Attachment E

Mitigation Monitoring and Reporting Plan

Water Treatment Plant Upgrades – Angels Camp, CA

DRAFT IS/MND November 17, 2020

Mitigation Measure Reference	*Mitigation Measure*	*Limits, Performance Standards*	*Timing*	*Frequency*	*Responsible Entity*	*Initial*	*Date*
Aesthetics							
AES-1	**Mitigation Measure: AES-1 Site Lighting** Throughout the life of the project: all exterior lighting will be shielded and aimed downward. **Mitigation Monitoring AES-1:** The measure is the responsibility of the Project Proponent.						
Air Quality							
AQ-1	**Mitigation Measure AQ-1: Dust Control** Throughout project construction, including demolition, site clearing, grading and associated activities, the Project Proponent and Construction Contractor shall be responsible for dust abatement including: A. A water truck shall be present on the construction site throughout construction activities and shall be available for use on all working days when natural precipitation does not provide adequate moisture for complete dust control. Said watering device shall be used to spray water on the site at the end of each day and at all other intervals, as need dictates, to control dust. All fugitive dust emissions caused by land clearing, grubbing, scraping, excavation, land leveling, grading, cut & fill, and demolition activities shall be effectively controlled using application of water. B. All material excavated and stockpiled onsite and/or graded shall be sufficiently watered, treated, or covered to prevent fugitive dust from leaving the property boundaries and causing a public nuisance or a violation of an ambient air standard. C. All land clearing, grading, earth moving, or excavation activities shall be suspended as necessary to prevent excessive windblown dust when winds are expected to exceed 20 mph. D. All material transported off-site shall be either sufficiently watered or securely covered to prevent public nuisance and/or visible dust plumes. E. Vehicular traffic speeds on unpaved surfaces shall not exceed 10 miles per hour. **Mitigation Monitoring AQ-1:** The required mitigation measure will be implemented throughout Project construction. The measure, which is the responsibility of the Project Proponent, shall be included on the construction plans.						
AQ-2	**Mitigation Measure AQ-2: Open Burning** Alternatives to open burning of vegetative material will be used during vegetation clearing and grubbing activities, unless otherwise deemed infeasible by the CCAPCD. Suitable alternatives include chipping, mulching, or conversion to biomass fuel. **Mitigation Monitoring AQ-2:** The required mitigation measure will be implemented during clearing and grubbing. The measure is the responsibility of the Project Proponent.						

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AQ-3	**Mitigation Measure AQ-3 Authority to Construct/Operate Permit** Prior to commencing site disturbance (or issuance of a grading permit), the applicant shall obtain an authority to Construct Permit or confirmation that one is not required from the Calaveras County Air Pollution Control District. **Mitigation Monitoring AQ-3:** The required mitigation measure will be implemented prior to commencing site disturbance(or issuance of a grading permit, if required). The measure is the responsibility of the Project Proponent.						
AQ-4	**Mitigation Measure AQ-4: Equipment Emissions - Construction** Throughout Project construction, the Project Proponent shall be responsible for equipment emissions including: A. Ensuring that all equipment and vehicles are properly tuned and maintained and that low-sulfur fuel is used in all construction equipment as provided in California Code of Regulations (CCR) Title 17, Section 93114 (Compliance with Caltrans' Standard Specifications, Section 14-9). B. Heavy-duty diesel-powered construction equipment is prohibited from idling for more than five minutes during periods when the equipment is not in use. C. Grid (electrical) power shall be used (as opposed to diesel generators) for job site power needs where feasible during construction. **Mitigation Monitoring AQ-4:** The required mitigation measure will be implemented throughout Project construction and throughout the life of the project. The measure is the responsibility of the Project Proponent.						
Biological Resources							
BIO-1	**Avoidance and Minimization Measure BIO-1: Tricolored Blackbird** If the landowner (encompassing waterline properties) prohibits access for biological surveys of the on-site pond and adjacent grasslands near the Project's entry road, waterline construction shall not occur between March 1st and September 30th of the construction year to avoid nesting tricolored blackbirds (i.e., presence is assumed). The September 30th end date may be altered upon a site survey by a qualified biologist that demonstrates the species has left the parcel. Alternatively, should the landowner grant access to the pond and adjoining grasslands for biological surveys, **Mitigation Measure BIO-2** shall apply. If nesting tricolored blackbirds are present, then waterline construction shall be prohibited between March 1st and September 30th (except as otherwise described herein). If tricolor blackbirds are absent, then construction may begin so long as the provisions of **Mitigation Measure BIO-2** are observed.						

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BIO-2	**Avoidance and Minimization Measure BIO-2: Preconstruction Surveys Birds** Prior to construction occurring between February 1st and August 30th (e.g., staging, excavation, ground disturbance, or vegetation removal) a preconstruction survey for nesting birds will be conducted by a qualified biologist in accordance with the CDFW guidelines and a no-disturbance buffer will be established, if necessary. If equipment staging, site preparation, vegetation removal, grading, excavation or other project-related construction activities are scheduled during the avian nesting season (generally February 1 through August 30), a focused survey for active nests would be conducted by a qualified biologist within 15 days prior to the beginning of project-related activities. Surveys shall be conducted in all suitable habitat in the BSA. If an active nest is found, the bird shall be identified to species and the approximate distance from the closest work site to the nest estimated. No additional measures need be implemented if active nests are more than the following distances from the nearest work site: (a) 300± feet for raptors; or (b) 75± feet for other non-special-status bird species. . If active nests are closer than these distances to the nearest work site and there is the potential for destruction of a nest or substantial disturbance to nesting birds protected pursuant to the MBTA due to construction activities in the opinion of a qualified biologist, the biologist will prepare a plan to monitor nesting birds during construction and submit it to the CDFW for review and approval. Disturbance of active nests shall be avoided to the extent possible until it is determined that nesting is complete, and the young have fledged. **Mitigation Monitoring BIO-2**: The required mitigation measure will be incorporated into the project bid package and contract. Surveys will occur within 15 days of commencing construction that occurs between February 1st and August 30th. The measure is the responsibility of the construction contractor and project biologist.						

