

**DELINEATION OF  
JURISDICTIONAL WATERS AND  
RIPARIAN HABITATS FOR THE  
NEWHALL COUNTY WATER DISTRICT  
VASQUEZ WATER MAIN PROJECT,  
SANTA CLARITA, CALIFORNIA**

*Prepared for:*

**UNITED STATES ARMY CORPS OF ENGINEERS**

*and*

**CALIFORNIA DEPARTMENT OF FISH AND GAME**

*On Behalf of:*

**NEWHALL COUNTY WATER DISTRICT**

**Mission Statement**

*To provide quality environmental consulting services  
with integrity that protect and enhance  
the human and natural environment*

**February 2003**

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and Riparian Habitats for the  
Newhall County Water District  
Vasquez Water Main Project,  
Santa Clarita, California**

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## SECTION I. PROJECT DESCRIPTION

### BACKGROUND

The Newhall County Water District (NCWD) is building a 3.2-mile-long water main pipeline, to provide water service to existing residences and businesses in the service area, and for proposed new housing developments on Vasquez Canyon Road in Santa Clarita (outside the city limits), Los Angeles County, California (hereafter referred to as “the Vasquez Water Main” or “the project”). The NCWD Vasquez Water Main will be installed under existing roads (Sand Canyon Road, Sierra Highway, and Vasquez Canyon Road), except in three locations where the water main will cross natural watercourses, including Mint Canyon Creek. The water main construction activities, to be conducted within Mint Canyon Creek, may substantially adversely affect existing biological resources of the project site. In addition, all three creeks are jurisdictional waters of the United States (U.S.), and certain activities within them are regulated by the United States Army Corps of Engineers (Corps), California Department of Fish and Game (CDFG), and Los Angeles Regional Water Quality Control Board (RWQCB).

David Magney Environmental Consulting (DMEC) conducted a biological resources assessment (DMEC 2003a) and a delineation of jurisdictional waters of the U.S. (including wetlands) of the project site to determine several factors including:

- Existing ecological conditions,
- Presence of special-status species,
- Presence and extent of waters of the U.S., including wetlands, existing in the vicinity of the project site, and
- Extent of waters that are expected to be directly or indirectly affected by the project.

### PROJECT SCOPE AND PURPOSE

The NCWD Vasquez Water Main originates from an existing water main at the intersection of Sand Canyon Road and Soledad Canyon Road, and the water main will be installed under existing roads, except in three locations where the water main will cross natural watercourses. The Mint Canyon Creek crossing will involve trenching through the creek bed several feet upstream from the Vasquez Canyon Road bridge. The remaining two water main crossings, which cross over two ephemeral drainages, will span the drainages and will not involve any soil disturbances within the channel banks. The proposed water main construction activities will be conducted within the banks of Mint Canyon Creek and within adjacent areas inhabited by Riparian Woodland. (Note: Since the water main project will be installed under existing roads, everywhere except in Mint Canyon Creek and the two small tributaries, this report will focus on those creek and tributary sites.)

The water main installment project, within the vicinity of the Mint Canyon Creek portion of the project site, includes a maximum impact area of approximately 50 feet wide along the length of the water main (a maximum of 25 feet along each side). This water main creek crossing has the potential to negatively affect existing biological resources onsite, and will result in the filling activities of the Mint Canyon Creek portion of the project site, which contains jurisdictional waters of the U.S., including wetlands. The



purpose of this wetland delineation is to provide the Corps with a determination of the presence of waters of the U.S. (including wetlands) along Mint Canyon Creek, and to satisfy conditions of the CDFG Streambed Alteration Agreement by determining the extent of (potential) impacts to wetland areas and riparian habitats onsite resulting from construction activities. (Note: the final determination of the Corps' area of jurisdiction lies with the Corps.)

## PROJECT LOCATION

The Vasquez Water Main Project is located in the Mint Canyon area, of the southern portion of the Liebre Mountains region (Western Transverse Ranges, California), at the eastern end of the City of Santa Clarita (Los Angeles County, California), but is outside the city limits (see Figure 1, General Project Site Location Map). The project site follows a total path length of approximately 2.4 miles.

A portion of the water main has already been installed immediately south of the southern project site boundary. The installed water main begins on Sand Canyon Road at the approximate coordinates of 34°26.671' north latitude, 118°25.204' west longitude; or, at the southwest ¼, of the northeast ¼, of section 11, township 4 north, range 15 west (SW¼, NE¼, S11, T4N, R15W), Mint Canyon, California Quadrangle (USGS 7.5-minute Series Topographic Map); at approximately 1,965 feet in elevation; and heads northwest for approximately 0.53 mile. The installed water main then heads northeast on Sierra Highway for approximately 0.25 mile, and ends where the proposed uninstalled portion of the project site begins.

The uninstalled portion of the project site follows the remaining approximate 1.65 miles beginning on Sierra Highway, at the approximate coordinates of 34°27.157' north latitude, 118°25.273' west longitude; or, SW¼, SE¼, S2, T4N, R15W; at approximately 1,723 feet in elevation; and heads northeast for approximately 0.18 mile.

The proposed water main then heads north/northwest on Vasquez Canyon Road for approximately 1.47 mile, and intersects Mint Canyon Creek (Figure 2, Aerial Photograph of Proposed Water Main Crossing Mint Canyon Creek) at the approximate coordinates of 34°27.29' north latitude, 118°25.223' west longitude; or, NE¼, SW¼, SE¼, S2, T4N, R15W; and at approximately 1,702 feet in elevation. The water main will end on Vasquez Canyon Road at the approximate coordinates of 34°28.264' north latitude, 118°25.956' west longitude; or, at the western border of the SW¼, NW¼, SW¼, S35, T5N, R15W; and at approximately 1,939 feet in elevation.

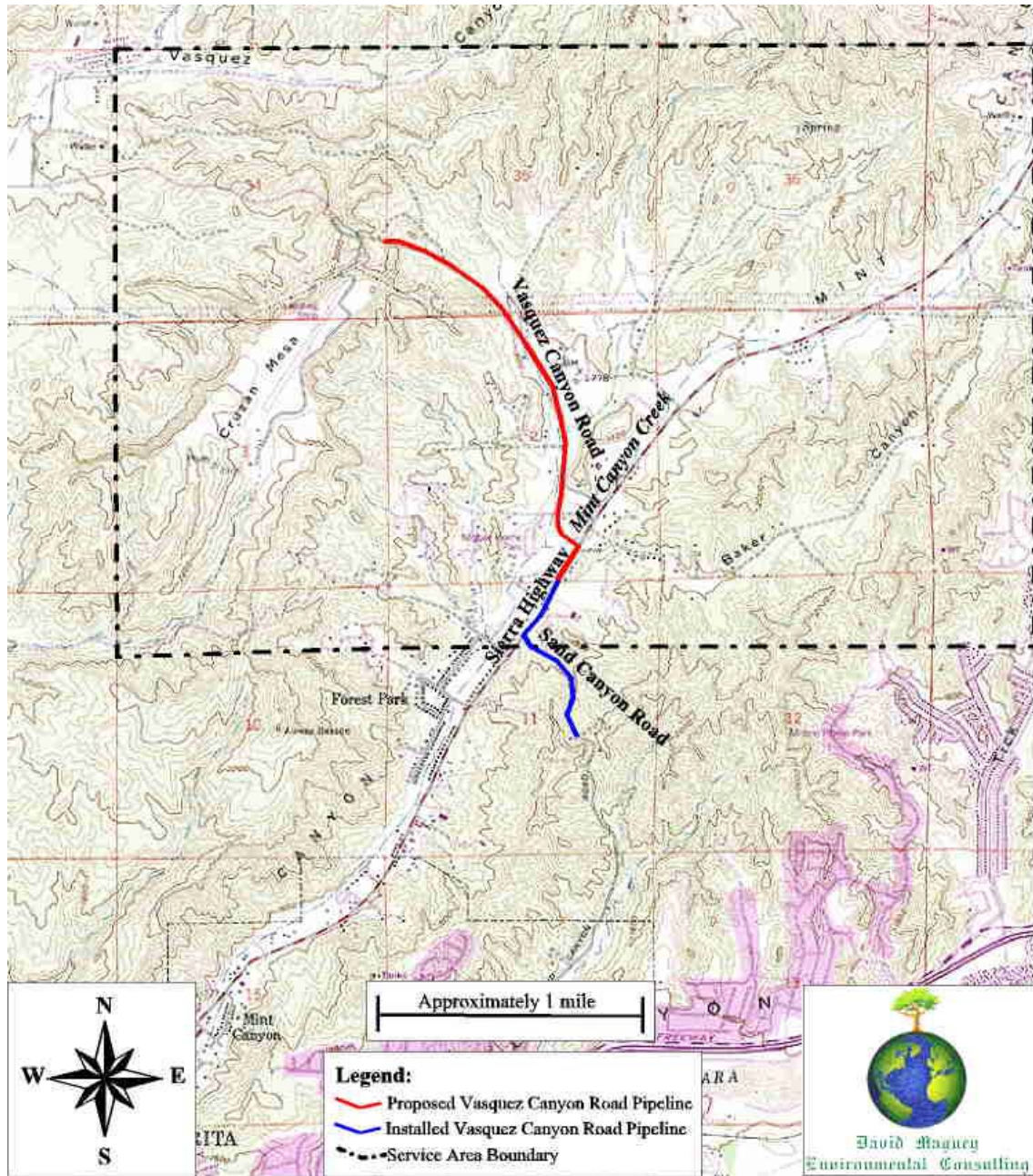
NCWD proposes to build a 2.4-mile-long water main pipeline, to provide water service to existing residences and businesses in the service area, and for proposed new housing developments on Vasquez Canyon Road in Santa Clarita, California. The Vasquez Water Main service area includes an area of approximately seven square miles (Figure 1). The service area includes the following sections of the Mint Canyon, California Quadrangle (USGS 7.5-minute Series Topographic Map):

- Sections 1, 2, and 3 of T4N, R15W;
- Sections 34, 35, and 36 of T5N, R15W;
- The northern 1/3 of Sections 10, 11, and 12 of T4N, R15W;
- The western 1/3 of Sections 6 and 7 of T4N, R14W; and
- The western 1/3 of Section 31 of T5N, R14W.

The Vasquez Water Main Project path is adjacent to, or intersects with, the following Assessor's Parcel Numbers (APN):

- 3231-007-903 (parcel in which the Mint Canyon Creek portion of the project is located);
- 3231-005-006, -010, -011, -013, -0014, -060, -500, and -501;
- 3231-004-025, -014, -015;-033, and -034;
- 3231-001-015 and -019;
- 3231-017-024 and -026; and
- 2813-015-024.

**Figure 1. General Project Site Location Map**





**Figure 2. Aerial Photograph of Proposed Water Main Crossing Mint Canyon Creek**





## SECTION II. REGULATORY REQUIREMENTS

Wetlands such as freshwater stream channels are considered sensitive and declining by several regulatory agencies including CDFG and the U.S. Fish and Wildlife Service (USFWS). Stream channels and banks are specifically addressed by the California Fish and Game Code Section 1600 *et seq.* (Streambed Alteration Agreement). Waters of the U.S., including stream channels and wetlands, fall under the jurisdiction of the Corps under Section 404 of the Clean Water Act.

### DEFINITIONS

Several agencies have jurisdiction over, or policies regarding, waters and/or wetlands, including the Corps, State Water Resources Control Board (SWRCB), CDFG, and County of Los Angeles. Each agency or jurisdiction has slightly different definitions for wetlands or descriptions of their policies regarding them. For the Vasquez Water Main project, the Corps and SWRCB use the same definition for waters of the U.S. and wetlands as they apply to the Clean Water Act. The CDFG uses a broader definition under Section 1600 *et seq.* of the California Fish and Game Code.

