

ENVIRONMENTAL ANALYSIS AND DECISION ON THE NEED
FOR AN ENVIRONMENTAL IMPACT STATEMENT (EIS)

Form 1600-1

Rev. 7-2006

Department of Natural Resources (DNR)

Region or Bureau
Northeast

Type List Designation
Type II

NOTE TO REVIEWERS: This document is a DNR environmental analysis that evaluates probable environmental effects and decides on the need for an EIS. The attached analysis includes a description of the proposal and the affected environment. The DNR has reviewed the attachments and, upon certification, accepts responsibility for their scope and content to fulfill requirements in s. NR 150.22, Wis. Adm. Code. Your comments should address completeness, accuracy or the EIS decision. For your comments to be considered, they must be received by the contact person before 4:30 p.m., July 11.

Contact Person:

Carrie Webb

Title: Lakeshore Water Management Specialist

Address: 2984 Shawano Avenue

Green Bay WI 54313

Telephone Number

920-662-5453

Applicant: Village of Egg Harbor

Address: 7860 Hwy 42 Egg Harbor, WI 54209

Title of Proposal: Egg Harbor Marina and Harbor of Refuge project

Location: County: Door Village: Egg Harbor

Township Range Section: Section 25, Township 30, Range 26 East

PROJECT SUMMARY

1. Brief overview of the proposal including the DNR action (include cost and funding source if public funds involved)

The Village of Egg Harbor plans to rebuild and expand the existing, failing breakwater, renovate and expand their public marina facilities, and upgrade their launch ramp parking and stormwater management within their existing park.

The existing 545 foot long timber crib breakwater and concrete walkway structure is to be removed and replaced with one of the following: an approximately 930 foot (Options A & C), or a 870 foot (Option D) long rubble mound breakwater structure.

The majority of existing slips are integrally tied into the old breakwater. These old slips have steep access gangways and are substandard in their stability. With the replacement of the breakwater, the decision has been made to also improve the quality of the floating slips and meet today's standards for stability and accessibility.

The total number of floating slips to be included within the harbor is to be increased from 33 to 72 (Option A), or 65 (Options C & D).

The existing launch ramp is to remain, although the launch ramp is to be widened by 6' and the accompanying docks are to be improved and expanded to improve launch and retrieval efficiency.

Upland stormwater management improvements, an expansion of the green spaces within the park, and replacement of and improvements to the fueling system are included in the project as well.

The existing breakwater will be removed down to the original lake bottom, and is considered dredging. Dredging of more than 3,000 cubic yards (CY) requires an environmental analysis document under Ch. NR 150.03(8)(f)1. This activity is expected to total 5,155 cubic yards of removal (of which 1,980 CY are “dry,” above the current low water elevation). Additionally, a smaller volume (630 CY) of near shore sediments adjacent to the fuel dock and bulkhead are to be removed. All of the removals are to be mechanically excavated and transported to upland sites for disposal located at:

- 7941 STH 42
- 4549 Ball Park Road
- 4586 Harbor School Road

Graphic documentation of the project is included in the attachments.

The opinion of probable cost for each option are as follows: Option A \$7,993,000, Option C \$7,579,000, and Option D \$7,383,000. The breakwater and related harbor of refuge portions of this project are expected to be partially funded by The Wisconsin Waterways Commission under a Recreation Boating Facilities Grant.

2. Purpose and Need (include history and background as appropriate)

The Village of Egg Harbor’s existing marina breakwater is failing. The timber crib structure, rebuilt from the low water level up in 2000 has lost much of its rock interior due to design/construction issues, and a repair attempted in 2005 crushed part of the structure and damaged the public walkway. A structural evaluation of the breakwater performed by JJR and Westbrook Engineering documented the problem in detail. The breakwater is being extended for two reasons: the need for more slips including transient slips, and the need to expand the protected water basin as a harbor of refuge. The need for increased slip capacity has been demonstrated by a constant waiting list for slips. Many have been waiting for seven years and longer. Increasing the size of the protected harbor will significantly improve the ability to shelter boats during inclement weather.

The marina is part of a public park and the walkway along the breakwater affords access to the waterfront for sightseeing and fishing. The parking area was previously filled lakebed and virtually stops the longshore transport of sediments through Egg Harbor. This area will not be altered except for a reconfiguration of the parking lot and addition of green spaces. There will be improvements throughout the park, including safety measures for pedestrians coming to and from the downtown business district to the water’s edge.

The Village has considered numerous alternatives, including (1) demolish the breakwater and abandon the marina, (2) rebuild the breakwater in place, or (3) demolish and rebuild the breakwater, building a larger marina to alleviate some of the chronic waiting list problems for the local boating public. After 2 years of public discussions and economic analysis, the Village decided on the third option, which includes an expanded marina with updates and improvements to the park portion of the facility.

