



## Technical Memorandum

To: El Paso County Planning and Community Development  
From: SMH Consultants, Brett Louk  
Date: 06/17/2020  
Subject: Sedona Sun Acres Residential Subdivision Natural Features Report

### INTRODUCTION

SMH Consultants P.A. (SMH) was asked to prepare a natural features report for the proposed Sedona Sun Acres Residential subdivision development in El Paso County, Colorado (project location; Figure 1). On June 12, 2020, SMH visited the project area to review potential natural features. The intent of this report is to provide information on existing site conditions and to identify any major lakes, streams, significant topographical features and wildlife that may be impacted by the proposed subdivision. The report will also identify any mitigation techniques, if necessary.

### PROJECT SITE DESCRIPTION

SMH conducted a field visit to evaluate the existing project site for potential streams, wetlands, and any significant topographical features, as well as any potential wildlife habitats. The existing site is located at 13251 Vollmer Road, is approximately 37.7 acres in size, and is zoned RR-5. The site is proposed to be subdivided into four single-family residential lots. The four lots will be served by the two existing driveways. The project area is wooded open space bounded by Vollmer Rd. to the west, residential properties to the north, and open park space to the east and south. The site is located in what is known as the Black Forest in the Pine-Oak Woodlands ecoregion and is heavily covered in ponderosa pine woodlands and some low-level grasslands.

The existing site has two vegetated swales and some rolling hills. Primarily the project area supports woodland, grassland, and rangeland. There is also a noted increase in residential development in this region. During this visit, no streams, wetland hydrology, or wildlife was observed.

### WETLANDS ASSESSMENT

In preparation for the field visit, SMH reviewed National Wetlands Inventory (NWI) maps, Federal Emergency Management Agency (FEMA) maps, and Natural Resources Conservation Service (NRCS) soil survey maps to see if there was any indication of wetlands or streams on the project site. SMH found no jurisdictional or navigable waters as identified, and protected, under Section 404 of the Clean Water Act. SMH recommends consultation with the U.S. Army Corps of Engineers for a jurisdictional

determination prior to work being conducted in the project area as a detailed wetland delineation was not performed at this time.

Review of the NWI maps showed a small wetland in the southern portion of the site (Figure 3). The NWI labels it as a Freshwater Emergent Wetland with a classification of PEM1C. Surface water may be present in these locations during the early growing season, but disappears by the end of the growing season. SMH did not see any visible surface water during the site visit. This wetland does not fall under protection of Section 404 of the Clean Water Act. Foundation design in this area should be completed by a licensed Colorado Professional Engineer prior to construction.

The project site is located within FEMA FIRM panel 08041C0320G (Figure 4), in El Paso County, Colorado. Upon review of the FEMA FIRM panel, SMH determined the project is located in Zone X. Zone X is defined as an area of minimal flood hazard and is at a higher elevation than the 0.2% annual flood chance.

The NRCS Soil Survey Map (Figure 5) shows that there are predominantly three types of soil present in the project area: Elbeth sandy loam, with 8 to 15 percent slopes, Kettle gravelly loamy sand, with 3 to 8 percent slopes, and Peyton-Pring complex, with 3 to 8 percent slopes. All three soil types are classified as hydric soils due to frequent ponding for long durations.

## **THREATENED, ENDANGERED, AND CANDIDATE SPECIES**

SMH reviewed documents pertaining to the Endangered Species Act (ESA), as well as, documents for state specific threatened and endangered species that may be impacted by the proposed development. Figure 7 shows the list of federally threatened and endangered species that could potentially be found in El Paso County. Figure 8 shows the list of state specific threatened and endangered species that could potentially be found in El Paso County. The Preble's Meadow Jumping Mouse is the only threatened or endangered species potentially located close to the project site; however, the project site is just outside the area where the Preble's Meadow Jumping Mouse is typically found. SMH did not see any critical habitat during the site visit. Therefore, the project will have no effect on federally or state specific threatened and endangered species.

## **SUMMARY & RECOMMENDATION**

In summary, SMH found no indication or evidence of major lakes, streams, topographical features, and wildlife habitats that would be impacted by the proposed subdivision. The proposed subdivision will have no adverse impacts on jurisdictional waters or federally and state threatened and endangered species.

