SOUTH COAST CONDUIT/UPPER REACH RELIABILITY PROJECT

FINAL ENVIRONMENTAL IMPACT STATEMENT/ENVIRONMENTAL IMPACT REPORT

Appendix G
U.S. Fish and Wildlife Service Biological Opinion

November 2010

United States Department of the Interior

FISH AND WILDLIFE SERVICE
Ventura Fish and Wildlife Office
2493 Portola Road, Suite B
Ventura, California 93003

TAKE PRIDE IN AMERICA

IN REPLY REFER TO:
2009-F-0320

September 1, 2009

Antal J. Szijj, Senior Project Manager
North Coast Branch, Regulatory Division
U.S. Army Corps of Engineers
2151 Alessandro Drive, Suite 110
Ventura, California 93001

Subject: Biological Opinion for the South Coast Conduit Water Pipeline Installation, Santa Barbara County, California (File No. SPL-2009-00200-CLM)(8-8-09-F-48)

Dear Mr. Szijj:

This document transmits the U.S. Fish and Wildlife Service's (Service) biological opinion regarding the U.S. Army Corps of Engineers' (Corps) proposed authorization, pursuant to section 404 of the Clean Water Act, of the proposed construction and installation of a 48-inch-diameter water supply pipeline with appurtenant facilities from the South Portal of Tecolote Tunnel to the Corona del Mar Water Treatment Plant, north of the city of Goleta, Santa Barbara County, California, and its effects on the federally threatened California red-legged frog (*Rana aurora draytonii*). You requested our concurrence that the programmatic biological opinion for the California red-legged frog, issued to the Corps on January 26, 1999 (Service 1999), can be used for the proposed project. Because the project includes measures to minimize effects to the California red-legged frog, it is a single project and not part of a larger action, and it meets the suitability criteria outlined in the programmatic biological opinion, we concur with your determination that the programmatic biological opinion is appropriate to use for this consultation. Your May 28, 2009, request for formal consultation was received in our office on June 1, 2009.

This biological opinion is based on information which accompanied your request for consultation including the Biological Assessment for the South Coast Conduit/Upper Reach Reliability Project (Science Applications International Corporation (SAIC) 2009), and information in our files. A complete administrative record for this consultation is available at the Ventura Fish and Wildlife Office.

BIOLOGICAL OPINION

DESCRIPTION OF THE PROPOSED ACTION

The Corps proposes to authorize the Cachuma Operations and Maintenance Board (COMB), pursuant to section 404 of the Clean Water Act, to construct a 48-inch diameter welded steel

water supply pipeline with appurtenant facilities from the South Portal of Tecolote Tunnel to the Corona Del Mar Water Treatment Plant. The existing South Coast Conduit would remain operational; therefore, abandonment and demolition of the existing pipeline would not occur. The proposed project construction involves: 1) clearing, grubbing, and grading; 2) installation of the pipe using an open trench method with a tracked excavator; 2) encasing the pipe in concrete; 3) installation of a fiber optic cable within the trench; 4) backfilling the trench with 8 feet of cover over the pipe at the two stream crossings, and 5 feet of cover everywhere else; 5) testing the pipe for leaks; and 6) cleanup and restoration of the pipeline corridor.

The project area for the installation of the pipeline is approximately 7,000 feet long by 100 feet wide, and would result in a total of approximately 24.1 acres (9.8 hectares) of ground disturbance. The pipeline trench would be a minimum of 9.5 feet (2.9 meters) deep. Additional staging areas would be provided along the pipeline route for equipment, supplies, and vehicle parking. Approximately 8,100 cubic yards of fill would be required for placement under and around the pipe; dirt from the pipeline excavation would be used whenever possible for this purpose. The proposed project would cross both the west fork and main stem of Glen Annie Creek and extend across both public and private lands. On steep slopes, water bars or other measures would be installed for erosion control. Heavy equipment would be required for construction and installation of the proposed pipeline, including an excavator, loader, welder, 10-wheeler truck, water truck, and dozer. Construction is scheduled to take place over 11 months, including approximately 8 months for mobilization of equipment, site clearing, and installation of the pipeline; 1 month for pipeline testing; and 2 months for finish grading and revegetation. Work could start in 2009. The subject project would have permanent impacts to 0.05 acre within the west fork of Glen Annie Creek and 0.04 acre within the main stem of Glen Annie Creek, for a total of 0.09 acre of permanent impacts to waters of the U.S., under the Corps' jurisdiction.

There are also a number of appurtenant facilities proposed for construction of the pipeline, including the South Portal of the Tecolote Tunnel (SPTT), air release and blowoff valves, Glen Annie and Corona Del Mar Turnouts, and a fiber-optic cable. The existing SPTT would need to be replaced due to structural degradation and modifications that are necessary for operation of the new pipeline. The pad and wasteway overflow elevation for the new SPTT would be placed at the hydraulic grade line for the tunnel. Five air release valves would be required at high points along the pipeline and three blowoff valves would be required at low points. Water released from the pipeline blowoff near the west fork of Glen Annie Creek would be released into the existing South Portal wasteway discharge structure for energy dissipation. For the other two blowoffs, water would be released into surrounding upland areas. The water release rate would be controlled to prevent scour and erosion at the release point. The Glen Annie Turnout would serve the purpose of connecting the new pipeline to the existing Goleta West Conduit. This turnout would be constructed of an 18-inch (46 centimeter) diameter, 115-foot (35-meter) long pipeline and installed eastward of the new pipeline, about 200 feet (62 meters) south of the access road to the existing Glen Annie Turnout. The existing Corona Del Mar turnout would be modified to increase capacity and reliability. A magnetic flow meter would potentially be constructed upstream of the connection to the existing 36-inch diameter outlet at the Corona Del

Mar Water Treatment Plant weir structure. And lastly, a conduit for fiber-optic cable would be installed within the pipeline trench, which would allow for reliable pipeline monitoring.

The subject project also involves maintenance of the pipeline. This maintenance would include periodic checks to the cathodic protection system, visual surveillance of the pipeline corridor for leaks, annual testing of blowoff valves and internal inspections, and removal of eucalyptus (*Eucalyptus* spp.) and oak trees (*Quercus* spp.) that are growing within 20 feet (6 meters) of the pipeline using hand tools within the early stages of growth.