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BIO-3	**Avoidance and Minimization Measure BIO-3: Preconstruction Surveys Suitable Special Status Bat Roosting (or Nursery) Areas & Provisions for Protection, if Identified** • 15 days or less before commencing ground-disturbing activities between April and September of the construction year, a qualified biologist will survey snags, trees, rock crevices and other suitable cavities (i.e., the rhyolite cliffs in the cut bank along the northern end of the creek) and structures in the area for special status roosting bat colonies or bat nurseries. • If special status bats are not found and there is no evidence of special status bat use, construction may proceed. If special status bats are found or evidence of use by special status bats is present, CDFW shall be consulted for guidance on measures to avoid or minimize disturbance to the colony or nursery. Consideration will be given to existing conditions surrounding the occupation site (e.g., existing noise and vibrations). Subject to CDFW approval, measures may include, but are not limited to, establishing construction buffers from bat occupation sites and excluding bats from roosts before construction begins. If nurseries for special status bats are discovered, no work will occur within buffer areas until all young are self-sufficient and have left the nursery. **Mitigation Monitoring BIO-3:** The required mitigation measure will be incorporated into the project bid package and contract. A survey will occur within 15 days of commencing construction that occurs between April and September. The measure is the responsibility of the construction contractor and Project biologist.						
BIO-4	**Avoidance and Minimization Measure BIO-4: Hours of Construction.** Project construction shall be limited to 7:00 a.m. to 7:00 p.m. unless an emergency situation exists. **Mitigation Monitoring BIO-4**: The required mitigation measure will be implemented throughout Project construction. The measure is the responsibility of the construction contractor						
BIO-5	**Avoidance and Minimization Measure BIO-5: Avoid Inadvertent Animal Trapping During Construction** To avoid inadvertently trapping special status or common animal species during construction, all excavated steep-walled holes or trenches more than two feet deep shall be covered at the end of each working day with plywood or similar material, or provided with one or more escape ramps constructed of earth fill or wooden planks, or equivalent, at each end of the trench. Before such holes or trenches are filled, they will be thoroughly inspected for trapped animals. If at any time a tapped animal is discovered, the contractor shall place an escape ramp or other appropriate structure to allow the animal to escape. Alternatively, the contractor shall contact the project biologist or California Department of Fish and Wildlife for assistance. Similarly, stored pipes or other materials providing potential cover for animals will be inspected prior to installation or use to ensure that they are unoccupied. **Mitigation Monitoring BIO-5**: The required mitigation measure will be implemented throughout project construction. The measure is the responsibility of the construction						

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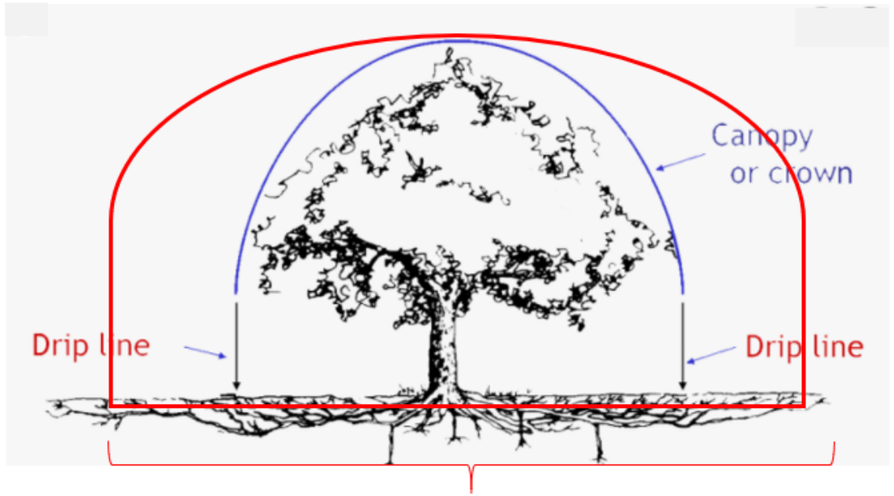
BIO-6	**Avoidance and Minimization Measure BIO-6: Food and Trash Disposal During Construction** All food and food-related trash will be enclosed in sealed trash containers at the end of each workday and removed completely from the construction site every day to avoid attracting wildlife. **Mitigation Monitoring BIO-6:** The required mitigation measure will be implemented throughout project construction. The measure is the responsibility of the construction contractor.						
BIO-7	**Avoidance and Minimization Measure BIO-7: Environmental Awareness Training** Construction bid packages and contractual requirements shall include a requirement for tail-gate training by the project's designated qualified biologist and cultural resource professionals. All contractors involved in site development and environmental specialists will attend a mandatory Environmental Awareness Training prior to any site disturbances. The program will address proper implementation of minimization and avoidance measures contained herein including, but not limited to: • Nesting birds • Avoiding inadvertent animal trapping • Site maintenance • Controlling invasive species • Handling leaks and spills • Fencing environmentally sensitive areas • Native Oak Tree Protection measures (avoiding driplines, no equipment or materials storage in driplines, avoid cutting oak roots, avoid equipment damage to limbs, trunks, and roots of oaks trees; do not attach signs, ropes, cables or other items to trees) • Cultural resources training to inform construction personnel of the types of cultural resources they may encounter, the laws protecting those resources, and the standard protocols to be implemented. • Hazardous materials response **Mitigation Monitoring BIO-7**: The required mitigation measure will be implemented throughout project construction. The Project Biologist (or Project Archaeologist) shall have the authority to stop work or remove any construction worker on site that has not completed training. The measure is the responsibility of the construction contractor.						

BIO-8	**Measure BIO-8: Oak Tree Protection**: For the purposes of this measure, the Oak Tree Protection Area is the area encompassing the dripline of an oak tree plus ½ that length again (1.5 times the dripline) shown in the following:  Oak Tree Protection Zone 1.5X Dripline For native oaks to be retained on site: a) Prior to site disturbance (i.e. issuance of a grading or building permit, vegetation removal, whichever occurs first); applicant shall erect environmentally sensitive area (ESA) exclusionary fencing (e.g., orange safety fencing) encompassing, at a minimum, the oak tree protection zone of all native oaks to be retained on site. Fencing is required only in those areas where work is proposed within 30 feet of the oak tree protection zone (for oaks to be retained). Fencing shall remain in place until site work is complete unless otherwise authorized by the City Planner. b) No equipment or materials will be parked or stored within the oak tree protection zone. c) No fill shall be stored or occur within the oak tree protection zone. d) No soil disturbances shall occur within the oak tree protection zone unless otherwise provided herein. e) If the City/Contractor requires encroachment into an oak tree protection zone and intends no mitigation requirements for that oak, the City/Contractor shall hire a qualified arborist or consult with a qualified biologist to identify methods for undertaking activities within the oak tree protection zone if necessary to ensure the long-term survival of the oaks (e.g., boring rather than trenching for utilities). The City has the discretion to waive requirements for an arborist / biologist where construction methods will comply with those identified in the publication: *Protecting Trees During and After Construction* - UC Cooperative Extension in the opinion of the City Planner. f) Utility or other trenching or soil disturbances (including fill) within the oak tree protection zone is prohibited unless no other feasible alternative exists. If unavoidable, work shall be accomplished per the recommendations of the individual identified in paragraph e.						

