



Authorized Depth versus Advanced Maintenance Depth versus Overdepth – Explanation of Terms

ERDC Dredging Operations Technical Support Program (DOTS)

U.S. ARMY CORPS OF ENGINEERS

BUILDING STRONG®

Response Summary:

The Detroit District requested an explanation of authorized depth versus advanced maintenance depth versus overdepth to ensure the correct elevation is used for a dredging contract.

Period of Performance:

Start date: 09/13/2023; End date: 09/13/2023.

Benefits of the Response to the USACE Dredging/Navigation Program:

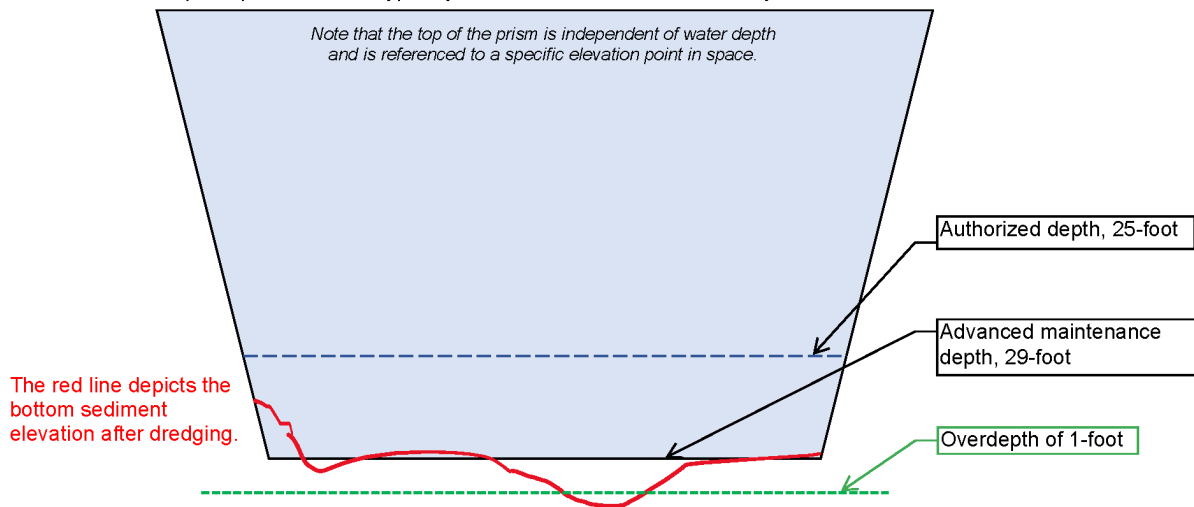
Navigational maintenance is a cornerstone of the USACE mission. It is critical that all guidance and policy be consistently interpreted and applied nationwide.

Deliverable:

The figure below illustrates the terms and their relationship to each other.

A dredge prism is the authorized channel shape, typically defined as a rectangle or trapezoid. However, in practice, the sides cannot be perfectly vertical, as they may collapse into the channel, requiring additional excavation. Therefore, specific side slope requirements are typically established to avoid unnecessary rework.

Note that the top of the prism is independent of water depth and is referenced to a specific elevation point in space.



In this example, you can observe that the dredger exceeded the authorized overdepth in one area (red line below green dashed line) for which they won't be compensated beyond the specified 1-foot overdepth. Additionally, there are instances of acceptable overdepth - going below advanced maintenance depth of 29-foot - in a few spots. In some areas, the dredging did not reach the required advanced maintenance depth of 29-foot. The decision to require further work depends on the overall compliance with the specified channel depth.

Authorized depth versus Advanced Maintenance Depth versus Overdepth



Providing environmental and engineering technical support to the U.S. Army Corps of Engineers Operations and Maintenance navigation and dredging missions