



State of New Jersey

DEPARTMENT OF TRANSPORTATION

P.O. BOX 600

TRENTON, NJ 08625-0600

CHRIS CHRISTIE
Governor

KIM GUADAGNO
Lt. Governor

JAMES S. SIMPSON
Commissioner

September 12, 2011

Mr. Ernie Blais
Division Administrator
Federal Highway Administration
840 Bear Tavern Road, Suite 310
West Trenton, New Jersey 08628

RE: Environmental Assessment, Finding of No Significant Impact Document
Route 72 Manahawkin Bay Bridges and Marsha Drive Intersection
Stafford Township and Ship Bottom Borough, Ocean County

Dear Mr. Blais:

Enclosed is a copy of the Finding of No Significant Impact (FONSI) Document for the Route 72 Manahawkin Bay Bridges project. The New Jersey Department of Transportation (NJDOT) is proposing to improve the Route 72 Manahawkin Bay Bridges and the intersection of Marsha Drive in Stafford Township Ship Bottom Borough, Ocean County, New Jersey.

The project consists of the rehabilitation of four Route 72 bridges: Route 72 Bridge over Hilliards Thorofare (Structure # 1513-151); Route 72 Bridge over Manahawkin Bay (a.k.a. Dorland J. Henderson Memorial Bridge (Structure #1513-152)); Route 72 over West Thorofare (Structure #1513-153); Route 72 over East Thorough Fare (Structure #1513-154). A new structure will be constructed parallel to the south of the Dorland Henderson Memorial Bridge. Also proposed are improvements to the Marsha Drive and Bay Avenue Intersection; Route 72 and Bay Avenue Intersection.

We are in receipt of a completed Environmental Assessment as of July 7, 2011, so the signature of this document would be the next step in the NEPA process. If you have any questions regarding the document, please contact me or Scott Ackerman at 609-530-5685.

Sincerely,

Bruce Hawkinson, Section Chief
Bureau of Landscape and Environmental Solutions

Route 72 Manahawkin Bay Bridges
Township of Stafford & Borough of Ship Bottom
Ocean County, New Jersey

Finding of No Significant Impact

U.S. Department of Transportation
Federal Highway Administration

September 2011

ROUTE 72 MANAHAWKIN BAY BRIDGES PROJECT

Stafford Township and Ship Bottom Borough, Ocean County, New Jersey

FINDING OF NO SIGNIFICANT IMPACT

**By the
U.S. Department of Transportation
Federal Highway Administration**

The Federal Highway Administration (FHWA) has determined, in accordance with 23 CFR 771.121, that the proposed project will have no significant impact on the environment.

This Finding of No Significant Impact (FONSI) is based on the Environmental Assessment (EA), and Technical Environmental Studies (TES) which are incorporated by reference. These documents have been independently evaluated by FHWA and have been determined to accurately discuss the project purpose, need, environmental issues, impacts of the proposed project, and appropriate mitigation measures. The review provided sufficient evidence and analysis for determining that an Environmental Impact Statement (EIS) is not required.

FHWA takes full responsibility for the accuracy, scope, and content of the EA, as modified by this FONSI and the referenced documents.

