

**Table 5-9
Detailed Analysis of Groundwater Alternatives**

EVALUATION CRITERIA	ALTERNATIVE GW-1	ALTERNATIVE GW -2	ALTERNATIVE GW -3
Protection of Human Health and the Environment	Human health is protected via groundwater use restrictions.	Human health is protected via groundwater use restrictions.	Human health is protected via groundwater use restrictions.
Attain Groundwater Cleanup	Groundwater currently exceeds cleanup levels. Natural biodegradation, dilution and dispersion documented in site groundwater and modeling calculations will reduce groundwater concentrations of site-related contamination through time.	Groundwater currently exceeds cleanup levels. Natural biodegradation, dilution and dispersion documented in site groundwater and modeling calculations will reduce groundwater concentrations of site-related contamination through time. Long-term groundwater monitoring will include periodic evaluation of data to demonstrate the achievement of groundwater cleanup goals.	Groundwater currently exceeds cleanup levels. Groundwater capture and extraction systems are designed to capture contaminated water across Bailey Point. The extracted groundwater will be treated to levels consistent with MEGs and discharged to shallow groundwater upgradient of the capture areas. It is expected that the pump and treat system will ultimately achieve groundwater cleanup goals.
Control Sources of Releases	No action alternative does not control source of release(s).	Long-term monitoring alternative does not control source of release(s).	Groundwater containment and extraction does control the source of release(s)
Comply with applicable Standards for Waste Management	No action alternative does not generate waste.	Purge water would be generated during well sampling. Extracted groundwater would be managed in accordance with the Quality Assurance Project Plan.	All applicable standards for waste management will be met for extracted groundwater.

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Long-Term Reliability and Effectiveness	Use of institutional controls will ensure long-term reliability and effectiveness.	Use of institutional controls and long-term monitoring will ensure long-term reliability and effectiveness.	Use of institutional controls along with groundwater capture and treatment will ensure long-term reliability and effectiveness.
Reduction of Toxicity, Mobility, or Volume of Wastes	Volume and toxicity of waste will decrease via natural degradation of VOCs and DRO in groundwater and dilution and dispersion of metals in groundwater.	Volume and toxicity of waste will decrease via natural degradation of VOCs and DRO in groundwater and dilution and dispersion of metals in groundwater. The biodegradation will be documented with long-term monitoring.	Reduction of toxicity, mobility and volume of contaminated groundwater will occur in all aquifers at the site.
Short-Term Effectiveness	Not Applicable because remedial actions are not included in this alternative.	Not Applicable because remedial actions are not included in this alternative.	No short-term risk associated with alternative. Groundwater capture, treatment, and discharge expected to take years.
Implementability	Alternative is readily implementable, but does require deed restrictions to support institutional controls.	Alternative is readily implementable, as monitoring wells are currently located at the site. Deed restrictions will be necessary to support institutional controls.	Alternative is readily implementable. Routine construction activities required for collection, treatment, and disposal system. Services, equipment, and materials are readily available for all aspects of remediation. Deed restrictions will be

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Implementability continued			necessary to support intuitional controls. Pump and Treat in the ISFSI area may induce consolidation of the clay under the ISFSI and settlement and structural calculations for the ISFSI cask foundations would have to be made to evaluate the safety of pump and treat in this area.
Cost (30 year present worth value)	\$89,433	\$1,072,775	\$60,718,040