Portions of the project site fall within the jurisdiction of one or more agencies that regulate activities in wetlands such as Mint Canyon Creek. Waters of the U.S., including wetlands, are within the jurisdiction of the Corps and State Water Resources Control Board pursuant to Sections 404 and 401 of the Clean Water Act, respectively. Waters of the State are regulated by the CDFG pursuant to Section 1600 *et seq.* of the California Fish and Game Code. Certain floodways within Los Angeles County are regulated by the Los Angeles County Flood Control and Conservation District.

Discharging dredge or fill material into waters of the U.S. requires a permit from the Corps. Certain activities are already covered under a number of General permits, known as General (Nationwide) Permits. Activities not covered by the existing Nationwide Permits requires an application for an individual permit from the Corps.

### Waters of the United States

The term "waters of the United States" means:

- “(1) All waters, which are currently used, were used in the past, or may be susceptible to use in interstate or foreign commerce, including all waters that are subject to ebb and flow of the tide;
- (2) All interstate waters including interstate wetlands;
- (3) All other waters - such as intrastate lakes, rivers, streams (including intermittent streams), mudflats, sandflats, wetlands, sloughs, prairie potholes, wet meadows, playa lakes, or natural ponds – where the use, degradation, or destruction of which could affect interstate or foreign commerce, including any such waters:
  - (i) Which are or could be used by interstate or foreign travelers for recreational or other purposes;
  - (ii) From which fish or shellfish are or could be taken and sold in interstate or foreign commerce;



- (iii) Which are used, or could be used, for industrial purposes by industries in interstate commerce; or
- (iv) Including all impoundments of waters, otherwise defined as waters of the U.S., under the definition;
- (5) Tributaries of waters identified in paragraphs (a)(1)-(4) of this section;
- (6) The territorial seas; and
- (7) Wetlands adjacent to waters (other than waters that are themselves wetlands) identified in paragraphs (a)(1)-(6) of this section.
- (8) Waters of the U.S. do not include prior converted cropland. Notwithstanding the determination of an area's status as prior converted cropland by any other federal agency, for the purposes of the Clean Water Act, the final authority regarding Clean Water Act jurisdiction remains with EPA.”

Basically, areas exhibiting clearly defined bed and banks of water courses with evidence of periodic or regular erosion and/or deposition by water are considered to be waters of the U.S., and are under the jurisdiction of the Corps.

## Wetlands

The Corps (Environmental Laboratory 1987) defines wetlands as:

“Those areas that are inundated or saturated by surface or ground water at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions. Wetlands generally include swamps, marshes, bogs, and similar areas”.

The U.S. Fish and Wildlife Service’s wetland classification system (Cowardin et al. 1979) is as follows:

“Wetlands are lands transitional between terrestrial and aquatic systems where the water table is usually at or near the surface or the land is covered by shallow water. For purposes of this classification, wetlands must have one or more of the following attributes: (1) at least periodically, the land supports predominantly hydrophytes; (2) the substrate is predominantly undrained hydric soil; and (3) the substrate is non-soil and is saturated with water, or covered by shallow water, at some time during the growing season of each year.”

Wetlands are defined in the California Coastal Act (California Coastal Commission 1981) as:

“Land which [sic] may be covered periodically, or permanently, with shallow water and includes saltwater marshes, freshwater marshes, open or closed brackish water marshes, swamps, mudflats, and fens.”

Note: The project site is not within the coastal zone; however, the wetlands definition included within the California Coastal Act is generally accepted and adopted as the definition used statewide.

The California Fish and Game Commission, and the California Department of Fish and Game, have adopted the USFWS definition for wetlands (Lollock 1987):

“When all three indicators (i.e., hydric soils, wetland vegetation, and hydrology) are present, the presumption of wetland existence shall be conclusive. Where less than three indicators are present, policy application shall be supported by the demonstrable use of



wetland areas by wetland associated fish or wildlife resources, related biological activity, and wetland habitat values. The USFWS wetland classification system should be applied by professionals trained in its methodology.”

Furthermore, the Keene-Nejedly California Wetlands Preservation Act of 1976, Section 5812 of the Public Resources Code, defines wetlands as:

“(a) ‘Wetlands’ means streams, channels, lakes, reservoirs, bays, estuaries, lagoons, marshes, and the lands underlying and adjoining such waters, whether permanently or intermittently submerged, to the extent that such waters and lands support and contain significant fish, wildlife, recreational, aesthetic, or scientific resources.”

### ***Wetland Criteria***

To be a wetland as defined by the Corps, the wetland must possess the following three general diagnostic environmental characteristics:

1. **Hydrophytic Vegetation.** The prevalent vegetation consists of macrophytes that are typically adapted to areas having hydrologic and soil conditions described in the wetland definitions above.
2. **Hydric Soil.** Soils are present and have been classified as hydric, or they possess characteristics that are associated with reducing soil conditions.
3. **Hydrology.** The area is inundated either permanently or periodically at mean water depths less than or equal to 2 meters (6.6 feet), or the soil is saturated to the surface at some time during the growing season of the prevalent vegetation.

One or more indicators must be found positive for each of the three wetland parameters at the site before it can be considered a jurisdictional wetland for the purpose of the Clean Water Act. However, CDFG requires that one or more positive indicators must be found for only one of the three wetland criteria to be considered a jurisdictional wetland for the purpose of state regulations.

## **CORPS GENERAL PERMITS**

Section 404 of the Clean Water Act prohibits discharge of dredged or fill material into waters of the U.S. without a permit from the Corps, or authorization under one or more existing General (Nationwide) Permits, pursuant to Section 404 of the Clean Water Act. Delineation of wetlands, and other waters of the U.S., is required to determine acreage affected by dredge spoil or fill disposal that are under Corps jurisdiction.

A number of general and specific prior conditions must be met before use of a Nationwide Permit (NWP) will be authorized (33 CFR Part 330 – Nationwide Permit Program):

### **“Sec. 330.4 Conditions, Limitations, and Restrictions.**

- a. **General.** A prospective permittee must satisfy all terms and conditions of an NWP for a valid authorization to occur. Some conditions identify a ‘threshold’ that, if met, requires additional procedures or provisions contained in other paragraphs in this section. It is important to remember that the NWPs only authorize activities from the perspective of the Corps regulatory authorities, and that other Federal, state, and local permits, approvals, or authorizations may also be required.
- b. **Further Information.**
  1. DEs have authority to determine if an activity complies with the terms and conditions of an NWP.



2. NWP's do not obviate the need to obtain other Federal, state, or local permits, approvals, or authorizations required by law.
  3. NWP's do not grant any property rights or exclusive privileges.
  4. NWP's do not authorize any injury to the property or rights of others.
  5. NWP's do not authorize interference with any existing or proposed Federal project.
- c. **State 401 Water Quality Certification.**
1. State 401 water quality certification pursuant to Section 401 of the Clean Water Act, or waiver thereof, is required prior to the issuance or reissuance of NWP's authorizing activities which [sic] may result in a discharge into waters of the U.S.
  2. If, prior to the issuance or reissuance of such NWP's, a state issues a 401 water quality certification which [sic] includes special conditions, the division engineer will make these special conditions regional conditions of the NWP for activities which may result in a discharge into waters of U.S. in that state, unless he determines that such conditions do not comply with the provisions of 33 CFR 325.4. In the latter case, the conditioned 401 water quality certification will be considered a denial of the certification (see paragraph (c)(3) of this section).
  3. If a state denies a required 401 water quality certification for an activity otherwise meeting terms and conditions of a particular NWP, that NWP's authorization for all such activities within that state is denied without prejudice until the state issues an individual 401 water quality certification or waives its right to do so. State denial of 401 water quality certification for any specific NWP affects only those activities that may result in a discharge. That NWP continues to authorize activities that could not reasonably be expected to result in discharges into waters of the U.S.
  4. DEs will take appropriate measures to inform the public of which activities, water bodies, or regions require an individual 401 water quality certification before authorization by NWP.
  5. The DE will not require or process an individual permit application for an activity which [sic] may result in a discharge and otherwise qualifies for an NWP solely on the basis that the 401 water quality certification has been denied for that NWP. However, the district or division engineer may consider water quality, among other appropriate factors, in determining whether to exercise his discretionary authority and require a regional general permit or an individual permit.
  6. In instances where a state has denied the 401 water quality certification for discharges under a particular NWP, permittees must furnish the DE with an individual 401 water quality certification or a copy of the application to the state for such certification. For NWP's, for which a state has denied the 401 water quality certification, the DE will determine a reasonable period of time after receipt of the request for an activity-specific 401 water quality certification (generally 60 days), upon the expiration of which the DE will presume state waiver of the certification for the individual activity covered by the NWP's. However, the DE and the state may negotiate for additional for the 401 water quality certification, but in no event shall the period exceed one (1) year (see 33 CFR 325.2(b)(1)(ii)). Upon receipt of an individual 401 water quality certification, or if the prospective permittee demonstrates to the DE state waiver of such certification, the proposed work can be authorized under the NWP. For NWP's requiring a 30-day predischage notification, the district engineer will immediately begin, and complete, his review prior to the state action on the individual section 401 water quality certification. If a state issues a conditioned individual 401 water quality certification for an individual activity, the DE will include those conditions as activity-specific conditions of the NWP.
  7. Where a state, after issuing a 401 water quality certification for an NWP, subsequently attempts to withdraw it for substantive reasons after the effective date of the NWP, the division engineer will review those reasons and consider whether there is a substantial basis for suspension, modification, or revocation of the NWP authorization as outlined in Section 330.5. Otherwise, such attempted state withdrawal is not effective, and the Corps will consider the state certification to be valid for the NWP authorizations until such time as when the NWP is modified or reissued.



**d. Coastal Zone Management Consistency Determination.**

1. Section 307(c)(1) of the Coastal Zone Management Act (CZMA) requires the Corps to provide a consistency determination and receive state agreement prior to the issuance, reissuance, or expansion of activities authorized by an NWP that authorizes activities within a state with a Federally-approved Coastal Management Program when activities that would occur within, or outside, that state's coastal zone will affect land or water uses or natural resources of the state's coastal zone.
2. If, prior to the issuance, reissuance, or expansion of activities authorized by an NWP, a state indicates that additional conditions are necessary for the state to agree with the Corps consistency determination, the division engineer will make such conditions regional conditions for the NWP in that state, unless he determines that the conditions do not comply with the provisions of 33 CFR 325.4 or believes for some other specific reason it would be inappropriate to include the conditions. In this case, the state's failure to agree with the Corps consistency determination without the conditions will be considered to be a disagreement with the Corps consistency determination.
3. When a state has disagreed with the Corps consistency determination, authorization, for all such activities occurring within or outside the state's coastal zone that affect land or water uses or natural resources of the state's coastal zone, is denied without prejudice until the prospective permittee furnishes the DE an individual consistency certification pursuant to Section 307(c)(3) of the CZMA and demonstrates that the state has concurred in it (either on an individual or generic basis), or that concurrence should be presumed (see paragraph (d)(6) of this Section).
4. DEs will take appropriate measures, such as public notices, to inform the public of which activities, waterbodies, or regions require prospective permittees to make an individual consistency determination and seek concurrence from the state.
5. DEs will not require or process an individual permit application for an activity otherwise qualifying for an NWP solely on the basis that the activity has not received CZMA consistency agreement from the state. However, the district or division engineer may consider that factor, among other appropriate factors, in determining whether to exercise his discretionary authority and require a regional general permit or an individual permit application.
6. In instances where a state has disagreed with the Corps consistency determination for activities under a particular NWP, permittees must furnish the DE with an individual consistency concurrence or a copy of the consistency certification provided to the state for concurrence. If a state fails to act on a permittee's consistency certification within six months after receipt by the state, concurrence will be presumed. Upon receipt of an individual consistency concurrence or upon presumed consistency, the proposed work is authorized if it complies with all terms and conditions of the NWP. For NWPs requiring a 30-day pre-discharge notification the DE will immediately begin, and may complete, his review prior to the state action on the individual consistency certification. If a state indicates that individual conditions are necessary for consistency with the state's Federally-approved coastal management program for that individual activity, the DE will include those conditions as activity-specific conditions of the NWP unless he determines that such conditions do not comply with the provisions of 33 CFR 325.4. In the latter case the DE will consider the conditioned concurrence as a nonconcurrence unless the permittee chooses to comply voluntarily with all the conditions in the conditioned concurrence.



