



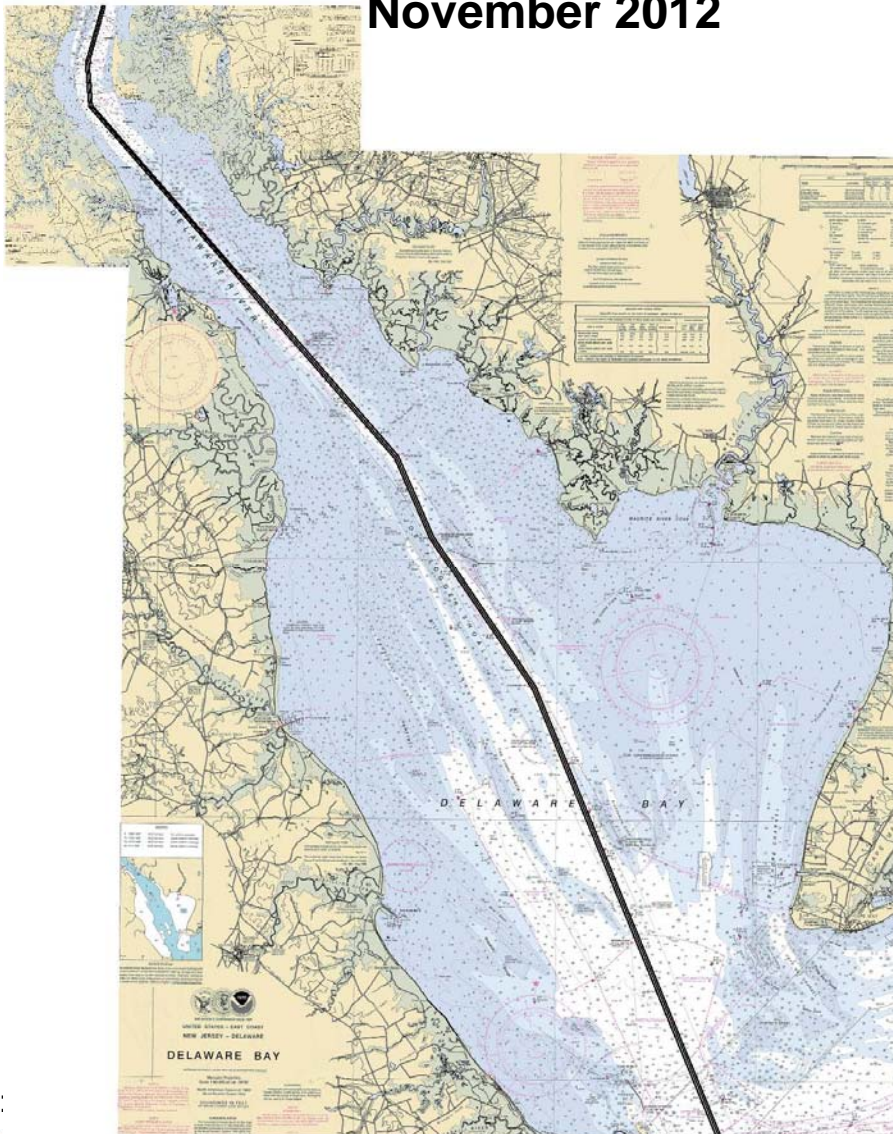
Philadelphia Regional Port Authority
U.S. Army Corps of Engineers – Philadelphia District



DELAWARE RIVER MAIN CHANNEL DEEPENING PROJECT

Investigation of Submarine Utility Crossings Stations 249+000 to 515+000

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1.0 INTRODUCTION

In June 2011, Gahagan & Bryant Associates, Inc. (GBA) conducted an investigation of submarine utility crossings within the Delaware River federal shipping channel for the authorized Delaware River Main Channel Deepening (DRMCD) Project as shown in Figure 1. That investigation covered the majority of Reach B between Stations 96+000 and 176+000. Subsequently, GBA was tasked to conduct an investigation for Stations 19+700 to 96+000 and Stations 249+000 to 515+000 of the DRMCD, similar to the one conducted for Reach B. A July 2012 report presented the findings for Stations 19+700 to 96+000, which covers Reaches A and AA and the remaining portion of Reach B. This document presents the findings for Stations 249+000 to 515+000, which encompasses Reaches D and E of the channel.

2.0 PURPOSE

The purpose of this investigation is to update the U.S. Army Corps of Engineers (USACE) submarine utility crossing list presented in Appendix D of the 1996 DRMCD Design Memorandum Report. It is vital that the presence of submarine utility crossings be identified and verified. The information gathered as part of this investigation will be used by the USACE and their contractor(s) to develop a plan for the dredging of sediment material within the investigation stationing (Reaches D and E) as part of the performance of the DRMCD. The plan calls for sediment removal to 46 feet (45 feet plus 1 foot of permitted overdepth dredging) below the National Oceanic and Atmospheric Administration's Mean Lower Low Water (NOAA MLLW) level.

