



**US Army Corps
of Engineers**

Philadelphia District

Public Notice

Public Notice No.
CENAP-PL-E-15-02

Date: July 24, 2015
Comment Period Closes: August 27, 2015

Internet Homepage: <http://www.nap.usace.army.mil>

In Reply Refer to: Environmental Resources Branch

Delaware River Basin Comprehensive Flood Risk Management Interim Feasibility Study and Integrated Environmental Assessment for New Jersey

In accordance with Section 102 of the National Environmental Policy Act of 1969 and pursuant to Section 404 of the Clean Water Act of 1977, NOTICE IS HEREBY GIVEN that the Philadelphia District, U.S. Army Corps of Engineers (Corps) has evaluated flood risk management and associated ecosystem restoration projects for selected New Jersey communities that fall within the Delaware River basin. This evaluation provided a screening of structural and nonstructural measures that can be used to manage risks from riverine flooding, as well as an evaluation of potential associated ecosystem restoration opportunities along the river corridor. The public and all agencies are invited to comment on this study (see final page for instructions).

The study area encompassed the 0.2% annual chance of exceedance (ACE) (500-year) floodplain of the Delaware River in New Jersey as identified by the Federal Emergency Management Agency's (FEMA) effective Flood Insurance Rate Maps. The study area included the municipalities of Knowlton Township, Belvidere, White Township, Harmony Township, Philipsburg, Pohatcong Township, Holland Township, Frenchtown, Kingwood Township, Stockton, Lambertville, Hopewell Township, Ewing Township and Trenton, New Jersey. The study also investigated flooding and associated ecosystem restoration issues along the Delaware River in the Gibbstown area of Logan and Greenwich Townships. A general map of the study area is provided in Figure 1. The study area experiences significant flood related damages from two types of flooding events: riverine (fluvial) flooding from the Delaware River occurs in the study area during hurricanes, thunderstorms, northeasters, snowmelt, ice jams, or a combination of these events; and tidal flooding from the Delaware River occurs in the Gibbstown part of the study area and is caused by several factors: high flows from the upper river, high spring tides resulting from tidal fluctuations, and wind tides produced by hurricanes or other storm action.

As mutually agreed to with the study sponsor, New Jersey Department of Environmental Protection (NJDEP), and based on knowledge of the areas of greatest flood damage from the main stem of the Delaware River, the purpose of the Delaware River Basin Comprehensive Flood Risk Management Interim Feasibility Study and Integrated Environmental Assessment for New Jersey was to evaluate the feasibility of Federal participation in implementing flood risk management along the Delaware River. More specifically, the screening:

- 1) identified flooding problems in the communities listed above associated with major storm events in September 2004, April 2005 and June 2006;
- 2) identified potential flooding issues and associated ecosystem restoration opportunities along the Delaware River in Logan and Greenwich Townships in Gloucester County;
- 3) evaluated the technical, economic, environmental, and institutional feasibility of Federal participation in the implementation of identified projects; and
- 4) determined whether there is local support for implementation of the recommended plans.
- 5) due to a change in the authority for the study, no ecosystem restoration opportunities were carried forward to the Tentatively Selected Plan, so restoration opportunities in the project area may be examined under a different authority and future study.