**FIGURES:**

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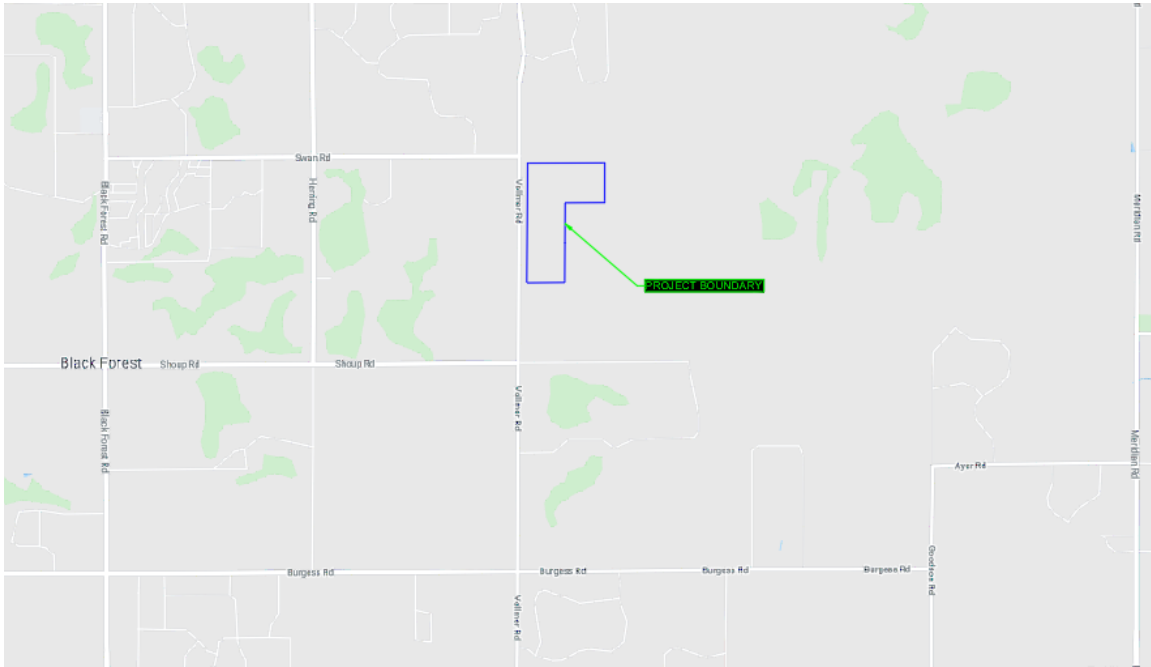


