

3.12 Utilities and Service Systems

This section describes the regulatory and environmental setting for utilities and service systems in the project area. It also describes impacts on utilities and service systems that would result from implementation of the Initial and Full Repower.

3.12.1 Existing Conditions

Regulatory Setting

Federal

Clean Water Act

Section 304 of the CWA establishes primary drinking water standards and requires states to ensure that potable water retailed to the public meets these standards. State primary and secondary drinking water standards are promulgated in 22 CCR 64431–64501. Secondary drinking water standards incorporate non-health risk factors including taste, odor, and appearance. The NPDES regulates the discharge of drainage to surface waters. Federal NPDES regulations are administered by the State Water Board and through the Regional Water Boards. The project area is under the jurisdiction of the Central Valley Water Board. Municipal storm drainage is required to meet board standards under waste discharge regulations/NPDES permits.

State

Porter-Cologne Water Quality Control Act (Section 13000 et seq.)

The Porter-Cologne Act directs the State Water Board and Regional Water Boards to prepare Water Quality Control Plans (Basin Plans) that establish water quality objectives and beneficial uses for each body of water, including groundwater basins, within the regional boundaries. The Porter-Cologne Act empowers the State Water Board and Regional Water Boards to protect the beneficial use of California waters. Thereby, it provides broader authority than offered by the CWA alone. The State Water Board and Regional Water Boards adopt and enforce regulations to protect surface water quality.

California Energy Commission

The CEC regulates the provision of natural gas and electricity within the state. The CEC is the state's primary energy policy and planning agency and has five major responsibilities: forecasting future energy needs and keeping historical energy data, licensing thermal power plants 50 MW or larger, promoting energy efficiency through appliance and building standards, developing energy technologies and supporting renewable energy, and planning for and directing the state response to energy emergencies.

California Integrated Waste Management Board

The California Integrated Waste Management Board is the state agency designated to oversee, manage, and track California's 76 million tons of waste generated each year. It is one of the six agencies under the umbrella of CalEPA. The California Integrated Waste Management Board

develops laws and regulations to control and manage waste, for which enforcement authority is typically delegated to the local government. The board works jointly with local government to implement regulations and fund programs.

Pursuant to the California Integrated Solid Waste Management Act of 1989, all cities in California are required to reduce the amount of solid waste disposed in landfills. Contracts that include work that will generate solid waste, including construction and demolition debris, have been targeted for participation in source-reduction, reuse, and recycling programs. Contractors are urged to manage solid waste to divert waste away from disposal in landfills (particularly Class III landfills) and to maximize source reduction, reuse, and recycling of construction and demolition debris.

Wastewater

Wastewater is regulated by the agencies listed below.

- State Water Board.
- Central Valley Water Board.
- California Department of Pesticide Regulation.
- California Department of Toxic Substances.

Senate Bills 610 and 267

Senate Bill (SB) 610, passed in 2001, requires a city or county that determines its project subject to CEQA to identify any public water system that may supply water for the project. It is intended to promote more collaborative planning and ensure adequate water supplies for current and future needs. In addition, the city or county must request those public water systems to prepare a specified water supply assessment. If no public water system is identified, the city or county is required to prepare the water supply assessment.

Passed in 2011, SB 267 revised SB 610's definition of *project* to exclude wind energy generation facilities that would demand no more than 75 acre-feet of water annually, thereby exempting those projects from the requirements of SB 610.

Construction-related water demand for both the Initial Repower and Full Repower would total approximately 340 acre-feet; water necessary for O&M activities would not exceed 400 gallons (0.001 acre-foot) per year for the Initial Repower or approximately 3,300 gallons (0.01 acre-foot) per year for the Full Repower. The expected life of the project is 30 years. Thus, the average amount of water required would not exceed 11.3 acre-feet per year (3,682,121 gallons). Because the project's water demand is well below 75 acre-feet annually, the project qualifies as exempt from SB 610 under SB 267.

Environmental Setting

This section provides setting information specific to the provision of water service, wastewater service, stormwater drainage, and wastewater disposal in the project area.

