



Midpeninsula Regional
Open Space District

Memorandum

DATE: November 13, 2012

TO: Use and Management Committee

THROUGH: Steve Abbors, General Manager

FROM: Lisa Bankosh, Planner III

SUBJECT: Mindego Gateway Project at Russian Ridge Open Space Preserve

Meeting Purpose

The Use & Management Committee (Committee) will be asked to take the following actions:

1. Provide input on, and consider approval of the proposed Mindego Ranch U&M Plan as described in this memo;
2. Forward the Committee's recommendation to approve the Mindego Ranch U&M Plan to the full Board for their review and consideration.

Background

The Mindego Ranch property (refer to Figure 1), a 1,047-acre cattle ranch, was added to the western portion of Russian Ridge Open Space Preserve in 2008. The Preliminary Use and Management Plan that was approved as part of the property purchase (see report R-08-38) included standard resource management actions, signage, and site security, structural demolition (including the True Residence and outbuildings, barns and corrals near the Old True Residence; refer to Figure 1), and continuation of grazing under the provisions of a grazing lease.

Upon further review of the extremely degraded grassland condition on the property due to decades of poor rangeland management practices, the District's Rangeland Ecologist developed resource management prescriptions for the property that included a temporary suspension of the grazing operation to first implement an intensive weed abatement program. Infrastructure demolition and removal were also delayed pending the outcome of Phase II investigations of a defunct landfill located near the True Residence, which have concluded with the resolution that contaminants would be contained by implementing a "closure in place". It is expected that demolition would be included in the FY2012-13 Action Plan.

Simultaneously, biological surveys indicated that a significant population of San Francisco garter snake (SFGS), which is listed as a federally-endangered species, is present within and around four stock ponds on the property. Due to the sensitivity and federal protection of this species, as well as the complex laws regulating activities within its habitat, long-term planning was deemed necessary to ensure that future District actions benefit SFGS while also meeting public access and land management objectives.

To this effort, District staff has worked closely with resource specialists to develop land management recommendations for the Mindego Ranch Area of Russian Ridge Open Space Preserve (Preserve). These recommendations have been assembled into the proposed Use and Management Plan Amendment for the Preserve (hereafter referred to as the Mindego Ranch U&M Plan Amendment).

The Mindego Ranch U&M Plan Amendment was prepared with prior Board approvals in mind (see Report R-12-37) for this area of the Preserve, which are:

- Construction of new 0.75 mile hiking and equestrian trail to the top of Mindego Hill
- Designation of the Mindego Ranch Area as “No Off-Trail Use” due to the presence of sensitive biological resources, including the SFGS

Note: construction of the Mindego Hill Trail is subject to a grading permit from San Mateo County, which will require that a grazing operation be re-activated prior to opening the trail to public use.

Proposed Mindego Ranch U&M Plan Amendment

The Mindego Ranch U&M Plan is intended to direct future land management, operations, and public access actions and activities at Mindego Ranch. It is the goal of the Plan *to protect and enhance habitat for sensitive wildlife species, while responsibly integrating necessary land management activities and limited public access at Mindego Ranch.* In summary, the proposed Plan elements include the following:

- Habitat Enhancement Actions to improve the habitat quality of stock ponds for wildlife benefit;
- Conservation Grazing, including construction of needed livestock infrastructure;
- Hiking and Equestrian Access to the Donor Circle; and
- Maintenance and Operations projects, including road erosion treatment projects and demolition of obsolete structures.

The Plan elements would provide for sensitive public access and careful stewardship of the property over the long term and are described individually in greater detail below.

Habitat Enhancement Actions

Following preliminary surveys that detected the presence of SFGS on the property, a team of expert herpetologists was contracted by the District to perform in-depth surveys and recommend measures to protect and enhance populations of this endangered, fully-protected species, as well as other sensitive species, on Mindego Ranch. Management actions to improve aquatic and upland habitat are described briefly below and shown in Figure 2.