Figure 1: Project Site Location

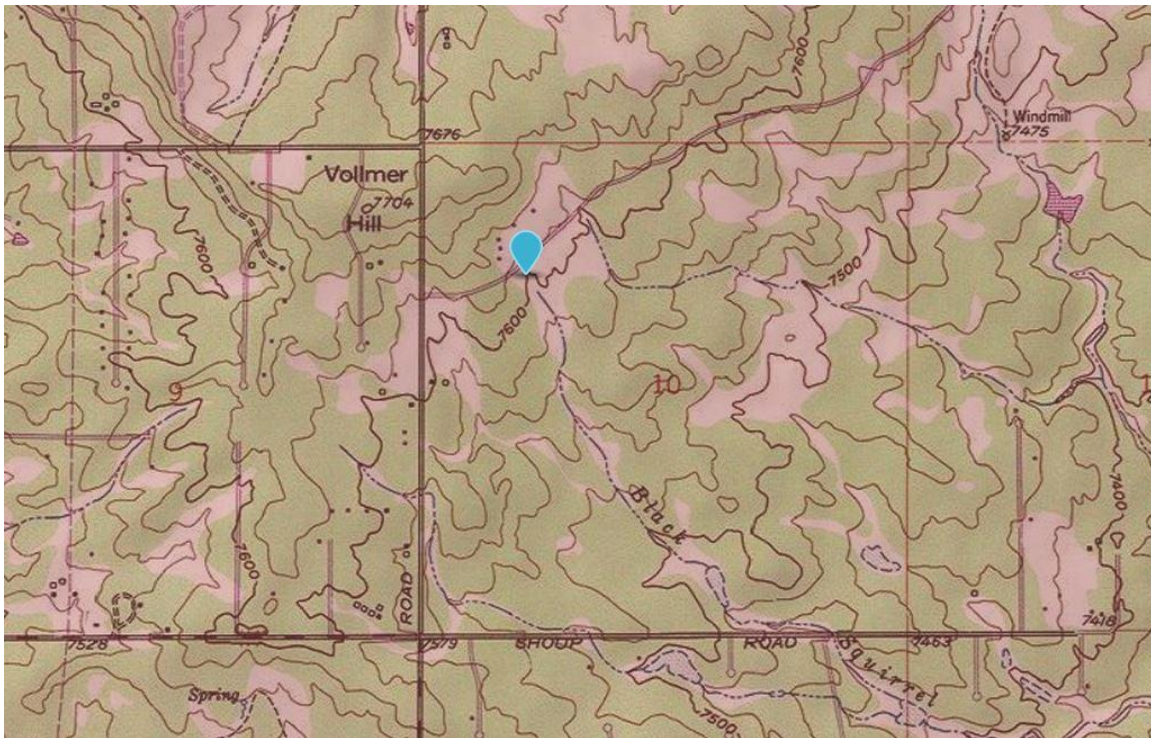


Figure 2: Topographic Map

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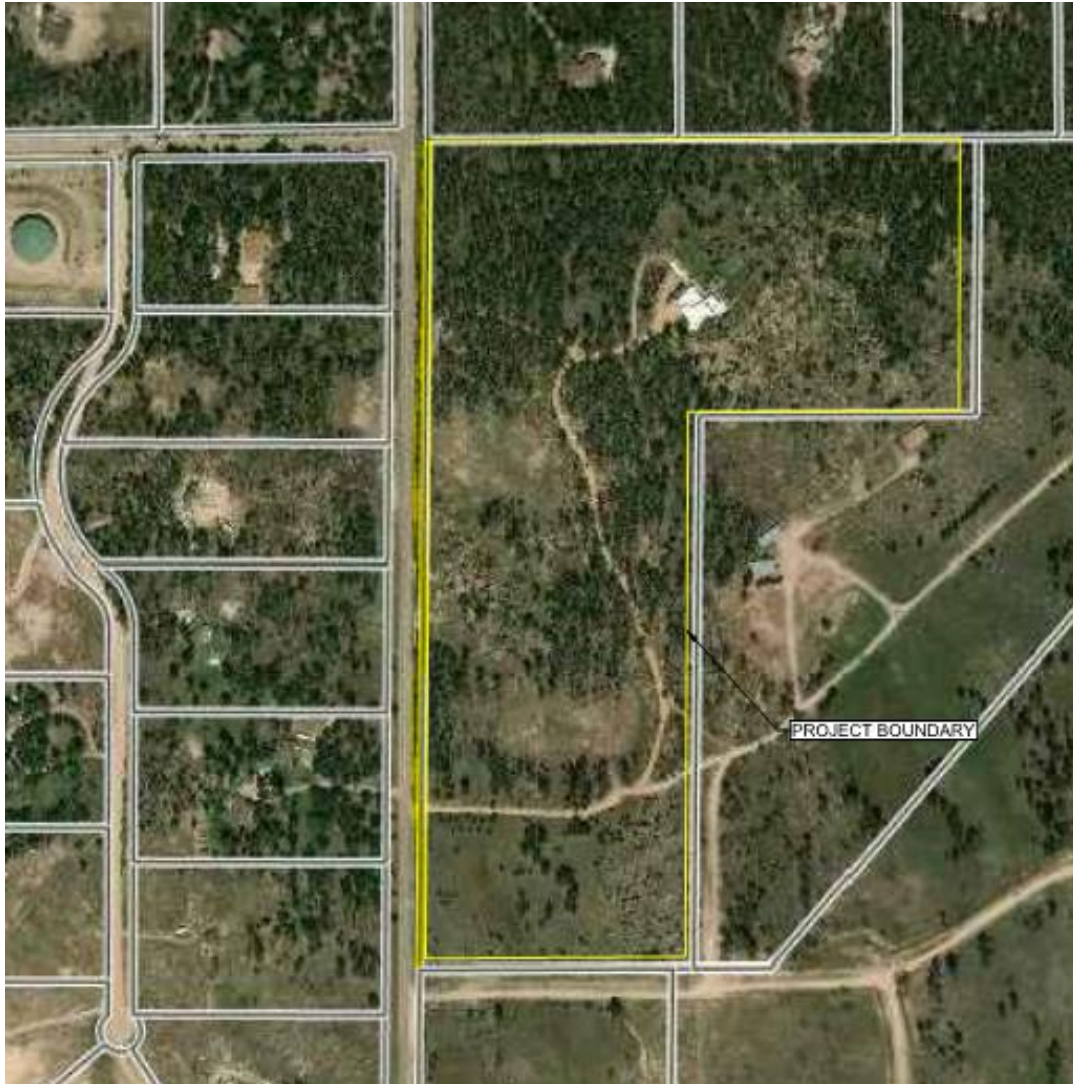