7. Where a state, after agreeing with the Corps consistency determination, subsequently attempts to reverse its agreement for substantive reasons after the effective date of the NWP, the division engineer will review those reasons and consider whether there is substantial basis for suspension, modification, or revocation as outlined in 33CFR 330.5. Otherwise, such attempted reversal is not effective and the Corps will consider the state CZMA consistency agreement to be valid for the NWP authorization until such time as the NWP is modified or reissued.
8. Federal activities must be consistent with a state's Federally-approved coastal management program to the maximum extent practicable. Federal agencies should follow their own procedures and the Department of Commerce regulations appearing at 15 CFR Part 930 to meet the requirements of the CZMA. Therefore, the provisions of 33CFR 330.4(d)(1)-(7) do not apply to Federal activities. Indian tribes doing work on Indian Reservation lands shall be treated in the same manner as Federal applicants.
- e. **Discretionary Authority.** The Corps reserves the right (i.e., discretion) to modify, suspend, or revoke NWP authorizations. Modification means the imposition of additional or revised terms or conditions on the authorization. Suspension means the temporary cancellation of the authorization while a decision is made to either modify, revoke, or reinstate the authorization. Revocation means the cancellation of the authorization. The procedures for modifying, suspending, or revoking NWP authorizations are detailed in Section 330.5.
  1. A division engineer may assert discretionary authority, by modifying, suspending, or revoking NWP authorizations, for a specific geographic area, class of activity, or class of waters within his division, including on a statewide basis, whenever he determines sufficient concerns for the environment under the Section 404(b)(1) guidelines or any other factor of the public interest so requires, or if he otherwise determines that the NWP would result in more than minimal adverse environmental effects either individually or cumulatively.
  2. A DE may assert discretionary authority by modifying, suspending, or revoking NWP authorization for a specific activity whenever he determines sufficient concerns for the environment or any other factor of the public interest so requires. Whenever the DE determines that a proposed specific activity covered by an NWP would have more than minimal individual or cumulative adverse effects on the environment or otherwise may be contrary to the public interest, he must either modify the NWP authorization to reduce or eliminate the adverse impacts, or notify the prospective permittee that the proposed activity is not authorized by NWP and provide instructions on how to seek authorization under a regional general or individual permit.
  3. The division or district engineer will restore authorization under the NWPs at any time he determines that his reason for asserting discretionary authority has been satisfied by a condition, project modification, or new information.
  4. When the Chief of Engineers modifies or reissues an NWP, division engineers must use the procedures of Section 330.5 to reassert discretionary authority to reinstate regional conditions or revocation of NWP authorizations for specific geographic areas, class of activities, or class of waters. Division engineers will update existing documentation for each NWP. Upon modification or reissuance of NWPs, previous activity-specific conditions or revocations of NWP authorization will remain in effect unless the DE specifically removes activity-specific conditions or revocations.
- f. **Endangered Species.** No activity is authorized by any NWP if that activity is likely to jeopardize the continued existence of a threatened or endangered species, as listed or proposed for listing under the Federal Endangered Species Act (ESA), or to destroy or adversely modify the critical habitat of such species.
  1. Federal agencies should follow their own procedures for complying with requirements of the ESA.
  2. Non-federal permittees shall notify the DE if any Federally listed (or proposed for listing) endangered or threatened species or critical habitat might be affected or is in the vicinity of the project. In such cases, the prospective permittee will not begin work under authority of the NWP until notified by the district engineer that the requirements of the Endangered Species Act have been satisfied and that the activity is authorized. If the DE determines that the activity may affect any



- Federally listed species or critical habitat, the DE must initiate Section 7 consultation in accordance with the ESA. In such cases, the DE may:
- i. Initiate Section 7 consultation and then, upon completion, authorize the activity under the NWP by adding, if appropriate, activity-specific conditions; or
  - ii. Prior to or concurrent with Section 7 consultation, assert discretionary authority (see 33 CFR 330.4(e)) and require an individual permit (see 33 CFR 330.5(d)).
3. Prospective permittees are encouraged to obtain information on the location of threatened or endangered species and their critical habitats from the U.S. Fish and Wildlife Service, Endangered Species Office, and the National Marine Fisheries Service.
- g. **Historic Properties.** No activity which may affect properties listed or properties eligible for listing in the National Register of Historic Places, is authorized until the DE has complied with the provisions of 33 CFR Part 325, Appendix C.
1. Federal permittees should follow their own procedures for compliance with the requirements of the National Historic Preservation Act and other Federal historic preservation laws.
  2. Non-federal permittees will notify the DE if the activity may affect historic properties which the National Park Service has listed, determined eligible for listing, or which the prospective permittee has reason to believe may be eligible for listing, on the National Register of Historic Places. In such cases, the prospective permittee will not begin the proposed activity until notified by the DE that the requirements of the National Historic Preservation Act have been satisfied and that the activity is authorized. If a property in the permit area of the activity is determined to be an historic property in accordance with 33 CFR Part 325, Appendix C, the DE will take into account the effects on such properties in accordance with 33 CFR Part 325, Appendix C. In such cases, the district engineer may:
    - i. After complying with the requirements of 33 CFR Part 325, Appendix C, authorize the activity under the NWP by adding, if appropriate, activity-specific conditions; or
    - ii. Prior to, or concurrent with, complying with the requirements of 33 CFR Part 325, Appendix C, he may assert discretionary authority (see 33 CFR 330.4(e)) and instruct the prospective permittee of procedures to seek authorization under a regional general permit or an individual permit. (See 33 CFR 330.5(d)).
  3. The permittee shall immediately notify the DE if, before or during prosecution of the work authorized, he encounters an historic property that has not been listed or determined eligible for listing on the National Register, but which the prospective permittee has reason to believe may be eligible for listing on the National Register.
  4. Prospective permittees are encouraged to obtain information on the location of historic properties from the State Historic Preservation Officer and the National Register of Historic Places.”

## **Nationwide Permit 12 - Utility Line Backfill and Bedding**

For the NCWD Vasquez Water Main project, an existing Nationwide Permit issued by the Corps may be used to install the water main pipeline under Mint Canyon Creek: Nationwide Permit 12.

Nationwide Permit 12 authorizes discharges of material for backfill or bedding for utility lines, including outfall and intake structures, provided there is no change in preconstruction contours. A "utility line" is defined as any pipe or pipeline for the transportation of any gaseous, liquid, liquefiable, or slurry substance, for any purpose, and any cable, line, or wire for the transmission of any electrical energy, telephone and telegraph messages, or radio and television communication. The term "utility line" does not include activities, which drain a water of the U.S, such as drainage tile; however, it does apply to pipes conveying drainage from another area. Material resulting from trench excavation may be temporarily side-cast (up to three months) into waters of the U.S., provided the material is not placed in such a manner that it is dispersed by currents or other forces. The Corps District Engineer (DE) may extend the period of





temporary side-casting up to 180 days, where appropriate. The area of waters of the U.S. that are to be disturbed must be limited to the minimum extent necessary to construct the utility line. In wetlands, the top 6" to 12" of a trench should generally be backfilled with the same topsoil excavated from the trench. Excess material must be removed to upland areas immediately upon completion of construction. Any exposed slopes and stream banks must be stabilized immediately upon completion of the utility line. The utility line itself will require a Section 10 permit if it exists within navigable waters of the U.S. (see 33 CFR Part 322). (Section 404.)

Nationwide Permit 12 authorizes activities associated with discharges of material for backfill or bedding for utility lines, including the construction, maintenance, or expansion of (Section 404):

1. Substation facility associated with a power line or utility line in non-tidal waters of the U.S.
2. Foundations for overhead utility line towers, poles, and anchors in all waters of the U.S., provided the foundations are the minimum size necessary and separate footings for each tower leg are used where feasible.
3. Access roads for the construction and maintenance of utility lines, including overhead power lines and utility line substations, in non-tidal waters of the U.S. Access roads shall be the minimum width necessary, constructed so that the length of the road minimizes adverse effects, and constructed as near as possible to preconstruction contours and elevations, which must be properly bridged or culverted to maintain surface flows.

These authorized discharge activities may not result in the loss of greater than ½ acre of non-tidal waters of the U.S. Waters of the U.S. temporarily affected by filling, flooding, excavation, or drainage, where the project area is restored to preconstruction contours and elevations, are not included in the calculation of permanent loss of waters of the U.S. Where certain functions and values of waters of the U.S. are permanently adversely affected, such as the conversion of a forested wetland to a herbaceous wetland in the permanently maintained utility line right-of-way, mitigation will be required to reduce the adverse effects of the project to the minimal level. Mechanized land-clearing necessary for activities associated with utility lines, utility line substations, overhead utility lines, and access roads is authorized, provided the cleared area consisting of waters of the U.S. that is filled, excavated, or flooded is kept to the minimum extent necessary and preconstruction contours are maintained as near as possible. Excess material must be removed to upland areas immediately upon completion of construction. (See 33 CFR Part 322). (Section 404.)

The permittee must notify the DE in accordance with General Condition 13, if any of the following criteria are met (Section 404):

1. Mechanized land clearing in a forested wetland for the utility line right-of-way;
2. A Section 10 permit is required;
3. The utility line in waters of the U.S., excluding overhead lines, exceeds 500 feet;
4. The utility line is placed within a jurisdictional area, and runs parallel to a stream bed within that jurisdictional area;
5. Discharges associated with utility line substations construction that result in the loss of greater than 1/10 acre of waters of the U.S.;
6. Permanent access roads constructed above grade in waters of the U.S. more than 500 ft; or
7. Permanent access roads constructed in waters of the U.S. with impervious materials.



## ***Nationwide Permit 12 General Conditions***

Nationwide Permit 12 has been issued to the NCWD permitting installation of utility crossings in waters of the U.S., including wetlands, with certain general conditions. (The following conditions follow Section 10 and 404.)

1. No activity may cause more than a minimal adverse effect on navigation.
2. Any structure or fill authorized shall be properly maintained to ensure public safety.
3. Appropriate soil erosion and sediment controls must be used and maintained in effective operating condition during construction, and all exposed soil/fills, as well as any work below the ordinary high water mark or high tide line, must be permanently stabilized at the earliest practicable date.
4. No activity may substantially disrupt the movement of those species of aquatic life indigenous to the waterbody, including species that normally migrate through the area, unless the activity's primary purpose is to impound water. Culverts must be installed to maintain low flow conditions.
5. Heavy equipment working in wetlands must be placed on mats, or other measures must be taken to minimize soil disturbance.
6. The activity must comply with any regional conditions that may have been added by the Division Engineer (see 33 CFR 330.4(e)), and with any case specific conditions added by the Corps or by the State or tribe in its Section 401 water quality certification and Coastal Zone Management Act consistency determination.
7. No activity may occur in a component of the National Wild and Scenic River System, or in a river officially designated by Congress as a "study river" for possible inclusion in the system while the river is in an official study status, unless the appropriate Federal agency has determined in writing that proposed activity will not adversely effect Wild and Scenic River designation, or study status.
8. No activity, or its operation, may impair reserved tribal rights, including, but not limited to, reserved water rights and treaty fishing and hunting rights.
9. The permittee must comply with all conditions of General Water Quality Certification No. 3288, issued by the North Carolina Division of Water Quality (NCDWQ) on 1 June 2000.
10. The North Carolina Division of Coastal Management (NCDCM), has waived consistency.
11. Endangered Species Conditions:
  - a. No activity is authorized under any NWP, which is likely to jeopardize the continued existence of a threatened or endangered species or a species proposed for such designation, as identified under the Federal Endangered Species Act, or which is likely to destroy or adversely modify critical habitat of such species. Non-Federal permittees shall notify the DE if any listed species or designated critical habitat might be affected, is in the vicinity of the project, or is located in the designated critical habitat. The notification must include the name(s) of endangered or threatened species that may be affected, or that utilize the designated critical habitat that may be affected, by the proposed work. Permittees shall not begin work until notified by the DE.
  - b. Authorization of an activity by a NWP does not authorize the "take" of a threatened or endangered species as defined under the Federal Endangered Species Act. In the absence of separate authorization (e.g., an ESA Section 10 Permit, a Biological Opinion with "incidental take" provisions, etc.) from the U.S. Fish and Wildlife Service or the National Marine Fisheries Service, both lethal and non-lethal "takes" of protected species are in violation of the Endangered Species Act.
12. No activity is authorized, which may affect historic properties listed, or eligible for listing, in the National Register of Historic Places is authorized, until the DE has complied with the provisions of 33 CFR part 325, Appendix C. The prospective permittee must notify the DE if the authorized activity may affect any historic properties listed, determined to be eligible, or which the permittee has reason to believe may be eligible for



listing on the National Register of Historic Places. The permittee shall not begin the activity until notified by the DE that the requirements of the National Historic Preservation Act have been satisfied and that the activity is authorized.