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	g) No grading or grade changes will occur in the oak tree protection zone. If unavoidable, work shall be accomplished under the supervision and per the recommendations of the individual identified in paragraph e. h) Irrigated landscaping shall not be installed within the oak tree protection zone. i) Tree trimming, grass cutting, shrub removal as necessary to separate fuels and maintain wildland fire safety is permitted within the oak tree protection zone. **Mitigation Monitoring BIO-8**. Prior to commencing site disturbance, the City Planner shall verify that all ESA fencing has been installed in compliance with this condition. The preservation of oaks in oak tree protection zones will be implemented throughout Project construction and the life of the Project. The measure is the responsibility of the Project Proponent / Contractor. Compensation in accordance with the City's Oak Tree and Heritage Tree ordinance is required for encroachments into driplines of oaks in the oak tree protection zone where such encroachment is likely to result in shortening the lifespan of the tree.						

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<tr><th>Mitigation Measure Reference</th><th>Mitigation Measure</th><th>Limits, Performance Standards</th><th>Timing</th><th>Frequency</th><th>Responsible Entity</th><th>Initial</th><th>Date</th></tr>
<tr><td>BIO-9</td><td>
Mitigation Measure BIO-9: Oak Tree Replanting/Mitigation

A. Prior to commencing site disturbance, a final tree removal / disturbance count shall be prepared by a qualified biologist to establish the size of trees to be removed or where encroachment within the oak tree protection zone will occur based on final design. “Disturbance” shall be assumed if trenching or similar impact will occur in the oak tree protection zone.

B. Within one year of commencing project construction, the City shall provide one or a combination of the following to mitigate for the removal of native oak trees of 9” Tree Diameter at Breast Height (TDBH) or greater in size in accordance with Angels Municipal Code Chapter 17.64:

i. Re-plant on-site native oak trees of the same genus as those removed at the following ratios
<table>
<tr><th>Tree type/size</th><th>Ratio</th><th>Replacement size</th><th>Replacement type/a/</th></tr>
<tr><td>Native oak trees up to, but not including 24” dbh</td><td>2:1</td><td>1 gallon</td><td>Same species as removed (blue or live oak)</td></tr>
<tr><td>Native oak trees 24” dbh or larger</td><td>5:1</td><td>1 gallon</td><td>Same species as removed (blue or live oak)</td></tr>
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/a/ Native replacement species may be allowed only with review and approval of the project biologist

ii. Alternatively pay a fee to the City in an amount established pursuant to Chapter 17.64 Guidelines based on the total TDBH (inches) of native oak trees removed or disturbed. The total fee shall be the total TDBH X the cost of a 5-gallon tree of the same species. The cost may be calculated using a wholesale cost.

If a combination of replanting and fee payments are used, fees shall be estimated based on the percentage of trees planted on site versus the percentage of trees remaining to be planted. For example, if 60 trees are required to be planted on site and 30 are planted on site (50% of the 60 trees required to be planted on site), then the total oak tree mitigation fee calculated under paragraph B(i) will be reduced by 50%.

C. Oak tree replanting shall occur on site in areas approved by a qualified biologist or arborist. Planted oaks shall be drip-irrigated and mulched (or equivalent) until established.

Mitigation Monitoring BIO-9. An annual inspection and report on survivorship of replanted oaks shall be prepared and submitted to the City. Planted oaks shall achieve a survival rate of 70% after 5 years. Should re-planted trees die prior to 5 years at a rate that falls below a 70% survivorship, replacement oaks shall be replanted as necessary to achieve the 70% threshold. Replacement trees shall survive a minimum of 5 years or be replanted until the replanted tree reach 5-year survivorship.
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BIO-10	**Avoidance and Minimization Measure BIO-10: Prepare Wetlands Delineation/Assessment and, as applicable, Secure federal CWA Section 401 and Section 404 Permits and state Streambed Alteration Agreement 1602** A. Prior to commencing construction on the Water Treatment Plant, prepare a wetlands delineation/assessment prior to culverting the Union Ditch (Feature #2) and, if necessary, addressing any physical alterations to the Sediment basins and unnamed intermittent drainage fed by flushing (Features #1a and #7) Alternatively, if the ditch remains unculverted, but is instead spanned by a pre-cast concrete structure that does not encroach within the wetland, delineations and permitting may be avoided. B. Prior to commencing construction to install the new water transmission line from the WTP to Murphys Grade Road: prepare a wetlands delineation/assessment for potential impacts to the fresh emergent wetland (Feature #6). C. The acreage, location, and method(s) for compensation will be determined during the permitting process in accordance with USACE and CDFW standards, as applicable. The Project will adhere to a "no net loss" standard for waters of the U.S. and waters of the State. Suitable habitat will be restored, enhanced, and/or replaced at an acreage and location and by methods approved by the USACE and Central Valley Regional Water Quality Control Board, as jurisdictionally appropriate. The replacement of waters will be equivalent to the nature of the habitat lost and will be provided at a suitable ratio to ensure that, at a minimum, there is no net loss of habitat acreage or value. The replacement habitat will be set aside in perpetuity for habitat use. Compensation may also include purchasing credits from a Corps and/or state or federally approved mitigation bank at a ratio prescribed in the applicable Section 404 as necessary to achieve no net loss of waters of the U.S. For waters of the state, compensation may be through the National Fish and Wildlife Foundation Sacramento District California In-Lieu Fee Program. **Mitigation Monitoring BIO-10**: The required mitigation measure will be incorporated into the project bid package and contract. Applicable federal Clean Water Act Section 401 and 404 permits and any applicable 1602 Streambed Alteration Agreement shall be secured prior to commencing construction. Mitigation shall be in place no later than one year after site disturbance commences.						

