

Appendix D

Best Practices

CONSTRUCTION GENERAL

The following conditions shall apply to project construction activities:

- A. Construction activity shall take place only between the hours of 7:00 a.m. to 7:00 p.m.
- B. Notwithstanding subsection (a) of this condition, grading, hauling, or pile driving shall take place only between the hours of 8:00 a.m. and 5:00 p.m.
- C. Ten days prior to any pile-driving activity, the permittee shall provide adjacent property owners the pile-driving schedule and a three-day notice of any re-tapping activities that may occur. The permittee shall submit a copy of the pile-driving schedule and mailing list of adjacent property owners to the Director and to Public Works prior to initiating any such activities. The schedule shall include detailed information about where to lodge questions, concerns, or complaints regarding construction-related noise issues. The permittee shall take appropriate action to minimize any reported noise problems.
- D. All graded material shall be sufficiently watered to prevent excessive amounts of dust during the construction phase. Watering shall occur at least twice daily with complete coverage, preferably in the late morning and after work is done for the day. All clearing, grading, earth-moving, or excavation activities shall cease during periods of high winds (i.e., greater than 20 mph averaged over one hour) to prevent excessive amounts of dust. Any materials transported off site shall be either sufficiently watered or securely covered to prevent excessive amounts of dust.
- E. The permittee shall comply with County Code sections 12.12.010 through 12.12.100, inclusive, during all phases of demolition and construction.
- F. All stationary construction noise sources shall be sheltered or enclosed to minimize adverse effect on nearby properties. Generators and pneumatic compressors shall be noise protected in a manner that will minimize noise inconvenience to adjacent properties. All construction equipment, fixed or mobile, that is utilized on the site for more than two working days shall be in proper operating condition and fitted with standard factory silencing features. To ensure that mobile and stationary equipment is properly maintained and meets all federal, State, and local standards, the permittee shall maintain an equipment log. Said log shall document the condition of equipment relative to factory specifications and identify the measures taken to ensure that all construction equipment is in proper tune and fitted with an adequate muffling device. Said log shall be submitted to the Director and Public Works for review and approval on a quarterly basis. In areas where construction equipment (such as generators and air compressors) is left stationary and operating for more than one day within 100-feet of residential land uses, temporary portable noise structures shall be built. These barriers shall be located between the piece of equipment and sensitive land uses.

- G. For projects that involve the transport of greater than 10,000 cubic yards of material, all project-related truck hauling shall be restricted to a route approved by the Director of Public Works, a map of which shall be provided by the permittee to the Director upon approval. The permittee shall post a notice at the construction site and along the proposed truck haul route. The notice shall contain information on the type of project, anticipated duration of construction activity, and provide a phone number where people can lodge questions and complaints. The permittee shall keep records of all complaints and take appropriate action to minimize noise generated by the offending activity where feasible. A monthly log of noise complaints shall be maintained by the permittee and submitted to Public Health.
- H. Prior to commencing any construction on the site, the permittee shall submit a site plan to the Director depicting, to the satisfaction of the Director, the location of the any construction staging areas, the location and content of required notices, and the expected duration of construction.
- I. All construction and development on the site shall comply with the applicable provisions of the California Building Code and the various related mechanical, electrical, plumbing, fire, grading, and excavation codes as currently adopted by the County.
- J. The permittee shall demonstrate that all construction and demolition debris, to the maximum extent feasible as determined by the Director and the Director of Public Works, will be salvaged and recycled in a practical, available, and accessible manner during the construction phase. Documentation of this recycling program shall be provided to the Director and to Public Works prior to building permit issuance.

AIR QUALITY

The County of Los Angeles has identified best practices to avoid and minimize impacts to air quality:

- The application of soil stabilizers for all unpaved roads, or other comparable methods, to achieve 80 percent reduction in PM2.5 and PM10 emissions.
- The incorporation of SCAQMD and AVAQMD Best Available Control Measures as listed in SCAQMD Rule 403 (Table 1, *Best Available Control Measures*).
- The application of only low-VOC paints for interior and exterior uses in accordance with SCAQMD/AVAQMD Rule 1113 Architectural Coatings and Policy AQ 1.2 in the Los Angeles County General Plan Air Quality Element.

