

DEPARTMENT OF ENVIRONMENTAL PROTECTION
(See Issuing Division below)

PERMIT*

The New Jersey Department of Environmental Protection grants this permit in accordance with your application, attachments accompanying same application, and applicable laws and regulations. This permit is also subject to the further conditions and stipulations enumerated in the supporting documents which are agreed to by the permittee upon acceptance of the permit.

Permit No.	1488	Application No.	
Issuance Date	MAR 17 2015	Effective Date	MAR 17 2015
		Expiration Date	MAR 17 2017
Name and Address of Applicant	Name and Address of Owner	Name and Address of Operator	
NJDOT Attn: Robert Bousenberry 1035 Parkway Trenton, NJ 08625			
Location of Activity/Facility (Street Address)	Issuing Division	Statute(s)	
Lot _____ Block _____	Natural and Historic Resources Engineering & Construction	NJSA-58:4-1 et seq.	
Type of Permit	Dam	Maximum Approved Capacity, if applicable	

This permit grants permission to:

provide overtopping protection and rehabilitate Crystal Lake Dam, located across Crystal Creek within Bordentown Township, Burlington County, New Jersey PROJECT IS SHOWN ON APPROVED DRAWINGS LISTED ON PAGES 5 and 6 OF THIS PERMIT.

Prepared by:

Sarah Hatala
Sarah Hatala

See page 6 for signature

Revised Date	Approved by the Department of Environmental Protection		
	Name (Print or Type) _____	Title _____	
	Signature _____	Date _____	

*The word permit means "approval, certification, registration, etc."

(General Conditions are on the Reverse Side)

TERMS AND CONDITIONS

1. Application for approval of plans and permit was filed on April 11, 2014 and was accompanied by the following supplementary papers as part thereof:
 - A. Construction Drawings and Details
 - B. Specifications
2. The action of the Bureau in approving this application and issuing the permit shall not relieve the party constructing the works hereby approved from the responsibility for damage caused by such works; nor does the Bureau accept responsibility for the structural design.
3. The work shall at all times be subject to supervision and inspection by representatives of the Bureau.
4. No changes in the plans and specifications as approved shall be made except with written consent of the Bureau. The Bureau however, reserves the right to require such changes or modifications in the plans and specifications as may be considered necessary in the interest of public safety.
5. A formal construction inspection program (program) shall be required for all permitted construction activities. A copy of the program description is to be submitted and approved by the Bureau prior to the commencement of construction. The program description shall contain detailed information including but not limited to the following items:
 - A. Organization chart of the construction inspection force.
 - B. Number and specialties of inspectors proposed. Information submitted with this item, or item above, should include the number of inspectors proposed for each feature of construction. Where full-time inspection is not proposed, the schedule for part-time inspection should be described.
 - C. Duties, responsibilities, necessary qualifications, and scope of authority of the inspection staff members. This information should be supplemented on a continuing basis by submittal of qualifications of the personnel actually employed.
 - D. Field tests to be performed and frequency of testing.
 - E. Field laboratory facilities to be provided.

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- F. Planned use of commercial testing services.
- G. Planned use of consultants during construction.
- H. Schedule of construction, showing all major features of construction.
- I. Erosion Control and Other Environmental Measures.
- J. Inspection and monitoring of erosion control and other measures that are required for the protection of the environmental integrity of streams and other areas affected by construction.

The information provided should be in sufficient detail to enable the Bureau to assure that the proposed program provides adequate construction quality control. Some items, such as safety requirements and special construction techniques, including a water diversion plan; underground and surface excavation; and production and placement of reinforced concrete work may be included in the contract specifications. If not, these items, especially those that may involve the safety of personnel during construction, should be detailed in the inspection program.

- 6. All on-site construction activities shall be performed under the direct supervision of a professional engineer, licensed in the State of New Jersey and experienced in the design and construction of dams. The Bureau will not accept an inspection program that provides for quality control to be administered or performed by the contractor.
- 7. The professional engineer responsible for inspecting the construction shall submit a report on the status of construction with color photographs to the Bureau on the first day of each month until the work has been completed.
- 8. A construction notice on a prescribed form shall be prepared and submitted to the Bureau two weeks prior to construction beginning. No material shall be placed on any portion of the foundation of the embankment or spillway until such portion of the foundation has been approved in writing by a representative of the Bureau.
- 9. The work shall be started within one (1) year from the date of this permit and completed within two (2) years from said date, otherwise, this permit, if not previously revoked or specifically extended, shall cease and be null and void.
- 10. A copy of the dam permit and one set of drawings and specifications approved by the Bureau must be available at the project site during construction.