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BIO-11	**Avoidance and Minimization Measure BIO-11: Neighboring Stream-owner Program** Prior to discontinuing existing back-wash release activities into the adjoining unnamed intermittent drainage (Torrey Gulch), the City will notify landowners along the drainage that the City will be commencing planned water releases. Affected landowners will be given the choice of opting in or opting out of the Neighboring Stream-Owner Program. For those opting in, the City, at the City's expense, will conduct a biological survey and water quality testing on the landowner's parcel(s) and establish baseline biological conditions to be maintained per **Measure BIO-12**. Baseline conditions to be established include: • Photos (from established photo-points) of existing conditions along the drainage, and as applicable, from on-site stock ponds fed by the drainage. • Low and high elevations of on-site stock ponds in average precipitation years will be established. • Plant and animal species (including natives and non-natives) associated with the riparian corridor and any on-site stock ponds. • The City may, with the landowner's permission, conduct water quality sampling (e.g., Water temperature, turbidity, dissolved oxygen, presence or absence of non-native chemical contaminants). • The City will enter into a letter of agreement with the landowner stating its goals pursuant to Mitigation Measure BIO-12 and including a statement that future UWPA operations as they relate to Torrey Gulch water releases are not included in the water release agreement but would be subject to future environmental analysis. ***Mitigation Monitoring BIO-11**: Landowners will be notified at least two months prior to discontinuing existing back-wash release activities and given three weeks to opt in or opt-out of this voluntary program. Landowners that do not opt-in within three weeks will be assumed to have opted out of the program. Baseline data shall be collected prior to commencing water releases unless otherwise agreed to by the City and landowner. Baseline data used for **Mitigation Measure 12** shall rely on Google map aerial photos from normal precipitation years to the extent feasible for those that opt-out of the program.*						

BIO-12	**Avoidance and Minimization Measure BIO-12: Metered water releases in May, June, July, August , September, and October to Intermittent Drainage (Torrey Gulch)** Per Phase 1 improvement plans, a raw water diversion from the Angels Forebay through an existing pipeline to a new weir box will be established provide for raw water releases into the intermittent drainage/Torrey Gulch reflecting historic flows. A meter shall be installed to document water releases. Water releases averaging 200,000 gallons per discharge will occur in May, June, July, August, September, and October. Releases will occur whenever City water use reaches 6 million gallons during these peak months and shall occur no less than an average of 5.6 discharges monthly (34 releases) over the May – October discharge period (i.e., 6,800,000 gallons over 6 months). Discharges may be suspended in response to an emergency declaration by the City of Angels City Council where water supply and/or conservation is essential to public health and safety. ***Mitigation Monitoring BIO-12**: Water releases to the intermittent drainage shall be metered. A monthly report of water releases to the intermittent drainage shall be maintained by the City throughout the life of the Project. A report on documented releases will be made available to downstream landowners annually, upon request.* *A qualified biologist shall monitor the health of the drainage annually for a minimum of seven years once seasonal releases commence. A baseline study (see **Mitigation Measure BIO-11)** shall occur prior to commencing scheduled releases. Monitoring shall include an annual field survey along the drainage where landowner permission to survey is granted. Surveys should occur in annually on or near the same day. Photo-stations shall be established to document and compare riparian corridor health. Surveys shall include a general species diversity survey. The results of the survey shall be included in the annual water release reports. At the end of the five-year monitoring period, the biologist may recommend adjusting water releases based on findings of documented degradation in riparian corridor health where adjustments are likely to reverse such degradation(s).* *Documented decreases in riparian health may be inferred by significant, measurable, and observable changes to the riparian corridor that are not the result of forces outside the City's control (e.g., wildland fire, state-declared drought emergency, herbicides used in non-compliance with label directions, flash flooding, natural biological changes in the habitat's development, introduced non-native species, increasing or decreasing the average daily temperatures in the County). For the purposes of this monitoring provision, "significant" shall mean more than a 10% decrease (or increase) in a measurable parameter from original baseline measures taken indicating an adverse biological change. Parameters to be measured may include water temperature, air temperature, tree canopy cover, plant and animal species diversity (including non-native and invasive species), turbidity, dissolved oxygen, presence or absence of non-native chemical contaminants.* *Except as provided for in the following paragraph, adjustments may include re-timing scheduled water releases (e.g., same amount over a 7-month period or the release of less water, more frequently). However, total water releases may not be decreased from the historical amounts established here without an addendum to this environmental study. Total water releases may be increased up to 10% without an addendum to this environmental study. Water releases exceeding 10% of the amounts established herein shall require an addendum to this environmental study.* *If ongoing monitoring identifies degradation in the drainage corresponding to the cessation or significant reduction of water releases by UWPA, those changes will be documented and the timing of altered UWPA operations shall be noted. These changes include direct or indirect changes to the intermittent drainage associated with UWPA raw water releases into the drainage as part of its hydroelectric power plant operations and use of the drainage as an emergency spillway. The City is not responsible for mitigating impacts that may reasonably be associated with UWPA adjustments to its water releases into the drainage so long as the City is maintaining and documenting City water releases consistent with the City's historic water release levels pursuant to this condition. Should potential degradation*						

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	of the drainage begin only after UWPA alterations to its water releases into the drainage as documented by monitoring pursuant to this condition, they shall be assumed to be associated with UWPA altered operations unless biological evidence clearly indicates otherwise.						
BIO-13	**Avoidance and Minimization Measure BIO-13: Erosion Control Plan/Best Management Practices (BMPs) to Protect Water Quality (Including NOI/NPDES/SWPPP)** Prior to commencing site disturbance: • The Contractor shall prepare an Erosion Control Plan for City review and approval. All soils disturbed by grading shall be reseeded or hydromulched or otherwise stabilized 48 hours in advance of a rain event. A likely rain/precipitation event is any weather pattern that is forecasted to have a 30% or greater chance of producing precipitation in the project area. The discharger shall obtain likely precipitation forecast information from the National Weather Service Forecast Office (e.g., by entering the zip code of the project's location at http://www.srh.noaa.gov/forecast). A qualifying rain event is one that produces 0.5 inch or more of precipitation within a 48 hour or greater period between rain events. Emergency erosion control measures shall be used as reasonably requested by the City. • Submit to the State Water Resources Control Board Storm Water Permitting Unit, a Notice of Intent (NOI) to obtain coverage under the General Construction Activity Storm Water Permit - California's National Pollution Discharge Elimination System (NPDES) general permit for construction related storm water discharges for the disturbance of one acre or more. Disturbances of less than one acre may also require an NOI for coverage under the NPDES General Permit for construction-related storm water discharge and the State Water Resources Control Board Permitting Unit shall be contacted for determination of permit requirements. Commercial and Industrial developments may require an NOI even if less than one acre is to be disturbed. Obtain coverage or an exemption from these requirements. [Federal Water Pollution Control Act, Section 401, California Clean Water Act]. The permit may include preparation of a Stormwater Pollution Prevention Plan (SWPPP). **Mitigation Monitoring BIO-13**: The required mitigation measure will be incorporated into the project bid package and contract. Erosion control plan to be completed prior to October 15th. NOI/NPDES to be secured prior to ground disturbance. Implemented and maintained throughout project construction. The measure is the responsibility of the construction contractor.						

