

APPENDIX A
SUMMARY OF GROUND WATER SITE-SPECIFIC USE AND VALUE CONSIDERATIONS

FACTORS	HIGH	MEDIUM	LOW	COMMENTS
1. QUANTITY				
2. QUALITY				
3. CURRENT PUBLIC WATER SUPPLY SYSTEMS (PWSS)				
4. CURRENT PRIVATE DRINKING WATER SUPPLY WELLS				
5. LIKELIHOOD AND IDENTIFICATION OF FUTURE DRINKING WATER USE				
6. OTHER CURRENT OR REASONABLE EXPECTED GROUND WATER USE(S) IN REVIEW AREA				
7. ECOLOGICAL VALUE				
8. PUBLIC OPINION				

APPENDIX A
GROUND WATER USE AND VALUE CONSIDERATIONS

FACTORS	INFORMATION TO CONSIDER	SOURCES OF INFORMATION
1. QUANTITY	<p>A. Type and Thickness of Hydrogeologic Units within the Review Area;</p> <p>B. Productivity and Relative Yield of Aquifer(s);</p> <p>C. Aquifer(s) Boundaries, both vertical and horizontal;</p> <p>D. Description of unconsolidated materials, including soil characteristics.</p>	<ul style="list-style-type: none"> ● State GW Classifications and CSGWPPs ● Groundwater Favorability or Stratified Drift Maps ● Topographic Maps ● USGS/State Reports ● State Well Completion Reports (e.g. Well Logs) ● Water Supplier Well Discharge Records ● EPA/State Pre-remedial or Remedial Investigations ● Community Local Aquifer Studies
2. QUALITY	<p>A. Nature, magnitude and extent of ground water contamination;</p> <p>B. Comparison of contaminant concentrations with drinking water standards;</p> <p>C. Estimates of relative speed and direction of plume movement within the aquifer;</p> <p>D. Magnitude and extent of trace contaminants naturally occurring or due to anthropogenic activities (e.g. Lead, Arsenic, Manganese, Iron).</p>	<ul style="list-style-type: none"> ● State GW Classifications and CSGWPPs ● EPA/State Pre-Remedial or Remedial Investigations ● Risk Assessment ● USGS/State GW Reports ● Groundwater Favorability or Stratified Drift Maps

APPENDIX A
GROUND WATER USE AND VALUE CONSIDERATIONS

FACTORS	INFORMATION TO CONSIDER	SOURCES OF INFORMATION
<p>3. CURRENT PUBLIC WATER SUPPLY SYSTEMS</p>	<p>A. Numbers/types of Community or Non-Community Public Water Supply Systems (PWSSs) in Review Area; Locations and types of Wellhead Protection Areas (WHPAs) and/or surface supply drainage areas;</p> <p>B. Population served by PWSSs;</p> <p>C. Types of geologic units tapped by wells;</p> <p>D. Inventory of potential contaminant threats within Recharge Areas to drinking water supplies; Likelihood that current drinking water supplies may become contaminated by site under review or from other sources;</p> <p>E. Quality and Quantity of untreated water pumped by PWSS - estimated source(s) of contaminants, current pumping rates and future needs;</p> <p>F. Description and Effectiveness of Implemented Drinking Water Protection Measures - State approved local Wellhead Protection Programs (WHPPs); Implemented regulatory (e.g. zoning restrictions, easements) and/or non-regulatory measures (e.g. public education);</p> <p>G. Location of nearest replacement public water supply source, and economic and technical feasibility of accessing such sources if current PWSSs become contaminated.</p>	<ul style="list-style-type: none"> ● State GW Classifications and CSGWPPs ● State or Local Health Department files ● EPA/State Drinking Water System Monitoring Data Base ● EPA/State Ground Water/Drinking Water Programs: Source Water Protection Plans, Sanitary Survey Results ● Regional and Local Planning Officials ● Public Water Supply System Operators ● General Public

