3.7 HAZARDS AND HAZARDOUS MATERIALS

3.7.1 Environmental Setting

3.7.1.1 Regulatory Setting

Hazardous Materials. As defined in Title 22 of the California Code of Regulations, Division 4.5, Chapter 11, Article 3, hazardous materials are substances with certain physical properties that could pose a substantial present or future hazard to human health or the environment when improperly handled, disposed, or otherwise managed. Hazardous materials are commonly used in commercial, agricultural and industrial applications, as well as residential uses to a limited extent.

Hazardous Waste. Hazardous wastes are any hazardous materials that are discarded, abandoned, or are to be recycled. If improperly handled, hazardous materials and wastes can result in public health hazards if released to the soil or groundwater or through airborne releases in vapors, fumes, or dust.

In California, the U.S. Environmental Protection Agency (EPA) has granted most enforcement authority over federal hazardous materials regulations to the California Environmental Protection Agency (Cal EPA). Cal EPA's Department of Toxic Substances Control (DTSC) and the Regional Water Quality Control Boards (RWQCB) signed a Memorandum of Agreement in March 2005 aimed to avoid duplication of efforts among the agencies involved in the regulatory oversight of investigation and cleanup of hazardous wastes. Under the Memorandum of Agreement, either DTSC or the RWQCB is assigned to be the oversight agency at the beginning of the investigation and cleanup process (California Environmental Protection Agency 2011).

3.7.1.2 Local Plans

Indian Wells Valley Water District Emergency Response Plan (ERP). The purpose of the ERP is to effectively respond to emergencies, minimize injuries, lessen the impact in the community, minimize facility damage, and provide guidance to local emergency response personnel. The ERP is IWVWD's detailed guide on how to respond in the event of an actual emergency and was developed to improve employee awareness of potential emergency events and pre-planned response actions.

The goals of the ERP are: rapid restoration of water service after an emergency; minimal water system damage; minimal impact and loss to customers; minimal negative impacts on public health and employee safety; and emergency public information concerning customer service (IWVWD 2008).

The ERP was designed to comply with Section 1433(b) of the Safe Drinking Water Act (SDWA) as amended by the Public Health Security and Bioterrorism Preparedness and Response Act of 2002 (Public Law 107-188, Title IV – Drinking Water Security and Safety), California Government Code Section 8607.2 – Public Water System Plans, California Health and Safety Code, Sections 116460, 116555 and 116750, and California

Waterworks Standards, Section 64560. In addition, the ERP fulfills the requirements of the Emergency Planning and Community Right-to-Know Act (EPCRA) of 1986 (1), formerly known as Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA Title III).

Other Plans. In addition to the ERP, the IWVWD has a Water Sampling Plan which provides information on the evaluation of potential contamination as well as normal facility conditions. The IWVWD's 1997 Water General Plan includes an evaluation of the water distribution system and determines long term system improvements.

3.7.1.3 Potential Chemical Hazards

The following chemicals are used by the IWVWD as part of its operations:

- Diesel fuel;
- Gasoline;
- Sodium Hypochlorite (.5%) (liquid chlorine);
- Sodium hexametaphosphate;
- Sodium hydroxide; and
- Sulfuric acid.

These chemicals may be potentially harmful during an accidental or intentional spill. The IWVWD has subcontractors available for containment and cleanup in case of a chemical spill. Sodium hypochlorite is used to disinfect water. Sodium hexametaphosphate is used to prevent calcium carbonate scaling in Well 17. Sulfuric acid and sodium hydroxide are used to adjust the pH of raw water as part of the arsenic treatment process. pH is a measure of the acidity or alkalinity of a solution, numerically equal to 7 for neutral solutions like distilled water, increasing with increasing alkalinity and decreasing with increasing acidity. The pH scale commonly in use ranges from 0 to 14 (USEPA 2011).

All treatment chemicals are transported to the IWVWD facilities by licensed haulers and stored on site in tanks with secondary containment.

3.7.2 Thresholds of Significance

According to Appendix G of the CEQA Guidelines, a project would have a significant effect on hazards and hazardous materials if it would:

- Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials;

- Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment.

A determination of no impact was made in the Initial Study (Appendix A) for the remaining significance criteria for hazards and hazardous materials; they are not discussed further in this section.

3.7.3 Environmental Impacts

Construction and Well Development. Some hazardous materials, such as diesel fuel, would be used at the site during well construction and development. The transport of hazardous materials is regulated by the State and the transport of such materials to the site would be in compliance with all State regulations. These materials would only be present during construction and well development and would be removed upon completion of the project. A less than significant impact would occur.

During drilling and well testing, groundwater produced from new Well 35 would be discharged to the ground surface to allow it to percolate back into the subsurface. The new well would be developed and subsequently tested for approximately two weeks. The water discharged from the development and testing of the well would be percolated into the ground locally, either by discharge to an on-site percolation pond or by sprinklers. Based on existing water quality data, the groundwater meets applicable water quality standards such as Maximum Contaminant Levels (MCLs) and thus the discharge would comply with the *Water Quality Control Plan for the Lahontan Region, North and South Basins*, commonly referred to as the Basin Plan (RWQCB 2005). A less than significant impact would occur.

Disinfection/Treatment Facilities. New Well 35 would require chlorination facilities (dosing pump and sodium hypochlorite [liquid chlorine] solution stored in a 200-gallon polyethylene drum with secondary containment) and such additional treatment facilities that may be indicated by water quality testing performed at the time of drilling (e.g., for the removal of arsenic). All materials would be properly contained, handled, and transported in compliance with all applicable regulations. Prior to operation, the well would be disinfected in accordance with the District's standard specifications. Disinfection water would be dechlorinated prior to being discharged on the site in the same manner as the development and testing water. The water would be percolated into the ground locally, either by discharge to an on-site percolation pond or by sprinklers. The discharged water would not contain any residual chlorine and, thus, would be in compliance with the Basin Plan (RWQCB 2005). A less than significant impact would occur.

Discharge Pond. The discharge pond would be approximately one-half acre in size and would be constructed adjacent to Well 35. It would be approximately three to six feet deep. The entire well site would be enclosed by a chain-link, tortoise-proof fence with three strands of barbed wire or razor wire. This would reduce potential falling and drowning hazards to a level of less than significant.

Accidental Spills. The IWVWD has an Emergency Response Plan in place to respond to accident conditions involving the release of hazardous materials into the environment, such as sodium hypochlorite. The ERP includes public notification requirements and emergency response protocols in the case of an accidental spill. The IWVWD would use licensed contractors to provide spill clean-up services should such services be required. As such, impacts would be less than significant. No impacts would occur.

3.7.4 Mitigation Measures

Impacts were found to be less than significant. No mitigation measures are required.

3.7.5 Residual Impacts After Mitigation

There are no residual hazards or hazardous materials impacts.