ENVIRONMENTAL BEST MANAGEMENT PRACTICES and PERMIT CONDITIONS SUMMARY

This document was created as a permit compliance reference tool for District staff. The Best Management Practices (BMPs) have been altered from the originals evaluated during the CEQA and permitting processes to clarify content without changing regulatory requirements. These BMPs incorporate all permit conditions received for the Routine Operations & Maintenance Program, including the Biological Opinions from federal agencies (Table 1). Four new BMPs were developed to clarify permit conditions and incorporate other regulatory requirements related to erosion control, environmental training, and invasive aquatic species control. Also included for easy reference are: summaries of the "grandfathered" streambed alteration agreements incorporated by reference to the permits, summaries of endangered species additional conditions, and regulatory agency contact information.

Table 1. Routine Operation & Maintenance Programmatic Permits

AGENCY	PERMIT NO.	DATE ISSUED
U.S. Army Corps of Engineers	Individual Permit	2/25/2020
U.S. Fish and Wildlife Service	Biological Opinion	12/31/2019
U.S. Fish and Wildlife Service	Biological Opinion	10/19/2015
U.S. Fish and Wildlife Service	Biological Opinion	12/12/2012
National Marine Fisheries Service	Biological Opinion	4/10/2019
California Department of Fish and Wildlife	Streambed Alteration Agreement No. 1600-2004-0512-R5	8/3/2009
Los Angeles Regional Water Quality Control Board	Section 401 Water Quality Certification File No. 14-038	12/20/2019

For inquiries regarding these permits or conditions, please contact:

Pam Lindsey, Watershed Ecologist 805-654-2036

ENVIRONMENTAL BEST MANAGEMENT PRACTICES

BMP 1: Avoid Channel Earthwork During the Rainy Season/Events.

- Avoid earthwork in earthen and soft bottom channels from December 1 to April 1 unless water is absent.
- If work is considered critical, work in flowing water is acceptable, provided flow is diverted according to the Water Diversion Guide and sensitive aquatic species not present.
- No earthwork shall be conducted during rain events, or if 0.25 inches or more of rain is forecast within 12 hours of scheduled work.

BMP 2: Prevent Discharge of Silt-Laden Water During Concrete Channel Cleaning.

- Prevent the discharge of silt-laden water or pollutants downstream when removing sediments, vegetation, algae, and trash from concrete channels.
- Install BMPs: silt barriers, sand bags, straw bales, as appropriate per Board Order No. 10-0108; NPDES Permit No. CAS004002, July 8, 2010.
- Follow the Water Diversion Guide if a flow diversion is installed.

BMP 3: Location of Temporary Stockpiles.

- Temporary stockpiles in the channel bottom shall be limited to one working day and not overnight.
- Temporary stockpiles may be placed in channel bottoms or debris basins if they are placed in such a manner that they would not be exposed to flowing water.
- Permanent stockpiles shall be located landward of the 100-year floodplain to the maximum extent feasible.

BMP 4: Survey for Habitat (nesting) Prior to Routine Maintenance Work.

- A biological survey for nesting birds required prior to work from February 1 to September 15 if in or adjacent to suitable habitat.
- Nesting habitat defined as cattail patches, short and tall trees, and shrubby areas. Open gravel, bridges, culverts, and fence posts may also support nests.
- Work= mowing/disking, earth work, clean outs, access road work lasting more than one day, and repairs where nesting bird habitat is in work area or within 300 feet.
- If active bird nests are identified, work within 300 feet (500 feet for raptors) must be postponed until after September 15, unless the biologist determines the nest becomes inactive or a reduced buffer is approved by regulatory agencies.
- No bio survey needed for routine herbicide application in/on facilities to sparse, short (<3 foot) weedy vegetation (includes young (<1year old mule fat, willows or cattails).

BMP 5/6: Survey for Steelhead Migration/Rearing Conditions and Sensitive Aquatic Species Prior to Routine Maintenance Work.

- Applies to earthwork/repairs in surface water and within 100 feet of water:

ZONE 1:	ZONE 2:
• Matilija Creek • San Antonio Creek • Thacher Creek • Ventura River	• Hopper Creek • Piru Creek • Pole Creek (unlined portions) • Santa Clara River • Santa Paula Creek • Sespe Creek

- Approved biologist must survey for steelhead migration or rearing conditions and other sensitive aquatic species prior to earthwork in or within 100 feet of surface water.
- If flows are deemed sufficient for steelhead migration, earthwork within or adjacent to the channel shall be postponed until after June 15 and before October 31.
- If rearing habitat is present, approved biologist shall determine if steelhead are present.
- If other sensitive species are found in the work area, work will stop while District environmental staff contact CDFW/USFWS. The approved biologist may be authorized to relocate these species to nearby suitable habitat.
- **Special authorization is required for water diversion** if flow conditions are suitable for steelhead or other aquatic species, even if the Water Diversion Guide is followed.
- Steelhead presence notification to NMFS at least 10 days prior to work by District environmental staff.
- If authorized by NMFS, an approved biologist shall isolate the work area with block nets and relocate any steelhead in the work area to suitable habitat with perennial surface water. The biologist shall continuously monitor during water diversion and any work within occupied steelhead habitat.
- Steelhead relocations or other impacts by flow diversion or dewatering shall be documented and reported to the NMFS within 30 days of completion of the maintenance work.
- Concrete, grout, brick & mortar or other cement products shall not be used to construct stream diversions when steelhead and other sensitive aquatic species are likely present.
- If steelhead are found dead or injured at the work site, environmental staff shall notify NMFS immediately.
- Any steep-walled excavations that may trap California red-legged frog that will be left overnight in areas within or adjacent to the Ventura River or San Antonio Creek shall be covered.