**TABLE 1
BEST AVAILABLE CONTROL MEASURES**

Source Category	Control Measure	Guidance
Backfilling	01-1 Stabilize backfill material when not actively handling	<ul style="list-style-type: none"> Mix backfill soil with water prior to moving Dedicate water truck or high capacity hose to backfilling equipment Empty loader bucket slowly so that no dust plumes are generated Minimize drop height from loader bucket
	01-2 Stabilize backfill material during handling	
	01-3 Stabilize soil at completion of activity	
Clearing and grubbing	02-1 Maintain stability of soil through pre-watering of site prior to clearing and grubbing	<ul style="list-style-type: none"> Maintain live perennial vegetation where possible Apply water in sufficient quantity to prevent generation of dust plumes
	02-2 Stabilize soil during clearing and grubbing activities	
	02-3 Stabilize soil immediately after clearing and grubbing activities	
Clearing forms	03-1 Use water spray to clear forms	<ul style="list-style-type: none"> Use of high-pressure air to clear forms may cause exceedance of Rule requirements
	03-2 Use sweeping and water spray to clear forms	
	03-3 Use vacuum system to clear forms	
Crushing	04-1 Stabilize surface soils prior to operation of support equipment	<ul style="list-style-type: none"> Follow permit conditions for crushing equipment Pre-water material prior to loading into crusher Monitor crusher emissions opacity Apply water to crushed material to prevent dust plumes
	04-2 Stabilize material after crushing	
Cut and fill	05-1 Pre-water soils prior to cut and fill activities	<ul style="list-style-type: none"> For large sites, pre-water with sprinklers or water trucks and allow time for penetration Use water trucks/pulls to water soils to depth of cut prior to subsequent cuts
	05-2 Stabilize soil during and after cut and fill activities	
Demolition – mechanical/manual	06-1 Stabilize wind erodible surfaces to reduce dust	<ul style="list-style-type: none"> Apply water in sufficient quantities to prevent the generation of visible dust plumes
	06-2 Stabilize surface soil where	

**TABLE 1
BEST AVAILABLE CONTROL MEASURES, CONTINUED**

Source Category	Control Measure	Guidance
	support equipment and vehicles will operate 06-3 Stabilize loose soil and demolition debris 06-4 Comply with AQMD Rule 1403	
Disturbed soil	07-1 Stabilize disturbed soil throughout the construction site 07-2 Stabilize disturbed soil between structures	<ul style="list-style-type: none"> • Limit vehicular traffic and disturbances on soils where possible • If interior block walls are planned, install as early as possible • Apply water or a stabilizing agent in sufficient quantities to prevent the generation of visible dust plumes
Earth-moving activities	08-1 Pre-apply water to depth of proposed cuts 08-2 Re-apply water as necessary to maintain soils in a damp condition and to ensure that visible emissions do not exceed 100 feet in any direction 08-3 Stabilize soils once earth-moving activities are complete	<ul style="list-style-type: none"> • Grade each project phase separately, timed to coincide with construction phase • Upwind fencing can prevent material movement on site • Apply water or a stabilizing agent in sufficient quantities to prevent the generation of visible dust plumes
Importing/exporting of bulk materials	09-1 Stabilize material while loading to reduce fugitive dust emissions 09-2 Maintain at least six inches of freeboard on haul vehicles 09-3 Stabilize material while transporting to reduce fugitive dust emissions 09-4 Stabilize material while unloading to reduce fugitive dust emissions 09-5 Comply with Vehicle Code Section 23114	<ul style="list-style-type: none"> • Use tarps or other suitable enclosures on haul trucks • Check belly-dump truck seals regularly and remove any trapped rocks to prevent spillage • Comply with track-out prevention/mitigation requirements • Provide water while loading and unloading to reduce visible dust plumes
Landscaping	10-1 Stabilize soils, materials, slopes	<ul style="list-style-type: none"> • Apply water to materials to stabilize • Maintain materials in a crusted condition