9-16-2011
Date of Approval

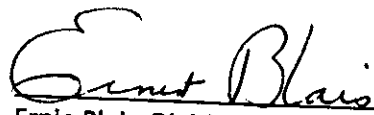

Ernie Blais, Division Administrator
Federal Highway Administration

TABLE OF CONTENTS

Description of Proposed Action..... 1

Route 72/Marsha Drive Intersection Improvements..... 2

Long Beach Island Improvements..... 2

New Bay Bridge on Parallel Alignment..... 3

Rehabilitate the Three Trestle Bridges..... 3

Rehabilitate Existing Bay Bridge 3

Mitigation Plan 3

EA Coordination and Comments..... 6

Determination of Findings 7

National Environmental Policy Act Finding 7

Air Quality Conformity Statement 9

Noise Finding 9

Endangered Species Act Finding 9

Magnuson-Stevens Act Finding..... 9

Wetland Finding 12

Floodplain, Surface Water and Water Quality Finding 12

Section 106 Finding 12

Section 4(f) Finding..... 13

Contaminated Materials Finding..... 13

LIST OF FIGURES

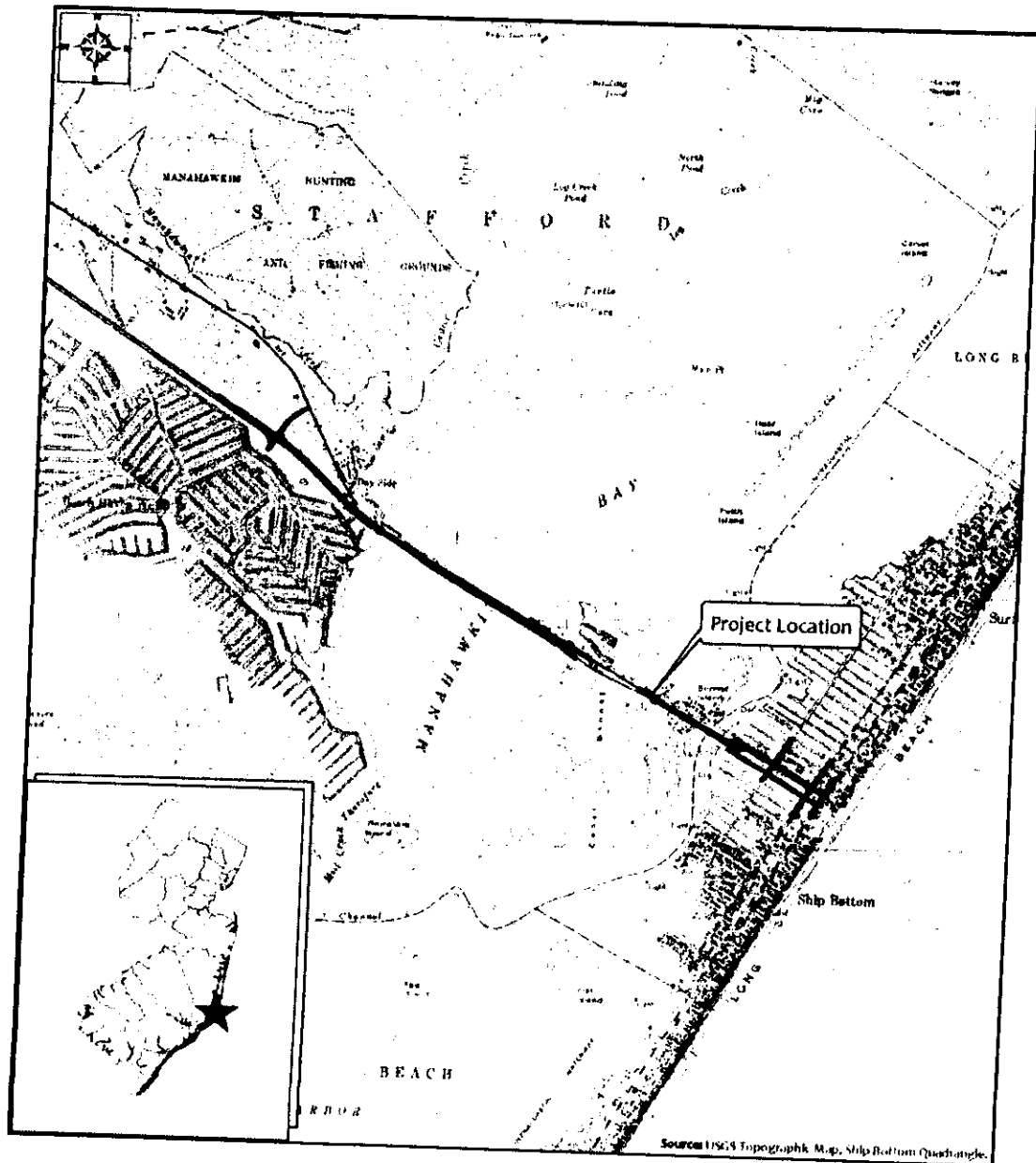
Figure 1 - Project Location Map 1

Figure 2 - Improvements for the Route 72 Manahawkin Bay Bridges..... 5

DESCRIPTION OF PROPOSED ACTION

The Route 72 Manahawkin Bay Bridges Project is a joint effort between the Federal Highway Administration (FHWA) and the New Jersey Department of Transportation (NJDOT). An Environmental Assessment (EA) was issued for the project on May 4, 2010 with revision issued on July 7, 2011. The Route 72 Manahawkin Bay Bridges Project is located in Stafford Township and Ship Bottom Borough, Ocean County, New Jersey (Figure 1). This FONSI considered both permanent and temporary impacts.

Figure 1 - Project Location Map



The project includes the following improvements (see Figure 2):

Route 72 Mainland/Marsha Drive Intersection Improvements

- Add one through lane in each direction on Route 72 near the intersection.
- Widen Marsha Drive by adding a shoulder so that in the future a double left-turn lane to eastbound Route 72 could be added.
- Maintain existing Route 72 jughandles.
- Provide Intelligent Transportation Systems (ITS) Facilities, including variable message signs (VMS), cameras, telecommunications cabinets, vehicle sensors and a weather station beginning west of the Garden State Parkway and ending in Ship Bottom.

