

## **SECTION 14            PUBLIC SAFETY AND HAZARDOUS MATERIALS**

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This section presents the potential adverse impacts of the Water Authority's Proposed Project related to public safety and hazardous materials. The public safety concerns related to the Proposed Project would include potential facility accidents or failures, increased public exposure to unsafe conditions/activities, and use of and exposure to hazardous materials. This section begins with a description of the regional setting, followed by a discussion of applicable Federal, State and local regulations. A qualitative analysis of potential public safety and hazardous materials-related effects associated with Proposed Project facilities is provided in Section 14.3. Mitigation measures to avoid, eliminate or reduce effects to a less than significant level are also provided, where appropriate. Finally, Section 14.4 identifies public safety and hazardous materials-related effects found not to be significant.

### **14.1 REGIONAL SETTING**

The Water Authority's service area is generally defined as the western third of San Diego County; within this approximately 1,400 square-mile area there are 18 cities and a number of large unincorporated communities.

#### **14.1.1 Dam/Water Storage Facility Failure**

There are approximately 26 lakes and reservoirs located within the service area owned and operated by the Water Authority, other local water districts, and area cities. Failure of one of these facilities could expose the public to flood hazards. Emergency Response and Evacuation Plans (EREPs), which address public safety and hazard issues related to potential dam failures and floods, are required for these facilities.

#### **14.1.2 Hazardous Materials**

San Diego County has a long history of agricultural, commercial, and industrial development, which has made use of chemicals (e.g., cleaners, solvents and pesticides), petroleum products, and other potentially hazardous materials. In addition, the San Diego region is a location for important military installations that have been used to base ships and aircraft, as well as large open areas where "live fire" training exercises have historically and are presently being performed.

The service area contains most of the development that has occurred in the County. All of the incorporated cities are within the service area; therefore, most of the industrial development that has occurred in the County is within the service area. Numerous facilities that use and store hazardous materials and generate hazardous wastes are present in these urban areas.

There are current and former military installations, such as Camp Pendleton Military Reservation, the Marine Corps Air Station Miramar, and the Naval Training Center. Fuel and

chemical spills have potentially occurred during transfer and field maintenance activities, and hazardous wastes have been disposed of at landfills both on base and elsewhere. Military installations have the additional issue that, in areas where training exercises have taken place, unexploded ordnances may have remained and become buried. Through a number of remedial programs, previously impacted military sites are being identified and cleaned up.

Likewise, in aircraft manufacturing areas, such as near Lindbergh Field and other industrial plants, the result of the misuse, improper storage or disposal of fuels, solvents and other products during various industrial processes may have occurred. The commercial and industrial developments that have occurred along the major highway corridors of I-5, I-8, I-15, and I-805 also resulted in potential exposure to hazardous materials from misuse, accidental releases, or spills. In addition, residential uses of various cleaners, solvents and other household products have the potential of generating hazardous materials or wastes, and for improper disposal at local landfill sites.

Although the region is becoming more urbanized, large areas in the County remain in agricultural production. Modern farming practices include the use of fuel, pesticides and fertilizers, which if improperly stored or used can expose individuals to hazardous materials or associated waste products.

Proper disposal of hazardous waste entails the collection and transportation of the material to an approved disposal facility or landfill. Oil and other petroleum products can be recycled locally, but for other products there are three approved landfill sites that serve the San Diego region; these are located in Kern, Kings and Imperial Counties. Improper and illegal disposal of materials can also occur in the San Diego region.

The potential exposure to hazardous materials associated with the Proposed Project are from the use of materials during construction and/or operation and maintenance of the proposed facilities or from exposure to existing hazardous waste present along Water Authority rights-of-way or at project sites.

## **14.2 REGULATORY SETTING**

The following summarizes the laws, general policies and regulations that relate to public safety and hazardous materials as they pertain to the Proposed Project. The regulatory framework also provides the guidelines and management practices to mitigate or prevent adverse impacts related to safety and hazardous materials.