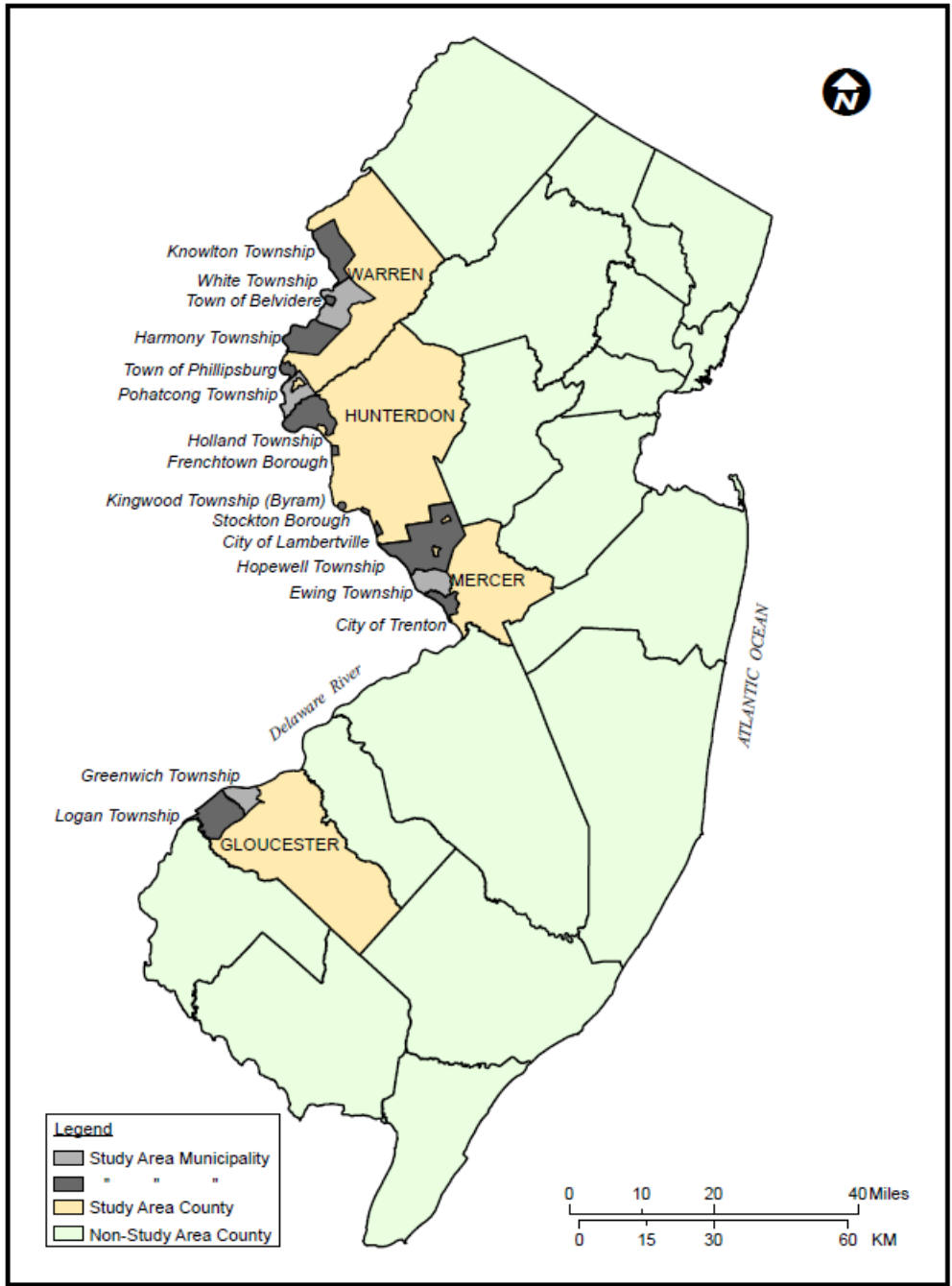


Figure 1. Study area map.

A scoping letter soliciting input on the proposed project was sent to appropriate state and federal agencies, as well as other potentially interested parties in January 2012. The Corps will be responsible for the design and construction of the project; while the non-federal sponsor, NJDEP, will be responsible for any future operation and maintenance of the project.

The Draft Interim Feasibility Study and Integrated Environmental Assessment for the project has been forwarded to the U.S. Environmental Protection Agency (EPA), Region II; the U.S. Fish and Wildlife Service (FWS); the National Marine Fisheries Service (NMFS); the NJDEP; the National Park Service (NPS); and all other known interested parties.

Alternative Plans Considered

After the evaluation process was complete, a focused array of feasible Alternatives were analyzed and compared to determine which Alternative resulted in the highest Net Benefits. After a refined analysis of the Alternative Plans considered it became apparent that cost effective options remained feasible in Gibbstown (Logan and Greenwich Townships) and the northern portion of Lambertville. Table 1 provides a brief description of each of the Alternative Plans that were subjected to a detailed comparison for the identification of the Tentatively Selected Plan.