Long Beach Island Improvements

- Reconstruct/reconfigure 8th and 9th Streets to provide three travel lanes and inside and outside shoulders on each roadway within the existing ROW;
- Reconstruct/reconfigure the 8th Street service road and median to provide an 8-foot-wide right shoulder on 8th Street;
- Reconstruct/reconfigure the through lanes and turning lanes on the cross street approaches (Long Beach Boulevard, Barnegat Avenue, Central Avenue) to 8th and 9th Streets for improved traffic operations;
- Restore two-way operation of Central Avenue and Long Beach Boulevard at 8th and 9th Streets;
- Reconfigure the Ship Bottom un-signalized intersection at 8th Street and Long Beach Boulevard and replace it with a signalized intersection
- Upgrade existing traffic signal equipment and install a controlled traffic signal system to maintain coordinated traffic signal operations at the five existing signals along 8th and 9th Streets with the new signal at 8th Street and Long Beach Boulevard;
- Provide communication of the Ship Bottom controlled traffic signal system to the NJDOT South Jersey Traffic Operations Center;
- Maintain the existing roadway profiles along 8th and 9th Streets to minimize grading impacts to adjacent properties;
- Replace the existing drainage system with a new system designed for higher intensity storm events and separate conveyance systems along 8th and 9th Streets between Long Beach Boulevard and Shore Avenue;
- Provide a pump station designed for a 5-year storm that would allow the roadway storm water runoff to be discharged into Manahawkin Bay, even during high tides;
- Provide a sand filter adjacent to the pump station to collect sand, grit, and debris from the combined roadway runoff before it enters the pump station; and
- Provide a check valve at the pump station outfall to protect the storm water system from backwater and debris during high tides.

New Bay Bridge on Parallel Alignment

Build a new parallel structure to the south of the existing structure to carry Route 72 Eastbound in the final configuration. This new bridge would be wide enough to temporarily carry two lanes of traffic in each direction during rehabilitation of the existing bridge and would be reconfigured to two eastbound lanes and shoulders at the conclusion of the project. Work includes scour counter measures, fenders, bulkheads, utility relocations and other work necessary to implement the project.

Rehabilitate the Three Trestle Bridges

- Rehabilitate the three structures carrying Route 72 over Hilliard's Thorofare, West Thorofare, and East Thorofare in stages.
- Work to include pier cap rehabilitation, piling protection system, a new bearing support system, deck repairs and providing an overlay on the existing deck slab, and reconfiguring the deck and lane configuration to provide two 11-ft. travel lanes, a 6-foot sidewalk along the westbound side and 6-foot shoulders that would be bicycle compatible on both sides of the structure without widening the bridge.

Rehabilitate Existing Bay Bridge

- Replace the entire superstructure on the rehabilitated existing substructure and replace the existing fender system. The rehabilitated bridge would carry Route 72 Westbound traffic in the final configuration. Scour protection would be provided for the existing abutments and the existing "string of pearls" rail-mounted lighting on the existing bridge would be replicated on both the rehabilitated bridge and the new parallel bridge.
- The overall width of the new superstructure would be 57'-9" and would allow two lanes in the westbound direction with a 12-ft. inside shoulder and 13-ft. bicycle compatible outside shoulder and a 6-foot-wide sidewalk along the north side of the bridge. It would be constructed wide enough to convert the outer shoulders into a temporary lane for coastal evacuation or to add a third lane in the westbound direction at some point in the future when traffic needs dictate. Sidewalks on the island would connect to the low-volume, low-speed local roadway system where possible.