1. **Eradicate non-native fish from Mindego Lake.** Habitat suitability for sensitive reptiles and amphibians on Mindego Ranch is greatly reduced by flourishing populations of predatory non-native fish and bullfrogs in Mindego Lake, a relatively large, spring-fed lake located in the north-central portion of the property. Control or eradication of non-native fish and bullfrogs would improve the snake’s native prey base, primarily California red-legged frog (CRLF) and Pacific tree frog, which would benefit the entire ecosystem over time. Mindego Lake would be drained temporarily in the late summer to

eliminate stocked populations of bluegill, largemouth bass, and catfish that prey upon larval CRLF. At this time, a management program would also be initiated to eliminate introduced bullfrogs, which also predate aggressively upon CRLF. Although these management actions would require significant effort, since there are no nearby sources of introduced fish or bullfrogs, the pond draining is not expected to be a recurring action.

2. **Increase capacity of smaller ponds.** Upper Pond, Big Spring, and Knuedler Lake are small but permanent spring-fed ponds that have partially filled in with sediment and are heavily colonized by aquatic vegetation, including cattail, woad, bur-reed, and bulrush (see Figure 2). Loss of open water habitat due to expanding vegetation has reduced habitat quality at these locations and likely impairs successful breeding by CRLF, which require open water until the late summer months to complete their life cycle. To improve habitat quality, sediment and emergent marsh vegetation would be removed from portions of Upper Pond, Big Spring, and Knuedler Lake in Years 1, 2, and 3, respectively, of Plan implementation. Concurrent with sediment and vegetation removal, repairs to berms and outlet structures would be implemented. At Upper Pond, the earthen berm would be raised, stabilized, and compacted to ensure that the pond is approximately four feet deep at its center. At Big Spring, the low, earthen berm near the northwest corner has eroded and would be raised, stabilized, and compacted to re-create the original capacity of the basin; a new outlet may be required to help control water levels. At Knuedler Lake, there is an actively eroding head-cut approximately 75 feet from the high water line that must be repaired along the outlet. Pond repair and enhancement actions would support and expand CRLF breeding at these locations, thereby increasing SFGS prey availability.
3. **Install livestock exclusion fencing.** Five-strand barbed-wire fencing to exclude and manage livestock is recommended for portions of all four ponds. The intent is to allow cattle to drink at specific locations to help maintain open water habitat while excluding them from portions of the pond to ensure adequate growth of emergent and perimeter vegetation. Gates should be installed in the exclusion fencing to allow periodic cattle access when considered necessary to help control invasive plants.

Conservation Grazing

A renewed grazing operation at Mindego Ranch is required to maintain appropriate grassland-to-brush ratios for SFGS, control invasive weeds, maintain open water habitats in shallow ponds, and promote native plant diversity. Due to the lack of cross pasture fencing and sufficient water troughs, as well as a history of stocking rates that were too high for the available forage, the reintroduction of grazing would require significant infrastructure improvements as well as active management and monitoring to ensure that conservation grazing objectives are met. A grazing assessment prepared for the property (Sage Associates 2008) recommends low initial stocking rates of approximately 30 head, likely to be year-round, cow-calf pairs.

Mindego Ranch is partially within the drinking water watershed of Cuesta La Honda Guild, which diverts water from Mindego Creek approximately 0.25 mile downstream of the northwestern property boundary. The greatest potential threat posed by cattle grazing to downstream drinking water quality is the spread of cryptosporidium, a protozoan pathogen that causes intestinal infections that can be fatal to children. Cryptosporidium is spread via tough, durable spores, or cysts, which are produced in large quantities by newborn calves infected with

the pathogen. Although *Cryptosporidium* infection in cattle is relatively rare, contamination of a water supply with even trace levels of cysts would trigger extremely costly water treatment procedures. In order to minimize the potential for contamination of the La Honda water supply, calving would only occur in the dry season, and young calves would be confined to the southern pasture (which does not drain into Mindego Creek; see Figure 3) during the rainy season.