3. Authorities and Approvals (list local, state and federal permits or approvals required)

Regulatory Agency

Permit

Federal Permits – Army Corps of Engineers:

General Permit 01 (GP-01) – Options A, C, & D
Individual Permit - Option B

State Permits – WDNR:

Grading Permit – Wisconsin Statutes Ch. 30.19
Dredging Permit >3,000 CY – Wisconsin Statutes Ch. 30.20
Structures below the OHWM – Wisconsin Statutes Ch. 30.12

4. Manipulation of Terrestrial Resources (include relevant quantities - sq. ft., cu. yard, etc.)

The existing park is to remain a park. Modifications to the terrestrial resources include:

- a. Renovations to the parking area. The existing asphalt parking lot on the peninsula is to be repaved and the total paved area is to be decreased by approximately 200sq. ft. Additional parking for launch ramp and marina users (7 and 11 slots, respectively) is to be made by remodeling the central island.
- b. Enhancement of green spaces. At the low edge of the peninsula parking lot, a grass swale is to be installed to intercept the surface water and allow stormwater to infiltrate the soils instead of being deposited directly in the lake. Additional islands of grass will reorganize the parking spaces and enhance the park like atmosphere.
- c. Fuel system replacement. The existing 1000 gallon tank located on the peninsula is to be replaced with 5000 gallon gas and diesel tanks located further upland. The system will be upgraded to meet current Department of Commerce underground storage tank standards.
- d. Relocation of the Harbormaster office. The existing building will be relocated to provide the harbormaster a better view of the marina activities.
- e. Sidewalks and street crossings. A water's edge pedestrian walkway and parking area crosswalks will be added to enhance safety.

5785 CY of material will be placed at one, or a combination of three possible upland disposal sites:

- o 7941 STH 42 is an existing Village owned yard that is used for stockpiling material. The material will eventually be used for other projects. The site is currently gravel with a vegetative buffer.
- o 4549 Ball Park Road is the Village's Public Works shop. The material brought to this site will also be used for other construction projects.
- o 4586 Harbor School Road is an existing grassed park. The material will be graded and used for a sledding hill that is being built up.

All sites will be required to have proper erosion control installed prior to disturbance. The sediment is not expected to contain any contaminants and no testing was required.

5. Manipulation of Aquatic Resources (include relevant quantities - cfs, acre feet, MGD, etc.)

Changes in the aquatic resources are in the *quantity* of the water area used for the marina, not in the *types* of uses. For all options:

- a. The existing timber crib structure is to be removed to the natural lake bottom with approximately 5,155 cubic yards (CY) of removal (of which 1,980 CY are "dry," above the current low water elevation). Additionally, a smaller volume (630 CY) of near shore sediments adjacent to the fuel dock and boat launch are to be removed to improve navigability of small vessels near the boat launch ramp.
- b. A floating fuel and sanitary pump out station will be constructed.
- c. The existing launch ramp will remain in place, but the north wall will be removed and replaced with a floating dock to enhance accessibility.
- d. A flow through, consisting of six 36 inch culverts will be constructed near shore to facilitate littoral drift (movement of sediment in the waterway along the shoreline).

The Option A breakwater is proposed to be extended approximately 250 feet from its current location westward (above the water with another 35 feet below the water level).

- The breakwater total length increases from 545 feet to approximately 930 feet. The existing breakwater extends out into Green Bay 450 feet from the OHWM, and is proposed to extend out 690 feet from the OHWM (above the current water level, with an additional 35 feet under water). The type of breakwater will be rubble mound, with a concrete public walkway for the entire length. The total amount of fill for the breakwater on the public lakebed will increase from 7630 sq. ft. (.175 acres) to 1.94 acres.
- The number of slips in the marina will increase from 33 to 72. Slips sizes range from 25' to 50', with a majority of slips designed for vessels 40 ft. or less in length.
- Over 200 linear feet (LF) of transient dockage is provided for the general boating public inside the western expanded protective zone area, which would facilitate direct mooring of 6 to 12 vessels at any given time (depending on boat lengths).

The Option D breakwater is proposed to be extended approximately 200 feet from its current location westward (above water with another 35 feet below the water level).

- The breakwater total length increases from 545 feet to approximately 870 feet. The existing breakwater extends out into Green Bay 450 feet from the OHWM, and is proposed to extend out 645 feet from the OHWM (above the current water level, with an additional 35 feet under water). The type of breakwater will be rubble mound, with a concrete public walkway for the entire length. The total amount of fill for the breakwater on the public lakebed will increase from 7630 sq. ft. (.175 acres) to 1.75 acres.
- The number of slips in the marina will increase from 33 to 65. Slips sizes range from 25' to 50', with a majority of slips designed for vessels 40' or less in length.
- Almost 200 LF of transient dockage is provided for the general boating public inside the western expanded protective zone area, which would facilitate direct mooring of 6 to 12 vessels at any given time (depending on boat lengths).

The Option C breakwater is proposed to be extended approximately 120 feet from its current location westward (above the water with another 35 feet below the water level).

- The breakwater total length increases from 545 feet to approximately 930 feet. The existing breakwater extends out into Green Bay 450 feet from the OHWM, and is proposed to extend out 570 feet from the OHWM (above the current water level, with an additional 35 feet under water). The type of breakwater will be rubble mound, with a concrete public walkway for the entire length. The total amount of fill for the breakwater on the public lakebed will increase from 7630 sq. ft. (.175 acres) to 1.84 acres.
- The number of slips in the marina will increase from 33 to 65 or less if the Village decides to change some designated rental slips into transient slips. Slips sizes range from 25' to 50', with a majority of slips designed for vessels 40 ft. or less in length.

6. Buildings, Treatment Units, Roads and Other Structures (include size of facilities, road miles, etc.)

The existing permanent buildings, including the restrooms, showers, and the gazebo are to remain as they are today. The pile supported marina manager's office is to be moved to a place nearer to the dock entry to allow for more efficient management of the site. The office is a small structure of less than 360 sq. ft. that has been previously moved on site.

