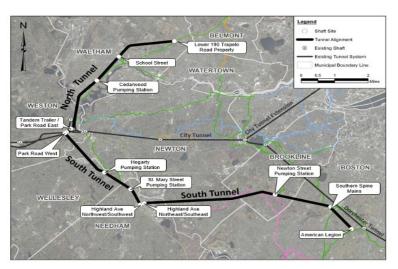


# About MWRA's Metropolitan Water Tunnel Program Field Work

The Massachusetts Water Resources Authority (MWRA) will be conducting field work to support a major water supply tunnel program, the Metropolitan Water Tunnel Program (MWTP). As part of the MWTP final design effort, MWRA will be drilling test borings, conducting geophysical and field survey, locating underground utilities, and performing wetland flagging in the Metropolitan Boston area over the next three (3) years. The MWRA will use the data from this field work to design and construct the MWTP.

#### WHERE WILL THE TUNNELS BE LOCATED?

Through the MWTP, MWRA will construct two new water supply tunnels that will allow our aging existing water tunnel system to be rehabilitated without interrupting service. The tunnels will begin in Weston, where they will be connected to the existing water system, with one running north to Waltham and the other running south to the Mattapan neighborhood in Boston. The exact location of the subsurface tunnels will not be finalized until well into the design phase, but shaft sites have been identified. The location of each shaft site was specifically selected to allow for necessary connections to existing water infrastructure as well as to avoid and minimize environmental, social, and community impacts. MWRA will be working closely with the communities to minimize impacts to residences and businesses near shaft sites and along the tunnel routes.



**Tunnel Alignment and Shaft Sites** 

#### WHAT WILL I SEE?

For geophysical and field survey work and wetland flagging, you may see paint markings on the ground, two- to four-person crews with handheld- to stroller-sized equipment, colored plastic flags located in some areas, lines of wires and sensors temporarily placed on the ground connected to data collecting equipment, and support vehicles around the work area.

For test boring drilling, you may see drill rigs and support trucks, with three- to four-person teams at each location for two to five weeks. It is MWRA's intent to select test boring locations that will pose minimal disruptions to the community, but some locations may require temporary changes in pedestrian and vehicular traffic patterns. Upon completion of the field work, our crews will restore each work site to its original condition. We apologize in advance for any inconvenience and thank you for your cooperation as we work to improve our water system!

### **HOW LONG WILL IT TAKE?**

Geophysical survey, utility locating, field survey and wetland flagging typically take from several hours to a few days at each location depending on the study area. Field work to support each deep test boring is anticipated to last about six to ten weeks, including setup and site restoration.

#### WHEN WILL IT HAPPEN?

Field work will typically be conducted between 7:00 a.m. and 6:00 p.m. Mondays through Fridays.

## **TEST BORINGS**



## **WHAT ARE TEST BORINGS?**

Test borings are small deep vertical holes drilled into the ground. They are about the diameter of a softball. Soil, rock and groundwater samples will be collected from the test borings to get a better understanding of the local geology and underground conditions. Select locations will be converted into monitoring wells upon completion.

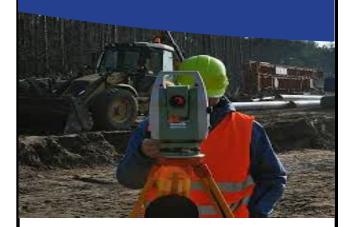
# **GEOPHYSICAL SURVEY**



## WHAT IS A GEOPHYSICAL SURVEY?

Geophysical surveys use a series of nonintrusive, ground-based sensors to measure naturally occurring physical and electromagnetic properties and waveforms, and to estimate depths of different materials underground.

# FIELD SURVEY



### WHAT IS A FIELD SURVEY?

Field survey is a method of locating surface features and ground elevations within the Program Study Area through the use of an instrument called a total station (pictured above).

## WETLANDS FLAGGING



## WHAT IS WETLANDS FLAGGING?

Wetlands flagging is a method of defining limits of wetlands, which serve important functions for the environment such as filtering water, providing storage in large rain events, and providing a home for various wildlife and plant species.



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