Existing grazing infrastructure on the property includes perimeter fencing, cross-pasture fencing to create two holding fields and one large pasture, and several water troughs. To ensure long-term grassland health, the Mindego Ranch U&M Plan Amendment would include the following water system improvements (refer to Figure 3):

- Five new troughs
- Two new water tanks
- An electric (solar) pump
- Approximately 8,000 feet of new, buried PVC water line

Proposed water troughs would be widely dispersed along ridgelines and swales throughout the property in order to aid in the distribution of cattle. Troughs would also be located away from existing natural water sources to reduce impacts on aquatic wildlife and water quality, and troughs themselves would be equipped with wildlife-friendly “escape ramps” to prevent trapped animals from drowning. All new trough locations would be accessible by existing ranch roads; however, some road segments would require vegetation clearing and/or spot grading to allow access. In addition to these water system improvements, new corrals would be added adjacent to the main driveway near the ranch entrance to facilitate ease of transport and treatment of livestock.

Public Access

The Mindego U&M Plan Amendment includes following:

- Opening a new section of the Mindego Ranch main driveway that connects to the POST Donor Circle pathway to hiking and equestrian use
- Opening the Donor Circle pathway to hiking only
- Installing a horse stile at the entrance of the Donor Circle pathway
- Designating habitat buffer areas around ponds on Conservation Management Units, where no public access is allowed
- Install Closed Area signage at key locations
- Install new gate on the Mindego Ranch main driveway just beyond the junction with the Donor Circle pathway

Opening a segment of Mindego Ranch main driveway to hikers and equestrians would address the original intent to allow access to the POST Donor Circle, which was not included in prior Board approvals. A horse stile with a nearby hitching post would be installed at the Donor Circle pathway entrance to discourage horses from traveling on the decomposed granite path and provide a place to tie horses for equestrians wishing to reach the Donor Circle on foot. The proposed public access to the Donor Circle meets the District’s SFGS protection guidelines and is outside the designated 660-foot protective buffer around core aquatic habitat areas (including Mindego Lake), within which public use and management activities are highly restricted.

To provide even greater protection for the SFGS, the designation of Conservation Management Units (CMUs) are proposed for the 660-foot core habitat buffer areas that surround occupied ponds. In the event that additional hiking and equestrian trails are added in the future, these trails must be sited outside the CMUs. To physically detract visitors from continuing on the ranch road and into the CMU, a new “Powder River” gate would be installed on the road just west of the trail junction with the Donor Circle pathway. Moreover, new fencing was recently installed around the Donor Circle area. Appropriate “Closed Area” signage would be installed along this fencing. In addition, interpretive signage would be installed at the new Mindego Gateway staging area and/or at the base of Mindego Hill Trail to educate visitors about the SFGS and associated use restrictions.

Maintenance and Operations

Major maintenance and operations projects that would be implemented as part of the Mindego Ranch U&M Plan include road erosion treatment projects and demolition of obsolete structures.

Road Erosion Treatment Projects

Road erosion treatment projects as prescribed by the *Mindego Ranch Road and Trail Erosion Inventory* (Best 2012), which would be incorporated as an attachment to the Mindego U&M Plan, would be implemented by District field staff. Type of use, and by extension routine maintenance requirements, also would be established for each road on the property as shown in Figure 4. Road projects include:

- Installing reverse-grade dips and ditch relief culverts, rocking low-lying segments, and replacing a failing culvert along the main ranch driveway (recently renamed the Mindego Hill Trail);
- Regrading, widening, and installing reverse-grade dips on three critical ranch access roads.

