

DEPARTMENT OF WATER RESOURCES

FINAL STATEMENT OF REASONS FOR ENCROACHMENT PERMIT REGULATIONS

Adopted pursuant to Water Code Sections 12899, *et seq.*

Including Summary of Comments, Department Response and Changes or Modifications

Notice File No. Z2013-1015-01

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TITLE 23: WATERS

DIVISION 2: DEPARTMENT OF WATER RESOURCES

CHAPTER 6: ENCROACHMENTS

I. EXECUTIVE SUMMARY.

Water Code section 12899 was enacted in 2005 under Senate Bill 543, to provide the Department of Water Resources (“DWR,” or the “department”) with specific statutory authority to control the activities within the right-of-way along the State Water Resources Development System, otherwise referred to as the State Water Project, or SWP. Historically, DWR entered into negotiated contractual agreements with landowners who sought to use a portion of the SWP right-of-way for their own purposes. DWR required an application and supporting documentation, including detailed construction plans that are signed off by a licensed engineer, as well as related environmental clearances and permit requirements. DWR charged the applicant a fee based on the number of hours DWR staff devoted to reviewing the proposal and related documentation.

DWR submits these regulations to provide guidance and procedures for use of the department’s right-of-way along the State Water Project and for submittal of an application for an Encroachment Permit. The regulations will implement Senate Bill 543 (2005) and the corresponding Water Code section 12899, *et seq.* SB 543 authorized the department to issue Encroachment Permits under specified conditions and adopt regulations to allow for Encroachment Permits to be issued while protecting the access, operations, maintenance and control of the SWP. The statute also allows, and the regulations will implement, the conditions

under which the department may seek removal of unauthorized encroachments if the department determines that the encroachment will interfere with the department's rights with regard to access, inspection, repair, or the operation and maintenance of the SWP facilities. The proposed regulations will add a new Chapter 6, "Encroachments", to Title 23, Division 2 of the California Code of Regulations. The regulations will add Sections 600 through 630, setting forth the requirements for obtaining an Encroachment Permit pursuant to the authority conferred by Water Code Section 12899.9. The regulations will outline the DWR review process, associated costs to the applicant, and will implement the enforcement provisions of Water Code section 12899, so that DWR can limit unauthorized encroachments and control access to the right-of-way.

II. INTRODUCTION AND BACKGROUND.

A. Rulemaking Process.

This Final Statement of Reasons updates the regulatory file following an initial 45-day Notice of Proposed Rulemaking, followed by two 15-day Notices pursuant to Gov. Code section 11346.8(c). All comments received during the public comment periods have been responded to by the department. The Initial Statement of Reasons and all modifications to the regulations text and additions or supplementary language added to the Final Statement Of Reasons published on February 21, 2014, or thereafter, are incorporated by reference in this Final Statement of Reasons.

The Department's Notice of Proposed Rulemaking was published in the Notice Register on October 25, 2013. The public comment period expired on December 9, 2013. On December 9, 2013, a Public Hearing was held.

Following its December 7, 2013, public hearing, the Department of Water Resources (DWR) made changes to the proposed regulations and published a 15-day Notice of Proposed

Changes to the regulations. No comments were received. The final regulatory file was approved by the California Water Commission and submitted to the Office of Administrative Law on May 30, 2014.

In response to comments of the Office of Administrative Law and pursuant to the Administrative Procedures Act, the department withdrew the regulations on July 14, 2014. After making non-substantive changes to the regulations, including consolidation of numerous duplicative sections for clarity and to facilitate use by the regulated community, and supplementing the Final Statement of Reasons, a second 15-day Notice was published on September 26, 2014. No additional comments were received, although one commenter submitted the same letter as it sent in the initial comment period, to which the department responded.

This Final Statement of Reasons (FSOR) updates the Initial Statement of Reasons by identifying and providing the rationale for the modifications made to the originally proposed regulations and all changes or additions resulting from the regulatory process.

B. Background of these Regulations.

The California State Water Resources Development System, otherwise known as the State Water Project, or SWP, is the nation's largest state-built water and power development and conveyance system. It includes many facilities - pumping and power plants; reservoirs, lakes, and storage tanks; and canals, tunnels, and pipelines - that capture, store, and convey water to 29 water agencies across the state. It extends for more than 600 miles, two-thirds the length of California. Its main purpose is to store water and distribute it to 29 urban and agricultural water suppliers in Northern California, the San Francisco Bay Area, the San Joaquin Valley, the Central Coast, and Southern California. Of the contracted water supply, 70 percent goes to urban users and 30 percent goes to agricultural users, more than 25 million Californians, or two-

thirds of California's population. The SWP is also operated to improve water quality in the Delta, control Feather River flood waters, provide recreation, and enhance fish and wildlife. The SWP is maintained and operated by the California Department of Water Resources. Planned, constructed, and operated by DWR, the SWP also provides flood control, power generation, recreation, fish and wildlife protection, and water quality improvements in the Sacramento-San Joaquin Delta.

In 1951, the Legislature authorized what is now the State Water Project. Construction began on facilities at Oroville in 1957, and work began on the California Aqueduct in 1963. By 1968, the SWP was able to deliver water to the San Joaquin Valley. By 1973, the initial facilities were completed to allow water delivery to Lake Perris in Riverside County, the southernmost point in the system. Costs for water development and delivery are paid by the SWP water supply contractors, 29 local and regional water agencies. By the end of 2001, about \$5.2 billion had been spent to construct SWP facilities.

Today, the SWP includes 34 storage facilities, reservoirs and lakes, 20 pumping plants, 4 pumping-generating plants, 5 hydroelectric power plants and more than 600 miles of open canals and pipelines. Adjacent to the aqueducts, pipelines and related facilities, DWR has a recorded right-of-way to ensure that it can fulfill its statutory obligation to inspect, repair, operate and maintain the SWP facilities. Generally, the right-of-way extends about 300 feet along the aqueduct and 60-100 feet along the pipelines. The set-back from these facilities within the right-of-way is generally 15-60 feet from the center lines. Encroachments into this restricted space must be strictly controlled so that the integrity of these critical facilities can be maintained.

Initially, most of the SWP was constructed in areas of open land containing very little development. Over the years, land use has changed dramatically along with the population of the state. Farming has increased in areas where the SWP delivers water. Cities and

subdivisions have edged closer and closer to the SWP aqueduct and pipeline facilities. While this evolution was anticipated from the beginning, encroaching development has created many problems for DWR. Access to the facilities has been gradually limited by new towns and subdivisions. Farmland and orchards have expanded to the limits of the SWP right-of-way. Increasing development of adjacent properties has created a need for protection of this critical facility.

In 2005, the Legislature recognized the State Water Resources Development System as serving a “critical public infrastructure function by providing water to California’s residents, businesses, farms, environment, and other users.” At the same time, with Senate Bill 543, the Legislature formally conferred upon the Department of Water Resources the legal authority to control encroachments in the right-of-way and provided DWR the authority to remove unauthorized encroachments. Water Code section 12899 was enacted for this purpose. These proposed regulations seek to implement that authority.

All regulatory documents for this rulemaking are available online at the following DWR website: <http://www.water.ca.gov/regulations/> . The full text, including changes and modifications, is available at this website as well.

III. ENCROACHMENT PERMIT REGULATIONS.

Article 1: General Provisions

Section 600: Authority

Water Code section 12899-12899.11 authorize the Department of Water Resources to control access and activities in and around the right-of-way adjacent to the State Water Project and its related facilities by way of an Encroachment Permit. Section 12899.9 specifically permits the department to adopt regulations to establish the process and procedures for

issuance of an Encroachment Permit. The regulations are important to the department and the state in confirming the authority to manage encroachments within the right-of-way.

Section 600.1: Purpose and Scope

The purpose of these regulations is to interpret, implement and comply with the provisions of Water Code Sections 12899 - 12899.11. These Sections authorize the department to establish, administer, maintain and enforce a formal permit program for encroachments on the State Water Resources Development Project right-of-way; to control and regulate existing encroachments, to prevent, remove and abate unauthorized encroachments, activities or use of the department's right-of-way, and to protect its integrity from damage or injury, while respecting the rights of others. The encroachment permit serves as the primary means for monitoring the orderly and controlled construction, operations and maintenance of encroachments, use and activities within the department's right-of-way, and assuring the maximum protection of the State Water Resources Development Project facilities. The regulations will assist people who have a need to work within the department's right-of-way by setting out the requirements for encroachment activities.

The area of the department's jurisdiction is the State Water Resources Development Project right-of-way, property, property interests, works, facilities and any parts thereof. This regulation does not apply to the Sacramento and San Joaquin Drainage District or any areas under the jurisdiction of the Central Valley Flood Protection Board.

Section 600.2: Intent

The department built, operates, manages and maintains the State Water Resources Development Project and continues to repair, rehabilitate, enlarge and improve it to meet the continually expanding and increasing needs of California residents, businesses, farms and other users. To carry out this critical public infrastructure function, it is vital for the department to

protect the State Water Resources Development Project from encroachments, activities and uses that may threaten its integrity, interfere with its operation and maintenance or obstruct, hinder or delay the repair, rehabilitation, relocation, installation, enlargement or improvement of its facilities.

This chapter intends to establish regulations, policies and procedures to protect the State's water supply and conveyance system and ultimately secure the health and safety of the public.

The department intends to control encroachments, while respecting the rights of others, by establishing a formal encroachment permit program. The department recognizes that certain unauthorized uses, encroachments or activities exist within its right-of-way that are incompatible with the department's rights with regard to access, inspection, repair, or the operation and maintenance of any SWP facility and may need to be removed or abated. These regulations establish an enforcement process to control, prevent, abate or remove such unauthorized activities, uses and encroachments that threaten the integrity of the system or interfere with the department's ability to protect its critical infrastructure.

Nothing in the regulations is intended to grant, alter, expand, or limit any title or interest in any department property interest.

Encroachment permits issued pursuant to the regulations shall not grant any title or interest in department property, or create any agency or independent contractor relationship between the department and any person.

In developing these regulations, the department has made every effort to incorporate generally accepted industry standards, where applicable, for the various types of improvements that, in the extensive experience of the department, are the most common improvements in and around the right-of-way. The regulations are organized in consideration of the public and to

facilitate ease of locating requirements specific to the various improvements that may require an Encroachment Permit.

Section 600.3: Definitions

The definitions of terms used in these regulations are for clarity and to assist the regulated public in understanding the requirements for obtaining a permit. Many of the terms are used in their commonly-known context; some are repeated from Water Code section 12899.. To the extent certain terms have a specific meaning in these regulations, they are explained below.

a) “**Abatement**” means action as may be necessary to remove, terminate, or alleviate an unauthorized encroachment, including but not limited to demolition, removal, or restoration of property.

b) “**Applicant**” means person or entity who has applied for an Encroachment Permit from the department.

c) “**ASTM**” means American Society for Testing and Materials, a globally recognized leader in the development and delivery of international voluntary consensus standards.

d) “**Business Days**” means those days when the department offices are open to the public for business transactions. Weekends, along with State and federal holidays, are not business days. “Days” in these regulations mean calendar days unless, referred to as “business days.”

e) “**CEQA**” means the California Environmental Quality Act, Division 13 of the Public Resources Code, Sections 21000-21174.

f) “**Department**” means the Department of Water Resources of The Natural Resources Agency of the State of California as provided in Water Code Section 120.

g) “**Electrolier**” means wooden, concrete or steel pole supporting lamps or other lights, such as street lamps or traffic signals.

h) “**Embankment**” means the raised compacted-earth structures that retain water and support operating roads at the crest.

i) “**Emergency**” means any lawfully declared emergency or any circumstance determined to be an emergency by the department which is a sudden, unexpected occurrence that poses a clear and imminent danger, requiring immediate action to prevent or mitigate the loss or impairment of life, health, property, or essential public services.

j) “**Encroachment**” means installation of any tower, pole, pipe, fence, building, structure, object, or improvement of any kind or character that is placed in, on, under, or over any portion of the State Water Project or other use of the department’s right-of-way, including the alteration of the ground surface elevation by more than one foot, or the planting of trees, vines, or other vegetation on the department’s right-of-way that may pose a threat to the physical integrity of any facility of the State Water Project or that could interfere with the department’s rights with regard to access, inspection, repair or the operation and maintenance of any State Water Project facility.

k) “**Encroachment Permit**” means the department’s written authorization for an alteration, improvement, encroachment, excavation, use or activity within the department’s right-of-way that is not inconsistent with the function, operation, maintenance, enlargement, and rehabilitation of any portion of the facilities of the State Water Project. An Encroachment Permit is revocable and non-transferable and can only be modified or transferred with the written approval of the department.

l) “**FERC**” means the Federal Energy Regulatory Commission which issues licenses for power generation.

m) “**Joint-Use Facilities**” means those facilities of the State Water Project which are jointly owned, operated, and maintained by the State and the United States Bureau of Reclamation.

n) “**Member**” as it relates to bridge construction means an individual angle, beam, plate, or built piece intended to become an integral part of an assembly frame or structure.

o) “**Milepost**” means the distance designated along the State Water Project in miles identifying each project feature such as aqueduct pool, control structure, plant, reservoir outlet, and manhole starting from the beginning of the system.

p) “**Permittee**” means any person or entity who has obtained an Encroachment Permit from the department.

q) “**Person**” means any person, firm, partnership, association, corporation, other business entity, nonprofit organization, or governmental entity.

r) “**Potable**” means water that meets the drinking water standards as defined in Sections 116270-116293 of the California Health and Safety Code.

s) “**Reclamation**” means the United States Bureau of Reclamation, Department of the Interior as described in the “Agreement between the United States of America and the Department of Water Resources of the State of California for the Construction and Operation of the Joint-Use Facilities of the San Luis Unit” dated December 30, 1961.

t) “**Right-of-Way**” means any property interest acquired by the department for State Water Project purposes, including but not limited to, an easement, license, permit, agreement, or fee ownership.

u) “**Safety Plan**” means the implementation of an Injury and Illness Prevention Program in accordance with Section 1509 Title 8, Article 3, Subchapter 4, of California Code of Regulations.

v) **“State Water Contractor”** means a public agency that has a long-term water supply contract with the Department of Water Resources for the delivery of water pursuant to subdivision (b) of Section 12937 of the Water Code.

w) **“State Water Resources Development System”** hereinafter referred to as the State Water Project or SWP, means the State Water Resources Development System as described in Section 12931 and Section 12934(d) of the Water Code, including, but not limited to, all portions of the project authorized pursuant to the Central Valley Project Act (Part 3 commencing with Section 11100) and additions thereto.

x) **“Unauthorized Encroachment”** means any alteration, improvement, encroachment, excavation, use or activity within the State Water Project right-of-way acquired for the State Water Project without an encroachment permit or agreement from the department authorizing such encroachment, use or activity.

Note: Authority: Section 12899.9, Water Code

Reference: Sections 120, 12931, 12934 (d), 11100, 12899, 12899.1 (a), (c), 12899.5 (b), (2) (e), 12899.8 (e), 12899.10, & 12899.11(a), Water Code, and Sections 21000-21174, Public Resources Code

Section 600.4: Delegations

This confirms that the department may delegate any of its power or duties under the enabling legislation, Water Code section 12899, excluding approval authority by the Director of the department, and may withdraw or revoke this delegation at any time. This delegation can be made to any entity that has a contract with the department under Water Code section 11625. Generally, those entities include State Water Contractors, or public entities that purchase or use water, water flow, water storage, electric power, or other resources and facilities made available by the project. This section is repeated from the enabling statute, Section 12899.4, to

provide clarity to the potential permittees. The department has cooperative agreements with many of those entities and there are instances where it is mutually beneficial to delegate the authority to act on behalf of the department with regard to encroachments.

Article 2: Encroachment Permit General Provisions

The department has made a diligent effort to categorize the various specifications required for approval of an encroachment permit. Under the first sections of this article, the general provisions are set out, which are required for every encroachment permit. In later sections of the regulations, specific types of encroachments are set out, each with its own specifications. These are based on the history of the department in dealing with encroachments over the years.

Section 601: General Prohibition of Unauthorized Encroachments by the Public

Water Code section 12899.1 sets out the requirement that any person who intends to make any alteration, improvement, encroachment, or excavation within the right-of-way acquired for the State Water Project first obtain a permit from the department.

This generally repeats section 12899.1 for activities that require an encroachment permit. It is repeated here for clarity and assistance to the regulated community.