Mitigation Measure Reference	Mitigation Measure	Limits, Performance Standards	Timing	Frequency	Responsible Entity	Initial	Date
BIO-14	**Avoidance and Minimization Measure BIO-14: Install Barrier /Silt Fencing to Protect Water Quality** Prior to implementing staging, construction, or ground disturbing activities: Install temporary silt fencing, fiber rolls, or equivalent erosion and sediment control devices as necessary to protect water quality. Silt fencing or other materials, as required, will be installed consistent with the applicable water quality requirements specified in the Project's Storm Water Pollution Prevention Plan (SWPPP) or Water Pollution Control Plan (WPCP). Fencing or other erosion control materials or devices shall be shown on the final construction documents. These areas will be monitored by the project manager throughout construction. **Mitigation Monitoring BIO-14**: The required mitigation measure will be implemented prior to ground disturbance and maintained throughout project construction. The measure is the responsibility of the construction contractor.						
BIO-15	**Avoidance and Minimization Measure BIO-15: Minimize the Spread of Invasive Plant Species** Throughout project construction: • All hay, straw, hay bales, straw bales, seed, mulch or other material used for erosion control on the project site shall be free of noxious weed [1] seeds and propagules (Food and Agriculture Code Sections 6305, 6341 and 6461). • All equipment brought to the project site shall be thoroughly cleaned of all dirt and vegetation prior to entering the site to prevent importing noxious weeds and shall be cleaned of all dirt and vegetation prior to exiting the site to prevent exporting noxious weeds. (Food and Agriculture Code Section 5401). All material brought to the site, including rock, gravel, road base, sand, and topsoil, shall be free of noxious weeds [2] and propagules. (Food and Agriculture Code Sections 6305, 6341 and 6461). **Mitigation Monitoring BIO-15**: The required mitigation measure will be incorporated into the project bid package and contract and implemented throughout project construction. The measure is the responsibility of the construction contractor.						
Cultural Resources							

[1] Noxious weeds are as defined in Title 3, Division 4, Chapter 6, Section 4500 of the California Code of Regulations and the California Quarantine Policy – Weeds (Food and Agriculture Code, Sections 6305, 6341, and 6461).

[2] Ibid.

CULT-1	**Mitigation Measure CULT-1: Environmentally Sensitive Area (ESA) Fencing for Cultural Resources** Prior to initiating ground disturbances within 30 feet of the resource, ESA fencing shall be installed as shown: a. Commencing at the downstream end of the Union Ditch where culverting will terminate. Fencing shall be installed as necessary to protect the remaining resource and protect native vegetation along the ditch. b. Surrounding the Angels Forebay (at the toe of the fill surrounding the Forebay) c. At Torrey Gulch to protect the existing ditch and native vegetation. d. At the Torrey Union Ditch if final design extends easterly (for waterline) or southerly (for clear well) e. In conjunction with waterline construction, Along the UWPA Penstock and retaining an opening at the cattle crossing unless an alternative equivalent method is identified by the landowner and UWPA f. On the east side east side of the berm (Figure C) to keep construction activity from impacting the original intact McElroy/Union ditch west of the berm. SEE PHOTOS A & B & C (Attached) All ESA fencing shall remain in place until ground disturbance and construction activities are complete. Materials and equipment shall not be stored or parked within the ESA fencing. The City Planner may approve minor deviations in the location of fencing based on consultation with the project biologist and archaeologist. **Mitigation Monitoring CULT-1**: The required mitigation measure will be incorporated into the project bid package and contract and implemented throughout project construction. The measure is the responsibility of the construction contractor.						
CULT-2	**Mitigation Measure CULT-2: Project Changes/UWPA HPMP** If project changes occur in the final project design and resources which have been determined eligible will be impacted, the Utica Water and Power Authority HPMP Coordinator in tandem with a qualified professional archaeologist/architectural historian shall review the impacts to ascertain whether or not the impacts fall under Exemptions and Project Operations (Activities Exempt from Further Review, Project Roads, and Maintenance) and/or whether the impacts are adverse and require additional mitigation measures. If impacts are not Exemptions per the HPMP, an addendum or amendment to this IS/MND is required. **Mitigation Monitoring CULT-2**: The required mitigation measure will be completed prior to site disturbance with post-recordation occurring within one year of completing construction. The measure is the responsibility of the City unless delegated to the construction contractor.						
CULT-3	**Avoidance and Minimization Measure CULT-3 (BIO-7): Environmental Awareness Training**						

