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Summary Form for Electronic Document Submittal

Form F

Lead agencies may include 15 hardcopies of this document when submitting electronic copies of Environmental Impact Reports, Negative Declarations, Mitigated Negative Declarations, or Notices of Preparation to the State Clearinghouse (SCH). The SCH also accepts other summaries, such as EIR Executive Summaries prepared pursuant to CEQA Guidelines Section 15123. Please include one copy of the Notice of Completion Form (NOC) with your submission and attach the summary to each electronic copy of the document.

SCH #: 2018102039

Project Title: Santa Cruz Water Rights Project

Lead Agency: City of Santa Cruz Water Department

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Project Location: Santa Cruz, Capitola, and Scotts Valley *City* Santa Cruz *County*

Project Description (Proposed actions, location, and/or consequences).

The Proposed Project would improve flexibility in operation of the City's water system while enhancing stream flows for local anadromous fisheries. The Proposed Project includes components that are considered in the EIR at a "project" level (project components) and components that are considered at a "programmatic" level (programmatic components). The primary project and programmatic components include: (1) water rights modifications related to place of use, method of diversion, points of diversion and rediversion, underground storage and purpose of use, extension of time, and stream bypass requirements for fish habitats (referred to as Agreed Flows); (2) water supply augmentation components, including new aquifer storage and recovery (ASR) facilities at unidentified locations, Beltz ASR facilities at the existing Beltz well facilities, and water transfers and exchanges and intertie improvements; and (3) surface water diversion improvements, including the Felton Diversion fish passage improvements and the Tait Diversion and Coast Pump Station improvements.

Identify the project's significant or potentially significant effects and briefly describe any proposed mitigation measures that would reduce or avoid that effect.

The Draft EIR found that implementation of the Proposed Project may result in potentially significant environmental impacts related primarily to construction of the infrastructure components and include impacts in the following categories: biological resources; cultural resources and tribal cultural resources; geology and soils; hazards, hazardous materials, and wildfire; hydrology and water quality; land use, agriculture and forestry, and mineral resources; noise and vibration; and utilities and energy, which would be reduced to less than significant with mitigation measures identified in the EIR in most cases. The Draft EIR found that implementation of the Proposed Project may result in significant and unavoidable impacts related to noise and utilities associated with temporary ASR well-drilling during the construction of these facilities.

See attached summary for impacts and mitigation measures.

If applicable, describe any of the project's areas of controversy known to the Lead Agency, including issues raised by agencies and the public.

The comments received during the NOP comment period indicate that the areas of controversy associated with the Proposed Project include: (1) whether the City's pending Anadromous Salmonid Habitat Conservation Plan should be completed before the Proposed Project moves forward; (2) whether the proposed Agreed Flows are sufficiently protective of fisheries; (3) whether the various water rights modifications would impact salmonids; (4) whether the water rights modifications would overdraft the Santa Margarita Groundwater Basin and affect San Lorenzo Valley Water District (SLVWD) customers; and (5) whether the Proposed Project would somehow facilitate population growth.

In response to the City's pending water-right petitions submitted to the State Water Resources Control Board in January 2021, two letters were received as a protest to these petitions including from the SLVWD and San Andreas Land Conservancy. SLVWD's protest expresses concerns about: (1) SLVWD's access to water from the City's Loch Lomond Reservoir water under the two agencies' contract; and (2) the effect of the City's proposed changes to minimum flows at the Big Trees gage below Felton. The San Andreas Land Conservancy protest expresses concern about: (1) the CEQA process; (2) the units of water volume and flow used in the petitions; (3) the City's request for extension of time for water-right Permits 16123 and 16601; (4) environmental issues, including fish, wildlife, and instream flows; (5) underground storage of surface water; (6) proposed bypass flows and involvement of CDFW and NMFS; (7) direct diversion from Newell Creek; (8) expansion of place of use; and (9) mitigation measures.

Provide a list of the responsible or trustee agencies for the project.

State Water Resources Control Board
California Department of Fish and Wildlife
California Central Coast Regional Water Quality Control Board
County of Santa Cruz
City of Capitola

Table 1-3. Summary of Project Impacts

Impact	Level of Significance Prior to Mitigation	Mitigation Measures	Level of Significance After Mitigation
Air Quality			
Impact AIR-1: Conflict with an Applicable Air Quality Plan. Construction and operation of the Proposed Project would result in emissions of criteria pollutants, but would not exceed adopted thresholds of significance and therefore would not conflict with the MBARD's AQMP.	Less than Significant	None	Less than Significant
Impact AIR-2: Criteria Pollutant Emissions. Construction and operation of the Proposed Project would result in emissions of criteria pollutants, but would not exceed adopted thresholds of significance, violate any air quality standard or contribute substantially to an existing or projected air quality violation. Therefore, the Proposed Project would not result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard.	Less than Significant	None	Less than Significant
Impact AIR-3: Exposure of Sensitive Receptors. Construction and operation of the Proposed Project would not expose sensitive receptors to substantial pollutant concentrations.	Less than Significant	None	Less than Significant
Impact AIR-4: Result in Other Emissions Adversely Affecting a Substantial Number of People. Construction and operation of the Proposed Project would not result in other emissions that would adversely affect a substantial number of people.	Less than Significant	None	Less than Significant

Table 1-3. Summary of Project Impacts (continued)

Impact	Level of Significance Prior to Mitigation	Mitigation Measures	Level of Significance After Mitigation
Impact AIR-5: Cumulative Air Quality Impacts. Construction and operation of the Proposed Project, in combination with past, present, and reasonably foreseeable future development, would not result in a significant cumulative impact related to air quality, with the exception of substantial pollutant concentrations (Significance Standard C), but the Proposed Project's contribution to this impact would not cumulatively considerable.	Less than Significant	None	Less than Significant
Biological Resources			
Impact BIO-1A: Special-Status Species – Fish. Construction of the Proposed Project could have a substantial adverse effect on special-status fish, but would not interfere with the movement of special-status fish, reduce the habitat, cause a population to drop below self-sustaining levels, or substantially reduce the number or restrict the range of any special-status fish species.	Potentially Significant	**MM BIO-1: Project Siting (Applies to New Aquifer Storage and Recovery Facilities, Intertie Improvements, and Tait Diversion and Coast Pump Station Improvements).** The City shall locate construction activities, including staging, on and adjacent to current development to the maximum extent feasible. All worker parking, equipment storage, and laydown areas should occur within developed areas and maintained rights-of-way, to the extent possible. Dirt or gravel pull-offs to the side of existing roads shall not be used except for temporary staging areas. To minimize temporary disturbances, the City shall restrict all vehicle traffic to established roads, construction areas, and other designated area. If ground disturbing activities associated with staging and work areas will occur outside existing developed areas and maintained rights-of-way, avoidance and minimization of impacts to special-status species and their habitats, sensitive vegetation communities, and jurisdictional aquatic resources shall be prioritized during the site selection process. Other Proposed Project mitigation measures will provide for compensatory mitigation to address potentially significant impacts to special-status species and their habitats (MM BIO-4 through MM-BIO-10), sensitive vegetation communities (MM BIO-11), and jurisdictional aquatic resources (MM BIO-12 through MM BIO-14).	Less than Significant

Table 1-3. Summary of Project Impacts (continued)