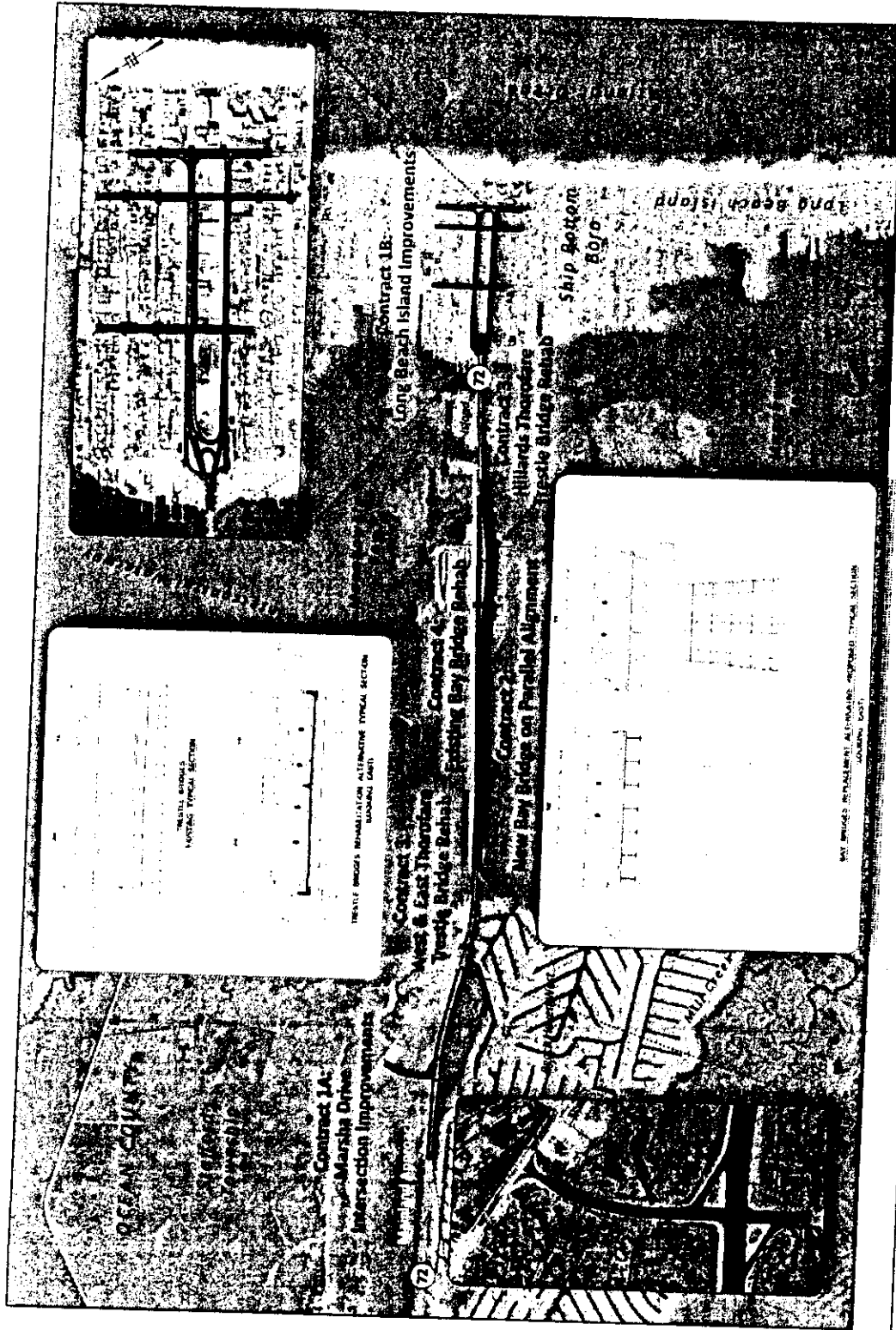
Mitigation Plan

The Route 72 Manahawkin Bay Bridges Project would include mitigation developed on a watershed approach taking advantage of the numerous federal, state and county management plans. The mitigation plan will compensate for loss of ecosystem functions stemming from unavoidable impacts to regulated resources approved under the FONSI. The determination of the details of the mitigation is not needed to issue a FONSI. The mitigation will be negotiated with the New Jersey Department of Environmental Protection (NJDEP), US Army Corps of Engineers (USACE), US Fish and Wildlife Service (USFWS), and National Oceanic and Atmospheric Administration (NOAA) and the National Marine Fisheries Service (NMFS) in accordance with their policies and procedures. The mitigation would address protected resources including coastal wetlands, fresh water wetlands, submerged aquatic vegetation (SAV), intertidal/subtidal shallows, shellfish, riparian zone, stormwater management and public access. Timing restrictions will be included to reduce impacts to species depending on Manahawkin Bay.

The NJDEP requires all permitted projects built in the tidal area to provide additional public access to the waterfront. The access for this project would be in accordance with the NJDEP rules and could include items such as sidewalks, public parking with pedestrian access, access to bulkheads and parking and access to a portion of the Edwin G. Forsythe National Wildlife Refuge, and will be determined as part of the negotiations during the permitting process.

Monitoring and maintenance would be performed on mitigation features determined as part of the negotiations during the permitting process with the permitting agencies.

Figure 2 – Improvements for the Route 72 Manahawkin Bay Bridges



EA COORDINATION AND COMMENTS

The Notice of Availability of the EA and the notice of the May 26, 2010 open house and public hearing were advertised in local newspapers on May 6 and 13, 2010. The advertised public open house and public hearing were held at the Stafford Township Municipal Building in Ocean County, New Jersey to allow the public to obtain information and provide comments on the EA. Attendees were invited to review information on display boards, talk to the project team, and submit formal comments, either through a written comment or orally with a stenographer. In addition, public notices invited written comment on the EA to be submitted to the NJDOT by July 1, 2010.

Approximately 40 people attended the open house and 7 individuals provided oral testimony. Additional written comments from agencies and the public were received. A transcript of the presentation at the public hearing is included in Appendix B to the EA.

The EA was revised in response to comments, and to update the project scope to reflect replacing the main girders on the rehabilitated Bay Bridge and installing Intelligent Transportation Systems between the Garden State Parkway and Ship Bottom. The revised and Final EA was posted on the NJDOT website on July 15, 2011 and copies were circulated to local governments, those who commented on the Draft EA and governmental resource agencies.