### **14.2.1 Dam Safety**

#### **14.2.1.1 Federal**

The National Dam Safety Program (NDSP) Act (Public Law 104-303, Section 215), is administered by the Federal Emergency Management Agency (FEMA). The purpose of this Act is to reduce the risk to life and property from dam failure in the United States through the establishment and maintenance of an effective NDSP. Although this law applies to dams owned

and operated by the Water Authority and the local water districts in the service area, the NDSP does not preempt any existing State authorities, such as the California Division of Safety of Dams (DSOD), which is described below.

### **14.2.1.2 State**

Dam safety at the state level is governed by the DWR, DSOD. The DSOD reviews plans and specifications for the construction of new dams or for the enlargement, alteration, repair, or removal of existing dams. DSOD must grant approval before construction, and during construction can require design changes, if new conditions are disclosed. The DSOD also must issue a certificate of approval before water can be impounded behind a new dam or behind an existing dam that has been enlarged, altered, or repaired. DSOD is also responsible for the periodic inspection of dams to ensure that they are adequately maintained.

Also in accordance with the requirements of the DSOD, operators of water reservoirs are required to prepare an Emergency Response Plan (ERP) for the event of a catastrophic dam failure. Part of this plan includes the performance of simulated dam break analysis to assess the extent of potential flooding and the hydraulic characteristics of the flooding, such as water velocity, depth, and flood wave arrival time at various locations.

### **14.2.1.3 Local**

As dam safety is under State jurisdiction, there are no local dam safety regulations.

## **14.2.2 Hazardous Materials**

### **14.2.2.1 Federal**

The Federal Resource Conservation and Recovery Act (RCRA) regulates the generation, transportation and disposal of hazardous waste under the jurisdiction of the U.S. EPA. In addition, RCRA also sets forth a framework for the management of non-hazardous wastes. In 1992, U.S. EPA granted the enforcement authority of RCRA to the State of California DTSC.

The Emergency Planning & Community Right to Know Act (EPCRA) (Title III of the Superfund Amendments and Reauthorization Act) requires that each state appoint a State Emergency Response Commission. The Commission is responsible for creating Emergency Planning Districts and naming a Local Emergency Planning Committee (LEPC) for each District. These LEPCs are made up of representatives from local fire departments, law enforcement agencies, public works departments, and hospitals, as well as health officials, other government representatives, the news media, and community and industrial groups. One important requirement of EPCRA is that facilities using hazardous chemicals or materials over a threshold quantity must prepare hazard assessments, prevention programs, and ERPs. These ERPs must be filed with the LEPCs so they are aware of the hazards that may exist and can respond effectively in the event of an emergency to minimize public exposure, injury, and loss of life.

Examples of facilities that are subject to the requirements of EPCRA include chemical manufacturers, certain wholesalers and retailers of chemical products, water treatment and wastewater treatment facilities, facilities with ammonia refrigeration systems, utilities, and various Federal facilities. Several Water Authority member agencies operate WTPs in the service area and are subject to the requirements of EPCRA. ERPs prepared for these facilities in San Diego County and local cities have been filed with the LEPCs.

#### **14.2.2.2 State**

DTSC is the principal agency for managing contamination from illegal or accidental releases of hazardous materials and wastes in the State of California enforcing both State regulation (CCR Titles 17, 19, 22, and 26), and as discussed above, RCRA. Other agencies that may periodically coordinate with DTSC or with the enforcement of regulation that address site activities include: hazardous waste units of local fire departments, the RWQCB (Region 9), the SWRCB, the SDAPCD, Caltrans, and the CHP.

The RWQCB is the responsible agency for the Porter-Cologne Water Quality Act (Division 7 of the California Water Code) regarding the prevention of discharges, including potentially hazardous waste or materials that would adversely impact water quality.

#### **14.2.2.3 Local**

San Diego County and the local cities have adopted local building, fire safety, zoning and health ordinances that regulate the location of facilities that treat, store, and/or handle hazardous materials and wastes and to implement the EPCRA. These local agencies comprise the LEPCs described previously, and are prepared to implement ERPs on file for local facilities that store or use hazardous materials.