13. Notification Conditions:

- a. Where required by the terms of the NWP, the prospective permittee must notify the DE with a PreConstruction Notification (PCN) as early as possible. The DE must determine if the PCN is complete within 30 days of the date of receipt and can request the additional information necessary to make the PCN complete only once. However, if the permittee does not provide all requested information, then the DE will notify the permittee that the PCN is still incomplete, and the PCN review process will not commence until all requested information is received by the DE.

The prospective permittee shall not begin the activity:

- 1) Until notified in writing by the DE that the activity may proceed under the NWP with any special conditions imposed by the District or Division Engineer; or
  - 2) If notified by the District or Division Engineer that an individual permit is required; or
  - 3) Unless 45 days have passed from the DE's receipt of the complete notification and the permittee has not received written notice from the District or Division Engineer. Subsequently, the permittee's right to proceed under the NWP may be modified, suspended, or revoked only in accordance with the procedure set forth in 33 CFR 330.5(d)(2).
- b. The notification must be in writing and must include the name, address and telephone numbers of the prospective permittee; the location of the proposed project; a brief description of the proposed project; the project's purpose; direct and indirect adverse environmental effects the project would cause; and other NWP(s), regional general permit(s), or individual permit(s) used or intended to be used to authorize any part of the proposed project or any related activity.

The PCN must also include a delineation of affected special aquatic sites, including wetlands, vegetated shallows (e.g., submerged aquatic vegetation, seagrass beds), and riffle and pool complexes (see paragraph 13(f)).

- c. The standard individual permit application form (Form ENG 4345) may be used as the notification but must clearly indicate that it is a PCN and must include all the information required above in b., including (1)-(4) of General Condition 13. A letter containing the requisite information may also be used.
- d. In reviewing the PCN for the proposed activity, the DE will determine whether the activity authorized by the NWP will result in more than minimal individual or cumulative adverse environmental effects or may be contrary to the public interest. The prospective permittee may (optionally) submit a proposed mitigation plan with the PCN to expedite the process and the DE will consider any proposed compensatory mitigation the applicant has included in the proposal. If the DE determines that the activity complies with the NWP terms and conditions and that the effects on the aquatic environment are minimal, the DE will notify the permittee and include any conditions the DE deems necessary.

Any compensatory mitigation proposal must be approved by the DE prior to commencing work. If the prospective permittee is required to submit a compensatory mitigation proposal with the PCN, the proposal may be either conceptual or detailed. The DE will expeditiously review the plan and determine (within 45 days) whether the conceptual or specific proposed mitigation would ensure no more than minimal adverse effects on the aquatic environment. If the net adverse effects of the project on the aquatic environment (after consideration of the compensatory mitigation proposal) are determined by the DE to be minimal, the DE will provide a timely written response to applicant stating that the project can proceed under nationwide permit terms and conditions. If the DE determines that the adverse effects of the proposed work are more than minimal, then he will notify the applicant either that the project:



- 1) does not qualify for authorization under the NWP and instruct the applicant on the procedures to seek authorization under an individual permit;
  - 2) is authorized under the NWP subject to the applicant's submission of a mitigation proposal that would reduce the adverse effects on the aquatic environment to the minimal level; or
  - 3) is authorized under the NWP with specific modifications or conditions.
- e. The DE will consider any comments from Federal and State agencies concerning the proposed activity's compliance with the terms and conditions of the NWPs and the need for mitigation to reduce the project's adverse effects on the aquatic environment to a minimal level.
- For activities requiring notification to the DE that result in the loss of greater than ½ acre of waters of the U.S., the DE will, upon receipt of a notification, provide immediately, a copy to the appropriate offices of the Fish and Wildlife Service, State natural resource or water quality agency, EPA, State Historic Preservation Officer (SHPO), and, if appropriate, the National Marine Fisheries Service.
- f. Wetland delineations must be prepared in accordance with the current method required by the Corps. The permittee may ask the Corps to delineate the special aquatic site.
- g. For activities that may adversely affect Federally-listed endangered or threatened species, the PCN must include the name(s) of those endangered or threatened species that may be affected by proposed work or utilize designated critical habitat that may be affected by the proposed work.
- h. For activities that may affect historic properties listed in, or eligible for listing in, the National Register of Historic Places, the PCN must state which historic property may be affected by the proposed work or include a vicinity map indicating the location of the historic property.
- i. For NWP 12, where the proposed work involves discharges of dredged or fill into waters of the U.S. resulting in permanent, above-grade fills within 100-year floodplains, the notification must include documentation demonstrating that the proposed work complies with the appropriate FEMA or FEMA-approved local floodplain construction requirements.
- j. For activities that may adversely affect Federally-listed endangered or threatened species, the PCN must include name(s) of those endangered or threatened species that may be affected by the proposed work or utilize designated critical habitat that may be affected by the proposed work.
- k. For activities that may affect historic properties listed in, or eligible for listing in, the National Register of Historic Places, the PCN must state which historic property may be affected by the proposed work or include a vicinity map indicating the location of the historic property.
14. Every permittee who has received a Nationwide permit verification from the Corps will submit a signed certification regarding the completed work and any required mitigation. The certification will be forwarded by the Corps with the authorization letter. The certification will include:
- a. A statement that the authorized work was done in accordance with the Corps authorization, including any general or specific conditions;
  - b. A statement that required mitigation was completed in accordance with permit conditions; and
  - c. The signature of the permittee certifying the completion of the work and mitigation.
15. The use of more than one NWP for a single and complete project is prohibited, except when the acreage loss of waters of the U.S. authorized by the NWPs does not exceed the acreage limit of the NWP with the highest specified acreage limit.
16. No activity, including structures and work in navigable waters of the U.S. or discharges of dredged or fill material, may occur in the proximity of a public water supply intake except where the activity is for repair of the public water supply intake structures or adjacent bank stabilization.



17. No activity, including structures and work in navigable waters of the U.S. or discharges of dredged or fill material, may occur in areas of concentrated shellfish populations, unless the activity is directly related to a shellfish harvesting activity authorized by NWP 4.
18. No activity, including structures and work in navigable waters of the U.S. or discharges of dredged or fill material, may consist of unsuitable material (e.g., trash, debris, asphalt, etc.) and material must be free from toxic pollutants in toxic amounts (see Section 307 of the Clean Water Act).
19. The project must be designed and constructed to avoid and minimize adverse effects to waters of the U.S. to the maximum extent practicable at the project site. Mitigation will be required when necessary to ensure that adverse effects to aquatic environment are minimal. The DE will consider factors discussed below when determining the acceptability of appropriate and practicable mitigation necessary to offset adverse effects on the aquatic environment that are more than minimal:
  - a. Compensatory mitigation at a minimum 1:1 ratio will be required for all wetland impacts requiring a PCN.
  - b. To be practicable, the mitigation must be available and capable of being done considering costs, existing technology, and logistics in light of the overall project purposes. Examples of mitigation that may be appropriate include, but are not limited to: reducing project size; establishing and maintaining vegetated buffers to protect open waters; and replacing losses of aquatic resource functions and values by creating, restoring, enhancing, or preserving similar functions and values, preferably in the same watershed.
  - c. The DE will require restoration, creation, enhancement, or preservation of other aquatic resources in order to offset the authorized impacts to the extent necessary to ensure that the adverse effects on the aquatic environment are minimal. An important element of any compensatory mitigation plan for projects in or near streams or other open waters is the establishment and maintenance, to the maximum extent practicable, of vegetated buffers (native species), for which the DE will determine the appropriate width if required.
  - d. If the DE determines that compensatory mitigation is necessary to offset losses of waters of the U.S., and to ensure that net adverse effects of the authorized work on the aquatic environment are minimal, consolidated mitigation approaches, such as mitigation banks, are the preferred method of providing compensatory mitigation, unless the DE determines that activity-specific compensatory mitigation is more appropriate. To the extent appropriate, permittees should consider mitigation banking as the form of compensatory mitigation, since they involve larger blocks of protected aquatic environment, are more likely to meet mitigation goals, and are easily checked for compliance.
20. Activities, including structures and work in navigable waters of the U.S. or discharges of dredged or fill material, in spawning areas during spawning seasons must be avoided to the maximum extent practicable. Physical destruction of important spawning areas is not authorized.
21. To the maximum extent practicable, the activity must be designed to maintain preconstruction downstream flow conditions. Furthermore, the activity must not permanently restrict or impede the passage of normal or expected high flows (unless the primary purpose of the fill is to impound waters), and the structure or discharge of dredged or fill material must withstand expected high flows. The activity must, to the maximum extent practicable, provide for retaining excess flows from the site; provide for maintaining surface flow rates from the site similar to preconstruction conditions; and must not increase water flows from the project site, relocate water, or redirect water flow beyond preconstruction conditions. In addition, the activity must, to the maximum extent practicable, reduce adverse effects such as flooding or erosion downstream and upstream of the project site, unless the activity is part of a larger system designed to manage water flows.



22. If the activity, including structures and work in navigable waters of the U.S. or discharge of dredged or fill material, creates an impoundment of water, adverse effects on the aquatic system caused by the accelerated passage of water and/or the restriction of its flow shall be minimized to the maximum extent practicable.
23. Activities, including structures and work in navigable waters of the U.S. or discharges of dredged or fill material, into breeding areas for migratory waterfowl must be avoided to the maximum extent practicable.
24. Any temporary fills must be removed in their entirety and the affected areas returned to their preexisting elevation.
25. Critical resource waters include: NOAA-designated marine sanctuaries, National Estuarine Research Reserves, National Wild and Scenic Rivers, critical habitat for Federally listed threatened and endangered species, coral reefs, State natural heritage sites, and outstanding national resource waters or other waters officially designated by a State as having particular environmental or ecological significance and identified by the DE after notice and opportunity for public comment.
  - a. Except as noted below, discharges of dredged or fill material into waters of the U.S. are not authorized by NWP 12 for any activity within, or directly affecting, critical resource waters, including adjacent wetlands. Discharges of dredged or fill materials into waters of the U.S. may be authorized by NWP 12 in National Wild and Scenic Rivers if the activity complies with General Condition 7. Further, such discharges may be authorized in designated critical habitat for Federally listed threatened or endangered species if the activity complies with General Condition 11 and the U.S. Fish and Wildlife Service or the National Marine Fisheries Service has concurred in a determination of compliance with this condition.
26. 100-year floodplains will be identified through the Federal Emergency Management Agency's (FEMA) Flood Insurance Rate Maps or FEMA-approved local floodplain maps. Discharges of dredged or fill material into waters of the U.S. resulting in permanent, above-grade fills within the flood fringe or floodway of the 100-year floodplain of headwaters (at or below the point on a stream where the average annual flow is five cubic feet per second) are not authorized by NWP 12. The prospective permittee must notify the DE in accordance with General Condition 13. The notification must include documentation that such discharges, or permanent above grade fills, proposed in the floodway comply with FEMA or FEMA-approved local floodplain construction requirements.
27. The permittee understands and agrees that, if future operations by the U.S. require the removal, relocation, or other alteration, of the structure or work herein authorized, or if, in the opinion of the Secretary of the Army or his authorized representative, said structure or work shall cause unreasonable obstruction to the free navigation of the navigable waters, the permittee will be required, upon due notice from the Corps of Engineers, to remove, relocate, or alter the structural work or obstructions caused thereby, without expense to the U.S. No claim shall be made against the U.S. on account of any such removal or alteration.