Section 602: Requirement of the Public to Submit an Encroachment Permit

Application

Senate Bill 543, establishing the legal authority for the department to create an encroachment permit program, declares that “The State Water Project resources Development System serves a critical public infrastructure function by providing water to California’s residents, businesses, farms, environment, and other users.” (S.B. 543 (2005), Section 1(a).) The legislature declared it “vital that the Department of Water Resources” should be “able to protect this infrastructure from encroachments that may threaten the integrity, or interfere with

the operation and maintenance, of this system.” (S.B. 543 (2005), Section 1(b).) In this regulation, the department provides notice and guidance to the public of the requirements to successfully obtain an encroachment permit.

Section 603: Department's Authority to Issue an Encroachment Permit

Water Code section 12899.1(c). Section 12899.9 authorizes the department to adopt regulations to implement Division 6, Part 6, Chapter 6.5 of the Water Code.

Section 603.5: Department's Authority to Deny an Encroachment Permit

Application

This section permits the department, upon initial review of the EP application, or other proposal for use of the SWP right-of-way, to deny the application or use if the department determines that the use “may pose a threat to the physical integrity of the State Water Resources Development System or that could interfere with the department’s rights with regard to access, inspection, repair, or the operation and maintenance of any State Water Resources Development System facility.” This language is found in Water Code section 12899(b), under the definition of “encroachment, repeated above in Section 600.3(j). The department may summarily deny the application without further review if it makes this determination.

Authority for this is found in Water Code section 11451, which states, in part: “The department shall have full charge and control of the construction, operation and maintenance of the [State Water Project]” and Section 12899(b).

Section 604: Department is Not Responsible for Construction of Encroachment

The department’s authority is limited to specifying the conditions for issuance of a permit. This is necessary to protect the safety of the public, integrity of the SWP system and facilities and to ensure access for the department to respond in an emergency or conduct routine maintenance. By issuing an encroachment permit, the department makes no representations or

guarantees with regard to the actual construction of the encroachment. Indeed, Water Code section 12899.1(d) absolves the department of responsibility “for the competence or reliability of the permittee or the encroachment.” Water Code section 12899.7 imposes liability on any person who “by any means willfully or negligently injures or damages any feature of the State Water Resources Development System or the department’s right-of-way” for the costs of “any necessary repairs” including related costs, expenses and attorney’s fees.

Section 605: Activities Requiring Encroachment Permits

Based on the enabling statutes and the department’s long history of dealing with encroachments into the right-of-way, the department has attempted to list the most common types of encroachments that will require a permit. Due to the size and scope of the SWP system, extending approximately 700 miles from Lake Oroville to San Diego, it is impractical for the department to continuously monitor every inch of the system, even with regularly- scheduled daily visual inspections by department staff. Requiring a permit for these encroachments will ensure the safety and integrity of the system and allow the department to more closely monitor activities within the right-of-way. Some of those that are enumerated in this Section 605 are taken directly from the enabling statutes and others are based on the department’s history of handling encroachments.

Section 606: Encroachment Permits within FERC Boundaries

In addition to these requirements for encroachment permits, requests for encroachment permits within the FERC boundary must comply with the requirements contained in Article 52 of the FERC license. Water Code section 12899.1(e) permits the department to require an applicant to comply with all “statutory requirements” including, but not limited to the California Environmental Quality Act and Public Resources Code. Many of the SWP facilities are jointly

owned or operated with the Federal Government, and so an applicant must also comply with federal statutes for an encroachment on this state-federal property.

Article 3: Encroachment Permit Exemption

Section 607: Persons Exempt from Permitting; Requirement for Plan Review

Water Code section 12899.8 provides an exemption from the requirement of obtaining an encroachment permit for “[a]ny person owning a legal real property interest over a portion of the State Water Project right-of-way for an authorized encroachment, or who has an agreement with the department for the construction, operation, and maintenance of an authorized encroachment within the State Water Project right-of-way.” Section 607.1 confirms that exemption.

In addition, any person who holds a “permit” as of January 1, 2007, or a person “who has an agreement with the department” for construction, operation and maintenance of an encroachment, to may continue the “authorized encroachment” under the terms, conditions and limitations of that permit or agreement.

This section as provides a “grandfathering” mechanism for any person who had a pre-existing agreement for encroachment activities, whether the agreement is considered an “encroachment permit” or not, up to the date this regulation becomes effective. It has been historically necessary for the department to enter into agreements that authorize activities within the right-of-way. This section provides assurance that people with pre-existing agreements with DWR will not have to apply for an encroachment permit under this regulation in order to continue their activities within the right-of-way.

Section 607.2 provides a specific exemption from these regulations and from the requirement to obtain an encroachment permit for any person who, pursuant to authority conferred by lease, contract, agreement, license or easement with the department, obtains an interest in department property, or performs an activity within the SWP right-of-way, or is

authorized to use the SWP right-of-way, but only with regard to the interest, activity, or use under that lease, contract, agreement, license, or easement. This exemption allows the department to comply with the legislative mandate found in Water Code section 141. Further, in the case of a project developed under contract, lease, agreement, license, or easement with the department, the conditions set forth in these regulations will necessarily be applied because the department personnel that would be involved in the project are the same who would normally review an encroachment permit application under these regulations.

Section 607.3 requires the person exempt under section 12899.8 to submit the plans to the department “for review and comment” before undertaking any encroaching activities within the department’s right-of-way. The department has thirty (30) days to respond with comment.

Without this section, parties holding an exemption from obtaining an encroachment permit may be under the impression that they are also exempt from DWR review/approval of the proposed encroachment. The department is responsible for protecting the structural integrity and continued operations of the SWP facilities. Certain people or entities are, under the statute and regulations, exempt from obtaining an encroachment permit. However, in order to ensure the structural integrity of the facilities and ensure there is no interference with the department’s access for inspection, repair or operation and maintenance, section 12899.8 requires these entities, while exempt from obtaining an encroachment permit, to submit their plans to the department for review and comment before proceeding with the project on the right-of-way. The department refers to this as a “plan review and comment” function for persons holding property rights that pre-existed the construction of the SWP aqueduct or pipeline, or predecessors-in-interest who currently hold that property right.

The department recognizes that section 12899.8 does not obligate a “plan review and comment” entity to comply with the comments of the department. However, section 12899 in its

entirety was enacted to give the department control over the right-of-way. There is no distinction in the definition of an “encroachment” based on whether a person is exempt from obtaining a permit. The department expects the “plan review and comment” entity to follow its comments. Otherwise, section 12899.8 would essentially negate the department’s authority to control activities on the right-of-way with regard to those pre-existing property rights.

Article 4: Existing Encroachments

Section 608: This Article 4 defines an “unauthorized encroachment” (Section 1) and an “authorized encroachment” (Section 2). These are codified in Water Code sections 12899.

Section 608.1: Unauthorized Encroachments

Generally, unauthorized encroachments include any type of construction activity, work of improvement, and any type of unnatural drainage on to the right-of-way that is created by activities along the right-of-way. As set forth in Water Code section 12899.1(a), an “unauthorized encroachment” is any “alteration, improvement, encroachment, or excavation within the right-of-way without first obtaining the written permission of the department.” Reference is also made to Water Code section 12899.6, setting out specific types of activities which, unless written permission is obtained from the department, cannot be undertaken within the right-of-way. Those prohibitions include, but are not limited to, those listed in Water Code section 12899.6 (a)(1) through 12899.6(3), also referred to in this regulation in Article 2, Section 605, subsections (f) through (h).

As indicated in this section 608.1, if the department identifies an unauthorized encroachment, the “Department may immediately give a written notice to the owner to remove or abate the use, activity or encroachment within sixty (60) days of receipt of the notice.” Unless the owner asserts a legal right pursuant to Water Code section 12899.8, and if the owner does not remove the encroachment within sixty (60) days, the department may remove the

encroachment and “the owner will be responsible for the cost and expense of the removal or abatement.” (Water Code sections 12899.5(c)(1); 12899.5(f); 12899.5(g).

Further, in the event an encroachment “obstructs, threatens, or prevents the proper operation, maintenance, or rehabilitation of the State Water Resources Development System,” the department may provide notice that the encroachment must be removed within five (5) days, or the department may commence removal.

Under Water Code section 12899.5(d)(2), if the encroachment “poses an imminent threat to the integrity of one or more features of the State Water Resources Development System,” the department is authorized to take “any action necessary to avert, alleviate, repair, or mitigate any threat to the State Water Resources Development System.” For purposes of this section, the term “emergency” adopts the definition of Water Code section 12899.5(e), as set forth in the definitions of these regulations.

In either event, emergency or non-emergency, the owner who has not removed the encroachment is responsible to reimburse the department for all costs associated with the unauthorized encroachment, in addition to court costs in the event legal action is required and all related attorney’s fees, and in addition, a penalty of \$1,000 per day for each day the encroachment is not removed after expiration of the applicable response period set forth in Water Code sections 12899.5(c) or 12899.5(d).

The regulatory process for dealing with unauthorized encroachments is set out in the regulations Article 9, sections 625, *et seq.* Water Code section 12899.5(f) authorizes the penalty of \$1,000 per day for failure to remove the encroachment following notice from the department.

Section 608.2: Authorized Encroachments

An “authorized encroachment” is any activity within the right-of-way for which an encroachment permit is issued, and agreement exists, or a pre-existing ownership interest exists pursuant to Water Code section 12899.8, so long as the department has the opportunity to review and comment on related plans prior to the undertaking of any work within the right-of-way. This regulation confirms that existing authorized encroachment remain valid after adoption of these regulations.

Section 608.3: Department Consent Required for Sale or Transfer of Encroachment Permit Interest; Duty to Notify Department

When the holder of an encroachment permit transfers the property interest on which the permit was obtained, the permittee must notify the department. There have been many instances in the past where the department has attempted to locate the owner of an encroachment and cannot because the property interest has been transferred without notice. The encroachment permit itself is not recorded or otherwise part of the title to the property. The department has decided that an encroachment permit is not transferrable unless the department agrees and the new permittee agrees to all the terms and conditions of the permit.

Article 5: Encroachment Permit Process

This Article 5, Sections 610.01 through 610.11, sets forth the general requirements applicable to all permits. As indicated above, the regulations also set out, in Article 6, *infra*, specifications for particular types of encroachments the department has historically considered.

Section 610.1: General Application Requirements

Water Code section 12899.2(b) and 12899.9 authorize the department to “prescribe requirements in the permit” and “the filing of an application for a permit, related administrative

review and inspection, the imposition of permit fees and permit terms and conditions” among other things.

This Section 610.1 contains the general requirements for any encroachment permit application. The department intends to provide a form for the general information required by subsection (a). The multiple sets of construction plans required by subsection (a)(6) facilitate the department’s review of the plans by multiple divisions and units within DWR, including, but not limited to, Division of Engineering and Division of Environmental Services.

Water Code section 12899.2(d) and (e) authorize the department to charge “an application processing and review fee”. The department has conducted an historic review of administrative and review costs to the various reviewing divisions and determined the initial fee shall be \$1,500. Calculating the historical averages for staff review costs for permits or agreements authorizing encroachments, approximately 89% exceeded \$1,500. The historical average cost for review and issuance of an encroachment permit or related agreement for work within the right-of-way have ranged from \$1,000 for a simple access project to \$12,000 or more for an extensive construction project in the right-of-way. As provided by section 610.6, the costs cannot be estimated until a complete application and construction plans are received. The department will require periodic payments throughout the review and approval process and will communicate those costs to the applicant. The department will not issue the permit until all related fees are paid by the applicant.

Water Code section 12899.1(e) permits a requirement that the applicant obtain and provide proof of all environmental clearances required for work on or along the department’s right-of-way, in addition to all “other statutory requirements.” This is reflected in subsection (a)(7).

Subsection (b) sets forth the construction plan requirements for all work performed under an encroachment permit. The plans must contain an original stamp by a licensed engineer, unless the department determines that the applicant is exempt. That determination must be made prior to plan submittal. The department's right-of-way boundary must be specifically marked. Any work to be performed must be clearly identified, including the physical location within the right-of-way and any areas designated for staging or access to the work site.

Applicants designing their own projects would probably prefer to avoid the added expense of hiring an engineer to prepare plans and drawings for their project. The reason for requiring plans to be stamped by an engineer licensed in California is to ensure the accuracy of the design and calculations on the plans. In addition, engineers become legally responsible for the integrity of the plans, reducing the liability of the department for deficiencies in the plans. The department recognizes that certain entities, particularly utilities, are exempt by law from the requirement of engineer-stamped plans on their own projects.

Subsections (b)(6) through (9) require specific notices to be included on the plans. These notices are designed specifically to ensure safety of the work being performed as well as protecting the integrity of the SWP facility. The department recognizes that the permit applicant may not be the same as the contractor who is actually performing the work, so the notices provide necessary information to the contractor. A seven (7) day notice to the department is required prior to commencing the work, allowing the department to schedule oversight or inspections as necessary. Trenching requirements, set out in subsection (b)(7) reflect the industry standard ASTM D1557-09 for slope and backfill.

DWR's construction and design standards for work with the SWP right-of-way may, at times, exceed general construction industry standards. Without these notes on all plans and drawings, contractors performing the work may not be aware of the additional requirements

while working within SWP right-of-way. During the initial public period, the ASTM standard was mistyped. The relevant section is ASTM D1557-12.

Subsection (b)(8) protects the communication cabling that runs along the aqueduct or pipeline and may not otherwise be visible. This cabling is essential to the operation of the SWP. Prior to excavation, all cabling must be identified. Excavation within three feet of the cabling must be done only with handheld tools which provide greater control and reduce the potential for damage to the communications cabling.

Subsection (b)(9) requires compliance with generally accepted industry standards for trenching and backfill compaction.

Subsection (b)(10) prohibits embankments on or around the right-of-way where a pipeline exists. Exceptions may be made upon written request by the applicant and upon the determination by the department that the embankment “does not pose a hazard to the integrity of the pipeline or impedes pipeline maintenance.”

Applicants design their encroachment projects, including embankments for roads and drainage management, without considering the buried SWP pipeline underlying their property. The SWP pipeline was designed with a known load tolerance. Any embankment placed above or around the pipeline adds to the downward pressure and could cause structural compromise. This allows the department to protect the buried pipeline from excessive load pressure that could cause a failure.

Subsection (b)(11) requires road improvements of existing roads along or in the right-of-way to comply with the generally accepted industry standards specified in the California Department of Transportation Standard Specifications, 2010 edition.

Subsection (b)(12) specifies that if existing drainage features are to be modified during construction, detailed construction plans showing the proposed drainage

replacement/restoration shall be submitted for review and approval by the department. Like any feature within the right-of-way, the department must ensure safety to the public, integrity of the system and access for maintenance and repairs. Therefore, the department must approve the construction plans for compliance with these regulations. However, as indicated in Article 2, Section 604, above, the department is not responsible the quality of the work to be performed. Any work not performed according to the approved plans will be considered to be an unauthorized and illegal encroachment.

Subsection (c) reiterates the authority of the department under Water Code section 12899.1(e) to require that any work performed within the right-of-way will be evaluated by the department's Division of Environmental Services for compliance with any and all applicable environmental laws, including, but not limited to, the California Environmental Quality Act and the related Guidelines, the California and Federal Endangered Species Acts and the National Environmental Policy Act. Written confirmation of compliance will be required by the department as a condition of issuing the permit.

Generally, with regard to environmental compliance, the department will not be the Lead Agency. However, there are circumstances where the department may be obligated to take the lead, for example: where the DWR disagrees with the conclusions in a Lead Agency's environmental document; where DWR requests changes to the environmental document prior to adoption; where DWR recommends changes that are substantial and require the Lead Agency to update or re-circulate the environmental document; or where the Lead Agency declines to edit and recirculate the environmental document. In the event the department is statutorily obligated to prepare an environmental document for the encroachment, significant staff time will be required and costs will be incurred. The applicant will be required to reimburse the department for all related costs prior to a permit being issued, as authorized by section

12899.2, and reflected in sections 610.1(c)(3) and 610.6(a). Without this provision, the Department would have no clear authority to require reimbursement for all work performed in the preparation of an environmental document.

Subsection (d) reserves the authority to approve the “type and weight of construction equipment” and location of crossing over the SWP pipeline. This is necessary to ensure the safety of the public and the integrity of the pipeline. Oversized equipment or vehicles could damage the right-of-way or buried SWP appurtenances. In order to ensure that the integrity of the right-of-way is not compromised, the applicant must specify the size and type of construction equipment that will be used on the project.

Section 610.2: Temporary Entry Permit

A temporary entry permit is distinguished from the encroachment permit by restricting the types of activities that can be undertaken. The temporary entry permit will allow “visual inspections, aerial and ground surveys, or potholing to locate certain utilities within the department’s right-of-way.” This is typically preliminary activity to gather information that will be required by an encroachment permit application. This section specifically prohibits general construction activities under a temporary entry permit. An encroachment permit must be obtained prior to the commencement of general construction activities.

