



Bathymetric Survey System



OSMRE has various options for performing bathymetric surveys. The bathymetric survey system can be mounted on the remote-control SeaFloor Systems Hydronautics boat, or mounted on a jon boat in order to produce 3D models of underwater terrain such as the bottom of water impoundments and sediment ponds. By combining LiDAR, UAS, or other terrestrial elevation data with the underwater survey data, an entire site can be mapped. Depending on accuracy requirements, Bluetooth RTK GNSS systems can also be used in combination with the sonar systems to produce very accurate depth maps. The latest system using the Deeper Pro+ sonar bobber can also be cast from shorelines (or a jon boat), although linking the sonar bobber with the RTK system is the preferred option.

The System Includes:

- Sonarmite underwater sensor and receiver (older method)
- Hydronautics remote-control boat
- Trimble ProXR GNSS survey system w/ receiver, antenna and data collector
- Jon Boat w/ trailer (optional versus Hydronautics boat)
- Deeper Pro+ Sonar bobber (newest and preferred option)
- Arrow Gold RTK GNSS System (optional if high accuracy is desired)

Uses:

- Perform surveys to map the depth and shape of underwater terrain associated with water-filled mine pits, sedimentation ponds and slurry impoundments on SMCRA sites.

Maintenance:

- Multiple batteries and receivers need charged and maintained
- Annual subscriptions are renewed by OSMRE for RTK equipment correction services
- Clean dirt from all equipment after use

Check out Contact information:

This unit is available from the Technical Services Branch of OSMRE in Alton, IL (IR 3, 4 and 6). Typically, qualified technical staff from OSMRE should accompany the equipment when surveys are performed. Equipment is available on a case-by-case basis depending on demand. Training on the use of the equipment and software is required including processing the survey data. Contact **Chris Kiser** at **618 463-6465 ext. 5120** at **ckiser@osmre.gov** for more information.