APPENDIX A
GROUND WATER USE AND VALUE CONSIDERATIONS

FACTORS	INFORMATION TO CONSIDER	SOURCES OF INFORMATION
<p>4. CURRENT PRIVATE DRINKING WATER SUPPLY WELLS/SPRINGS</p>	<p>A. Numbers of households and Population served by private drinking water supply wells or springs;</p> <p>B. Hydrogeologic Background - Depth of wells; Type of wells; Geologic media;</p> <p>C. Vulnerability of private water supplies to Potential Contaminant Threats (site and non-site-related) - Inventory of potential contaminant threats within the well's Recharge Area (septic systems, underground storage tanks); Proximity of current and projected contaminant plume to locations of recharge areas (WHPAs) of the private water supplies; Likelihood that private water supplies may become contaminated;</p> <p>D. Quality and Quantity of Drinking Water Sources - Detection of natural (iron/manganese) and anthropogenic contaminants (site contaminants of concern); Average pumping rate; Current and projected future yield;</p> <p>E. Location of nearest alternate drinking water sources and economic and technical feasibility of accessing such sources if private drinking water supplies become contaminated.</p>	<ul style="list-style-type: none"> ● State GW Classifications and CSGWPPs ● State or Local Health Agents ● EPA/State Ground Water/Drinking Water Programs ● Regional and Local Planning Officials ● General Public ● Public/Private Well Owners ● Local Well Drillers/Pump Installers

APPENDIX A
GROUND WATER USE AND VALUE CONSIDERATIONS

FACTORS	INFORMATION TO CONSIDER	SOURCES OF INFORMATION
<p>5. LIKELIHOOD AND IDENTIFICATION OF FUTURE DRINKING WATER USE</p>	<p>A. Projected Population and Industrial Growth in Review Area;</p> <p>B. Demand vs. Capacity. Comparison of existing water supply capacity vs. projected future growth and timeframe (e.g. need for additional 100 GPD supply in 10 years);</p> <p>C. Future Need. Based on Contingency and Resource planning, likelihood that GW at the Site shall be needed as a future drinking water source;</p> <p>D. Future supply sources. Locations of aquifers (e.g. high yield), surface water reservoirs or other water sources within the Review Area identified as future drinking water supplies; Proximity of current and projected contaminant plume to future water supplies; Current and projected threatening land use activities surrounding designated future supplies; Quality, yield, vulnerability of and projected protection measures for such alternate water supplies; Availability, and economic and technical feasibility of providing water from alternate sources (beyond current supplies) in cases that on-site groundwater is not restored as a drinking water supply within reasonable timeframe.</p>	<ul style="list-style-type: none"> ● State GW Classifications and CSGWPPs ● State Ground Water/Drinking Water Programs ● Regional and Local Planning Officials (e.g. Water Districts) ● Public Water Supply Systems ● General Public

APPENDIX A
GROUND WATER USE AND VALUE CONSIDERATIONS

FACTORS	INFORMATION TO CONSIDER	SOURCES OF INFORMATION
<p>6. OTHER CURRENT OR REASONABLY EXPECTED GROUND WATER USE(S) IN REVIEW AREA</p>	<p>A. Zoning for land/ground water uses within the Review Area; B. Agricultural (crop irrigation, livestock), industrial (cooling water), or commercial current or reasonably expected uses and associated quantities of such uses within the Review Area.</p>	<ul style="list-style-type: none"> ● State GW Classifications and CSGWPPs ● Federal Agencies (USGS, SCS) ● State Agricultural Agencies ● State Ground Water Programs ● Regional and Local Planning Officials ● Public Water Supply Systems ● Industrial/Commercial Owners or Operators ● General Public
<p>7. ECOLOGICAL VALUE</p>	<p>A. Degree of Ground Water/Surface Water Interconnections. Identification of volumes and known or projected points of entry to surface water, including wetlands or other sensitive ecosystems; B. Beneficial uses and quality of surface waters or other natural resources integrally supported by ground water; C. Extent and scope of sensitive ecological systems (e.g. critical species or unique habitat) currently or potentially adversely impacted by contaminated ground water.</p>	<ul style="list-style-type: none"> ● EPA SEAT TEAM ● Site-Specific Ecological Risk Assessment ● Federal Agencies (USFWS, USGS, NOAA) ● State GW Classifications and CSGWPPs ● State Surface Water Classification Maps and 305(B) Reports ● EPA/State Wetlands Programs ● EPA/State Coastal Programs ● Conservation Commissions ● Natural Heritage Program

APPENDIX A
GROUND WATER USE AND VALUE CONSIDERATIONS

FACTORS	INFORMATION TO CONSIDER	SOURCES OF INFORMATION
8. PUBLIC OPINION	A. Public awareness and feedback on GW "use" and "value"; B. Public perception and fears about contaminated GW; C. Public input on relative need to clean up the ground water; D. Community's fears about relative potential for adverse impacts on surrounding uses of property, ground water and connected surface water.	<ul style="list-style-type: none"> ● Census Data ● Newspaper Articles ● Community Relations Plan ● Public Meeting Notes ● Regional and Local Planning Officials