The title of this section was changed from “Temporary Entry Permit” to “Temporary Entry or Access.” DWR will grant temporary access by agreement for preliminary activities limited to those enumerated in this section.

Section 610.3: General Provisions of an Encroachment Permit

Section 610.3 outlines the basic provisions applicable to all encroachment permits. Water Code section 12899.2(b) allows the department to prescribe reasonable conditions “as deemed appropriate by the department, and may include mitigation for effects of the approved

activity on the environment.” Each encroachment permit will obligate the applicant or permit holder to agree to restore the SWP facility to the same condition that existed prior to any work being performed under the encroachment permit, to agree to mitigation plans, or a “reporting and monitoring” plan for the protection of the environment after completion of the project. The department reserves the right to require the permit applicant or permit holder to record a document containing a “covenant, restriction, servitude or combination thereof, which runs with the land” for the continued protection of the environment.

Subsection (a) repeats the statute, section 12899.2(b), and is included for clarity as to the authority of the department to prescribe the terms and conditions of the encroachment permit. What follows subsection (a) are specific requirements the department will include in all permits. Subsections (b) and (c) assist the department should an environmental document not fully address significant impacts to the DWR right-of-way. These provisions ensure that impacts to the right-of-way are mitigated.

Subsection (d) requires compliance with the plans and specifications for an encroachment. The department must be certain about the location of every encroachment and the details of its construction and operation. This is particularly important for future operations or maintenance activities.

The department may also require a bond to be posted as authorized by Water Code section 12899.2(g) if the department, in its reasonable discretion, believes that there is a potential for a lack of compliance in the future by the permit holder. There are many existing encroachments that are within the right-of-way without a permit or permission from DWR. On occasion, the owner of the encroaching property may abandon or sell the property without notice to the successor-in-interest that the property encroaches on the DWR right-of-way. Requiring a recordable document describing the encroachment protects not only the

department, but future owners of the property. The bonding requirement protects the department from any costs that may be associated with completing the work or removing the encroachment should the project be abandoned by the applicant.

Subsection (f) of this section requires the applicant to demonstrate compliance with all licensing or permitting requirements of all public entities having jurisdiction over the location of the proposed work. The department may not be aware all requirements of other agencies with jurisdiction over the work related to the encroachment. This provision ensures that the applicant has complied with all requirements of permitting or licensing agencies other than DWR.

Subsection (g) renumbered to subsection (h) with new subsection (g) inserted immediately before this point. Subsection (g) specifies that the applicant must take all reasonable precautions to preserve and ensure the integrity of the SWP facilities in the vicinity of the work being performed under the permit. In the event the work of the permittee causes damage to the SWP facilities, the applicant is required to immediately restore the facilities to the condition that existed prior to the work being performed by the applicant or permit holder, at the expense of the permit holder, as set forth in Water Code section 12899.7. Many encroachments require inspection and/or maintenance by the permittee and those activities may not be under the direct supervision of department personnel. In performing any activities on the right-of-way, the permittee is required to ensure that the right-of-way is not damaged and if it is, this specifies that the applicant or permittee is responsible for the cost of restoring the right-of-way to its original condition.

New section (g) added to General Provisions of an Encroachment Permit. It is important for the permittee to prevent contamination to the SWP facilities and right-of-way. There are many ways that construction activities directly over the SWP aqueduct or pipeline can cause

contamination. If over the aqueduct, the downstream water will carry the contamination and could cause a system shut-down. If over the pipeline, soil contamination causes damage to the right-of-way and may interfere with the department's access or operations. In either event, removal or remediation will be required, so all available measures must be taken to prevent contamination during construction. Section 12899.7 confirms the legal liability for injury or damage to the SWP or right-of-way.

Subsection (h) renumbered to subsection (i). Subsection (h) requires the permit holder to indemnify and hold harmless the department and the State of California, as prescribed by Water Code section 12899.7, as it relates to any work performed under the permit. Water Code section 12899.2(f) and (g) allow the department to require, as a condition of issuing the permit, either proof of insurance, or a bond, in such amount as is "reasonably necessary to protect the state's interest." Indemnity or hold harmless provisions are generally required on all state government contracts in order to protect the state and the department entering into the contract. There may be activities relating to an encroachment permit that the permittee performs in a way that creates liability for DWR or the state. This provision protects the state from any liability arising from the work under the permit and requires the permittee to pay any costs related to litigation against the department.

Subsection (i) is renumbered to (j). Subsection (i) limits the time an encroachment permit will remain effective pending the start of construction under the permit. The department has found itself in a situation where a permit is issued and for reasons beyond the department's control, work is not commenced or completed within a reasonable amount of time. As a result, conditions of the SWP facility or land upon which the project was supposed to take place, may have changed, rendering the conditions of the permit to be invalid. The department intends to work with the applicant, to the extent possible, to ensure work is commenced and/or completed

within one year. The department will permit extensions of this time limitation upon application by the permittee and based on reasonable grounds for the extension. However, if it appears that the project is abandoned for an extended period of time, and if the department cannot confirm the start or continuation of the work in a timely fashion, the permit will be revoked.

Subsection (j) is renumbered to (k). Under subsection (j) “The permittee’s signature on the encroachment permit constitutes acceptance of, and agreement with, all the terms and conditions of the encroachment permit.” Language to that effect will be included on the department’s application form. Without a permittee’s signature on the permit, the department would have no way to legally bind the permittee to the permit requirements.

Subdivision (k) is renumbered to (l). Subdivision (k) reserves the authority to determine whether the permitted work is being conducted in conformity with the plans and specifications. Water Code section 12899.2(e) permits the department to “inspect and supervise the work performed under any permit issued.” If the work is not conforming, Water Code section 12899.5 allows the department to require conformity with the plans and specifications, or if the permittee will not or cannot comply, the department may perform the work and the permittee will be liable for the costs related to re-establishing the SWP right-of-way to a safe condition.

Section 610.3(l) is deleted and replaced with the former section 610.3(m) with slight modifications. These sections address the situation of changed conditions or abandonment. The department cannot determine the future or changing conditions of the facilities or surrounding terrain. It may be necessary in the future to remove an encroachment, due to abandonment of the encroachment by the permittee, or changed conditions, repair, or improvement of the SWP facilities, or due to necessary operations or maintenance. Sections 12899.2(b) and (c) require a permittee to bear the full cost to remove the encroachment and restore the SWP facilities.

Subsection 610.3(n) is deleted from this section and moved and renumbered to section 610.4(d).

This informs the public that the permit is subject to revocation and the encroachment subject to removal or relocation if the department determines that future repair, rehabilitation, modification, or improvement of the SWP is necessary. Sections 12899.2(b) and (c) require a permittee to bear the full cost to remove the encroachment and restore the SWP facilities.

Section 610.4: Encroachment Permit Revisions, Modifications, Revocations

Water Code section 12899.2(e) allows the department to “inspect and supervise the work performed” under the EP. There will be occasions when site conditions require modifications of approved plans. Modifications may be allowed upon written application.

Minor modifications may be allowed only if approved by the department’s inspector. However, with any modification, all requirements of obtaining an EP must be followed by the applicant. Implicit in the supervision authority is the ability of the department’s inspector to halt work if a deviation from the plans is proceeding without approval. See Section 610.10, below, for further details.

Subsections (a) and (b) recognize the department’s authority to inspect and supervise the work in the field. Conditions in the field may require alterations of the planned work that were not identified in the approval process. The department must maintain authority to allow modifications to enable the work to continue. If there is no justification for a deviation from the approved plans, the department can halt the work.

Subsection (c) address the situation where a permittee alters the work without approval from the department, which could lead to confusion in the future about locations of certain elements of the encroachment and create a danger to DWR personnel or compromise the integrity of the SWP facilities or right-of-way. The department must be able to verify

compliance with the approved plans and to stop work if the permittee deviates from the plans without prior approval.

Subsection 610.3(n) is added as new subsection 610.4(d). This informs the public that the permit is subject to revocation and the encroachment subject to removal or relocation if the department determines that future repair, rehabilitation, modification, or improvement of the SWP is necessary. Sections 12899.2(b) and (c) require a permittee to bear the full cost to remove the encroachment and restore the SWP facilities.

Section 610.5: Removal or Relocation of Encroachment

Notice is given by this Section 610.5, pursuant to Water Code sections 12899.2 and 12899.5, that an owner holding an encroachment permit, or subject to action by the department due to an unauthorized encroachment, may be required to remove or relocate the encroachment. Please see Article 4, Section 608 and Article 9 for details on the action the department may take in a non-emergency and emergency situation, as authorized by Water Code sections 12899.5(c) and (d). To avoid duplication, they are not repeated here. Water Code section 12899.5, specifically subsection (c), authorizes the department to require removal of an unauthorized encroachment. Water Code section 12899.2(b) authorizes the department to require relocation of an authorized encroachment, “in the event the future repair, rehabilitation, or improvement of the State Water Resources Development System requires the relocation or removal of the encroachment.” Removal or relocation is to be done “at the sole expense of the permittee.” These statutes detail the action the department will take to effect that removal or relocation. Notice to the owner by the department triggers the obligation of the property owner to remove or relocate the encroachment. Water Code section 12899.5(b) allows the department to serve the notice upon the person, or registered mail and posting for a period of five days. In the event the owner, occupant or person in possession of the property that is

causing the unauthorized encroachment does not reside in the county, the department may serve the notice to “an agent” of the owner in lieu of mail service.

Water Code section 12899.2(c) is repeated here to clarify that and encroachment granted under this permit is revocable and subject to removal or relocation at the sole cost of the permittee.

Section 610.6: Encroachment Permit Fees

Water Code section 12899.2(d) obligates by the use of the term “shall” the department to charge an “application processing and review” fee for a person to use the right-of-way. Please see Article 5, Section 610.1, above, for further details explaining how the department determined initial fees. This section details the process of invoicing or billing the applicant during the department’s review process.

Review of the permit application requires the attention of personnel in various sections within DWR, including, but not limited to, the Real Estate Branch, Division of Engineering and Division of Environmental Services. The actual time involved will depend on the scope of the application and the proposed project. During the review process, associated fees are incurred by the department. The department will periodically invoice or bill the applicant. Fees must be paid, or the department will cease the review process. At the conclusion of the review, all fees are due and payable by the applicant, or the permit will not be issued. In the event the project proceeds without the permit, the project will be considered an unauthorized encroachment and the department will take all appropriate action as authorized by Water Code section 12899.

As reflected by subsection (c) of this Section 610.6, the department may inspect and supervise the work under the permit. As reflected in Section 610.10(d), below, if, in the opinion of the department’s inspector, the work is not proceeding according to the approved plans, or is

being conducted in a manner that creates danger to the workers or to the public, the inspector may order a halt to further activity by the permittee, until the dangerous condition is corrected.

In the event that the actual review and approval costs are, in fact, less than the total charges paid by the permittee, the department will refund the difference, upon receipt of the as-built plans, or at such a time as the permittee withdraws the permit application.

The title of this section is changed to “Encroachment Permit Fees and Costs.” Each of the reviewing departments are expending costs for personnel to review the permit application, increasing the cost of doing business to the department. At the same time, these personnel are diverted from other necessary work within the department. Recognizing that there will be a cost for review and approval of a permit, the legislature mandated that the department charge and the applicant pay the administrative costs of review and approval of the application and issuance of the permit. The \$1,500 deposit insures that the initial review costs are compensated in the event the application is withdrawn or abandoned after submittal.

Section 610.7: Proof of Insurance

Water Code section 12899.2(f) allows the department to require proof of insurance from an applicant in an amount to be determined at the discretion of the department. The insurance must name the State of California as an additional insured and must in an amount sufficient to reasonably protect the interests of the State, but not less than \$1 million per occurrence. This amount is included in the Standard Terms and Conditions that will be incorporated by reference in all permits, and is referred to in Section 610.03(o).

Not unlike any contracting by the department or state, insurance is required to protect the interests of the department. The amount of insurance permitted by 12899.2(f) gives the department the discretion to determine what is “reasonable” based upon the specific circumstances of the activity under the permit.

Section 610.8: Bonds

Water Code section 12899.2(g) permits the department, in its discretion, to require a bond to be posted “in an amount that the department determines to be sufficient, conditioned on the proper compliance by the permittee with this chapter.” The department has experienced circumstances where an applicant either unreasonably delays completion of the permitted work, abandons the work, or fails to maintain the permitted work. The bond requirement allows the department to secure adequate funding to mitigate this failure. A history of non-compliance with section 12899 *et seq.* is not a condition precedent to the department’s authority to require a bond from a private person or non-public entity. However, there must be a history of non-compliance prior to the department securing a bond from a county, city, city and county, or public agency which applies for an encroachment permit.

If an encroachment project is not completed according to the approved plans, or is abandoned or not maintained in the future, the department would be obligated to bear the cost of corrections or mitigation if no bond fund were available.

Section 610.9: Pre-Construction Requirements

Section 610.9 sets the conditions a permittee must satisfy before work is begun on an encroachment. Water Code Section 12899.2(b) allows the department to prescribe reasonable conditions “as deemed appropriate by the department, and may include mitigation for effects of the approved activity on the environment.” Each encroachment permit will obligate the applicant or permittee to agree to restore the SWP facility to a level equal to or better than the condition that existed prior to any work being performed under the encroachment permit, to agree to mitigation plans, or to a “reporting and monitoring” plan for the protection of the property, facilities, or environment after completion of the project.

Subsection (a) requires the permittee to provide written notice to the department at least seven (7) calendar days prior to beginning any work within the SWP right-of-way, and provide a copy of the notification to the field division office having jurisdiction over the location of the proposed encroachment. This allows the department to plan around the activities under the permit and schedule necessary inspections that may be required.

The department has many DWR and encroachment-related projects ongoing simultaneously, all of which require regular monitoring or inspection. The 7-day lead time allows sufficient lead time for the department to make sure the encroachment permit work is coordinated with work by others in the same area, or with operations and maintenance by the department.

Subsection (b) requires the permittee to submit a construction schedule detailing a timeline for the construction of any project within the SWP right-of-way. The schedule must be submitted at least seven (7) calendar days prior to the start of any work. This allows the department to plan around the activities under the permit and schedule necessary inspections that may be required.

Subsection (c) provides for a joint inspection by DWR and the permittee, both prior to, and after, construction to assess and document the condition of the area within the SWP right-of-way that will be affected by the encroachment. Specifies that permittee is liable for all costs associated with restoration of the SWP property, facilities, or environment to the condition that existed prior to the commencement of work under the permit.

This inspection documents the condition of the DWR property in order to make sure that any damage to that property will be repaired or corrected after the permittee completes its activities. Water Code section 12899.2(b) obligates a permittee to pay the expense of restoring the SWP right-of-way to a pre-work condition.

Section 610.10: Construction Requirements

Section 610.10 sets the conditions a permittee must satisfy during the construction work approved by an encroachment permit. Water Code Section 12899.2(b) allows the department to prescribe reasonable conditions “as deemed appropriate by the department, and may include mitigation for effects of the approved activity on the environment.” Each encroachment permit will obligate the applicant or holder to agree to restore the SWP facility to the same condition that existed prior to any work being performed under the encroachment permit, to agree to mitigation plans, or to a “reporting and monitoring” plan for the protection of the properties, facilities, or environment after completion of the project.

Subsection (a) specifies a one-year time limit to complete construction within SWP right-of-way. The one-year clock begins on the date that work is begun on the project. Historically, the work performed under a permit has not exceeded this time limit. This one-year limit is necessary because if there is an extended delay between the issuance of the permit and completion of the work, conditions on the ground may change, requiring additional clearances or environmental studies. Should that occur, the permittee will be required to update the clearances or environmental documents at permittee’s expense in order for the work to continue.

The department cannot allow construction or activity on the right-of-way with no end date. This allows the department to manage the right-of-way and ensure personnel are available to monitor and inspect the work. If the work cannot be completed within this time period, the department will work with the applicant to extend the completion date.

Subsection (b) requires that the permittee manage construction work within SWP right-of-way so that DWR access and ongoing operations and maintenance activities are not disrupted during the construction approved by the encroachment permit.

The DWR operations are ongoing around-the-clock and it may need to access the right-of-way at any time. The applicant must agree to maintain access through the work site at all times.

Subsection (c) is deleted, as it is addressed in section 610.9(b). Subsection (c) requires that a construction schedule be submitted for review and approval. Water Code section 12899.2(b) permits the department to prescribe the requirements in the permit. In approving the work, the department must be able to schedule its own activities around the work to be performed under the permit.