## **CDFG Streambed Alteration Agreement**

The following paragraphs are taken directly from CDFG's *A Field Guide to Lake and Streambed Alteration Agreements* (CDFG 1992) documentation.

“The California Department of Fish and Game Code (FGC) sections 1601-1607 establish a fee-based process to ensure that projects conducted in and around lakes, rivers, or streams do not adversely impact fish and wildlife resources. When adverse impacts cannot be avoided, the process also ensures that adequate mitigation and/or compensation is provided for project impacts. It is the negotiation of a legally binding agreement between a project proponent and the CDFG, which contains the measures the project proponent must implement in order to avoid or mitigate any adverse impacts to fish and wildlife resources. The program developed by the Department, to implement this process, is generally referred to as the Streambed Alteration Agreement Program.”

“Sections 1601 and 1603 of the FGC are the primary operative sections with regards to the developing Streambed Alteration Agreements. FGC Section 1601 regulates the agreement process for projects proposed by state or local government agencies or public utilities, while Section 1603 regulates the agreement process for projects proposed by all private projects, private Timber Harvest Plans (THPs), and federal projects without a state agency sponsor.”

Since NCWD is a local government agency, NCWD must comply with FGC Section 1601 regulations, which is further defined below. FGC Section 1601 is specifically concerned with any project proposed by a state or local government agency or public utility, which:

“...will divert, obstruct, or change the natural flow, bed, channel, or bank of any river, stream, or lake designated by the Department, in which there is at any time an existing fish or wildlife resource, or from which these resources derive benefit, or (any project which) will use material from the streambeds designated by the Department...”

NCWD has already applied for, and received a, Streambed Alteration Agreement, pursuant to Section 1601 (Streambed Alteration Agreement No. R5-2001-0100).

## SECTION III. METHODOLOGY

This section provides the methods used by DMEC to delineate waters of the U.S. at the NCWD Vasquez Water Main project site. It includes a discussion of the general delineation approach, lists the references cited and followed for habitat classification, and provides a detailed analysis of the wetland delineation criteria assessed by DMEC biologists.

### GENERAL APPROACH

DMEC followed Corps methods, described below, to determine the area of the project site under Corps jurisdiction. In addition, CDFG jurisdictional areas were identified pursuant to California Fish and Game Code regulations and state policies. The entire path of the Vasquez Water Main was assessed for impact areas, which were defined and assessed in the field to determine the type of habitat (especially riparian habitat) likely affected by the water main installment construction activities. Prior to initiation of water main installment, the Mint Canyon Creek landscape was evaluated for coverage by various habitat types by assessing the plant communities located in the immediate vicinity of the impact area. To determine the extent of habitats qualifying as jurisdictional wetlands, which may be disturbed or permanently lost as part of the water main installment project, habitats of the study area were mapped and classified, and the area of each identified habitat disturbed by the project was later calculated.

### VEGETATION/HABITAT CLASSIFICATION

The habitat types of the study area, and the vegetation making up those habitats, were assessed and classified according to CDFG's *Preliminary Descriptions of the Terrestrial Natural Communities of California* (Holland 1986), and California Native Plant Society's *A Manual of California Vegetation* (Sawyer and Keeler-Wolf 1995). All wetland habitat types were further classified (cross-referenced) according to the USFWS *Classification of Wetlands and Deepwater Habitats of North America* (Cowardin et al. 1979).

### DELINEATING WATERS OF THE UNITED STATES

Waters of the U.S., as defined by Section 404 of the Clean Water Act (33CFR 328.3) and described above, were mapped within the study area. Aerial photographs, topographic maps, general site observations, and wetland delineation results were used to define jurisdictional boundaries within the project site.

Data points were established in various locations (as described below in Wetland Delineation) to examine vegetation, soils, and hydrology of the selected sites. Affected habitats of the subject study area were examined according to the *Corps of Engineers Wetlands Delineation Manual* (Environmental Laboratory 1987). Jurisdictional wetlands (for Corps regulatory purposes) must possess one or more indicators for each of three wetland criteria: predominance of hydrophytic vegetation, hydric soil conditions present, and wetland hydrology present.

CDFG regulations and policy require only one of these three criteria to be present in order to be considered a wetland pursuant to state regulations. Information on these parameters was recorded on data forms for routine wetland determination, as shown as Appendix A, NCWD Wetland Delineation Field Data Sheets.





## **Wetland Delineation**

David Magney, James Castle, and Cher Batchelor performed the delineation of jurisdictional wetlands and gathered data from three data points (Data Points A, B, and C) (Figure 3, NCWD Vasquez Water Main Project Site Affected Waters/Wetlands and Delineation Data Points, presented on the following page for the location of these field data points), according to the Corps' 1987 *Manual for Delineating Jurisdictional Wetlands* (Engineering Laboratory 1987). These observation data points were established along one transect (which generally follows the direction of the proposed water main) in a selected portion of Mint Canyon Creek (the impact area) to gather wetland data on soils, hydrology, and vegetation (defined below in Wetland Criteria) for determining the limits of Corps' jurisdiction pursuant to the Clean Water Act.

Jurisdictional waters status was determined primarily based on the presence of a predominance of hydrophytes, the presence of (or evidence of) flowing water, and a well-defined channel bed and bank. DMEC biologists also collected floristic, habitat, and wildlife resources data within the entire boundaries of the project site, including documenting any special-status species present onsite. Data collected during the wetland delineation is provided as Appendix A, NCWD Wetland Delineation Field Data Sheets. Topography is considered in wetland boundary determination when diagnostics exist as hydrologic confinements. Total areas of wetland habitats were calculated using Topo! and Micrografx Designer software and onsite measurements

### ***Wetland Criteria***

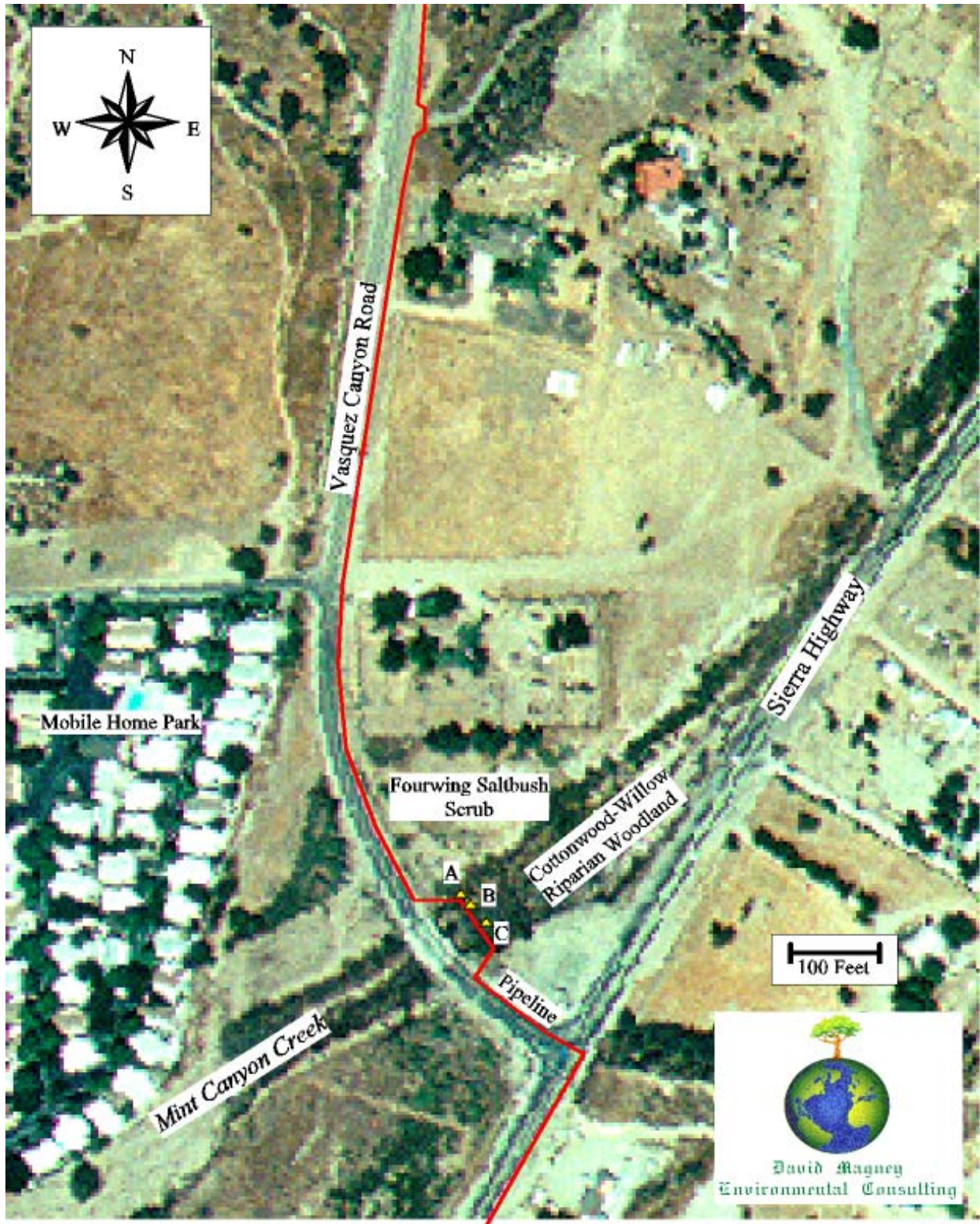
The Corps, under Section 404 of the Clean Water Act, defines a wetland as possessing the following three general diagnostic environmental characteristics during the growing season: (1) hydrophytic vegetation, (2) hydric soils, and (3) wetland hydrology. The Corps requires that at least one or more indicators, for each of the three criteria, be met in order for an area in question to be considered a wetland. However, the CDFG Streambed Alteration Agreement requires that only one of these three criteria be satisfied for an area in question to be considered a jurisdictional wetland for the purpose of state regulations. These wetland criteria are discussed in detail below.

### **HYDROPHYTIC VEGETATION**

One of the three criteria necessary for wetland consideration is the prevalent vegetation must consist of macrophytes that are typically adapted to growing in areas having hydrologic and soil conditions (saturated soils) as described in the wetland definition above in Regulatory Requirements. Vegetation is considered hydrophytic when more than 50 percent of the dominant plant species in each vegetative stratum has a wetland indicator status of facultative, facultative wetland, or obligate wetland according to the *National List of Wetland Plants* (Reed 1988).

Vegetation observed at each survey plot was recorded and percent cover by hydrophytic vegetation was indicated. All vegetated areas dominated by a prevalence of hydrophytes that occurred within the well-defined stream banks were thereby assumed to be jurisdictional wetlands.

**Figure 3. NCWD Vasquez Water Main Project Site Affected Waters/Wetlands and Delineation Data Points**





## **HYDRIC SOIL**

Hydric soil is another required criterion necessary for wetland consideration. Soils must be present and must be classified as hydric, which includes indicators such as soils consisting of thick organic layers, gleying, or low chroma soil matrix; or existing materials possess characteristics that are associated with reducing soil conditions.