The entry road to the marina remains unchanged. Within the marina, an access drive to the upper parking lot

will be constructed to improve traffic flow near the launch ramp. Additionally, seven new trailer stalls are to be added. The parking lot for the park visitors and marina tenants is to be re-striped, re-paved, and grassy islands added. At the lakeward end of the peninsula, a grassy swale is to be added to intercept stormwater flowing across the pavement and allow some infiltration.

7. Emissions and Discharges (include relevant characteristics and quantities)

The current marina has limited emissions and discharges. The restrooms and sanitary pump out system are connected to the Village sanitary system. The upgraded pump out system will enhance the already functional system by improving pump out convenience and availability for all boaters.

The current stormwater flow across the parking lot discharges directly to the lake. The changes in the upland park should help to reduce stormwater pollutant discharges to the lake by intercepting runoff in a vegetated detention area. This swale will be planted as a dry bottom detention basin/buffer area to promote infiltration, reduce impervious areas, and enhance park aesthetics by increasing the overall amount of green space.

The major disturbances will occur during the removal of the existing breakwater and maintenance dredging of the near shore sediments. Containment of the removed materials will be required and best management practices by the contractor will be necessary. The greatest risk for adverse impacts is during construction. With the proper installation of erosion controls this risk is minimized. The overall project has a minimal risk for failure.

Operation of the construction equipment will result in noise pollution and exhaust emissions. The increased noise and exhaust may be irritating to nearby residents. Noise and disruption from the equipment is expected to further disturb wildlife activities and recreation in the vicinity of the operation for the duration of the project. There will be a potential for fuel spills and other operating malfunctions. Machinery should be checked daily for leaks and removed from the site if any leaks are detected. If a spill occurs, the WDNR and local fire department will be notified immediately. There are no known studies that would further aid in predicting the impacts of the project.

8. Other Changes

None

9. Identify the maps, plans and other descriptive material attached

Attachment 1 USGS topographic map

Attachment 2 Existing breakwater – aerial view

Attachment 3 & 4 Existing breakwater - plan view

Attachment 5 & 6 Site plans- Option A

Attachment 7 & 8 Site plans – Option D

Attachment 9 Cross sections

Attachment 10 – Option B

Attachment 11 – Option C

AFFECTED ENVIRONMENT (describe existing features that may be affected by proposal)

10. Information Based On (check all that apply):

Literature/correspondence (specify major sources)

Report of Subsurface Exploration, Coleman Engineering
Egg Harbor, WI STWAVE Results, JJR, LLC
Egg Harbor, Three Dimensional Hydraulic Modeling Report, JJR, LLC
Existing Condition Assessment of the Village Marina Timber Crib Breakwater, JJR,LLC & Westbrook Associated Engineers, Inc.

Personal Contacts (list in item 26)

Field Analysis By: Author Other (list in item 26)

Past Experience With Site By: Other (list in item 26)

11. Physical Environment (topography, soils, water, air)

The Village of Egg Harbor is located on the west side of Door County, along the bay of Green Bay. The ground surface in the area slopes downward and drains westerly toward Green Bay. The surface water of Green Bay is currently at approximately elevation +577.5 (IGLD85). The topography of the land adjacent to the shoreline consists of moderately steep bedrock bluffs. Soil borings of the site encountered dolomitic limestone bedrock veneered in most locations by soil overburden of variable composition and thickness. The bedrock is covered by gravel, silt, sand, and clay that increases in thickness with increasing distance from shore. The gravel deposits were observed closer to shore transitioning to the finer grained soil deposits with increasing water depth. Bedrock was present at or near grade from on shore to as deep as approximately 50 feet offshore.

The marina basin currently has good water clarity, and no apparent stagnation issues. The three existing 24 inch culverts will be replaced with six 36 inch culverts, increasing the flow area for each culvert by 2.25 times (3.14 sq. ft. to 7.07 sq. ft.). The total flow area will increase from 9.4 sq. ft. (which are almost entirely plugged) to approximately 42.4 sq. ft, an increase of over 4.5 times that exists today.

The marina basin is exposed to a significant fetch (The distance traveled by waves in open water, from their point of origin to the point where they break), with wave heights of up to 7 feet. The breakwater is being designed so that wave heights inside the harbor will not be more than 1 foot high during the boating season, and 3 feet high during the non-boating season using a 25 year wave event. Extensive physical modeling has been completed for the project, and a summary report is available for review.

12. Biological Environment (dominant aquatic and terrestrial plant and animal species and habitats including threatened/endangered resources; wetland amounts, types and hydraulic value)

This site is an existing marina, and therefore has a previously disturbed biological habitat. The area of the project contains limited spawning grounds for smallmouth bass, other centrchids, and goby. There is very little wildlife activity within the project limits since the entire area is completely developed and the shoreline consists of many manmade structures. At the nearshore end of the breakwater, six culverts are planned to replace the three existing culverts in the current breakwater. The bottoms of the culverts will be at elevation 572 and will be completely submerged during low and high water conditions. The culverts should facilitate greater water exchange and circulation within the marina basin. The existing culverts are completely blocked with zebra mussel shells and/or deposits, and two of the culverts are above the current water level on the outside portion of the breakwater. Although the existing culverts have been blocked, with 2 of them on shore and dry for approximately 10 years, the water clarity observed within the basin during the summer of 2007 was excellent, possibly due to zebra mussels. The Village will develop a maintenance plan to deal with the anticipated attachment of zebra mussels inside the new culverts.