**TABLE 1
BEST AVAILABLE CONTROL MEASURES, CONTINUED**

Source Category	Control Measure	Guidance
		<ul style="list-style-type: none"> • Maintain effective cover over materials • Stabilize sloping surfaces using soil binders until vegetation or ground cover can effectively stabilize the slopes • Hydroseed prior to rain season
Road shoulder maintenance	11-1 Apply water to unpaved shoulders prior to clearing 11-2 Apply chemical dust suppressants and/or washed gravel to maintain a stabilized surface after completing road shoulder maintenance	<ul style="list-style-type: none"> • Installation of curbing and/or paving of road shoulders can reduce recurring maintenance costs • Use of chemical dust suppressants can inhibit vegetation growth and reduce future road shoulder maintenance costs
Screening	12-1 Pre-water material prior to screening 12-2 Limit fugitive dust emissions to opacity and plume length standards 12-3 Stabilize material immediately after screening	<ul style="list-style-type: none"> • Dedicate water truck or high capacity hose to screening operation • Drop material through screen slowly and minimize the drop height • Install wind barrier with a porosity of no more than 50 percent upwind of screen to the height of the drop point
Staging areas	13-1 Stabilize staging areas during use 13-2 Stabilize staging area soils at project completion	<ul style="list-style-type: none"> • Limit size of staging area • Limit vehicle speeds to 15 miles per hour • Limit number and size of staging area entrances/exits
Stockpiles/ Bulk Material Handling	14-1 Stabilize stockpiled materials 14-2 Stockpiles within 100 yards of off-site occupied buildings must not be greater than eight feet in height; or must have a road bladed to the top to allow water truck access or must have an operational water irrigation system that is capable of complete stockpile coverage	<ul style="list-style-type: none"> • Add or remove material from the downwind portion of the storage pile • Maintain storage piles to avoid steep sides or faces
Traffic areas for construction activities	15-1 Stabilize all off-road traffic and parking areas 15-2 Stabilize all haul routes 15-3 Direct construction traffic over	<ul style="list-style-type: none"> • Apply gravel/paving to all haul routes as soon as possible to all future roadway areas • Barriers can be used to ensure vehicles are only used on established parking areas/haul

TABLE 1
BEST AVAILABLE CONTROL MEASURES, CONTINUED

Source Category	Control Measure	Guidance
	established haul routes	routes
Trenching	16-1 Stabilize surface soils where trencher or excavator and support equipment will operate	<ul style="list-style-type: none"> • Pre-watering of soils prior to trenching is an effective preventive measure. For deep trenching activities, pre-trench to 18 inches, soak soils via the pre-trench, and resuming trenching • Washing mud and soils from equipment at the conclusion of trenching activities can prevent crusting and drying of soil on equipment
	16-2 Stabilize soils at the completion of trenching activities	
Truck loading	17-1 Pre-water material prior to loading	<ul style="list-style-type: none"> • Empty loader bucket such that no visible dust plumes are created • Ensure that the loader bucket is close to the truck to minimize drop height while loading
	17-2 Ensure that freeboard exceeds six inches (CVC 23114)	
Turf overseeding	18-1 Apply sufficient water immediately prior to conducting turf vacuuming activities to meet opacity and plume length standards	<ul style="list-style-type: none"> • Haul waste material immediately off-site
	18-2 Cover haul vehicles prior to exiting the site	
Unpaved roads/parking lots	19-1 Stabilize soils to meet the applicable performance standards	<ul style="list-style-type: none"> • Restricting vehicular access to established unpaved travel paths and parking lots can reduce stabilization requirements
	19-2 Limit vehicular travel to established unpaved roads (haul routes) and unpaved parking lots	
Vacant land	20-1 In instances where vacant lots are 0.10 acre or larger and have a cumulative area of 500 square feet or more that are driven over and/or used by motor vehicles and/or off-road vehicles, prevent motor vehicle and/or off-road vehicle trespassing, parking and/or access by installing barriers, curbs, fences, gates, posts, signs, shrubs, trees or other effective control measures.	