Demolition of Obsolete Structures

As discussed above, demolition of the True Residence and associated outbuildings, as well as the corrals and barn near the Old True Residence, was approved as part of the Mindego Ranch purchase. Demolition of the Old True Residence, shown in the photographs below, was not included in the preliminary Use and Management Plan pending a more thorough assessment of the District’s needs for staff housing. Field staff has determined that ranger presence at this location is not a current priority, and, given the cost of upgrades required to bring the structure to the “livability” standard, demolition is recommended at this time. In the future, if staff or ranch housing is required, purchase of a modular or trailer home would be more cost effective than upgrading and maintaining the current residence. The District would address this need if and when it arises. Photos of the Old True Residence are shown in Figure 5.

Public/Stakeholder Consultation

Public outreach in 2012 resulted in several site tours, presentations, and public and agency input opportunities. The proposed Mindego Ranch U&M Plan incorporates input from representatives of the biking, equestrian and hiking communities (site visit held August 31); the San Mateo County Farm Bureau (site visit held September 14, formal presentation given November 6); and the community of Cuesta La Honda Guild (site visit held November 6). Early consultation with

the US Fish and Wildlife Service was initiated by the Natural Resources Department staff in October.

Next steps

The following are the next steps needed to proceed with the project:

- Forward the Use and Management Committee's recommendation regarding the proposed U&M elements to the full Board of Directors for tentative approval;
- Complete environmental analysis; seek Board certification of environmental documents
- Obtain regulatory approval in the form of a Recovery Permit from the US Fish and Wildlife Service
- Include water system improvements as part of the FY2013-14 Action Plan and Budget;
- Select and execute lease with a new grazing tenant (expected in summer 2014);
- Implement habitat enhancement beginning in FY2015-16

Background documents:

San Francisco Garter Snake Habitat Management Plan (Biosearch Associates 2012)

Mindego Hill Ranch Grazing Management Plan (Sage Associates 2008)

Road and Trail Erosion Inventory: Mindego Ranch (Best 2012)

These documents are available on the District website at:

http://www.openspace.org/plans_projects/open_space_planning.asp .

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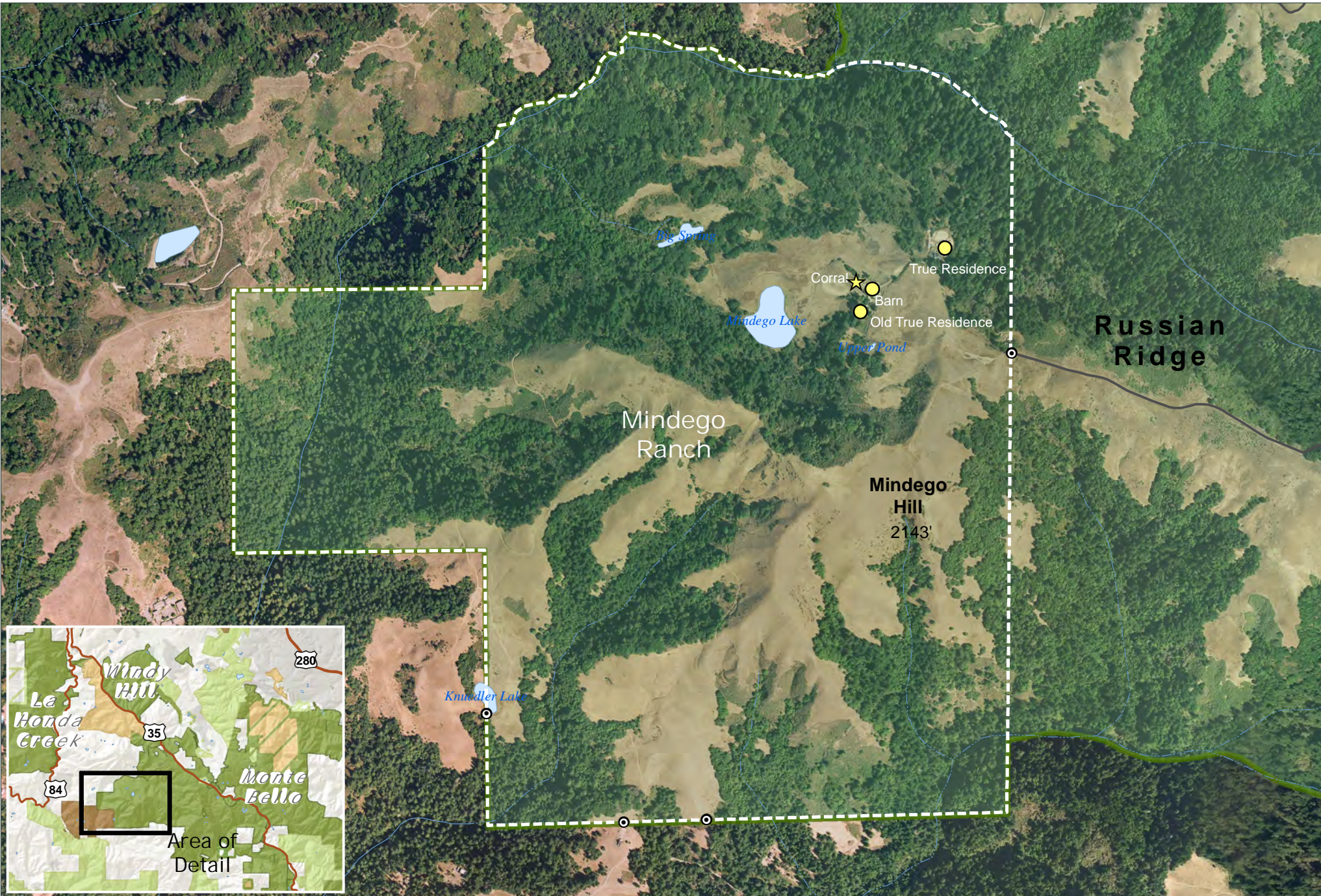