Subsection (d) is renumbered to (c). Subsection (d) confirms the authority to inspect and supervise construction work performed under an encroachment permit. The department has construction supervision and inspection staff located throughout the length of the SWP. The subsection also authorizes inspectors to halt work if any construction activities within SWP right-of-way do not conform to the conditions of the encroachment permit. This is an important empowerment for department inspectors if unsafe work conditions, potential damage to SWP facilities, or work being performed outside the scope of the encroachment permit are witnessed.

To ensure that the department's inspection responsibility is facilitated, a permittee must maintain a signed copy of the Encroachment Permit and DWR stamped plans at all times at the work site. Maintaining these documents on the site is essential to the ability of inspectors to verify that the work is being performed according to the approved permit and plans.

Subsection (e) is renumbered to (d). Subsection (e) requires that construction work under the encroachment permit be completed within one year after construction work is begun, unless the permittee requests and is granted an extension of time to complete work. The elapsed time without an extension of time could be up to 2 years, including a deadline to start construction within one year after the permit issuance date and a complete construction deadline ending one

year after construction work is begun. The department will work with the permittee on a construction schedule that cannot be completed within the required time limit. Written notification to the department is required to engage the department in a modification of the schedule for completion of the work.

There have been instances over the years where it appeared that a permittee had abandoned the work, since no work had been completed within the one-year period, or where there was work performed, but no visible ongoing activity. The department must be able to effectively manage the activities on the right-of-way and efficiently allocate resources to monitoring the project. It must ensure that access to the encroachment area can be maintained and the damage to the right-of-way is minimized. If the one-year period has expired and the department cannot communicate with the permittee and establish a time frame for either starting or completing the remaining work, the department will consider the project to be abandoned and will revoke the permit. If some work has been completed, but the project appears to be abandoned, the department will seek removal under section 12899.5.

Section 610.11: Post-Construction Requirements

The purpose of this section is to detail the responsibilities of the permittee after construction work on the encroachment has been completed. Following the completion of the construction or project within the right-of-way, the final as-built plans must be submitted. The as-built plans detail the completed project and will assist the department in its future operations in and around the authorized encroachment. If the permit applicant fails to submit the as-built plans, the Encroachment Permit will not be issued, or if it has been issued, may be revoked and the department may hold the deposit, or any unused funds pending receipt of the final as-built plans.

Receipt of the as-built plans is the only way the department can be informed about changes on the project that were made during construction that were not identified in the original approved plans and specifications.

Subsection (b) sets out the continuing obligations of the permittee. Under Water Code section 12899.1(d) and section 604 of these regulations, the department is not responsible for the reliability of the encroachment. DWR recognizes that many of the encroachments require some level of maintenance, for example, streets, landscaping. The notice requirement ensures that the department is aware of the permittee's activities and will allow the department to monitor the maintenance or repair work.

Article 6: Requirements for Specific Types of Encroachments

This Article specifies the technical requirements for encroachment and are in addition to the general encroachment requirements detailed in Article 5. Water Code Section 12899.2(b) allows the department to prescribe requirements relating to the location and manner in which the work shall be performed, as determined by the department to be necessary for the protection of the SWP facilities. The structure of Article 6 was designed to present technical requirements related to the specific type of encroachment proposed, making a search of the relevant requirements for a particular type of encroachment easier to find within the framework of the regulations.

The requirements were developed to minimize the effects of various types of encroachments, including, but not limited to: trenching over buried SWP pipelines; corrosion control; self-supporting casing pipes; drainage into SWP easement; etc., on the SWP conveyance structures and right-of-way. Some of the technical specifications mirror the construction industry standards for compaction, safety, clearances, and materials. Where possible, DWR has cited the most recent publication dates for these referenced standards.

Technical requirements developed by the department have evolved out of several decades of experience with the effects and impacts of various encroachments on SWP facilities.

Encroachment permit application submissions that do not meet these criteria are deemed incomplete. A detailed response letter noting the deficiencies is sent to the applicant with instructions to re-submit with the required changes. The department may allow alternatives to its stated requirements, provided the applicant has submitted compelling information discussing the alternatives to the department.

Section 612.1: Bridge Encroachments

There are hundreds of bridges that cross the SWP right-of-way, nearly all of which cross over the open aqueduct segments of the system. This Section covers both proposed new bridge construction and encroachments that propose to use existing bridges as means to attach a utility crossing over SWP right-of-way. Most of these bridges are owned and maintained by the California Department of Transportation or by County or local government entities. However, there are more than three hundred bridges owned by the department, which is responsible for the maintenance of the bridge structure, such as pilings, columns, abutments, girders or members connecting substructure elements that support the deck. Public safety and structural integrity are a primary concern to the department in the review of new bridge designs, and any new bridge proposal must demonstrate that the structure will not impact SWP facilities or operations and maintenance activities. Applications for encroachments that propose to attach to an existing bridge must also demonstrate that the attachment can be accomplished without impacting structural integrity of the bridge or impairing operations and maintenance activities by the department.

Subsection (a) specifies that the bridge design shall cross the right-of-way perpendicular to the SWP aqueduct. This specification shortens the bridge span length over the aqueduct and

minimizes the impact area footprint within the right-of-way. The department will review any requests that deviate from this specification on a case-by-case basis.

The department must reserve as much right-of-way as possible for future expansion and repair of the SWP facilities, as well as accommodating additional encroachments. The preferred alignment is perpendicular to the aqueduct or pipeline to minimize the overpass area. Non-perpendicular or longitudinal crossings encumber much more space along the right-of-way than perpendicular. The department recognizes, however, that there are circumstances that require an angled crossing, for example where connecting roads, topography, natural or man-made obstacles require it. Non-perpendicular designs may be considered in those cases where the applicant demonstrates that the alignment will not affect the department's ability to operate, maintain or modify the SWP.

Subsection (b) specifies that new bridge designs which cross the SWP open aqueduct shall be free-span design that completely clear the canal with the required minimum vertical clearance above the top of the concrete canal liner (5 feet for box-girder bridges, 3 feet minimum for all other bridges). This reinforces the commitment to protect the integrity of the canal by not allowing the aqueduct's concrete liner to be pierced by new piers or columns to support non-free-span bridges. Piercing the liner with any piling or support structure will significantly compromise the structural integrity of the aqueduct and cause known consequences that include seepage, erosion by the fast-flowing water and obstructing the water flow. The specified clearance is required so that equipment used in operations and maintenance can access the SWP facilities.

Subsection (c) specifies that no sheet piles can be driven into the right-of-way as part of the proposed bridge abutment construction. The concern is that impact and vibration from driving sheet piles could affect the Aqueduct canal embankment and/or liner structural integrity.

Subsection (d) specifies that construction plans for proposed bridges contain detailed information on the materials to be used in the bridge construction including, but not limited to: the type of concrete; details of various members of the bridge structure; vertical clearances between the top of the canal liner and the bridge girders. Without this information the department's engineers cannot accurately evaluate the design's compatibility to existing SWP facilities.

Subsection (e) deleted. Subsection (e) specifies that the applicant submit calculations and construction specifications for the proposed bridge to the department for review and approval.

Subsection (f) is renumbered to subsection (e). Subsection (f) specifies that the bridge design include adequate right turn radius from the bridge road onto the department's operating road. The turning radius must accommodate an 80-foot long vehicle to allow the department's heavy construction equipment to access the SWP operating road.

Subsection (g) is renumbered to subsection (f). Subsection (g) specifies that the applicant shall include details of any existing or proposed utilities attached to the bridge in the construction plans. Utility attachments can be suspended beneath the bridge, or attached to the sides of the bridge. The exact details of proposed utilities attached to the bridge are necessary to determine the capacity of the bridge structure to accommodate the new utility. If the permit is being obtained for modification to an existing bridge, details of attached utilities are important to determine whether the new design is sufficient to support the existing utility.

Subsection (h) is renumbered to subsection (g). Subsection (h) specifies the requirements for attaching utilities to bridges, old and new. The requirements are necessary to preserve structural integrity of the bridges and abutments. This is done by controlling the mechanisms used to attach utilities to DWR bridges or abutments. The subsection also includes specifications for self-supporting casing pipes that contain the utility pipeline or conduit. Bridge

design varies throughout the state. Without the specifications called out in this section the department will not be able to determine if the proposed attachment will damage the bridge structure.

Subsections (11) and (12) are moved here from section 612.65(a)(1) and 612.61(h).

Subsection (i) renumbered to Section 610.3(g). Subsection (i) specifies that the permittee will abide by all provisions designed to prevent contamination of SWP water during construction of the bridge, or during construction of a utility crossing attached to the bridge.

Section 612.2: Landscaping Encroachments

This Section is primarily focused on landscaping encroachments within SWP right-of-way where the system is in buried pipeline segments and the SWP right-of-way is secured by easement. The department is committed to maintaining the overlying ground above the SWP pipeline segments free of landscaping elements that that would interfere with visual reconnaissance or jeopardize the integrity of the SWP pipelines from root intrusion.

Subsection (a) Specifies that no landscaping encroachments will be permitted within the department's right-of-way where open canal segments of the SWP exist. The right-of-way along the aqueduct must be free from landscaping so that the department can conduct visual inspections of the embankment and surrounding land. In addition, landscaping tends to attract people and the department must limit access around the open aqueduct because not doing so could result in serious injury or death.

Subsection (b) Specifies that the buried pipeline right-of-way can be used as a green-belt corridor upon review and approval, and outlines the types of plantings permissible within the right-of-way. Subsection (b)(3) details the position that no new tree will be allowed within 25 feet of the edge of the buried pipeline as measured from the tree's full-growth drip line. The

department reviewed several water management agencies' policy on trees within their buried pipeline easements and found this distance-to-pipeline standard to be a reasonable criterion in preventing future potential damage to the pipeline due to invasive root growth. (612.2(b)(1)-(5)) Right-of-way in areas of the pipeline generally run through developed areas of cities and counties. Any greenbelt or landscaping over the pipeline on the right-of-way necessarily interferes with the department's access for operations and maintenance. DWR allows landscaping and greenbelts along or over the pipeline, which benefits the public entity while still providing access by the department for maintenance and operations. The department may allow trees within the 25-foot limit if the root system will not adversely affect the integrity of the pipeline or other buried facilities. However, the type of vegetation will be limited to that which will not impair access for inspection or maintenance and will not adversely affect the integrity of the pipeline or related facilities.

Subsection (c) specifies that drawings containing landscaping details must indicate the project limits and show the right-of-way boundaries and facilities, matching the requirements for construction plans and drawings as specified under 610.1(b). There are a number of requirements for specific details to be included for plan review and approval by DWR that are repeated in various sections of the regulations. This was done for clarity for members of the public, who may only be interested in a specific type of encroachment. This requirement assists the department in determining the exact location of the landscaping in relation to all DWR facilities.

Subsection (d) specifies that large diameter irrigation pipelines (1 inch in diameter, or larger) shall be located at least 15 feet from the edge of the buried SWP pipeline. The concern is that a break in the irrigation pipe could cause extensive damage to the fill surrounding the

SWP pipeline or jeopardize buried communication cable(s) because of the high potential pressures in large-diameter irrigation pipelines.

Subsection (e) specifies that valves controlling large diameter irrigation pipelines (1 inch in diameter, or larger) shall be located outside of the right-of-way, or if necessary, within 10 feet from the edge of the right-of-way. The concern with large valves located in proximity to the SWP pipeline, buried communication cable(s) or other appurtenances is the same as stated in Subsection (d). The proximity of the pipeline from the edge of the right-of-way is not consistent. In some locations, there is less space from the edge of the pipeline to the edge of the right-of-way. Irrigation control valves shut the water off in the event the department must dig up portions of the irrigation system. Major valves pose an increased threat to the integrity of the right-of-way due to the volume of water they control. Limiting the placement of irrigation control valves to outside the right-of-way ensures that the water can be shut off when the department operates trucks or heavy equipment on the right-of-way that could involve destruction of the irrigation lines. Limiting the location to no greater than 10 feet from the edge of the right-of-way boundary will minimize the effect from a failure of these valves.

Subsection (f) specifies that detectable warning tape be buried 18, or more, inches above any buried irrigation pipeline within the right-of-way. In practice, the warning tape should provide a means to locate the buried irrigation pipeline, and will give added assurance that, failing magnetic detection, anyone digging over the irrigation pipeline will encounter the warning tape before the irrigation pipeline can be damaged.

Without warning tape, the location of the underground utility cannot be determined. The color coding specific to the buried irrigation lines are standardized throughout the pipeline safety industry (American Public Works Association APWA Uniform Color Code). These tapes will

assist future location of these utilities should DWR, or another entity, needs to excavate in the area of the crossing irrigation lines.

Subsection (g) specifies that the existing cover (earth fill) over the SWP pipeline shall not be modified without advance review and approval before any grading work can proceed within the right-of-way. The pipeline was engineered with specific limits for the thickness of the ground covering it to protect its structural integrity. The department must review and approve all plans to add to or subtract from that cover so there is no effect on the structure.

Subsection (h) specifies that placement of excavated materials within the department's right-of-way is subject to department review. The concern is that spoil or fill piles will be deposited directly over the buried SWP pipeline or in proximity, or over, a control vault or other SWP facility or appurtenance. The reason for the concern is that adding fill over the pipeline will create excessive downward pressure that may jeopardize the structural integrity of the pipeline.

Subsection (i) specifies that a grading plan indicating the top elevation of the buried SWP pipeline shall be submitted for review and approval. Over the years, grading occurs without knowledge or supervision of the department, so the elevation may be different than originally designed and constructed. This plan verifies the existing elevation of the ground above the pipeline. It also allows the department to verify that the post-construction ground elevations are consistent with the SWP design engineering requirements.

Subsection (j) specifies that open space with trails and walkways will be permitted only if the access to SWP facilities is ensured. The department recognizes that development will impact access to the right-of-way. Many development projects are designed with open space designations that potentially limit the department's access. DWR will consider allowing open space to include the right-of-way, but only where access is ensured so the department can conduct regular inspections and maintenance.

Section 612.3: Longitudinal Encroachments

This Section is focused on the issue of proposals for encroachments that would run parallel to the SWP pipeline or canal within the right-of-way. The concern regarding longitudinal encroachments is the potential for disruption of maintenance efforts due to location of utilities, or other encroachments, in proximity to the SWP facilities.

In instances involving the right-of-way along buried pipeline segments, the department has developed criteria for acceptable longitudinal encroachments within the right-of-way based on experience and the potential impacts to maintenance activities. Any excavation to expose and repair or replace buried pipeline will require the removal of material far in excess of the pipeline dimensions. Even utilizing shoring methods to minimize the excavation width, any utilities or fixtures located within the excavation footprint have the potential to create difficulties for department staff and hinder maintenance and repair activities.

There are similar concerns within SWP right-of-way along open canal segments regarding any proposed longitudinal encroachments that could hinder maintenance and/or repair activities. The department is frequently approached regarding encroachment proposals within the open aqueduct right-of-way, however the department recognizes that the perceived open space may be necessary to accommodate the type of heavy equipment and the construction footprint required for excavation and repair of the aqueduct.

Subsection (a) addresses the policy is that longitudinal encroachments that do not directly serve the interests of the SWP will not be allowed within the right-of-way. In cases where the department allows a longitudinal encroachment, the encroachment must be located as close to the right-of-way boundary as possible to minimize the impact on maintenance activities.

Subsection (a)(1) is renumbered to (a). Longitudinal encroachments encumber significant segments of the right-of-way. Longitudinal encroachments of any length along the aqueduct or pipeline increase the probability that operations or maintenance activities will encounter them. This standard minimizes the potential for conflict with DWR activities.

Subsection (a)(2) is renumbered to (b). The concern is that longitudinal trenching, which may extend hundreds of feet or more, and removal of supporting earth material, may lessen the structural support for the aqueduct. Keeping the earth removal as far away from the aqueduct as possible lessens this risk. In the case of buried pipeline, the minimum clearance ensures sufficient space between the encroachment and the SWP facility so maintenance or operations are not restricted.

Subsection (b) was deleted as the elements of (b) are addressed in other portions of the regulations. Subsections within (b): These subsections address various situations with which the department has dealt over the years. As with any activity on the right-of-way, the department has discretion to approve or prevent changes to the surface elevations. Subdivision lot layouts cannot include SWP pipeline right-of-way unless an existing encroachment has been approved prior to the adoption of these regulations. This will allow exceptions that have been previously approved by the department. DWR will consider future exceptions on a case-by-case basis.

In some areas, linear open space and hiking areas can be considered over pipeline easement because hiking and bicycling trails provide DWR access for maintenance and patrol. However, the department's access must be provided for and maintained.