Submergent aquatic vegetation is present in the harbor. The Water Management Specialist has done a site investigation and determined that no wetlands or threatened and endangered species are listed or present at the

13. Cultural Environment

a. Land use (dominant features and uses including zoning if applicable)

The existing facility includes a village park, launch ramp, and marina facility. The new facility would be essentially the same, although updated for current Codes and needs. This facility is used seasonally for boating and recreation such as fishing and sightseeing.

There is a condominium development then private residences to the south, and private residences then condominiums to the north. There is a park and the downtown business district to the east. The land use will not change as a result of this project.

Options C & D plans show the floating docks crossing the extended riparian line by approximately 30 feet, and since this crossing is well beyond the line of navigation, it can be allowed under current state statutes and codes. This minimal extension to the south will not interfere with the right of other riparian owners.

b. Social/Economic (including ethnic and cultural groups)

The park, launch ramp, and marina facility provides a seasonal service to the community. It allows access to the general public, the boating community, and expands the existing access by providing additional boat slips and launch ramp parking. Access by pedestrians will remain and be slightly expanded with the two options. This area is mostly used for recreation including boating, waterskiing, tubing, and fishing.

The cost of the project is borne by two primary revenue sources: (1) net marina/harbor operating revenues, and (2) municipal tax levy. Part of the capital investment may be provided by grants, such as the Wisconsin Waterways Recreational Boating Fund, the Clean Vessel Act grant program, and the Boating Infrastructure Grant (BIG) program. An economic benefit is expected in the surrounding retail shopping and dining district. Egg Harbor is already a choice destination for transient boaters from Marinette, Menominee MI, Sturgeon Bay, and points beyond. The additional transient dockage included in the proposals is an important part of this potential impact, as well as providing a vital safe haven in the event of inclement weather events.

c. Archaeological/Historical

The Village is currently working with the State Historical Society to determine if any of the known archaeological sites are within the project footprint. Surveys and/or markers during construction may be required.

14. Other Special Resources (e.g., State Natural Areas, prime agricultural lands)

The area is developed primarily with private residences and condominiums, and a commercial district nearby.

ENVIRONMENTAL CONSEQUENCES (probable adverse and beneficial impacts including indirect and secondary impacts)

15. Physical (include visual if applicable)

Benefits:

- With the walkway extending the entire length of the proposed breakwater, there is greater pedestrian access to deeper water and more public access to views of the harbor and points north.
- There will be more slips to accommodate the long waiting list.
- Additional floating docks will provide safer pedestrian access and greater fishing access to public waters

within the breakwater protected area.

- There will be a better designed boat ramp and more parking for trailer boaters and fishermen.
- More green spaces and less pavement will reduce the amount of direct stormwater runoff and provide a better atmosphere and pleasant surroundings. Landscaping will improve the aesthetic qualities seen by park, harbor, and adjoining property owners; improvements that would likely not be financially feasible without construction of a new harbor.
- The structure will provide a safe refuge for small craft in the event of dangerous wave and weather conditions. There is no other harbor of refuge between Old Stone Quarry Park and Fish Creek. This facility would provide safe refuge for vessels at sea in times of bad weather.
- The new harbor and marina facilities will be designed to meet all applicable ADA guidelines and requirements to ensure access for disabled individuals.
- Some of the spoils will be reused for other projects in and around the Village, eliminating the need for quarried material and long hauling distances.
- Some of the spoils will be used to upgrade an existing sledding hill at an existing Village park.

Adverse impacts:

- The breakwater is proposed to extend out into Green Bay from 460 to 690 (above the water) (Option A), 645 (above the water) (Option D), or 570 (above the water) (Option C) feet from the OHWM. This will cause those recreating in small watercraft to be forced out further from shore into deeper water, which could be a safety issue.
- The breakwater total length increases from 545 to 930 (A & C) or 870 (D) feet. The total amount of fill on the public lakebed will increase from 7630 sq. ft. (.175 acres) to approximately 1.94 acres (A), 1.84 (C), or 1.75 acres (D). That area will no longer be available to the public for boating, wading, fishing, or fish and plant habitat.
- The fill and associated piers will take away the general boating public's use of the expanded area inside the harbor, except for those few who are able to rent slips. The reduction of useable area inside Egg Harbor could cause more boat traffic congestion.
- A smaller harbor will force boats closer to each other, increasing the risk for accidents. Congested waters were the highest environmental cause of accidents in the U.S. in 2007. In 2007, 2006, and 2005, collision with another vessel was the number one cause of accidents, with 1360, 1329, and 1378 reported in the U.S. The vast majority of accidents occur during the day with good visibility. In 2007, collision with a vessel caused \$11,498,216 in property damage.
- Structures that extend into waterways pose safety hazards to recreational navigation. In 2007 and 2006, collision with a fixed object was the number two reason for accidents in the United States, with 558 and 517 accidents reported. In 2005, collision with a fixed object was the third highest reason for accidents in the United States, with 497 reported. In 2007, collision with a fixed object caused \$9,206,067 in property damage.
- The view of the water and view from the water will change and may even be blocked from the shore since this structure will be longer and almost 9 feet above the water level, a height increase of 2.83 ft. above the existing structure.
- A breakwater this large could open the door for future projects of this size to be proposed.