Table 1: Focused Array of Alternatives

| Alternative | Description |
|---|---|
| Lambertville (Northern Part of City) | |
| Alternative #1 | 500 LF of levee along Alexauken Creek with a maximum height of 12 feet, 1,409 LF of floodwall along D&R Canal with a maximum height of 7 feet, 1 property buy-out and demolition, and the construction of a 54 inch diameter gravity outlet in the area of Ely Creek. |
| Gibbstown (Logan and Greenwich Townships) | |
| Alternative #1 (Lowest Construction Cost Plan) | 7,386 LF of levee with a maximum height of 12 feet, 13,788 LF of floodwall with a maximum height of 10 feet (primarily concrete T-wall with piles), the construction of two swing closure gates, acquisition of 17 structures and nonstructural protection (ringwall) for 3 commercial properties outside line of protection, and interior drainage features. |
| Alternative #2 (Maximum Wetland Avoidance Plan) | This Alternative follows the same alignment as Alternative #1, but replaced levee sections with floodwalls to avoid impacts to the wetlands. |
| Alternative #3 (Intermediate Wetland Avoidance Plan) | This plan follows the same alignment as Alternative #1 and Alternative #2, but replaced fewer levee sections with floodwalls compared to Alternative #2 and was considered a balance between Alternative #1 and Alternative #2. |

Tentatively Selected Plan (TSP)

The TSP for Lambertville is Alternative #1, which includes a system of levees and floodwalls with gravity drainage outlets and the buyout and demolition of one structure riverward of the proposed line of protection as shown in Figure 2.

In Gibbstown the TSP is Alternative #1, presented in Table 1. Alternative #1 includes a system of levees and floodwalls with gravity drainage outlets and buyouts of 17 structures located outside of the levee system and construction of ring levees/floodwalls for three industrial facilities (Figure 3). Approximately 11.5 acres of wetlands will be impacted by the Gibbstown levee/floodwall system and ringwalls. Approximately 12.5 acres of mitigation is planned. The flood risk management system will also have an impact on movement of fish in the Repaupo Creek watershed. The impact will be mitigated with “fish friendly” floodgates at the two largest creeks.

Cost of Construction

The estimated first cost of construction for the TSP is approximately \$190.8 million. First cost of construction for Lambertville is approximately \$8.9 million and the first cost for Gibbstown is approximately \$181.9 million.