Impact	Level of Significance Prior to Mitigation	Mitigation Measures	Level of Significance After Mitigation
		MM BIO-2: Instream Construction (Applies to Tait Diversion and Coast Pump Station Improvements). All instream construction activities shall be limited to the low-flow period between June 15 through November 1, except by extension approved by the California Department of Fish and Wildlife (CDFW) and National Marine Fisheries Service (NMFS). If an extension of instream construction activities is determined necessary beyond the low-flow period, then the City shall provide the CDFW and NMFS with a rationale and method that ensures protection of fish species. **MM BIO-3: Aquatic Vertebrate Rescue and Relocation Plan (Applies to Tait Diversion and Coast Pump Station Improvements).** If native fish or native aquatic vertebrates are present during construction of a new or modified intake design, check dam modifications/notching, Coanda intake screen, and other required fish passage upgrades at the Tait Diversion facility, a native fish and aquatic vertebrate rescue and relocation plan shall be prepared. The plan shall be implemented by a qualified biologist during dewatering to ensure that significant numbers of native fish and aquatic vertebrates are not stranded.	
Operation of the Proposed Project would not have such substantial adverse effects.	Less than Significant	None	Less than Significant
Impact BIO-1B: Special-Status Species – Other Wildlife. Construction of the Proposed Project could have a substantial adverse effect on other special-status wildlife, but would not interfere substantially with the movement of special-status wildlife, and would not reduce habitat, cause a population to drop below self-sustaining levels, or substantially reduce the number or restrict the range of any special-status wildlife species.	Potentially Significant	**MM BIO-1**, **MM BIO-2**, and **MM BIO-3** described above for Impact BIO-1A **MM BIO-4: Preconstruction Nesting Bird Survey (Applies to New Aquifer Storage and Recovery [ASR] Facilities and Beltz ASR Facilities, Intertie Improvements, Felton Diversion Improvements, and Tait Diversion and Coast Pump Station Improvements).** During the nesting season (February 1 – August 31), no more than two weeks prior to any ground disturbing activities, including removal of vegetation and clearing and grubbing activities, a nesting bird survey shall be completed by a qualified biologist to determine if any native birds are nesting in or adjacent to the study area (including within a 50-foot buffer for passerine species and a 250-foot buffer for raptors). If any active nests of native	Less than Significant

Table 1-3. Summary of Project Impacts (continued)

Impact	Level of Significance Prior to Mitigation	Mitigation Measures	Level of Significance After Mitigation
		birds are observed during surveys, an avoidance buffer around the nests shall be established in the field to ensure compliance with California Fish and Game Code Section 3503. The avoidance buffer shall be determined by a qualified biologist in coordination with City staff, based on species, location, and extent and type of planned construction activity. Impacts to active nests shall be avoided until the chicks have fledged and the nests are no longer active, as determined by the qualified biologist. **MM BIO-5: Preconstruction Wildlife Surveys (Applies to New Aquifer Storage and Recovery Facilities, Intertie Improvements, and Tait Diversion and Coast Pump Station Improvements).** A qualified biologist shall conduct preconstruction surveys of all ground disturbance areas within off-pavement project footprint areas to determine if special-status wildlife species are present prior to the start of construction. The biologist will conduct these surveys no more than two weeks prior to the beginning of construction. **MM BIO-6: Exclusionary Fencing (Applies to New Aquifer Storage and Recovery Facilities, Intertie Improvements, and Tait Diversion and Coast Pump Station Improvements).** High-visibility fencing for Environmentally Sensitive Areas shall be installed around all adjacent special-status species identified during the preconstruction surveys, which shall be retained and not disturbed by the Project, to preclude encroachment within the root-zone of these plants by construction crews or vehicles. A biological monitor shall also accompany the work crew during excavation and installation of exclusion fencing to prevent harm to species that may be active present and moving along the fence route. Buffers that are established around active bird nests and special-status species (including potentially active woodrat nests) to be avoided shall be delineated with flagging. Buffers and fencing for nesting birds shall be maintained until the biological monitor verifies that the birds have fledged. All other fencing shall be maintained in good repair throughout the entire construction period.	

Table 1-3. Summary of Project Impacts (continued)

Impact	Level of Significance Prior to Mitigation	Mitigation Measures	Level of Significance After Mitigation
		MM BIO-7: Biological Construction Monitoring (Applies to New Aquifer Storage and Recovery Facilities, Intertie Improvements, and Tait Diversion and Coast Pump Station Improvements). A qualified biologist shall monitor vegetation removal and ground disturbing activities during all work hours for off-pavement work or once a week for all other construction activities. The monitor shall check the exclusion fencing and buffers for active nesting birds once a week, and shall verify when birds have fledged if found present before construction. The biologist shall have stop-work authority in the event that a protected species is found within the active construction footprint. During construction, the biological monitor shall keep a daily observation log and a photo log to describe monitoring activities, remedial actions, non-compliance, and other issues and actions taken. These logs shall be kept on-site and made available for inspection by agency personnel. **MM BIO-8: Species Relocation (Applies to New Aquifer Storage and Recovery Facilities, Intertie Improvements, and Tait Diversion and Coast Pump Station Improvements).** If special-status wildlife species are observed within the construction area prior to or during construction activities, the biologist shall capture and relocate such individuals out of the area affected by construction activities to nearby habitat that has equivalent value to support the species. The biologist shall identify suitable habitats as potential release sites prior to start of construction activities. If the special-status species is a federally- or state-listed as threatened or endangered, the biologist shall notify the U.S. Fish and Wildlife Service, California Department of Fish and Wildlife, and/or National Marine Fisheries Service, as appropriate, prior to capture and relocation to obtain approval. **MM BIO-9: Entrapment Avoidance (Applies to New Aquifer Storage and Recovery Facilities, Intertie Improvements, and Tait Diversion and Coast Pump Station Improvements).** The construction contractor shall cover all construction-related holes in the ground overnight to prevent entrapment of any native wildlife species. The monitoring biologist shall inspect all construction pipes, culverts, or similar structures that are stored at the work	

Table 1-3. Summary of Project Impacts (continued)

Impact	Level of Significance Prior to Mitigation	Mitigation Measures	Level of Significance After Mitigation
		area for one or more nights before the pipe is used or moved. If wildlife species are present, they shall be allowed to exit on their own or a qualified biologist shall move them out of the construction area to nearby habitat that has equivalent value to support the species. If special-status species are present and are federally or state-listed as threatened or endangered, the biologist shall notify the U.S. Fish and Wildlife Service, California Department of Fish and Wildlife, and/or National Marine Fisheries Service, as appropriate, prior to capture and relocation to obtain approval.	
Operation of the Proposed Project would not have such substantial adverse effects.	Less than Significant	None	Less than Significant
Impact BIO-1C: Special-Status Species – Plants. Construction of the Proposed Project could have a substantial adverse effect on special-status plants, but would not threaten to eliminate a plant community or restrict the range of any special-status plant species.	Potentially Significant	**MM BIO-1** described above for Impact BIO-1A **MM BIO-10: Preconstruction Special-Status Plant Surveys and Compensation (Applies to New Aquifer Storage and Recovery Facilities and Intertie Improvements).** If ground-disturbing activities associated with staging and work areas occur outside existing developed areas and maintained rights-of-way, a qualified biologist shall conduct a focused botanical survey for special-status plants during the appropriate bloom period for each species. If special-status species are not detected, no further surveys or mitigation would be necessary. If any individuals or populations are detected, the location(s) shall be mapped, and a plan focused on compensating for impacts to special-status plants shall be developed and include the following elements and criteria. This plan shall be a component of the project's Habitat Mitigation and Monitoring Plan described in MM BIO-11: a. A description of any areas of habitat occupied by special-status plants to be preserved and/or removed by the project; b. Identification and evaluation of the suitability of on-site or off-site areas for preservation, restoration, enhancement or translocation;	Less than Significant

Table 1-3. Summary of Project Impacts (continued)

Impact	Level of Significance Prior to Mitigation	Mitigation Measures	Level of Significance After Mitigation
		c. Analysis of species-specific requirements and considerations and specific criteria for success relative to the project's impact on this species and restoration, enhancement or translocation; d. A description of proposed methods of preservation, restoration, enhancement, and/or translocation; e. A description of specific performance standards, including a required replacement ratio and minimum success standard of 1:1 for impacted individuals or populations; f. A monitoring and reporting program to ensure mitigation success; and g. A description of adaptive management and associated remedial measures to be implemented in the event that performance standards are not achieved.	
Operation of the Proposed Project would not have such substantial adverse effects.	Less than Significant	None	Less than Significant
Impact BIO-2: Riparian and Sensitive Vegetation Communities. Construction of the Proposed Project could have a substantial adverse effect on riparian and sensitive vegetation communities, but would not threaten to eliminate a plant community.	Potentially Significant	**MM BIO-1** described above for Impact BIO-1A **MM BIO-11: Sensitive Vegetation Communities Compensation (Applies to New Aquifer Storage and Recovery Facilities, Intertie Improvements, and Tait Diversion and Coast Pump Station Improvements).** Direct impacts to sensitive vegetation communities shall be mitigated via a combination of on-site and off-site measures. On-site measures shall include rehabilitation for areas temporarily impacted at a 1:1 mitigation ratio, and enhancement for areas permanently impacted at a 2:1 mitigation ratio. Areas temporarily impacted shall be returned to conditions similar to those that existed prior to grading and/or ground-disturbing activities. It is anticipated that a one-time restoration effort at the completion of the project followed by monitoring and invasive weed removal for a minimum of 3 years would adequately compensate for the direct temporary impacts to these vegetation communities. Areas permanently impacted shall be mitigated	Less than Significant