The Corps and COMB propose to implement the minimization measures for California red-legged frogs that are contained in the programmatic biological opinion (Service 1999). To further reduce adverse effects to California red-legged frogs, the Corps and COMB have proposed the following supplemental conservation measures, (Conservation Measures 1 through 6 of the Biological Assessment for the subject project, SAIC 2009):

Measure 1: A special status species protection plan will be prepared and implemented to minimize or avoid adverse effects to special status biological resources, including aquatic habitats, during pipeline construction. The special status species protection plan will be included in the final construction plans. Habitat and species protection measures will include, at a minimum:

1. Construction will be scheduled to avoid the breeding season of special status species. For example, pipeline construction (or at a minimum, crossing of drainages that support special status aquatic species) will be scheduled to avoid the breeding season for the California red-legged frog (November 1 through June 30) or while water is not present;
2. If trenching is used to cross the two drainages, work at the two stream crossings will be scheduled to avoid the high flow season (October through April) to avoid potential degradation of downstream resources, including breeding habitat for the California red-legged frog;
3. A Service-approved California red-legged frog biologist will conduct pre-construction California red-legged frog surveys following Service protocols in all suitable habitat crossed by the pipeline right-of-way (the west fork and main stem of Glen Annie Creek) to determine the presence or absence of this species within about 500 feet (152 meters) of the construction area;
4. The project biologist and the project engineer will clearly designate "sensitive resource zones" on the project maps and construction plans. Sensitive resource zones are defined as areas where construction would be limited in space, time, or methods to minimize or avoid adverse effects to special status species or their habitat;
5. A Service-approved California red-legged frog biologist will be present during construction in locations known to support California red-legged frogs to monitor for this species. The biologist will inspect the work area (especially areas with ponded water, if present) for the presence of the species and will be authorized to temporarily stop work if immediate threats to the species are identified during monitoring. Any disturbances to occupied habitat or California red-legged frogs will be in conformance with the terms and conditions of the project biological opinion from the Service;

6. All machinery will be stored and fueled in designated locations at least 100 feet (30.5 meters) away from any sensitive habitats or in areas approved by the project biologist. Heavy equipment and construction activities will be restricted to the defined construction corridor. Construction vehicles and personnel will use existing access roads. A qualified biologist will conduct pre-construction bird surveys during the nesting season in areas that would require the direct removal of coastal scrub and chaparral vegetation, native and non-native trees, or other areas where suitable nesting habitat for resident or migratory bird species may occur. The surveys will focus on breeding behavior and nesting locations in the proposed work area and immediately adjacent to that area. Based on the results of the surveys, recommended buffer areas between construction activities and observed nesting habitat will be provided to the resident engineer if the work were scheduled to occur near those locations while nesting is occurring (February 15 through August 31);
8. A qualified biologist will be present during removal of vegetation to ensure that breeding wildlife and nesting birds are not harmed. The biologist will have the authority to redirect or temporarily stop work if threats to the species are identified during monitoring; and
9. Riparian vegetation and oak trees scheduled to be removed for construction will be removed before the nesting season (April 15) to further avoid adverse effects to nesting birds, where feasible. For trees outside the area to be trenched, removal will be by cutting at ground level to leave the roots in place to facilitate restoration.

Measure 2: The bed and banks of Glen Annie Creek, including west fork, will be restored to pre-project conditions to the greatest extent feasible. This will include disposing of material displaced by the pipe and bedding outside the creek corridor but not over existing topsoil, replacing boulders and cobbles in the stream bed, and contouring to restore the stream bed gradient and bank structure. Biological monitors will ensure that creek beds and banks are restored correctly and will work with the construction contractor directly or through the resident engineer.

Measure 3: A revegetation plan will be prepared and implemented to facilitate colonization of the pipeline corridor following construction and to reduce erosion and sedimentation. The revegetation plan will include performance criteria for each plant community. A native seed mix appropriate for coastal scrub, chaparral, non-native grassland, and other areas to be revegetated will be used. Due to the relatively short distance of the project alignment and the similarity of habitats crossed by the project, one diverse seed mix may be developed for the entire route. This seed mix will be applied to all areas where vegetation was removed. All riparian woodland removed will be replaced at a 2:1 ratio, or as mandated in project permits. For areas of temporary impact, restoration onsite will be 1:1 and an equal area will be replaced offsite. Any permanent loss of riparian woodland will be replaced offsite at a 2:1 ratio.

Measure 4: Areas of invasive exotic plant infestation will be identified and mapped within 200 feet (61.2 meters) of the alignment prior to construction. All such areas within the construction corridor will be marked on the construction plans and clearly flagged in the field. Prior to

construction and throughout restoration, Cape ivy (*Delairea odorata*) and other weed species will be controlled. Extreme caution will be taken in using equipment, including passenger vehicles and pickups, in areas identified as having invasive exotic plant species infestations. The revegetation plan will include an invasive exotic plant species control component to address invasive exotic plant species removal within the native and naturalized habitats. The plan will also establish performance criteria for distribution and density of invasive exotic plant species infestations.

Measure 5: The following pollution prevention measures will be followed in association with pipeline construction:

1. If rain occurs during or within 3 days after concrete is poured for any pipeline structures, plastic sheets or tarps will be spread and secured over the concrete in such a manner to prevent rain from coming in contact with the concrete;
2. Concrete trucks will be washed out in a designated area where the material cannot run off into the stream or percolate into the groundwater. This area will be specified on all applicable construction plans and be in place before any concrete is poured;
3. Upon entering the site and regularly thereafter, equipment will be inspected and maintained prior to working in or immediately adjacent to west fork of Glen Annie or Glen Annie Creek. Any leaks or hose-fittings in poor condition will be repaired before the equipment begins work; and
4. A hazardous materials business plan will be prepared prior to equipment use on the site and followed for project construction. This plan will include, but not necessarily be limited to: a) specific bermed equipment maintenance and refueling areas; b) bermed and lined hazardous material storage areas on site that are covered during the rainy season; c) hazardous material spill cleanup equipment on site (e.g., sorbent pads, shovels, and bags to place contaminated soil in); and d) workers trained in location and use of cleanup equipment.

Measure 6: The following erosion control protocol will be followed in association with pipeline construction:

1. Prior to commencing any work activities, a stormwater pollution prevention plan (SWPPP) for construction will be prepared and submitted to the State Water Resources Control Board in compliance with the statewide General Construction Activity Stormwater Permit. This plan will be designed for a 10-year, 8-hour duration storm event. Where possible, erosion control measures will be installed prior to work beginning. Standard erosion and sediment control features as described in the Erosion and Sediment Control Field Manual will be utilized during and immediately after grading to minimize short-term impacts associated with erosion and off-site siltation of the west fork and main stem of Glen Annie Creek.
2. Prior to construction-related discharges, energy dissipation measures will be installed at groundwater dewatering discharge points into the west fork and main stem of Glen Annie Creek to prevent erosion.
3. Sedimentation basins (may be straw bales lined with filter fabric) will be used for dewatering discharge points to prevent excess downstream sedimentation. These basins

will be constructed prior to dewatering and regularly maintained during construction, including after storm events, to remain in good working order.

4. Straw bale/filter fabric barriers, backed by wire fencing for strength, will be installed around spoil piles to contain sediment from runoff. These barriers will be installed prior to any stockpiling during the rainy season or immediately after stockpiling during the dry season, and will be regularly maintained, including during major rainfall events, until the stockpiles are completely removed.
5. Subsequent to pipeline construction, erosion control matting will be placed on disturbed slopes greater than 5 to 1 (20 percent), over seeding and mulching.
6. Straw bale and/or filter fabric barriers will be installed at the base of disturbed slopes, for a minimum of 2 months following slope completion (or until the end of the rainy season, whichever is longer), to reduce short-term erosion impacts prior to plant growth.
7. During construction and on all disturbed slopes, water bars, filter fabric fencing, and/or rice wattles will be placed at 50-foot (15-meter) intervals on slopes greater than 5 to 1 (20 percent).