DETERMINATION OF FINDINGS

The following is a summary of the environmental issues and the impacts that are discussed in the EA and that are relevant to the finding of no significant impact for the project:

National Environmental Policy Act Finding

FHWA served as the lead agency under the National Environmental Policy Act (NEPA) for the project. NJDOT prepared the EA in compliance with NEPA, 42 United States Code (USC) Section 4321 et seq. and with FHWA's regulation, 23 Code of Federal Regulations (CFR) Part 771. The EA discusses the potential permanent and temporary impacts of the project on the environment so that FHWA can determine whether significant adverse impacts pursuant to Council on Environmental Quality (CEQ) 1508.27 are probable. If such a determination were made, an environmental impact statement (EIS) would need to be prepared.

After considering the EA, its supporting documents, and the public comments and responses, FHWA finds pursuant to 23 CFR 771.121 that the Route 72 Manahawkin Bay Bridges Project would not have significant adverse impacts on the environment. The record provides sufficient evidence and analysis for determining that an EIS is not required.

The FHWA considered the following in its determination of significance:

Impacts that may be both beneficial and adverse and a significant effect may exist even if the Federal agency believes that on balance the effect will be beneficial

The selected alternative would not cause a significant adverse or beneficial effect since the purpose is to maintain the existing roadway system between Long Beach Island and the mainland, and to modernize existing infrastructure. All improvements would be installed essentially along the same alignment to minimize impacts to undeveloped areas. There would be no increase in capacity, but moderate improvement to traffic flow and driver safety would be achieved by the addition of shoulders, and necessary non-motorized circulation to increase public pedestrian and bicycle mobility would be achieved by providing a continuous sidewalk from the mainland to LBI.

The degree the proposed action affects public health or safety

The purpose of the project is to maintain the existing systems, to preserve public health and safety. Route 72 is the only way on or off Long Beach Island (LBI) and preserving this route is imperative for the safety of a 150,000 peak summer season residents of LBI and 50,000 year-round residents. Providing shoulders on the bridge over Manahawkin Bay will provide a necessary safety refuge for vehicles experiencing breakdowns. Providing for safe bicycle and pedestrian access will eliminate dangerous conflicts for vehicles with pedestrians and cyclists who utilize the existing 2 ft. wide safety-walks, despite the inherent danger. Traffic and access to driveways and all major social and medical services properties would be maintained at all times during construction. Emergency evacuation plans will be greatly enhanced by the addition of shoulders to the bridges, and will permit greater emergency services access. Maintaining two lanes for traffic in each direction during all tourist seasons would minimize traffic delays for the residents and visitors. Measures would be taken during construction to reduce risks to construction personnel and the traveling public. Additionally, having redundancy with the construction of new span to the south also improves safety. Since there would be no increase in through traffic, there would be little impact to air quality or effect on sensitive noise receptors. Spot capacity improvements would modestly improve local air quality.

Uniqueness of the environmental resources adjacent to the project

Manahawkin Bay is part of the Barnegat Bay Estuary and as such is an important national natural resource. The project crosses natural resources of significant state, regional, national and international importance. The project essentially maintains the current balance among resource protection, recreation and economic stability. No portion of the adjacent wildlife refuge would be taken or adversely affected by the project. The NJDOT would comply with minimization and mitigation requirements of various environmental regulations to further limit impacts from the project. The proposed project would only affect small portions of wetlands, aquatic resources and shorelines as compared to the large amounts of such resources located in the project area. The visual character of the project area would be maintained.

The degree that the proposed action will cause controversy

It is recognized that LBI is a key recreational and economic resource in the Ocean County region. Much of the value of LBI is the proximity of the unique natural character discussed above. Therefore, the NJDOT sought out substantial public participation and considered stakeholder interests. A public hearing was held in May 2010 and there was much public support for the project and minimal concerns were expressed to particular project elements. The design incorporates public input and balances the needs of these constituencies. The US Coast Guard recently completed additional public notice for lowering the existing clearances to 55 feet. There was no significant maritime opposition to the change. There is no project controversy.

The degree that the impacts are uncertain or involve unknown risks

There are no identified risks associated with the Build Alternative that are unique, and there are no effects that are highly uncertain that were identified during the analysis for the EA or during the public review of the EA.

The degree to which the action sets a precedent for future actions with significant effects

The project maintains the existing alignment and utility access to LBI. The proposed action would maintain the overall through traffic capacity of the system. Development of LBI started more than 120 years ago and the island is now fully developed. With no increase in capacity, and little room available on LBI for development, there is little likelihood that the proposed action would set a precedent for any future actions with significant effects.