BMP 7: Continue Existing Procedures for Sediment Removal and Vegetation Control for Specific Reaches in Calleguas Creek Watershed.

- Conduct sediment removal and in-stream vegetation control along unimproved channels along Calleguas Creek, Conejo Creek, Revolon Slough, Arroyo Las Posas and generally throughout Zone 3 in accordance with previous Streambed Alteration Agreements.

  See Attached "Grandfathered Streambed Alteration Agreement Conditions."

BMP 8: Avoid Disturbance to Native Beach or Wetland Species.

- Applies to facilities maintained in beach/coastal strand.
- Prior to beach access March 1 to September 15, approved biologist shall survey for western snowy plovers or California least terns nesting or roosting on beach. If present, maintenance work shall be postponed until after the breeding season, unless a species protection plan is be prepared, approved by USFWS/CDFW, and implemented.
- Avoid driving over beach dune vegetation when accessing storm drain outlets.
- Minimize native beach plant removal during outlet maintenance.
- Prior to beach outlet maintenance, environmental staff shall determine if suitable habitat is present at the outlet for tidewater gobies. If suitable habitat is present, approved biologist shall conduct fish surveys. If present and maintenance work affects habitat, work shall be postponed until surface water is absent, unless a species protection plan is prepared, approved by USFWS, and implemented.

BMP 9: Aquatic Pesticide Application.

- Follow the most up-to-date Best Management Practices and the monitoring and reporting requirements in the District's NPDES Stormwater Quality Management Plan.
- Comply with the Ventura County Application Protocol for Pesticides, Fertilizers, and Herbicides, including working under the direction of a Qualified Applicator, using materials approved for aquatic use, following the manufacturer's application directions, avoiding application prior to forecasted storm events and ensuring wind conditions are suitable to avoid spray drift.

BMP 10: Leave Vegetation on Upper Basin Slopes.

- Leave native vegetation on the debris and detention basin slopes above the 20 percent capacity debris line unless any of the following apply:
  - Shrubs and trees are hazards to the stability and function of the basin
  - Sediment meets or exceeds the 20 percent capacity line
  - Slope re-grading is required to correct or prevent rill erosion or other damage
  - Vegetation is on engineered fill
  - Vegetation constitutes a fire hazard to nearby properties.

BMP 11: Leave Patches of Vegetation in Channel Bottom.

- Minimize vegetation removal or thinning in earthen or earthen bottom channels; remove the least amount necessary to achieve the specific maintenance objectives for the reach.
- Remove native vegetation in a non-continuous manner, leaving small patches intact, provided they will not adversely affect conveyance capacity.

BMP 12: Leave Herbaceous Wetland Vegetation in Channel Bottom.

- Minimize removal or thinning of emergent native vegetation rooted in or adjacent to the low flow channel or aquatic habitats, unless inconsistent with maintenance objectives or capacity requirements.

BMP 13: Maximum 15-foot Vegetation-Free Zone at the Toe of the Bank.

- Do not exceed a 15-foot wide vegetation-free zone at levee and bank toes when thinning or removing vegetation for inspection purposes.

BMP 14: Avoid Road Base Discharge.

- Do not place or spill road base, fill, sediments, and asphalt beyond the previously established road bed when working adjacent to channels and basin bottoms.

BMP 15: Mitigate/Replace Temporary Impacts to Habitat.

- Restore native vegetation in temporary work areas after completion of repair or reconstruction work. Prior to work, a vegetation restoration plan must be submitted to the regulatory agencies for approval.
- No habitat restoration sites shall be placed within the routine maintenance limits of the repaired structures.
- Habitat restoration shall only be required if the impacted area supports native wetland or riparian vegetation; no restoration is required for barren areas or areas dominated by non-native plants.

BMP 16: Oak Tree Mitigation Ratio.

- Replace native oak trees removed by maintenance activities if greater than 3 inches in diameter at breast height (dbh), or 2 inches dbh if multi-trunked.
- Oak tree replacement ratios:

TRUNK SIZE (dbh)	RATIO
4 to 6 inches	3:1
6 to 12 inches	5:1
12 to 24 inches	10:1
24 to 36 inches	15:1
>36 inches	20:1

- A tree replacement plan consistent with County Policy or permit requirements, whichever is greater, shall be prepared and submitted to the regulatory agencies prior to implementation.

BMP 17: Concrete Wash-Out Protocols.