ANALYTICAL FRAMEWORK FOR THE JEOPARDY DETERMINATIONS

The jeopardy analysis in this biological opinion relies on four components: (1) the *Status of the Species*, which evaluates the range-wide condition of the California red-legged frog, the factors responsible for that condition, and its survival and recovery needs; (2) the *Environmental Baseline*, which evaluates the condition of the California red-legged frog in the action area, the factors responsible for that condition, and the relationship of the action area to the survival and recovery of the California red-legged frog; (3) the *Effects of the Action*, which determines the direct and indirect impacts of the proposed Federal action and the effects of any interrelated or interdependent activities on the California red-legged frog; and (4) the *Cumulative Effects*, which evaluates the effects of future, non-Federal activities in the action area on the California red-legged frog.

In accordance with policy and regulation, the jeopardy determination is made by evaluating the effects of the proposed federal action in the context of the current status of the California red-legged frog, taking into account any cumulative effects, to determine if implementation of the proposed action is likely to cause an appreciable reduction in the likelihood of both the survival and recovery of the California red-legged frog in the wild.

The jeopardy analysis in this biological opinion places an emphasis on consideration of the range-wide survival and recovery needs of the California red-legged frog and the role of the action area in the survival and recovery of the California red-legged frog as the context for evaluation the significance of the effects of the proposed federal action, taken together with cumulative effects, for purposes of making the jeopardy determination.

STATUS OF THE SPECIES

California red-legged frog

The programmatic biological opinion for the California red-legged frog describes the basic ecology of the California red-legged frog and the reasons for its listing (Service 1999). Since the issuance of the programmatic biological opinion, the Service has published a recovery plan for the California red-legged frog (Service 2002). Critical habitat was designated for the California red-legged frog on April 13, 2006 (71 FR 19243) and the proposed rule for the revision of critical habitat for the California red-legged frog was released on September 16, 2008 (73 FR 53491), but has not been finalized. The project site does not occur within critical habitat for the California red-legged frog.

The California red-legged frog has been extirpated or nearly extirpated from 70 percent of its former range. Historically, this species was found throughout the Central Valley and Sierra Nevada foothills. Currently, California red-legged frogs are only known from 3 disjunct regions in 26 California counties, and one disjunct region in Baja California, Mexico (Grismer 2002; Fidenci 2004; R. Smith and D. Krofta, *in litt.* 2005). The most secure aggregations of California red-legged frogs are found in aquatic sites that support substantial riparian and aquatic vegetation and lack non-native predators. Over-harvesting, habitat loss, non-native species introduction, and urban encroachment are the primary factors that have negatively affected the California red-legged frog throughout its range (Jennings and Hayes 1985, Hayes and Jennings 1988). Ongoing threats to the species include direct habitat loss due to stream alteration and disturbance to wetland areas, indirect effects of expanding urbanization, competition or predation from non-native species, and Chytrid fungus (*Batrachochytrium dendrobatidis*), a water-borne fungus that can decimate amphibian populations.

ENVIRONMENTAL BASELINE

The implementing regulations for section 7(a)(2) of the Act define the "action area" as all areas to be affected directly or indirectly by the Federal action and not merely the immediate area involved in the action (50 Code of Federal Regulation 402.02). For the purposes of this biological opinion, we consider the action area to include the area 100 feet upstream of the Tecolote Tunnel South Portal and downstream to the Corona Del Mar Water Treatment Plant weir structure that would be temporarily affected by the project. It includes the stream corridor and riparian zone of the main stem and west fork of Glen Annie Creek, and the associated upland areas. This area likely encompasses the direct and indirect effects of the action on the California red-legged frog.

The project site is located in the foothills of Santa Barbara County, within Glen Annie Canyon, and is characterized as open land that includes areas of undulating topography, oak woodlands, and extensive chaparral and riparian vegetation. The west fork and main stem of Glen Annie Creek traverse the project site. The creek bed is characterized by large cobbles and boulders, suggesting frequent scour, and little to no herbaceous vegetation. The vegetation within the

riparian area consists of sycamore-bay laurel woodland, with some species of willows (*Salix* spp.) intermixed. The terrain in the project area is generally comprised of steep, south facing slopes that are densely vegetated. Approximately half of the project area consists of several vegetation classification types including chaparral, coastal sage scrub, coast live oak woodland, grassland, and riparian, while the remaining portion consists of eucalyptus woodland, orchard, and several other previously disturbed, non-native habitats. The proposed project would cross both the west fork and main stem of Glen Annie Creek.

Dominant coastal sage scrub species include black sage (*Salvia mellifera*), purple sage (*Salvia leucophylla*), California sage (*Artemisia californica*), Santa Barbara honeysuckle (*Lonicera subspicata*), and coyote brush (*Baccharis pilularis*). Chaparral species include chamise (*Adenostoma fasciculatum*), big pod ceanothus (*Ceanothus megacarpus*), bush mallow (*Malacothamnus fasciculatus*), sugar bush (*Rhus ovata*), and scrub oak (*Quercus berberidifolia*). Other species found on-site include coast live oak trees, bay laurel trees (*Umbellularia californica*), poison oak (*Toxicodendron diversilobum*), Plummer's baccharis (*Baccharis plummerae*), Fish's milkwort (*Polygala cornuta* var. *fishae*), and herbaceous plants including humming bird sage (*Salvia spathacea*) and western verbena (*Verbena lasiostachys*). There are several species of invasive exotic plants found in the subject project location including veldt grass (*Ehrharta calycina*), black mustard (*Brassica nigra*), Cape ivy (*Delairea odorata)*, and eucalyptus woodland. Non-native grassland species found in the area include ripgut brome (*Bromus diandrus*) and oats (*Avena* spp.), in addition to some native wildflower species including popcorn flower (*Plagiobothrys* spp. or *Cryptantha* spp.), branching phacelia (*Phacelia ramosissima*), and the checker mallow (*Sidalcea malvaeflora* ssp. *californica*). In one location, a dense stand of purple needle grass (*Nassella pulchra*) occurs intermixed with the coastal scrub.

The action area for the proposed project is within the range of the California red-legged frog (Service 2002). Biological reconnaissance surveys were conducted for California red-legged frogs prior to initiating formal consultation for the subject project by Padre Associates in 2005 and by SAIC biologists in January, March, April, and August of 2007. During the surveys in 2005 (Padre 2005), California red-legged frogs were observed along the west fork and main stem of Glen Annie Creek within the action area.

EFFECTS OF THE ACTION

California Red-Legged Frog

The programmatic biological opinion for the California red-legged frog (Service 1999) generally describes how California red-legged frogs could be affected by the repair activities. For this reason, use of the programmatic biological opinion is appropriate and we will not repeat that analysis herein. Following is a summary of the specific effects of the proposed action.