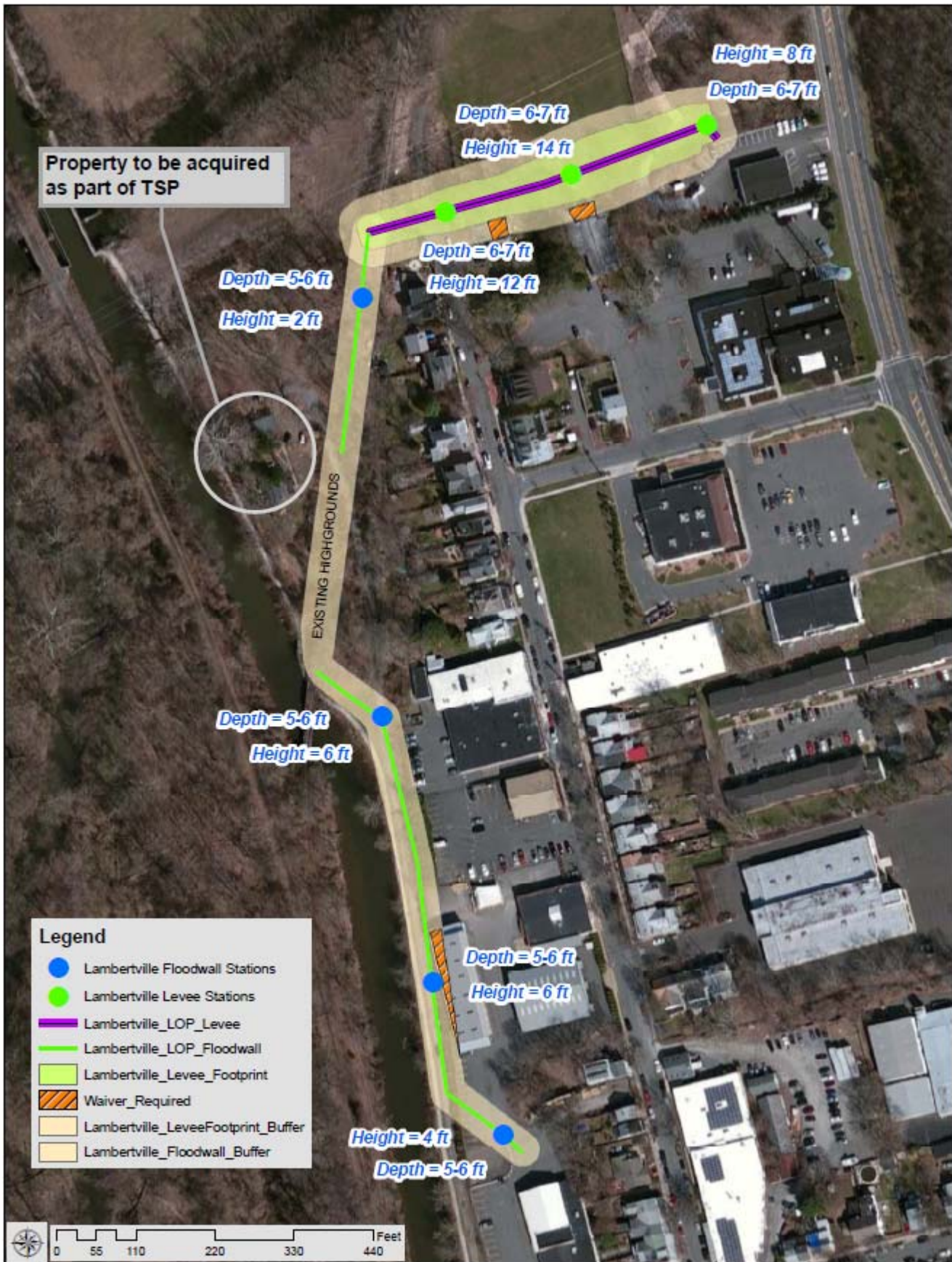


Figure 2. TSP for Lambertville.