- Fluids associated with the curing, finishing and wash-out of concrete shall not be discharged to the channel or basin.
- Concrete wastes (liquid, dust, solids) shall be stockpiled separately from sediment and protected by erosion control measures to prevent discharge to the channel, basin, or waters of the State.
- Conduct appropriate waste management practices based on considerations of flow velocities, site conditions, suitability of erosion control materials, and construction costs.

BMP 18: Water Diversion Guide.

- Follow water diversion methods and procedures established in the District's Water Diversion Guide.
- Baseline water quality monitoring is required PRIOR to installation of any water diversion, daily for the first 5 days the diversion is in place, and weekly thereafter. Contact District environmental staff to contract for/conduct monitoring.
- Fish mortality associated with stream flow diversion or dewatering shall be reported by environmental staff to the California Department of Fish & Wildlife within 24 hours of discovery.

BMP 19: Minimize Erosion from Stream Gauge Maintenance.

- Cut interfering vegetation with chain-saw or hand tools to near ground surface. No herbicide application to stumps. No excavation of roots.
- Implement additional erosion control methods as needed, based on considerations of flow velocities, site conditions, availability of materials, construction costs, durability and maintenance requirements.

BMP 20: Implementation of Integrated Pest Management Program.

- Implement the approved Integrated Pest Management (IPM) program.
- Apply appropriate rodent control methods at each facility as appropriate for site conditions (rodent population, type of facility, season).
- Maintain uniform inspection records for each facility and all control efforts.
- Report IPMP activities to the regulatory agencies annually in the Annual Monitoring Report.

BMP 21: Avoid Spills and Leaks.

- Keep all equipment in good working condition and free of leaks.

- No equipment maintenance or refueling in a channel or basin bottom.
- Place drip pans under all stationary equipment such as motors, pumps, generators, compressors, and welders.
- Spill containment materials must be on site or readily available for any equipment maintenance or refueling that occurs adjacent to a watercourse.
- Train all maintenance crews in spill containment and response.
- Immediately clean up all spills. Submit report to the Office of Spill Prevention and Response.

BMP 22: Biological Surveys in Appropriate Habitat Prior to Vegetation Maintenance.

- Biologists conducting surveys for tidewater goby, California red-legged frog, least Bell's vireo and southwestern willow flycatcher shall be approved by the U.S. Fish & Wildlife Service in writing.
- Prior to sediment removal, vegetation control, or repair work in earthen or earthen bottom facilities, an approved biologist shall survey for threatened, endangered, or sensitive species if suitable habitat occurs in or near work area. If such species are within or in close proximity to the work areas, the District shall reschedule the work when the species are not present.
- If it is necessary to conduct the work while sensitive species are present or in proximity to the work areas, a species protection plan shall be developed, approved by USFWS/NMFS/CDFW, then implemented.
- An approved biologist shall periodically monitor the work area during maintenance activities for wildlife and relocate species as needed to minimize mortality.
- Exotic fish, invertebrate, amphibian and reptile species shall be captured when feasible, dispatched and properly disposed by a qualified biologist.

BMP 23: Invasive Plant Removal Protocols.

- Remove invasive plant species in a manner that prevents propagation.
- Spray or mow plants before seeds ripen, when feasible.
- All cut/removed invasive vegetation shall be taken to a dump as a destruction load.
- Do not stockpile invasive vegetation (including mulch) where materials would wash downstream or allowed to propagate.
- For giant reed (*Arundo donax*), minimize ground disturbance and use foliar glyphosate treatment on smaller infestations, as feasible. Best to apply herbicide May 1 to October 1, if breeding birds absent. No grading to remove root masses unless earthwork is part of routine maintenance work.

BMP 24: Air Quality (Dust Control). The following measures shall be incorporated into maintenance activities to minimize fugitive dust emissions during grading, excavation, and construction activities.

- Minimize the areas disturbed at any one time by clearing, grading, earth moving, or excavation operations to prevent excessive dust.
- Water grading/excavation areas prior to and during work.
- Cover all truck loads; required by California Vehicle Code §23114.
- Prevent fugitive dust (via treatment) on all graded and excavated material, exposed soil areas, stockpiles, including unpaved parking and staging areas, and other active portions of the construction site.
- District staff shall weekly monitor contractor graded and/or excavated inactive areas of the construction site for dust stabilization.
- No grading/earth work during periods of high winds (i.e., wind speed sufficient to cause fugitive dust to impact adjacent properties) to prevent excessive fugitive dust.
- Use rumble strips or track out devices where vehicles enter and exit unpaved roads onto paved road.
- All on site construction roads that have a daily traffic volume of more than 50 daily trips shall be stabilized as to minimize transport of earthen material from the site.
- There shall be at least one qualified District staff on site each work day to monitor the provisions of the Fugitive Dust Mitigation Plan and any other applicable fugitive dust rules, ordinances, or conditions.
- Personnel involved in grading operations shall be advised to wear respiratory protection in accordance with California Division of Occupational Safety and Health Regulations.
- All project construction operations shall be conducted in compliance with all applicable APCD Rules and Regulations with emphasis on Rule 50 (Opacity) and Rule 51 (Nuisance).