16. Biological (including impacts to threatened/endangered resources)

The proposed marina is not expected to have a major significant adverse impact on water quality, aquatic vegetation, or available aquatic life if a water flow through device is installed. The submergent aquatic vegetation may even expand somewhat if the breakwater is extended. In general, aquatic vegetation is limited in the bay and an expansion of the plant bed may provide beneficial aquatic life habitat.

The structure will cover lakebed that will no longer be available for spawning for smallmouth bass, other centrachids, goby, etc. However, the rubble mound will most likely be utilized by smallmouth bass, rock bass, and goby.

There is an increased risk of gas and oil spills with the increased number of boats using the harbor. Contamination could cause impacts to vegetation, wildlife, and water quality. However this risk is already present and is expected to be mitigated through the implementation of improved dispensers and facilities.

Threatened and endangered resources will not be affected. The area has already been significantly disturbed, reducing the chance that any rare species are present.

17. Cultural

a. Land Use (including indirect and secondary impacts)

It is not anticipated that any land use will change as this site is already an existing marina accessible to the public. The amount of paved area is to be slightly reduced in the park, and changes are being made to minimize the amount of stormwater that flows directly into the bay from the parking areas. Public access to the water for residents and visitors will be enhanced with crosswalks in the parking lot and the design of a water's edge path.

The expanded structure will not affect any land use or navigation for neighboring property owners because it does not interfere with their rights to gain access to Green Bay, or impact existing mooring buoys.

b. Social/Economic (including ethnic and cultural groups, and zoning if applicable)

The improvements to the marina will have positive social and economic impacts for the Village. The increase in the number of slips should result in a proportional increase in the economic tourism benefits to the local businesses and the community as a whole.

The economic impact includes the need for a bond issue to be implemented by the Village to pay for the upgraded facility. The increased number of slips will help with the debt repayment, and some tax levy support is expected.

c. Archaeological/Historical

No impacts to nearby archaeological sites are anticipated. If any artifacts are found, work must stop immediately and the State Historical Society contacted.

18. Other Special Resources (e.g., State Natural Areas, prime agricultural lands)

The area is highly developed with a mix of residential and commercial properties.

19. Summary of Adverse Impacts That Cannot Be Avoided (more fully discussed in 15 through 18)

A larger, longer breakwater will take away the general boating public's right to recreate the area inside the enlarged harbor in order to allow access to those who will be renting the boat slips. The piers along the slips will still be available for pedestrian and public fishing access. However, the public already has pedestrian access to deeper water via the current breakwater, and already has access to the existing boat ramp. There could be safety risks to recreational users from being forced into deeper waters, by the increased boat traffic, and by the additional congestion caused by the larger structure. Aesthetics may be impacted by the almost 9 foot high structure and will possibly block views of the water.

20. Environmental Effects and Their Significance

- a. Discuss which of the primary and secondary environmental effects listed in the environmental consequences section are long-term or short-term.

Long term:

- The increased fill and length of the breakwater will take away those waters from the general boating public for as long as the breakwater remains in place.
- There will be more slips to accommodate the long waiting list.
- There will be a better designed boat ramp and more parking for trailer boaters and fishermen.
- More green spaces and less pavement will reduce the amount of direct stormwater runoff and provide a better atmosphere and pleasant surroundings. Landscaping will improve the aesthetic qualities seen by park, harbor, and adjoining property owners; improvements that would likely not be financially feasible without construction of a new harbor.
- The structure will provide a safe refuge for small craft in the event of dangerous wave and weather conditions. There is no other harbor of refuge between Old Stone Quarry Park and Fish Creek. This facility would provide safe refuge for vessels at sea in times of bad weather.
- The new harbor and marina facilities will be designed to meet all applicable ADA guidelines and requirements to ensure access for disabled individuals.
- Some of the spoils will be used to upgrade an existing sledding hill at an existing Village park.
- Some recreational users may avoid the larger structure, and increased boat traffic congestion may cause safety issues.
- A larger, longer structure could increase the number of accidents because of boats hitting the fixed object.
- The proposed almost 9 foot high and longer structure may block views from those on shore, and change the view of the shoreline from the water.

Short term:

- Removal of the existing structure and additional dredging areas could cause sedimentation if proper erosion control methods are not used.
- People recreating in the area may take some time getting used to a larger structure there, especially at night. This could cause some safety concerns. This could be mitigated through implementation of proper navigational lighting and marking of the structure.
- Some of the spoils will be reused for other projects in and around the Village, eliminating the need for quarried material and long hauling distances.
- Operation of the construction equipment will result in noise pollution and exhaust emissions. The increased noise and exhaust may be irritating to nearby residents. Noise and disruption from the equipment can be expected to disturb some wildlife activities in the vicinity of the operation for the duration of the project.
- Portions of the harbor area will be closed off to the public during construction activities. The construction will be staged and scheduled to facilitate seasonal access for the boating public.

- b. Discuss which of the primary and secondary environmental effects listed in the environmental consequences section are effects on geographically scarce resources (e.g. historic or cultural resources, scenic and recreational resources, prime agricultural lands, threatened or endangered resources or ecologically sensitive areas).

The affected area is one of the most popular portions of Green Bay for recreational users because of the protection that the bay affords to small watercraft. The area used by the general boating public will be reduced and may be perceived to be blocked by novice boaters new to the area and those who may be intimidated going out into the bay further to get around the structure.