Table 1-3. Summary of Project Impacts (continued)

Impact	Level of Significance Prior to Mitigation	Mitigation Measures	Level of Significance After Mitigation
		through on-site enhancement activities including removal of non-native and invasive species for a minimum of 3 years. If additional area is needed to compensate for permanent impacts at a 2:1 ratio, then an off-site location will be identified and evaluated. A Habitat Mitigation and Monitoring Plan shall be prepared and implemented to compensate for the loss of all sensitive vegetation communities (see below). Rehabilitation and enhancement activities with Zayante soils, such as along the City/Scotts Valley Water District intertie, will be revegetated with plants native to the Zayante Sandhills, such as sticky monkeyflower (*Mimulus aurantiacus*), deer weed (*Lotus scoparius*), and silver bush lupine (*Lupinus albifrons* var. *albifrons*). These native plants will provide suitable habitat conditions for special-status species that might eventually colonize the temporarily impacted portion of the impact area. These revegetated areas will not include any landscape elements that degrade habitat for the special-status species, including mulch, bark, weed matting, rock, aggregate, or turf grass. The Habitat Mitigation and Monitoring Plan shall detail the habitat restoration activities and shall specify the criteria and standards by which the revegetation and restoration actions will compensate for impacts of the Proposed Project on sensitive vegetation communities and shall at a minimum include discussion of the following: a. The rehabilitation and enhancement objectives, type, and amount of revegetation to be implemented taking into account enhanced areas where non-native invasive vegetation is removed and replanting specifications that take into natural regeneration of native species when applicable. b. The specific methods to be employed for revegetation. c. Success criteria and monitoring requirements to ensure vegetation community restoration success. d. Remedial measures to be implemented in the event that performance standards are not achieved.	

Table 1-3. Summary of Project Impacts (continued)

Impact	Level of Significance Prior to Mitigation	Mitigation Measures	Level of Significance After Mitigation
Operation of the Proposed Project would not have such substantial adverse effects.	Less than Significant	None	Less than Significant
Impact BIO-3: Jurisdictional Aquatic Resources. Construction of the Proposed Project could have a substantial adverse effect on state or federally protected wetlands through direct removal, filling, or hydrological interruption.	Potentially Significant	**MM BIO-2** described above for Impact BIO-1A **MM BIO-12: Preconstruction Jurisdictional Delineation (Applies to New Aquifer Storage and Recovery Facilities and Tait Diversion and Coast Pump Station Improvements).** If ground disturbing activities associated with staging and work areas will occur outside existing developed areas and maintained rights-of-way, a qualified biologist shall conduct a formal jurisdictional delineation to determine the extent of jurisdictional aquatic resources regulated by the U.S. Army Corps of Engineers, Regional Water Control Board, and/or California Department of Fish and Wildlife within the impact area. **MM BIO-13: Jurisdictional Aquatic Resources Avoidance (Applies to New Aquifer Storage and Recovery Facilities and Tait Diversion and Coast Pump Station Improvements).** Future refinements to the Proposed Project shall endeavor to avoid jurisdictional aquatic resources regulated by the U.S. Army Corps of Engineers, Regional Water Control Board, and California Department of Fish and Wildlife, to the extent practicable, through design changes or implementation of alternative construction methodologies. Where feasible and appropriate, all jurisdictional aquatic resources not directly affected by construction activities will be avoided and protected by establishing staking, flagging or fencing between the identified construction areas and aquatic resources to be avoided/preserved.	Less than Significant

Table 1-3. Summary of Project Impacts (continued)

Impact	Level of Significance Prior to Mitigation	Mitigation Measures	Level of Significance After Mitigation
		MM BIO-14: Jurisdictional Aquatic Resources Compensation (Applies to New Aquifer Storage and Recovery Facilities and Tait Diversion and Coast Pump Station Improvements). For unavoidable impacts to jurisdictional aquatic resources, a project-specific mitigation plan shall be developed, approved by the U.S. Army Corps of Engineers, Regional Water Control Board, and/or California Department of Fish and Wildlife, as appropriate, through their respective regulatory permitting processes, and implemented. The mitigation plan shall specify the criteria and standards by which the mitigation will compensate for impacts of the Proposed Project and include discussion of the following: a. The mitigation objectives and type and amount of mitigation to be implemented (in-kind mitigation at a minimum mitigation ratio of 1:1); b. The location of the proposed mitigation site(s) (within the San Lorenzo River watershed, if possible); c. The methods to be employed for mitigation implementation (jurisdictional aquatic resource establishment, re-establishment, enhancement, and/or preservation); d. Success criteria and a monitoring program to ensure mitigation success; and e. Adaptive management and remedial measures in the event that performance stands are not achieved.	
Operation of the Proposed Project would not have such substantial adverse effects.	Less than Significant	None	Less than Significant

Table 1-3. Summary of Project Impacts (continued)

Impact	Level of Significance Prior to Mitigation	Mitigation Measures	Level of Significance After Mitigation
Impact BIO-4: Wildlife Movement. Construction of the Proposed Project would not interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors or impede the use of native wildlife nursery sites.	Less than Significant	None	Less than Significant
Operation of the Proposed Project would have no adverse effects.	No Impact	None	No Impact
Impact BIO-5: Cumulative Biological Resources Impacts. Construction of the Proposed Project, in combination with past, present, and reasonably foreseeable future development, could result in a significant cumulative impact related to biological resources, but the Proposed Project's contribution to this impact would not be cumulatively considerable.	Less than Significant	None	Less than Significant
Operation of the Proposed Project would not result in a significant cumulative impact.	Less than Significant	None	Less than Significant
Cultural Resources and Tribal Cultural Resources			
Impact CUL-1: Historic Built Environment Resources. Construction of some of the Proposed Project infrastructure components could cause a substantial adverse change in the significance of historical built environment resource.	Potentially Significant	**MM CUL-1: Historic-Era Built Environment Resources.** Potentially significant impacts to historic built environmental resources on the infrastructure component sites shall be addressed through the following measures:	Less than Significant

Table 1-3. Summary of Project Impacts (continued)

Impact	Level of Significance Prior to Mitigation	Mitigation Measures	Level of Significance After Mitigation
		a. **Identify Potential Historic Built Environment Resources (Applies to New Aquifer Storage and Recovery Facilities and the Felton Diversion).** When new or upgraded facilities move into project-level design and those developments are being pursued by the City of Santa Cruz (City), a qualified cultural resource specialist shall review the project site and conduct a California Historical Resources Information System (CHRIS) records search. If there are no previously recorded resources or historic era buildings or structures located on the site, no further action is warranted. If these project site review efforts indicate a potential for California Environmental Quality Act (CEQA) historical resources, all buildings and structures within the component site that are 45 years or older, shall be identified and measure b shall be implemented. b. **Evaluate Potential Built Environment Resources (Applies to New ASR Facilities, City/Soquel Creek Water District/Central Water District Intertie – Soquel Village and Park Avenue Pipelines, and the Felton Diversion).** Should potential CEQA historical resources be identified within the above programmatic infrastructure component sites, prior to project implementation, the City or other lead agency overseeing the Proposed Project shall retain a qualified architectural historian, meeting the Secretary of the Interior's Professional Qualification Standards (36 Code of Federal Regulations Part 61), to record such potential resources based on professional standards, to formally assess their significance under CEQA Guidelines Section 15064.5. A Historic Resources Evaluation Report (HRER) shall be prepared by the architectural historian to evaluate properties over 45 years of age under all applicable significance criteria. In consideration of the historic context for the existing water management systems in the region there is a low-likelihood that water management structures that postdate the late 1800s or early 1900s (pioneering water system era) will be found historically significant. Therefore, for existing	