The degree that there are significant cumulative or indirect impacts

This project maintains the primary traffic circulation, traffic capacity and utility service of the existing system. The traffic study concluded that the project area and LBI are essentially fully developed. Current building activity consists primarily of redevelopment of existing areas. There is no indication that the existing bridge traffic capacity limits would either encourage or discourage redevelopment of the project area. The impacts are limited to the project area. Therefore, this project would not trigger other projects that have a significant impact, either individually or cumulatively. Furthermore, there is no disproportionate impact to low income or minority populations, disruption of communities, isolation of neighborhoods, damage to economic viability of businesses or other significant indirect impacts.

Reasonable assurance the project will meet federal, state, or local law, rule or regulation

There are no significant impacts to the human environment as defined and considered under NEPA. NJDOT has demonstrated that it can and will continue to obtain NJDEP permits for bridge projects of the size and scale that cross over estuaries with fishery resources. NJDOT will address the regulations including impacts to state regulated subtidal and intertidal shallows that have the potential to support SAV. The NJDOT would prepare permit applications under relevant environmental regulations. The project has avoided and minimized impacts to the extent practicable, and would incorporate negotiated mitigation measures prepared on a watershed basis for unavoidable impacts needed to comply with applicable federal and state environmental

permitting regulations. In its comments on this EA, the NJDEP Division of Land Use Regulation concurred with the selected alternative subject to regulatory review. There is reasonable assurance that the project will comply with all regulations.

Air Quality Conformity Statement

The United States Environmental Protection Agency promulgated the Transportation Conformity Rules (TCR) under the Clean Air Act Amendments (CAAA), effective December 27, 1993. The TCR provides criteria and procedures for determining conformity to the Statewide Transportation Improvement Program (STIP) of transportation programs, plans, and projects funded or approved under Title 23 U.S.C. or the Federal Transit Act. This project is located in a carbon monoxide (CO) attainment area and ozone (O₃) non-attainment area; hence, conformity determination is required. The conformity requirements are as follows:

- The project must originate from a conforming transportation plan and program; and
- In non-attainment areas, the project must eliminate or reduce the severity and number of violations of the National Ambient Air Quality Standards (NAAQS).

The Route 72 Manahawkin Bay Bridges project has been included within the regional emission burden analyses performed by the North Jersey Transportation Planning Authority. The regional emission burden analyses performed for ozone and its precursors cover all analysis years including Build Year 2035. Transportation projects that originate from a conforming STIP are considered to conform to the rule. The Route 72 Manahawkin Bay Bridges Project (DB # 00357) is included within the FY 2009-2018 STIP. Therefore, due to the CO attainment status of Ocean County, predicted CO concentrations, as well as the inclusion of the project within the STIP, it can be stated that this project conforms to the goals and requirements as set forth within the CAAA and the Final Conformity Rule.

Noise Finding

Four noise monitoring stations were selected for site sensitivity and proximity to proposed improvements. Based on monitored results, roadway geometry, and existing seasonal peak traffic volumes, 39 residential structures currently approach or exceed the Category B criteria. Additionally, the portion of the project within Edwin B. Forsythe National Wildlife Refuge currently possesses noise levels that approach or exceed the Category B Noise Abatement Criteria (NAC). However, none of the increases on sensitive receptors exceeds the 3 decibels (dBA) level; therefore, the Route 72 Manahawkin Bay Bridges Project would not have a significant noise impact on any of the sensitive receptors in the project area. To minimize construction noise, all equipment would be powered by internal combustion engines with properly maintained mufflers. Noise from the proposed pump station would comply with the FHWA noise criteria.

Endangered Species Act Finding

The U.S. Fish and Wildlife Service (USFWS) and National Marine Fisheries Service (NMFS) are responsible for administering the Endangered Species Act, and the NJDOT initiated formal Section 7 Endangered Species Act (ESA) consultation early in the project environmental review process. The USFWS concurred that the Route 72 Manahawkin Bay Bridges Project is not likely to adversely affect federally listed threatened or endangered (T&E) species under USFWS jurisdiction or their critical habitat. NMFS coordination will continue.

Magnuson-Stevens Act Finding

The project area has been designated by the NMFS as Essential Fish Habitat (EFH) for federally managed species including habitat for summer flounder (*Paralichthys dentatus*), and winter flounder (*Pseudopleuronectes americanus*). Winter flounder eggs and larvae settle to the bay bottom. Submerged Aquatic Vegetation (SAV) is EFH for summer flounder and also considered a habitat of particular concern (HAPC) for summer flounder. The impacts to SAV also can affect

prey species that are used by other federally managed species including Atlantic butterfish (*Peprilus triacanthus*), Atlantic sea herring (*Clupea harengus*), bluefish (*Pomatomus saltatrix*), black sea bass (*Centropristis striata*), cobia (*Rachycentron canadum*), king mackerel (*Scomberomorus cavalla*), scup (*Stenotomus chrysops*), Spanish mackerel (*Scomberomorus maculatus*), windowpane flounder (*Scophthalmus aquosus*), winter skate (*Leucoraja ocellata*), little skate (*Leucoraja erinacea*) and clearnose skate (*Raja eglanteria*). The NMFS concluded that the project would have a substantial adverse effect to EFH, primarily caused by the temporary and permanent disturbance of SAV, and filling intertidal and subtidal shallows for construction of piers, filling of wetlands and reduction of shellfish and foraging habitat. NMFS conservation recommendations preferred that FHWA build in-kind replacement of aquatic habitats, the use of appropriate soil erosion and sediment control measures and timing restrictions for in-water work during construction. NMFS extended this recommendation to wetlands regulated by the USACE and for aquatic resources managed exclusively by the State of New Jersey.