There are many solid piers in the area already, but a breakwater this large may reduce visibility of the water for those on shore.

- c. Discuss the extent to which the primary and secondary environmental effects listed in the environmental consequences section are reversible.

The effects are reversible since the structure could be removed, but such work would come at the Village's expense, and there would be the potential for environmental impacts (i.e. erosion) associated with the removal.

21. Significance of Cumulative Effects

Discuss the significance of reasonably anticipated cumulative effects on the environment (and energy usage, if applicable). Consider cumulative effects from repeated projects of the same type. Would the cumulative effects be more severe or substantially change the quality of the environment? Include other activities planned or proposed in the area that would compound effects on the environment.

The increased number of slips will cause more local energy usage from the additional boats that will be have access to the water, causing additional air emissions, and potentially more fuel spills.

There could be cumulative effects if other projects like this are proposed in the area. At this time a new, large marina with a breakwater is proposed in Gills Rock, and another project involving an increase in the number of slips and extension of a breakwater is proposed in Sister Bay. If any others were proposed and approved in Egg Harbor, it would change the way users recreate the area and could increase air and water pollution, safety risks, and impacts to scenic beauty. Long shore current would most likely be impacted, possibly causing accretion and erosion on adjacent shorelines, increased stagnant water that could impact water quality, and the potential for an increase in invasive species.

These new or increased structures have cumulative effects on the lakebed by removing habitat, reducing the long shore current, obstructing navigation, decreasing water quality, increasing the risk of invasive species, and removing those areas from the public for recreating.

22. Significance of Risk

- a. Explain the significance of any unknowns that create substantial uncertainty in predicting effects on the quality of the environment. What additional studies or analysis would eliminate or reduce these unknowns?

Hydraulic modeling was done to study the stability of the structure, the effects to neighboring properties, and wave reflection. The modeling showed that no additional wave energy will be directed at adjacent shorelines. Modeling showed that wave energy will actually be reduced for neighbors with the rubble mound structure.

During the construction process erosion is a risk, however this can be mitigated by the use of accepted erosion control best management practices (BMPs). The overall project has a minimal risk for failure. There are no known studies that would further aid in predicting the impacts of the project.

Another risk is the cumulative effects of any future projects similar to this one. With the population increasing, tourism and boating increases, creating the need for more and more slips. No known future marina projects are planned in Egg Harbor.

- b. Explain the environmental significance of reasonably anticipated operating problems such as malfunctions, spills, fires or other hazards (particularly those relating to health or safety). Consider reasonable detection and emergency response, and discuss the potential for these hazards.

There will be an increased potential for fuel spills and other operating malfunctions. Machinery should be checked daily for leaks and removed from the site if any leaks are detected. If a spill occurs, the WDNR and local fire department will be notified immediately.

23. Significance of Precedent

Would a decision on this proposal influence future decisions or foreclose options that may additionally affect the quality of the environment? Describe any conflicts the proposal has with plans or policy of local, state or federal agencies. Explain the significance of each.

The Department's decision to approve or deny this proposal will not influence future decisions for this type of project application. Projects are reviewed on a case-by-case basis with each project having a unique set of circumstances that must be considered in the review process. However, the Department does take into consideration the cumulative impacts as part of the review process. This structure in this setting has few impacts to fish, wildlife, or water quality, but does impact navigation, so several projects of this size or similar projects in different habitats could be considered detrimental to the public interest.

24. Significance of Controversy Over Environmental Effects

Discuss the effects on the quality of the environment, including socio-economic effects, that are (or are likely to be) highly controversial, and summarize the controversy.

There is some expected controversy related to the potential impacts to riparian owners and the public trust. A notice for the public informational hearing was sent directly to the adjacent property owners and was published in the local newspaper. The hearing was held on June 30, 2008 and 54 people attended. See attachments for a summary of the comments and the Department's response.

ALTERNATIVES

25. Briefly describe the impacts of no action and of alternatives that would decrease or eliminate adverse environmental effects. (Refer to any appropriate alternatives from the applicant or anyone else.)

The Village has considered numerous alternatives over the past two years, including (1) demolish the breakwater and abandon the marina, (2) rebuild the breakwater in place, or (3) demolish and rebuild the breakwater, building a larger marina to alleviate some of the chronic waiting list problems for the local boating public. After 2 years of public discussions and economic analysis, the Village decided on the third option, which includes an expanded marina with updates and improvements to the park portion of the facility.

The effect of no action is that the breakwater will lose its functionality in the near future, and the existing breakwater, marina, and boat ramp will become unusable. The breakwater protects the public recreational marina and the public launch ramp. The report from JJR-Westbrook (dated August 7, 2006) documents the condition of the breakwater and the danger of collapse in the future. Loss of the breakwater would mean loss of access to the water for the public, including access to pedestrians for fishing and sightseeing. Even the no action alternative will have some environmental, economic, and social consequences. Losing this structure would mean only those with private access would be able to use this body of water unless a long trip is made from Frank Murphy Park as there are no other protected public launch areas nearby.

Rebuilding in place was an alternative investigated in late 2006 and early 2007. The consequences of rebuilding in place include that the entire financial burden would be placed on the Village with no added Wisconsin Waterways Commission funding and that this burden would have no relief via the additional revenues to be seen from the additional slips. Environmentally, the rebuilding in place option would have the least impact, although it would also have similar impacts in temporarily upsetting the lake bottom. Even in this scenario, the total height of the structure will be increased the same amount as a means of protecting the marina facilities in high water storm events.