Table 1-3. Summary of Project Impacts (continued)

Impact	Level of Significance Prior to Mitigation	Mitigation Measures	Level of Significance After Mitigation
		infrastructure component sites it is likely that the HRER will find that no properties meet the significance criteria and therefore, no CEQA historical resources are likely to be present. No further work shall be required for historic era-built environment properties, buildings, or structures 45 years old or older at these sites that are not found to meet the CEQA historical significance criteria as historical resources. If a property is found to be eligible for listing under the applicable significance criteria and therefore considered a CEQA historical resource, the resource shall be avoided or preserved in place. If avoidance or preservation in place is not feasible, and the historical resource will be modified through design such that it may not be able to convey its historic significance, the City will retain a qualified architectural historian to prepare a subsequent technical report. This required report will assess the proposed project design plans and/or schematics in conjunction with the subject CEQA historical resource and determine whether the Proposed Project conforms with the Secretary of the Interior's Standards for the Treatment of Historic Properties, specifically, the Standards for Rehabilitation and Guidelines for Rehabilitating Historic Buildings (Structures). The City shall modify the Proposed Project, as needed, to ensure that the Secretary of the Interior's Standards are met such that the historical resource continues to convey its historical significance.	
Impact CUL-2: Archaeological Resources and Human Remains. Construction of Proposed Project infrastructure components could cause a substantial adverse change in the significance of unique archaeological resources or historical resources of an archaeological nature, and/or disturb human remains.	Potentially Significant	**MM CUL-2: Historic or Unique Archaeological Resources.** Unique Archaeological Resources, Historical Resources of Archaeological Nature, and Subsurface Tribal Cultural Resources. Potentially significant impacts to unique archaeological resources, historical resources of an archaeological nature, or subsurface tribal cultural resources on the infrastructure component sites shall be addressed through the following measures:	Less than Significant

Table 1-3. Summary of Project Impacts (continued)

Impact	Level of Significance Prior to Mitigation	Mitigation Measures	Level of Significance After Mitigation
		a. **Identify Potential Unique Archaeological Resources, Historical Resources of Archaeological Nature, and Subsurface Tribal Cultural Resources (Applies to New Aquifer Storage and Recovery [ASR] Facilities and Other Components where Five Years Have Elapsed).** When new ASR facilities sites are identified and those components are being pursued by the City of Santa Cruz (City), a qualified archaeologist, meeting the Secretary of the Interior's Professional Qualification Standards, shall conduct a California Historical Resources Information System (CHRIS) records search, a Native American Heritage Commission (NAHC) Sacred Lands File (SLF) search and perform an intensive surface reconnaissance within a specifically defined Area of Direct Impact (ADI). Based on the above, all archaeological sites within or near the component site or area of potential effect shall be identified. The sensitivity of the site for discovering unknown resources, shall also be identified. The qualified archaeologist will prepare a technical report with the results of the above. The qualified archaeologist shall attempt to ascertain whether the archaeological sites qualify as unique archaeological resources, historical resources of an archaeological nature, or subsurface tribal cultural resources. If known or identified resources of these kinds are present on the site, measure c shall be implemented. This measure shall also be implemented for any other project or programmatic components that are implemented more than five years after the CHRIS records search and NAHC SLF search were conducted. b. **Standard Sensitivity Training and Inadvertent Discovery Clauses (Applies to all Components).** The City or other lead agency shall include a standard clause in every construction contract for the Proposed Project, which requires cultural resource sensitivity training for workers prior to conducting earth disturbance in the	

Table 1-3. Summary of Project Impacts (continued)

Impact	Level of Significance Prior to Mitigation	Mitigation Measures	Level of Significance After Mitigation
		vicinity of a documented cultural-resource-sensitive area, should one be identified in the future. Prior to site mobilization or construction activities on the project site, a qualified archaeologist with training and experience in California prehistory and historical period archaeology shall conduct the cultural resources awareness training for all project construction personnel. The training shall address the identification of buried cultural deposits, including Native American and historical period archaeological deposits and potential tribal cultural resources, and cover identification of typical prehistoric archaeological site components including midden soil, lithic debris, and dietary remains as well as typical historical period remains such as glass and ceramics. The training must also explain procedures for stopping work if suspected resources are encountered. Any personnel joining the work crew subsequent to the training shall also receive the same training before beginning work. Consistent with Standard Construction Practice #24, standard inadvertent discovery clauses shall also be included in every construction contract for the Proposed Project by the City or other lead agency, which requires that in the event that an archaeological resource is discovered during construction (whether or not an archaeologist is present), all soil disturbing work within 100 feet of the find shall cease until a qualified archaeologist can evaluate the find and make a recommendation for how to proceed, as specified in measure c. c. **Evaluate Potential Unique Archaeological Resources, Historical Resources of Archaeological Nature, and Subsurface Tribal Cultural Resources (Applies to all Components).** For an archaeological resource that is discovered during initial site review (measure a) or during construction (measure b), the City or other lead agency shall:	

Table 1-3. Summary of Project Impacts (continued)

Impact	Level of Significance Prior to Mitigation	Mitigation Measures	Level of Significance After Mitigation
		• Retain a qualified archaeologist to determine whether the resource has potential to qualify as either a unique archaeological resource, a historical resource of an archaeological nature, or a subsurface tribal cultural resource under Public Resources Code section 21074, California Environmental Quality Act (CEQA) Guidelines Section 15064.5, or Section 106 of the National Historic Preservation Act. • If the resource has potential to be a unique archaeological resource, a historical resource of an archaeological nature, or a subsurface tribal cultural resource, the qualified archaeologist, in consultation with the lead agency, shall prepare a research design and archaeological evaluation plan to assess whether the resource should be considered significant under CEQA criteria. • If the resource is determined significant, the lead agency shall provide for preservation in place, if feasible. If preservation in place is not feasible, the qualified archaeologist, in consultation with the lead agency, will prepare a data recovery plan for retrieving data relevant to the site's significance. The data recovery plan shall be implemented prior to, or during site development (with a 100-foot buffer around the resource). The archaeologist shall also perform appropriate technical analyses, prepare a full written report and file it with the Northwest Information Center, and provide for the permanent curation of recovered materials. The written report will provide new recommendations, which could include, but would not be limited to, archaeological and Native American monitoring for the remaining duration of project construction.	

Table 1-3. Summary of Project Impacts (continued)

Impact	Level of Significance Prior to Mitigation	Mitigation Measures	Level of Significance After Mitigation
Impact CUL-3: Tribal Cultural Resources. Construction of Proposed Project infrastructure components could cause a substantial adverse change in the significance of a tribal cultural resource.	Potentially Significant	**MM CUL-2** described above for Impact CUL-2	Less than Significant
Impact CUL-4: Cumulative Cultural Resource and Tribal Cultural Resource Impacts. Construction of the Proposed Project, in combination with past, present, and reasonably foreseeable future development, could result in a significant cumulative impact related to cultural resources and tribal cultural resources, but the Proposed Project's contribution would not be cumulatively considerable.	Less than Significant	None	Less than Significant
Geology and Soils			
Impact GEO-1: Seismic Hazards. Construction and operation of the Proposed Project could directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death resulting from seismic ground shaking, landslides, or seismic related ground failure, including liquefaction and associated lateral spreading.	Potentially Significant	**MM GEO-1: Operation of New Aquifer Storage and Recovery (ASR) Facilities in Liquefaction-Prone Areas (Applies to New ASR Facilities).** To avoid increasing the potential for liquefaction, ASR injections in new wells located in potential liquefaction zones, as depicted on Figure 4.5-3, shall be maintained and operated such that existing shallow groundwater (i.e., depth generally less than 100 feet) does not rise to within 40 feet of the ground surface. Similarly, ASR injections in potential liquefaction zones shall be maintained and operated such that existing groundwater within a depth of 40 feet or less does not rise closer to the ground surface.	Less than Significant
Impact GEO-2: Unstable Geologic Unit or Soils. Construction and operation of the Proposed Project would not cause adverse effects involving landslides or be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the Proposed Project, and potentially result in on- or off-site landslide, slope failure/instability, subsidence, or collapse.	Less than Significant	None	Less than Significant