SOURCE: South Coast Air Quality Management District, *Rule 403. Fugitive Dust*. Amended June 3, 2005. Available at: <http://www.aqmd.gov/docs/default-source/rule-book/rule-iv/rule-403.pdf?sfvrsn=4>

BIOLOGICAL RESOURCES

Non-listed Candidate, Sensitive, and Special Status Species

The County of Los Angeles has identified best practices to avoid and minimize impacts to non-listed candidate, sensitive, and special status species:

- Consult with a qualified biologist during development design.
- Design developments to avoid occupied habitat, potentially suitable habitat, and designated critical habitat.
- Design developments to avoid desert native plants; salvage and relocate desert native plants where possible.
- Inform construction workers of their responsibilities in regards to avoiding and minimizing impacts on sensitive biological resources.
- Schedule construction activities to avoid sensitive times for biological resources (e.g. nesting bird season) and to avoid the rainy season when erosion and sediment transport is increased.
- Conduct pre-construction monitoring to delineate occupied sensitive species' habitat to facilitate avoidance.

State-designated Sensitive Plant Communities and Riparian Communities in Upland Habitats

The County of Los Angeles has identified best practices to avoid and minimize impacts to State-designated sensitive plant communities and riparian communities in upland habitats:

- Consult with a qualified biologist during development design.
- Design developments to avoid sensitive natural communities and riparian habitats.
- Conduct pre-construction monitoring to delineate sensitive plant communities to facilitate avoidance.
- Install fencing and/or mark sensitive habitat to be avoided during construction activities.
- Inform development workers of their responsibilities in regards to avoiding and minimizing impacts on sensitive plant communities.
- Salvage and stockpile topsoil (the surface material from 6 to 12 inches deep) and perennial plants for use in restoring native vegetation to all areas of temporary disturbance within the development area.
- Revegetate with appropriate native vegetation following the completion of construction activities.
- Complete habitat enhancement (e.g., through removal of non-native invasive species and replacement with more ecologically valuable native species).
- Use Best Management Practices (BMPs) at construction sites to minimize erosion and sediment transport from the area. BMPs include encouraging growth of vegetation in disturbed areas, using straw bales or other silt-catching devices, and using settling basins to minimize soil transport.

Migratory Corridors and Non-avian Native Wildlife Nursery Sites

The County of Los Angeles has identified best practices to avoid and minimize impacts to native

wildlife movement corridors and non-avian native wildlife nursery sites:

- Design developments to avoid native wildlife movement corridors and native wildlife nursery sites.
- Conduct site-specific analyses of opportunities to preserve or improve habitat linkages with areas on- and off-site.
- Request review of construction drawings and habitat connectivity mapping provided by the CDFW or CNDDDB from a qualified biologist to determine the risk of habitat fragmentation.
- Evaluate the potential for overpasses, underpasses, and culverts in cases where a development may interrupt the flow of species through their habitat.
- Provide wildlife crossings in accordance with proven standards, such as FHWA's Critter Crossings in consultation with wildlife corridor authorities with sufficient knowledge of both regional and local wildlife corridors, and at locations useful and appropriate for the species of concern.
- Install wildlife fencing where appropriate to minimize the probability of wildlife injury due to direct interaction between wildlife and construction.
- Avoid the placement of bright lighting into a wildlife corridor or linkage area during development which may disrupt the movement pattern of nocturnal animals.
- Concentrate construction within the winter months to avoid conflicts with the springtime breeding season of most wildlife.
- Inform development workers of their responsibilities in regards to avoiding and minimizing impacts to wildlife corridors and nursery sites.