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11. All construction activities must be undertaken in accordance with N.J.A.C. 7:20-1.10 of the Dam Safety Standards entitled: "Construction."
12. All construction work on the lands encompassed within this dam permit shall be **STABILIZED** in accordance with "Standards for Soil Erosion and Sediment Control in New Jersey" (obtainable from local Soil Conservation District Offices), or equal engineering specifications, so as to prevent eroded soil therefrom entering the waterway at any time during and after construction.
13. This permit **DOES NOT GIVE ANY PROPERTY RIGHTS**, in either real or personal property or material, nor any exclusive privileges; neither does it authorize any injury to private property, nor invasion of private rights.
14. No trees or brush shall be allowed to grow on the dam structure and, the dam embankment, spillway and appurtenances shall be maintained as described on the approved drawings.
15. After the construction of the dam has been completed, inspection reports shall be submitted to the Bureau in accordance with N.J.A.C. 7:20-1.11 of the Dam Safety Standards entitled: "Dam operating requirements and inspections, new and existing dams."
16. No flashboards or other obstruction shall be placed or permitted to remain on the crest of the spillway.
17. A complete set of 'as-built' designs, plans and specifications must be submitted to the Section upon completion of the project.
18. The professional engineer who has inspected the construction shall submit a written certification on the prescribed form that the structure has been constructed in conformance with the approved drawings and specifications.
19. A Water Lowering Permit from the Bureau of Freshwater Fisheries (BFF) is needed to manipulate water levels of any lake or impoundment. Call 908-236-2118 for an application and / or consultation. If applicable additional timing constraints, rates of lowering / refilling and fish / aquatic biota salvage requirements are found in this permit. Preliminary consultation with the BFF is highly recommended to avoid delays or complications with a Water Lowering Permit.
20. The target studies required to prevent adverse impacts to the State threatened Eastern Pond Mussel should be performed in accordance with the measures outlined in the State of New Jersey, Department of Environmental Protection, Division of Land Use Regulation Permit #'s: 0300-14-0003.1, WFD 140001, WFD 140002, CSW 140001, FWW 140001.

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21. A time restriction for is needed on any in-water disturbance or sediment generating activities and pile driving from 3/15 through 6/30 to protect the anadromous species spawning run in the area.
22. A time restriction for any sediment generating activities is needed from 4/1 through 6/30 to protect warm-water fish nest building and spawning activities.
23. The contractor should instruct all employees and sub-contractors to avoid any animals and, if possible, move any animals to the closest suitable habitat outside the work zone and release unharmed.
24. There should be a timing restrictions for in-stream work from Nov.1 to April 1 to minimize any stream flow change when turtles may be hibernating.
25. For out-of-stream work during the turtles active period - March 15 - November 15 – ENSP would like to have a qualified herpetologist be on-site to clear the work area of any turtles prior to work beginning and then have temporary fencing erected to keep turtles moving into the work area. This is especially critical when the work site is from 0-250 meters from a stream edge.
26. Out-of-stream work is safe to do from December 1 - March 1 at any distance from the stream. Out of stream work conducted during November 16 - November 30 or March 1 to March 14 that is less than 10 meters from a wood turtle stream should still have a qualified herpetologist on staff to clear the work area of any turtles prior to work beginning and then have temporary fencing erected to keep turtles moving into the work area.
27. When the use of concrete is proposed on a dam project, then any and all precautions must be taken to prevent raw concrete from coming in contact with the waters of the State of New Jersey, raw concrete is toxic to aquatic biota.
28. County Soil Conservation District BMP's for prevention of sediment movement should be used at all times and maintained for function.
29. The drawings hereby approved are twenty-four (24) sheets prepared by Greenman-Pedersen, Inc., undated and last revised except as noted, entitled:

“ROUTE 130 CRYSTAL LAKE DAM CONTRACT NO. 053023090”,

“KEY MAP”, sheet 1 of 34,

“TYPICAL SECTIONS”, sheet 2 of 34,

“PLAN SHEET INDEX”, sheet 3 of 34,

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“STANDARD LEGEND”, sheet 4 of 34,

“CONSTRUCTION PLANS”, sheets 6 and 7 of 34,

“PROFILES”, sheet 13 of 34,

“GRADES”, sheets 15 and 16 of 34,

“METHOD OF SECTIONS”, sheet 17 of 34,

“CROSS SECTIONS”, sheets 18, 19, 20 and 21 of 34,

CONSTRUCTION DETAILS”, sheets 22, 23 and 24 of 34,

“ROUTE 130 CONTRACT NO. 053023090 TOWNSHIPS OF
BORDENTOWN AND MANSFIELD, BURLINGTON COUNTY”,

“GENERAL PLAN AND ELEVATION”, sheet 27 of 34,

“SECTIONS”, sheet 28 of 34, unrevised,

“SUBSTRUCTURE DETAILS”, sheet 29 of 34, unrevised,

“NORTHWEST WING WALL RECONSTRUCTION”, sheet 30 of 34,
last revised March 10, 2015,


“STEEL SHEET PILE WALLS”, sheet 31 of 34, last revised March 10,
2015,

“CONCRETE REPAIR DETAILS”, sheet 32 of 34, unrevised,

“MISCELLANEOUS DETAILS”, sheet 33 of 34, unrevised,

and specifications entitled:

“CRYSTAL LAKE DAM US ROUTE 130, M.P. 53.5 TOWNSHIPS OF
MANSFIELD AND BORDENTOWN, BURLINGTON COUNTY, NJDEP
PERMIT APPLICATION DOCUMENTS, DAM SAFETY AND FLOOD
CONTROL (BUREAU)”, dated March 10, 2015.


John H. Moyle, P.E., Manager
Bureau of Dam Safety and Flood Control


Date