

Project :

Date :

***Full Environmental Assessment Form***  
***Part 3 - Evaluation of the Magnitude and Importance of Project Impacts***  
***and***  
***Determination of Significance***

Part 3 provides the reasons in support of the determination of significance. The lead agency must complete Part 3 for every question in Part 2 where the impact has been identified as potentially moderate to large or where there is a need to explain why a particular element of the proposed action will not, or may, result in a significant adverse environmental impact.

Based on the analysis in Part 3, the lead agency must decide whether to require an environmental impact statement to further assess the proposed action or whether available information is sufficient for the lead agency to conclude that the proposed action will not have a significant adverse environmental impact. By completing the certification on the next page, the lead agency can complete its determination of significance.

**Reasons Supporting This Determination:**

To complete this section:

- Identify the impact based on the Part 2 responses and describe its magnitude. Magnitude considers factors such as severity, size or extent of an impact.
- Assess the importance of the impact. Importance relates to the geographic scope, duration, probability of the impact occurring, number of people affected by the impact and any additional environmental consequences if the impact were to occur.
- The assessment should take into consideration any design element or project changes.
- Repeat this process for each Part 2 question where the impact has been identified as potentially moderate to large or where there is a need to explain why a particular element of the proposed action will not, or may, result in a significant adverse environmental impact.
- Provide the reason(s) why the impact may, or will not, result in a significant adverse environmental impact
- For Conditional Negative Declarations identify the specific condition(s) imposed that will modify the proposed action so that no significant adverse environmental impacts will result.
- Attach additional sheets, as needed.

**Determination of Significance - Type 1 and Unlisted Actions**

SEQR Status:             Type 1                       Unlisted

Identify portions of EAF completed for this Project:    Part 1             Part 2             Part 3

Upon review of the information recorded on this EAF, as noted, plus this additional support information

and considering both the magnitude and importance of each identified potential impact, it is the conclusion of the \_\_\_\_\_ as lead agency that:

A. This project will result in no significant adverse impacts on the environment, and, therefore, an environmental impact statement need not be prepared. Accordingly, this negative declaration is issued.

B. Although this project could have a significant adverse impact on the environment, that impact will be avoided or substantially mitigated because of the following conditions which will be required by the lead agency:

There will, therefore, be no significant adverse impacts from the project as conditioned, and, therefore, this conditioned negative declaration is issued. A conditioned negative declaration may be used only for UNLISTED actions (see 6 NYCRR 617.7(d)).

C. This Project may result in one or more significant adverse impacts on the environment, and an environmental impact statement must be prepared to further assess the impact(s) and possible mitigation and to explore alternatives to avoid or reduce those impacts. Accordingly, this positive declaration is issued.

Name of Action:

Name of Lead Agency:

Name of Responsible Officer in Lead Agency:

Title of Responsible Officer:

Signature of Responsible Officer in Lead Agency:



Date:

Signature of Preparer (if different from Responsible Officer)

Date:

**For Further Information:**

Contact Person:

Address:

Telephone Number:

E-mail:

**For Type 1 Actions and Conditioned Negative Declarations, a copy of this Notice is sent to:**

Chief Executive Officer of the political subdivision in which the action will be principally located (e.g., Town / City / Village of)

Other involved agencies (if any)

Applicant (if any)

Environmental Notice Bulletin: <http://www.dec.ny.gov/enb/enb.html>

# **THE NEW YORK STATE BARGE CANAL EARTHEN EMBANKMENT INTEGRITY PROGRAM**

## **FULL ENVIRONMENTAL ASSESSMENT FORM**

### **Part 3 Evaluation of Magnitude and Importance of Project Impacts**

#### **Project Description**

The New York State Canal System encompasses navigable 524-mile inland waterways and additional properties under the jurisdiction of the New York State Canal Corporation (NYSCC) that span western, central and northern New York. The Canal System is a historic and valuable resource, providing economic, recreational and aesthetic value to the state and local communities. A key component of the Canal System is earthen embankments that impound water to form waterways or feeders, totaling approximately 120 miles. The Canalway Trail, a network of approximately 300 miles of multi-use trails, is frequently co-located on the earthen embankments.