3.0 PROJECT SITE

The area for this study is shown on Figure 2 and extends from Station 249+000 to 515+000, approximately 50.4 miles. Reach D extends from Station 249+000 to 325+000 and Reach E from 325+000 to 515+000. Within these reaches, the Delaware River shipping channel is currently maintained by the USACE to the authorized depth of 40 feet below NOAA MLLW. The width of the channel is 800 feet throughout Reach D and transitions from 800 feet to 1,000 feet in the upper part of Reach E (Stations 326+000 to 334+000). These sections of the channel are bordered by the States of New Jersey and Delaware to the east and west, respectively.

4.0 SCOPE OF WORK

The following tasks were conducted.

- ▶ Collection of available information/data prepared by the USACE for the DRMCD.
- ▶ Consultation with the National Oceanic and Atmospheric Administration (NOAA).
- ▶ Consultation with the Wetlands & Subaqueous Lands Section of the Delaware Department of Natural Resources and Environmental Control (DE-DNREC).
- ▶ Compilation and review of collected information/data.
- ▶ Documentation of findings.



Figure 1 Project Location Map

5.0 GATHERING OF INFORMATION

5.1 USACE PAST INVESTIGATIONS

At the outset of this investigation, GBA met with USACE representatives to obtain information and any data that was collected as part of the USACE's 1996 submarine utility investigation and subsequently within the investigation area. In 2010, USACE commenced further investigation of the utilities that may be present below the channel. The USACE contacted the owners of the utility lines that were identified at the time to verify the location of their submarine lines. There were no known submarine utility crossings identified from that investigation in Reaches D or E.

5.2 USACE REGULATORY PERMIT PROCESS/ REVIEW OF FILES

The USACE's permit files of submarine utility crossings of the Delaware River federal shipping channel were unavailable for this investigation.

5.3 OTHER SOURCES OF INFORMATION

The following sources were accessed for any information on submarine utility crossings within Reaches D and E:

- ▶ National Pipeline Management System (NPMS) (<https://www.npms.phmsa.dot.gov/>)
- ▶ Maps of Trans-Atlantic cable landings on the US east coast (<http://cryptome.org/eyeball/cable/cable-eyeball.htm>)
- ▶ NOAA Nautical Charts 12304 (<http://www.charts.noaa.gov/OnLineViewer/12304.shtml>) and 12311 (<http://www.charts.noaa.gov/OnLineViewer/12311.shtml>) (46th Editions, May 2011)
- ▶ DE-DNREC Wetlands & Subaqueous Lands Section permit and lease files

6.0 CONSULTATION WITH NOAA AND DE-DNREC

6.1 NOAA

NOAA was asked to review their Nautical Charts 12304 and 12311 (46th Editions, May 2011), for any indication of submarine pipelines or cables crossing the federal shipping channel in Reaches D and E of the Delaware River and Bay and to provide any information from their files that they used as a basis for identifying and locating those utility crossing areas on the charts.

6.2 DE-DNREC

The Wetlands & Subaqueous Lands Section of DE-DNREC was asked to review their files for any permits or leases issued for the installation of submarine pipelines or cables crossing the federal shipping channel in Reaches D and E of the Delaware River and Bay.

7.0 FINDINGS

Based on the records made available to GBA by the USACE, there were no known submarine utility crossings in Reaches D or E. A subsequent review of additional sources produced the following information:

- ▶ National Pipeline Mapping System (NPMS) – the NPMS did not show any presence of submarine pipelines crossing the channel in Reaches D or E.
- ▶ Maps of Trans-Atlantic cable landings on the US east coast – there were no landings shown in the vicinity of the area of this investigation (Reaches D or E).
- ▶ NOAA Nautical Charts 12304 and 12311 (46th Editions, May 2011) – there were no indications of submarine pipelines or cables crossing the channel in Reaches D or E. One cable area, however, was charted extending from Fortescue, New Jersey westward to Reach E, near the edge of the Delaware River federal channel in the vicinity of the Elbow of Cross Ledge, and then running parallel and just outside the eastern side of the channel to the Miah Maull Shoal Lights (see Figure 3). It should be noted that in the past NOAA added utility information to their charts in response to notification from the USACE. With the development of new permitting requirements by the USACE in the 1980s, NOAA’s procedure changed to adding that information to their navigational charts after receiving “as-builts” from the permittee. NOAA’s information carries the following caveat: “there may well be cables or pipelines that cross the federal channel that were never reported to [them]”.
- ▶ DNREC Wetlands & Subaqueous Lands Section – there were no records of permits or leases being issued for submarine utilities crossing the federal channel in Reaches D or E.