BMP 25: Construction Noise.

- Noise-generating construction activities shall be restricted to the daytime (i.e., 7:00 AM to 7:00 PM, Monday through Friday).
- Minimize sustained construction noise adjacent to sensitive wildlife during the nesting season, as directed by the biological monitor.
- When construction noise is anticipated to affect sensitive wildlife, environmental staff shall consult with regulatory agencies regarding additional mitigation measures.

BMP 26: Stabilize Exposed Soil.

- To limit erosion, minimize soil disturbance work in channels and basins to that which can be stabilized prior to rain events.

BMP 27: Native Tree Removal (see BMP 16 for oaks).

- Prior to vegetation removal, a qualified biologist shall prepare an inventory of all native trees in the work area exceeding 4 inches dbh.

- Native trees in temporary impact areas shall be cut to ground level to facilitate regrowth, and not removed by heavy equipment.
- Native California black walnut, cottonwood and sycamore trees exceeding 4 inches dbh shall be replaced at a 10:1 ratio, if removed.
- Replacement trees shall attain a survival rate of 75 percent the first year and 100 percent thereafter, and monitored and maintained for a 5 years after planting.

BMP 28: Environmental Training.

- Prior to any sediment removal, vegetation control, or repair work in earthen or earthen-bottomed channels and basins that contain surface water or native vegetation, a qualified biologist familiar with the work site shall provide training to the work crew regarding potential species present, habitats to avoid, measures to implement to minimize impacts, and events/situations that require work to be stopped and the biologist to be contacted.

BMP 29: Work in California Red-legged Frog Habitat.

- Any steep-walled excavations that may trap California red-legged frogs that will be left overnight in suitable habitat (Ventura River, San Antonio Creek) shall be covered.
- Approved biologists handling California red-legged frogs shall not use gloves, unless they are well-rinsed and composed of vinyl.
- Approved biologists working in California red-legged frog habitat shall follow the Declining Amphibian Task Force Fieldwork Code of Practice.

BMP 30: New Zealand Mudsnail Control Protocols

The protocols have been developed to address the sixty work code activities described in the District's 2012-2013 Annual Work Plan. The work code activities have been lumped into general types of materials/activities to allow the assignment of protocols to be followed to minimize the spread of this invasive species (see Table 2). These protocols address three general modes of potential spread of New Zealand mudsnail; hand tools & boots, mobile equipment and vehicles, and reusable instream materials.

First, determine if the reach to be maintained supports New Zealand mudsnail by reviewing maps and the infested reach list (Table 3). If so, implement Part A.

Second, determine if the equipment to be used was borrowed from the Transportation Department OR last used in another Zone. If so, implement Part B.

Table 2. New Zealand Mudsnail Protocols by Work Code

Protocol	Work Codes
1	PS41, PS42, PT20, PT21, PT22, PT23, PT24, PT25, PT26, PT27, PT28, PT29, PT31, PT32, PT33, PT34, PT35, PT36, PT37, PT38, PT41, PT42, PT43, PT44, PT45, PT47, PT48, PT49, PT51, PT53, PT55, PT56, PT57, PT60, PT61, PT62, PT64, PT65, PT66, PT68, PT70, PT72, PT74, PT76, PT77, PT80, PT83, PT85, PT86, PT88, PT89, PT90, PT91, PT92, PT93
2	PS41, PS42, PT20, PT21, PT22, PT23, PT24, PT25, PT26, PT27, PT28, PT32, PT33, PT34, PT35, PT36, PT37, PT38, PT41, PT42, PT43, PT44, PT45, PT47, PT48, PT49, PT51, PT53, PT55, PT56, PT57, PT60, PT61, PT62, PT64, PT65, PT66, PT68, PT70, PT72, PT74, PT76, PT77, PT80, PT83, PT85, PT86, PT88, PT89, PT90, PT91, PT92, PT93
3	PS41, PS42, PT 22, PT 29, PT31, PT32, PT33, PT40, PT41, PT42, PT43, PT45, PT45, PT48, PT49, PT51, PT53, PT54, PT57, PT60, PT61, PT62, PT64, PT 66, PT68, PT80, PT83, PT85, PT86, PT88, PT89, PT90, PT91, PT92, PT93
4	PT20, PT21, PT23, PT24, PT25, PT26, PT27, PT28, PT34, PT35, PT36, PT37, PT38, PT44, PT51, PT53, PT68, PT70, PT72, PT74, PT76, PT77, PT80, PT85

Part A (infested reaches):

- Wash hand tools, boots and power tools that contact surface water using Protocol 1.
- Wash mobile equipment used in surface water that may have incidental soil attached (e.g., dozers, excavators, discing equipment, wheeled loaders and motor graders) using Protocol 2A (on-site power wash, on-site or off-site hot pressure wash).
- Wash equipment that infrequently crosses the wetted channel and does not have incidental soil attached (e.g., herbicide trailers, chipper, water pumps [hand carried and trailer-mounted], mowers and motor vehicles) using Protocol 3 (on-site or off-site hot or cold pressure wash).
- Wash hard surfaced instream materials that may be transported between work sites (e.g., K-rail, diversion pipe, water hoses and concrete forms) using Protocol 4 (on-site or off-site hot pressure wash).
- Discard sand bags (and other fibrous materials that could harbor mudsnails) which have been immersed in surface waters in a landfill. Do not re-use at other sites.