### **14.3 IMPACTS AND MITIGATION**

#### **14.3.1 Methodology and Standards of Significance**

The public safety and hazardous materials analysis was conducted to determine potential increases in threat or risk of the safety and/or health of populations within the project area. In general, the Proposed Project was considered to have a significant public safety or hazardous materials impacts if construction and or operation would:

- Create a substantial public health hazard due to dam, pipeline, or water facility failure and resulting flood;
- Expose people or structures to a significant risk of loss, injury or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands;
- Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials or through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment;

- Expose project construction workers or the public to existing hazardous materials present at project sites, including the possible exposure to unexploded ordnances; or
- Leave Proposed Project facilities vulnerable to potential acts of vandalism or facility sabotage.

Specific consideration of potential public safety impacts associated with flooding, fire management, and the use or potential release of hazardous materials, and facility security are discussed below.

#### **14.3.1.1 Facility-Related Flooding**

Impacts from facility-related flooding are associated with the potential release of water stored in a reservoir or other storage components resulting in a flood wave traveling downstream to populated areas; or from a pipeline rupture that would release large amounts of water thereby causing downstream flooding.

#### **14.3.1.2 Fire Management**

To determine potential impacts associated with fire management, activities and equipment that could pose fire hazards were considered. Fire management impacts would be considered significant if the Proposed Project facilities would create a substantial increase in fire ignition potential. For a description of fire protection services in San Diego County, refer to Section 10.6, Utilities and Public Services, Fire Protection Services.

#### **14.3.1.3 Hazardous Materials**

The methodology for analyzing impacts associated with hazardous materials included identifying general types of hazardous materials and techniques that would likely be used during Proposed Project construction, operation, and maintenance. Potential impacts associated with hazardous materials were considered significant if the Proposed Project would involve the use or disposal (or accidental detonation) of hazardous materials in a manner that would pose a substantial hazard to people or the environment.

### **14.3.2 Impacts and Mitigation Measures**

This section identifies the potentially significant adverse program-level impacts and required mitigation measures for the Proposed Project. **Table 14-1** presented at the end of this section identifies the potential program-level impacts of each of the Proposed Project facilities. This program-level analysis is not intended to describe or address the impacts in detail; detailed evaluations of the impacts of specific projects will be conducted as part of a site-specific CEQA review.

Unless otherwise noted, all identified impacts are considered to be potentially significant adverse impacts. Corresponding mitigation measures, unless otherwise noted, are expected to be sufficient to reduce impacts to a less than significant level.

**Public Safety and Hazardous Materials Impact 1:** *Activities associated with construction, operation and maintenance of the Proposed Project could increase the potential for accidental wildfires.*

Construction, operation, and maintenance of Proposed Project facilities could increase the potential for wildfires in the service area. Workers smoking cigarettes, sparks from equipment, welding, or other activities could increase potential for fire ignition. Large portions of the service area feature suburban residential areas bordered by undeveloped ridges covered with grass, chaparral, and woodland vegetation that is highly susceptible to wildfires. The potential for project-related fire hazards could result in significant impacts unless they are mitigated through implementation of the following mitigation measures.

**Public Safety and Hazardous Materials Mitigation Measure 1:**

- a) Prior to construction, develop and implement (in consultation with the Fire Marshal) a Fire Prevention Program for each facility, as necessary.
- b) Develop an ERP for each new or expanded facility, as necessary. Each ERP shall be developed by the facility operator in coordination with the County Office of Emergency Services, the County Environmental Health Department, and the appropriate Fire Protection District.