This environmental assessment addresses the potential impacts from the adoption and implementation of NYSCC's Barge Canal Earthen Embankment Integrity Program (EEIP). Proper maintenance of earthen embankments and improvements to their resiliency are imperative for protecting people, property and the environment, while preserving the Canal System as a navigable waterway through areas that exhibit great variance in adjacent land use and community character. Effective maintenance of the earthen embankments is also critical to long-term viability of the Canalway Trail. The EEIP formalizes management practices into a comprehensive program to reduce the risk of embankment failure due to erosion, seepage, or settlement. Under the EEIP, documented guidelines will provide management practices to:

- prevent conditions that could lead to embankment failure;
- prevent conditions that could make inspection and early identification of hazardous conditions difficult;
- maintain access to facilitate repairs in case of emergencies; and
- without compromising safety or regulatory compliance, maintain embankments consistent with existing community character.

The EEIP will address implementation of these practices for water impounding earthen embankments or features that abut and are parallel to the earthen embankments, including engineered alternatives to minimize or mitigate environmental impacts, but may not include individual structures located along the embankments or under the embankments (spillways, waste weirs, vertical walls, culverts and dive culverts are excluded features). Specifically, the scope includes all embankment material and impairments, and turf, vegetation, armoring or paving (e.g., trails) that's parallel to the embankment slopes and surfaces from outside the toe of the outboard slope on one side to ground level or the toe of the outboard slope on the other side. It includes water recording and management features used in regulation of water levels in the canal, and geotechnical instrumentation devices. It also includes design and implementation of certain

alternative solutions to vegetation removal, as well as amenities such as supplemental compatible vegetation, timber screening and fencing.

All work covered under the EEIP will be performed on lands under jurisdiction of the NYSCC or on lands where the NYSCC has authority to carry out embankment maintenance program activities. For performing this environmental assessment, NYSCC considered an additional 100 feet beyond property under jurisdiction of the NYSCC as part of the potential project study area.

### **Potential Project Impacts**

NYSCC identified relevant environmental areas that may be impacted by the proposed EEIP. Through the questions contained in Part 2 of the FEAF, NYSCC found potential environmental impacts that may result from the EEIP as follows:

1. impacts on land due to the depth to the water table, steep slopes, removal of natural material from embankments, long-term nature of the program, and erosion;
2. impacts on geological features, where specific land forms are identified or work is performed in proximity to National Natural Landmarks, involving alterations to the land form itself or accessibility;
3. impacts on surface water due to proximity of construction activities to freshwater wetlands and in the bed or banks of the Canal System, and usage of herbicides and pesticides around waterbodies;
4. impacts on groundwater limited to application of pesticides within 100 feet of irrigation sources;
5. impacts on flooding as the EEIP may provide for construction and maintenance activities within floodplains and on the Canal System, which includes embankments and dams (while dam inspections, maintenance and repairs are not including in the EEIP, adjacent dams are considered under FEAF Part 2 as they may be impacted by program activities on earthen embankments);
6. impacts on plants and animals largely due to loss of habitat and potential for use of pesticides and herbicides;
7. impacts on agricultural resources including use of Canal System water for irrigation, and potential for use of pesticides and herbicides;
8. impacts on aesthetic resources as visible from designated scenic or aesthetic resources, obstruction or elimination of scenic views, visible changes to the Canal System from publicly accessible vantage points during routine travel or recreational/tourism activities, and diminishment of public enjoyment and appreciation of the aesthetic resource;
9. impacts on historic and archeological resources as the Canal System is included on the National Register of Historic Places and is a National Historic Landmark, and there are numerous New York State or Nationally listed or eligible sites and archaeologically sensitive areas adjacent to the Canal System;
10. impacts on open space and recreation, which may result from implementation of the EEIP, including temporary interruptions in the usage of trail system, open space and other recreational resources along the Canal System during maintenance activities, as

- well as potential permanent changes in recreational resource conditions and potential to alter informal/unauthorized uses of NYSCC embankment areas;
11. impacts on transportation which may include changes to existing pedestrian or bicycle accommodations, and potential changes to Canal System navigation;
  12. impacts on noise, odor, and light which may increase due to implementation of the EEIP (such as noise from construction and other physical activities, and increased visibility of light from existing sources due to loss of vegetation);
  13. impacts on human health should the EEIP be implemented in or near areas having existing sources of contaminants;
  14. consistency with community plans may be impacted where proposed action(s) under the EEIP are different from, or in contrast to, surrounding land uses and land use plans or zoning regulations, including potential local or regional tree ordinances; and
  15. consistency with community character may be impacted where (1) proposed action(s) under the EEIP may alter, replace or eliminate existing facilities, structures, or areas of historic importance to the community, (2) where proposed action(s) may interfere with the use or enjoyment of officially recognized or designated public resources, and/or (3) proposed action(s) is inconsistent with the character of the existing natural landscape.