Table 1-3. Summary of Project Impacts (continued)

Impact	Level of Significance Prior to Mitigation	Mitigation Measures	Level of Significance After Mitigation
Impact GEO-3: Expansive Soil. Construction of Proposed Project infrastructure components may be located on expansive soil, as defined by the 2019 California Building Code, but would not create substantial direct or indirect risks to life or property caused in whole or in part by the Proposed Project's exacerbation of the existing environmental conditions.	Less than Significant	None	Less than Significant
Impact GEO-4: Paleontological Resources. Construction of the Proposed Project could potentially directly or indirectly destroy a unique paleontological resource or site during construction. However, the Proposed Project would not directly or indirectly destroy a unique geological feature.	Potentially Significant	**MM GEO-2: Paleontological Resources Impact Mitigation Program and Paleontological Monitoring.** Potentially significant impacts to paleontological resources on the project and programmatic infrastructure component sites shall be addressed through the following measures: a. **Identify Potential Paleontological Resources (Applies to New Aquifer Storage and Recovery [ASR] Facilities).** When new ASR facilities sites are identified and those components are being pursued by the City or other lead agency, a qualified a qualified paleontologist pursuant to the Society of Vertebrate Paleontology (SVP) 2010 guidelines, shall conduct a paleontological records search from the Natural History Museum of Los Angeles County (LACM) and conduct a desktop geological and paleontological research. Based on the above, all paleontological sites within or near the programmatic component site shall be identified. The sensitivity of the site for discovering unknown paleontological resources, shall also be identified. The qualified paleontologist will prepare a brief technical report with the results of the above. If known or identified resources are present on the site, or if the site has moderate to high sensitivity for paleontological resources, measures b and c shall be implemented. b. **Develop Paleontological Resources Impact Mitigation Program (Applies to all Known Infrastructure Components and May Apply to New ASR Facilities).** Prior to commencement of any grading activity on infrastructure component sites with moderate to high	Less than Significant

Table 1-3. Summary of Project Impacts (continued)

Impact	Level of Significance Prior to Mitigation	Mitigation Measures	Level of Significance After Mitigation
		paleontological sensitivity or that may have such sensitivity at depth, the City or other lead agency shall retain a qualified paleontologist pursuant to the SVP (2010) guidelines. The paleontologist shall prepare a Paleontological Resources Impact Mitigation Program (PRIMP) for the Proposed Project. The PRIMP can be written to include all infrastructure components located in sites with moderate to high paleontological sensitivity. The PRIMP shall be consistent with the SVP (2010) guidelines and shall, at a minimum, contain the following elements: • Introduction to the project, including project location, description of grading activities with the potential to impact paleontological resources, and underlying geologic units. • Description of the relevant laws, ordinances, regulations, and standards pertinent to the project and potential paleontological resources. • Requirements for preconstruction meeting attendance by the qualified paleontologist and/or their designee and worker environmental awareness training for grading contractors that outlines laws protecting paleontological resources and the types of resources that may be encountered on site. • Identification of locations where full-time paleontological monitoring within geological units with high paleontological sensitivity is required within the project or programmatic sites based on construction plans and/or geotechnical reports.	

Table 1-3. Summary of Project Impacts (continued)

Impact	Level of Significance Prior to Mitigation	Mitigation Measures	Level of Significance After Mitigation
		• Requirements and frequency of paleontological monitoring spot-checks below a depth of five feet below the ground surface in areas underlain by Holocene sedimentary deposits. • The types of paleontological field equipment the paleontological monitor shall have on-hand during monitoring. • Discoveries treatment protocols and paleontological methods (including sediment sampling for microinvertebrate and microvertebrate fossils). • Requirements for adequate reporting and collections management, including daily logs, monthly reports, and a final paleontological monitoring report that details the monitoring program and includes analyses of recovered fossils and their significance and the stratigraphy exposed during construction. • Requirements for collection and complete documentation of fossils identified within the project site prior to construction and during construction, including procedures for temporarily halting construction within a 50-foot radius of the find while documentation and salvage occurs and allowing construction to resume once collection and documentation of the find is completed. Prepared fossils along with copies of all pertinent field notes, photos, maps, and the final paleontological monitoring report shall be deposited in a scientific institution with paleontological collections. Any curation costs shall be paid for by the City.	

Table 1-3. Summary of Project Impacts (continued)

Impact	Level of Significance Prior to Mitigation	Mitigation Measures	Level of Significance After Mitigation
		c. **Standard Paleontological Clauses in Construction Contracts (Applies to all Infrastructure Components).** The City or other lead agency shall include standard clauses in construction contracts for infrastructure components located in areas with moderate to high paleontological sensitivity. A standard clause shall be included that requires paleontological resource sensitivity training for workers prior to conducting earth disturbance activities. A standard inadvertent discovery clause shall also be included that indicates that in the event that paleontological resources (e.g., fossils) are unearthed during grading, the paleontological monitor will temporarily halt and/or divert grading activity to allow recovery of paleontological resources. The area of discovery will be roped off with a 50-foot-radius buffer. Once documentation and collection of the find is completed, the monitor will allow grading to recommence in the area of the find.	
Impact GEO-5: Cumulative Geologic Hazards. Construction and operation of the Proposed Project, in combination with past, present, and reasonably foreseeable future development, could result in a significant cumulative impact related to geology and soils, but the Proposed Project's contribution to this impact would not be cumulatively considerable.	Less than Significant	None	Less than Significant
Impact GEO-6: Cumulative Paleontological Resources Impacts. Construction of the Proposed Project, in combination with past, present, and reasonably foreseeable future development, could result in a significant cumulative impact related to paleontological resources, but the Proposed Project's contribution to this impact would not be cumulatively considerable.	Less than Significant	None	Less than Significant

Table 1-3. Summary of Project Impacts (continued)

Impact	Level of Significance Prior to Mitigation	Mitigation Measures	Level of Significance After Mitigation
Greenhouse Gas Emissions			
Impact GHG-1: Greenhouse Gas Emissions. Construction and operation of the Proposed Project would not generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment.	Less than Significant	None	Less than Significant
Impact GHG-2: Conflict with an Applicable Greenhouse Gas Reduction Plan. Construction and operation of the Proposed Project would not conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of greenhouse gases.	Less than Significant	None	Less than Significant
Impact GHG-3: Cumulative Greenhouse Gas Impacts. Construction and operation of the Proposed Project, in combination with past, present, and reasonably foreseeable future development, would result in a significant cumulative impact related to greenhouse gas emissions, but the Proposed Project's contribution to this impact would not be cumulatively considerable.	Less than Significant	None	Less than Significant
Hazards, Hazardous Materials, and Wildfire			
Impact HAZ-1: Routine Transport, Use, Production, or Disposal of Hazardous Materials. Construction and operation of the Proposed Project would require use and transportation of petroleum products and small quantities of hazardous materials but would not result in a significant hazard to the public or environment.	Less than Significant	None	Less than Significant
Impact HAZ-2: Upset and Release of Hazardous Materials. Construction of the Proposed Project could create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment.	Potentially Significant	**MM HAZ-1: Review of Hazardous Materials Site Databases (Applies to New Aquifer Storage and Recovery Facilities).** Prior to construction where ground disturbance is required, a review of hazardous materials site databases will be conducted within 0.5 miles of the project site where the construction is proposed (project site). A search shall be conducted no	Less than Significant

Table 1-3. Summary of Project Impacts (continued)