Table 3. New Zealand Mudsnail Infested Reaches

ZONE	REACH NO.	NAME
2	42011	Pacific Ocean to Harbor Blvd.
2	42012	Harbor Blvd. to Victoria Avenue
2	42151	Camarillo Hills Drain to Hwy 101
2	42152	Hwy 101 to Central Avenue
3	42154	Central Avenue to Wright Road
3	45241	Wright Road to U/S to Drop Structure #2
3	45243	Drop Structure #2
3	45245	Beardsley Wash Drop Structure #2 U/S to Triple Arch
3	45246	Connelly Triple Arch
3	45247	Connelly Triple Arch U/S to Milligan Barranca
3	46101	Arroyo Santa Rosa to Arroyo Conejo N.Fork
3	46102	Arroyo Conejo N. Fork to Arroyo Conejpo South Branch
3	46103	Arroyo Conejo S. Branch to Hillcrest Drive
3	46104	Hillcrest Drive to Moorpark Road
3	46111	Arroyo Conejo to Ventu Park Road
3	46112	Ventu Park Road to Borchard Road
3	46161	Arroyo Conejo to Lynn Road
4	48061	L.A.County Line to Kanan Road
4	48071	L.A. County Line to Conifer Street
4	48072	Conifer Street to Oak Hills Drive
4	48073	Oak Hills Drive through Kanan Road
4	48076	Medea Creek @ Mile 1.2, U/S
4	48101	L.A. County Line U/S North
4	48107	Las Virgines Creek @ Mile 2.6, U/S

U/S: upstream

Part B (borrowed equipment or used in other Zone):

- Wash mobile equipment used in surface water that may have incidental soil attached (e.g., dozers, excavators, discing equipment, wheeled loaders and motor graders) using Protocol 2B (on-site or off-site hot pressure wash).
- Wash equipment that infrequently crosses the wetted channel and does not have incidental soil attached (e.g., herbicide trailers, chipper, water pumps [hand carried and trailer-mounted], mowers and motor vehicles) using Protocol 3 (on-site or off-site hot or cold pressure wash).

Protocol 1 - Hand Tools, Boots and Wetted Power Tools

This control protocol involves cleaning any hand tools, boots and wetted portions of power tools (weed whipper, drill, concrete vibrator, etc.) that come in contact with potentially infected surface water prior to leaving the work site each day OR leaving these materials at the site until the work is complete. Hand tools, boots and wetted portions of power tools must be cleaned before leaving the site using the following procedure:

1. Remove any accumulated mud/soil from the article to be cleaned;
2. Fill a portable plastic tub (child's swimming pool, or equivalent) to a depth allowing complete submersion of the boots or tools with a 4 percent solution (5 fluid ounces per gallon) of a commercial disinfectant (GS High Dilution Disinfectant 256, Spartan Chemical Company);
3. Scrub all surfaces with a brush;
4. Let soak in the disinfectant for approximately 10 minutes;
5. Rinse with **potable** water; and
6. Dispose of the used disinfectant solution in a sewer or upland area where it cannot enter surface waters.

Protocol 2A – Instream Mobile Equipment (Infested Reaches)

This Protocol applies to equipment that is used in the wetted channel and likely to have incidental soil attached, such as dozers, excavators, discing equipment, wheeled loaders and motor graders.

1. All attached soil must be removed at the project site using a pressurized water hose provided by a water truck (or equivalent pressurized water source);
2. Wash water must be contained and not allowed to run-off into a storm drain or drainage feature;
3. The equipment must be washed on-site using a portable hot pressure washer OR taken to the nearest O & M washing facility (Saticoy or Moorpark) for a hot pressure wash.
4. Care must be taken to pressure wash all surfaces with hot water that typically come in contact with surface water and/or wet sediments, such as wheels, tires, discs, dozer tracks, excavator and loader buckets, dozer and grader blades, undercarriage, hydraulic cylinders and hoses, and fenders.

Protocol 2B – Instream Mobile Equipment (All Other Reaches)

This Protocol applies to equipment that is used in the wetted channel and likely to have incidental soil attached, such as dozers, excavators, discing equipment, wheeled loaders and motor graders.

1. The equipment must be washed on-site using a portable hot pressure washer OR taken to the nearest O & M washing facility (Saticoy or Moorpark) for a hot pressure wash.
2. Care must be taken to pressure wash all surfaces with hot water that typically come in contact with surface water and/or wet sediments, such as wheels, tires, discs, dozer tracks, excavator and loader buckets, dozer and grader blades, undercarriage, hydraulic cylinders and hoses, and fenders.

