

14.1 Environmental Setting

14.1.1 Introduction and Sources of Information

This chapter provides the environmental and regulatory background necessary to analyze public services and utilities effects associated with the proposed project. It includes regulatory, regional, and project settings to provide a context for analyzing the effects of the project.

Public service standards for fire protection, police protection, schools, and parks typically apply to urbanization projects. Because the project would not increase the human population in the area, except for possible recreational usage, the service ratios and response times or performance objectives of the local fire protection and police protection services would not be affected. Even an increase in recreational usage (addressed in Chapter 15, “Recreation, Public Access, Visual Resources, and Public Health”) is not anticipated to affect police protection services. Demand for schools or parks would not change. Therefore, public services are not discussed further in this document.

Information on existing utilities was obtained through discussions with DFG and PG&E.

14.1.2 Regulatory Setting

The California Public Utilities Commission regulates the use and location of public utilities, including high-voltage towers.

The project would continue to honor existing easements and ROWs as stipulated in the property deeds.

14.1.3 Project Setting

14.1.3.1 Utilities

Utilities on the project site include electrical power. There is limited electrical power on-site because of the rural nature of the site. The most notable utility on-site is two high-voltage power lines, 230 kilovolts (kv) and 115 kv, that cross the project area, beginning at the southernmost tip of Pond 6 and extending east over Ponds 1A and 1, and through Ponds 2A and 4, parallel to SR 37. There are approximately 14 towers in the project area (Figure 2-2). On the project site the towers provide electricity to the pump station and to the Can Duck Club caretaker's house located on Pond 1.

Separately, an electrical and emergency telephone box would be installed from Milton Road to the newly constructed fish screen on Pond 8 (Wyckoff pers. comm.).

In addition, there are two 12-kv pole lines in the project area. One extends from SR 37 and the southern parking lot up along the east side of Pond 1. The second is east of Pond 8, along the eastern edge of Edgerley Island.

Routine maintenance of the towers and poles includes a yearly visual inspection of each tower and monthly reading of a meter associated with the 12-kv pole (San Julian pers. comm.). There is a pump station in the northern portion of Pond 1 that is fed electricity from the utility towers. The pumps are maintained and used by DFG.

There is no natural gas, potable water, or telephone service on site, and sewer utilities are connected to a septic system at the Can Duck Club (Allen pers. comm., Giovannoni pers. comm.).

14.2 Environmental Impacts and Mitigation Measures

14.2.1 Methodology and Significance Criteria

Impacts on public utilities were analyzed qualitatively, focusing on existing utilities. Criteria based on the State CEQA Guidelines were used to determine the significance of utilities-related impacts. As mentioned above under "Introduction and Sources of Information," the project would not affect public services; therefore, impacts on public services were not analyzed. The project would have a significant impact on utilities if it would conflict with existing utility infrastructure or service.

14.2.2 No-Project Alternative

14.2.2.1 Impact PS-1: Conflict with Existing Utilities

The No-Project Alternative would lead to unintentional levee breaching as described in Chapter 2, “Site Description and Options.” Anticipated breaches would not affect existing utilities, based on the location of the utilities and expected breaching. Access would not be affected by this alternative. Therefore, the No-Project Alternative would not conflict with existing utility infrastructure. This impact is considered less than significant. For this reason, and because this alternative would result in no project being implemented, no mitigation is required.

14.2.3 Salinity Reduction Option 1A: Napa River and Napa Slough Discharge

14.2.3.1 Impact PS-1: Conflict with Existing Utilities

Implementation of Salinity Reduction Option 1A would not affect existing utilities located within ponds. Implementation of this option requires levee maintenance, which would protect utilities found outside the ponds from flooding. Access to all utility infrastructure is required for maintenance of such infrastructure. Access would not be affected by this option. The Pond 4 outfall would not affect the nearest power tower footing, which is located approximately 1,000 feet away. This impact is considered less than significant. No mitigation is required.

14.2.4 Salinity Reduction Option 1B: Napa River and Napa Slough Discharge and Breach of Pond 3

Salinity Reduction Option 1B requires the breaching of levees. Ponds 1, 1A, and 2 would remain under the existing management. Utilities located in and around these ponds would be unaffected by the implementation of this option. Furthermore, PG&E access in and around these ponds would not be affected. All other utilities near project site ponds, except for utilities near Pond 4, would be protected by levees and levee maintenance as would be required under this option. These utilities would not be affected by this option.

PG&E must be allowed access to all lands described in its easement. The ability to access the towers at all times is critical to tower maintenance. If access is reduced as a result of this option, the project applicant would be required to provide PG&E access as described in the easement agreements. Construction of boardwalks along the levees or ensuring boat access to utility infrastructure are examples of potential mechanisms to maintain access to PG&E infrastructure.

14.2.4.1 Impact PS-2: Increased Risk of Instability of Power Towers

Two power towers are located outside the levee of Pond 4, one on the Napa River and one on China Slough. A Pond 3 levee breach would occur approximately 2 miles from the Napa River tower footing and farther from the China Slough tower footing. The breach is unlikely to cause outboard marsh erosion around the tower footings during the salinity reduction process. Access to both these towers is expected to be available by boat via the Napa River and China Slough, respectively.

This impact is considered less than significant. No mitigation is required.