Several alternate layouts and options for expansion were presented, discussed, and evaluated as part of the Village's public discussion phase of design over the last two years however, not all of them are documented

herein. A variety of breakwater materials and placements have been explored during the engineering process. Binwall, steel sheet pile, and rubble mound variants have all been evaluated for cost, environmental impact, and aesthetics.

The rubblemound breakwater alternatives (Options A and D) were chosen and presented at the public informational hearing. The 2 rubble mound alternatives were chosen because they meet the Village's purpose and need for the project, are the best economic alternatives, minimized the wave reflection to neighboring properties, and maintains access to the waterfront park users.

The Option A breakwater is proposed to be extended approximately 250 feet from its current location westward (above the water with another 35 feet below the water level).

- The breakwater total length increases from 545 feet to approximately 930 feet. The existing breakwater extends out into Green Bay 450 feet from the OHWM, and is proposed to extend out 690 feet from the OHWM (above the current water level, with an additional 35 feet under water). The type of breakwater will be rubble mound, with a concrete public walkway for the entire length. The total amount of fill for the breakwater on the public lakebed will increase from 7630 sq. ft. (.175 acres) to 1.94 acres.
- The number of slips in the marina will increase from 33 to 72. Slips sizes range from 25' to 50', with a majority of slips designed for vessels 40 ft. or less in length.
- Over 200 LF of transient dockage is provided for the general boating public inside the western expanded protective zone area, which would facilitate direct mooring of 6 to 12 vessels at any given time (depending on boat lengths).

The Option D breakwater is proposed to be extended approximately 200 feet from its current location westward (above water with another 35 feet below the water level).

- The breakwater total length increases from 545 feet to approximately 870 feet. The existing breakwater extends out into Green Bay 450 feet from the OHWM, and is proposed to extend out 645 feet from the OHWM (above the current water level, with an additional 35 feet under water). The type of breakwater will be rubble mound, with a concrete public walkway for the entire length. The total amount of fill for the breakwater on the public lakebed will increase from 7630 sq. ft. (.175 acres) to 1.75 acres.
- The number of slips in the marina will increase from 33 to 65. Slips sizes range from 25' to 50', with a majority of slips designed for vessels 40' or less in length.
- Almost 200 LF of transient dockage is provided for the general boating public inside the western expanded protective zone area, which would facilitate direct mooring of 6 to 12 vessels at any given time (depending on boat lengths).

The breakwater in Option B was proposed to extend out 570 ft. from the OHWM (above the current water level) then turn south for approximately 250 feet from the existing breakwater. It was designed for 80 slips and required 2.15 acres of fill on the lakebed. This option is not moving forward for consideration for several reasons:

- It does not include any transient slips, which would make the Village ineligible for one type of grant from the WI Waterways Commission, transferring more costs to the taxpayers.
- It was unpopular with the public because it extended well beyond the Village's extended riparian zone.
- The design may have caused diminished water quality because it does not allow as much water circulation inside the harbor, but it would still be an improvement over the existing structure.

The breakwater in Option C was proposed to extend out 570 ft. from the OHWM (above the current water level) then turn south. This alternative was just a shortened version of Option B to bring the end of the structures closer to the extended riparian line. It was designed for 65 slips and required 1.84 acres of fill on the lakebed. This option originally was not moving forward for consideration prior to the public information meeting for several reasons:

- It does not include any transient slips, which would make the Village ineligible for one type of grant from the WI Waterways Commission, transferring more costs to the taxpayers.
- The design may have caused diminished water quality because it does not allow as much water circulation inside the harbor, but it would still be an improvement over the existing structure.

However after the public information meeting Option C is being reconsidered. See attachments for more information.

SUMMARY OF ISSUE IDENTIFICATION ACTIVITIES

26. List agencies, citizen groups and individuals contacted regarding the project (include DNR personnel and title) and summarize public contacts, completed or proposed).

<u>Date</u>	<u>Contact</u>	<u>Comment Summary</u>
Ongoing	Mary Gansberg, WDNR	Comments on water quality impacts
Ongoing	Mike Neal, DNR Warden	Comments on navigation and boating safety
Ongoing	Paul Peeters, WDNR	Comments on fishing and fish habitat
Ongoing	Jim Doperalski Jr.	EA Review
6/11/08	Adjacent property owners	Provide notice of the project
6/11/08	General Public	Provide notice of the project

DECISION (This decision is not final until certified by the appropriate authority)

In accordance with s. 1.11, Stats., and Ch. NR 150, Adm. Code, the Department is authorized and required to determine whether it has complied with s.1.11, Stats., and Ch. NR 150, Wis. Adm. Code.

Complete either A or B below:

A. EIS Process Not Required

The attached analysis of the expected impacts of this proposal is of sufficient scope and detail to conclude that this is not a major action which would significantly affect the quality of the human environment. In my opinion, therefore, an environmental impact statement is not required prior to final action by the Department.

B. Major Action Requiring the Full EIS Process

The proposal is of such magnitude and complexity with such considerable and important impacts on the quality of the human environment that it constitutes a major action significantly affecting the quality of the human environment.