Figure 3: Site Plan

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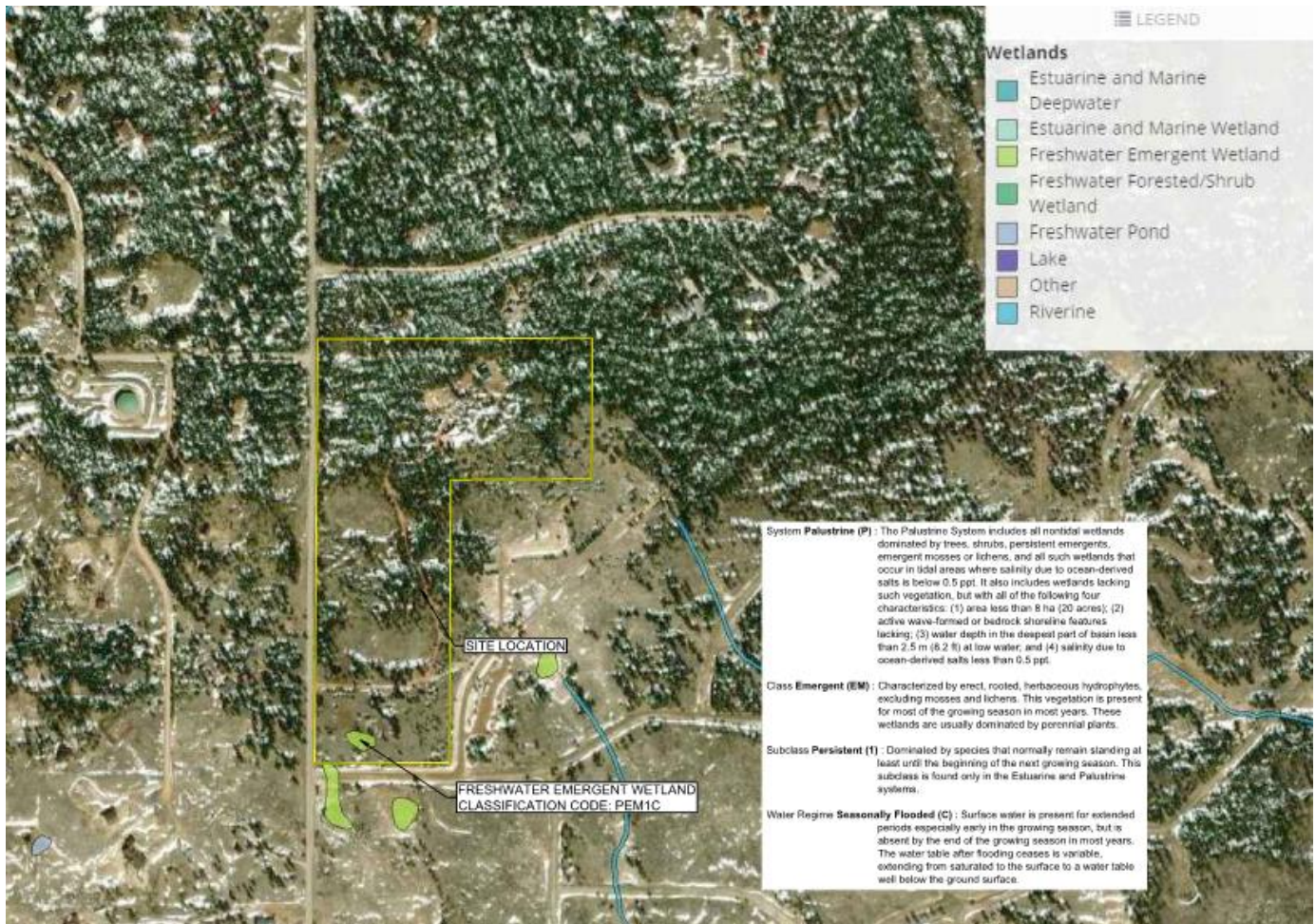