Water Service

Rural residences and businesses located in eastern unincorporated Alameda County, including the project area, obtain their water from local private wells. There is no existing water service at the existing project facilities. The Alameda County Flood Control and Water Conservation District

(Zone 7 Water Agency) is responsible for providing flood control and water resources to the Livermore-Amador Valley. Zone 7 sells treated water primarily to four retail water agencies—the California Water Service Company, the cities of Livermore and Pleasanton, and the Dublin San Ramon Services District. It also sells untreated water directly to agricultural and other customers.

Wastewater

The project area is not serviced by any public sewer system. Wastewater demands on the various project parcels are handled by an existing septic tank, installed in accordance with County regulations (Department of Environmental Health) and portable toilets.

Stormwater Drainage

The project area is located entirely in a rural setting; stormwater runoff drains primarily through natural drainage swales, ditches, and watercourses. See Section 3.9, *Hydrology and Water Quality*, for further discussion of drainage in the project area.

Solid Waste Disposal

Two permitted, large volume landfills are active in Alameda County: the Vasco Road Landfill and the Altamont Landfill. The Vasco Road Landfill is located at 4001 North Vasco Road in Livermore. The facility accepts a variety of materials including non-hazardous industrial waste (including non-friable asbestos, contaminated soil, municipal wastewater treatment plant sludge, construction and demolition (C&D) wastes, empty containers, and other industrial and special wastes (Waste Management n.d.). Vasco Road Landfill is estimated to have sufficient capacity through 2022 (Waste Management Bay Area n.d.).

The Altamont Landfill is located at 10840 Altamont Pass Road in Livermore and has disposal capacity through 2045 (Contra Costa County n.d.). It accepts for disposal all non-hazardous municipal solid wastes, non-hazardous industrial and special wastes, de-watered wastewater treatment plant sludge (biosolids), treated auto shredder wastes, contaminated soils, liquids for solidification, and friable asbestos wastes (California Regional Water Quality Control Board 2008:10).

Energy Service

PG&E provides electricity and natural gas service to the project area. The existing facility transmits energy from the site to the regional power grid through a power purchase agreement with PG&E.

3.12.2 Environmental Impacts

Methods for Analysis

The Initial Repower would involve the removal and replacement of 40 existing turbines with new shrouded wind turbines. The new turbines would be evaluated for their design functionality and an Avian Validation Study would be conducted to assess their ability to reduce bird and bat mortality rates associated with the existing turbines. The next phase would involve the repowering of the remainder of the existing turbines (approximately 320–330) based on results of the Avian Validation Study. The following impact analysis evaluates the activities of removal and replacement of wind turbines in all phases on utilities and service systems.

The baseline for utilities and service systems includes the utilities and service systems that already exist in the area. This section qualitatively analyzes the effects of both the Initial Repower and the Full Repower on the existing baseline for utilities and service systems compared to the current and future changes on the project parcels.

Determination of Significance

Based on Appendix G of the State CEQA Guidelines, a proposed project would normally be required to determine if it would result in any of the conditions listed below.

- Exceed wastewater treatment requirements of the applicable Regional Water Board.
- Require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects.
- Require or result in the construction of new stormwater drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects.
- Have sufficient water supplies available to serve the project from existing entitlements and resources, or would new or expanded entitlements be needed.
- Result in a determination by the wastewater treatment provider that serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments.
- Be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs.
- Comply with federal, state, and local statutes and regulations related to solid waste.

Impacts and Mitigation Measures

Initial Repower

Impact UT-1: Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board (no impact)

The Initial Repower would not generate wastewater that would be treated by public wastewater treatment facilities. An existing septic tank, installed in accordance with County regulations (Department of Environmental Health) and portable toilets would be used during construction and operation of the Initial Repower. Therefore, the Initial Repower would have no impact on the San Francisco Bay Regional Water Board's wastewater treatment requirements. No mitigation is required.