Local Policies and Ordinances

The County of Los Angeles has identified best practices to avoid and minimize impacts related to conflicts with local policies and ordinances protecting biological resources:

- Consult with the County of Los Angeles Department of Regional Planning regarding compliance with appropriate policies or ordinances protecting biological resources.
- Prioritize retention of trees on-site consistent with local regulations. Provide adequate protection during the construction period for any trees that are to remain standing, as recommended by a certified arborist.
- Re-landscape areas with native vegetation post-construction

CULTURAL RESOURCES

Archeological and Historical Resources

The County of Los Angeles has identified best practices to avoid and minimize impacts to significant historical resources and unique archeological resources as defined in Section 15064.5 of the State CEQA Guidelines:

1. Conduct a record search at the South Central Coastal Information Center (SCCIC) housed at California State University, Fullerton to determine if the property has been the subject of a Phase I walkover survey.
 - a. Where the property has been previously surveyed and no significant historical resources or unique archeological resource were observed, the

property can be considered to have a low probability for encountering such resources. Although, there always remains the potential for resources to be buried below the surface, particularly in deposition environments, particularly near drainage, streams, and shorelines.

- b. Where the property has not been surveyed, a Phase I Walkover survey can be conducted to determine the presence or absence of should be conducted or a search with the SCCIC provided that has been conducted within two years to determine whether the project area has been previously surveyed and whether resources were identified.

Consultation with the Native American Heritage Commission (NAHC) should be conducted to determine whether known sacred sites are in the area, and identify the Native American(s) to contact to obtain information about the site.

A qualified archaeologist or architectural historian (depending on applicability) should be retained to conduct archaeological and/or historic architectural surveys as recommended by the Information Center. In the event the records indicate that no previous survey has been conducted, the Information Center will make a recommendation on whether a survey is warranted based on the sensitivity of the project area for archaeological resources.

A qualified environmental agency and/or architectural historian should be retained if necessary to document any significant built environment resource(s), by way of historic narrative, photographs, and architectural drawings, as mitigation for the effects of demolition of a resource. However, such documentation will not mitigate the effects to less than significant.

Should the records search indicate that the project is located in an area with high sensitivity for cultural materials, a qualified archaeologist should be retained to monitor any ground-disturbing activities, including, but not limited to, grading, excavation, trenching, or removal of existing features of the subject property.

Construction activities and excavation can and should be conducted to avoid cultural resources (if identified). If avoidance is not feasible, further work may be needed to determine the importance of a resource. A qualified archaeologist familiar with the local archaeology, and/or as appropriate, an architectural historian should be retained to make recommendations regarding the work necessary to determine importance. If the cultural resource is determined to be important under County, State, or federal guidelines, impacts on the cultural resource will need to be mitigated.

Project sponsors can and should stop ground-disturbing activities in the area where cultural resources are found until a qualified archaeologist can determine the importance of these resources.

To mitigate potential impacts due to the unanticipated discovery of human remains as a result of ground-disturbing activities, the County will provide notification during the site plan review process to property owners seeking permits for a single-family residence, where hauled water will be used as the primary source of potable water, of the need to demonstrate compliance with Public Resources Code 5097:

- The Los Angeles County Coroner shall be notified within 24 hours of the discovery of human remains. Upon discovery of human remains, there shall be no further excavation or disturbance of the site or any of that area reasonably suspected to

overlie adjacent human remains until the following conditions are met:

- The Los Angeles County Coroner has determined that no investigation of the cause of death is required, and
- If the remains are of Native American origin, the descendants from the deceased Native Americans have made a recommendation to the landowner or the person responsible for the excavation work, for means of treating or disposing of, with appropriate dignity, the human remains and any associated grave goods as provided in Public Resources Code Section 5097.98.

A qualified paleontologist should be obtained to identify and evaluate paleontological resources where potential impacts are considered high; the paleontologist should also conduct a field survey in these areas.

Construction activities should avoid known paleontological or unique geologic resources, if feasible.