Impact	Level of Significance Prior to Mitigation	Mitigation Measures	Level of Significance After Mitigation
		more than six months prior to construction. In addition to sites identified in this environmental impact report, each new site identified within 0.5 miles of the project site will be reviewed for environmental contamination that could impact the project site, including soil, soil vapor, and groundwater contamination. If soil, soil vapor, and/or groundwater contamination is identified in the review, MM HAZ-2 will be implemented. **MM HAZ-2: Hazardous Materials Contingency Plan (Applies to New Aquifer Storage and Recovery Facilities and City of Santa Cruz/Soquel Creek Water District/Central Water District Intertie – Soquel Village Pipeline).** Prior to commencement of any construction activities, a Hazardous Materials Contingency Plan (HMCP) shall be developed that addresses known and suspected impacts in soil, soil vapor, and groundwater from releases on or near the project sites. The HMCP shall include training procedures for identification of contamination. The HMCP shall describe procedures for assessment, characterization, management, and disposal of hazardous constituents, materials, and wastes, in accordance with all applicable state and local regulations. Contaminated soils and/or groundwater shall be managed and disposed of in accordance with local and state regulations. These regulations, as further described in Section 4.7.2, Regulatory Framework (Section 4.7, Hazards, Hazardous Materials, and Wildfire), include hazardous material transportation (California Department of Transportation and Department of Toxic Substances Control [DTSC]), hazardous waste regulations (U.S. Environmental Protection Agency and DTSC), worker health and safety during excavation of contaminated materials (California Division of Occupational Safety and Health Administration), and local disposal requirements (DTSC and landfill-specific). The HMCP shall include health and safety measures, which may include but are not limited to periodic work breathing zone monitoring and monitoring for volatile organic compounds using a handheld organic vapor analyzer in the event impacted soils are encountered during excavation activities.	

Table 1-3. Summary of Project Impacts (continued)

Impact	Level of Significance Prior to Mitigation	Mitigation Measures	Level of Significance After Mitigation
Impact HAZ-3: Hazardous Materials Near Schools. Construction and operation of the Proposed Project could emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school.	Potentially Significant	**MM HAZ-1** and **MM HAZ-2** described above for Impact HAZ-2.	Less than Significant
Impact HAZ-4: Impair Emergency Response. Construction of the Proposed Project would not impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan.	Less than Significant	None	Less than Significant
Impact HAZ-5: Wildfire Hazards. Construction and operation of the Proposed Project would not expose people or structures to a significant risk of loss, injury, or death involving wildland fires; however, some programmatic components may be located in or near state responsibility areas.	Less than Significant	None	Less than Significant
Impact HAZ-6: Cumulative Hazardous Materials and Emergency Response Impacts. Construction and operation of the Proposed Project, in combination with past, present, and reasonably foreseeable future development, would not result in a significant cumulative impact related to routine transport, use, disposal, or accidental release of hazardous materials, or related to interference with an adopted emergency response plan or emergency evacuation plan.	Less than Significant	None	Less than Significant
Impact HAZ-7: Cumulative Wildfire Impacts. Construction and operation of the Proposed Project, in combination with past, present, and reasonably foreseeable future development, could result in a significant cumulative impact related to exposing people or structures to a significant risk of loss, injury, or death involving wildland fires, but the Proposed Project's contribution would be less than cumulatively considerable.	Less than Significant	None	Less than Significant

Table 1-3. Summary of Project Impacts (continued)

Impact	Level of Significance Prior to Mitigation	Mitigation Measures	Level of Significance After Mitigation
Hydrology and Water Quality			
Impact HYD-1: Surface Water Quality Standards and Waste Discharge Requirements. Construction and operation of the Proposed Project would not violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface water quality. In addition, the Proposed Project would not conflict with or obstruct implementation of a water quality control plan related to surface water.	Less than Significant	None	Less than Significant
Impact HYD-2: Decrease Groundwater Supplies, Interfere with Groundwater Recharge, or Conflict with Groundwater Plan. Construction and operation of the Proposed Project would not decrease groundwater supplies or interfere substantially with groundwater recharge such that sustainable groundwater management of the basin would be impeded. However, the Proposed Project could conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan by potentially affecting local groundwater quality or causing restrictive effects in nearby wells.	Potentially Significant	**MM HYD-1: Ammonia Monitoring (Applies to Beltz 12 Aquifer Storage and Recovery [ASR] Facility).** Consistent with groundwater monitoring completed for the Beltz 12 ASR Pilot Test Project (Pueblo Water Resources 2020), monitoring for ammonia shall be completed in the Beltz 12 well and the Soquel Creek Water District (SqCWD) O'Neill Ranch well during future Beltz 12 ASR pilot tests and ASR operations. The City shall establish ammonia concentrations beginning at least 12 months prior to commencement of Beltz 12 ASR operations, by conducting quarterly sampling, and obtaining similar sampling data for the SqCWD's O'Neill Ranch well, as provided by SqCWD. During the first year of Beltz 12 ASR injection and extraction operations, the City shall conduct monthly monitoring of ammonia concentrations in groundwater. Following the first year of operations, monitoring of ammonia shall be quarterly. In the event that over a two-year sampling period after initiation of Beltz 12 ASR operations, City ammonia monitoring data, in combination with ammonia monitoring data from the SqCWD O'Neill Ranch well, indicates Beltz 12 ASR operations are not resulting in changes to ammonia concentrations that could adversely affect operations at the SqCWD's O'Neill Ranch well, ammonia sampling shall be discontinued in the Beltz 12 ASR well. The City ammonia monitoring data, in combination with ammonia monitoring data from the SqCWD O'Neill Ranch well, shall be evaluated to determine if Beltz 12 ASR operations are resulting in changes to ammonia	Less than Significant

Table 1-3. Summary of Project Impacts (continued)

Impact	Level of Significance Prior to Mitigation	Mitigation Measures	Level of Significance After Mitigation
		concentrations that could adversely affect operations at the SqCWD's O'Neill Ranch well. If ammonia levels increase above baseline, the City and SqCWD shall cooperatively develop, fund, and implement a hydrogeologic investigation to evaluate the source(s) and distribution of ammonia in the aquifer system and potential causes of the observed ammonia increases. The investigation shall include, if applicable, installation of a monitoring well cluster between the Beltz 12 ASR well and the O'Neill Ranch well to evaluate the gap in data between these two wells. To the extent that the results of the hydrogeologic investigation indicate that Beltz 12 ASR operations are resulting in ammonia concentrations above baseline concentrations, ASR injection and/or extraction operations shall be modified until ammonia concentrations decrease to baseline (or lower) levels, as demonstrated with monthly (during the first year of operations) or quarterly monitoring data from the Beltz 12 ASR well, and the SqCWD's O'Neill Ranch well, as provided by SqCWD. The Beltz 12 ASR modifications shall be proportional to the degree of impact being caused by Beltz 12 ASR operations (versus O'Neill Ranch well operations). Quarterly monitoring reports shall be prepared to document monitoring results. Additionally, during the next Mid-County Groundwater Sustainability Plan update process, the City shall work with other member agencies of the Mid-County Groundwater Sustainability Agency to address ammonia as a groundwater quality issue in the basin if warranted based on the outcome of monitoring and any hydrogeologic investigation performed, and incorporate the City's Beltz 12 ASR well and the SqCWD's O'Neill Ranch well into the plan update to allow for the ongoing assessment and monitoring of ammonia concentrations.	

Table 1-3. Summary of Project Impacts (continued)

Impact	Level of Significance Prior to Mitigation	Mitigation Measures	Level of Significance After Mitigation
		MM HYD-2: Groundwater Level Monitoring (Applies to Beltz 12 Aquifer Storage and Recovery [ASR] Facility). Consistent with restrictive effects criteria established in private well baseline assessment reports (Hydro Metrics 2015a, 2015b, 2015c, 2015d, 2015e), the private well monitoring program currently in place under the April 2015 cooperative monitoring/adaptive groundwater management agreement (cooperative groundwater management agreement) and the April 2015 stream flow and well monitoring agreement, between the City of Santa Cruz (City) and Soquel Creek Water District (SqCWD), shall be continued with respect to groundwater levels, and the City will contact and enroll any additional residents with private domestic wells within a 3,300-foot radius of the City's Beltz 12 ASR facility who want to join the program. Consistent with the existing cooperative groundwater management agreement, the City and SqCWD shall share monitoring and mitigating for impacts to third parties, such as private wells found in the area of overlap of 3,300-foot radius around SqCWD's O'Neill Ranch Well and 3,300-foot radius around the City's Beltz 12 well. Monitoring expenses shall be shared equally while mitigation expenses shall be shared proportionately. If private well monitoring reveals impacts to private wells due to the presence of restrictive effects, pump tests shall be conducted to determine proportionality. Monitoring and mitigation of impacts to private wells within a 3,300-foot radius of either the O'Neill Ranch well or Beltz 12 well, but not located in the overlap area, shall be the sole responsibility of the agency whose 3,300-foot radius encompasses the private well. If demonstrated restrictive effects to nearby private domestic wells occur during ASR pilot testing or operations, the City and SqCWD shall cooperatively develop, fund, and implement a hydrogeologic investigation to evaluate the potential causes of the observed restricted effects in private wells. To the extent that the results of the hydrogeologic investigation indicates that Beltz 12 ASR operations are resulting in restrictive effects, ASR injection and/or extraction operations shall be modified until the corresponding undesirable effects are eliminated, as	