CULT-4	**Mitigation Measure CULT-4: Unanticipated Cultural Resource Discoveries** If a cultural resource is discovered during construction activities, the construction contractor shall comply with the following provisions: A. The person discovering the cultural resource shall notify the project's designated qualified cultural resource professional by telephone within 4 hours of the discovery or the next working day if the department is closed. B. When the cultural resource is located outside the area of disturbance, the project's designated qualified cultural resource professional shall be allowed to photodocument and record the resource and construction activities may continue during this process. The area of disturbance is defined to include grading and vegetation removal areas and/or access roads or processing areas plus 100 feet. C. When the cultural resource is located within the area of disturbance, all activities that may impact the resource shall cease immediately upon discovery of the resource. All activity that does not affect the cultural resource as determined by site's designated qualified cultural resource professional may continue. The project's designated qualified cultural resource professional shall be allowed to conduct an evaluative survey to evaluate the significance of the cultural resource. D. When the cultural resource is determined to be not significant, the project's designated qualified cultural resource professional shall be allowed to photodocument and record the resource. Construction activities may resume after authorization from the project's designated qualified professional. E. When a resource is determined to be significant, the resource shall be avoided with said resource having boundaries established around its perimeter by the project's designated qualified cultural resource professional or a cultural resource management plan shall be prepared by the project's designated qualified professional to establish measures formulated and implemented in accordance with Sections 21083.2 and 21084.1 of the California Environmental Quality Act (CEQA) to address the effects of construction on the resource. The project's designated qualified cultural resource professional shall be allowed to photodocument and record the resource. Construction activities may resume after authorization from the project's designated qualified cultural resource professional. All further activity authorized by this permit shall comply with the cultural resources management plan. For the purposes of implementing this measure, a "qualified cultural resource professional" is an individual (e.g., historian or archaeologist) meeting the Secretary of the Interior's Qualification Standards. A "cultural resource" is any building, structure, object, site, district, or other item of cultural, social, religious, economic, political, scientific, agricultural, educational, military, engineering or architectural significance to the citizens of Calaveras County, the State of California, or the nation which is 50 years of age or older or has been listed on or is eligible for listing on the National Register of Historic Places, the California Register of Cultural Resources, or any local register. Examples of prehistoric resources may include: stone tools and manufacturing debris; milling equipment such as bedrock mortars, portable mortars, and pestles; darkened or stained soils (midden) that may contain dietary remains such as shell and bone; as well as human remains. Historic resources may include burial plots; structural foundations; mining spoils piles and prospecting pits; cabin pads; and trash scatters consisting of cans with soldered seams or tops, bottles, cut (square) nails, and ceramics. **Mitigation Monitoring CULT-4:** The required mitigation measure will be implemented throughout project construction. The measure is the responsibility of the Project						

	proponent/Contractor with input from the project's designated qualified cultural resource professional, if necessary.						
CULT-5	**Mitigation Measure CULT-5: Human Remains** If human remains, burial, cremation of other mortuary feature are uncovered during construction activities; upon discovery, secure the location, do not touch or remove remains and associated artifacts; do not remove associated spoils or go through them; document the location and keep notes of activity and correspondence. All work within 100 feet of the discovery shall stop until the County Coroner can determine whether the remains are those of a Native American. If the remains are determined to be Native American, the coroner must contact the California Native American Heritage Commission to obtain the Most Likely Descendent (MLD) and follow state law (PRC 5097.9 et seq. and Health and Safety Code 7050.5(c)-7054.1 and 8100 et seq.). No further work or disturbance shall occur within 100 feet until all of the preceding actions, as applicable to the discovery, are implemented and completed. Preserve associated spoils without further disturbance, do not touch or remove remains or associated artifacts, document the location and maintain notes of activity and correspondence. Preservation *in situ* is the preferred treatment of human remains and associated burial artifacts. [Public Resources Code Sections 5097.94, 5097.98 and Health and Safety Code Section 7050.5(c) and Section 15064.5 of the California Code of Regulations implementing the California Public Resources Code, Sections 21000-21177] **Mitigation Monitoring CULT-5:** The required mitigation measure will be implemented throughout project construction. The measure is the responsibility of the Project Proponent/contractor.						
Energy							
Energy-1	**Mitigation Measure Energy 1 (AQ-4): Equipment Emissions – Construction**						
Energy-2	**Mitigation Measure Energy-2: Construction Materials and Recycling** A. Compared to other products in a given product category, select building materials or products for permanent installation on the project that have been harvested or manufactured in California or within 500 miles of the project site. For those materials locally manufactured, select materials manufactured using low embodied energy or those that will result in net energy savings over their useful life. Regional materials shall make up at least 10 percent, based on cost, of total materials value. If regional materials make up only part of a product, their values are calculated as percentages based on weight. B. Use salvaged, refurbished, refinished or reused materials for a minimum of 5 percent of the total value, based on estimated cost of materials on the project. Provide documentation as to the respective values. Note: Sources of some reused materials can be found at CalRecycle. See also Appendix A5, Division A5.1, Section A5.105.1 for on-site materials reuse. **Note: Re-use of cement from demolition of the clear well may be used to fulfill all or a portion of this condition.** **Mitigation Monitoring ENERGY-2** : The required mitigation measure will be implemented throughout project construction. The measure is the responsibility of the Project Proponent/contractor. Provide documentation of the origin, net projected energy savings and value of regional materials.						

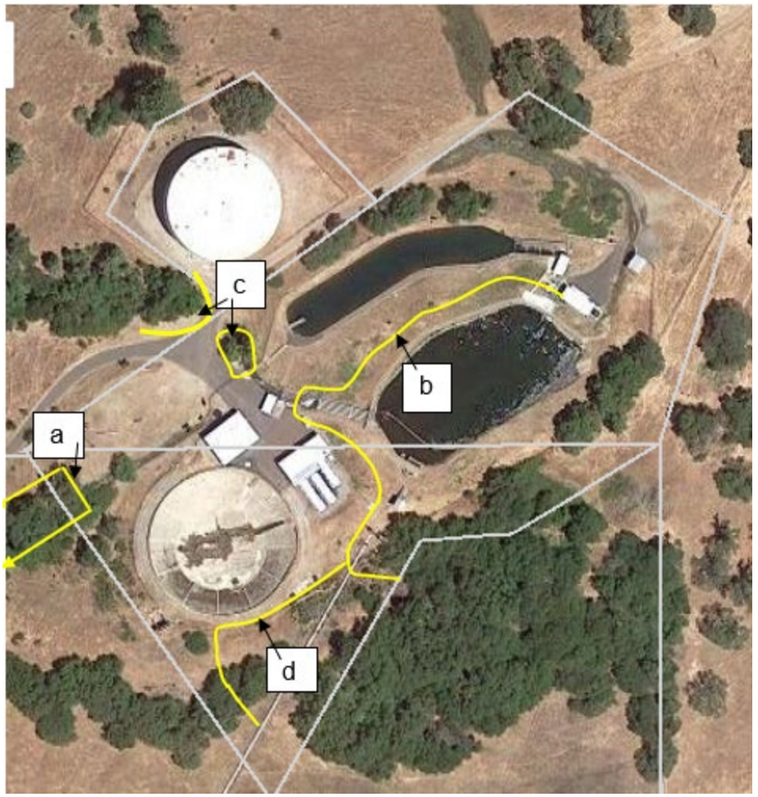
Energy-3	**Mitigation Measure Energy-3: Reduce Energy Consumption** The project proponent will demonstrate a reduction in energy consumption for overall plant operations by 15% through *one or a combination* of the following: a. Prepare a cost/benefit analysis for converting the city's manually-read water meters to an automatic meter reading (AMR) system or equivalent with a focus on converting the oldest meters in the City first (i.e., those in older parts of town that are single and in smaller boxes versus those in more modern subdivisions that occur in pairs and are more easily read). The analysis should identify funding options. The analysis would fulfill 5% of the 15% goal. b. Install solar panels to power one or more of the following: building lights, heating, ventilation, air conditioning or other devices with a goal of reducing power use by 15% (29,640± kilowatt hours). c. Upgrade one of the City's least fuel-efficient vehicles with a more fuel-efficient vehicle (or substituting an electric or hybrid vehicle) with a goal of reducing fuel use by 15% (37± gallons annually). This could be accomplished by upgrading a vehicle that averages 20 mpg to one averaging at least 25 mpg or upgrading one averaging 25 mpg with one averaging 30 mpg. d. Compliance with the 2019 California Energy Code (Building Energy Efficiency Standards) effective January 1, 2020, or as may be amended.						
Geology and Soils							
GEO-1	**Avoidance and Minimization Measure GEO-1: Geotechnical Study** Construction shall comply with the provisions included in the geotechnical study prepared for the Project and in compliance with the 2019 CBC, Section 1803 in support of the on-site septic system relocation as reviewed and approved by the City Engineer. **Mitigation Monitoring GEO-1:** The measure is the responsibility of the Project proponent/construction contractor and subject to review and approval by the City Engineer.						
GEO-2	**Avoidance and Minimization Measure GEO-2 (BIO-13): Erosion Control Plan/Best Management Practices (BMPs) to Protect Water Quality (Including NOI/NPDES/SWPPP)**						
GEO-3	**Avoidance and Minimization Measure GEO-3 (BIO-14): Install Barrier /Silt Fencing to Protect Water Quality**						