A qualified monitor must observe excavation activities when said activity could significantly disturb soils or geologic formations in areas identified as having a moderate to high potential to support paleontological resources. As part of this mitigation, the following actions should be taken:

A certified paleontologist should be retained (or required to be retained) by the project sponsor prior to construction to establish procedures for surveillance and the preconstruction salvage of exposed resources if fossil-bearing sediments have the potential to be impacted.

- a) The paleontologist should provide preconstruction coordination with contractors, oversee original cutting in previously undisturbed areas of sensitive formations, halt or redirect construction activities as appropriate to allow recovery of newly discovered fossil remains, and oversee fossil salvage operations and reporting.
- b) This measure should be placed as a condition on all plans where excavation and earthmoving activity is proposed in a geologic unit having a moderate or high potential for containing fossils.
- c) Excavations of paleontological resources should be overseen by the qualified paleontologist and the paleontological resources given to a local agency, or other applicable institution, where they could be displayed or used for research.

Unique features with archaeological and/or paleontological significance should be avoided where practicable.

GREENHOUSE GAS EMISSIONS

The County of Los Angeles has identified best practices to avoid or reduce impacts to greenhouse gas emissions:

- a) Solicit bids that include use of energy and fuel efficient fleets;
- b) Solicit preference construction bids that use BACT, particularly those seeking to deploy zero- and/or near-zero emission technologies;
- c) Employ use of alternative fueled vehicles;
- d) Use lighting systems that are energy efficient, such as LED technology;
- e) Use CEQA Guidelines Appendix F, Energy Conservation, to create an energy conservation plan;

- f) Use an adopted emissions calculator to estimate construction-related emissions;
- g) Use the minimum feasible amount of GHG-emitting construction materials that is feasible;
- h) Use of cement blended with the maximum feasible amount of flash or other materials that reduce GHG emissions from cement production;
- i) Use of lighter-colored pavement where feasible;
- j) Recycle construction debris to maximum extent feasible; and
- k) Plant shade trees in or near construction projects where feasible.
- l) Plant native, drought tolerant landscaping and install advanced irrigation systems in alignment with the State Water Resources Control Board's emergency conservation regulation to reduce potable urban water usage statewide by 25 percent.

HYDROLOGY AND WATER QUALITY

The County of Los Angeles has identified best practices to avoid or reduce impacts to hydrology and water quality:

Include best management practices (BMPs) that can store the runoff volume from the 85th percentile storm and treat pollutants in runoff prior to entering an impaired water body. The BMP required for a household will be specific to the receiving water body its runoff would discharge to. Munz Lake, Littlerock Reservoir, Lake Hughes, Elizabeth Lake, Mint Canyon Creek, and Santa Clara River are water bodies that would require its tributary subareas to have BMPs.

Utilize BMPs that treat bacteria and metals since the receiving water body for this area is the Santa Clara River. These pollutants are commonly found in urban runoff and could potentially decrease the water quality in the river. A common source of bacteria in stormwater runoff is from on-site septic tank leaks. Homes within the proposed initiative area shall use septic tanks since there is no established sewer system in the area. In addition to treatment of bacteria in the runoff, households shall be subject to inspection and regulation of septic tanks. Each household shall be required to direct its stormwater to a retention pond for treatment prior to discharge. A retention pond holds a permanent volume in water for water quality treatment and runoff storage.

Utilize vegetated swales or similar BMPs for households in the Acton and Castaic/Santa Clarita/Agua Dulce subareas to treat nitrogen since their runoff may enter Mint Canyon Creek. Nitrogen is another common pollutant from residential developments because it is in most lawn fertilizers. Vegetated swales are known to reduce nitrogen levels by 38 percent.

For households within the Lake Los Angeles/Llano/Valyermo/Littlerock subarea, utilize retention ponds since stormwater runoff may enter Littlerock Reservoir, which has a TMDL for manganese. Vehicle engine parts contain manganese that can be washed off and enter with stormwater runoff. The retention pond shall be located downstream of some homes and a major road and upstream of the reservoir.