Figure 4: National Wetlands Inventory Map

# National Flood Hazard Layer FIRMette



**Legend**

SEE FIS REPORT FOR DETAILED LEGEND AND INDEX MAP FOR FIRM PANEL LAYOUT

**SPECIAL FLOOD HAZARD AREAS**

- Without Base Flood Elevation (BFE) Zone A, V, AE, D
- With BFE or Depth Zone AE, AO, AH, VE, AR
- Regulatory Floodway

**OTHER AREAS OF FLOOD HAZARD**

- 0.2% Annual Chance Flood Hazard, Areas of 1% annual chance flood with average depth less than one foot or with drainage areas of less than one square mile Zone X
- Future Conditions 1% Annual Chance Flood Hazard Zone X
- Area with Reduced Flood Risk due to Levee. See Notes, Zone X
- Area with Flood Risk due to Levee Zone D

**OTHER AREAS**

- NO SCREEN Area of Minimal Flood Hazard Zone X
- Effective LOMRs
- Area of Undetermined Flood Hazard Zone D

**GENERAL STRUCTURES**

- Channel, Culvert, or Storm Sewer
- Levee, Dike, or Floodwall

**OTHER FEATURES**

- Cross Sections with 1% Annual Chance Water Surface Elevation: 20.2, 17.5
- Coastal Transect
- Base Flood Elevation Line (BFE)
- Limit of Study
- Jurisdiction Boundary
- Coastal Transect Baseline
- Profile Baseline
- Hydrographic Feature

**MAP PANELS**

- Digital Data Available
- No Digital Data Available
- Unmapped

The pin displayed on the map is an approximate point selected by the user and does not represent an authoritative property location.

This map complies with FEMA's standards for the use of digital flood maps if it is not void as described below. The basemap shown complies with FEMA's basemap accuracy standards.

The flood hazard information is derived directly from the authoritative NFHL web services provided by FEMA. This map was exported on 6/16/2020 at 4:22 PM and does not reflect changes or amendments subsequent to this date and time. The NFHL and effective information may change or become superseded by new data over time.

This map image is void if the one or more of the following map elements do not appear: basemap imagery, flood zone labels, legend, scale bar, map creation date, community identifiers, FIRM panel number, and FIRM effective date. Map images for unmapped and unmodernized areas cannot be used for regulatory purposes.

Figure 5: FEMA FIRM Map of Project Site

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Map Unit Legend			
El Paso County Area, Colorado (CO625)			
El Paso County Area, Colorado (CO625)			
Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
26	Elbeth sandy loam, 8 to 15 percent slopes	23.2	60.7%
40	Kettle gravelly loamy sand, 3 to 8 percent slopes	13.6	35.5%
68	Peyton-Pring complex, 3 to 8 percent slopes	1.5	3.9%
<b>Totals for Area of Interest</b>		<b>38.3</b>	<b>100.0%</b>