In its evaluation of these potential impacts, NYSCC recognizes that certain areas may have environmental attributes important to nearby residents, businesses and communities. To be inclusive of potential concerns, the scope of this review also includes identifying means to ensure embankment safety while preserving, where feasible, existing character through cost-effective alternatives to vegetation removal. Accordingly, potential impacts of certain types of engineered solutions, which would minimize or mitigate potential environmental impacts of other types of embankment management methods, will be included in this environmental review. Where alternatives to vegetation removal are not feasible as determined by NYSCC, environmental impacts of mitigation such as supplemental compatible vegetation or visual screening may be installed to reduce environmental impacts of the work.

NYSCC's assessment of these potential impacts found that adoption and implementation of the EEIP may have significant adverse environmental impacts for which NYSCC is issuing a Positive Declaration. NYSCC has decided to require an environmental impact statement to further assess the proposed action. As such, NYSCC is issuing a draft scoping document, available for public review; and, thereafter, will prepare a draft generic environmental impact statement (DGEIS). Scoping will define areas of concern to address within the DGEIS, and will produce a more streamlined, well-focused document. NYSCC will hold a number of public hearings on the DGEIS in proximity to locations potentially affected by the EEIP. NYSCC will discuss comments received during the public hearing process within a final generic environmental impact statement (FGEIS), and complete the SEQR review by preparing a findings statement.

### **Reasons Supporting this Determination (Positive Declaration)**

NYSCC's adoption and implementation of the proposed EEIP may pose significant adverse environmental impacts. This section considers the potential severity, size or extent of the impacts identified in the context of a programmatic approach to management of earthen embankments,

including activities stated above in the Project Description. NYSCC considered the importance of the impact the geographic scope, duration, probability of the impact occurring, number of people affected by the impact and any additional environmental consequences if the impact were to occur. NYSCC's assessment considered programmatic approaches to earthen embankment integrity, giving attention to potential impacts from the types of specific activities that may be carried out under the program with a holistic approach to earthen embankment management. The reasons supporting this positive declaration determination are generally stated to support full inclusion in the next steps of this environmental review: scoping and preparation of DGEIS that will further refine and explore the potential significant adverse environmental impacts and methods to minimize and mitigate them, understanding that such impacts may not be avoidable in providing stable and safe earthen embankments and associated structures, including the trails that depend on them.

1. **Impacts on land** are due to the depth to the water table, steep slopes, geographic extent, removal of natural material from embankments, long-term nature of the program, and erosion:

While the depth to the water table may be three feet or less at locations covered under the EEIP, the EEIP activities are not expected to adversely affect the water table, apart from changes in the Canal System's water level as performed seasonally or as may be required for EEIP activities. As activities in areas where the depth to water table is shallow may impact subsurface facilities (such as basements, storage tanks, underground utilities, waste dumps, and septic tank absorption fields), NYSCC plans to advise Canal System neighbors in proximity to EEIP activities. Other potential impacts on groundwater and flooding are addressed below.

As the EEIP covers over 120 miles of earthen embankments and will be continuously implemented, the potential environmental impacts are significant. Activities under the EEIP will likely involve land disturbance in areas where slopes may be or exceed 15%, as earthen embankments are sloped. NYSCC designs and builds the embankments to ensure they are properly sloped to avoid erosion. This includes use of appropriate soils to limit land slippage and erosion, compatible vegetation, along with other potential measures (engineered solutions) to ensure integrity and reduce unsafe conditions. The likelihood of an adverse environmental impact occurring will be reduced by NYSCC's implementation of erosion and sedimentation controls to address possible erosion during the work activities and ensuring the long term integrity of the embankments, which is an objective of the EEIP. NYSCC will also, as necessary, prepare Stormwater Pollution Prevention Plans (SWPPPs). Another way in which the EEIP may impact land is implementation of activities (including vegetation management) that may include tree and stump removal, filling voids, reestablishing grades, planting or seeding with compatible vegetative cover, installing toe-drains, implementing other engineering measures, and aesthetic landscaping/screening. These activities will result in the removal of natural materials from the embankment, but impacts will be managed (erosion and sediment controls, SWPPPs, use of clean fill material, use of compatible vegetation, etc.). Likewise, vegetation management will affect the landscape, although it will not affect the slopes of the embankments.