Pavement over SWP pipeline easement is allowed so long as certain pavement compositions are used. All pavement over SWP pipeline easement must be asphalt or other

flexible pavement that would not impair DWR excavation efforts to expose the SWP pipeline. Pressurized water pipelines, including irrigation supply lines, that are proposed parallel to the SWP pipeline shall be at least 15 feet from the edge of the SWP pipeline.

No longitudinal encroachments for hazardous material pipelines will be allowed within SWP pipeline right-of-way. Pipelines containing hazardous materials must be routed across SWP right-of-way perpendicular to the SWP pipeline with all minimum SWP pipeline vertical clearance criteria (described in Section 612.6, including subsections 612.63-612.64.) also being met.

Power poles, light poles (electroliers) and other similar structures proposed within the department's right-of-way must be installed as far from any SWP pipeline as they can reasonably be placed in order to protect the integrity of the pipeline and surrounding ground.

Embankments present a special problem for the pipelines due to the excess weight bearing down on the pipeline. No embankments may be constructed within the right-of-way where a buried SWP pipeline is present unless the department determines that the added surcharge of the embankment material does not jeopardize the integrity of the SWP pipeline. In the case of a future approved, or existing approved, embankment, the department will require removal of the embankment if a determination is made that SWP pipeline structural integrity is jeopardized by the embankment. Such removal would be by permittee, or by the department at permittee's expense, as reflected in Water Code sections 12899.5, 12899.6.

A similar situation exists with modifications of the grading above and around the pipeline. Proposed grading modifications to the cover over buried SWP pipeline, either adding material or removal of material, must be approved in advance. The initial SWP pipeline construction was based on a designed amount of earth covering on top of the pipeline and modification to this

amount of cover, either adding or removing cover, could impact structural stresses and affect integrity of the pipeline.

Staging, or permanent placement, of fill or borrow material from excavation within the right-of-way is subject to advance review and approval because the piles of material present an obstacle to general maintenance activities and could create stress on the pipeline.

All projects that involve modifications to the cover over SWP pipelines must be accompanied by a grading plan that shows the top of SWP pipeline elevation.

Section 612.4: Road, Parking Areas, and Recreational Trails Encroachments

This section applies to those encroachment applications that propose to install roads, pavement, parking lots or recreational trails (including bicycle and walking paths) within the right-of-way. These types of encroachments are almost entirely related to buried SWP pipeline segments, however there are paving issues involving open aqueduct and non-operating right-of-way. The SWP pipeline alignment runs through urban corridors, as well as rural areas, and the department has a long-standing policy of allowing these types of uses with the right-of-way provided that the following criteria are satisfied.

Subsection (a) specifies that projects involving modifications to the cover over SWP pipelines must be accompanied by a grading plan that shows the top of SWP pipeline elevation. The grading plan indicating the top elevation of the buried SWP pipeline shall be submitted for review and approval. The thickness of the ground over the pipeline changes over time and excess material could have been deposited or removed. This plan verifies the existing thickness of the ground above the pipeline. It also allows the department to verify that the post-construction ground elevations are consistent with the SWP design engineering requirements.

Subsection (b) specifies that proposed grading modifications to the cover over buried SWP pipeline, either adding material or removal of material, must be approved in advance by

the department. The concern is that the SWP pipeline construction was based on a designed amount of cover over the pipeline and that modification to this amount of cover, plus or minus, could impact structural stresses and affect the integrity of the pipeline.

Subsection (c) specifies that the staging, or permanent placement, of fill or borrow material from excavation within the right-of-way is subject to advance review and approval by the department out of concern for the SWP pipeline structural issues and because the piles of material present an obstacle to maintenance activities. Also specifies that any imported fill material may require testing before use. Fill material obtained outside the right-of-way may be incompatible with the department's need for certain compaction properties or may be contaminated with unsuitable materials or chemicals. The department's approval of excavated material is necessary to confirm the composition of fill or borrow material that is being placed within the right-of-way.

Subsection (d) specifies that the any project that proposes to change existing drainage features must be accompanied by detailed design plans for department review and approval. The department's concern is for any change in the drainage pattern by modification of grading or drainage alignment either upslope or downslope of SWP facilities that may threaten SWP facility structural integrity or hinder operations and maintenance activities.

Subsection (e) specifies that no road travel lanes be located directly over the buried SWP pipeline. Placement of road shoulders or median over SWP pipeline will be considered on a case-by-case basis. There are numerous existing approved encroachments with street traffic lanes located over SWP pipelines and these existing encroachments will not be affected by this regulation.

This section addresses primarily longitudinal or angled crossings of the pipeline. Travel lanes over the pipeline severely restrict the department's operations because the travel lane

must be shut down or diverted for maintenance or access and the road surface will have to be torn up. If maintenance or replacement of a pipeline segment is required, the road could be shut down for extended periods of time causing disruptions to the traveling public. In addition, DWR personnel are put in danger by working in the middle of a traffic lane.

Subsection (f) deleted. Subsection (f) specifies that any proposed paving for a road that involves a bridge crossing over SWP pipeline shall comply with the specific criteria relating to bridges contained in Article 6, Section 612.1 of these regulations.

Subsection (g) deleted. Subsection (g) specifies that roadways, or other pavement projects such as parking lots, may utilize the full width of the right-of-way, subject to department review and approval.

Subsection (h) renumbered to (f). Subsection (h) specifies that all pavement installed within department's right-of-way must be asphalt or other flexible paving compound. The flexible pavement can be easily removed, if necessary, when required for maintenance and repair efforts.

The department must have easy access to its underground facilities. Flexible pavement or paving compounds ensure immediate access in emergency situations.

Subsection (i) renumbered to (g). Subsection (i) specifies that depressed curbs, or driveways, must be incorporated into the design for any road crossing over SWP aqueduct or pipeline. This is essential to allow department vehicles to access the SWP pipeline alignment for patrol and maintenance activities.

Subsection (j) renumbered to (h). Subsection (j) specifies that fencing be installed by the applicant between any new maintenance road, or trail, and the right-of-way, except where the right-of-way is a greenbelt, such as a linear parkway. The fence must be approved in advance

and must not present an access obstacle to department staff or vehicles. The right-of-way is often unmonitored and unrestricted public access presents a danger to the public and potential liability to the department. Where the trails or public access maintenance roads are placed within the right-of-way, fences are required to encourage people to stay on the trail or road and also control access to the right-of-way to limit interference with the department's operations or maintenance activities.

Subsection (k) renumbered to (i). Subsection (k) specifies that any gates installed within the right-of-way must be at least 16 feet wide and, if locked, must allow unrestricted access to the department's staff and maintenance vehicles and equipment.

The department must have unrestricted access to the right-of-way. Where fencing crosses the right-of-way, the gates must be a minimum of 16 feet wide so that DWR's equipment and vehicles can easily pass through. If gates are locked, DWR must receive a key or code for unlocking.

Section 612.5: Subdivision Encroachments

This section is directed at those subdivisions that are proposed neighboring, or including, the right-of-way. Some of the issues potentially affecting the SWP include incorporation of any part of the right-of-way into the overall footprint of the subdivision and the concerns about any changes in the drainage patterns as a result of grading and channeling of runoff within the subdivision. In open aqueduct segments, historical drainage paths across the SWP aqueduct were incorporated into the aqueduct design in the form of cross-drainage facilities sized to accept historical flows. These facilities include overchutes over the aqueduct and culverts under the aqueduct. Any re-routing of, or changes to, the drainage regime can have damaging consequences in the right-of-way if these changes do not incorporate these cross-drainage facilities.

Subsection (a) specifies that no permanent structures be placed in the right-of-way. Permanent structures, such as retaining walls, reinforced concrete, etc., have the potential to impair access to, and to impede maintenance efforts for, SWP facilities. Any object that cannot be easily removed by backhoe, or similar equipment, will not allowed within the right-of- way.

Subsection (b) specifies that subdivision plans must not divert drainage water into the department's open aqueduct right-of-way unless the flows are directed into the existing cross-drainage facilities. Because of persistent nuisance drainage produced year-round by subdivision developments, the department now requires that developments upslope of the aqueduct include a design for lined diversion channels to route drainage into the inlets of SWP cross-drainage facilities.

Without the diversion channels or cross-drainage facilities, water will be diverted onto the right-of-way in violation of section 12899.6. Uncontrolled water on the right-of-way will cause erosion that affects the structural integrity of the embankment and tends to create environmental areas where none previously existed, creating future problems for the department's work on the right-of-way.

Subsection (c) specifies that that subdivision lots may not be drawn to include any part of the buried pipeline right-of-way. Existing approved encroachments for subdivisions that include buried SWP pipeline easement will not be affected, however all other criteria regarding compatibility of structures, trees, cover, etc., over buried SWP pipeline will apply.

The department has a continuing concern about subdivision lot lines that extend into the right-of-way, which may be unavoidable. While no structures are permitted in the right-of-way, allowing a lot line to extend into the right-of-way tends to encourage the landowner to utilize the right-of-way for improvements to the property. DWR may allow unimproved portions of the

subdivision lots to include the right-of-way, but the department must be able to control the use of the overlying land to ensure its access for maintenance or operations.

Subsection (d) is deleted. Subsection (d) specifies that unimproved portions of subdivision lots within the right-of-way may be considered on an individual basis. This is more likely in the case of non-operational department right-of-way or where subdivision infrastructure (streets, sidewalks, utilities, landscaping, etc.) extends over SWP pipeline. Where these elements will be turned over to the local municipality, homeowner's association, or utility, the eventual responsible entity may be required to sign the encroachment permit to guarantee awareness of the department's encroachment policies within the right-of-way and to indemnify the department from any costs tied to the maintenance, repair or replacement of any approved encroachment elements installed in department's right-of-way as part of a subdivision encroachment permit. As with other types of encroachments contained in these regulations, the applicant shall include all proposed encroachment elements in the plans accompanying the encroachment application.

Subsection (e) is deleted here and addressed under Section 612.2. Subsection (e) specifies that trees or vines are not allowed within buried SWP pipeline right-of-way. The department will consider exceptions to this policy on an individual basis and must not be planted within 25 feet from edge of SWP pipeline as measured from the tree's drip line.

Subsection (f) is renumbered to (d). Subsection (f) specifies that open-space recreation areas may be allowed over SWP pipeline right-of-way provided that the department's access to the pipeline alignment and right-of-way is provided.

The department recognizes that development will impact the right-of-way. Many developments that are authorized are approved with open space designations. DWR will consider allowing open space to include the right-of-way, but only where the department's

vehicular access is ensured so the department can conduct regular inspections and maintenance.

Subsection (g) is deleted. Subsection (g) specifies that all pavement for streets and parking lots be constructed using flexible paving materials.

Subsection (h) is deleted. Subsection (h) specifies that the department may permit paving of the full-width of the department's right-of-way, subject to department review and approval.

Subsection (i) is renumbered (e). Subsection (i) specifies that the department may establish a set-back for the placement of encroachments within the SWP buried pipeline right-of-way.

The department has historically dealt with subdivision applicants that include the right-of-way in the lots within the planned subdivision. This may create the impression that the lot owner has control over improvements on the lot that extends into the right-of-way. The department must be able to restrict improvements, even within an individual lot. Depending on the configuration of the subdivision lots, a setback from the DWR facilities may be required to ensure unobstructed access by the department for inspection, maintenance or repair.

Subsection (j) is deleted. Subsection (j) specifies that depressed curbs or driveways shall be provided at all road crossings over SWP pipeline right-of-way to allow access to the right-of-way by department's vehicles.

Subsection (k) is renumbered (f). Subsection (k) specifies that any gates installed within department's right-of-way be at least 16 feet in width and, if locked, that department staff be provided with a key, lock combination, or automatic gate code, in order to be able to access the right-of-way at all times. In order to ensure the department's access to the right-of-way, any gates must be wide enough for ease of access by DWR vehicles or equipment. The department has historically allowed fencing with gates, but must have access to the gate, either

by key or electronic code, for regular maintenance activities and, particularly, in the event of an emergency.

Subsection (l) is deleted. Subsection (l) specifies that all sewer, gas, petroleum products, or hazardous materials pipelines crossing the SWP buried pipeline shall be routed across the right-of-way perpendicular to the SWP pipeline. The pipeline encroachment must also meet all required vertical clearances with respect to SWP pipeline, communication cables and roads.

Subsection (m) is deleted. Subsection (m) specifies that light poles, posts, etc., proposed within department's right-of-way must be installed as far from buried SWP pipeline as possible. The department has determined that, to ensure safety and integrity of the compaction requirements, poles, posts, etc. should not be located closer than 25 feet from the edge of SWP pipeline.

Subsection (n) is deleted. Subsection (n) specifies that no embankments may be constructed within the right-of-way where a buried SWP pipeline is present unless the department determines that the added surcharge of the embankment material does not jeopardize the integrity of the SWP pipeline.

In the case of a future approved, or existing approved, embankment, the department can call for the removal of the embankment if a determination is made that SWP pipeline structural integrity is jeopardized by the embankment. Such removal would be by permittee, or by the department at permittee's expense.

Subsection (o) is renumbered (g). Subsection (o) specifies that proposed grading modifications to the cover over buried SWP pipeline, either adding material or removal of material, must be approved in advance. The concern is that the SWP pipeline construction was based on a designed amount of cover over the pipeline and that modification to this amount of cover, plus or minus, could impact structural stresses and affect the integrity of the pipeline.

The pipeline was engineered with specific limits for the thickness of the ground covering it to protect its structural integrity. The department must review and approve all plans to add to or subtract from that cover so there is no effect on the structure.

Subsection (p) is deleted. Subsection (p) specifies that the staging, or permanent placement, of fill or borrow material from excavation within the right-of-way is subject to advance review and approval out of concern for the structural issues detailed in (o) above and because the piles of material present an obstacle to maintenance activities.

Subsection (q) is renumbered to (h). Subsection (q) specifies that projects that involve modifications to the cover over SWP pipelines must be accompanied by a grading plan that shows the top of SWP pipeline elevation.

Grading plans allow the department to identify deviations from the historical as-built elevations.

Section 612.6: Utility Encroachments

This Section sets the criteria for the various utility encroachments that the department has to consider, including: electrical cables (buried and overhead); petroleum product and natural gas pipelines; water pipelines; sewer and storm water pipelines; telecommunication cables (buried and overhead); etc. The issues involving a utility crossing through the right-of-way are significantly different depending on the SWP facility that will be crossed. In the interest of readability and logical structure, the utility encroachment criteria are divided into (A) utility encroachment crossing SWP open aqueduct; (B) utility encroachment crossing SWP buried pipeline; and utility encroachment crossing SWP road.

Subsection (a) –General Requirements - was renumbered from 612.61 and 612.71 and inserted at this point for clarity to identify all common elements of Utility Encroachments that will be required for a

permit, whether over the pipeline or aqueduct. The Statement of Reasons for this newly-designated subsection (a) is found in the former section addressing utility encroachments, section 612.71.

Section 612.61: Utility Crossing SWP Open Aqueduct (Canal)

Utility crossings over SWP open aqueduct can involve attachment of a utility pipeline to a bridge or overchute spanning the open aqueduct, overhead span of wire between utility poles or towers, and horizontal directional drilling to construct a utility pipeline crossing beneath the aqueduct.

Subsection (a) specifies that utilities shall cross the right-of-way perpendicular to the SWP canal. The preferred alignment is perpendicular to the aqueduct or pipeline to minimize the overpass area. Non-perpendicular encroachments encumber significant segments of the right-of-way. Non-perpendicular encroachments increase the probability that operations or maintenance activities will encounter them. This standard minimizes the potential for conflict with DWR activities.

Subsection (b) specifies that no pier construction in the canal will be allowed for support of utility pipeline crossings. All crossing utility pipelines shall be self-supported free-span construction, or shall be attached to existing spanning structure. Utility crossings over the open aqueduct must be free-span design that completely clears the canal and embankment with the required minimum vertical clearance above the top of the concrete canal liner. The structural integrity of the aqueduct will be compromised if any penetration of the liner is permitted, since the aqueduct is generally full with fast-moving water which cannot be interrupted for the convenience of utility installation. Due to the design of the aqueduct liner and the age of the system, there is no assurance that compromising the liner by drilling would not result in catastrophic failure.

Subsection (c) is deleted and covered in 612.65(a)(3). Subsection (c) specifies that utilities attached to existing spanning structures shall not impede the hydraulics of either the aqueduct/canal or the existing spanning structure (cross drainage facility such as an overchute). Cross-drainage structures channel water across the aqueduct. They are designed to carry a specific volume of water. Any utility conveyance, generally a pipeline, placed inside the structure will impede the flow and compromise the ability of the structure to carry water over the aqueduct.