14.2.5 Salinity Reduction Option 1C: Napa River and Napa Slough Discharge with Breaches of Ponds 3 and 4/5

Salinity Reduction Option 1C is similar to Salinity Reduction Option 1B, except that the Pond 4 levee would be breached.

14.2.5.1 Impact PS-2: Increased Risk of Instability of Power Towers

Two power towers are located outside the levee of Pond 4, one on the Napa River and one on China Slough. In addition to a Pond 3 levee breach, the levee on Pond 4 would be breached approximately 1,500 to 2,000 feet from the Napa River tower footing. This breach could affect the outboard marsh in the vicinity of the power tower. The China Slough tower footing is unlikely to be affected during the salinity reduction process. Access to both these towers is expected to be available by boat via the Napa River and China Slough, respectively. This impact is considered significant. Implementation of Mitigation Measure PS-1 would reduce this impact to a less-than-significant level.

Mitigation Measure PS-1: Ensure the Stability of the Power Towers

The project sponsors will conduct site-specific surveys of the power towers to ensure that the towers are not adversely affected. Surveys will include an assessment of the potential marsh erosion around the tower footings. If necessary, site-specific measures will be implemented to ensure stability of the utility towers. These measures may include encasing the towers with concrete to above the high-water mark and relocating levee breaches to reduce impacts.

14.2.6 Salinity Reduction Option 2: Napa River and San Pablo Bay Discharge

14.2.6.1 Impact PS-1: Conflict with Existing Utilities

Implementation of Salinity Reduction Option 2 would not affect existing utilities. This option includes reducing the salinity of upper ponds and mixing in and discharging, via Ponds 1, 1A, and 2. Water levels of Ponds 1A and 1 may increase slightly during the salinity reduction process. Increased water levels of these ponds would not affect utility infrastructure because increases in water levels are expected to be minimal and temporary. Implementation of this option requires levee maintenance, which would protect utilities found outside the ponds from flooding. Access to all utility infrastructure is required for maintenance of such infrastructure. Access would not be affected by this option. This impact is considered less than significant. No mitigation is required.

14.2.7 Water Delivery Option

Other than the routine subsurface utility checks that occur in the route selection and refinement of any pipeline project, the Water Delivery Option does not have much, if any, relationship to existing utility infrastructure or service. As such, no impacts would result from implementation of this option.

14.2.8 Habitat Restoration Option 1: Mixture of Tidal Marsh and Managed Ponds

Habitat Restoration Option 1 involves the restoration of existing ponds into a mixture of managed ponds and tidal marsh. As part of the tidal restoration, levees of Ponds 3, 4, and 5 would be breached. Potentially Ponds 6 and 6A would also be restored to tidal marsh. There are no utilities in or around Ponds 3, 5, 6, and 6A. Utilities found around Pond 4 may be affected by Habitat Restoration Option 1 depending on where levee breaching occurs. Currently several breaches are planned for China Slough, which could affect the outboard marsh at the base of the China Slough power tower. Levee maintenance and repair would protect the remaining utilities on the project site.

The impact under Habitat Restoration Option 1 (Impact PS-2) is similar to that under Salinity Reduction Option 1C, although the breaches are substantially larger and additional tidal action and erosion could occur. This impact is considered significant. Implementation of Mitigation Measure PS-1, “Ensure the Stability of the Power Towers,” would reduce this impact to a less-than-significant level. This measure is described under Salinity Reduction Option 1C.

14.2.9 Habitat Restoration Option 2: Tidal Marsh Emphasis

Habitat Restoration Option 2 emphasizes tidal marsh restoration. More ponds would be restored to tidal marsh under this option than under Habitat Restoration Option 1. Specifically, Ponds 3, 4, 5, the eastern half of 2, 6, and 6A would be restored to tidal marsh. There are no utilities around Ponds 2, 3, 5, 6, and 6A. Utilities around Pond 4 might be affected as described under Habitat Restoration Option 1. Remaining utilities would be protected by levee maintenance.

The impact under Habitat Restoration Option 2 (Impact PS-2) is nearly the same as that under Habitat Restoration Option 1 and would be mitigated by implementation of Mitigation Measure PS-1.

14.2.10 Habitat Restoration Option 3: Pond Emphasis

Habitat Restoration Option 3 emphasizes pond management. Compared to Habitat Restoration Option 1, Habitat Restoration Option 3 would lead to a greater number of managed ponds and less tidal marsh restoration. Utilities around Pond 4 might be affected as described under Habitat Restoration Option 1. Remaining utilities would be protected by levee maintenance.

The impact under Habitat Restoration Option 3 (Impact PS-2) is nearly the same as that under Habitat Restoration Option 1 and would be mitigated by implementation of Mitigation Measure PS-1.

14.2.11 Habitat Restoration Option 4: Accelerated Restoration

Habitat Restoration Option 4 is nearly the same as Habitat Restoration Option 1, except that Habitat Restoration Option 4 includes design features that would accelerate the restoration process. The accelerated design features of Habitat Restoration Option 4 would not affect existing utilities. Therefore, the impact under Habitat Restoration Option 4 (Impact PS-2) is nearly the same as that under Habitat Restoration Option 1 and would be mitigated by implementation of Mitigation Measure PS-1.