There are significant impacts on land due to the potential removal of large volumes of natural materials (vegetation and soil) across the entirety of the earthen embankment areas over the operational lifetime of the Canal System. Looking at this impact cumulatively (rather than

minimizing the impact on an activity by activity basis locally), further consideration will be given in the scoping and DGEIS along with the other impacts on land.

2. **Impacts on geological features**, where specific land forms are identified or work is performed in proximity to National Natural Landmarks, involving alterations to the land form itself or accessibility:

Geographic features have been identified adjacent to or in proximity to Canal System earthen embankments. EEIP activities have the potential to limit access to the site containing the feature or may impact the setting of the feature (such as effecting the aesthetic characteristics of the area). Further consideration will be given in the scoping and DGEIS so that these identified areas are properly addressed in the development and implementation of the EEIP.

3. **Impacts on surface water** are due to proximity of EEIP activities to freshwater wetlands, their regulated adjacent areas, and in the bed or banks of the Canal System and its tributaries, and potential usage of the herbicides and pesticides around waterbodies:

The EEIP activities have the potential to impact wetlands and other surface waters, including Canal System waterbodies, in proximity to earthen embankments. While no change in size of Canal System waterbodies is anticipated, water levels within the Canal System may fluctuate to accommodate EEIP activities. These activities may affect ecology (including rare, threatened and endangered species and their habitats), water quality, use (including navigation, recreation and irrigation), or aesthetics. In addition, implementation of the EEIP may include activities subject to regulations, such as: New York State Department of Environmental Conservation (NYS DEC) requirements (including Article 24 Freshwater Wetlands, Clean Water Act Section 401 Water Quality Certification, and State Pollutant Discharge Elimination System permit, application of herbicides and pesticides, etc.), NYS Department of State Coastal Management Policies (incorporating applicable local waterfront revitalization plans), State Historic Preservation Office requirements, and U.S. Army Corps of Engineers permits.

4. **Impacts on groundwater** limited to application of pesticides within 100 feet of irrigation sources:

The potential for adverse impacts to groundwater are limited to use of pesticides, herbicides, or insecticides during EEIP activities, which will be applied in accordance with regulatory requirements. Potential concern about the use of these substances is focused on migration through groundwater to surrounding areas (additional impacts of pesticide and herbicide usage as addressed in other sections). Given the design of the earthen embankments, routine implementation of the EEIP does not anticipate (1) extensive excavation, dredging or mining activities, (2) creation of significant additional demand for water other than to establish compatible vegetation, (3) generation of liquid waste, (4) storage of petroleum or chemicals, or (5) generation, treatment, storage, or disposal of hazardous wastes. These potential concerns will be further addressed in the scoping and draft GEIS.

5. **Impacts on flooding** as the EEIP may provide for construction and maintenance activities within floodplains, floodways and/or on the Canal System, which includes embankments and

dams (while dam inspections, maintenance and repairs are not including in the EEIP, adjacent dams are considered under FEAF Part 2 as they may be impacted by program activities on earthen embankments):

The EEIP activities have the potential to impact lands subject to flooding as the earthen embankments are located in a floodway or floodplain, contain wetlands, and/or have shallow depths to water tables. However, no activities under the EEIP are expected to increase the potential for flooding, such as by changing drainage patterns. The EEIP may include requirements to address floodplain development/management laws or ordinances prior to commencing certain activities (land disturbances) that could impact flooding, or may provide for flood studies to show flood elevations will not increase as a result of the activity. Potentially impactful activities include: (1) grading, fill, or land clearing in the floodway or floodplain, and (2) development in the floodway or floodplain (including construction of impermeable surfaces and structures that affect drainage patterns or water flow). As the EEIP is being developed and implemented to formalize best practices for management of earthen embankments, mitigation methods will be considered to minimize potential impacts on flooding. Indeed, maintaining integrity of these earthen embankments protects against the flooding risk that the Canal System poses. Implementation of the EEIP is not expected to impact Canal System dams as the activities are not going to increase runoff to a dam's impoundment that exceeds its design or challenge its ability to safely pass flood flows. Also, no changes in dam classification are expected as a result of EEIP activities adjacent to or downstream of a dam.

