYCLED REUSE STORAGE AND DISTRIBUTION SYSTEMS

Once the recycled water has been treated it will be stored in small water tanks or ponds. Small booster pumps will pump the recycled water into a purple pipe recycled water distribution system that will convey recycled water to the final point of use, such as a landscape irrigation system, the golf course or polo fields. Anywhere that recycled water is reused will be posted to inform the visitors and staff that recycled water is being used.

SOLID WASTE

The project proposed onsite reduction of solid waste through the implementation of recycling and composting. The project will provide separate refuse collection bins for recyclable waste, compostable waste, and standard waste, and will dispose of the compostable materials onsite. Refuse will be taken to lower lake.