Figure 1. Mindego Ranch Location

Existing Public Trail

Gate

Midpeninsula Regional
Open Space District
November 2012



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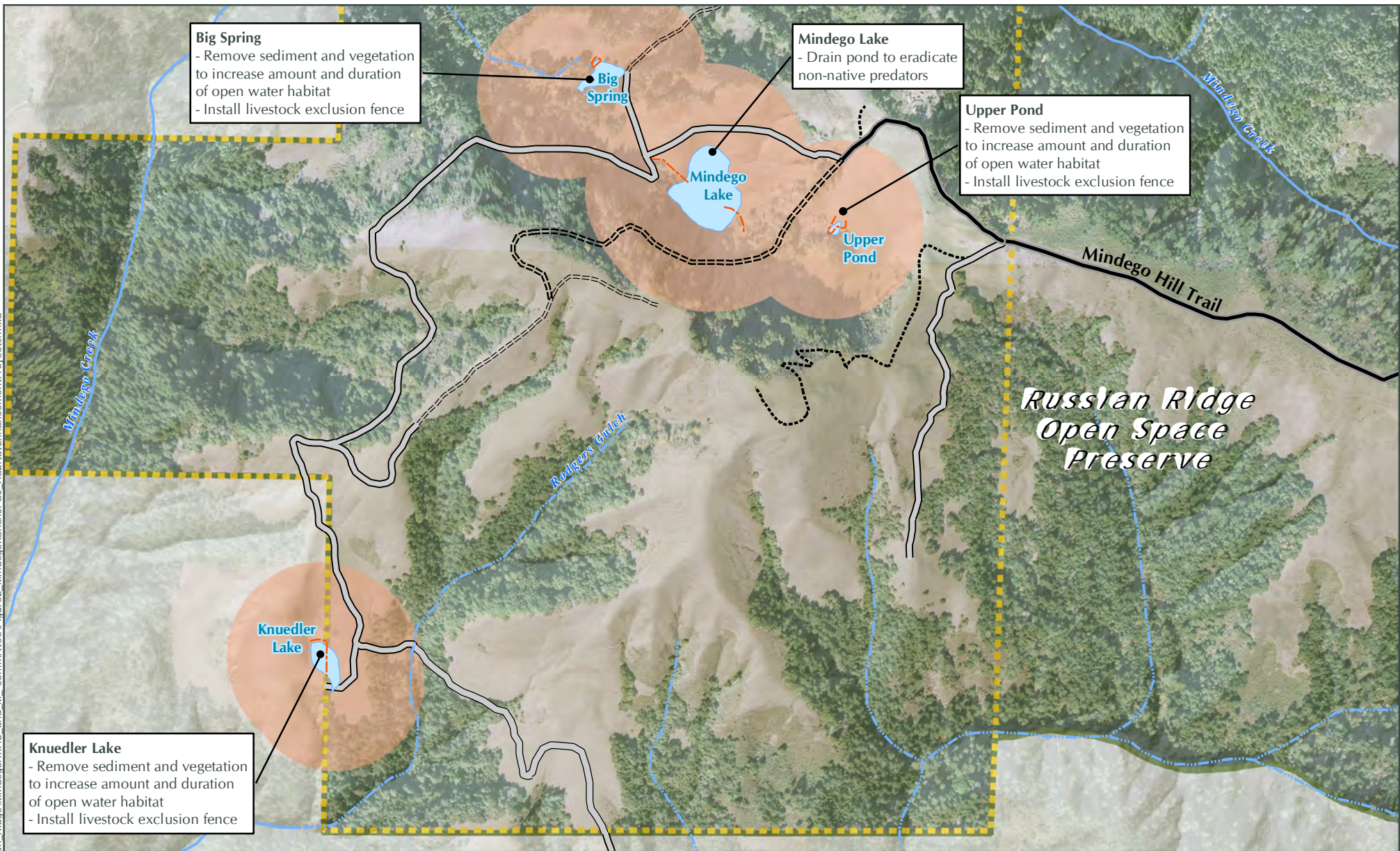


Figure 2: Mindego Ranch SFGS Habitat Enhancement Projects

- Mindego Ranch Property
- Trail
- Proposed Cattle Exclusion Fence
- MROSD Preserves
- Primary Road (Year-Round)
- SFGS Conservation Management Unit 660ft Buffer Around Ponds
- Primary Road (Seasonal)
- Other or Private Land
- ATV Access

This map was used by L. Bankosh for U&M Committee meeting, and board report for (11/13/12)



Midpeninsula Regional Open Space District (MROSD)



November, 2012



While the District strives to use the best available digital data, this data does not represent a legal survey and is merely a graphic illustration of geographic features.

