

- Water flows will not be constrained during construction.
- Installation of new culverts at currently day-lighted stream reaches will be avoided.

5.3.8 Drinking Water Supplies

The existing environment and impacts and mitigation measures for the Preferred Northern Route and the Noticed-Alternative Southern are in the following subsections.

5.3.8.1 Existing Environment

The existing drinking water supplies for the Preferred Northern Route and the Noticed-Alternative Southern Route are summarized below.

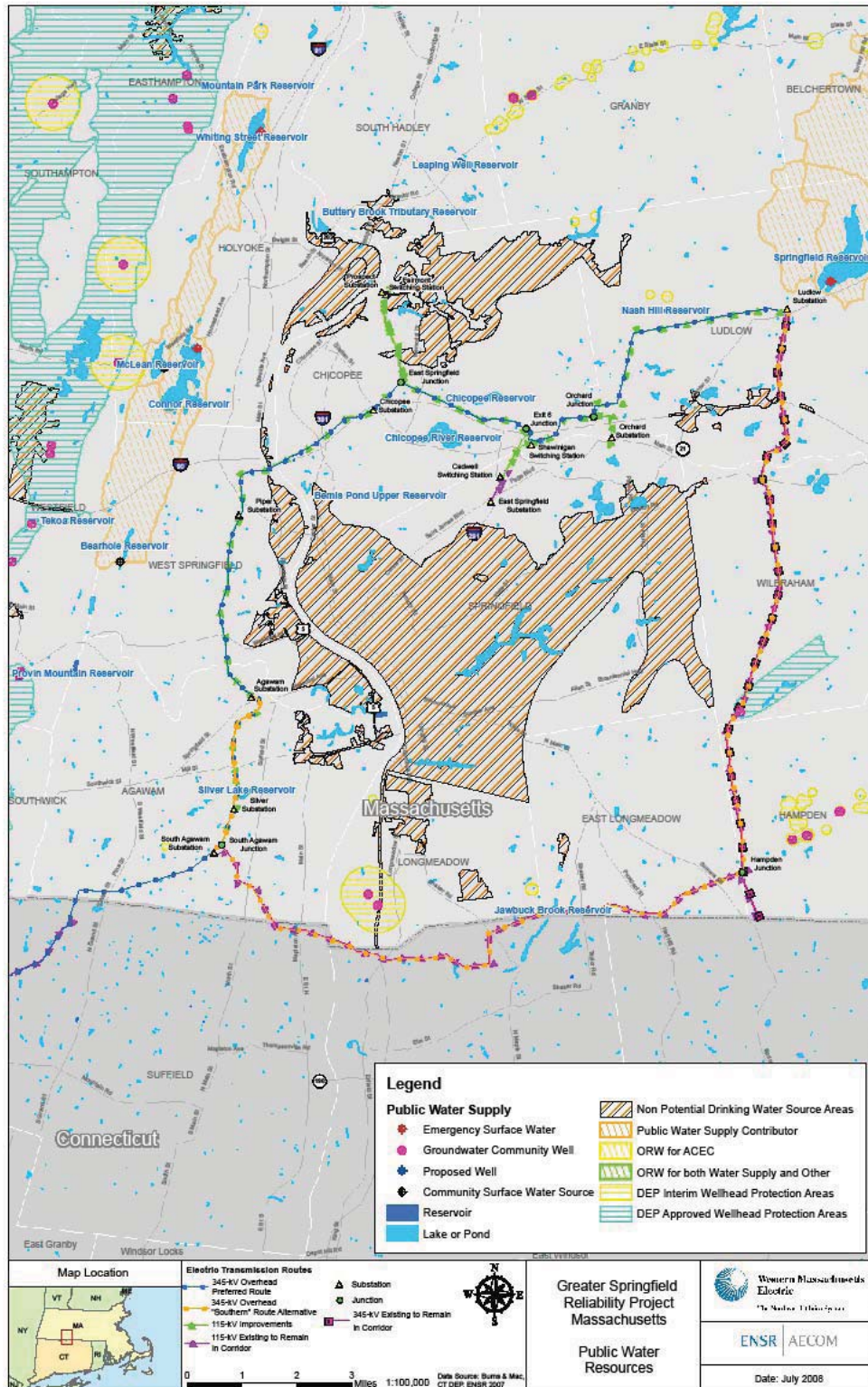
5.3.8.1.1 Preferred Northern Route

WMECO conducted a MassGIS-based investigation of public drinking water resources data for the GSRP, including:

- Active surface water reservoirs;
- Groundwater community wells;
- Proposed wells;
- Emergency surface water supplies;
- Watershed protection areas (“Public Water Supply Contributors”);
- Outstanding Resource Waters;
- MassDEP Approved Wellhead Protection Areas;
- MassDEP Interim Wellhead Protection Areas; and
- Non-Potential Drinking Water Source Areas

Figure 5-1 depicts these resources.

Figure 5-1: Public Water Resources



Follow-up correspondence with MassDEP Drinking Water staff concludes that all the affected municipalities along the Preferred Northern Route obtain drinking water principally through the Springfield Water and Sewer Commission (SWSC), which owns and operates Cobble Mountain Reservoir in Blandford, Massachusetts, which is located approximately 20 miles to the west of the GSRP area. West Springfield additionally obtains drinking water from public groundwater wells in Southwick and from Bearhole Reservoir in West Springfield – approximately 2 miles west of the Project. Chicopee additionally obtains water from the Massachusetts Water Resources Authority (MWRA), and the source for that water is the Quabbin Reservoir – in Central Massachusetts. Other notable drinking water features in the vicinity of the Preferred Northern Route include the following:

- Nash Hill “Reservoir” (water tanks in Ludlow, approximately ½ mile north of the Project)
- Springfield (Ludlow) Reservoir (emergency surface water supply in Ludlow, approximately 2/3 mile northeast of the Project)
- Three MassDEP Interim Wellhead Protection Areas within one mile of the Project – one due west of the South Agawam Switching Station (Agawam) - and two in the Nash Hill Reservoir Area (Ludlow).
- There are no public drinking water wells within the vicinity of the Preferred Northern Route, and the majority of Springfield is designated as a Non-Potential Drinking Water Source.