Impact UT-2: Require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects (less than significant)

Water for use in the project area would be obtained and trucked in from Zone 7 Water Agency. Water necessary for construction would be used for dust control and revegetation activities. These activities would require a total of 13,034,057 gallons, which, spread over the 6-month construction period, equals approximately 2,172,343 gallons of water per month. No water would be required for concrete mixing as the concrete would arrive onsite premixed. Water needed for operations and maintenance, including blade washing. The routine washing of shrouded turbine blades is anticipated to occur no more than once a year, and is not expected to require more than a total of

400 gallons per year for the 40 Initial Study turbines, According to Zone 7 Water Agency, (2013), the long-term average water supply available from existing sources has remained constant since 2009 at approximately 55,050 acre-feet (17,938,121,056.4 gallons) and sufficient water supplies are available to meet projected water demands over the next five years. The amounts required for construction and operation of the Initial Repower would not result in excessive water use requiring the construction or expansion of existing facilities.

Wastewater would be managed through use of an existing septic tank during operations and portable toilets during construction. Portable toilets for construction of the Initial Repower would be installed and operated in accordance with County requirements and wastewater would be treated by the existing septic tank onsite. Therefore, the Initial Repower would not require or result in the construction of a new public water or wastewater treatment facility. Impacts would be less than significant. No mitigation is required.

Impact UT-3: Require or result in the construction of new stormwater drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects (less than significant)

The project area is located entirely in a rural setting; stormwater runoff drains primarily through natural drainage swales, ditches, and watercourses. The Initial Repower would not substantially modify the existing stormwater drainage patterns of the project parcels, and increases in impermeable surfaces onsite would be primarily limited to tower foundations. Construction activity may require temporary stormwater management features or materials, which are discussed in Section 3.9, *Hydrology and Water Quality*. After construction, drainage requirements would be the same as at present, thereby having a less-than-significant impact on drainage facilities. No mitigation is required.

Impact UT-4: Have sufficient water supplies available to serve the project from existing entitlements and resources, or would new or expanded entitlements be needed (less than significant)

As discussed above under Impact UT-2, the majority of water consumption would take place during construction for dust control and revegetation and would not require more than 2,172,343 gallons of water per month during a 6-month construction period. Water for operations, including blade washing, would not be expected to exceed 400 gallons per year. The project proponent plans to draw needed water for these activities from Zone 7 Water Agency which, as stated above, indicates a sufficient water supply for the next 5 years. Water use for the Initial Repower is not expected to be of an exceptionally large quantity; certainly not so much as to cause the creation or expansion of entitlements. No new or expanded entitlements to supply the Initial Repower during construction are anticipated. This impact is less than significant. No mitigation is required.

Impact UT-5: Result in a determination by the wastewater treatment provider that serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments (no impact)

No construction or expansion of wastewater systems would be required because the Initial Repower would not be connected to a public sewer system. During construction, portable toilets would be utilized. During operation of the Initial Repower, an existing septic system at the O&M building would be used. No offsite wastewater treatment provider would be necessary. There would be no impact. No mitigation is required.

Impact UT-6: Be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs (less than significant)

The majority of solid waste generated would be during construction and removal of existing turbines. This would be a temporary impact. Minimal solid waste would be generated during the operation of the Initial Repower. The Initial Repower would also not generate a substantial amount of solid waste because turbines and components would be sold or recycled, thereby reducing the amount of solid waste taken to landfills. It is not anticipated that the Initial Repower would affect the capacity of any landfill. This impact would be less than significant. No mitigation is required.

Impact UT-7: Comply with federal, state, and local statutes and regulations related to solid waste (less than significant)

The Initial Repower would be required to comply with local, state, and federal solid waste regulations. Most of the solid waste would be limited to the construction phase, with minimal solid waste generated during the operation of the Initial Repower. Most of the wind turbine components would be resold or recycled in compliance with the County construction site waste regulations. Compliance with existing County review procedures for elimination of construction waste would ensure that potential impacts related to compliance with statutes and regulations related to solid waste are less than significant. No mitigation is required.

Full Repower

As previously discussed, under the Full Repower, the applicant, using the test results of the Avian Validation Study and shrouded turbine performance data, would replace the remainder of the existing 1980s-'90s-era turbines (approximately 320–330 turbines) in future phases. In regards to utilities and service systems, the nature of these impacts would remain the same except on a larger scale and longer time frame.