Subsection (d) is renumbered to (c). Subsection (d) specifies that the minimum vertical clearance of 12 inches between a crossing utility and the top of the existing, or future, aqueduct liner. If the minimum clearance is lost by either subsidence or future raising of the aqueduct liner, the permittee will be responsible for the cost of re-establishing the minimum clearance. This prevents the utility from impairing the aqueduct hydrology and limits interference by the utility crossing with the department's operations. In the department's experience of operating and maintaining the SWP facilities, the 12-inch minimum clearance provides a necessary buffer for any future subsidence between the utility and the liner. When the clearance is reduced below the prescribed limit, the permittee will be required to raise the utility at the permittee's sole expense pursuant to Water Code section 12899.2(c).

Subsection (e) is renumbered to (d). Subsection (e) specifies that boring and jacking of a utility through protective dikes or aqueduct embankments within the right-of-way will not be permitted. *Displacement of material reduces the structural integrity of the aqueduct. Protective dikes and embankments are engineered to provide lateral support. Boring or jacking on these structures compromises their functionality.*

Subsection (f) is renumbered to (e). Subsection (f) specifies that directional drilling of a utility under SWP aqueduct or canal may be considered provided that a 25 foot minimum vertical

clearance can be maintained between the bottom of the aqueduct liner and the top of the utility. Directional drilling under the aqueduct has the potential to cause failure by removing a significant amount of supporting material. Directional drilling is not precise enough to ensure required clearances. Therefore, a 25-foot clearance provides reasonable assurance that the aqueduct will not be compromised. A geotechnical report will allow the department to confirm the drill path of the proposed utility.

Subsection (g) is renumbered to (f). Subsection (g) specifies that all utilities under SWP roads shall have a minimum vertical clearance of 36 inches below the road surface. The department uses equipment that could damage buried utilities if sufficient cover is not maintained. This depth protects the utility from damage by DWR during maintenance and operations.

Subsection (h) is deleted and covered elsewhere. Subsection (h) specifies that berms shall be rebuilt or repaired to equal, or better, condition than the existing berms. This is of concern when excavation is required to bury utility casing pipes in existing protective dikes or aqueduct embankments. Subdivision (h) relating to berms was deleted because it is covered in other regulations. With regard to signage, the nature of signs and detailed information required to be on signs allows for immediate communication with the utility operator in the event of an emergency, or access by department personnel for maintenance or repairs.

Subsection (i) is deleted and found in section 612.6(a)(7). Subsection (i) specifies the details that shall be provided in all drawings submitted for utilities crossing open SWP aqueduct, including: 1) SWP aqueduct milepost location, size of carrier pipeline and type of material for each utility crossing; 2) specifications for carrier pipe, type of pipe, operation pressure, wall thickness, joint type; 3) type of casing; physical details of aqueduct-spanning SWP facility if utility is to be attached; corrosion protection measures; details of expansion/contraction

management for utility carrier pipe and casing; location of shut-off valves; details of thrust blocks; construction code used for design of utility crossing; location and depth of all SWP pipelines, communication cables, etc.; any existing utility crossings in vicinity of proposed encroachment.

This section addresses specific details that are required for utility crossings, which involve various methods of transporting a wide variety of materials. These details are important so the department can fully evaluate the impact of the utility on the right-of-way or aqueduct. The department must make sure the utility crossing does not interfere with ongoing or future operations or maintenance activities. The details in this section provide department personnel with the ability to locate and/or monitor the crossing.

Subsection (j) is deleted here and covered in renumbered sections 612.1(g)(12) and 612.65(a)(5).

Subsection (j) specifies the corrosion-resistant anchor bolts to be used for all attachments to SWP facilities. Anchor bolt composition and coating requirements found in subsection (j) repeat industry standards for these items.

Subdivision 612.62: Overhead Electrical and Communication Utilities

Subsection (a) specifies that minimum vertical overhead electrical conductor and communication cable clearances shall meet, or exceed, California Public Utilities Commission General Rule 95 criteria. The Public Utilities Commission General Order 95 represents the industry standard for overhead lines and is incorporated by reference. In addition, the department has experienced unique situations where the General Order 95 does not adequately protect DWR personnel or facilities. As a result, additional requirements must be met. This subsection and subsection (b) set out some of those requirements. For example, the 25-foot minimum clearance above the aqueduct embankment would make the electrical or communication lines much higher than the minimum 25-foot clearance above the surrounding

flat ground. In operations and maintenance, DWR utilizes cranes on the embankments and operating roads and this additional clearance is required for the protection of the DWR personnel operating this equipment. Poles or towers are not permitted in the right-of-way because it would interfere with future expansion of the facilities. The requirement for warning signs alerts anyone working under the lines of the danger overhead, minimizing accident or injury.

Subsection (b) specifies additional vertical clearance criteria for overhead electrical/communication cabling over SWP open aqueduct and aqueduct service roads, many of which are located on top of the aqueduct embankment.

Subsection (c) specifies that no poles or towers for overhead electrical/communication cabling over SWP open aqueduct may be placed in the right-of-way. Also, overhead electrical/communication cabling over SWP open aqueduct must cross perpendicular to the aqueduct. The department must reserve as much right-of-way as possible for future expansion and repair of the SWP facilities, as well as accommodating additional encroachments. The preferred alignment is perpendicular to the aqueduct or pipeline to minimize the overpass area. Non-perpendicular or longitudinal crossings encumber much more space along the right-of-way than perpendicular. Non-perpendicular crossings encumber significant segments of the right-of-way and increase the probability that operations or maintenance activities will encounter them. This standard minimizes the potential for conflict with DWR activities.

The department will consider a non-perpendicular crossing where it is demonstrated that it will not adversely impact operations or maintenance.

Subsection (d) specifies that the applicant shall install warning signs facing vehicle traffic in the right-of-way indicating the presence of overhead electrical conductor(s), the vertical

clearance to the conductor(s) and the line voltage. It is generally accepted in the construction industry that signage on the ground warn approaching vehicles of overhead utilities. This repeats that standard.

Subsection (e) specifies that the applicant develop and submit an emergency response plan for the electrical/communication utility crossing. DWR does not have the expertise to plan for emergency contingencies for every utility that crosses the right-of-way. The utility company installing the crossing must, therefore, provide the emergency response plan for its crossing.

Subdivision 612.63: Casing Requirements

Subsection (a) specifies that all pipelines containing anything other than potable water must be in a casing over SWP open aqueduct. Pipelines carrying anything but potable water pose a threat to the water quality of the aqueduct or other waters within the SWP. Casing requirements set out in the following sections minimize the risk for contamination to the water or surrounding ground by containing potential leakage. In addition, pipelines through embankments or protective dikes are exposed to erosion and potential failure which would damage the SWP property. These require additional protection including sleeving or concrete encasement. Pipelines within DWR operating roads may also be exposed to the weight of DWR heavy equipment so additional protections are required under primary or secondary operating roads. Standards for expansion couplings are included in the documents relied upon.

Subsection (b) specifies that any pipe attached to a spanning facility, such as bridge or overchute, shall be sleeved through the earthen section of the aqueduct embankment or protective dike within the right-of-way.

Subsection (c) specifies that all casing pipes shall be a minimum 5/16-inch wall thickness steel pipe with an inside diameter at least 4 inches greater than the carrier pipe. The ends of

the carrier pipe must have casing end seals to prevent containment of any material from the carrier pipe and must be tested for seal verification in presence of a department inspector.

Subsection (d) is deleted and covered under Cathodic Protection, section 615.2(c). Subsection (d) specifies that mortar-coated steel pipe can be used without Cathodic protection provided that the omission of Cathodic protection is supported by department's review of the soil environment.

Subsection (e) renumbered to (d). Subsection (e) specifies that full concrete encasement is required for all sleeve or casing pipe sections buried beneath department operating roads on SWP open aqueduct or canal embankments unless accompanied by stamped engineering calculations indicating that the encasement is not required.

Subsection (f) renumbered to (e). Subsection (f) specifies drain details for discharging from casing pipes away from the SWP open aqueduct. Guard posts to protect the valves and sign posts indicating pipeline owner, contents of carrier pipeline, utility ID, and emergency contact information shall be installed.

Subsection (g) renumbered to (f). Subsection (g) specifies details and materials for accommodating thermal elongation of utility pipelines in mounting or hanging to bridges or overchutes over SWP open aqueduct.

Casing encloses the pipeline carrying material over the aqueduct. Casing is required for at least the length of the pipeline where it crosses the aqueduct to prevent discharges into the water in the event of a pipeline failure. Where the casing terminates, it is sealed. Thermal elongation of the casing occurs in cold or very warm temperatures and results in expansion or contraction of the seal which could then discharge material that may be leaking from the encased pipeline. This is a concern because the SWP covers many regions within the state and can be exposed to vastly different temperatures and humidity depending on the location. This problem is often experienced on bridges or overchute crossings, so additional standards

for these crossings are required. The department's operations experts and engineers have dealt with the consequences of thermal elongation many times in the past. In the department's experience, the flexible single and expansion type couplings referred to in this section provide a viable way to prevent decoupling and consequential leakage.

Subsection (h) was deleted and not included in the original submittal to OAL. Subsection (h) specifies that casings larger than specified in (c), above, will be considered on a case-by-case basis with consideration for required clearances from the bottom of the canal liner.

Subdivision 612.64: Hazardous Material Carrier Requirements

Subsection (a): No hazardous material will be allowed to span the SWP open aqueduct. Exceptions will be considered by the department on a case-by-case basis. It is the department's policy that no hazardous material will be permitted to be transported by pipeline over the open aqueduct or other waters within the SWP because of the significant risk of contamination of the water that is used by millions of people. The department recognizes, however, that because the aqueduct extends hundreds of miles and bisects the state and the SWP includes numerous water features that include reservoirs and forebays, there are occasions where there is no viable alternative to crossing these open waters. Where crossings are allowed, as determined by the department on a case-by-case basis, the applicant must comply with the requirements in this section and subsection (b)..

Subsection (b) specifies the special conditions applicable to any encroachment approved by department for a hazardous material pipeline over the SWP open aqueduct, including: 1) the applicant must develop a hazardous material spill plan, develop a leak detection program, and an emergency response plan; and 2) applicant must detail and install check valves on both sides of the SWP open aqueduct to minimize the risk of hazardous material entering the aqueduct.

Subdivision 612.65: Attaching Utilities to Bridges and Overchutes

Subsection (a) provides requirements for any encroaching utility that proposes to attach to a DWR bridge. These requirements detail where utilities can be placed on a DWR bridge, as well as how they can be attached. These requirements are necessary to maintain structural integrity of DWR bridges, as well as maintain safe and reliable use for each of these structures.

Subdivision 612.65 is renamed to “Attaching Utilities to Bridges and Cross-Drainage Structures.”

Subsection (a) was relocated or addressed in to section 612.1. In addition to the requirements of Regulation section 612.1 – Bridge Encroachments, this section details specific requirements for attaching utilities to cross-drainage structures such as culverts and overchutes.

Subsection (b) is renumbered to (a). Subsection (b) provides requirements for any encroaching utility that proposes to attach to a DWR overchute. Overchutes are utilized as cross-drainage facilities for the SWP. This subsection provides requirements that detail where and how utilities can be attached to a DWR overchute. These requirements are necessary to maintain structural integrity of the overchutes, while maintaining the maximum flowage capacity for which these overchutes were designed. An overchute, culvert or cross-drainage structure is utilized by DWR to channel natural drainage across or under the aqueduct. For existing cross-drainage structures, the original design does not necessarily include attaching utilities. When utilities are attached after the fact, DWR must ensure that the structure is not compromised by the attachment or method of attachment. DWR must make sure the utilities are installed in such a way that they do not compromise the structural integrity of the structure, that the utilities are properly coated to protect against corrosion, do not impede the flowage capacity of the structure, that the method of attachment meets anchor-bolt standards pursuant to Federal specification FF-S-325, Amendment No. 3, Group 2, Type 4, Class I. This specification is adopted because it is a generally-accepted industry standard. In the department's experience,

anchor bolts that do not meet this manufacturing standard tend to fail prematurely, rust, or fail to adequately hold the utilities attached to the cross-drainage structure.

Section 612.70 is deleted except for the title and renumbered to section 612.66, grouping it with other sections relating to utility crossings. **Section 612.70: Utility Crossing SWP Underground Pipelines**

Section 612.71 is renumbered to section 612.66. **Section 612.71 – General Requirements:** Specifies the general requirements applicable to all utilities crossing SWP buried pipelines.

Subsection (a) describes the documentation required from the applicant regarding the procedures; excavation plans; work and completion schedule; and the weight and types of construction equipment that will be used over SWP buried pipeline. The encroachment work scheduling information is necessary for the department to plan maintenance activities around the proposed construction. The department requires excavation plans and equipment list to ensure that the SWP pipeline structural integrity is protected.

The renumbering of this section to group it with other utility crossings adopts the general requirements under renumbered section 612.6(a). The requirements in this section are specific to crossing underground pipelines.

Subsection (b) is deleted here and renumbered to 612.6(a). Subsection (b) requires that any utility pipe carrying anything other than potable water must cross the right-of-way perpendicular to the SWP buried pipeline. This reduces the overall area within the right-of-way affected by the encroachment, as well as minimizing potential contamination impacts to the right-of-way in the event of a utility pipeline leak or failure.

Subsection (c) is renumbered to (b). Subsection (c) describes the casing requirements for all utilities crossing SWP underground pipeline. The utility carrier pipe must cross inside a minimum 5/16-inch wall thickness corrosion-protected steel casing pipe with an inside diameter

at least 4 inches greater than the carrier pipe. The casing pipe must be self-supporting to minimize maintenance issues if excavation of SWP becomes necessary.

The reasons stated in Section 612.63(a)-Casing Requirements, above, are incorporated as though fully set forth at this point.

Subsection (d) is renumbered to (c). Subsection (d) describes the requirement that the casing pipe must extend beyond the excavation pit required to expose the SWP buried pipeline in order to support the casing and carrier pipe over the open pit. The extra length required will be determined based on the weight of the casing & carrier pipes (and contents); width of the pit and the soil make-up of the pit walls. During construction that involves open excavation to access the SWP pipeline, the department must work around the crossing utilities. Requiring the casing to extend beyond the limits of the excavation that would be required for DWR's work protects the crossing utility from damage.

Subsection (e) is renumbered to (d). Subsection (e) is similar to (d), above, but adds specific starting length for the extension of casing pipe beyond the excavation pit for all utility crossings where shored excavation would be used to expose the SWP buried pipeline. A continuation of the self-supporting casing pipe criteria started in (c) and (d) above. Requires that a minimum of 6 feet of casing pipe length be added on both sides of a shored excavation pit wide enough to expose the SWP buried pipeline, plus any additional length required by the soil characteristics, to fully support the casing and carrier pipes over the open pit.

Subsection (f) is renumbered to (e). Subsection (f) limits installation of any utility crossing under the SWP buried pipeline to the jack and bore method. The concern is that other methods of crossings under existing pipelines, for example, horizontal directional drilling, may result in instability of the soil around or under the SWP pipeline, or may cause some damage the

pipeline. Also, any space between the bore-hole and the casing pipe must be filled with cement grout and the annular space between the casing pipe and the carrier pipe be filled with cement slurry.

Subsection (g) is renumbered to (f). Subsection (g) specifies that the minimum vertical clearance between the utility crossing and the SWP buried pipeline must be at least 3 feet. This clearance helps prevent construction equipment used to place new utilities within DWR right-of-way from damaging the buried SWP pipeline. The clearance also allows space for DWR to work in the area without removing or damaging the buried utilities.

Subsection (h) is deleted here and renumbered to section 612.6(a)(2). Subsection (h) specifies that the applicant must install signs at the locations where the utility enters and exits the right-of-way. The signs must detail the nature of the utility, the owner information, utility ID, and emergency contact information. This allows for immediate communication with the utility operator in the event of an emergency.

Subsection (i) is deleted here and renumbered to section 612.6(a)(3). Subsection (i) specifies that the SWP buried pipeline and control/communication cables must be shown on all plans containing work to be performed within department's right-of-way. The reason for this information is to allow the department to verify relative locations of all SWP facilities and other crossing utilities. The reason only hand tools may be used within 3 feet of either the buried pipeline or control/communication cables is to minimize the potential for damage to the SWP facilities. The applicant must also contact the local Underground Service Alert office, the central repository for information about underground utilities in order to confirm relative locations prior to beginning construction.

Subsection (j) is deleted here and renumbered to section 612.6(a)(4). Subsection (j) requires that a construction note advising that control/communication cables are located alongside the

SWP buried pipeline be placed on every drawing sheet containing work to be performed within department's right-of-way. This is to highlight the location of the cables to all parties working off of the construction plans. Not all contractors work off of a complete set of construction plans because their work involves only a specific part of the project. DWR requires that the SWP control cables must be identified on all construction sheets to ensure that the control cables are not damaged.