Protocol 3 – Other Mobile Equipment and Vehicles

This Protocol applies to equipment that infrequently crosses the wetted channel and does not have incidental soil attached, such as herbicide trailers, chipper, water pumps (hand carried and trailer-mounted), mowers and motor vehicles.

1. The wheels, tires and undercarriage of this equipment must be pressure washed, either on-site or the nearest O & M washing facility (Saticoy or Moorpark).
2. If washed on-site, wash water must be contained and not allowed to run-off into a storm drain or drainage feature.

Protocol 4 - Reusable Instream Materials

Materials that may be transported between work sites may include sand bags, K-rail, diversion pipe, water hoses and concrete forms (wood). Sand bags immersed in surface waters cannot be fully cleaned, and must be emptied of sand (on-site or the District's maintenance yard) and the bag deposited in a proper trash receptacle.

1. Wash hard surfaced materials on-site using a portable hot pressure washer OR take to the nearest O & M washing facility (Saticoy or Moorpark) for a hot pressure wash.
2. Care must be taken to remove all attached soil or sediment and fully contact all surfaces.

GRANDFATHERED STREAMBED ALTERATION AGREEMENT CONDITIONS

SAA 5-270-92: REVOLON SLOUGH

- Control vegetation (banks and bottom) annually after July 1 for 100 feet upstream, under, and 100 feet downstream of all bridges.
- Control vegetation (banks and bottom) annually after July 1 for 50 feet upstream and 50 feet downstream of all grade control structures.
- Sediment may be removed when deposition exceeds two feet above design grade.
- Vegetation control may be by hand, herbicide, or mechanical methods.

Hwy 1 to Las Posas Road Bridge 45101:

- Herbicide inside banks, maintain access road as needed during year.
- No bottom vegetation maintenance.

Las Posas Road Bridge to Hueneme Road Bridge 45103:

- Herbicide inside banks, maintain access road as needed during year.
- July 1 to February 1: on west side bottom allow 50 foot long by 15 foot wide pockets of riparian vegetation separated by 100 foot long vegetation management (non-native species removal) zones. Remove willows greater than 3 inches dbh in pockets.
- July 1 to February 1: Outside riparian pockets, allow 20 percent of bottom with vegetation for two out of three years.
- July 1 to February 1: Outside riparian pockets, all vegetation may be removed every third year.

Hueneme Road Bridge to Wood Road Bridge 45105:

- Herbicide inside banks, maintain access road as needed during year.
- July 1 to February 1: one west side bottom allow solid strip of riparian vegetation 15 feet wide. Remove willows greater than 3 inches dbh annually.
- July 1 to February 1: Outside riparian pockets, allow 20 percent of bottom to retain vegetation. Remove willows greater than 3 inches dbh annually.
- July 1 to February 1: Outside riparian pockets, all vegetation may be removed every other year from Hueneme Road to Etting Road. Remove willows greater than 3 inches dbh annually.

SAA 5-388-90: PORTIONS OF CALLEGUAS CREEK WATERSHED

- Control vegetation (banks and bottom) annually July 1 to February 1 for 100 feet upstream, under, and 100 feet downstream of all bridges/culverts (except as noted below).
- Control vegetation (banks and bottom) annually July 1 to February 1 for 25 feet upstream and 25 feet downstream of all grade control structures (except as noted below).
- Vegetation control may be by hand, mechanical, or herbicide methods.

Arroyo Simi from Beltramo Road to No. 2 Canyon 47013:

- Herbicide inside banks, maintain access road as needed during year.
- July 1 to February 1: allow 10 foot wide strip of riparian vegetation at toe of each bank. Alternate removal of strips each year.
- July 1 to February 1: maintain up to 16 foot wide vegetation free pilot channel in center of creek bottom.

Arroyo Simi Sycamore Canyon to Erringer Road 47021:

- Herbicide inside banks, maintain access road as needed during year.
- Control vegetation (banks and bottom) as needed 100 feet upstream and 50 feet downstream of all bridges and grade control structures.
- Minimize maintenance activities March 1 to July 1.
- All willow and woody plant species may be controlled.
- Allow up to 25 percent cover of cattails/tules in channel bottom.

Arroyo Simi Erringer Road to Royal Avenue 47021:

- Herbicide inside banks, maintain access road as needed during year.
- July 1 to February 1: control all vegetation (banks and bottom) as needed.
- Vegetation control may be by hand, mechanical, or herbicide methods.

SAA 5-540-91: CALLEGUAS CREEK

- Control vegetation (banks and bottom) annually after July 1 for 100 feet upstream, under, and 100 feet downstream of all bridges/culverts.
- Vegetation control may be by hand, mechanical, or herbicide methods, unless specifically noted below.

Calleguas Creek Highway 1 to Hueneme Road 45021/45023:

- Herbicide inside banks and 25 feet from toe in bottom, maintain access road as needed during year. No other herbicide use in bottom.
- July 1 to February 1: each year allow a 10 foot wide (minimum) strip of riparian vegetation along one side of low flow channel. Alternate mechanical removal of strips each year.