Chytrid fungus is a water-borne fungus that can be spread through direct contact between aquatic animals and by a spore that can move short distances through the water. The fungus only attacks the parts of an animal's skin that have keratin (thickened skin), such as the mouthparts of

tadpoles and the tougher parts of adults' skin, such as the toes. It can decimate amphibian populations, causing fungal dermatitis, which usually results in death in 1 to 2 weeks. Infected animals may spread the fungal spores to other ponds and streams before they die. Once a pond has become infected with chytrid fungus, the fungus stays in the water for an undetermined amount of time. It is possible that during the relocation of California red-legged frogs as conditioned in the programmatic biological opinion for the California red-legged frog (Service 1999), infected individuals or equipment could introduce chytrid fungus into areas where it did not previously occur. If this occurs in the action area, many California red-legged frogs could be affected. We would expect ponds within close proximity to have similar pathogenic characteristics, because amphibians could move easily between these ponds. Therefore, the possible spread of chytrid fungus could be minimized by relocating California red-legged frogs only to ponds in close proximity (within 500 feet) and dispersal distance of the proposed project.

The capture and handling of California red-legged frogs to move them from a work area could adversely affect individuals. Injury or mortality could occur as a result of improper handling, containment, or transport of individuals, or from releasing them into unsuitable habitat. These effects would be reduced or prevented by using only biologists approved by the Service to conduct these activities and by identifying suitable receiving sites for relocated individuals prior to handling.

The proposed project would not result in the permanent loss of California red-legged frog habitat. Temporary habitat disturbance due to the proposed project would affect a small number of California red-legged frogs, if any occur in the action area. Because of the relatively small size of the work area, the temporary nature of the project, and the proposed protective measures, we anticipate that few, if any, California red-legged frogs are likely to be killed or injured during project activities. The area disturbed through project activities constitutes a small portion of the available California red-legged frog habitat throughout the species' range.

CUMULATIVE EFFECTS

Cumulative effects are those impacts of future State and private actions that are reasonably certain to occur in the project area. Future Federal actions would be subject to the consultation requirements established in section 7 of the Act and, therefore, are not considered cumulative to the proposed project.

There were 56 projects included in the cumulative impact analysis in the final EIR/EIS for the subject project (SAIC 2009), including mostly local projects. It was concluded that most of these projects would have little to no direct effect on federally listed species, including the California red-legged frog. Several of the projects within the unincorporated area of Santa Barbara County could affect water quality and California red-legged frog habitat; however, those projects would likely require federal permits and thus would be subject to consultation under section 7.

CONCLUSION

After reviewing the current status of the species, the environmental baseline for the action area, the effects of the proposed action, and the cumulative effects, it is the Service's biological opinion that the Corps' authorization of the proposed project is not likely to jeopardize the continued existence of the California red-legged frog for the following reasons:

1. The Corps and COMB have proposed avoidance and minimization measures to reduce the adverse effects of the proposed work on the California red-legged frog;

2. The project will not reduce the distribution of the California red-legged frog because the effects will be temporary and the total project footprint is relatively small (approximately 24.1 acres) in comparison with the range of the California red-legged frog; and

3. Few, if any, California red-legged frogs are likely to be killed or injured during project activities.

INCIDENTAL TAKE STATEMENT

Section 9 of the Act and Federal regulation pursuant to section 4(d) of the Act prohibit the take of endangered and threatened species, respectively, without special exemption. Take is defined as to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture or collect, or to attempt to engage in any such conduct. Harm is further defined by the Service to include significant habitat modification or degradation that results in death or injury to listed species by significantly impairing essential behavioral patterns, including breeding, feeding, or sheltering. Harass is defined by the Service as intentional or negligent actions that create the likelihood of injury to listed species by annoying it to such an extent as to significantly disrupt normal behavioral patterns which include, but are not limited to, breeding, feeding or sheltering. Incidental take is defined as take that is incidental to, and not the purpose of, the carrying out of an otherwise lawful activity. Under the terms of section 7(b)(4) and section 7(o)(2), taking that is incidental to and not intended as part of the agency action is not considered to be prohibited taking under the Act provided that such taking is in compliance with the terms and conditions of this incidental take statement.

The measures described below are non-discretionary and the Corps must ensure that they become binding conditions of its authorization to COMB for the exemption in section 7(o)(2) to apply. The Corps has a continuing duty to regulate the activity covered by this incidental take statement. If the Corps fails to require COMB to adhere to the terms and conditions of the incidental take statement through enforceable terms that are added to the permit, the protective coverage of section 7(o)(2) may lapse. To monitor the impact of incidental take, the Corps or COMB must report the progress of the action and its impact on the species to the Service as specified in the incidental take statement [50 CFR 402.14(i)(3)].

Incidental take of the California red-legged frog will be difficult to detect for the following reasons: (1) the California red-legged frog is generally difficult to detect due to its cryptic coloration and small body size; (2) finding a dead or impaired specimen is unlikely; and (3) losses may be masked by seasonal fluctuations in hydrology unrelated to the project. The Service anticipates that an indeterminate number of California red-legged frogs may be directly killed or injured by stream diversion and pipeline repair activities (e.g., foot traffic, heavy equipment movement in the channel, etc.) within the project area in Glen Annie Canyon. Furthermore, all life stages of California red-legged frogs found within the project area may be taken through the introduction of chytrid fungus.

This biological opinion does not exempt any activity from the prohibitions against take contained in section 9 of the Act that is not incidental to the action as described in this biological opinion. Take that occurs outside of demarcated work areas or from any activity not described in this biological opinion is not exempted from the prohibitions against take described in section 9 of the Act.

REASONABLE AND PRUDENT MEASURES

Although the Corps has proposed measures to minimize take of California red-legged frogs, the Service believes that the following reasonable and prudent measures are necessary and appropriate to further minimize take anticipated by this biological opinion:

1. The Corps must ensure that the level of incidental take anticipated in this biological opinion is commensurate with the analysis contained herein.

2. Biologists authorized by the Service to capture and relocate California red-legged frogs must ensure that their actions are conducted in a manner that minimizes adverse effects to individuals by avoiding undue stress and the transfer of pathogens between sites.

3. The Corps must ensure that protective measures for the California red-legged frog are consistently implemented.

Our evaluation of the effects of the proposed action includes consideration of the measures to minimize the adverse effects of the proposed action on the California red-legged frog that were developed by the Corps and COMB and referenced in the Description of the Proposed Action portion of this biological opinion. The proposed measures include those contained in the programmatic biological opinion for the California red-legged frog (Service 1999). Any subsequent changes in these measures proposed by the Corps or COMB may constitute a modification of the proposed action and may warrant re-initiation of formal consultation, as specified at 50 CFR 402.16. These reasonable and prudent measures are intended to supplement the protective measures that were proposed by the Corps and COMB as part of the proposed action.

TERMS AND CONDITIONS

To be exempt from the prohibitions of section 9 of the Act, the Corps must ensure that COMB complies with the following terms and conditions, which implement the reasonable and prudent measures described above. These terms and conditions are non-discretionary.

1. The following term and condition implements reasonable and prudent measure 1:

   If more than one California red-legged frog (adult, tadpole, or juvenile) is found dead or injured, the Corps or COMB must contact our office immediately so we can review the project activities to determine if additional protective measures are needed. Project activities may continue during this review period, provided that all protective measures proposed by the Corps and the terms and conditions of this biological opinion have been and continue to be implemented.