8.0 CONCLUSIONS

Based on the information available and subsequent investigation of other sources, it was concluded that there are no submarine utility crossings that we have been able to identify within the Delaware River federal shipping channel in Reaches D or E.

Although no utilities were identified as being situated beneath the Delaware River Channel in Reaches D and E, the possibility always exists that active or abandoned utilities may be present in this area for which information is not readily available. Therefore, it is recommended that due caution be exercised in dredging or advancing any excavations in this area. Proper notification should be provided to the Coast Guard and utility “Call Before You Dig” notification number 811. Other notifications that may be required or warranted prior to the digging operations should also be provided. In addition, care should be exercised during dredging or digging to minimize disturbances during the operations and prevent excavating to deeper depths than required.

Delaware River Main Channel Deepening Project
Investigation of Utility Crossings - Stations 249+000 to 515+000

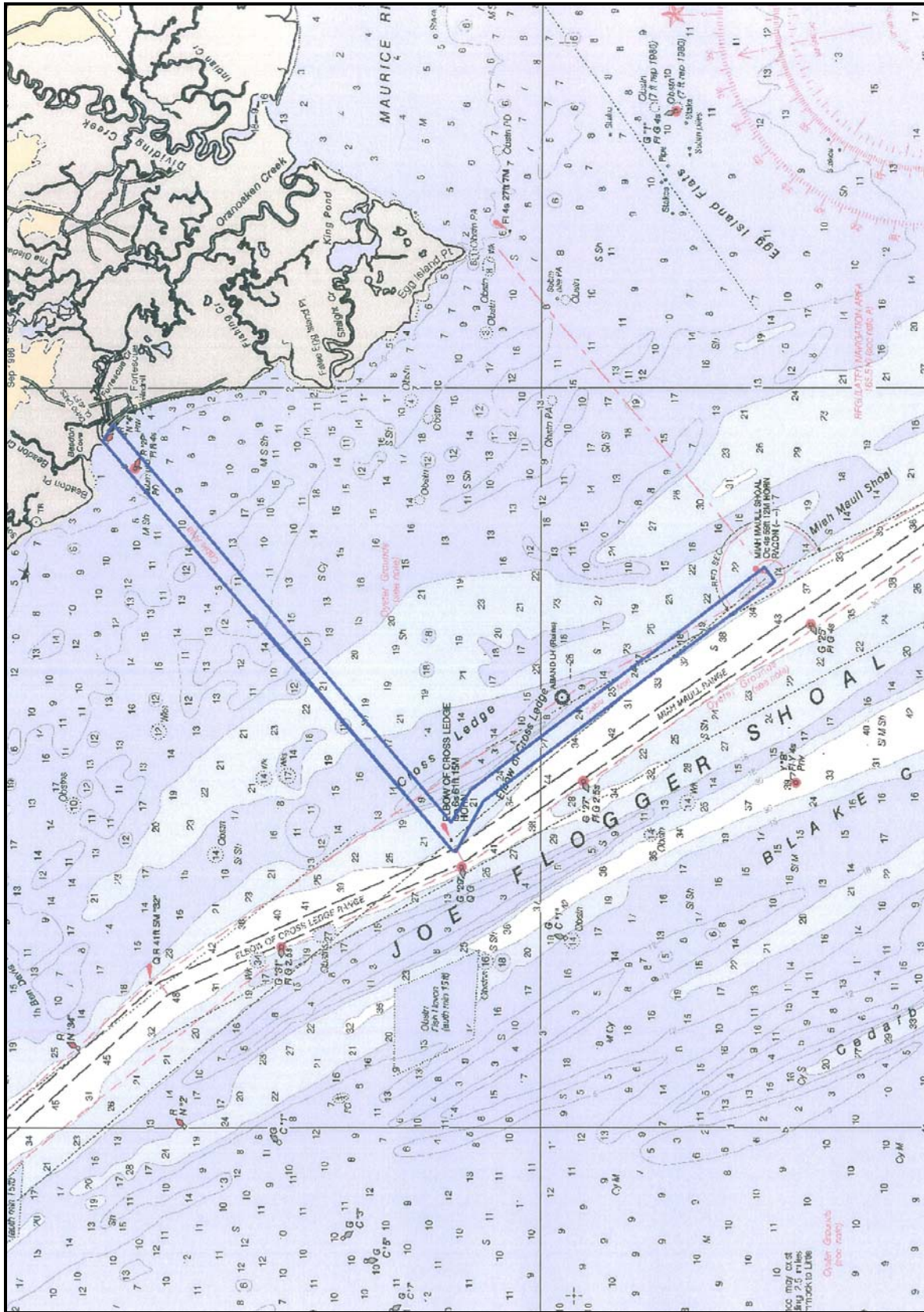


Figure 3 Reach E Cable Area

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