FHWA modified the conservation recommendation to emphasize a watershed based mitigation program consistent with USACE mitigation policies. These policies formalize the finding that in-kind replacement over the decades has not been the most effective means to replace ecosystem function for impacts to aquatic resources. Accordingly, mitigation developed with a watershed approach focuses on the primary ecosystem function needs and may or may not result in in-kind replacement of aquatic resources. To streamline the process, the NJDOT will prepare the mitigation plan and submit it with permit applications sent to USACE and NJDEP who have joint regulatory jurisdiction in the project area. The alternative conservation recommendation is based upon best available information.

EFH as defined under the Magnuson Stevens Act is used to promote sustainable fishery stocks for commercially and recreationally important species. Winter flounder EFH as described by the NMFS consists of the entire Manahawkin Bay bottom because winter flounder eggs/ larvae sink to the bottom and winter flounder may spawn anywhere in the bay. Winter flounder is found in commercially and recreationally abundant amounts from North Carolina to Maine. The proposed project would disturb approximately 2 acres of bay bottom out of a total bay bottom in Manahawkin Bay of over 11,000 acres. Neither the habitat nor the fishery is considered rare. Limitations on the construction times and minimization of the project footprint reduce the relative impact. Therefore, this unavoidable project impact as compared to the overall winter flounder EFH is not considered significant.

The significance determination for effects to EFH for summer flounder is somewhat more involved. If the managed fish species uses that EFH in part due to the presence of the biological component, the NMFS has to include the SAV in the definition of the EFH. Therefore, the EFH for summer flounder varies with the presence of SAV based by mapping prepared by Rutgers University. SAV presence varies tremendously year to year in the bay.

Best available information indicates that the presence of SAV in the project areas comes and goes unpredictably. New Jersey has mapped SAV in the project areas five times since 1979 and not once did the surveys correspond. See Table A. An independent detailed 2003 SAV study performed by ENSR Corp. found little if any SAV present within the project limit. The least amount of SAV in Manahawkin Bay was in 2009 with roughly 2,790 acres out of the 11,094 acre estimated habitat area for Manahawkin Bay. This is about 25% of the bay bottom. In the 1985-1987 study, the total area of SAV in Manahawkin Bay was over 10,100 acres or about 90% of the bay bottom.

Estimated SAV coverage Manahawkin Bay 1979-2009*			
Year	Sq. Ft.	Acres	Percent
2009	121,520,695	2,790	25%
2003	173,294,922	3,978	36%
1996-99	127,684,157	2,931	26%
1985-87	440,463,638	10,112	91%
1979	338,347,077	7,767	70%

*Submerged Aquatic Vegetation Mapping, Rutgers the State University, Grant F. Walton Center for Remote Sensing and Spatial Analysis. www.crssa.rutgers.edu/projects/coastal/sav/downloads.htm, downloaded August 31, 2011.

Research links increases in nutrient loads to a loss of SAV in Manahawkin Bay. Other studies link an increase of nutrients with an increase benthic macroalgae bed growth. Benthic macroalgae attaches itself to the bay bottom. Although there are no known studies that map the historical extent of macroalgae over the years, it is reasonable to assume that nutrient induced die-off of SAV beds can be offset by nutrient induced increases in macroalgae beds. In a recent study, *Characterization of the Jacques Cousteau National Estuarine Research Reserve: A Profile Report*, the JCNERR notes that SAV is primarily found in Little Egg Harbor and Barnegat Bays and little to no SAV in Great Bay. The report also shows an abundance of macroalgae in both Great Bay and Little Egg Harbor Bay. This report also notes substantial populations of summer flounder where there are only macroalgae beds. This demonstrates summer flounder make effective use of both SAV and macroalgae beds. These findings are consistent with other NMFS research that documents summer flounder using macroalgae beds as a surrogate for SAV.

Other researchers have documented an abundance presence of polychaetes (marine worms) in macroalgae beds. Polychaetes are preferred forage for small juvenile summer flounder. The link between macroalgae beds and fishery management is formalized in the Mid-Atlantic Fishery Management Council definition of habitat of particular concern for summer flounder as follows.