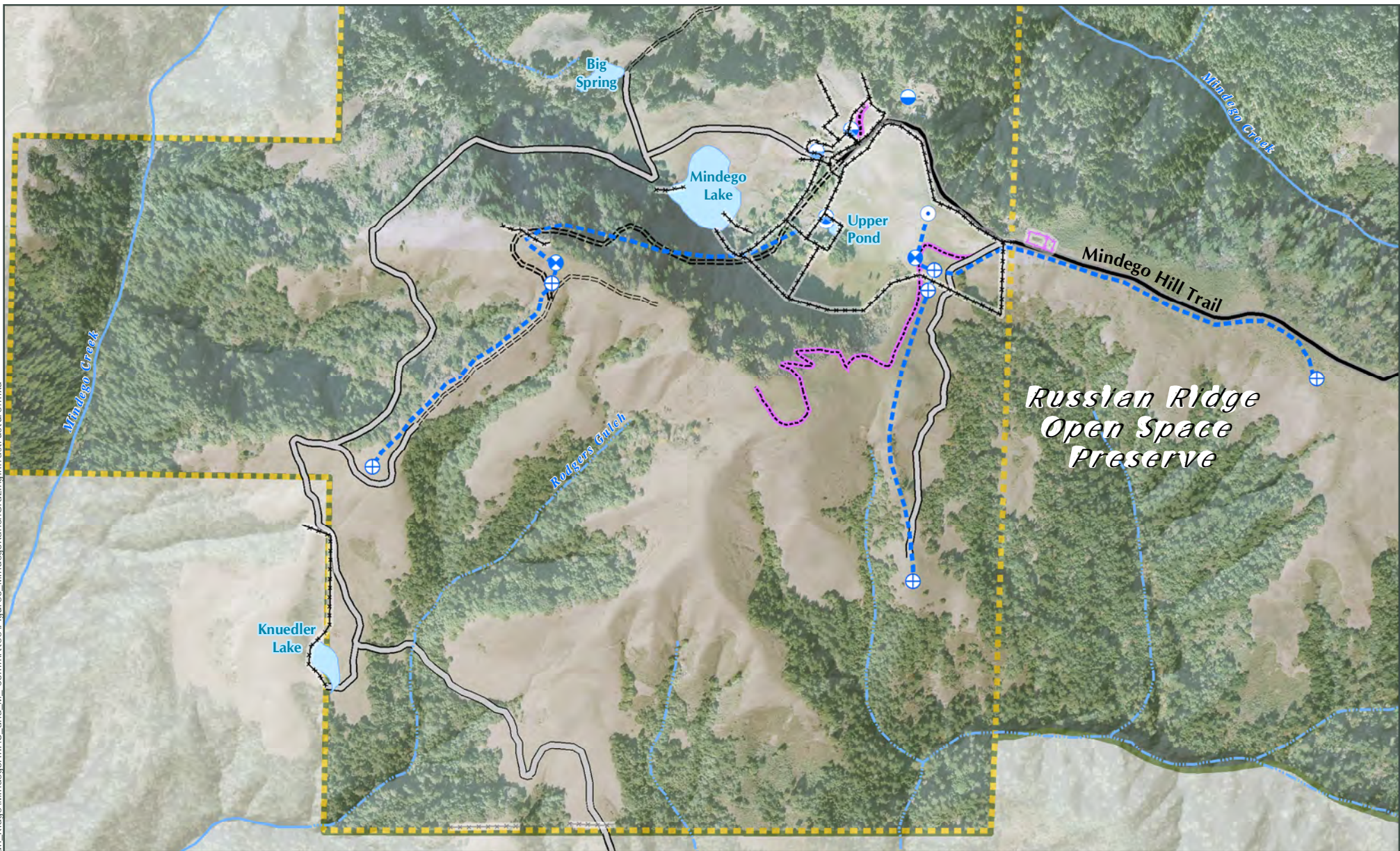


Figure 3: Mindego Ranch Grazing Infrastructure

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|------------------------|-----------------------|---------------------------|--------------------------------|
| Mindego Ranch Property | Water Tank (Existing) | Water Line (Proposed) | Fence (Good) |
| MROSD Preserves | Water Tank (Proposed) | Future Trail | Fence (May need minor repairs) |
| Other or Private Land | Trough (Existing) | Primary Road (Year-Round) | Fence (Proposed) |
| | Trough (Proposed) | Primary Road (Seasonal) | |
| | | ATV Access | |

Midpeninsula Regional
Open Space District
(MROSD)



