



**Project Name:** Extracted Groundwater Treatment Using Carbon Adsorption

**Client:** Confidential

**Agency:** California Regional Water Quality Control Board

**Location:** Big Bear Lake, California

**Chemical of Concern:** Dissolved TPH, BTEX, and Fuel Oxygenates



### **Project Goal**

The goals of this project were to implement soil and groundwater remediation beneath the site and to treat extracted groundwater contaminated with elevated concentrations of benzene, MTBE and TBA until the levels of contaminants were acceptable for discharge to the nearby storm water catch basin.

### **Waterstone's Role**

Waterstone's responsibilities included overseeing and directing the soil and groundwater remediation, preparing and implementing the NPDES permit for the discharge of treated groundwater, conducting quarterly groundwater sampling activities, preparing NPDES sampling and monthly reporting, and achieving the approval of the regulatory agencies.

### **Project Challenges and Successes**

Waterstone successfully treated the contaminated groundwater and reduced the contaminant concentrations to very low levels for discharge into the storm water collection system. Waterstone designed the remediation and discharge system to account for the freezing temperatures during the winter and, due to the high influent contaminant levels, installed a chemical additive system for maintaining clear and unobstructed flow of the extracted groundwater stream through the treatment system.