Figure 6: Soil Survey Map



Group	Common Name	Scientific Name	Population	Status
Birds	Mexican spotted owl	<i>Strix occidentalis lucida</i>	Wherever found	Threatened
Fishes	Greenback Cutthroat trout	<i>Oncorhynchus clarkii stomias</i>	Wherever found	Threatened
Flowering Plants	Ute ladies'-tresses	<i>Spiranthes diluvialis</i>	Wherever found	Threatened
Flowering Plants	Western prairie fringed Orchid	<i>Platanthera praeclara</i>	Wherever found	Threatened
Insects	Pawnee montane skipper	<i>Hesperia leonardus montana</i>	Wherever found	Threatened
Mammals	Preble's meadow jumping mouse	<i>Zapus hudsonius preblei</i>	wherever found	Threatened

Figure 7: Federally threatened or endangered species found in El Paso County, Colorado

Group	Common Name	Scientific Name	Status
Amphibians	Boreal Toad	<i>Bufo boreas boreas</i>	State Endangered
Birds	Burrowing Owl	<i>Athene cucularia</i>	State Threatened
Birds	Least Tern	<i>Sterna antillarum</i>	State Endangered
Birds	Lesser Prairie-Chicken	<i>Tympanuchus pallidicinctus</i>	State Threatened
Birds	Mexican Spotted Owl	<i>Strix occidentalis lucida</i>	State Threatened
Birds	Plains Sharp-Tailed Grouse	<i>Tympanuchus phasianellus jamesii</i>	State Endangered
Birds	Piping Plover	<i>Charadrius melodus circumcinctus</i>	State Threatened
Birds	Southwestern Willow Flycatcher	<i>Empidonax traillii extimus</i>	State Endangered
Birds	Whooping Crane	<i>Grus americana</i>	State Endangered
Fish	Arkansas Darter	<i>Etheostoma cragini</i>	State Threatened
Fish	Bonytail	<i>Gila elegans</i>	State Endangered
Fish	Brassy Minnow	<i>Hybognathus hankinsoni</i>	State Threatened
Fish	Colorado Pikeminnow	<i>Ptychocheilus lucius</i>	State Threatened
Fish	Common Shiner	<i>Luxilus cornutus</i>	State Threatened
Fish	Greenback Cutthroat Trout	<i>Oncorhynchus clarki stomias</i>	State Threatened
Fish	Humpback Chub	<i>Gila cypha</i>	State Threatened
Fish	Lake Chub	<i>Couesius plumbeus</i>	State Endangered
Fish	Northern Redbelly Dace	<i>Phoxinus eos</i>	State Endangered
Fish	Plains Minnow	<i>Hybognathus placitus</i>	State Endangered
Fish	Rio Grande Sucker	<i>Catostomus plebeius</i>	State Endangered
Fish	Razorback Sucker	<i>Xyrauchen texanus</i>	State Endangered
Fish	Southern Redbelly Dace	<i>Phoxinus erythrogaster</i>	State Endangered
Fish	Suckermouth Minnow	<i>Phenacobius mirabilis</i>	State Endangered
Mammals	Black-Footed Ferret	<i>Mustela nigripes</i>	State Endangered
Mammals	Gray Wolf	<i>Canis lupus</i>	State Endangered
Mammals	Grizzly Bear	<i>Ursus arctos</i>	State Endangered
Mammals	Kit Fox	<i>Vulpes macrostis</i>	State Endangered
Mammals	Lynx	<i>Lynx canadensis</i>	State Endangered
Mammals	Preble's Meadow Jumping Mouse	<i>Zapus hudsonius preblei</i>	State Threatened
Mammals	River Otter	<i>Lontra canadensis</i>	State Threatened
Mammals	Wolverine	<i>Gulo gulo</i>	State Endangered

Figure 8: State threatened or endangered species found in Colorado

**PHOTOS**  
**Taken on June 12, 2020**

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Photo 1: View to the north from entrance drive.



Photo 2: View to the south from entrance drive.



Photo 3: Bottom of Swale #1. View to the south.



Photo 4: Top of Swale #1. View to the north.

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Photo 5: Views to the south from the north end of the property.



Photo 6: Views from top of Swale #2 to the south.



Photo 7: Views from the top of Swale #2 to the south.



Photo 8: Views from the bottom of Swale #2 to the north.



Photo 9: Views to the west from the existing drive.



Photo 10: Views to the east from the existing drive.