Calleguas Creek Hueneme Road to 850 ft Upstream of University Road 45025/45027:

- Herbicide inside banks and 25 feet from toe in bottom, maintain access road as needed during year. No other herbicide use in bottom.
- July 1 to February 1: each year allow a 10 foot wide (minimum) strip of riparian vegetation along one side of low flow channel. Alternate mechanical removal of strips each year.

Calleguas Creek Pleasant Valley Road to Seminary Road 45033/45035/45037:

- Herbicide armored banks and 15 feet from toe in bottom, maintain access road as needed

during year.

- No removal of native vegetation on natural (unarmored) banks of channel.
- Control vegetation (banks and bottom) annually July 1 to February 1 for 100 feet upstream, under, and 100 feet downstream of all bridges/culverts and stabilizers.
- Allow 20 percent cover of riparian vegetation in channel bottom each year, if feasible.

SAA 5-541-91: ARROYO LAS POSAS CREEK

Covers reaches: 1) Below Hitch Road 45065

2) From S. Grimes Canyon Road to the Moorpark WWTP 45063

3) Stabilizer upstream of Somis 45053

4) Junction of Seminary Road and Arroyo Las Posas 45051

- Vegetation control may be by hand, mechanical, or herbicide methods.
- Control vegetation (banks and bottom) annually July 1 to February 1 for 100 feet upstream, under, and 100 feet downstream of all bridges/culverts and stabilizers.
- Herbicide armored banks and 15 feet from toe in bottom (except established willows), maintain access road as needed during year.

SAA 5-542-91: CONEJO CREEK (LINKED TO SAA 5-115-89)

- Herbicide routinely cleared portions of banks, maintain access road as needed during year.
- Control vegetation (banks and bottom) annually July 1 to February 1 for 100 feet upstream, under, and 100 feet downstream of all bridges.
- Vegetation control may be by hand, herbicide, or mechanical methods, except as noted below.

Conejo Creek -Calleguas Creek Confluence to Highway 101 46011/46012/46013/46014:

- Permanently allow a strip of riparian vegetation along one side of low flow channel.

Conejo Creek Highway 101 to Upland Drain 46015/46016:

- Herbicide inside banks and 25 feet from toe in bottom, maintain access road as needed during year. No other herbicide use in bottom.
- July 1 to February 1: mechanical or hand removal of vegetation in other portions of bottom; allow two 20 foot wide vegetated strips or allow 20 percent of bottom vegetated. If practical, allow vegetated strips along low flow channel.
- July 1 to February 1: remove allowed vegetation the following year; allow new equivalent vegetated areas.

ENDANGERED SPECIES ADDITIONAL CONDITIONS

Facilities and reaches with the potential for endangered species are mapped in the District's GIS system.

GAMBEL'S WATERCRESS AND MARSH SANDWORT: Conduct full (spring/summer 2014) surveys in 6.98 acres of facilities with suitable habitat. Opportunistically survey for these species during any field visits to facilities with suitable habitat.

SOUTHERN STEELHEAD: See BMP 5/6 above. For Calleguas Creek watershed, steelhead are generally not present, but an occasional stray may occur and we must stop work and notify NMFS and CDFW immediately.

CALIFORNIA GNATCATCHER: See survey triggers and protocols in table below. If species present, stop work and notify USACE and USFWS to determine course of action.

WORK TYPE	SURVEYS NEEDED
A. Heavy equipment more than 1 day adjacent to identified habitat per maps.	A. 3 bird surveys within 7 days prior to work.
B. Heavy equipment work more than 3 days adjacent to identified habitat per maps.	B. Morning bird survey prior to every third day of work.

WESTERN SNOWY PLOVER: Beach grooming at BEMP (near J St. Drain) during March 1 to September 15 requires nesting surveys and coordination with USFWS. Use lifeguard paths for access to minimize impacts to habitat. See also BMP 8.

CALIFORNIA LEAST TERN: Beach grooming at BEMP (near J St. Drain) during March 1 to August 15 requires nesting surveys and coordination with USFWS. Use lifeguard paths for access to minimize impacts to habitat. See also BMP 8.

CALIFORNIA RED-LEGGED FROG: USFWS Biological Opinion identified the following impact minimization measures. “Work” includes herbicide, earthwork, and other maintenance, except access road and fence maintenance. See also BMPs 6 and 29. Applies only in Zone 1.

MEASURE #	ACTION: Zone 1 only
CRLF-1	Approved biologist conducts daily pre-work surveys. Relocate all life stages potentially affected by work.
CRLF-2	Relocation site will be shortest distance to suitable habitat not affected by work.
CRLF-3	Biologist will maintain detailed descriptions of relocated individuals to determine if same individuals are recaptured.
CRLF-4	Biologist will train all O&M personnel and contractors regarding species and work type/boundaries.
CRLF-5	Biologist required to remain on site until all frogs have been relocated, worker education is complete, and vegetation removal has been completed.
CRLF-6	Biologist to permanently remove non-native aquatic species, when feasible.

Take Limits: Must report acreage of habitat affected by maintenance and mitigation each year in the Ventura River Watershed.