2. The following terms and conditions implement reasonable and prudent measure 2:

   a. When capturing and removing California red-legged frogs from work sites, the Service-approved biologist(s) must minimize the amount of time that animals are held in captivity. During this time, they must be maintained in a manner that does not expose them to temperatures or any other environmental conditions that could cause injury or undue stress. California red-legged frogs must be captured by hand or dipnet and transported in buckets separate from other species.

   b. To avoid transferring disease or pathogens between aquatic habitats during the course of surveys for and handling of California red-legged frogs, the Service-approved biologist(s) must follow the Declining Amphibian Population Task Force's Code of Practice. A copy of this Code of Practice is enclosed. You may substitute a bleach solution (0.5 to 1.0 cup of bleach to 1.0 gallon of water) for the ethanol solution. Care must be taken so that all traces of the disinfectant are removed before entering the next aquatic habitat. Latex gloves must not be used when handling California red-legged frogs.

   c. California red-legged frogs that, in the opinion of the Service-approved biologist, are in harm's way must be relocated from the project area to suitable habitat within the same drainage.

3. The following terms and conditions implement reasonable and prudent measure 3:

   a. If a California red-legged frog is observed within a designated work area and cannot be avoided, all work must stop until the animal leaves the work area or until it is captured and relocated by a Service-approved biologist to outside of the work area to avoid injury or mortality.

b. If COMB does not implement all of the preceding protective measures and terms and conditions for the California red-legged frog, the Corps must suspend work until such time that the COMB is again in full compliance.

REPORTING REQUIREMENTS

The Corps or COMB must provide a written final report to the Service's Ventura Fish and Wildlife Office (2493 Portola Road, Suite B; Ventura, California 93003), within 90 days following completion of the proposed project. The report must describe all activities that were conducted under the auspices of this biological opinion, including activities that were described in the proposed action and required under the terms and conditions. It must also contain a brief discussion of any problems encountered in implementing minimization measures, the results of monitoring records, and any other pertinent information. The reporting requirements for projects tiered from the programmatic biological opinion for California red-legged frogs are described in that document (Service 1999). The Corps and COMB should review the programmatic biological opinion regarding the information we require on California red-legged frogs.

DISPOSITION OF DEAD OR INJURED SPECIMENS

Upon locating a dead or injured California red-legged frog notification must be made by telephone and writing to the Ventura Fish and Wildlife Office in Ventura, California (2493 Portola Road, Suite B, Ventura, California 93003, (805) 644-1766) within 3 working days of the finding. The report must include the date, time, location of the carcass, a photograph, cause of death, if known, and any other pertinent information.

Care must be taken in handling dead specimens to preserve biological material in the best possible state for later analysis. Should any injured listed species survive, the Service must be contacted regarding their final disposition. The remains of listed species must be placed with educational or research institutions holding the appropriate State and Federal permits, such as the Santa Barbara Natural History Museum (Contact: Paul Collins, Santa Barbara Natural History Museum, Vertebrate Zoology Department, 2559 Puesta Del Sol, Santa Barbara, California 93460, 805-682-4711, extension 321.)

CONSERVATION RECOMMENDATIONS

Section 7(a)(1) of the Act directs Federal agencies to use their authorities to further the purposes of the Act by carrying out conservation programs for the benefit of endangered and threatened species. Conservation recommendations are discretionary agency activities to minimize or avoid adverse effects of a proposed action on listed species or critical habitat, to help implement recovery plans, or to develop information. We recommend the following conservation measure to promote recovery of the California red-legged frog.

Recent research suggests that bullfrogs (*Rana catesbeiana*) may be a vector for chytrid fungus and/or ranavirus (genus *Iridoviridae*) that negatively affect California red-legged

frogs and other amphibians native to California. We recommend that the Corps assist the Service, qualified biologists, and others in testing captured bullfrogs for the presence of chytrid fungus and ranavirus, wherever bullfrogs are captured within the action area. Results from any of these tests should be provided to the Service in a report.

REINITIATION NOTICE

This concludes formal consultation on the Corps' proposed authorization of the South Coast Conduit Water Pipeline Installation Project. As provided at 50 CFR 402.16, reinitiation of formal consultation is required where discretionary Federal agency involvement or control over the action has been retained (or is authorized by law) and if: (1) the amount or extent of incidental take is exceeded; (2) new information reveals effects of the agency action that may affect listed species or critical habitat in a manner or to an extent not considered in this opinion; (3) the agency action is subsequently modified in a manner that causes an effect to listed species or critical habitat not considered in this opinion; or (4) a new species is listed or critical habitat designated that may be affected by the action. In instances where the amount or extent of incidental take is exceeded, any operations causing such take must cease pending reinitiation.

If you have any questions regarding this consultation, please contact Heather Abbey of my staff at (805) 644-1766, extension 290.

Sincerely,

for Diane K. Noda
Field Supervisor

Enclosure

LITERATURE CITED

Fidenci, P. 2004. The California red-legged frog, *Rana aurora draytonii*, along the Arroyo Santo Domingo, Northern Baja California, Mexico. The Herpetological Journal, Volume 88. London, England.

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Smith, R. and D. Krofta. 2005. Field notes documenting the occurrence of California red-legged frogs in Baja California, Mexico. In litt.

[Service] U.S. Fish and Wildlife Service. 1999. Programmatic formal Endangered Species Act consultation on issuance of permits under section 404 of the Clean Water Act of authorizations under the Nationwide Permit Program for projects that may affect the California red-legged frog. Dated January 26, 1999. Issued to: Art Champ, U.S. Army Corps of Engineers, Sacramento District, Sacramento, California; Calvin Fong, U.S. Army Corps of Engineers, San Francisco District, San Francisco, California; and Richard Schubel, U.S. Army Corps of Engineers, Los Angeles District, Los Angeles, California. Issued by: Ventura and Sacramento Fish and Wildlife Offices, Ventura and Sacramento, California.

[Service] U.S. Fish and Wildlife Service. 2002. Recovery plan for the California red-legged frog (*Rana aurora draytonii*). Portland, Oregon. Portland, Oregon. viii + 173 pp.

The Declining Amphibian Populations Task Force Fieldwork Code of Practice

A. Remove mud, snails, algae, and other debris from nets, traps, boots, vehicle tires, and all other surfaces. Rinse cleaned items with sterilized (e.g., boiled or treated) water before leaving each work site.

B. Boots, nets, traps, and other types of equipment used in the aquatic environment should then be scrubbed with 70 percent ethanol solution and rinsed clean with sterilized water between study sites. Avoid cleaning equipment in the immediate vicinity of a pond. wetland, or riparian area.

C. In remote locations, clean all equipment with 70 percent ethanol or a bleach solution, and rinse with sterile water upon return to the lab or "base camp" Elsewhere, when washing-machine facilities are available, remove nets from poles and wash in a protective mesh laundry bag with bleach on the "delicates" cycle.

D. When working at sites with known or suspected disease problems, or when sampling populations of rare or isolated species, wear disposable gloves[1] and change them between handling each animal. Dedicate sets of nets, boots, traps, and other equipment to each site being visited. Clean them as directed above and store separately at the end of each field day.