Habitat Areas of Particular Concern (HAPC) for summer flounder is as follows:
All native species of macroalgae, seagrasses, and freshwater and tidal macrophytes in any size bed, as well as loose aggregations, within adult and juvenile summer flounder EFH is HAPC. If native species of SAV are eliminated then exotic species should be protected because of functional value, however, all efforts should be made to restore native species.

Abundance of summer flounder is evident in the overall region. Mid-Atlantic Fishery Management Council increased 2011 catch quota by 33% from 22.13 million pounds to 29.48 million pounds. It is evident that minor loss of SAV will not result in a measureable impact to summer flounder production. The impact to SAV has to be considered in this context.

Regarding the finding of significance, had this project been constructed during period of low SAV in the project area, there would have been no significant impact to EFH. Had the project been constructed during periods of highest SAV presence, there could have been up to 3.2 acres of impact compared to base amount 10,111 acres of SAV in Manahawkin Bay. This 0.03% impact of total SAV would not be a significant impact. The proposed project has an estimated 2.59 acres of

impact to SAV. Even if this impact was compared to the lowest base amount of SAV in the bay there would be 0.09% total SAV impacted. This is not a significant impact to EFH.

Overall there is no significant impact to EFH from this project.

Wetland Finding

The project would permanently impact less than ½ acres of wetlands. To compensate for this loss, the NJDOT would provide mitigation that would offset (no net loss) wetland losses through the banking, creation, enhancement and/ or preservation of wetlands outside of the project corridor. Detailed information on mitigation goals, site configuration, restoration, and monitoring would be provided in a wetland mitigation plan that would be submitted as part of the permit applications to the USACE and NJDEP. FHWA finds that there is no practicable alternative to the proposed new construction within wetlands. It is general practice that there be greater than five acres of impact to wetlands to worry whether there is a significant impact to wetlands for NEPA decisions. In this case, there is less than ½ acre of wetlands impact in an area where there are hundreds if not thousands of acres of wetlands. This project will not have a significant impact to wetlands.

Floodplain, Surface Water and Water Quality Finding

The project is constructed in the 100-year tidal flood plain. Fills from the project do not affect flood hazard elevations or increase flooding risks. The NJDOT would comply with NJDEP Flood Hazard Area Rules. The NJDOT expects to build approximately 9.70 acres of new impervious surface for this project and would comply with the Stormwater Rules and employ soil erosion and sediment control practices during construction. The stormwater rules require the NJDOT to control Total Suspended Solids (TSS) in runoff from improved areas; therefore, the NJDOT would install stormwater management facilities to treat the runoff including detention basins, sand filters, and infiltration basins. Protected resources and available land limit the ability of the NJDOT to install systems adjacent to the roadway; therefore, sand filters would have to be placed under the paved surface of the road or in close proximity to the road in DOT ROW. Sand filters are large concrete chambers, partially filled with sand that removes TSS. While it is preferred to build on-site systems, the NJDOT is working with the Barnegat National Estuary Program, the County, and local governments to identify whether it is feasible to build or rehabilitate offsite detention basins to supplement or supplant on-site systems.

A stormwater pump station would be constructed in Ship Bottom to reduce flooding along 8th and 9th Streets for the more frequent storm events. The pump station would incorporate a bar trash rack and sand filter. A comprehensive stormwater management plan would be submitted as part of the permit application to the NJDEP. The project would meet stormwater management requirements to the extent practicable.

Section 106 Finding

A cultural resource investigation was conducted within the Area of Potential Effect (APE) for both archaeology and historic architecture and it has been determined that there are no eligible historic or prehistoric resources in the project area. The State Historic Preservation Office (SHPO) was consulted and has concurred.

Section 4(f) Finding

As part of the EA, U.S. Department of Transportation (DOT) Act of 1966, Section 4(f), probable affect on historic resources, conservation land and wildlife refuge were evaluated. The State Historic Preservation Office (SHPO) concluded that there are no historic features in the project area. No property would be acquired from conservation space owned by Ocean County or from the Edwin B. Forsythe National Wildlife Refuge owned by the USFWS. Section 4(f) rules also require the NJDOT to consider whether any noise increase caused by the project could severely disrupt the refuge. Noise would not increase more than 3 dBA over the increase that is expected from the No Build Alternative. A noise increase that is less than 3 dBA is barely perceptible. Accordingly, noise increase would not severely disrupt the refuge and there is no constructive use of a Section 4(f) property. Therefore, FHWA finds that the project would have no impact on Section 4(f) properties.

Contaminated Materials Finding

Under the build alternative the project will not impact any properties that are known to have contaminated materials. However, if project encounters groundwater that is determined to be contaminated in this area, the NJDOT would follow established procedures for these activities. If any contaminated soils are encountered the NJDOT would handle and dispose of the material in accordance with the applicable state and federal regulations.