TAKE TYPE	ACRES/INDIVIDUALS ANNUALLY
Suitable habitat affected by maintenance and repair activities	2.5 acres per year
Expected take (relocation, harassment, etc) by maintenance and repair	25 individuals (eggs, tadpoles or frogs)
Suitable habitat affected by mitigation or restoration activities	10 acres per year
Expected take by mitigation	50 individuals per year (eggs, tadpoles, frogs)
Critical habitat affected by maintenance and repair activities	2.3 acres per year
Critical habitat affected by mitigation activities	10 acres per year

TIDEWATER GOBY: USFWS Biological Opinion identified the following impact minimization measures. “Work” includes earthwork, and other maintenance, except access road and fence maintenance. See also BMPs 8 and 22.

MEASURE #	ACTION
TWG-1	J St Drain downstream of Hueneme Road 42321 & Oxnard Industrial Drain just upstream and downstream of Hueneme Road 42302: channel cleanouts only when water naturally absent (no pumping or diversion of surface water)
TWG-2& 4	Sediment removal or dewatering in other facilities: biologist to use block nets and relocate gobies from work area to suitable nearby habitat per B.O.
TWG-3	Any pump intakes in occupied goby habitat must be screened.
TWG-5	Biologist required to remain on site to observe fish and potential turbidity levels during all dewatering activities; relocate fish as needed.
TWG-6	Block nets may be left overnight if inspected for efficacy..
TWG-7	Do not release gobies into areas scheduled for work on subsequent days.

Take Limits: Must report acreage of habitat affected by maintenance and mitigation each year in all watersheds.

TAKE TYPE	VENTURA	SANTA CLARA	ORMOND LAGOON	CALLEG CREEK	TOTAL
Suitable habitat affected by maintenance and repair	3 ac /year	0.1 ac./yr	0.1 ac/yr	2 ac/yr	5.2 ac/yr
Expected take (relocation, harassment, etc) by maintenance and repair	All individuals within affected area				Indeterminate
Suitable habitat affected by mitigation or restoration	0	0	0	0	0
Expected take by mitigation	0	0	0	0	0
Critical habitat affected by maintenance and repair	0.2 ac/yr	0	0	N/A	0.2 ac/yr
Critical habitat affected by mitigation or restoration	0	0	0	N/A	0

LEAST BELL'S VIREO/SW WILLOW FLYCATCHER: USFWS Biological Opinion identified the following impact minimization measures. "Work" includes earthwork, and other maintenance, except access road and fence maintenance. See also BMPs 4, 7, and 22.

MEASURE #	ACTION
LBV-1	If feasible, conduct work between Sept 16 to Feb 28 in facilities with LBV suitable habitat within 500 feet of work area.
LBV -2	March 1 to September 15: approved biologist conduct surveys for LBV/SWFL prior to work with habitat within 500 feet. (see list of facilities)
LBV -3	If LBV/SWFL nest detected, minimum 500 foot buffer between work and nest unless otherwise agreed to by USFWS. Biologist must monitor nest during work.
LBV -4	Mitigation/restoration projects in suitable LBV/SWFL habitat: avoid removal of willow and cottonwood trees >8 inch dbh..

Take Limits: Must report acreage of habitat affected by maintenance and mitigation each year in all watersheds.

TAKE TYPE LBV	VENTURA	SANTA CLARA	CALLEGUAS CREEK	TOTAL
Suitable habitat affected by maintenance and repair	3.5 ac/yr	4.6 ac/yr	17.4 ac/yr	25.5 ac/yr
Expected take by maintenance and repair	3 pairs	4 pairs	10 pairs	17 pairs
Suitable habitat affected by mitigation or restoration	10 ac/yr	15 ac/yr	10 ac/yr	35 ac/yr
Expected take by mitigation	6 pairs	9 pairs	6 pairs	21 pairs

(see SWFL limits next page)

TAKE TYPE SWFL	VENTURA	SANTA CLARA	CALLEGUAS CREEK	TOTAL
Suitable habitat affected by maintenance and repair	3.2 ac/yr	4.5 ac/yr	8.4 ac/yr	16.1 ac/yr
Expected take by maintenance and repair	1 pair	1 pair	1 pair	3 pairs
Suitable habitat affected by mitigation or restoration	10 ac/yr	15 ac/yr	10 ac/yr	35 ac/yr
Expected take by mitigation	1 pair	1 pair	1 pair	3 pairs
Critical habitat affected by maintenance and repair	3 ac/yr	3 ac/yr	N/A	6 ac/yr
Critical habitat affected by mitigation or restoration	10 ac/yr	15 ac/yr	N/A	25 ac/yr

REGULATORY AGENCY CONTACT LIST

Contact Pam Lindsey BEFORE contacting regulatory personnel.

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CDFW	Victoria Tang Angela Castanon	562-233-6324 626-513-6308	Victoria.Tang@wildlife.ca.gov Angela.Castanon@wildlife.ca.gov
LARWQCB	Céline Gallon		Celine.Gallon@waterboards.ca.gov

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