In accordance with the *Corps of Engineers Wetlands Delineation Manual*, soil pits were examined at three selected locations within the affected habitat type. Soils were generally determined to be hydric on the basis of thick organic layers, gleying, or low chroma soil matrix (chroma of 2 or less with bright mottles, or matrix chroma of 1 or less). The soils data accumulated at each of the observation data points onsite, include: soil texture, soil color (moist), presence of hydric indicators, hydrophytic plant species dominance, and evidence of soil saturation or ponding for a long duration.

## **WETLAND HYDROLOGY**

The third required criterion necessary for wetland consideration is wetland hydrology. Hydrologic conditions are present if one of the following three criteria are met: (1) the area is inundated either permanently or periodically at mean water depths less than or equal to 6.6 feet, (2) the soil is saturated to the surface at some time during the growing season of the prevalent vegetation, or (3) the area at least shows evidence of drainage patterns and/or oxidized root channels.

Hydrology of the selected locations within the study area was evaluated through direct observation of surface water, soil moisture, groundwater depth, evidence of drainage patterns, or oxidized root channels.

## SECTION IV. RESULTS

### JURISDICTIONAL WATERS DETERMINATION

This section provides a discussion of the findings of the wetland delineation and jurisdictional determination of waters of the U.S. and wetlands present at the Vasquez Water Main project site. The results are based on findings at each surveyed data point for each of the three (3) wetland criteria, as described above in the previous section, and as required by the Corps wetland delineation manual.

#### **Waters of the U.S.**

For the purposes of this project, areas of waters of the U.S. under Corps jurisdiction include the bed and banks of Mint Canyon Creek and associated riparian wetland vegetation. All three data points (A, B, and C) within the impact area are considered jurisdictional waters of the U.S., since each data point surveyed shows evidence of sand Riverwash hydric soils and wetland hydrology, including drift lines, sediment deposits, and drainage patterns. Data Point B is the one plot surveyed that represents the reaches of the creek bed that are lacking vegetation. Although this area represented by Data Point B is considered to be jurisdictional waters of the U.S., showing the same evidence of hydric soils and hydrology, it is not considered a wetland, as it is not dominated by hydrophytic plant species. The Riverine habitat found in the vicinity of Data Point B is described in detail in the following subsection, Study Area Habitat Types.

Much of the area within waters of the U.S. onsite (represented by Data Point A and C) is also considered jurisdictional wetlands, as described in the next paragraph.

#### ***Wetlands***

Jurisdictional wetlands, pursuant to Section 404 of the Clean Water Act, at the project site are located within Mint Canyon Creek at Data Points A and C. These survey plots have positive indicators for all three wetland criteria: areas dominated by hydrophytic vegetation, showing positive indicators of wetland hydrology, and exhibiting evidence of hydric soil conditions. Southern Cottonwood-Willow Riparian Woodland is the wetland/riparian habitat that is occupying the creek banks onsite. This wetland habitat is described in detail in the following subsection, Study Area Habitat Types. Again, Data Point B is not considered a jurisdictional wetland, since this area lacks one of the three positive wetland indicators (this area is not dominated by hydrophytic vegetation) (see data sheets in Appendix A).

Total area of jurisdictional waters of the U.S. at the Mint Canyon Creek Portion of the project site is approximately 0.13 acre, including approximately 0.02 acre of Riverine habitat, and approximately 0.11 acre of Palustrine habitat (wetlands).



## PROJECT SITE HABITAT TYPES

Three habitat types currently exist in the immediate vicinity of the Mint Canyon Creek portion of the proposed NCWD water main:

- Upland Chenopod Scrub (approximately 0.14 acre observed onsite), represented by Fourwing Saltbush Series (Sawyer and Keeler-Wolf 1995) (see the *Biological Resources Assessment for the Newhall County Water District Vasquez Water Main Project* [DMEC 2003a] for this habitat type description);
- Palustrine habitat, which is further classified as Palustrine Broad-leaved, Winter-deciduous, Forested Wetland (Cowardin et al. 1979), and is floristically described as Fremont Cottonwood-Arroyo Willow Series (according to Sawyer and Keeler-Wolf [1995]); and
- Riverine habitat, which is not floristically characterized, but is further classified as Riverine Intermittent Sand Streambed (Cowardin et al. 1979).

The Palustrine and Riverine habitats include the plant communities associated with jurisdictional waters of the U.S. These habitat types were observed within the project site during the wetland delineation; they are described here and mapped in Figure 3. For a thorough resource assessment of the Vasquez Water Main project site, refer to the biological resources assessment report (DMEC 2003a).

The total amount of habitats associated with jurisdictional waters of the U.S., and present within the project site prior to installment construction of the water main creek crossing, was determined to be approximately 0.13 acre, of which approximately 0.11 acre is jurisdictional wetlands. These numbers are based on an assessment of habitats of each impact area and a review of maps of the project site.

### Riverine Habitat

A Riverine system includes all wetlands and deepwater habitats contained within a channel, with two exceptions: (1) wetlands dominated by trees, shrubs, persistent emergents, emergent mosses, or lichens; and (2) habitats with water containing ocean-derived salts in excess of 0.5‰. Channel is defined as a conduit that periodically or continuously contains moving water, or that forms a connecting link between two bodies of water. The streambed habitat, observed within the Riverine system throughout the vicinity of the proposed water main project, is further classified as Riverine Intermittent Sand Streambed. The Intermittent subsystem of the Riverine system exists where the channel contains nontidal flowing water for only part of the year. When active flows are not present, surface water may be absent or water may remain in isolated pools. (Cowardin et al. 1979.)

This Riverine habitat onsite, determined by Data Point B (see Figure 3), is jurisdictional waters of the U.S., as it exists within the immediate stream bottom (within the scour lines) of Mint Canyon Creek, and consists of little to no vegetation. However, this Riverine habitat is not determined to be a wetland (for the purposes of Corps jurisdiction) since Data Point B, which was surveyed in this habitat, indicates the presence of only two of the three positive wetland indicators: (1) wetland hydrology, including drift lines, sediment deposits, and drainage patterns; and (2) sand, Riverwash hydric soils. Data Point B, located in the immediate inactive creek bottom, is not dominated by hydrophytes and is lacking vegetation in general. The only plant species observed in the vicinity of Data Point B are scattered *Hirschfeldia incana* and *Ambrosia acanthicarpa*.



The Soil Conservation Service (SCS) Soil Survey for the Antelope Valley Area, California (Woodruff 1970) mapped the area as consisting of Hanford Series and Mocho Series. Hanford Series is an excessively drained soil that is formed in granitic alluvium on alluvial fans. The surface layer in a typical profile is pale-brown (10YR 6/3) coarse sandy loam about 8 inches thick. Below is light yellowish-brown (10YR 6/4) coarse sandy loam to 39 inches, and light yellowish-brown (10YR 6/4) gravelly loamy coarse sand that extends to a depth of at least 70 inches. The mapped soil unit, located in the immediate vicinity of the impact area (where the data points are established), is Hanford sandy loam, 0 to 2 percent slopes. This soil type is predominantly sandy loam and fine sandy loam throughout, runoff is slow, the hazard of erosion is slight, and fertility is moderate. An inclusion of the Hanford Series is Riverwash, which was determined onsite and is described below after Mocho Series.

Mocho Series consists of moderately drained soils that have formed in sedimentary alluvium on alluvial fans along major drainage ways. Typically, the soil surface layer is grayish-brown loam (10YR 5/2) about 15 inches thick. Below is grayish-brown (2.5Y 5/2) calcareous loam to 29 inches, light brownish-gray (2.5Y 6/2) calcareous loam to 33 inches, and grayish-brown (2.5Y 5/2) calcareous loam again to 90 inches. The mapped soil unit, located upstream from the impact area (where the rest of the site was surveyed for biological resources [DMEC 2003a]), is Mocho loam, 2 to 9 percent slopes. This soil occupies fairly narrow alluvial fans, runoff is slow to medium, and the hazard of erosion is slight to moderate. (Woodruff 1970.)

The soil material observed at Data Point B within the impact area of the Riverine system onsite (in the immediate creek channel) consists of Riverwash materials (a nonsoil), which is an inclusion of the mapped Hanford Series soil unit (described above). Riverwash generally occurs within the bed of intermittent streams, and consists of highly stratified, water-deposited layers of stony and gravelly sand that contains relatively small amounts of silt and clay. It is characterized as having high permeability, but is present as the result of frequent and regular fluvial processes. Riverwash is frequently inundated during high water flow immediately following storms, where fresh deposits of alluvium are laid down and removed as the result of streambank erosion. Riverwash is subject to frequent disturbance, such as scouring and deposition, and the development and establishment of riparian vegetation is severely limited. It is considered hydric by the National Resource Conservation District (1992). (Woodruff 1970, Edwards et al. 1970.)

The Riverine Intermittent Sand Streambed habitat was determined to occupy approximately 0.02 acre of the project site, prior to initiation of the water main installment project.

### **Palustrine Riparian Habitat**

The Palustrine system includes all nontidal wetlands dominated by trees, shrubs, persistent emergents, emergent mosses or lichens, and all such wetlands that occur in tidal areas where salinity due to ocean-derived salts is below 0.5‰. The riparian plant community observed and classified within the Palustrine system along the Mint Canyon Creek banks is Palustrine Broad-leaved, Winter-deciduous, Forested Wetland. The Forested Wetland class is characterized by woody vegetation that is at least 6 meters, and the Broad-leaved, Winter-deciduous sub-class includes dominant riparian species with large leaves (as opposed to coniferous or needle-like leaves) that fall during the winter season. (Cowardin et al. 1979.)

This Palustrine habitat was determined along the riparian corridor onsite at Data Points A and C (see Figure 3), which were determined to be jurisdictional wetlands based on the presence of positive indicators for all



three wetland criteria. Palustrine Broad-leaved Winter-deciduous Forested Wetland is described floristically as Freemont Cottonwood-Arroyo Willow Series (Sawyer and Keeler-Wolf 1995) in the following paragraph.

Freemont Cottonwood-Arroyo Willow Series, at the Vasquez Water Main project site, is a woodland plant community co-dominated by two winter-deciduous trees, *Populus fremontii* ssp. *fremontii* (Fremont Cottonwood) and *Salix lasiolepis* (Arroyo Willow). The National List of Wetland Plants (Reed 1988) lists *P. fremontii* and *S. lasiolepis* as facultative wetland species (FACW, or facultative wetland species, usually found in wetlands). Freemont Cottonwood-Arroyo Willow Series occurs in intermittently or seasonally flooded or saturated freshwater wetland habitats - such as riparian corridors, floodplains, low-gradient depositions along rivers and streams, and seeps below 2,400 meters (7,874 feet) elevation. This cottonwood-willow woodland forms an intermittent to open tree canopy less than 25 meters tall, growing over sparse shrub layer and a variable ground layer. (Sawyer and Keeler-Wolf 1995.)

The cottonwood-willow woodland occupying the project area includes three important canopy contributors: *Salix exigua* (Narrow-leaved Willow), *S. lucida* ssp. *lasiandra* (Shining Willow), and *Sambucus mexicana* (Blue Elderberry). Freemont Cottonwood-Arroyo Willow Series also includes a sparse shrub stratum of associate species, such as *Artemisia californica* (California Sagebrush), *A. tridentata* (Great Basin Sagebrush), *Baccharis salicifolia* (Mulefat), *Nicotiana glauca* (Tree Tobacco), and *Senecio flaccidus* var. *douglasii* (Shrubby Butterweed).