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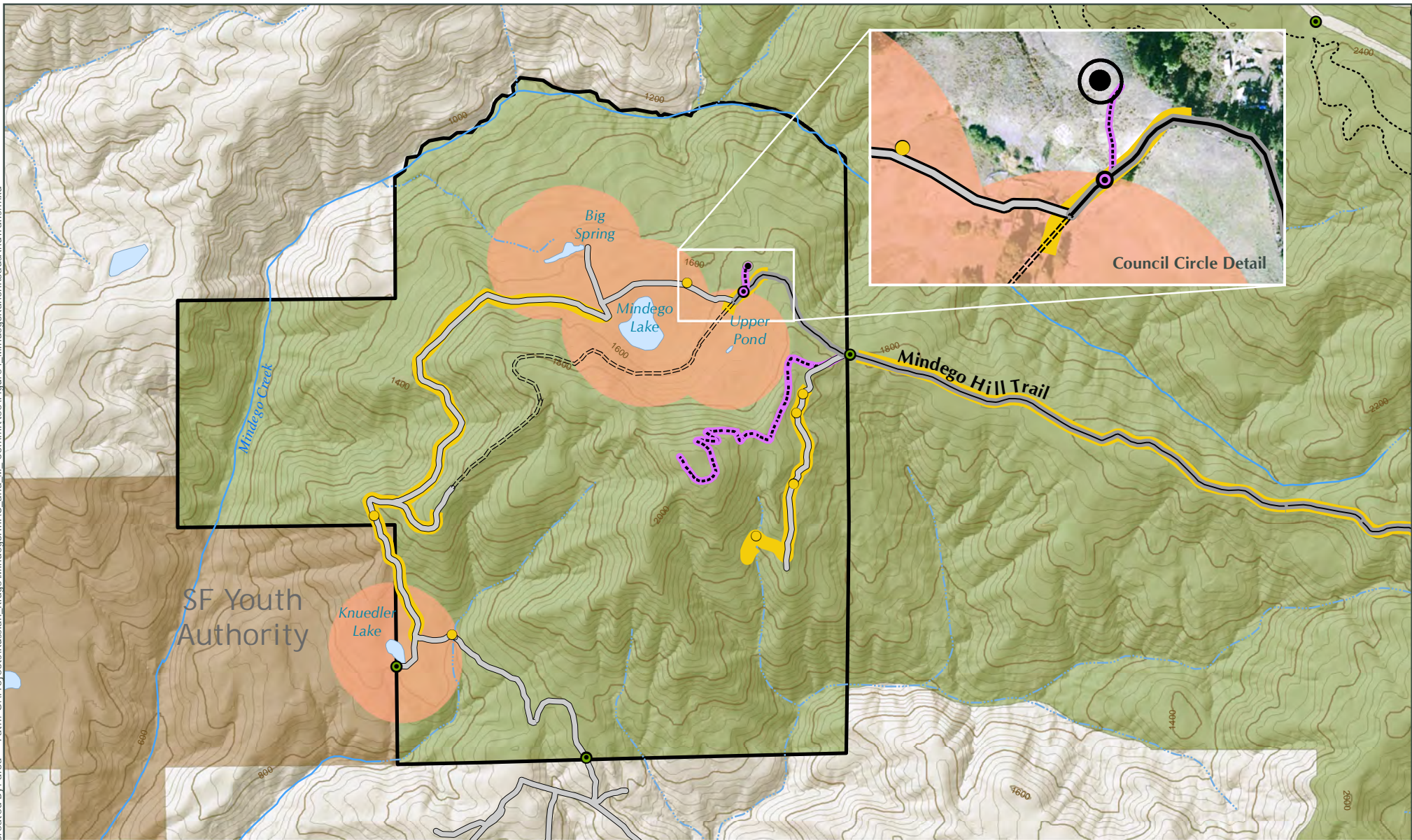















Figure 4: Mindego Ranch Roads & Trails

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|----------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------|
|  Mindego Ranch Property |  Trail |  Council Circle |
|  MROSD Preserves |  Primary Road (Year-Round) |  Existing MROSD Gate |
|  Other Public Agency |  Primary Road (Seasonal) |  Proposed MROSD Gate |
|  Private Property |  ATV Access | |
|  Conservation Management Unit (660ft Buffer Around Ponds) |  Road and Trail Projects | |

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Figure 5. Site Photos, Old True Residence



View from the southeast



View from the northwest