

## Stage 1 and 2 Environmental Risk Assessments

### Barnstable Municipal Airport

Over the past several years, HW has conducted various tasks including sample collection, risk assessment analysis, data analysis, presentations and briefings, and other public outreach under contract to the Barnstable Municipal Airport for the completion of a Stage 1 and 2 Environmental Risk Assessment (ERA) for two kettle ponds – Upper Gate Pond and Lewis Pond – at the Airport.

These ponds receive discharges of stormwater from impervious surfaces located on Airport property (i.e., paved surfaces, parking lots, runways, hangar rooftops). Stormwater discharges and past releases of oil or hazardous materials (OHM) to the stormwater system have resulted in the deposition of contaminants in the sediment of both ponds. HW has undertaken an evaluation to determine if a condition of No Significant Risk (NSR) exists for human health, public welfare, and the environment at this site.

HW completed pond surface water and sediment sampling, as well as surrounding groundwater sampling, and laboratory analysis to determine potential impacts to the environment. HW is assessing whether contaminants present in pond sediment and/or groundwater have any impact on aquatic animals and/or the environment. Samples will be submitted to a laboratory for chronic exposure analysis, as established in Environmental Protection Agency (EPA) guidance EPA/R-99/064, Methods for Measuring the Toxicity and Bioaccumulation of Sediment-Associated Contaminants with Freshwater Invertebrates. HW will determine, through chronic exposure analysis of tissue samples from exposed sample amphipods, potential impacts to upper level predators that are potentially exposed through consumption of lower level organisms.

HW has completed briefings and presentations for the Airport Management, the Barnstable Town Council (local ruling body), the general public, and the Massachusetts Department of Environmental Protection on several occasions during the assessment.

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