Subsection (k) is deleted here and renumbered to section 612.6(a)(5). Subsection (k) requires pothole locations and elevations to be indicated on all pertinent drawing sheets for the project. This verifies that potholing was completed and adds information about the amount of cover over SWP facilities for future users. Because of natural and man-made changes to the ground cover over the years, the depth of DWR's pipeline and cables varies. Potholing verifies the exact depth of the pipeline and control cables.

Subsection (l) is deleted here and renumbered to section 612.6(a)(6). Subsection (l) specifies that all trench excavation must comply with relevant Occupational Safety and Health Administration standards. The department's compaction standards must be followed and noted on every drawing sheet. These standards are designed to protect all DWR and outside construction personnel from injury during construction, and to ensure that all contractors are aware of the compaction standards to be followed. All contractors working within the DWR right-of-way are required to know and follow OSHA standards on all of their work.

Subsection (m) is deleted here and renumbered to section 612.6(a)(7). Subsection (m) requires all drawings and plans to include specific location as well as construction and operating information regarding the utility crossing. This information must be on all drawings to verify the inclusion of the criteria during construction and to provide a permanent record of all buried utilities that could affect planning for future DWR maintenance projects. The information

required by this section sets out details of the crossing utility so that the department can work around it if necessary in the future.

Subsection (n) is deleted here and renumbered to section 612.6(a)(8). Subsection (n) requires all buried utilities within DWR right-of-way to have detectable warning tape installed over all trenched utilities no more than 18 inches above the utility within department's right-of-way. The color coding specific to the buried utility are standardized throughout the pipeline safety industry (American Public Works Association APWA Uniform Color Code, ANSI Z535.1). These tapes will assist future location of these utilities should DWR, or another entity, have need to excavate in the area of the crossing utility.

Subsection (o) is deleted here and renumbered to section 612.6(a)(9). Subsection (o) requires all electrical utility crossings within DWR right-of-way to also have 3 inches of red-dyed concrete overlaid over the conduit/casing in addition to the warning tape specified in (n) above. The reason for this requirement is to make sure that no one working in the area in the future unexpectedly encounters a charged electrical utility. It follows industry standards for detectability over buried electrical utilities.

Subsection (p) is deleted here and renumbered to section 612.6(a)(10). Subsection (p) specifies that the permittee shall maintain the utility pipeline, casing seal, and identification signs in good condition. This will minimize any work the department may have to undertake for the duration of the permit. If the utility is not maintained as required, the department may not be able to locate or recognize it in the future, which could create a risk of damage to the utility or to DWR employees or the right-of-way.

The entire following Section 612.72 is deleted here and incorporated into section 612.62.

Section 612.72: Overhead Electrical and Communication Utilities

Subsection (a) specifies that minimum vertical overhead electrical conductor and communication cable clearances shall meet, or exceed, California Public Utilities Commission General Rule 95 criteria.

Subsection (b) specifies additional vertical clearance criteria for overhead electrical/communication cabling over SWP pipeline and pipeline service roads, many of which are located on top of the pipeline.

Subsection (c) specifies that no poles or towers for overhead electrical/communication cabling over SWP pipeline may be placed in the right-of-way. Also, overhead electrical/communication cabling over SWP pipeline must cross perpendicular to the pipeline.

Subsection (d) specifies that the applicant shall install warning signs facing vehicle traffic in department's right-of-way indicating the presence of overhead electrical conductor(s), the vertical clearance to the conductor(s) and the line voltage.

Subsection (e) specifies that the applicant develop and submit an emergency response plan for the electrical/communication utility crossing.

Sub-division 612.80 is renumbered to section 612.67 to group with other utility crossing regulations. **Sub-Division 612.80: Utility Crossing Under SWP Roads**

Subsection (a) requires that all drawings include existing surface elevations, trench excavation elevations and all utilities to be placed in trench so that clearances between the trenched utilities DWR road surface can be verified. The department must be able to maintain adequate clearances between the DWR road surface and the underground utility to protect the roads and minimize damage to the utility.

Subsection (b) is renumbered and moved to 612.6(a)(6). Subsection (b) specifies that all trench excavations comply with relevant Occupational Safety and Health Administration standards. The department's compaction standards must be followed and noted on every drawing sheet. These standards are designed to protect all DWR and outside construction personnel from injury during construction, and to ensure that all contractors are aware of the compaction standards to be followed.

Subsection (c) is renumbered to (b). Subsection (c) requires digging for utility crossing conduits under the SWP roads with a diameter of 5 inches, or less, to be performed by jack and bore method. This preserves stability of the DWR roadway and ensures that compaction standards are maintained, reducing the possibility of damage to the paved surface due to subsidence.

Subsection (d) is renumbered to (c). Subsection (d) specifies that a 3-foot minimum vertical clearance between SWP road surface and utility conduits must be maintained to allow for future maintenance without impacting the crossing utility. The minimum clearance protects the utility in the event DWR must remove or replace the road surface or road base material.

Subsection (e) is deleted. Subsection (e): No SWP road surface may be cut without department approval.

Subsection (f) is renumbered to (d). Subsection (f) confirms that any SWP road damaged by the applicant's construction activities shall be replaced, or repaired, in accordance with the construction standards established by the California Department of Transportation (Caltrans). The Caltrans standards are utilized by DWR in building roads associated with the operation of the SWP.

Subsection (g) is deleted. Subsection (g) requires that any SWP road embankments that are to be widened as a result of the applicant's construction activities shall conform to the

construction standards established by the California Department of Transportation (Caltrans), for the reason indicated in subsection (f) above.

Subsection (h) is deleted and covered under section 612.6(a)(8). Subsection (h) requires that all buried utilities within DWR right-of-way must have detectable warning tape installed over all trenched utilities no more than 18 inches above the utility within department's right-of-way. The color coding specific to the buried utility are standardized throughout the pipeline safety industry (American Public Works Association APWA Uniform Color Code, ANSI Z535.1). These tapes will assist future location of these utilities should DWR, or another entity, have need to excavate in the area of the crossing utility.

Article 7: Corrosion Protection Requirements

Corrosion protection measures used by DWR to protect components of the SWP include the use of coatings, Cathodic protection, and materials selection. The goal is to ensure design service life of water conveyance systems are met at reasonable maintenance costs. Encroachment appurtenances (e.g., turnouts with associated gates, pipes and pumps) that connect to SWP main line systems become a part of DWR's overall water distribution network, and must also be protected from corrosion. This ensures integrity and minimizes discontinuities in the main line corrosion protection system. Preservation of the SWP infrastructure (including encroachment appurtenances) contributes to the economical and safe delivery of water to the public.

This Article provides requirements for projects that have the potential for disrupting DWR's corrosion protection system and details standards for corrosion protection for metallic pipelines and other structures that are near the SWP facilities, whether above or below ground. DWR must ensure that all non-SWP metallic structures are protected from corrosion because

failure of the pipelines or structures can result in significant damage to the SWP right-of-way or facilities, or the applicant's structures.

Cathodic protection of metallic objects involves energizing the object with a low-voltage current to minimize corrosion. DWR structures and pipelines are also cathodically protected. Since cathodically protected structures carry a current, if they are in close proximity to the DWR pipelines or facilities, they can increase the potential for corrosion in the DWR facilities which may carry a different current.

These standards require that an applicant's Cathodic protection system be designed as a separate system to minimize interference between the applicant's pipeline and SWP structures. Specific requirements for coatings exist to provide corrosion protection either in addition to Cathodic protections (such as with buried pipeline) or as stand-alone measures, for example on exposed pipeline or casing pipe.

Subsection 615.1(g) is deleted and covered by 610.1(b)(6).

Article 8: Encroachment Permit Evaluation Process

This Article deals with the timelines for the department and public in processing the encroachment permit application. The requirements set out in Water Code section 12899.1 are repeated or summarized in the following sections.

The Legislature set forth timelines for the department to respond to an application, Water Code section 12899.1(e), namely the department "shall approve or deny and application . . . not later than 60 days from the date of receipt of the complete application." The determination of a "complete application" is a department function. However, the department is required to respond to an applicant within 30 days with a determination as to whether or not the application is complete. Since the department is not required by this law to approve or deny an application

that is not complete, this Article outlines the process the department will take if the application does not meet with the requirements of this section in its contents.

Section 618: Departmental Determination of Application Completeness

Water Code section 12899.1 prohibits any person from making any “alteration, improvement, encroachment, or excavation” within the SWP “without first obtaining the written permission of the department.” Water Code section 12899.2 authorizes the department to “prescribe requirements in the permit.” The requirements are set forth in the statute and this regulation. Within thirty (30) days of receipt of an application for a permit, the department will determine its completeness and compliance with all the requirements of this regulation. If the department identifies a deficiency in the application or its supporting documentation, the department will, within 30 days, provide written notice to the applicant, specifying how the application is deficient. It is the applicant’s responsibility to make sure all the requirements are met before resubmission.

Water Code section 12899.1 codifies permit streamlining and obligates the department to review an application and determine, within 30 days, whether it is complete. The department has the discretion to determine when an application is complete, which will generally be upon receipt of all the information required by these regulations. The department will advise the applicant with regard to completeness within the 30-day period and will advise if additional information or documentation is required for the application to be complete. Historically, an applicant’s plans for the project need to be revised to meet the needs of the department or fully address the department’s concerns about the project. This tends to delay action by the department to review the application and related plans or documentation. If additional information or modification of the project is required by the department, the application will be

considered incomplete. Once all required information and documentation is submitted, and there are no further changes to the project or plans for the project, the application will be considered complete. The department must then approve or deny the application within 60 days thereafter.

Until the application is complete, the department has no obligation to begin the review process for either issuing or denying the application. This timeline is necessary because of the number of different divisions within the department that must review the application.

Subsections 618.1 through 618.4 are renumbered to 618(a) through (d). The documents required by section 618(d) must be submitted by the applicant prior to the permit being issued. This information includes 8 sets of final plans for the encroachment, which will be approved by the department. These plans will be distributed within the various divisions of the department which are responsible for monitoring the permittee's activities on the right-of-way. The submittal also includes payment of estimated costs for review and inspection of the project, as authorized by Water Code section 12899.2(e). Proof of insurance, authorized by Water Code section 12899.2(f) shall be submitted as required by section 610.7 and 610.3(i) of these regulations. This protects the department and, therefore, the state from any liability arising from the encroachment activity.

Section 620: Notice of Permit Application Deficiency and Conditions of Denial

Once the application is complete, this Section 620 initializes the departmental review process. With the exception of a simple encroachment that will exist for a very limited period of time, review of an encroachment permit involves many personnel within several divisions or units of DWR. As a result, the department reserves the ability to determine when an application is "complete," meaning that all the required elements have been submitted along with the fees to cover the costs of the department. If the department begins review prior to receipt of the

“complete” application, it is possible that a lot of time will be devoted to the review and, ultimately, the applicant never provides all the required information. The “Comment Letter” referred to will detail the deficiencies in the application and to the extent possible, will be provided within sixty days. Should the applicant fail to cure the deficiencies within a reasonable amount of time, the department may deny the application for this failure.

Subsection 620.2 is deleted. Under subsection 620.2, the failure of the department to provide a Comment Letter within sixty (60) days does not constitute a conclusion by the department that the application is complete, or that a permit will be issued. The department and the applicant can waive the sixty-day limit under certain circumstances. For example, it may not be possible for the applicant to provide all the necessary documentation within the sixty-day period, but can provide at a later time. Under this scenario, the department may only be able to deny the application as incomplete due to the approaching deadline. Agreement to waive the time limit will allow the applicant to obtain and submit the required documentation so that the permit can be issued.

Subsection 620.1 is renumbered to 620(a). Subsection 620(b) is added to obligate the applicant to respond to the department’s deficiency letter. This is implied by the process set out in Water Code section 12899.1, et seq. The department has no way of knowing whether the applicant received the deficiency letter, except by way of the applicant’s response. The department has determined that a response is considered timely if received within 60 days of the date of the comment letter. This allows the department to determine whether the applicant will be pursuing the permit. If the department does not receive a response, it will consider the permit application to be abandoned and will stop any further work.

Water Code section 12899.1(c) authorizes the department to issue a permit for any act that is “not inconsistent” with the “functioning, operation, maintenance, enlargement, and rehabilitation” of the SWP facilities. Water Code section 12899.2 authorizes the department to prescribe the requirements and conditions of granting the permit. Section 620.3 details some of the circumstances under which the department may deny the application.

Subsection 620.3 is deleted to avoid duplication. The details contained in this section are covered in several other sections of these regulations.

Article 9: Department’s Enforcement Actions For Unauthorized Encroachments

This Article 9 sets forth the procedures for the department in dealing with unauthorized encroachments. Water Code section 12899.5 authorizes the department to take action to remove encroachments. Water Code section 12899.5 authorizes the department to “require the removal of the encroachment in the manner provided in this section.” The requirements distinguish between types of encroachments and the existence of an emergency in determining the type and timing of notice prior to removal. Non-emergency situations are addressed in Water Code Section 12899.5(b) and (c). Situations where the SWP facilities are at risk of “imminent harm” are described in Section 12899.5(d). Situations where there is an emergency as defined are described in Section 12899.5(e). In the case of an emergency, the department is authorized to “take any action necessary to avert, alleviate, repair, or mitigate any threat” to the SWP, without notice to the landowner. Water Code section 12899.5(e) defines “emergency” for this purpose.

In cases of non-emergency, the department must provide notice to the owner of the encroachment and allow the encroacher an opportunity to remove it. If the encroacher does not respond and remove the encroachment, the department is authorized to remove the

encroachment. The owner of the unauthorized encroachment will be financially responsible for all costs of removal, including court costs and attorney's fees if legal action is required.

The sections within Article 9 (625.1 through 625.7) restate the statutory requirements. They are repeated at this point as a convenience to the public so those affected by the regulations can find, in one complete regulatory scheme, all the requirements for an encroachment permit and be informed of the consequences of maintaining an unauthorized encroachment, so as to assist in compliance with the statute and regulations and minimize violations. It informs the public of the actions the department is authorized to take to cause the removal of authorized or unauthorized encroachments.

Section 625.1: Department's Authority to Remove Unauthorized Encroachments

Water Code section 12899.5(a) authorizes the department to require removal any encroachment "in the manner set forth in this section."

Section 625.2: Department's Unauthorized Encroachment Notification, General Information

The department is authorized by Water Code section 12899.5 to remove any encroachment, whether permitted or not, under certain circumstances. The statutory trigger for removal whether in an emergency or not, is a determination by the department that the encroachment obstructs, threatens, or prevents the proper operation, maintenance, or rehabilitation of the SWP facilities, or constitutes an imminent threat to the integrity of one or more features of the SWP.

Notice is required except in the case of an emergency and in that event, the department can "take any action" without notice to ensure the safety of people and property and the integrity of the SWP facilities.

Section 625.3: Non-Emergency Situations Notification and Removal of Unauthorized Encroachment

In a non-emergency, Water Code sections 12899.5(b) and 12899.5(c), the department must provide notice to the owner, occupant, or person in possession of the encroachment, or to any other person causing or permitting the encroachment to exist, by serving a notice demanding the immediate removal of the encroachment. The department will describe the encroachment with reasonable certainty. The notice will be served in such a manner as to effect personal notice if possible, including personal service, or registered mail and posting for five days at the location of the encroachment. If the owner, occupant, or person in possession does not reside within the county of the encroachment, the notice may be given to an agent in lieu of service by mailing and posting.

The department will take action to remove the encroachment if the following are met:

- 1) If, within sixty (60) days of the notice, the owner, occupant, or person in possession has not asserted a right for possession pursuant to Water Code section 12899.8 and has not removed or commenced removal of the encroachment, and
- 2) The department has determined that the encroachment obstructs, threatens, or prevents the proper operation, maintenance, or rehabilitation of the SWP facilities.

If the department is compelled to act upon the failure of the encroachment to be removed following notice, the department may, pursuant to section 12899.5(f) recover the expense of the removal, costs and expenses of any legal action including attorneys' fees, and in addition, \$1,000 per day for each day the encroachment remains after the applicable period following notice.

Section 625.4: Imminent Threat Situations Notification and Removal of Unauthorized Encroachment

Water Code section 12899.5 describes various scenarios when the department can seek removal of an encroachment. Section 12899.5(d) authorizes the department to “immediately remove” an encroachment under the following two conditions:

1) The department gives notice to the owner, occupant, or person in possession of the encroachment and “not later than five days” from the date on which the notice was given, the owner, occupant, or person in possession has not asserted a right to be in possession pursuant to Water Code section 12899.8 and has not removed, or commenced to remove the encroachment “in a diligent manner”.