Signature of Evaluator	Date Signed
------------------------	-------------

Number of responses to news release or other notice:

Certified to be in compliance with WEPA	
Environmental Analysis and Liaison Program Staff	Date Signed

NOTICE OF APPEAL RIGHTS

If you believe you have a right to challenge this decision made by the Department, you should know that Wisconsin statutes, administrative codes and case law establish time periods and requirements for reviewing Department decisions.

To seek judicial review of the Department's decision, ss. 227.52 and 227.53, Stats., establish criteria for filing a petition for judicial review. Such a petition shall be filed with the appropriate circuit court and shall be served on the Department. The petition shall name the Department of Natural Resources as the respondent.

Public Comment Summary:

A neighboring property owner was concerned that the additional height of the new structure would block views of the water. *Comment noted.*

Several people were concerned that the proposed structure was too large for the size of property and should be scaled back. *Comment noted.*

One person thought that the design did not meet village setback requirements. *The Department does not have any control over village ordinances.*

Several people expressed a desire for Option A because it met the needs for the number of people on the waiting list, provides needed revenue to offset the costs of the project, and doesn't cross the extended riparian line. *Comment noted.*

Several were concerned that Option D crossed the extended riparian line and felt that it should not be allowed. *Comment noted. Permits can not be issued for piers that interfere with the rights of an adjacent riparian owner*

Two people were concerned that a larger structure would cause additional wave reflection and impact other structures and the shoreline. A no-wake zone was suggested. *The engineering study showed that wave action will actually be reduced with the rubblemound structure.*

One person felt that the view was important and that rubblemound structures look nice. She said that the Village needs to do what is best for everyone. *The Department has no response.*

Several people expressed their support for the project, but understood the concerns of the adjacent neighbors. *The Department has no response.*

One person urged everyone to be open minded and to consider the long term benefits of the project. *The Department has no response.*

One person thought the needs of the residents have not been taken into account. He was also concerned that the project was not compatible with the many uses such as picnicking, photographing, and being able to fish with the large rock structure being so high. *Comment noted.*

Several were concerned about the lack of parking spots and the cost of the project. *Comment noted.*

One person was concerned about the small vessels in the bay being congested and causing safety concerns. He also felt that the only winners are those who are able to get a slip and that the marina does not need to be expanded for economic benefits. He wants to see more transient moorings, no elimination of sailboat slips, and wants a repair of the existing structure instead of an expansion. *Comments noted.*

One person felt that the Village needed to be more fiscally conservative and realize that boating patterns may change, and that property values may diminish. *The Department has no response.*

One person explained his observations of the state of disrepair of the existing structures. He said kayakers were not an issue because they can use another Village owned property. He also felt that parking was not an issue because transients don't have cars, and people do not stay overnight on their boats. *Comments noted.*

One person was concerned with the current air pollution from the idling boats getting worse. *Comment noted.*

Several people expressed their desire in writing for Option D because of the safety of small watercraft in deeper water, view of the water, facility and safe harbor downtime, pollution from construction, boat traffic congestion, and parking and traffic concerns. *Comments noted.*

One person was concerned with impacts to natural scenic beauty. *Comment noted.*

One person expressed in writing his feeling that the harbor is not safe with the number of boats present on a nice weekend, and that the situation would only get worse with a bigger breakwater making the harbor smaller. He feels that adding 40 slips at the expense of the general boating public don't meet the principles of the Public Trust Doctrine. He feels that there will be cumulative adverse impacts to navigation, fishing, natural beauty, pollution (greenhouse gases, water, and noise), water quality, shoreland beaches, and wetlands. *Comments noted.*

A letter was received refuting a few claims made by others. The writer feels that this marina is very accessible and friendly to fishermen, doesn't think there is an odor from boat exhaust, thinks the number of restrooms, showers, and parking spaces are adequate, and that slip price has not been established yet. He stated that the committee has not ignored small vessels, but instead provided a new launch area next to the village beach. Also, he stated that small vessels seldom venture into the marina and tend to stay in the South or West portions of the bay far from the marina. He also expressed that the number of slips is not the only consideration; the new slips will be wider, safer, and spaced adequately for boat maneuvering. *Comments noted.*

After reviewing all of the comments during and after the public informational hearing, a decision was made to move forward with Option C. Option C was originally removed from consideration because it did not meet the Village's purpose and need of the project. The plan did not include any designated transient slips, which would make the Village ineligible for one type of grant from the WI Waterways Commission, transferring more costs to the taxpayers. Upon further review, it became apparent that the Village could change a few of the designated rental slips into transient slips. This option will meet the purpose and need of the project while minimizing the concerns for the overall size of the structure and the safety issues related to congestion and obstruction to navigation.

The Option C breakwater is proposed to be extended approximately 120 feet from its current location westward (above the water with another 35 feet below the water level).

- The breakwater total length increases from 545 feet to approximately 930 feet. The existing breakwater extends out into Green Bay 450 feet from the OHWM, and is proposed to extend out 570 feet from the OHWM (above the current water level, with an additional 35 feet under water). The type of breakwater will be rubble mound, with a concrete public walkway for the entire length. The total amount of fill for the breakwater on the public lakebed will increase from 7630 sq. ft. (.175 acres) to 1.84 acres.
- The number of slips in the marina will increase from 33 to 65 or less if the Village decides to change some designated rental slips into transient slips. Slips sizes range from 25' to 50', with a majority of slips designed for vessels 40 ft. or less in length.