Table 1-3. Summary of Project Impacts (continued)

Impact	Level of Significance Prior to Mitigation	Mitigation Measures	Level of Significance After Mitigation
		demonstrated with quarterly monitoring data from the private wells. The Beltz 12 ASR modifications shall be proportional to the degree of impact being caused by Beltz 12 ASR operations (versus O'Neill Ranch well operations). Annual monitoring reports shall be prepared to document monitoring results. In the event that restrictive effects to nearby private domestic wells does not occur during ASR pilot testing or operations, for a period of five years after initiation of Beltz 12 ASR operations, the City's participation in the private well monitoring program will be discontinued. Additionally, during the next Mid-County Groundwater Sustainability Plan (GSP) update process, the City shall work with other member agencies of the Mid-County Groundwater Sustainability Agency to update information in the GSP related to private wells and the ongoing assessment and monitoring of groundwater levels at these wells, if warranted based on the outcome of monitoring and any hydrogeologic investigation performed.	
Impact HYD-3: Alteration to the Existing Drainage Pattern of the Site Area. Construction and operation of the Proposed Project could not substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would: (a) result in substantial erosion or siltation on or off site; (b) substantially increase the rate or amount of surface runoff in a manner which would result in flooding on or off site; (c) create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff; or (d) impede or redirect flood flows.	Potentially Significant	**MM HYD-3: Drainage Improvements (Applies to City of Santa Cruz/Scotts Valley Water District Intertie Pump Station and City of Santa Cruz/Soquel Creek Water District/Center Water District New Intertie Pump Stations).** Final pump station designs shall include Low Impact Development features, which would: (1) reduce post-construction stormwater runoff rates to be less than or equal to existing conditions, for a 24-hour, 25-year storm event; and (2) minimize off-site runoff of stormwater pollutants through filtration features, such oil-water separators, vegetated swales, and bioretention basins. These features shall be inspected monthly to ensure functionality.	Less than Significant

Table 1-3. Summary of Project Impacts (continued)

Impact	Level of Significance Prior to Mitigation	Mitigation Measures	Level of Significance After Mitigation
Impact HYD-4: Flood, Tsunamis, and Seiche Zones. Construction and operation of the Proposed Project in flood hazard, tsunami, or seiche zones would not risk release of pollutants due to project inundation.	Less than Significant	None	Less than Significant
Impact HYD-5: Cumulative Hydrology and Water Quality Impacts. Construction and operation of the Proposed Project, in combination with past, present, and reasonably foreseeable future development, would not result in a significant cumulative impact related to hydrology and water quality.	Less than Significant	None	Less than Significant
Land Use, Agriculture and Forestry, and Mineral Resources			
Impact LU-1: Conflicts with Land Use Plans, Policies, or Regulations. Construction and operation of the Proposed Project would not conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect.	Less than Significant	None	Less than Significant
Impact LU-2: Conversion or Loss of Farmland or Forest Land and Conflicts with Zoning for Agricultural Land, Forest Land, or Timberland. Construction of the Proposed Project could convert prime, unique, or important agricultural land to non-agricultural use, convert forest land to non-forest land, conflict with existing zoning for agricultural or timber production uses or conflict with a Williamson Act contract.	Potentially Significant	**MM LU-1: Avoidance of Agricultural and Forest Lands (Applies to New Aquifer Storage and Recovery [ASR] Facilities).** The following measures shall be implemented to avoid conversion of Farmland or forest/timberland, and/or conflicts with agricultural zoning in the coastal zone: • Locate new ASR facilities on sites that do not contain Farmland (i.e., prime, unique, or important farmland under the State Farmland Mapping and Monitoring Program) unless site-specific application of the Land Evaluation and Site Assessment model determines that the site would not result in a significant impact to agricultural lands. • Locate new ASR facilities on sites that do not contain forest/timber land. • Locate new ASR facilities on sites that are not zoned for agricultural uses in the coastal zone.	Less than Significant

Table 1-3. Summary of Project Impacts (continued)

Impact	Level of Significance Prior to Mitigation	Mitigation Measures	Level of Significance After Mitigation
Impact LU-3: Loss of Mineral Resources. Construction of the Proposed Project could potentially result in the location of infrastructure components on lands containing mineral resources in existing quarries; however, the Proposed Project would not result in the loss of availability of a mineral resource.	Less than Significant	None	Less than Significant
Impact LU-4: Cumulative Land Use Impacts. Construction and operation of the Proposed Project, in combination with past, present, and reasonably foreseeable future development, would not result in a significant cumulative impact related to conflicts with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect.	Less than Significant	None	Less than Significant
Impact LU-5: Cumulative Agriculture and Forestry Impacts. Construction of the Proposed Project, in combination with past, present, and reasonably foreseeable future development, would result in a significant cumulative impact related to loss of Farmland and forest land, but the Proposed Project's contribution would not be cumulatively considerable.	Less than Significant	None	Less than Significant
Impact LU-6: Cumulative Mineral Resource Impacts. Construction of the Proposed Project, in combination with past, present, and reasonably foreseeable future development, would not result in a significant cumulative impact related to loss of availability of mineral resources.	Less than Significant	None	Less than Significant

Table 1-3. Summary of Project Impacts (continued)

Impact	Level of Significance Prior to Mitigation	Mitigation Measures	Level of Significance After Mitigation
Noise			
Impact NOI-1: Substantial Permanent Increase in Ambient Noise Levels. Operation of the Proposed Project would result in generation of a substantial permanent increase in ambient noise levels during long-term operation in the vicinity of one of the programmatic infrastructure components.	Potentially Significant	**MM NOI-1: Operational Noise Levels (Applies to Coast Pump Station Improvements).** The Proposed Project shall implement the following measures to reduce the potential for exposure of nearby noise-sensitive receptors to excessive noise levels: • Where feasible, a primary element for the selection of proposed noise-generating equipment (e.g., pumps, motors, transformers, etc.) shall be equipment that inherently does not generate an increase of +3 dB in the ambient noise levels where the existing ambient is below 60 dBA L_{dn}, or a +5 dB increase in the ambient noise levels where the existing ambient is above 65 dBA L_{dn}, as measured at the nearest sensitive receptor. • Where this is not feasible, noise-generating equipment shall be located within a full or partial noise reduction enclosure. The effectiveness of the equipment enclosure to reduce noise level exposure to within the applicable noise level threshold shall be demonstrated through submittal of a focused acoustical assessment.	Less than Significant
Impact NOI-2: Substantial Increase in Ambient Noise Levels in Excess of Standards. Construction of the Proposed Project would result in generation of a substantial temporary increase in ambient noise levels in the vicinity of some project and programmatic infrastructure components in excess of applicable standards established in local general plans or noise ordinances.	Significant	**MM NOI-2: Construction Noise (Applies to all Infrastructure Components).** The Proposed Project shall implement the following measures related to construction noise: • Restrict construction activities and use of equipment that have the potential to generate significant noise levels (e.g., use of concrete saw, mounted impact hammer, jackhammer, rock drill, etc.) to between the hours of 8:00 a.m. and 5:00 p.m., unless specifically identified work outside these hours is authorized by the City's Water Director as necessary to allow for safe access to a construction site, safe construction operations, efficient	Significant and Unavoidable

Table 1-3. Summary of Project Impacts (continued)