5.3.8.1.2 Noticed-Alternative Southern Route

There are two surface water reservoirs within a mile of the Noticed-Alternative Southern Route: 1) Jawbuck Brook Reservoir (East Longmeadow) and 2) Springfield Reservoir (Ludlow). There are four groundwater community wells within one mile of the Route – two in Longmeadow – and two in Hampden. Each of these has an associated MassDEP Interim Wellhead Protection Area that extends to as close as 2500 feet from the ROW. A MassDEP Approved Wellhead Protection Area is traversed by the Noticed-Alternative Southern Route just northeast of the Hampden/Wilbraham town line.

5.3.8.2 Impacts and Mitigation

The impacts and mitigation for drinking water supplies of the Preferred Northern Route and the Noticed-Alternative Southern Route are summarized below.

5.3.8.2.1 Preferred Northern Route and Related Facilities

Since no work will occur in close proximity to drinking water reservoirs, wells, or wellhead protection areas along this route, no impacts to public drinking water resources are anticipated to occur as a direct

result of the Preferred Northern Route. The closest wellhead protection area is over two miles away from the route and so any blasting or construction activities required for the Preferred Northern Route would not impact drinking water facilities. In addition, no OHM site found along the route would impact drinking water resources as the closest resources are over two miles from the potential construction area.

5.3.8.2.2 Noticed-Alternative Southern Route

Since no work will occur in close proximity to drinking water reservoirs, or wells along this route, no impacts to public drinking water resources are anticipated to occur. Despite the fact this route crosses a wellhead protection area, no impacts to drinking water are anticipated, since the existing use of the area is already as an overhead electric utility corridor.

5.3.8.2.3 Comparison of Drinking Water Supplies Impacts

While the Preferred Northern Route is located within one mile of more surface water reservoirs than the Noticed-Alternative Southern Route, most of these are not actively used for public drinking water purposes. The Noticed-Alternative Southern Route passes near four groundwater community wells and within 2,500 feet of the closest associated Interim Wellhead Protection Areas, while the Preferred Northern Route is near none. The Noticed-Alternative Southern Route traverses a MassDEP Approved Wellhead Protection area, while the Preferred Northern Route is in the vicinity of none. Overall, the Noticed-Alternative Southern Route is located within proximity to more and higher quality drinking water resources than the Preferred Northern Route. However, no impacts to public drinking water resources are anticipated to occur as a direct result of either route. Overall, the Preferred Northern Route is considered slightly preferable to the Noticed-Alternative Southern Route from the point of view of drinking water resources.

5.3.8.2.4 Mitigation Measures

The Project would not result in any significant adverse effects on groundwater or surface water drinking supplies. During construction activities, WMECO would require its contractors to adhere to its best management practices and any Project-specific regulatory requirements regarding the storage and handling of any OHM used during the work. Proper containment and handling of potentially OHM such as diesel fuel, motor oil, grease and other lubricants, will be required. Further, WMECO will require its contractors to adhere to its standard emergency response plan or to a Project-specific spill prevention, containment, and response plan, which will be developed to incorporate the standard OHM storage, handling, and response procedures, as applicable to the Project.

Construction staging areas and contractor yards would typically be located at existing developed areas (parking lots, existing ware yards), where the storage of construction materials and equipment, including fuels and lubricants, would not conflict with aquifer protection areas. WMECO and/or its contractor would perform due diligence on any yard site; WMECO's standards for spill prevention, control, and response, erosion/sediment control, and other best management practices would apply.

5.3.9 Environmental Screening - Potential Sites of Environmental Concern (OHM)

The existing environment and impacts and mitigation measures for the Preferred Northern Route and the Noticed-Alternative Southern Route are in the following subsections.

5.3.9.1 Existing Environment

The soils along the routes consist of either virgin soils and rock or urban fill type materials due to the urban setting in select portions of the routes, and may not be suitable for unrestricted use. In addition to urban fill, some soils that potentially contain OHM may be encountered along segments of the routes.

WMECO retained Burns & McDonnell to prepare an *Environmental Screening* based on select portions of the American Society for Testing and Materials (ASTM) Standard E1527-05 as applied to a study area related to the GSRP. Burns & McDonnell utilized Environmental Database Resources Inc. (EDR) to conduct the database searches for data interpretation by Burns & McDonnell as to the relevance of each potential site in relation to the proposed routes. As a result, many sites that were identified in the EDR report were deemed to not be a potential source of contamination either due to its closure status with the regulatory agency or its lack of proximity to the proposed line routes.

The purpose of the *Environmental Screening* was to identify potential environmental impacts associated with the current and historical usage of the properties on the trace of the transmission line routes, adjoining properties, and nearby off-site sources. The results of the *Environmental Screening* are not intended to satisfy all requirements of ASTM Standard E1527-05 but will be used to direct future characterization. The objective of the *Environmental Screening* was to identify potential sampling locations for further identification and characterization prior to construction (Phase II Sampling). Following implementation of Phase II, the results will be used to prepare a Material Handling Guideline (MHG) to direct future management and disposition of solid and liquid Excess Materials generated during the construction of the planned transmission line.