2) The encroachment poses an imminent threat to the integrity of one or more features of the SWP.

If, after five days following notice to the owner, occupant, or person in possession of the encroachment, the encroachment is not removed, or work has not commenced to remove the encroachment, the department will act to immediately remove the encroachment. This action will be necessary to mitigate any imminent threat to the public or to the integrity of the SWP facilities.

Water Code section 12899.5(f) permits the department to recover “the expense of removal, costs and expenses of any legal action including attorneys' fees,” and in addition, \$1,000 per day for each day the encroachment remains after the expiration of the applicable response period following the notice.

Section 625.5: Emergency Situations Notification and Removal of Unauthorized Encroachment

Water Code section 12899.5 describes various scenarios when the department can seek removal of an encroachment. Section 12899.5(d) authorizes the department to “immediately remove” an encroachment under the following two conditions:

1) The department gives notice to the owner, occupant, or person in possession of the encroachment and “not later than five days” from the date on which the notice was given, the owner, occupant, or person in possession has not asserted a right to be in possession pursuant to Water Code section 12899.8 and has not removed, or commenced to remove “in a diligent manner” the encroachment.

2) The encroachment poses an imminent threat to the integrity of one or more features of the SWP.

However, as set forth in Water Code section 12899.5(e), in the case of an “emergency” as defined by this section, the department is authorized to “take any action necessary to avert, alleviate, repair, or mitigate any threat” to the SWP.

The statute defines “emergency” as “a sudden, unexpected occurrence that poses a clear and imminent danger, requiring immediate action to prevent or mitigate the loss or impairment of life, health, property, or essential public services.” Upon making this determination, the department will take necessary action without prior notice to the owner, occupant, or person in possession. The department will make every attempt to provide notice prior to acting, however, it may not be possible under the specific circumstances of the emergency.

**Section 625.6: Diversion, Drainage, Seepage, or Overflow of Water Onto
Departmental Right-Of-Way**

The activities highlighted in the following discussion are included for clarity, but do not alter or change the text of the regulations. For simplicity, the regulation section 625.6(a) refers to and incorporates section 12899.6. Any of the enumerated prohibitions that the Legislature has declared illegal as described in this section can cause serious damage to the right-of-way or the DWR facilities, or present a danger to the public. These categories of encroachment must be immediately stopped, removed, or mitigated upon notice by the department at the expense of the violator.

Water Code section 12899.6 describes specific acts that are declared unlawful, including specific acts that are declared unlawful, including, in separate subsections:

(1) Drain water, or permit water to be drained, from the person's lands onto the State Water Resources Development System right-of-way by any means, which results in damage to the system or the department's right-of-way, except where the water naturally drains onto the department's right-of-way.

(2) Obstruct any natural watercourse in a manner that does any of the following:

(A) Prevents, impedes, or restricts the natural flow of waters from any portion of the department's right-of-way into and through the watercourse or State Water Resources Development System cross drainage structures, unless other adequate and proper drainage is provided.

(B) Causes waters to be impounded within the department's right-of-way that damages the State Water Resources Development System or the department's right-of-way, except where the water naturally drains onto the department's right-of-way.

(C) Causes interference with, or damages or makes hazardous the operation, maintenance, and rehabilitation of, the State Water Resources Development System.

(3) Stores or distributes water for any purpose so as to permit the water to overflow onto, causing damage to, or to obstruct or damage any portion of, the State Water Resources Development System or the department's right-of-way.

Subdivision (b) requires "any person" who has permitted any of the enumerated conditions to exist, to, upon notice by the department, "immediately cease and discontinue" the violation, or to "repair, or pay for the repair of "any damage" to the SWP system or the department's right-of-way. The recipient of the notice may challenge the department's decision in court, as the department has decided that it will not create an administrative appeal mechanism.

Subdivision (c) allows the department, upon failure of the notice recipient to abate the encroachment, to undertake "repairs and perform work as it determines necessary" to abate the unauthorized encroachment.

Subdivision (d) permits the department to recover, "in an action at law," all costs related to the abatement of the unauthorized encroachment, and in addition, the sum of one thousand dollars (\$1,000.00) for each day the unauthorized encroachment is allowed to continue after notice, served in accordance with Water Code section 12899.5, together with "the costs and expensed, including attorney's fees, incurred in the action."

Section 625.7: Criminal Prosecution of Unauthorized Encroachers

Water Code section 12899.1(f) makes "alteration, improvement, encroachment, or excavation within the right-of-way" without a permit a misdemeanor crime. The department will

utilize its discretion to prosecute under this section if the circumstances are such that criminal prosecution is justified.

To clarify, the department is not the prosecuting authority. However, the department has the option to refer any unauthorized encroachment for criminal prosecution.

Article 10 is reserved for future regulations, the title is deleted and Section 630 is deleted in its entirety. **Article 10: Jointly - Owned State and Federal Facilities**

Section 630: Under Water Code section 12899.10, the encroachment permit process described in this regulation does not apply to a public agency that jointly owns facilities along with the state and the United States, specifically mentioning the San Luis Unit of the Central Valley Project, so long as the activities “are conducted pursuant to, and consistent with, an agreement with the United States for the operation and maintenance of those facilities.” Activities undertaken pursuant to those agreements will be conducted in accordance with the agreements.

Article 11: General Encroachment Permit for Maintenance by Public Agencies

Section 635: Water Code section 12899.11 was enacted as part of Senate Bill 543 to exempt the state water contractors from the encroachment process described in this regulation. According to the legislative history, this section was inserted at the request of one of the state’s water contractors. An expedited process for a “general encroachment permit” is set out for “routine operation and maintenance” of the water contractors’ facilities that are in and around the DWR right-of-way.

With regard to state water contractors, which are entities holding rights for delivery of water from the SWP or jointly-owned facilities with the federal government, pursuant to long-term agreements. These entities generally obtain water by way of turnouts or diversion facilities that allow water to be taken from the SWP-controlled water sources like lakes,

reservoirs, pipelines, or open aqueduct. Diversion facilities and the numerous types of equipment included in those facilities require routine maintenance. This section allows these entities to apply for and obtain a “general encroachment permit” to conduct “routine operation and maintenance” on their facilities. Subsection (b) defines the range of activities included under operation and maintenance. The department will issue the general encroachment permit with 60 days following receipt of a completed application. Reference is made to section 618.2 of these regulations for determination of when an application is complete.

IV. ECONOMIC IMPACT ANALYSIS OF THE REGULATIONS

A. Benefits of the Regulations.

The SWP aqueducts and pipelines, along with related water storage and operational facilities, extend over 600 miles across the state. Running parallel to the aqueducts and pipelines is the right-of-way, extending anywhere from 60 to 300 feet from the centerline of these facilities. The SWP delivers water to 29 water agencies serving more than 25 million people. It has been declared by the Legislature to be a “critical public infrastructure” that is essential to the economic security of California. Encroachments into the right-of-way threaten the physical stability of the SWP and, therefore, DWR’s ability to maintain the system in order to deliver water to the state. Much of the SWP has been in operation for more than 50 years, so the physical integrity of the system is paramount and encroachments must be carefully controlled. Uncontrolled encroachments can cause serious damage to the aqueducts and pipelines, creating risks to operations, maintenance and public safety. These regulations are intended to allow DWR to control encroachments and by doing so, facilitate DWR’s ability to operate and maintain this critical water conveyance system. The SWP water deliveries benefit millions of people by supporting health, jobs, a world-supporting agricultural industry and thousands of California businesses and industries. These regulations enhance DWR’s

commitment to operate, maintain and control the SWP, ensure the safety of the system and surrounding communities and extend its lifetime of water deliveries for as long as possible into the future.

B. Creation or Elimination of Jobs within the State.

No impacts to the creation or elimination of jobs within the state are anticipated with the regulations. Over the years, DWR has entered into many contractual agreements with landowners, contractors, public agencies, etc., for use of the right-of-way, thereby facilitating development projects by individuals and governmental entities. The regulations do not change that practice, but seek to codify the requirements the department has developed and utilized in evaluating an encroachment permit application. In addition, since compliance with the statute and these regulations is entirely voluntary, no mandate is imposed by the regulations that would either tend to facilitate or restrict job creation. Since no member of the public or any local governmental entity who may seek access to the department's right-of-way is obligated to utilize the right-of-way, no cost will be incurred unless the applicant chooses to encroach on the right-of-way.

C. Creation of New Businesses or the Elimination of Existing Businesses within the State.

No impacts to the creation of new business or elimination of existing businesses within the state are anticipated. The regulations clarify the general standards set forth in the enabling statute, Water Code section 12899. Since use of the right-of-way is entirely at the discretion of adjacent landowners, the requirements and costs set forth in the regulations have no effect on any business unless that business chooses to seek an encroachment permit from the department.

D. Competitive Advantages or Disadvantages for Businesses Currently Doing Business within the State.

No impacts to the competitive advantages or disadvantages for businesses currently doing business within the state are anticipated because the proposed regulations codify existing practice within the department and the standards set forth in these regulations apply equally to anyone seeking an encroachment permit.

E. Increase or Decrease of Investment in the State.

No impacts to the increase or decrease of investment in the state are anticipated because the proposed regulations merely codify the historic practice of the department in considering encroachment permit applications and are not expected to increase any existing requirements.

F. Impact on Government Revenue.

No impact on government revenue is expected as a result of the regulations because the requirements for an encroachment permit and associated costs will remain unchanged by the proposal. In addition, governmental entities along the SWP from which DWR obtained an easement to build the SWP are not charged for review and comment pursuant to Water Code section 12899.9 and Sections 607.1 through 607.3 of the regulations.

G. Small Business Economic Effect.

Government Code sections 11342 et. seq. require DWR to consider any adverse effects on small businesses that would have to comply with a proposed regulation. DWR staff has concluded that because of the discretionary nature of the applicability of the regulations, there will be no mandatory impact on small businesses in the state.

H. Fiscal Impacts.

1. Impact on Government Revenue.

No impact on government revenue is expected as a result of the regulations because the encroachment permit process will reimburse the department for its costs of reviewing and issuing the permit.

2. Impact on Government Expenditures.

No impact on government entities as the statute and these regulations provide an exemption from obtaining an encroachment permit for those entities along the SWP that have existing agreements with the department. Many of those agreements were negotiated initially at least 50 years ago when the SWP was under construction, and new or modified agreements have been executed since then.

There will be no additional person-years needed to enforce the regulations because the regulations do not add additional requirements above what is already currently being required on a case-by-case contractual basis. Any additional work that may be required to enforce unauthorized encroachments will be absorbed by existing personnel within the department.

V. Reasonable Alternatives to the Regulations.

DWR staff considered potential alternatives to the proposed regulations; namely, minimal requirements for an encroachment and the no encroachment alternative. DWR staff determined the proposed regulations are more appropriate than the alternatives considered. Water Code section 12899 generally obligates DWR to maintain an encroachment permit program. In fact, section 12899.1(f) declares that any “alteration, improvement, encroachment, or excavation within the right-of-way” without a permit is a misdemeanor crime. Minimizing the requirements for an encroachment would necessarily conflict with the department’s statutory obligation under Water Code section 11451 to operate and maintain the State Water Resources Development

System. Activities related to construction like digging, boring, trenching, earth movement or water diversion, the most common encroachments, if not carefully controlled, may cause irreparable damage to the embankments supporting the aqueducts or soil compaction supporting the pipeline system. Water drainage, diversions, seepage, or overflow from surrounding property or development can seriously erode the ground support for the aqueducts and pipelines, such that they have been declared by the Legislature in Water Code section 12899.6 to be “unlawful acts.” In allowing access, the department has historically negotiated the terms and conditions, now specifically detailed in these regulations, for allowing encroachments and encroaching activities in the right-of-way. This has preserved DWR’s obligation to ensure the integrity of the system, continued uninterrupted operations and maintenance and safety to the public. The proposed regulations codify past practice so that all permit applicants are subject to the same requirements that must be met.

The no encroachment alternative would certainly preserve the physical integrity of the SWP and the department’s ability to access and maintain the system, but the department has dismissed that alternative as unreasonable. As a result, the department believes that no alternative would be more effective in carrying out the purpose for which the regulation is proposed or would be as effective as or less burdensome to affected private persons than the proposed regulations.

A. Description of Reasonable Alternatives Considered That Would Lessen Impact On Small Business.

DWR staff has also considered the alternatives to the proposed regulations that would lessen any adverse impact on small business, as discussed above. However, any lesser standards created solely for small business activities that encroach into the right-of-way would increase the potential for adverse consequences resulting from compromising the physical

integrity of the SWP system. The same requirements are applied to all applicants seeking a permit.

VI. No Conflict With Other Regulatory Schemes.

These regulations do not create a conflict with any applicable Federal Law. The Department of Water Resources jointly operates certain portions of the Water Resources Development System with the Federal Bureau of Reclamation. The Bureau of Reclamation does not have a set of regulations or statutes that conflict with the principles set forth in Water Code section 12899, or these regulations. With regard to the requirements set forth in these regulations, the Bureau of Reclamation defers to the department for operations and maintenance control.

VII. Environmental Justice.

"Environmental Justice" is defined as the fair treatment of people of all races, cultures, and incomes with respect to the development, adoption, implementation, and enforcement of environmental laws, regulations, and policies (Government Code §65040.12(c)).

DWR staff does not believe that these proposed regulations will have any adverse environmental justice impacts because they codify the practice historically utilized by the department. These proposed regulations are only mandatory where a landowner seeks to encroach on the right-of-way, and in that respect, they set forth standards that will be applied to any encroachment permit applicant.

VIII. APPENDIX A - Documents Relied Upon And/Or Incorporated By Reference.

1. Document relied upon: The DWR "Encroachment Permit Guidelines." The Guidelines provided specifications that were used by the department to assist in processing Encroachment Permits. They were generated by consultation within the department among

various divisions, including, but not limited to, the Division of Engineering, the Division of Operations & Maintenance, the Real Estate Branch and the Division of Environmental Services. Some of the specifications in the Guidelines are carried over to these regulations. Once these regulations become law, the regulations will supersede the Guidelines and the Guidelines will no longer be utilized.

2. Incorporated by reference: ASTM Standards: ASTM (2012), Standard Test Method for Laboratory Compaction Characteristics of Soil Using Modified Effort (56,000 ft-lb/ft³ (2.700 kN-m/m³)), in Annual Book of ASTM Standards, Method D1557-12, ASTM International, West Conshohocken, Pennsylvania, 201309. This sets out the standards for compaction required by the department in all fill situations within the right-of-way. This is large and technical document and reproducing it along with the regulations would be cumbersome, unduly expensive and impractical, since these standards are readily available to the public and to those who would be seeking an encroachment permit.

3. Incorporated by reference: Agreement Between the United States Of America and the Department of Water Resources of the State of California for the Construction and Operation of the Joint-Use Facilities of the San Luis Unit, dated December 30, 1961; approved by an Act of Congress on June 17, 1902. This is large and technical document and reproducing it along with the regulations would be cumbersome, unduly expensive and impractical.

4. Incorporated by reference: DWR Form 33, Encroachment Permit Application, revision 9/14. This Form is made part of these regulations.

5. Incorporated by reference: Code of Federal Regulations, Title 49, Part 195, revised October 1, 2010. This is large and technical document and reproducing it along with the

regulations would be cumbersome, unduly expensive and impractical, since these standards are readily available to the public and to those who would be seeking an encroachment permit.

6. Incorporated by reference: California Public Utilities Commission, General Order 95, "Rules for Overhead Electric Line Construction," Revision 2012. This is large and technical document and reproducing it along with the regulations would be cumbersome, unduly expensive and impractical, since these standards are readily available to the public and to those who would be seeking an encroachment permit.

7. Incorporated by reference: Federal Specification FF-S-325, Amendment No. 3, Group II, Type 4, Class 1, revision date August 8, 1995, entitled "Shield, Expansion, Nail Expansion, and Nail, Drive Screw (Devices, Anchoring, Masonry)". This is large and technical document and reproducing it along with the regulations would be cumbersome, unduly expensive and impractical, since these standards are readily available to the public and to those who would be seeking an encroachment permit.

IX. APPENDIX B – Summary Of Comments And Department’s Response.

Following the second 15-day Notice of Proposed Changes to Regulations, the department received one comment letter from the City of Fairfield. The letter was identical to the letter comment from the City of Fairfield, dated December 9, 2013. The department previously responded to each of the City’s comment issues in the Final Statement of Reasons submitted to the Office of Administrative Law on February 21, 2014. The department staff contacted the City of Fairfield and informed the City that it had previously submitted the identical comments to which the department had responded. The City withdrew the comment letter.