Some parcels in the East San Gabriel Mountains subarea would contribute flow to the San Antonio Creek, which has a TMDL for pH. The cause for the low pH levels is unknown and may be due to a combination of factors. After development of the parcels tributary to the creek, continue monitoring of the stream as prescribed in the creek's TMDL.

Elizabeth Lake, Lake Hughes, Munz Lake, Pyramid Lake, and Castaic Lake are potential receiving waters for the Lake Hughes/Gorman/West of Lancaster subarea. Households in the Lake

Hughes/Gorman/West of Lancaster can and should have filters on storm drain inlets since trash is a pollutant of concern for Elizabeth Lake, Lake Hughes, and Munz Lake. Pyramid Lake and Castaic Lake only have a TMDL for mercury, which is not a common product in residential stormwater runoff, and a specific BMP is not needed to treat this pollutant. The subarea will already have filters on its storm drain inlets and that will also limit the amount of trash that enters Castaic Lake.

Encourage all parcels with driveways to have driveways made of permeable pavement instead of impervious pavements. The installation of permeable pavement will decrease the runoff from each parcel by allowing infiltration of rainfall.

Detention or retention (r/detention) basins can be constructed on a parcel or near a cluster of developed parcels to mimic the pre-development hydrologic condition for the Proposed initiative. Stormwater runoff from the developed parcels will be routed into the r/detention basin(s) where it will be stored and released into the downstream receiving water at lower flow rates at later time periods. An r/detention basin could be constructed downstream of the Proposed initiative's development in Acton and Agua Dulce. The r/detention basin would minimize the peak flow into the Santa Clara River by storing runoff from the development and releasing it after the peak flow in the river has occurred. A r/detention basin could also be constructed near the development in the Lancaster Northeast subarea to decrease the peak flow into the dry lakes in the Antelope Valley Northeast subarea.

Portions of the development within Santa Clarita Valley are located near branches of the Santa Clara River. The additional runoff from the development could impact the drainage pattern of these branches. To protect the existing streams, scour protection can be placed along the stream banks to prevent erosion from the increased flows, particularly around the branches of the Upper Santa Clara River that are directly downstream of a subarea.

LID features such as stormwater capture cisterns, pervious pavement, green roofs, and landscape treatments can and should be incorporated into the individual parcels to decrease runoff.

Build access roads with retention systems, porous pavements, or green stormwater infrastructure such as bioswales, bioretention, or biofiltration to mimic the per-development hydrology of the area the access roads encompass. The construction of paved access roads can double the runoff from the proposed initiative, and this mitigation measure can reduce this impact by one quarter.

UTILITIES AND SERVICE SYSTEMS

The County of Los Angeles has identified best practices to avoid or reduce impacts to utilities and service systems:

To mitigate potential impacts to groundwater and public health from the operation of onsite wastewater treatment systems (OWTS) and related generation of settled waste, Provide notification, during the plan check review process to property owners seeking permits for a single-family residence where hauled water will be used as the primary source of potable water, and an OWTS is proposed for wastewater treatment, of the need to design and operate the OWTS consistent with the provisions of the State Water Resources Control Board OWTS Policy.

- *Acton, Castaic, and Kagel Canyon:* Best Management Practices (BMPs) can and should treat bacteria and metals in Santa Clara River. Include inspection and regulation of septic tanks in the absence of a proper sewer system. Include retention

ponds for groups of households. Use vegetative swales to treat nitrogen runoff into Mint Canyon.

To mitigate potential impacts to existing potable water sources, including groundwater resources, in the proposed initiative study area from development of single-family homes where an established water purveyor or groundwater well cannot feasibly serve as the primary source of potable water, utilize water-efficient landscaping using drought-tolerant plants. Water-efficient landscaping has the potential decrease household water use by 30 percent or more.

To mitigate potential impacts to existing potable water sources, including groundwater resources, in the proposed initiative study area from development of single-family homes where an established water purveyor or groundwater well cannot feasibly serve as the primary source of potable water, implement water conservation best practices such as low-flow toilets, water-efficient clothes washers, water system audits, and leak detection and repair.