GEO-4	**Mitigation Measure GEO-4: Paleontological Resources** If paleontological resources are encountered during Project construction and no paleontological monitor is present, all ground disturbing activities within 50 feet of the find shall be redirected to other areas until a qualified paleontologist (as determined by the Project's qualified cultural resource professional) can be contacted to evaluate the find and make recommendations. If determined significant pursuant to CEQA and Project activities cannot avoid the paleontological resources, a paleontological evaluation and monitoring plan shall be implemented. Adverse impacts to significant paleontological resources shall be mitigated, which may include monitoring, data recovery and analysis, a final report, and the curation of all fossil material to a paleontological repository, museum, or academic institution, as appropriate. Upon completion of Project ground-disturbing activities, a report documenting methods, findings, and recommendations shall be prepared and submitted to the paleontological repository. **Mitigation Monitoring GEO-4:** The required mitigation measure will be implemented throughout Project construction. The measure is the responsibility of the construction contractor and qualified paleontologist.						
Greenhouse Gases							
GHG-1	**Mitigation Measure GHG-1:** The Project shall: A. Exceed the California Energy Code requirements by 15 percent based on the 2008 Energy Efficiency Standards requirements or as may be amended, through the installation of energy efficient design, lighting, appliances, or solar photovoltaic panels that provide 15 percent or more of the project's energy needs; B. Prohibit fuel oil as a heating source; C. Provide dedicated and accessible recycling and green waste bins with instructions/education program explaining how to use the bins, what can go into each bin, and the importance of recycling; and D. Implement at least one of the 2016 California Green Building Standards including, but not limited to (Options included in **Mitigation Measure ENERGY-2** may be counted towards fulfilling this measure): **a.** Install a shade structure on the staff-occupied building wall exposed to the south (or otherwise receiving the warmest exposure during summer months) b. For new paving, use light colored materials with an initial solar reflectance value of at least 30 as determined in accordance with American Society for Testing and Materials (ASTM) Standards E1918 or C1549 for at least 25% of the materials c. Use open-grid pavement system or pervious or permeable pavement system for at least 25% of newly paved areas *d.* Newly installed outdoor lighting power shall be no greater than 90 percent of the *Allowed Outdoor Lighting Power. The Allowed Outdoor Lighting Power calculation is specified in Title 24, Part 6, Section 140.7 "Requirements for Outdoor Lighting."* e. Replace outdated indoor plumbing fixtures with improved water efficiency fixtures. **Mitigation Monitoring GHG-1:** The required mitigation will be assessed during plan reviews submitted to the Planning and Building Department. The measure is the responsibility of the City's contractor.						
HAZARDS & HAZARDOUS MATERIALS, TRANSPORTATION							