**6. Impacts on plants and animals** largely due to loss of habitat and potential for use of pesticides and herbicides:

The EEIP activities have the potential to impact plant and animal habitats. The EEIP will consider impacts to these habitats and mitigation measures in consideration of the environmental conditions for the plants growth and reproduction, animal uses (habitat for feeding, cover, reproduction, and migration), with particular attention to how the impacted areas may provide habitat to rare, threatened, or endangered (RTE) species or serve as an important buffer that protects the primary habitats of threatened and endangered species that are found nearby, or part of a larger habitat needed for species support. As the EEIP could result in a loss of species or habitat, NYSCC will give further careful consideration of these questions in the scoping and GEIS phases of this environmental review. Initial assessment has identified plants and animals, along with potential habitats, that may be impacted by EEIP activities and will be addressed in the GEIS to limit impacts that will affect habitats known to be used by RTEs, if any are identified in EEIP activity. The proposed action will involve removing varmints/nuisance animals and vegetation consistent with NYS DEC requirements. Landscaping will establish compatible vegetation, including native species and pollinators. Uses of pesticides and herbicides will be in accordance with applicable regulations. The EEIP may include consideration for the identification of invasive plant species and management practices for removal and prevention of spreading these species. Where existing vegetation is removed, it will include considerations to prevent invasive species from colonizing these areas.

7. **Impacts on agriculture resources** including use of Canal System water for irrigation, potential for use of pesticides and herbicides:

In some cases, NYSCC will conduct an EEIP action in the vicinity of agricultural resources and these potential impacts will be considered in the scoping and draft GEIS. This action is important for the maintenance of the canal system, which provides benefits to surrounding agricultural resources, including as an irrigation resource. The potential impact involves the use of herbicides and pesticides that may reach agricultural resources from application areas on the earthen embankments. Impacts from other vegetation management activities to support integrity of the earthen embankments are not expected to have an adverse environmental impact, such as access to earthen embankments to perform EEIP activities. Loss of habitat of agriculturally beneficial species (such as pollinators) will be addressed as stated above.

8. **Impacts on aesthetic resources** as visible from designated scenic or aesthetic resources, obstruction or elimination of scenic views, visible changes to the Canal System from publicly accessible vantage points during routine travel or recreational/tourism activities, and diminishment of public enjoyment and appreciation of the aesthetic resource:

The adoption and implementation of the EEIP will result in visual changes to the earthen embankments, which may vary seasonally. The impact of EEIP activities will vary based on the setting, including surrounding land uses, appearance of the earthen embankment (such as type and density of vegetation), size and slope of the earthen embankment, visibility of the EEIP activity area, and effects on the scenic resource viewshed. Given the variety of areas covered by the EEIP, the programmatic approach will consider the aesthetic resource impact of particular actions and methods to minimize and mitigate impacts through alternative methods and aesthetic enhancements, which will be further addressed in the scoping and draft GEIS. The potential for moderate to large impacts exists where the implementation of the EEIP results in sharp contrast to the surrounding land use, is highly visible, results in the loss of a scenic resource, and/or is visible year round. Aesthetic improvements will be used as a means to minimize or mitigate visual changes resulting from EEIP activities as viewed during routine travel by residents, including travel to and from work, and those enjoying recreational or tourism based activities.

9. **Impacts on historic and archeological resources** as the Canal System is included on the National Register of Historic Places and is a National Historic Landmark, and there are numerous New York State or National listed or eligible sites and archaeologically sensitive areas adjacent to the Canal System:

NYSCC will conduct the EEIP activities in the vicinity of the listed New York State Barge Canal, as well as other listed or eligible sites. Removal of woody vegetation is consistent with the earthen embankment's historic character. While EEIP activities will disturb soils that have been previously disturbed as part of the embankments (manmade structures), specific historic or archeologically sensitive areas adjacent to EEIP activities may be impacted and merit further consideration in the scoping and DGEIS.