**Public Safety and Hazardous Materials Impact 2:** *Transportation, use, or disposal of hazardous materials during construction, operation and maintenance of the Proposed Project or upsets and accidental releases of hazardous materials would create the potential for exposure of workers, the public, and the environment.*

Transportation, use, or disposal of hazardous materials during Proposed Project construction, operation, and maintenance would pose potential health and safety hazards to construction and maintenance workers, nearby residents, and the environment. These impacts would be associated with the potential for spills and improper disposal. However, through proper construction, maintenance and monitoring in accordance with the Water Authority's General Conditions and Standard Specifications (SDCWA 1999), and proper disposal, it is anticipated that the risk of upsets, including accidental explosions or releases of hazardous substances and associated health hazards, would be less than significant.

Many of the WTPs in the service area utilize chlorine gas in the disinfection stage of the treatment process. The addition of chlorine kills any pathogenic microscopic life that may be present in the water, such as bacteria or viruses. Prior to water leaving the treatment plant, small amounts of ammonia are typically added to the chlorine to form chloramine, a more stable disinfectant that lasts longer in the distribution system (Sweetwater Authority 2003). The storage of compressed chlorine gas and ammonia at treatment plant sites includes the risk of unintentional releases of chlorine gas or ammonia and exposure to adjacent populated areas.

**Public Safety and Hazardous Materials Mitigation Measure 2:**

The Water Authority will develop an ERP in conjunction with the local fire department that will incorporate appropriate actions in the case of an accidental release of hazardous material. For

example, features that could be installed to minimize the risk of public exposure to hazardous materials or gases due to an unintentional release include:

- a) Chlorine and ammonia gas detection and alarm systems that operate continuously 24 hours per day, 7 days per week;
- b) Wind monitors to determine the down wind threatened areas; and
- c) Coordination and pre-emergency planning with the LEPCs and the surrounding communities.

**Public Safety and Hazardous Materials Impact 3:** *During construction of the Proposed Project facilities, workers and the public could be exposed to existing hazardous materials present at Proposed Project sites, including the possible exposure to unexploded ordnance.*

A number of the Proposed Project facilities would be constructed in areas that have been developed or have in the past been used as part of a military gunnery range. For those projects, site specific surveys, conducted as part of normal pre-construction due diligence, would be required to identify potential sites that may have hazardous materials present in the soil. Based on the results of these surveys, appropriate measures to avoid exposure would be included in the construction plans.

In addition, some of the Proposed Project facilities would occur in an area that has been identified as potentially having unexploded ordnances present (MTRP). Without additional site specific surveys for unexploded ordnances, there is a potentially significant impact associated with the exposure of workers to unexploded ordnances. This potentially significant impact could be mitigated through implementation of the following mitigation measure.

**Public Safety and Hazardous Materials Mitigation Measure 3:**

In order to mitigate potential health hazards related to exposure of construction personnel to hazardous materials in the soil, the Water Authority will complete the following steps for each site proposed for disturbance as part of a project-facilitated construction activity in the project area:

- Step 1. Investigate the site to determine whether it has a record of hazardous material contamination; and if so, characterize the site according to the nature and extent of soil contamination that is present before development activities proceed at that site.
- Step 2. Determine the need for further investigation and/or remediation of the soils conditions on the contaminated site. For example, if there will be little or no contact with contaminated soil, industrial cleanup levels will likely be applicable. If the slated development activity could involve human contact with soils, such as may be the case with residential use, then Step 3 should be completed. If no human contact is anticipated, then no further mitigation is necessary.
- Step 3. If it is determined that extensive soil contact will accompany the intended use of the site, undertake a Phase II investigation involving soil sampling at a minimum. Should further investigation reveal high levels of hazardous materials in the site soils, mitigate

health and safety risks according to County Department of Environmental Health and RWQCB regulations. This will include site-specific health and safety plans prepared prior to undertaking any building or utility construction.

In order to mitigate potential health hazards related to exposure to unexploded ordnances, prior to the start of construction, the Water Authority will have surveys performed of the MTRP facility site, any construction lay down areas, and any proposed unimproved parking areas near the project site for the presence of unexploded ordnances. The survey will include identification of potential unexploded ordnance locations, from which a determination of what is present shall be made. Once the survey is completed, the appropriate contractor shall arrange for the removal of any unexploded ordnances found. In addition, the unexploded ordnance contractor will provide training, as needed, to construction contractors related to the identification of unexploded ordnances.