E. When amphibians are collected, ensure that animals from different sites are kept separately and take great care to avoid indirect contact (e.g., via handling, reuse of containers) between them or with other captive animals. Isolation from unsterilized plants or soils which have been taken from other sites is also essential. Always use disinfected and disposable husbandry equipment.

F. Examine collected amphibians for the presence of diseases and parasites soon after capture. Prior to their release or the release of any progeny, amphibians should be quarantined for a period and thoroughly screened for the presence of any potential disease agents.

G. Used cleaning materials and fluids should be disposed of safely and, if necessary, taken back to the lab for proper disposal. Used disposable gloves should be retained for safe disposal in sealed bags.

The Fieldwork Code of Practice has been produced by the Declining Amphibian Populations Task Force with valuable assistance from Begona Arano, Andrew Cunningham, Tom Langton, Jamie Reaser, and Stan Sessions.

For further information on this Code, or on the Declining Amphibian Populations Task Force, contact John Wilkinson, Biology Department, The Open University, Walton Hall, Milton Keynes, MK7 6AA, UK. E-mail: DAPTF@open.ac.uk Fax: +44 (0) 1908-654167

[1] Latex gloves should not be used. They are toxic to amphibians. Use vinyl or nitrile disposable gloves instead.

SOUTH COAST CONDUIT/UPPER REACH RELIABILITY PROJECT

FINAL ENVIRONMENTAL IMPACT STATEMENT/ENVIRONMENTAL IMPACT REPORT

Appendix H
National Marine Fisheries Service Concurrence Memo

November 2010

UNITED STATES DEPARTMENT OF COMMERCE
National Oceanic and Atmospheric Administration
NATIONAL MARINE FISHERIES SERVICE
Southwest Region
501 West Ocean Boulevard, Suite 4200
Long Beach, California 90802- 4213

In response, refer to:
2009/03111:DB

JUL - 1 2010

Bruce A. Henderson
U.S. Army Corps of Engineers
Los Angeles District
Ventura Field Office
2151 Alessandro Dr., Suite 110
Ventura, CA 93001

Dear Mr. Henderson:

NOAA's National Marine Fisheries Service (NMFS) is responding to the U.S. Army Corps of Engineers' (ACOE) authorization, pursuant to section 404 of the Clean Water Act (CWA), for the proposed construction of the South Coast Conduit/Upper Reach Reliability Project. The proposed project involves installation of a 48-inch diameter redundant water-supply pipeline associated with an existing water-conveyance system (Tecolote Tunnel) that transports water from the U.S. Bureau of Reclamation's (Reclamation) Lake Cachuma to the Corona del Mar Water Treatment Plant. The proposed pipeline would transect (buried) Glen Annie Creek located in Santa Barbara County, California. Glen Annie Creek provides habitat for the endangered Southern California Distinct Population Segment of steelhead (*Oncorhynchus mykiss*) and is designated critical habitat for this species pursuant to the U.S. Endangered Species Act (ESA). The ACOE's May 28, 2009, letter requested concurrence with their determination that the proposed project may affect, but is not likely to adversely affect steelhead and would not destroy or adversely modify designated critical habitat for this species. Additional information and clarification regarding the proposed project was received from the ACOE on August 24, 2009, in response to NMFS' July 9, 2009, letter; during the September 24, 2009, conference call among representatives from NMFS, ACOE, and the applicant (Cachuma Operations and Maintenance Board – COMB); and subsequent e-mail correspondence.

This consultation only evaluates construction related effects of the proposed pipeline that are associated with, and result from, the ACOE's discretion under section 404 of the CWA. On-going operations and maintenance of the South Coast Conduit and the Tecelote Tunnel are under Reclamation's discretion as part of Reclamation's Cachuma Project. Reclamation requested that effects to endangered steelhead or critical habitat for this species that may result from the

operation and maintenance of the existing South Coast Conduit and proposed addition be deferred to the forthcoming consultation under Section 7 of the ESA for the encompassing Cachuma Project[1]. Operation of the proposed pipeline will not alter flow releases from Bradbury Dam to the lower Santa Ynez River as described in the existing biological opinion and incidental take statement for the Cachuma Project. The following is a description of the specific information on which NMFS evaluated the potential construction-related effects of the proposed action on endangered steelhead and critical habitat for this species.

The proposed action involves removing (cutting) riparian vegetation from 50 feet along each stream bank and excavating a trench approximately 12 feet deep across Glen Annie Creek. The pipeline would be buried at least 8 feet under the existing streambed elevation. The following project design elements and practices would be applied to minimize or avoid adverse effects to endangered steelhead and designated critical habitat for this species:

1) Construction activities within and adjacent (riparian area) to Glen Annie Creek shall be scheduled to:
    a. Avoid high-flow season (October through April); and
    b. Avoid steelhead migration and spawning (November 1 through June 30) or to occur while water is not present.
2) Standard erosion and sediment control features described in California Regional Water Quality Control Board's Erosion Sediment Control Field Manual (1999) including:
    a. Straw bale and/or filter fabric barriers shall be installed around spoil piles to contain sediment from runoff, and
    b. Straw bale and/or filter fabric barriers shall be installed at the base of disturbed slopes for a minimum of two months (or until the end of the rainy season).
3) The bed and banks of Glen Annie Creek shall be restored to pre-project conditions to the greatest extent feasible.
4) All riparian woodland that is removed shall be replaced at a 2:1 ratio, or as mandated in project permits.
5) A biologist experienced in identification of steelhead shall conduct pre-construction surveys[2] in Glen Annie Creek to determine the presence of this species within about 500 feet of the construction area. Surveys shall be conducted within approximately one week of planned construction activities in Glen Annie Creek.

Furthermore, based on the ACOE's May 28, 2009, letter and subsequent September 24, 2009, conference call, proposed construction activities directly affecting Glen Annie Creek (excavation) would occur during the dry season when little to no water is present and when steelhead are not anticipated to occupy the construction area. If surface flow or isolated pool habitat is present during the anticipated construction work, the project applicant shall (a) assess existing area(s) of available habitat (length, width and depth) within the proposed disturbance area, (b) conduct visual observations for *O. mykiss* presence as specified in item 5 above, and (c) communicate the findings of (a) and (b) to the ACOE and NMFS prior to proceeding with

[1] Reclamation, June 2, 2010. Letter from Michael Kinsey (Reclamation) to Rod McInnis (NMFS).
[2] The Draft Special Status Species Protection Plan (April 2009) for the Project and the ACOE letter received August 24, 2009, further clarifies that pre-construction surveys for steelhead will be by visual methods, observations from the bank with binoculars or snorkeling (if water depth allows).

construction activities in Glen Annie Creek. Therefore, no direct effects to steelhead are anticipated to occur from the proposed action.

Indirect effects from the proposed action may occur from removal of riparian vegetation and excavation of the stream bed and banks resulting in increased susceptibility to erosion, increased stream sediment input, and reduced overhanging cover. The indirect effects resulting in increased stream bank erosion and sediment input would be minimized or avoided through implementation of erosion control measures and subsequent revegetation of the disturbed area. The indirect effect of overhanging cover would be limited to an area of 50 feet along both sides of the stream, with upstream and downstream habitat retaining this value, and be temporary (2-4 years) pending regrowth of existing vegetation (trees and shrubs) cut during construction and growth of planted vegetation. Therefore, indirect effects that may occur would be temporary in nature, insignificant to the species, and are not expected to diminish the value of designated critical habitat for endangered steelhead.