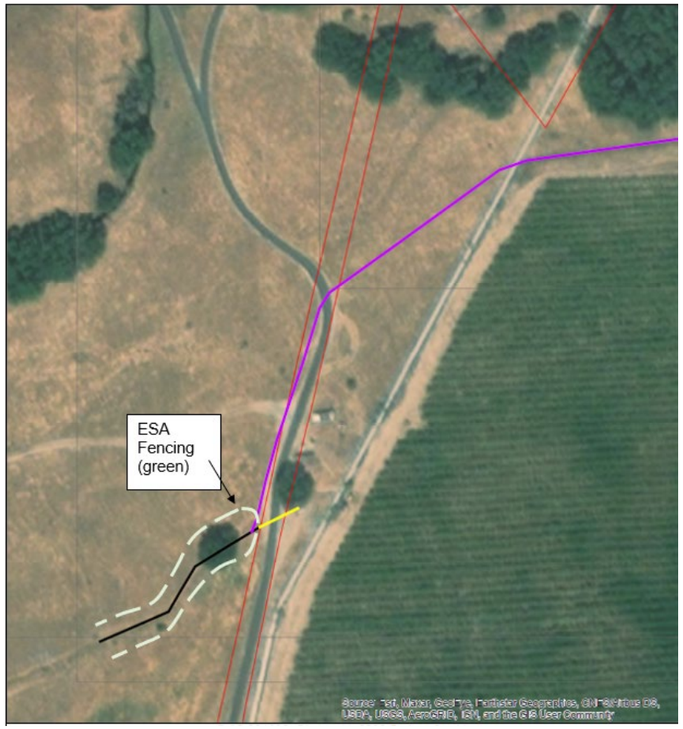
HAZ-1	**MM HAZ-01 (MM BIO-7): Environmental Awareness Training**						
HAZ-2	**MM HAZ-02: Construction Spill Prevention Plan** Prior to site disturbance, prepare a spill response plan to address the appropriate methods for containing accidental spills of toxic materials (e.g., engine oils). **Mitigation Monitoring HAZ-02:** The required mitigation measure will be implemented throughout Project construction. The measure is the responsibility of the construction contractor.						
HAZ-3	**Mitigation Measure HAZ-03: Vegetation Management and fuel reduction for Wildland Fire Protection** In conjunction with undertaking project improvements during Phase 1, the City shall reduce the fuel load in consultation with the City Fire Marshall within the oak woodlands surrounding the WTP in accordance with PRC 4291. Fuel load reduction may include the use of goats or other means to reduce ladder fuels and dead vegetation surrounding the WTP. **Mitigation Monitoring HAZ-03:** The required mitigation measure will be implemented prior to completing Phase 1 Project construction. The measure is the responsibility of the City or their construction contractor.						
CONDITION	**Hazardous Materials Storage and Spill Prevention Plan** Prior to completing Phase 1, the existing hazardous materials storage plan and emergency response plan shall be submitted for review to determine the necessity for any updates to the City Fire Department and will continue to be implemented and updated throughout the life of the project.						
HYDROLOGY AND WATER QUALITY							
HYDRO-1	**HYDRO-1 (MM BIO13): Erosion Control & Best Management Practices (BMPs) to Protect Water Quality (Including NOI/NPDES/SWPPP)**						
HYDRO-2	**HYDRO-2 (MM BIO-14): Silt/Barrier fencing**						
HYDRO-3	**HYDRO-3 (MM BIO-7): Environmental Awareness Training**						
HYDRO-4	**HYDRO-4 (MM HAZ-02): Construction Spill Prevention Plan**						
NOISE							
Noise-1/b/	**Mitigation Measure Noise-4 Comply with General Plan Noise Standards** The project shall comply with the exterior noise exposure level standard category of "Conditionally Acceptable" and based on the allowable land uses within the zoning district of the receiving property as contained in the City of Angels General Plan 2020 Implementation Measure 5.A.a/Figure 5-1 for noise levels as measured at the receiving parcel as those standards may be amended through adoption of a City Noise Ordinance. **Mitigation Monitoring Noise-4:** The City is responsible for enforcing this provision and will respond to complaints through its regular code enforcement process.						
Tribal Cultural Resources							
TCR-1	**Mitigation Measure TCR-1: SEE Mitigation Measure BIO-7: Environmental Awareness Training**						
TCR-2	**Mitigation Measure TCR-2: SEE Mitigation Measure CULT-4: Unanticipated Cultural Resource Discoveries**						
TCR-3	**Mitigation Measure TCR-3: SEE Mitigation Measure CULT-5: Human Remains**						

TCR-4	**Mitigation Measure TCR-4:** Prior to site disturbances occurring outside the existing fenced boundaries of the existing water treatment plant, the applicants shall contact the Calaveras Band of MiWuk and arrange to have a Native American monitor present during initial site grading. Specifically, a monitor will be present during soil disturbances for constructing the new water transmission line and during ditch culverting, sludge and solids storage area/press, septic system relocation (e.g., Items 16, 17, 18, 19, 27 on site plan – Figure 8 herein). **Mitigation Monitoring TCR-4** The mitigation measure will occur prior to issuance of a Grading Permit. The project contractor is responsible for contacting the Calaveras Band of MiWuks to arrange for a monitor. Payments or contracting between the parties, if it occurs, is the responsibility of the contractor and Native American monitor.						
Wildfire							
Wildfire-1	**Mitigation Measure HAZ-03: Vegetation Management and fuel reduction for Wildland Fire Protection** In conjunction with undertaking project improvements during Phase 1, the City shall reduce the fuel load in consultation with the City Fire Marshall within the oak woodlands surrounding the WTP in accordance with PRC 4291. Fuel load reduction may include the use of goats or other means to reduce ladder fuels and dead vegetation surrounding the WTP. **Mitigation Monitoring HAZ-03:** The required mitigation measure will be implemented prior to completing Phase 1 Project construction. The measure is the responsibility of the City or their construction contractor.						

Figure 1: Photos A & B & C



b = locate fencing at toe of fill



/b/ City Noise Standards

Figure 5-1 : Exterior Community Noise Exposure Levels- L_{dn} or CNEL, (in Decibels, dB)

Land Use Category	55	60	65	70	75	80
Residential low-density, single-family, duplex, mobile homes	Normally Acceptable	Conditionally Acceptable		Normally Unacceptable		Clearly Unacceptable
Residential multi-family	Normally Acceptable		Conditionally Acceptable	Normally Unacceptable		Clearly Unacceptable
Transient lodging, motels, hotels	Normally Acceptable		Conditionally Acceptable	Normally Unacceptable		Clearly Unacceptable
Schools, libraries, churches, hospitals, nursing homes	Normally Acceptable		Conditionally Acceptable	Normally Unacceptable		Clearly Unacceptable
Auditoriums, concert halls, amphitheaters (during use)	Conditionally Acceptable			Clearly Unacceptable		
Sports arena, outdoor spectator sports (during use)	Conditionally Acceptable			Clearly Unacceptable		
Playgrounds, neighborhood parks	Normally Acceptable			Normally Unacceptable	Clearly Unacceptable	
Golf courses, riding stables, water recreation, cemeteries	Normally Acceptable			Normally Unacceptable		Clearly Unacceptable
Office buildings, business, commercial and professional	Normally Acceptable			Conditionally Acceptable		Normally Unacceptable
Industrial, manufacturing, utilities, agriculture	Normally Acceptable			Conditionally Acceptable		Normally Unacceptable

Figure 5-1 Key:

Normally Acceptable:
Specified land use is satisfactory, based upon the assumption that any buildings involved are of normal conventional construction, without any special noise insulation requirements.

Conditionally Acceptable:
New construction or development should be undertaken only after a detailed analysis of the noise reduction requirements is made and needed noise insulation features included in the design. Conventional Construction, but with closed windows and fresh air supply systems or air conditioning will normally suffice.

Normally Unacceptable:
New construction or development should generally be discouraged. If new construction or development does proceed, a detailed analysis of the noise reduction requirements must be made and needed noise insulation features included in the design.

Clearly Unacceptable:
New construction or development should generally not be undertaken.

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