**Public Safety and Hazardous Materials Impact 4:** *Proposed Project facilities could be vulnerable to acts of vandalism and sabotage.*

The Water Authority operates a wide variety of water supply facilities within the service area, including aqueducts, pipelines, pump stations, FRSs, and storage tanks and reservoirs. Public facilities such as these can be the target of acts of vandalism or even sabotage. Vandalism could range from graffiti to damage to fencing and facility lighting, to more serious acts that damage or destroy equipment and facilities. Given the critical nature of the Water Authority's water supply facilities, and ongoing concerns about security, the potential for sabotage of Water Authority water supply facilities and contamination of public water supplies is an important public safety issue that must be considered. Without adequate design features related to security, the potential for significant vandalism and/or sabotage could result in significant impacts to public health and safety.

**Public Safety and Hazardous Materials Mitigation Measure 4:**

Critical unmanned facilities will be equipped with appropriate security features to prevent unauthorized entry, as necessary.

**Public Safety and Hazardous Materials Impact 5:** *The presence of Proposed Project facilities at lakes, reservoirs, parks, and open space areas could create potential risks to recreational users of these areas due to construction activities, potential vehicle accidents involving Water Authority operation and maintenance vehicles, and unauthorized public access to Water Authority facilities.*

Construction of Proposed Project facilities at or near recreation sites could create hazards for area visitors. Operation and maintenance activities would necessitate the use of vehicles to access Proposed Project facilities within various recreational and open space areas. Certain types of water supply facilities can represent an attractive nuisance to members of the public visiting lakes, reservoirs, parks, and open space areas.

### **Public Safety and Hazardous Materials Mitigation Measure 5:**

- a) The Water Authority or its construction contractor would close construction areas from public access and will implement Traffic Control Plans to minimize hazards to recreational users from construction-related traffic.
- b) The Water Authority will require its workers to exercise caution and maintain safe travel speeds when driving within recreational and open space areas to minimize the risk of accidents with recreational users.
- c) The Water Authority will fence and lock potentially dangerous structures to prevent members of the public from climbing on or entering these facilities to minimize the risk of injuries or falls.

Implementation of these mitigation measures would result in less than significant impacts on the general public utilizing these areas (see Section 17 for a complete discussion of recreational resources).

## **14.4 EFFECTS FOUND NOT TO BE SIGNIFICANT**

### ***Implementation of Proposed Project facilities could interfere with adopted ERPs or EREPs.***

Construction and operation of Proposed Project facilities would not interfere with adopted ERP/EREPs within the service area. Reservoir expansion projects could require amendment of existing ERP/EREPs, but once they are amended and adopted, these projects would not interfere with their implementation in the event of an emergency.

### ***Construction and operation of Proposed Project facilities could emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within 0.25 mile of an existing or proposed school.***

None of the Proposed Project facilities would result in the emission of hazardous air pollutants, acutely hazardous materials, substances or wastes within 0.25 mile of an existing or proposed school. Construction activities requiring the use of vehicle-related fuels and lubricants would occur within close proximity of schools for various Proposed Project facilities. Construction activity near schools would be short-term in nature and the potential for accidental spills or releases of these hazardous materials and related risks to schools during construction is very low.