10. **Impacts on open space and recreation**, which may result from implementation of the EEIP, including temporary interruptions in the usage of trail system, open space and other

recreational resources along the Canal System during maintenance activities, as well as potential permanent changes in recreational resource conditions and potential to alter informal/unauthorized uses of NYSCC embankment areas:

EEIP activities may take place in proximity to one or more trailways and in areas used for boating and fishing. The majority of work will take place during times when the canal is dewatered and boating and fishing opportunities are limited. As for the trailways, the EEIP will include enhancements to the trail for access during and after individual project activities. EEIP will also include trailway restoration in areas disturbed during prior tree cutting activities. Temporary detours may be utilized to provide uninterrupted use of the Canalway Trail.

**11. Impacts on transportation** which may include changes to existing pedestrian or bicycle accommodations as well as potential changes to Canal System navigation:

While EEIP activities are not expected to increase traffic or include construction of paved areas for vehicular use, or otherwise impact transit access to existing roadways. The EEIP activities may include changes to existing pedestrian or bicycle accommodations, and potential changes to Canal System navigation that could degrade existing transit access and/or pedestrian or bicycle accommodations. In some locations, EEIP may result in temporary alterations in the pattern of movement of people or goods. As such, the impacts on transportation will be addressed in the scope and DGEIS.

**12. Impacts on noise, odor, and light** which may increase due to implementation of the EEIP (such as noise from construction and other physical activities, and increased visibility of light from existing sources due to loss of vegetation):

Heavy equipment may generate noise, odors and light during EEIP activities. As impacts are further addressed in the scoping and DGEIS, the EEIP may consider NYSCC's and its contractors' compliance with local ordinances for noise control, if necessary, and adjust work schedules and activities on a daily, weekly or seasonally basis to otherwise limit impacts.

Loss of vegetation and other existing screening which may result in noise, odor and light impacts to the surrounding area will be addressed in the scope and DGEIS.

**13. Impacts on human health** should the EEIP be implemented in or near areas having existing sources of contaminants:

EEIP activities that result in generating organic debris will be managed in accordance with NYS DEC's Part 360 Solid Waste regulations. Likewise, importing clean fill or exporting excess soil generated from EEIP activities will be handled in accordance with the appropriate NYS DEC regulations. Intrusive activities required in areas having existing sources of contamination will be handled in accordance with the DEC's Part 375 Environmental Remediation Program.

14. **Consistency with community plans** may be impacted where proposed action(s) under the EEIP are different from, or in contrast to, surrounding land uses and land use plans or zoning regulations:

The earthen embankments of the Canal System cover 120 miles through a variety of surrounding land uses. These structures have largely been in place for a century, such that planning in surrounding communities, if any, has taken place with the Canal System as is. It is not expected that the activities under the EEIP will affect population growth, be inconsistent with zoning regulations or land use plans, change density of development, create the need to expand local infrastructure, or lead to secondary impacts. However, with the understanding that the appearance of the earthen embankments may change and that there are a large number of communities that will be affected by the EEIP, consistency with community plans will be included for further consideration in the scoping of this review.

15. **Consistency with community character** may be impacted where (1) proposed action(s) under the EEIP may alter, replace or eliminate existing facilities, structures, or areas of historic importance to the community, (2) where proposed action(s) may interfere with the use or enjoyment of officially recognized or designated public resources, and/or (3) proposed action(s) is inconsistent with the character of the existing natural landscape:

The Canal System and Canalway Trail have an important place in the communities where they are located. NYSCC recognizes that the activities under the EEIP could affect the use and enjoyment of the public resources provided through changes to accessibility during work activities and in appearance during and after EEIP activities, which may be inconsistent with existing landscapes. As also addressed in the assessment of other impacts, EEIP activities are expected to change the visual character of the earthen embankment area, and may also introduce odors, lights, noise or traffic to specific areas based on the scope of activities under the EEIP. EEIP activities may also include limited increases in the area of the Canal System to address embankment integrity enhancements. While the land use and design of the embankment will remain consistent with its historic character, other aspects of community character impacts, including to the Canalway Trail, will be further explored in the scoping and DGEIS.