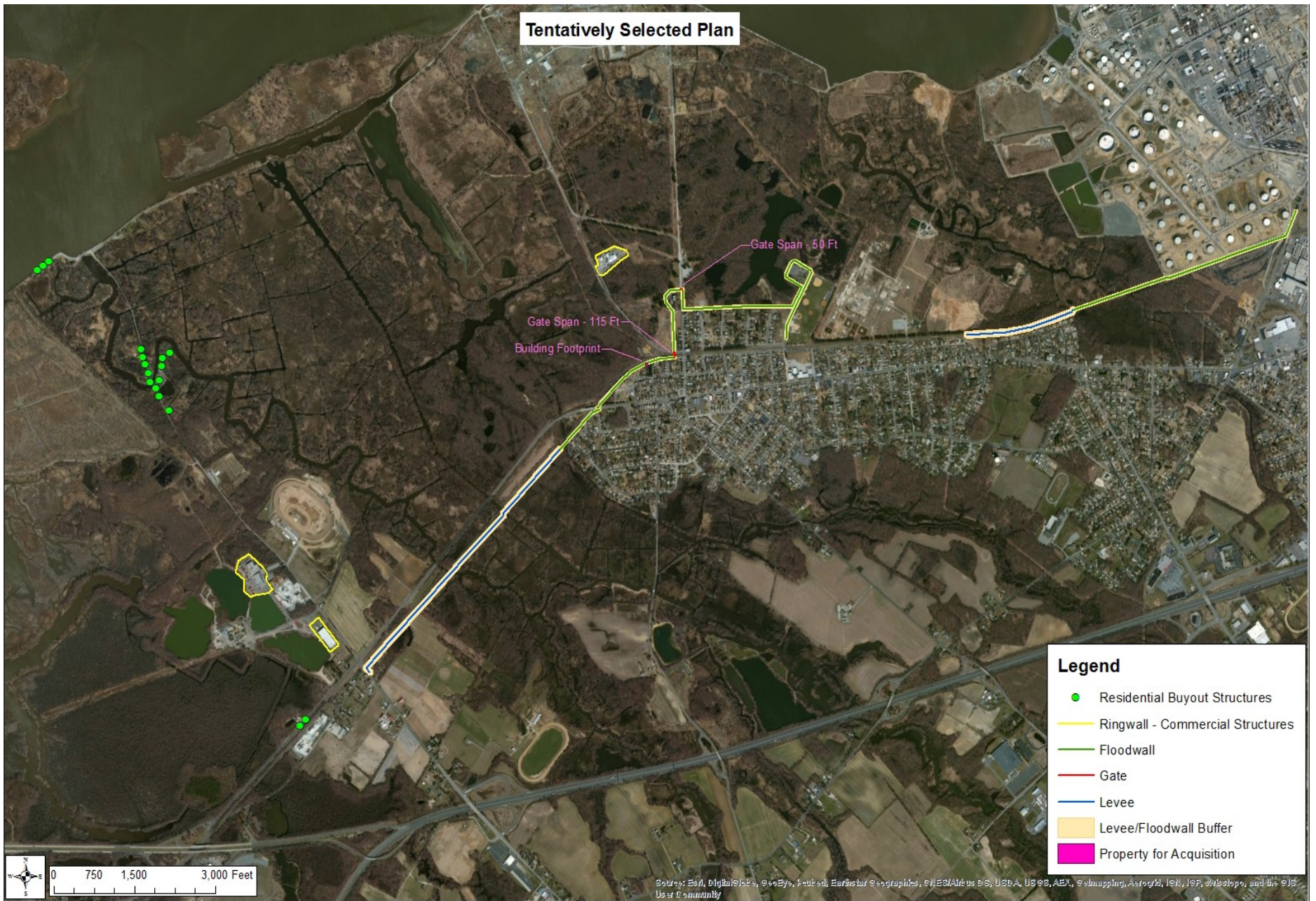


Figure 3. TSP for Gibbstown.

Economic Feasibility

As presented below in Table 2, the project benefits outweigh the projected cost of the project. The benefit-to-cost ratio is estimated to be 1.8 to 1.

Table 2: TSP Economic Summary.

| | Gibbstown | Lambertville | Total |
|------------------------------|----------------|--------------|-----------------------|
| Total Annual Benefits | \$14.9 million | \$805,000 | \$15.7 million |
| Total Annual Costs | \$8.3 million | \$432,000 | \$8.7 million |
| Net Benefits | \$6.6 million | \$373,000 | \$7.0 million |
| BCR | 1.8 | 1.9 | 1.8 |

Price Level: April 2014, Interest Rate: 3.50%, Period of Analysis: 50 Years

In accordance with the National Environmental Policy Act, a draft EA has been developed for this project. The EA concludes that the proposed action would not have a significant adverse impact on the environment. Therefore, a draft Finding of No Significant Impact has been prepared for this project.

In accordance with Section 401 of the Clean Water Act, a Water Quality certification will be obtained from NJDEP prior to construction of the proposed project. Based on the information gathered during the preparation of the draft Environmental Assessment, the project is not located in the area defined under the Coastal Zone Management Act of 1972. Therefore, the project will not need a federal consistency determination in regard to the Coastal Zone Management Program of New Jersey.