Based on the above, NMFS concurs with the ACOE's determination that the proposed construction of a 48-inch diameter pipeline through Glen Annie Creek may affect, but is not likely to adversely affect endangered steelhead or designated critical habitat for this species. This concludes informal section 7 consultation for this proposed action. Consultation must be reinitiated where discretionary Federal involvement or control over the action has been retained (or is authorized by law) and: (1) if new information becomes available revealing effects of the action on listed species in a manner or to an extent not previously considered, (2) if project plans change, (3) if the agency action is subsequently modified in a manner that causes an effect to listed species that was not considered, or (4) if a new species or critical habitat is designated that may be affected by this action. Please contact Darren Brumback at (562) 980-4060 if you have any questions concerning this letter.

Sincerely,

for

Rodney R. McInnis
Regional Administrator

cc: Crystal Huerta, U.S. Army Corps of Engineers
Kate Rees, Cachuma Operation and Maintenance Board
Susannah Pitman, Cachuma Operation and Maintenance Board
Mary Larson, California Department of Fish and Game
Michael Kinsey, U.S. Bureau of Reclamation
Roger Root, U.S. Fish and Wildlife Service
Copy to Administrative File: 151422SWR2009PR00306
151422SWR2001PR231

SOUTH COAST CONDUIT/UPPER REACH RELIABILITY PROJECT

FINAL ENVIRONMENTAL IMPACT STATEMENT/ENVIRONMENTAL IMPACT REPORT

Appendix I
Environmental Documents

November 2010

Healer, Rain L

From: Gruenhagen, Ned M
Sent: Wednesday, November 10, 2010 5:30 PM
To: Healer, Rain L
Subject: RE: Cachuma BO and conccurence
Attachments: RE: Appendix to the ROD

Rain,

The National Marine Fisheries Service (NMFS) issued a letter to the U.S. Army Corp of Engineers (USACE) addressing effects to Southern California Steelhead (*Onchorhynchus mykiss;* steelhead) and its designated critical habitat, as provided for under the Endangered Species Act (ESA; 16 USC Sect 1532 et seq.), from a proposed project to install a 48-inch diameter redundant water-supply pipeline associated with an existing water-conveyance system (Tecolote Tunnel) that transports water from the Bureau of Reclamation's (Reclamation) Lake Cachuma to the Corona del Mar Water Treatment Plant. The proposed pipeline would transect (buried) Glen Annie Creek. USACE's action was to authorize a permit for construction of said project across Glen Annie Creek, which is known to be inhabited by steelhead. The USACE analyzed effects from the project (referred to as the South Coast Conduit/Upper Reach Reliability Project or Second Barrel Pipeline) to listed steelhead and their critical habitat and NMFS concurred with USACE in a letter to USACE, dated July 1, 2010 (2009/03111:DB), that the project may affect, but is not likely to adversely affect steelhead and would not destroy or adversely modify designated critical habitat for this species.

It is my understanding that as long USACE and NMFS fully considered and analyzed the potential effects to steelhead and its designated critical habitat from the project, and that Reclamation's actions were included as part of the project and its evaluation, then the effects from Reclamation's actions to steelhead and their critical habitat would be covered under the concurrence provided by NMFS to USACE. Reclamation's action associated with the project is to provide a permit allowing easement for project construction. The effect of Reclamation's action is implicitly considered, if not explicitly considered, through analysis for effects of project construction. Furthermore, it is my understanding that coverage for effects to steelhead and their designated critical habitat from Reclamation's action associated with this project was discussed between M. Kinsey of Reclamation and D. Brumback of NMFS and that NMFS communicated that the concurrence letter that NMFS was to issue USACE would in fact cover Reclamation's action on the project (M. Kinsey, pers. comm.).

Consequently, based on the above material concerning Southern California Steelhead and their designated critical habitat, and that which was provided in my e-mail to you on August 25, 2010 concerning California red-legged frog (see attached), it is my opinion that no further consultation with NMFS or the Fish and Wildlife Service are required under the ESA.

Ned

From: Healer, Rain L
Sent: Wednesday, November 03, 2010 2:21 PM
To: Gruenhagen, Ned M
Subject: Cachuma BO and conccurence

Here are the responses from USFWS and NMFS.

Healer, Rain L

From: Gruenhagen, Ned M
Sent: Wednesday, August 25, 2010 4:29 PM
To: Healer, Rain L
Cc: Hyatt, David E
Subject: RE: Appendix to the ROD

Rain,

The Biological Opinion (2009-F-0320) was issued to the US Army Corps of Engineers by the Fish and Wildlife Service for coverage of the "construction and installation of a 48-inch diameter water supply pipeline with appurtenant facilities from the South Portal of the Tecolote Tunnel to the Corona del Mar Water Treatment Plant, of the pipeline from the mouth of the Tecolete Tunnel to the Corona del Mar Water Treatment Plant." Furthermore, the project area for the installation is described in the Biological Opinion as "approximately 7,000 feet long by 100 feet wide, and would result in a total of approximately 24.1 acres (9.8 hectares) of ground disturbance." Additional description of the pipeline trench, staging areas and other aspects of the pipeline construction are detailed. This description of the proposed action in Biological Opinion, and the coverage provided therein, covers the effects that would occur to California red-legged frog (CRLF) from Reclamation's issuance of a permit allowing the aforesaid proposed action. Furthermore, the constructed facilities and their operation and maintenance are not under Reclamation's authority.
As such, it is my opinion that Reclamation's proposed action (i.e. issuing a permit allowing the proposed action) would not have additional effects to species covered under the Endangered Species Act (16 USC 1531 et. seq.), and under the purview of Fish and Wildlife Service, and therefore additional consultation with Service is not required for our action.

Ned

From: Healer, Rain L
Sent: Wednesday, August 25, 2010 9:21 AM
To: Gruenhagen, Ned M
Subject: FW: Appendix to the ROD

Ned,

I was looking over the BO and it sounds like they may have covered the entire project and not just the two crossings. They talk about the "approximately 24 acres" of the project in their determination. Could you take a look and let me know if you read it the same way. Perhaps we are covered after all. I know in the NMFS concurrence they specifically talk about the Corps jurisdiction being only the crossings, but in the BO, I didn't find that.

Rain

From: Rosie Thompson [mailto:RThompson@entrix.com]
Sent: Wednesday, August 25, 2010 9:06 AM
To: Healer, Rain L
Subject: RE: Appendix to the ROD

Here is the BO.

Rosemary Thompson
ENTRIX
Senior Consultant

201 North Calle Cesar Chavez, Suite 203, Santa Barbara, CA 93103
DIRECT: 805.979.9413 • MAIN: 805.962.7679 • CELL: 805.358.4693 • FAX: 805.963.0412

From: Healer, Rain L [mailto:rhealer@usbr.gov]
Sent: Wednesday, August 25, 2010 8:07 AM
To: Rosie Thompson
Subject: RE: Appendix to the ROD

Rosie,

Do you have the response (BO) from the U.S.FWS for CRLF? I don't seem to have it. Thanks.