<b>Table 14-1 Potential Program-Level Public Safety and Hazardous Materials Impacts of Proposed Project Facilities</b>						
#	Project	Impact				
		1 <sup>a</sup>	2 <sup>b</sup>	3 <sup>c</sup>	4 <sup>d</sup>	5 <sup>e</sup>
<b>Expand Internal System Capacity</b>						
<i>Flow Regulatory Storage</i>						
1	Hubbard Hill FRS	X	X	X	X	
2	Slaughterhouse Terminal Reservoir	X	X	X	X	X
3	North County Distribution Pipeline FRS	X	X	X	X	
4	Mission Trails FRS II	X	X	X	X	X
	➤ Mission Trails Tunnel Pipeline and Vent Demolition	X	X	X	X	X
<i>Projects to Increase Regional Untreated Water Conveyance Capacity</i>						
5	Restore Untreated Water Delivery in La Mesa-Sweetwater Extension					
6	Second Crossover Pipeline	X	X	X	X	
7	San Diego 24/25/26 FCF	X	X	X	X	X
8	San Diego 12 FCF Expansion	X	X	X	X	X
9	Lower Otay Pump Station	X	X	X	X	X
10	Convert Pipeline 3 to Untreated Water from Crossover to Miramar					
<b>Additional Water Treatment Capacity</b>						
<i>Projects to Supplement Treated-Water Aqueducts</i>						
11	Padre Dam Pump Station Expansion	X	X	X	X	X
12	Pipeline from Otay FCF 14 to Regulatory Reservoir	X	X	X	X	
13	Poway Pump Station and Treated Water Connection	X	X	X	X	X
14	Escondido-Vista WTP Connection					
	a) Escondido-Vista Pipeline Conversion					
	b) Escondido-Vista Pump Station	X	X	X	X	
	c) Escondido-Dixon Pipeline	X	X	X	X	X
<i>Projects to Expand Regional Water Treatment Capacity</i>						
Options for Expanding Regional Treatment Capacity						
15a	Olivenhain WTP – 50 mgd Expansion	X	X	X	X	
15b	Weese WTP – 50 mgd Expansion	X	X	X	X	
15c	Red Mountain WTP – new 50 mgd plant	X	X	X	X	
15d	Diversion Structure WTP – new 100 mgd plant	X	X	X	X	
<b>Additional Seasonal/Carryover Storage</b>						
16	Additional San Vicente Dam Raise Beyond ESP	X	X	X	X	X
<b>New Conveyance and Supply</b>						
17	Phase I – Seawater Desalination: Project at Encina (50 mgd)					
	➤ Desalination Plant	X	X	X	X	X
	➤ Desalinated Water Conveyance Facilities	X	X	X	X	X
18	Expand Existing or Site New Seawater Desalination Plant*					
	Phase II – Seawater Desalination: Expand Capacity up to 100 mgd					
	Phase III – Seawater Desalination: Expand Capacity up to 150 mgd					
Seawater Desalination Site Options for Phases II and III:						
	a) San Onofre – at San Onofre Nuclear Generating Station	X	X	X	X	X
	b) Carlsbad – at Encina Power Station	X	X	X	X	X
	c) South Bay – at South Bay Power Plant	X	X	X	X	X
	d) Encina Water Pollution Control Facility	X	X	X	X	X
	e) South Bay Ocean Outfall Site	X	X	X	X	X

**Table 14-1 (continued)**  
**Potential Program-Level Public Safety and Hazardous Materials**  
**Impacts of Proposed Project Facilities**

- \* The ultimate level of seawater desalination development in the region would depend largely upon actual regional population growth, economics, availability of other high quality water sources, as well as an evaluation of the performance of the Encina seawater desalination facility, should it be approved and constructed.
- <sup>a</sup> Activities associated with construction, operation and maintenance of the Proposed Project could increase the potential for accidental wildfires.
- <sup>b</sup> Transportation, use, or disposal of hazardous materials during construction, operation and maintenance of the Proposed Project or upsets and accidental releases of hazardous materials would create the potential for exposure of workers, the public, and the environment.
- <sup>c</sup> During construction of the Proposed Project facilities, workers and the public could be exposed to existing hazardous materials present at Proposed Project sites, including the possible exposure to unexploded ordnance.
- <sup>d</sup> Proposed Project facilities could be vulnerable to acts of vandalism and sabotage.
- <sup>e</sup> The presence of Proposed Project facilities at lakes, reservoirs, parks, and open space areas could create potential risks to recreational users of these areas due to construction activities, potential vehicle accidents involving Water Authority operation and maintenance vehicles, and unauthorized public access to Water Authority facilities.