Consultation with the USFWS and the NMFS has determined that the project is within the range of the federally listed Indiana bat (*Myotis sodalis*) and Northern long-eared bat (*Myotis septentrionalis*). Additional informal consultation with the USFWS, New Jersey Field Office will determine if surveys are needed to determine the presence or absence of roosting trees in the study area. If so, these surveys will be completed in the next phase of the study. Furthermore, if trees suitable for roosting are found in the project area, seasonal restrictions on tree removal activities will be instituted during construction to minimize any impacts on federally listed bats. Pursuant to Section 7 of the Endangered Species Act of 1973 as amended by P.L. 96-159 and SMART Planning Guidance, consultation with the USFWS and NMFS will be completed prior to finalizing the feasibility study and reaching the Civil Works Review Board (CWRB) Milestone.

In accordance with Section 404 of the Clean Water Act, a Section 404(b)(1) analysis was prepared for the proposed action. There are wetlands found in the project area and the Tentatively Selected Plan will have an impact on those areas. The project team, in coordination with other state and Federal agencies, has attempted to avoid and minimize; and, for unavoidable impacts, proposed appropriate mitigation for wetland impacts associated with this project. The estimated amount of wetland impacts is 11.5 acres and the mitigation plan (HEP-based and consistent with the National Wetland No Net Loss Policy) proposes the creation of 12.5 acres to compensate for this loss.

A Phase IB shovel testing for the Lambertville alignment identified no archaeological sites; however, if the proposed Lambertville flood risk management structure is constructed on the current alignment, deep archaeological testing is recommended to test the Bw horizon at greater depth. The low artifact density in the Gibbstown area, lack of diagnostic artifacts and lack of stratigraphic integrity makes it unlikely that further work at the site would yield significant information pertaining to the region's prehistory. No further work is recommended for the Gibbstown area. In addition, no Historic Structures analysis was conducted at this time for the Lambertville or Gibbstown Alternatives; however, several resources eligible for or listed on the National


Register of Historic Places are within the project's Area of Potential Effect. The Corps will negotiate a Programmatic Agreement (PA) with the New Jersey State Historic Preservation Office, the Tribes and other interested parties pursuant to 36 CFR 800.14(b)(1). The PA will stipulate the necessary actions to be completed in order for the Corps to comply with Section 106 of the National Historic Preservation Act during the Project Engineering and Design phase.

The decision whether to accomplish the work proposed in this public notice will be based on an evaluation of the probable impact of the proposed work on the public interest. The decision will reflect the national concern for the protection and utilization of important resources. The benefit, which reasonably may be expected to accrue from the proposal, must be balanced against its reasonable foreseeable detriments. All factors, which may be relevant to the proposal, will be considered. Among those are conservation, fish and wildlife, general environmental concerns, economics, historic values, recreation, safety, water quality, aesthetics, and in general, the needs and welfare of the people.

The public and all agencies are invited to comment on this proposal. Copies of the draft Delaware River Basin Comprehensive Flood Risk Management Interim Feasibility Study and Integrated Environmental Assessment are available upon request by calling Mr. Steve Rochette of the Public Affairs Office at (215) 656-6432. This public notice and EA are also available for review on the Philadelphia District web page at <http://www.nap.usace.army.mil/Missions/CivilWorks/PublicNoticesReports.aspx>. In addition, there will be upcoming public workshops concerning this project which are scheduled for July 29, 2015 in Lambertville, NJ and August 13, 2015 in Gibbstown, NJ.

Any person may request, in writing, to the District Engineer, within the comment period specified in this notice (**July 24, 2015 through August 27, 2015**) that a public hearing / meeting be held to consider this proposal. Requests for a public hearing shall state, in detail, the reasons for holding a public hearing.

All comments on the work described in this public notice should be directed to Mr. Peter R. Blum, ATTN: Planning Division, U.S. Army Corps of Engineers, Wanamaker Building, 100 Penn Square East, Philadelphia, Pennsylvania 19107-3390 or sent via email to PDPA-NAP@USACE.ARMY.MIL by **August 27, 2015**.

for 
Peter R. Blum, P.E.
Chief, Planning Division
Philadelphia District
U.S. Army Corps of Engineers