The ground layer consists predominantly of *Ambrosia acanthicarpa* (Burweed), *Artemisia douglasiana* (Mugwort), *A. dracuncululus* (Tarragon), *Eleocharis macrostachya* (Common Spike-rush), *Eremocarpus setigerus* (Dove Weed), *Heliotropium curassavicum* (Alkali Heliotrope), *Heterotheca grandiflora* (Telegraph Weed), *Hirschfeldia incana* (Summer Mustard), *Juncus balticus* (Baltic Rush), *J. nevadensis* (Sierra Rush), *Lessingia filaginifolia* (Cudweed-aster), *Urtica dioica* ssp. *holosericea* (Giant Creek Nettle), and annual grasses.

Soil is lacking in the Palustrine Riparian Woodland habitat at Data Points A and C, as these areas also consist of Riverwash nonsoil materials. The SCS (Woodruff 1970) maps the soils at Data Points A and C as consisting of the same soil units mapped for Data Point B (and adjacent upstream areas), including Hanford Series (with Riverwash as an inclusion of Hanford Series) and Mocho Series. These mapped soil units, including Riverwash, are described above in the Riverine Habitat subsection.

Existing Palustrine Riparian Woodland habitat was determined to occupy approximately 0.11 acre of the project site, prior to initiation of the water main installment project.

## AREAS AFFECTED BY WATER MAIN CONSTRUCTION

Based on review of aerial photographs and topographic maps of the project site, along with onsite observations, one location is identified within the project site where jurisdictional waters of the U.S. would be affected by construction activities associated with the NCWD Vasquez Water Main crossing through Mint Canyon Creek.

The water main installment construction, to be conducted at the Mint Canyon Creek portion of the project site, includes a maximum impact area of approximately 50 feet along the length of the water main (25 feet along each side). This impact area is represented by, and therefore includes, Data Points A, B, and C (see Figure 3). Each of these data points were established along an approximate 90-foot transect stretching



across the width of Mint Canyon Creek, located approximately 40 feet upstream from the Vasquez Canyon Road bridge crossing.

It appears that normal circumstances do not exist in the immediate vicinity of the transect, since the area is significantly disturbed, including dead/dying vegetation, a heavy negative influence by humans, trash, and air and noise pollution. Although two data points exist in Palustrine habitat and one exists within Riverine habitat, all three have specific (soil) characteristics in common: (1) each data point revealed unconsolidated Riverwash material (a non-soil), which consists of gravelly-sand with rocks; and (2) the soil profile at each data point found the matrix color to be indeterminable to a depth of at least 21 inches.

The impact area is described in the following subsections, starting on the north bank of Mint Canyon Creek. The habitat type to be disturbed by the water main installment project, and the approximate area of the affected habitat within the impact area (represented by each data point), is discussed here, and these habitat areas are also indicated in Figure 3.

### **Data Point A**

Data Point A is located at the base of the north bank. This portion of the project site is approximately 20 feet from the north bank to the edge of the Riverine habitat (represented by Data Point B). The vegetation that will be disturbed or lost by the installation of this water main is classified as Palustrine Broad-leaved Winter-deciduous Forested Wetland (described above in Project Site Habitat Types). This habitat is considered to be jurisdictional wetland, since Data Point A possessed positive indicators of all three wetland criteria. Predominant hydrophytic vegetation in the immediate vicinity of this data point includes Arroyo Willow and Mulefat. Data Point A represents approximately 0.02 acre of Forested Wetland habitat that will be impacted by the implementation of this project.

### **Data Point B**

Data Point B, representing approximately 15 feet in width across the channel, is located within the immediate creek bed (within the scour lines) of Mint Canyon Creek. The Riverine habitat onsite is classified as Riverine Intermittent Sand Streambed (described above in Project Site Habitat Types), which is jurisdictional waters of the U.S., as determined by Data Point B. However, this Riverine habitat is not determined to be a wetland, since Data Point B positively indicates the presence of only two of the three wetland criteria: (1) wetland hydrology, including drift lines, sediment deposits, and drainage patterns; and (2) sand, Riverwash hydric soils. Data Point B, located in the immediate active creek bottom, is not dominated by hydrophytes and is lacking vegetation in general, except for scattered Summer Mustard and Burweed. Data Point B represents approximately 0.02 acre of waters of the U.S. (Riverine habitat) that will be impacted by the implementation of this project.

### **Data Point C**

Data Point C is located on the south bank of Mint Canyon Creek. This portion of the impact area is approximately 80 feet from the edge of the Riverine habitat (the location of Data Point B) to the edge of the south bank. The habitat to be disturbed or lost by the installation of the water main is the same Palustrine Forested Wetland as observed at Data Point A, which is considered to be a jurisdictional wetland.





Predominant hydrophytic vegetation in the immediate vicinity of this data point includes Arroyo Willow, Shining Willow, Mugwort, Giant Creek Nettle, and Mulefat. Data Point C represents approximately 0.09 acre of Forested Wetland habitat that will be impacted by the implementation of this project.

## SUMMARY

Palustrine wetlands in Mint Canyon Creek can be characterized as performing various hydrologic, geomorphologic, biogeochemistry, and plant and wildlife habitat functions. The performance of these functions is largely dependent upon the maintenance of natural channel morphology and native plant communities.

The Palustrine Riparian Woodland vegetation onsite is used as nesting and foraging habitat for several species of birds, and cover and foraging habitat for small and large mammals, some of which may have used the site as a movement corridor where the site vegetation provided cover from predators. The functionality of the Palustrine habitat is increased by the presence of natural upland vegetation and habitats creating cumulative high species richness for the Mint Canyon area.

To complete the Vasquez Water Main project, NCWD is proposing to trench across Mint Canyon Creek (an approximate 0.27-acre total impact area) and span the two small tributary channels with the water main. These activities will result in unavoidable temporary impact to approximately 0.13 acre of waters of the U.S., including approximately 0.11 acre of Forested Wetland (approximately 0.03 at Data Point A, and approximately 0.08 acre at Data Point C) and including approximately 0.02 acre of Riverine habitat. The installation of this water main will also result in unavoidable temporary impacts to approximately 0.14 acre of upland habitat (Chenopod Scrub).

Thus, the completion of the proposed project will have temporary negative effects on the overall ecosystem function of the project site creek and the associated riparian wetlands. However, the impacts to areas of jurisdiction will be compensated for, as NCWD will implement measures to avoid and minimize unnecessary impacts to waters of the U.S. and to biological resources, and NCWD will implement mitigation measures and a long-term monitoring program to ensure that the impacts resulting from the project will be reduced to a less-than-significant level.

For a detailed discussion and description of the mitigation and monitoring measures that NCWD will be implementing to compensate for impacts resulting from the water main installment, refer to the *Wetland Mitigation Plan and Monitoring Program for the Newhall County Water District Vasquez Water Main Project* (DMEC 2003b).

## SECTION V. ACKNOWLEDGEMENTS

This delineation of jurisdictional waters report was written by David Magney, project manager, and Cher Batchelor. Mr. Magney prepared graphics for this report. Mr. Magney, Ms. Batchelor, and James Castle conducted the wetland delineation in the field, performed the project site vegetation mapping, and created the maps and calculated the area for each habitat type and jurisdictional areas (wetlands and waters of the U.S.). The aerial photograph, used for Figures 2 and 3, was provided courtesy of Mary Cook of AirPhotoUSA.



Scott Renolds of NCWD provided assistance with various components of the proposed project objectives and activities. Mr. Renolds provided water main route information and the aerial photographs (for Figure 1) of the project site.

## SECTION VI. CITATIONS

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**APPENDIX.**  
**NCWD VASQUEZ WATER MAIN**  
**WETLAND DELINEATION FIELD DATA SHEETS**

5.7-8-03

page 1 of 2

DATA FORM  
 ROUTINE WETLAND DETERMINATION  
 (1987 COE Wetlands Delineation Manual)

Project/Site: <u>Mint Canyon Creek</u>	Date: <u>15 May 2001</u>
Applicant/Owner: <u>Newhall County Water District</u>	County: <u>Los Angeles</u>
Investigator: <u>Cher Wellonen, David Magney, Jim Castle</u>	State: <u>California</u>
Do Normal Circumstances exist on the site? Yes <input type="radio"/> No <input checked="" type="radio"/>	Community ID: _____
Is the site significantly disturbed (Atypical Situation)? Yes <input checked="" type="radio"/> No <input type="radio"/>	Transect ID: <u>1</u>
Is the area a potential Problem Area? Yes <input type="radio"/> No <input type="radio"/>	Plot ID: <u>A</u>
(If needed, explain on reverse.)	

VEGETATION

Dominant Plant Species	Stratum	Indicator	Dominant Plant Species	Stratum	Indicator
1. <u>Salix lasiolepis</u>	<u>T</u>	<u>70% FACW</u>	9. _____	_____	_____
2. <u>Baccharis salicifolia</u>	<u>T</u>	<u>30% FACW</u>	10. _____	_____	_____
3. _____	_____	_____	11. _____	_____	_____
4. <u>Hirschfeldia incana</u>	<u>H</u>	<u>100% -</u>	12. _____	_____	_____
5. _____	_____	_____	13. _____	_____	_____
6. _____	_____	_____	14. _____	_____	_____
7. _____	_____	_____	15. _____	_____	_____
8. _____	_____	_____	16. _____	_____	_____

Percent of Dominant Species that are OBL, FACW or FAC (excluding FAC-): \_\_\_\_\_

Remarks: on west bank ~ 40ft. N of bridge  
sparse vegetation - dead Salix lasiolepis  
N34°27.347' W118°25.384' ; elevation = 1688 ft

HYDROLOGY

<p>Recorded Data (Describe in Remarks):</p> <p><input type="checkbox"/> Stream, Lake, or Tide Gauge</p> <p><input type="checkbox"/> Aerial Photographs</p> <p><input type="checkbox"/> Other</p> <p><input type="checkbox"/> No Recorded Data Available</p>	<p>Wetland Hydrology Indicators:</p> <p>Primary Indicators:</p> <p><input type="checkbox"/> Inundated</p> <p><input type="checkbox"/> Saturated in Upper 12 Inches</p> <p><input type="checkbox"/> Water Marks</p> <p><input checked="" type="checkbox"/> Drift Lines</p> <p><input checked="" type="checkbox"/> Sediment Deposits</p> <p><input checked="" type="checkbox"/> Drainage Patterns in Wetlands</p> <p>Secondary Indicators (2 or more required):</p> <p><input type="checkbox"/> Oxidized Root Channels in Upper 12 Inches</p> <p><input type="checkbox"/> Water-Stained Leaves</p> <p><input type="checkbox"/> Local Soil Survey Data</p> <p><input checked="" type="checkbox"/> FAC-Neutral Test</p> <p><input type="checkbox"/> Other (Explain in Remarks)</p>
<p>Field Observations:</p> <p>Depth of Surface Water: <u>0</u> (in.)</p> <p>Depth to Free Water in Pit: <u>0</u> (in.)</p> <p>Depth to Saturated Soil: <u>0</u> (in.)</p>	<p>Remarks:</p>

Site Log #

**SOILS**

Plot A

Map Unit Name (Series and Phase): <u>Hanford Series (Hanford sandy loam 0-2% slopes) Transect A</u>		Drainage Class: <u>excessively drained</u>			
Taxonomy (Subgroup): <u>Typic Xerorthents (Entisols)</u>		Field Observations Confirm Mapped Type? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No			
Profile Description:					
Depth (inches)	Horizon	Matrix Color (Munsell Moist)	Mottles Colors (Munsell Moist)	Mottles Abundance/Contrast	Texture, Concretions, Structure, etc.
8"		indeterminable	-	-	gravely-sand
20"					rocky-gravely-sand
Hydric Soil Indicators:					
<input type="checkbox"/> Histosol		<input type="checkbox"/> Concretions			
<input type="checkbox"/> Histic Epipedon		<input type="checkbox"/> High Organic Content in Surface Layer in Sandy Soils			
<input type="checkbox"/> Sulfidic Odor		<input type="checkbox"/> Organic Streaking in Sandy Soils			
<input type="checkbox"/> Aquic Moisture Regime		<input checked="" type="checkbox"/> Listed on Local Hydric Soils List			
<input type="checkbox"/> Reducing Conditions		<input type="checkbox"/> Listed on National Hydric Soils List			
<input type="checkbox"/> Gleyed or Low-Chroma Colors		<input checked="" type="checkbox"/> Other (Explain in Remarks)			
Remarks: <u>River wash, sand, non-soil } an inclusion of Hanford Series</u> <u>unconsolidated } (the mapped soil unit)</u>					