Impact UT-1[F]: Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board (no impact)

Impacts related to utilities and service systems would remain the same regardless of timing or duration for issues relating to wastewater and wastewater treatment. An existing septic tank would be used during construction. A new O&M building would be constructed which would include a new septic system. Together, these two septic systems would be sufficient to serve during both construction and operations. The Initial Repower would not generate wastewater that would be treated by public wastewater treatment facilities, nor would it require or result in the construction of a new public water or wastewater treatment facility. No mitigation is required.

Impact UT-2[F]: Require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects (less than significant)

Water for use at the project areas would be obtained and trucked in from Zone 7 Water Agency. Although on a larger scale, the Full Repower would require approximately the same amount of water for construction and operations monthly/annually. Water use for construction would include water for dust control and revegetation activities. These activities would require approximately 97,755,428 gallons, which equals 10,861,714 gallons of water per month during a 9-month construction period. No water would be required for concrete mixing as the concrete would arrive onsite premixed. As for the Initial Repower, water for operations under the Full Repower would include blade washing and would not be expected to exceed 100,000 gallons total or 3,333 gallons per year.

According to Zone 7 Water Agency, (2013), long-term average water supply available from existing sources has remained constant since 2009 at approximately 55,050 acre-feet and there are sufficient water supplies to meet projected water demands over the next 5 years. The amount of water needed for the Full Repower would not result in excessive water use requiring the construction or expansion of existing facilities.

Wastewater would be managed through use of an two septic tanks (one existing and one to be constructed) and portable toilets under the Full Repower. Therefore, the Full Repower would not require or result in the construction of a new public water or wastewater treatment facility. The Full Repower would use portable toilets, installed and operated in accordance with County requirements; wastewater would be treated by the existing septic tank onsite. These impacts would be less than significant. No mitigation is required.

Impact UT-3[F]: Require or result in the construction of new stormwater drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects (less than significant)

Stormwater drainage under the Full Repower would not change significantly as compared to the Initial Repower. Even with the addition of up to 300 more turbine foundations, these impermeable surfaces would not significantly modify the existing stormwater drainage patterns at the project parcels. Therefore, the impact would be less than significant. No mitigation is required.

Impact UT-4[F]: Have sufficient water supplies available to serve the project from existing entitlements and resources, or would new or expanded entitlements be needed (less than significant)

Impacts on water supplies under the Full Repower would be the same as under the Initial Repower. As discussed above under Impact UT-2, the majority of water consumption would occur during construction, for dust control and revegetation, and would not require more than 10,861,714 gallons of water per month during a 9-month construction period. The routine washing of turbine blades would require approximately 20 percent of the water typically used for conventional turbines by blade size and not require more than 3,333 gallons per year. Although the project proponent plans to obtain the water for water trucks from an offsite source (Zone 7), the amounts needed would not be significant; not so much as to require the creation or expansion of entitlements. No new or expanded entitlements to supply the Full Repower during construction are anticipated. This impact would be less than significant. No mitigation is required.

Impact UT-5[F]: Result in a determination by the wastewater treatment provider that serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments (less than significant)

No construction or expansion of wastewater systems would be required because the Full Repower would not be connected to a public sewer system. During construction, portable toilets would be utilized and a septic system installed in the new O&M building. During operation of the Full Repower, the septic system at the O&M building would be used. No offsite wastewater treatment provider would be necessary. Impacts associated with wastewater treatment would be less than significant. No mitigation is required.

Impact UT-6[F]: Be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs (less than significant)

As with the Initial Repower, the Full Repower would generate solid waste during construction. Even under the Full Repower, the amount of solid waste generated would not be substantial because turbines and components would be sold or recycled, thereby reducing the amount of solid waste taken to landfills. It is not anticipated that the Full Repower would affect the capacity of any landfill. This would be a temporary, less-than-significant impact. No mitigation is required.

Impact UT-7[F]: Comply with federal, state, and local statutes and regulations related to solid waste (less than significant)

The Full Repower would be required to comply with local, state, and federal solid waste regulations. As discussed above, most of the wind turbine components would be resold or recycled in compliance with the County construction site waste regulations. Compliance with existing County review procedures for elimination of construction waste would ensure that potential impacts related to compliance with statutes and regulations related to solid waste would be less than significant. No mitigation is required.

3.12.3 References Cited

Printed References

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