Rain

From: Rosie Thompson [mailto:RThompson@entrix.com]
Sent: Wednesday, August 18, 2010 11:27 AM
To: Healer, Rain L
Cc: Kate Rees; Susannah Pitman; Siek, Charles R
Subject: RE: Appendix to the ROD

Here is a copy of the NOD for your files.

Rosemary Thompson
ENTRIX
Senior Consultant

201 North Calle Cesar Chavez, Suite 203, Santa Barbara, CA 93103
DIRECT: 805.979.9413 • MAIN: 805.962.7679 • CELL: 805.358.4693 • FAX: 805.963.0412

From: Healer, Rain L [mailto:rhealer@usbr.gov]
Sent: Wednesday, August 18, 2010 10:11 AM
To: Rosie Thompson
Cc: Kate Rees; Susannah Pitman; Siek, Charles R
Subject: RE: Appendix to the ROD

Rosie,

Could you send me the Notice of Determination that was done for the CEQA portion of this document. I should have it for the Administrative Record.

Rain

From: Rosie Thompson [mailto:RThompson@entrix.com]
Sent: Tuesday, August 17, 2010 4:47 PM
To: Healer, Rain L
Cc: Kate Rees; Susannah Pitman
Subject: Appendix to the ROD

Hi Rain,

Because the South Portal issue came up after the final EIS/EIR was published and the EIR certified, I will prepare an appendix to the ROD that covers the South Portal issue and any other cultural resource issues that come out of the Section 106 process (e.g., Native American consultations and additional surveys for buried resources). I had inserted some info on the South Portal in the ROD and that will have to be moved to the appendix because we are not reissuing the EIS/EIR.

Rosie

Rosemary Thompson
ENTRIX
Senior Consultant

201 North Calle Cesar Chavez, Suite 203, Santa Barbara, CA 93103
DIRECT: 805.979.9413 • MAIN: 805.962.7679 • CELL: 805.358.4693 • FAX: 805.963.0412
EMAIL:rthompson@entrix.com • WEBSITE: www.entrix.com

Healer, Rain L

From: Rivera, Patricia L
Sent: Tuesday, June 08, 2010 1:56 PM
To: Healer, Rain L
Subject: RE: Cachuma Second Pipeline Project

Rain,

I reviewed the proposed action to construct a second 48-inch diameter water supply pipeline with appurtenant facilities. The existing South Coast Conduit (SCC) pipeline would remain operational; abandonment and demolition of the existing pipeline would not occur. The federal action would be approval of the proposed facilities by Reclamation through a MP620 permit for additions or alterations.

The pipeline would be welded steel pipe with an inside diameter of 48 inches. The pipe would be buried with a nominal five feet of cover. At the two stream crossings, cover would be approximately eight feet to avoid pipeline damage due to scour. On private lands, the pipe would be placed within a permanent easement. In addition, a temporary construction easement adjacent to the permanent easement that extends the width of the permanent easement would be used to accommodate the equipment, trench, and construction activities. The Cachuma Operation Maintenance Board (COMB) would enter into an easement with the adjacent landowners that would authorize the construction and operation of the proposed pipeline across their property, ensuring the conditional use of private lands. During this process, COMB would negotiate with the respective landowner regarding the payment of appropriate fees to offset the loss of existing avocado trees, ensuring sufficient funding to replant the orchard subsequent to construction. On federal lands, no easements would be required. The width of the construction area (permanent plus temporary construction easements on private land) would vary, depending on terrain and environmental constraints, and would generally be approximately 100 feet (30 meters). In areas with topographic or other constraints, the width could be as narrow as 50 feet (15 meters). Additional staging areas would be provided along the pipeline route for equipment, supplies (e.g., pipe), and vehicle parking; staging areas would be located within the temporary construction easements.

A number of appurtenant facilities would also be required for the new pipeline:

South Portal. The existing South Portal at the Tecolote Tunnel (SPTT) would need to be replaced due to structural degradation and modifications necessary to divert the water into two pipelines. Because the SCC must remain operational, the new SPTT structure would be constructed and then connected to the tunnel and pipelines during a short period of time. The pad and wasteway overflow elevation for the new SPTT would be placed at the hydraulic grade line (HGL) for the tunnel in order to maintain tunnel capacity and operational characteristics. Magnetic flowmeters would be installed at this location, or at Corona Del Mar Water Treatment Plant (CDMWTP), to provide improved flow measurement accuracy. Slide gates or butterfly valves would also be installed to allow one of the pipelines to be shut down for inspection and maintenance.

Air Release and Blowoff Valves. Air release valves are required at high points along the pipeline, and blowoff valves are required at low points. Approximately five air release valves and three blowoff valves would be necessary for the new pipeline. Air release valves allow the pipeline to be drained for inspection and maintenance and to remove air in the pipeline when it is refilled. The valves are placed in vaults (manholes) for protection and access. Water released from the new pipeline blowoff valves

adjacent to the West Fork would be released into the existing South Portal wasteway discharge structure for energy dissipation. Operation of the existing pipeline blowoff at that location would continue as in the past. For the other two blowoffs, water would be released into upland areas so that it would not flow into existing drainages (an unnamed tributary of Glen Annie Reservoir, and the main stem of Glen Annie Creek). The release rate would be controlled to prevent scour and erosion at the release point.

Glen Anne Turnout. The new pipeline would need to be connected to the existing Goleta West Conduit (GWC) through the existing or a new turnout. For the Preferred Alternative, a new 18-inch (46-centimeter) diameter, 115-foot (35-meter) long intertie pipeline would be constructed eastward from the new pipeline, about 200 feet (62 meters) south of the access road to the existing Glen Anne Turnout, to the GWC. This new alignment for the intertie was developed after publication of the Draft EIS/EIR in order to minimize potential environmental impacts associated with construction on the steep slopes to access the existing Goleta West turnout. For pipeline alignment Alternative A (parallel pipeline) an intertie at the Glen Anne Structure would be constructed along with improvements to the turnout structure that maintain the HGL to the GWC.

Corona Del Mar Turnout. The proposed second pipeline of the SCC would terminate at the existing CDMWTP weir structure. The CDMWTP turnout would be modified to increase capacity and reliability. A magnetic flowmeter would potentially be constructed upstream of the connection to the existing 36-inch-diameter outlet in the weir structure. Isolation of the pipeline would be accomplished with a motorized butterfly valve placed in a vault adjacent to the weir structure. To protect the pipeline from surge, a 36-inch-diameter pipe would also connect to the structure, downstream from the weir and higher in elevation. A bypass would also be constructed, with 48-inch-diameter modulating valve in a vault, which would allow downstream water delivery during necessary weir maintenance. The existing vent structure at Station 78+00 could be removed if a vacuum release valve were installed immediately downstream of the turnout.

Fiber-Optic Cable. A conduit for fiber-optic cable would be installed within the pipeline trench allowing reliable pipeline monitoring.

The proposed action does not have a potential to affect Indian Trust Asserts. The nearest ITA was the Santa Ynez Reservation approximately 15 miles northwest of the project location.