**WETLAND DETERMINATION**

Hydrophytic Vegetation Present? <input checked="" type="radio"/> Yes <input type="radio"/> No (Circle)	Is this Sampling Point Within a Wetland? <input checked="" type="radio"/> Yes <input type="radio"/> No (Circle)
Wetland Hydrology Present? <input checked="" type="radio"/> Yes <input type="radio"/> No	
Hydric Soils Present? <input checked="" type="radio"/> Yes <input type="radio"/> No	
Remarks:	

Approved by HQUSACE 3/92



DATA FORM  
 ROUTINE WETLAND DETERMINATION  
 (1987 COE Wetlands Delineation Manual) page 1 of 2

Project/Site: <u>Mint Canyon Creek</u> Applicant/Owner: <u>Newhall County Water District</u> Investigator: <u>Cher Wellman, David Magrey, Tim Castle</u>	Date: <u>15 May 2001</u> County: <u>Los Angeles</u> State: <u>California</u>
Do Normal Circumstances exist on the site?      Yes <input type="radio"/> No <input checked="" type="radio"/> Is the site significantly disturbed (Atypical Situation)?      Yes <input checked="" type="radio"/> No <input type="radio"/> Is the area a potential Problem Area?      Yes <input type="radio"/> No <input type="radio"/> (If needed, explain on reverse.)	Community ID: _____ Transect ID: <u>1</u> Plot ID: <u>B</u>

**VEGETATION**

Dominant Plant Species	Stratum	Indicator
1. <u>Hirschfeldia incana</u>	<u>H</u>	<u>60%</u>
2. <u>Ambrosia acanthicarpa</u>	<u>H</u>	<u>40%</u>
3. _____	_____	_____
4. _____	_____	_____
5. _____	_____	_____
6. _____	_____	_____
7. _____	_____	_____
8. _____	_____	_____

Percent of Dominant Species that are OBL, FACW or FAC (excluding FAC-): \_\_\_\_\_

Remarks: bare ground - almost pure sand and rocks  
pit in middle of left drainage - in middle of channel  
~ 40ft. N of bridge. elevation = 1685ft.  
N34°27.298' W118°25.252'

**HYDROLOGY**

___ Recorded Data (Describe in Remarks): ___ Stream, Lake, or Tide Gauge ___ Aerial Photographs ___ Other ___ No Recorded Data Available	<b>Wetland Hydrology Indicators:</b> <b>Primary Indicators:</b> ___ Inundated ___ Saturated in Upper 12 Inches ___ Water Marks <input checked="" type="checkbox"/> Drift Lines <input checked="" type="checkbox"/> Sediment Deposits <input checked="" type="checkbox"/> Drainage Patterns in Wetlands <b>Secondary Indicators (2 or more required):</b> ___ Oxidized Root Channels in Upper 12 Inches ___ Water-Stained Leaves ___ Local Soil Survey Data ___ FAC-Neutral Test ___ Other (Explain in Remarks)
<b>Field Observations:</b> Depth of Surface Water: <u>Ø</u> (ft.) Depth to Free Water in Pit: <u>Ø</u> (ft.) Depth to Saturated Soil: <u>Ø</u> (ft.)	
Remarks: _____	

67010027

Plot B

page 2 of 2

SOILS

Map Unit Name (Series and Phase): <u>Hanford Series (Hanford sandy loam)</u> <sup>0-2% slope</sup> <u>Transect B</u> Drainage Class: <u>excessively drained</u> Taxonomy (Subgroup): <u>Typic Xerorthents (Entisols)</u> Field Observations Confirm Mapped Type? <input checked="" type="radio"/> Yes <input type="radio"/> No						
Profile Description:	Depth (Inches)	Horizon	Matrix Color (Munsell Moist)	Mottle Colors (Munsell Moist)	Mottles Abundance/Contrast	Texture, Concretions, Structure, etc.
	21"		indeterminable	-	-	gravely sand w/rocks.
Hydric Soil Indicators: <input type="checkbox"/> Histosol <input type="checkbox"/> Histic Epipedon <input type="checkbox"/> Sulfidic Odor <input type="checkbox"/> Aquic Moisture Regime <input type="checkbox"/> Reducing Conditions <input type="checkbox"/> Gleyed or Low-Chroma Colors <input type="checkbox"/> Concretions <input type="checkbox"/> High Organic Content in Surface Layer in Sandy Soils <input type="checkbox"/> Organic Streaking in Sandy Soils <input checked="" type="checkbox"/> Listed on Local Hydric Soils List <input type="checkbox"/> Listed on National Hydric Soils List <input checked="" type="checkbox"/> Other (Explain in Remarks)						
Remarks: <u>unconsolidated river wash sand - no soil present</u> <u>Riverwash is an inclusion of the Hanford Series, which is the mapped soil unit for the impact area.</u>						

WETLAND DETERMINATION

Hydrophytic Vegetation Present? <input checked="" type="radio"/> Yes <input checked="" type="radio"/> No (Circle) Wetland Hydrology Present? <input checked="" type="radio"/> Yes <input checked="" type="radio"/> No Hydric Soils Present? <input checked="" type="radio"/> Yes <input checked="" type="radio"/> No	Is this Sampling Point Within a Wetland? Yes <input checked="" type="radio"/> No <input checked="" type="radio"/> (Circle)
Remarks:	

Approved by HQUSACE J/92

DATA FORM  
 ROUTINE WETLAND DETERMINATION  
 (1987 COE Wetlands Delineation Manual)

page 1 of 2

Project/Site: <u>Mint Canyon Creek</u>	Date: <u>15/May 2001</u>
Applicant/Owner: <u>Newhall County Water District</u>	County: <u>Los Angeles</u>
Investigator: <u>Cher Wellonen, David Magney, Tim Castle</u>	State: <u>California</u>
Do Normal Circumstances exist on the site? Yes <input type="radio"/> No <input checked="" type="radio"/>	Community ID: _____
Is the site significantly disturbed (Atypical Situation)? Yes <input checked="" type="radio"/> No <input type="radio"/>	Transect ID: <u>1</u>
Is the area a potential Problem Area? Yes <input type="radio"/> No <input type="radio"/> (If needed, explain on reverse.)	Plot ID: <u>C</u>

VEGETATION

Dominant Plant Species	Stratum	Indicator	Dominant Plant Species	Stratum	Indicator
1. <u>Artemisia Californica</u>	<u>S</u>	<u>25%</u>	9. <u>Salix lasiolepis</u>	<u>T</u>	<u>60% FACW</u>
2. <u>Artemisia tridentata</u>	<u>S</u>	<u>20%</u>	10. <u>Salix lucida lasianдра</u>	<u>T</u>	<u>40% OBL</u>
3. <u>Urtica dioica holoserica</u>	<u>H</u>	<u>30% FACW</u>	11. <u>Artemisia dracunculoides</u>	<u>H</u>	<u>10%</u>
4. <u>Hirschfeldia incana</u>	<u>H</u>	<u>40%</u>	12. <u>Copper Wire Moss</u>	<u>H</u>	<u>10%</u>
5. <u>Artemisia douglasiana</u>	<u>H</u>	<u>10% FACW</u>	13. _____	_____	_____
6. <u>Salvia mellifera</u>	<u>S</u>	<u>20%</u>	14. _____	_____	_____
7. <u>Sambucus mexicana</u>	<u>S</u>	<u>25% FAC</u>	15. _____	_____	_____
8. <u>Baccharis salicifolia</u>	<u>S</u>	<u>10% FACW</u>	16. _____	_____	_____

Percent of Dominant Species that are OBL, FACW or FAC (excluding FAC-): \_\_\_\_\_

Remarks: pit located on East side of channel ~40ft. N of bridge. elevation increased by 3ft. N34°27.292' W118°25.242' ; elevation = 11088 ft.

HYDROLOGY

<p>Recorded Data (Describe in Remarks):</p> <p><input type="checkbox"/> Stream, Lake, or Tide Gauge</p> <p><input checked="" type="checkbox"/> Aerial Photographs</p> <p><input type="checkbox"/> Other</p> <p><input type="checkbox"/> No Recorded Data Available</p>	<p>Wetland Hydrology Indicators:</p> <p>Primary Indicators:</p> <p><input type="checkbox"/> Inundated</p> <p><input type="checkbox"/> Saturated in Upper 12 Inches</p> <p><input type="checkbox"/> Water Marks</p> <p><input checked="" type="checkbox"/> Drift Lines</p> <p><input checked="" type="checkbox"/> Sediment Deposits</p> <p><input checked="" type="checkbox"/> Drainage Patterns in Wetlands</p> <p>Secondary Indicators (2 or more required):</p> <p><input type="checkbox"/> Oxidized Root Channels in Upper 12 Inches</p> <p><input type="checkbox"/> Water-Stained Leaves</p> <p><input type="checkbox"/> Local Soil Survey Data</p> <p><input checked="" type="checkbox"/> FAC-Neutral Test</p> <p><input type="checkbox"/> Other (Explain in Remarks)</p>
<p>Field Observations:</p> <p>Depth of Surface Water: <u>0</u> (in.)</p> <p>Depth to Free Water in Pit: <u>0</u> (in.)</p> <p>Depth to Saturated Soil: <u>0</u> (in.)</p>	<p>Remarks:</p>





2/10/03

Plot C

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**SOILS**

Map Unit Name: Hanford Series (Hanford sandy loam 0-2% slopes) Transect C  
 (Series and Phase): Hanford Series (Hanford sandy loam 0-2% slopes) Transect C  
 Drainage Class: Excessively drained  
 Taxonomy (Subgroup): Typic Xerothents (Entisols)  
 Field Observations: Confirm Mapped Type? (Yes) No

Profile Description:		Matrix Color	Mottle Colors	Mottle	Texture, Concretions, Structure, etc.
Depth (Inches)	Horizon	(Munsell Moist)	(Munsell Moist)	Abundance/Contrast	
20"		indeterminable	-	-	gravely sand w/rocks

Hydric Soil Indicators:

<input type="checkbox"/> Histosol	<input type="checkbox"/> Concretions
<input type="checkbox"/> Histc Epipedon	<input type="checkbox"/> High Organic Content in Surface Layer in Sandy Soils
<input type="checkbox"/> Sulfidic Odor	<input type="checkbox"/> Organic Streaking in Sandy Soils
<input type="checkbox"/> Aquic Moisture Regime	<input checked="" type="checkbox"/> Listed on Local Hydric Soils List
<input type="checkbox"/> Reducing Conditions	<input type="checkbox"/> Listed on National Hydric Soils List
<input type="checkbox"/> Gleyed or Low-Chroma Colors	<input checked="" type="checkbox"/> Other (Explain in Remarks)

Remarks: unconsolidated riverwash sand - no soil present  
Riverwash is an inclusion of the mapped Hanford Series soil unit.

**WETLAND DETERMINATION**

Hydrophytic Vegetation Present? <input checked="" type="radio"/> Yes <input type="radio"/> No (Circle)	Is this Sampling Point Within a Wetland? <input checked="" type="radio"/> Yes <input type="radio"/> No (Circle)
Wetland Hydrology Present? <input checked="" type="radio"/> Yes <input type="radio"/> No	
Hydric Soils Present? <input checked="" type="radio"/> Yes <input type="radio"/> No	
Remarks:	

Approved by HQUSACE 3/92