Impact	Level of Significance Prior to Mitigation	Mitigation Measures	Level of Significance After Mitigation
		construction progress, and/or to account for prior construction delays outside of a contractor's control (e.g., weather delays). • Construction activities requiring operations continuing outside of the standard work hours of 8:00 a.m. and 5:00 p.m. (e.g., borehole drilling operations) shall locate noise generating equipment as far as possible from noise-sensitive receptors, and/or within an acoustically rated enclosure (meeting or exceeding Sound Transmission Class [STC] 27), shroud or temporary barrier as needed to prevent the propagation of sound into the surrounding areas in excess of the 60 dBA nighttime (10:00 p.m. to 8:00 a.m.) and 75 dBA daytime (8:00 a.m. to 10:00 p.m.) criteria at the nearest sensitive receptor. Noisy construction equipment, such as temporary pumps that are not submerged, aboveground conveyor systems, and impact tools will likely require location within such an acoustically rated enclosure, shroud or barrier to meet these above criteria. Impact tools, in particular, shall have the working area/impact area shrouded or shielded whenever possible, with intake and exhaust ports on power equipment muffled or suppressed. Impact tools may necessitate the use of temporary or portable, application-specific noise shields or barriers to achieve compliance. • Portable and stationary site support equipment (e.g., generators, compressors, and cement mixers) shall be located as far as possible from nearby noise-sensitive receptors. • Construction equipment and vehicles shall be fitted with efficient, well-maintained mufflers that reduce equipment noise emission levels at the project site. Internal-combustion-powered equipment shall be equipped with properly operating noise suppression devices (e.g., mufflers, silencers, wraps) that meet or exceed the	

Table 1-3. Summary of Project Impacts (continued)

Impact	Level of Significance Prior to Mitigation	Mitigation Measures	Level of Significance After Mitigation
Operation of the Proposed Project would result in generation of a substantial permanent increase in ambient noise levels in the vicinity of one of the programmatic infrastructure components in excess of applicable standards.	Potentially Significant	manufacturer's specifications. Mufflers and noise suppressors shall be properly maintained and tuned to ensure proper fit, function, and minimization of noise. • Construction equipment shall not be idled for extended periods of time (i.e., 5 minutes or longer) in the immediate vicinity of noise-sensitive receptors. **MM NOI-1** described above	Less than Significant
Impact NOI-3: Groundborne Vibration. Construction of the Proposed Project would result in the potential generation of excessive groundborne vibration or groundborne noise levels.	Potentially Significant	**MM NOI-3: Construction Vibration (Applies to New Aquifer Storage and Recovery Facilities and all Intertie Improvements).** The Proposed Project shall implement the following measures to reduce the potential for structural damage from groundborne noise and vibration: • Vibratory rollers or compactors shall not be used within 15 feet of sensitive receptors. • Heavy equipment required to operate within 9 feet of sensitive receptors shall be limited to rubber-tired equipment.	Less than Significant
Impact NOI-4: Cumulative Noise Impacts. Construction and operation of the Proposed Project, in combination with past, present, and reasonably foreseeable future development, would not result in a significant cumulative impact related to noise and vibration.	Less than Significant	None	Less than Significant
Recreation			
Impact REC-1: Conflicts with Existing Recreational Uses. Operation of the Proposed Project would not change or conflict with existing recreational uses.	Beneficial	None	Beneficial

Table 1-3. Summary of Project Impacts (continued)

Impact	Level of Significance Prior to Mitigation	Mitigation Measures	Level of Significance After Mitigation
Impact REC-2: Increased Use of Existing Parks or Recreational Facilities. Operation of the Proposed Project would not increase the use of parks or recreational facilities such that substantial physical deterioration of the facilities would occur or be accelerated.	Less than Significant	None	Less than Significant
Impact REC-3: Cumulative Recreation Impacts. Operation of the Proposed Project, in combination with past, present, and reasonably foreseeable future development, would not change or conflict with existing recreational uses, but could increase the use of parks or recreational facilities such that substantial physical deterioration of the facilities would occur or be accelerated. However, the Proposed Project's contribution would not be cumulative considerable.	Less than Significant	None	Less than Significant
Transportation			
Impact TRA-1: Conflict with Program, Plan, Ordinance, or Policy Addressing the Circulation System. Construction and operation of the Proposed Project would not conflict with a program, plan, ordinance, or policy addressing the circulation system, including transit, roadway, bicycle, and pedestrian facilities.	Less than Significant	None	Less than Significant
Impact TRA-2: Vehicle Miles Traveled. Construction and operation of the Proposed Project would not conflict or be inconsistent with CEQA Guidelines Section 15064.3, Subdivision (b) or cause an increase in VMT which is greater than 15% below the regional average VMT.	Less than Significant	None	Less than Significant

Table 1-3. Summary of Project Impacts (continued)

Impact	Level of Significance Prior to Mitigation	Mitigation Measures	Level of Significance After Mitigation
Impact TRA-3: Geometric Design Hazards. Construction and operation of the Proposed Project would not substantially increase hazards due to a geometric design feature or incompatible use.	Less than Significant	None	Less than Significant
Impact TRA-4: Emergency Access. Construction of the Proposed Project would not result in inadequate emergency access.	Less than Significant	None	Less than Significant
Impact TRA-5: Cumulative Transportation Impacts. Construction and operation of the Proposed Project, in combination with past, present, and reasonably foreseeable future development, would not result in a significant cumulative impact related to transportation.	Less than Significant	None	Less than Significant
Utilities and Energy			
Impact UTL-1: New or Expanded Facilities. Construction and operation of the Proposed Project would result in new or expanded water facilities that would result in significant impacts, but would not require or result in new or expanded wastewater treatment, storm drainage, electric power, natural gas, or telecommunications facilities or a new sewer trunk line.	Significant	All mitigation measures described above	Significant and Unavoidable
Impact UTL-2: Water Supplies. Operation of the Proposed Project would provide sufficient water supplies to serve the Proposed Project and reasonably foreseeable future development during normal, dry, and multiple dry years.	Beneficial	None	Beneficial
Impact UTL-3: Wastewater Treatment Capacity. Operation of the Proposed Project would have adequate wastewater treatment capacity to serve project demand.	Less than Significant	None	Less than Significant

Table 1-3. Summary of Project Impacts (continued)

Impact	Level of Significance Prior to Mitigation	Mitigation Measures	Level of Significance After Mitigation
Impact UTL-4: Solid Waste Generation. Construction and operation of the Proposed Project would not generate solid waste in excess or state or local standards, or of the capacity of local infrastructure, or impair attainment of solid waste reduction goals.	Less than Significant	None	Less than Significant
Impact UTL-5: Compliance with Solid Waste Regulation. Construction and operation of the Proposed Project would comply with federal, state, and local management and reduction statutes and regulations related to solid waste.	Less than Significant	None	Less than Significant
Impact UTL-6: Result in Wasteful, Inefficient or Unnecessary Consumption of Energy Resources. Construction and operation of the Proposed Project would not result in wasteful, inefficient, or unnecessary consumption of energy resources.	Less than Significant	None	Less than Significant
Impact UTL-7: Conflict with an Applicable Renewable Energy or Energy Efficiency Plan. Construction and operation of the Proposed Project would not result in conflicts with or otherwise obstruct a state or local plan for renewable energy or energy efficiency.	Less than Significant	None	Less than Significant
Impact UTL-8: Cumulative Water and Wastewater Impacts. Construction and operation of the Proposed Project, in combination with past, present, and reasonably foreseeable future development, would not result in a significant cumulative impact related to water and wastewater.	Less than Significant	None	Less than Significant

Table 1-3. Summary of Project Impacts (continued)

Impact	Level of Significance Prior to Mitigation	Mitigation Measures	Level of Significance After Mitigation
Impact UTL-9: Cumulative Landfill Impacts. Construction and operation of the Proposed Project, in combination with past, present, and reasonably foreseeable future development, would not result in a significant cumulative impact related to landfill capacity.	Less than Significant	None	Less than Significant
Impact UTL-10: Cumulative Energy Impacts. Construction and operation of the Proposed Project, in combination with past, present, and reasonably foreseeable future development, would not result in a significant cumulative impact related to energy.	Less than Significant	None	Less than Significant