Environmental Permitting For Bridge and Culvert Projects

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NYSDEC
Div of Environmental Permits
Protection of Waters Regulations

• The Protection of Waters Regulatory Program was created to prevent undesirable activities on water bodies by establishing and enforcing regulations that:
  • are compatible with the preservation, protection and enhancement of the present and potential values of the water resources;
  • protect the public health and welfare; and
  • are consistent with the reasonable economic and social development of the state.
Regulations & Standards

• Water Quality Certificate - Section 401, Clean Water Act,
• Individual or Blanket Certifies that the Federal Action will not contravene State Water Quality Standards
• Article 15 Excavation & Fill in Navigable Waters Permit or
• Article 15 Stream Disturbance Permit Permit to Disturb the Bed and Banks of a Protected Stream
Art 15 Standards For Issuance

• §608.8 Standards
• The basis for the issuance or modification of a permit will be a determination that the proposal is in the public interest, in that:
  • (a) the proposal is reasonable and necessary;
  • (b) the proposal will not endanger the health, safety or welfare of the people of the State of New York; and
  • (c) the proposal will not cause unreasonable, uncontrolled or unnecessary damage to the natural resources of the state, including soil, forests, water, fish, shellfish, crustaceans and aquatic and land-related environment.
Uniform Procedures Act (UPA)

- NYCRR Part 621
- Governs How the Department Processes Applications
- Due Process
- Time Frames
- Public Notice & Comment Period
- Coordination with State Historic Preservation Act-NYSOPR&HP
SEQRA

• State Environmental Quality Review Act
• Applies to Discretionary Agency Actions
• New Crossings – Unlisted Action
• Repair & Replacement – Type II list
• Determination of Significance
• Will the project require an Environmental Impact Statement?
Federal Regulations

• The Army Corps of Engineers regulates dredging, the discharge of dredged or fill material, and the construction of certain structures in waterways and wetlands.
• Section 404 of the Clean Water Act
• Section 10 of the Rivers and Harbors Act
• Section 106 Historic Preservation
Federal Regulations

• Individual Permits or Nationwide Permits
• Most Bridge and Culvert Projects would be covered under Nationwide # 3 – Maintenance
• Nationwide # 14 – Linear Transportation Projects
• Nationwide # 33 – Temporary Construction, Access and Dewatering
Other State and Federal Jurisdictions

• ECL Article 11 and Endangered Species Act
• State Historic Preservation Act and Section 106
• ECL Article 24 and Federal Wetland Regulations
• Department of State Coastal Consistency Certification
• Adirondack Park Agency
• NYS Office of General Services- State Owned Lands
• NYSDEC Temporary Revocable Use Permit
Application Requirements

- Joint Application for Permit Form
- Environmental Assessment Form
- New crossings – SEQRA - Short Form
- Repairs – Type II (SEQRA Exempt)
- Location Map: A photocopy of a USGS topographic map or equivalent will usually be sufficient (3 copies)
- Project Plans: at a scale of 1" = 50' or larger (3 copies)
- Photographs: Recent clear photographs of the project site (3 copies)
Joint Application For Permit
Instructions for Completing

Part 1 - Project Information. The applicant or project sponsor is responsible for the completion of Part 1. Responses become part of the application for approval or funding, are subject to public review, and may be subject to further verification. Complete Part 1 based on information currently available. If additional research or investigation would be needed to fully respond to any item, please answer as thoroughly as possible based on current information.

Complete all items in Part 1. You may also provide any additional information which you believe will be needed by or useful to the lead agency; attach additional pages as necessary to supplement any item.

### Part 1 - Project and Sponsor Information

<table>
<thead>
<tr>
<th>Name of Action or Project:</th>
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<tbody>
<tr>
<td>Project Location (describe, and attach a location map):</td>
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<tr>
<td>Brief Description of Proposed Action:</td>
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<tr>
<th>Name of Applicant or Sponsor:</th>
<th>Telephone:</th>
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<tbody>
<tr>
<td>Address:</td>
<td>E-Mail:</td>
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<tr>
<th>City/PO:</th>
<th>State:</th>
<th>Zip Code:</th>
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1. Does the proposed action only involve the legislative adoption of a plan, local law, ordinance, administrative rule, or regulation? _NO YES_

   If Yes, attach a narrative description of the intent of the proposed action and the environmental resources that may be affected in the municipality and proceed to Part 2. If no, continue to question 2.

2. Does the proposed action require a permit, approval or funding from any other governmental Agency? _NO YES_

   If Yes, list agency(s) name and permit or approval.

3. a. Total acreage of the site of the proposed action? ____ acres

   b. Total acreage to be physically disturbed? ____ acres

   c. Total acreage (project site and any contiguous properties) owned or controlled by the applicant or project sponsor? ____ acres

4. Check all land uses that occur on, adjacent and near the proposed action.

   - Urban
   - Rural (non-agricultural)
   - Industrial
   - Commercial
   - Residential (suburban)
   - Forest
   - Agriculture
   - Aquatic
   - Other (specify): __________________________

   - Parkland
Why do We Regulate Stream Crossings?

• Turbidity and Sediment Control

• Stream Stability

• Aquatic Connectivity & Fish Passage
Turbidity Standard

- State Water Quality Regulations CRR Title 6 Chapter X
- Standard for Turbidity: Part 703.2.
  “No increase that will cause a substantial visible contrast to natural conditions.”

- Natural Turbidity during High Flows- Water has the energy to carry the sediment down stream past spawning habitat.

- Turbidity during low flows creates deposition of fines on spawning habitat
Stream Stability

- Streams must transport sediment as well as water
- Channel forming flows are equal to the Bankfull Discharge
- Bankfull Discharge $= 1.2 - 1.5$ year return rate
- Channel size and dimensions are critical to maintaining stability
- Openings that are too small create erosion below culvert and deposition above culvert
- Channels that are too wide create deposition under bridge
Crossing Sizing

- Typically 1.25 time the bankfull width of the stream
- Culverts Embedded 20% of height below stream bed

Adapted from Newbury & Gaboury, 1993
Aquatic Connectivity

• Bridges have the fewest problems
• Delaware County DPW – Sheetpile Bridge Design
• 3 sided box culvert
• Bottomless arch pipe

• Squash tubes – embedded at least 12 “
• Round culverts - embedded 20%
• Open bottom designs have more capacity
PDH Questions

1. Besides ECL Article 15 and Section 404 what other jurisdictions may have a role in the Permit Process?

2. What 3 items does NYSDEC consider when reviewing bridge and culvert Projects?

3. What two things must a stream transport?

4. How often does the channel forming or bankfull event occur?

5. What 4 items should a Complete Application contain?
Additional Information

• Application Instructions and Contact Information
• NYSDEC Website: http://www.dec.ny.gov
• http://www.dec.ny.gov/docs/permits_ej_operations_pdf/jntappinstruc.pdf
• Stream Crossings
• Protecting and Restoring Stream Continuity
• http://www.dec.ny.gov/permits/49060.html
JOINT APPLICATION FORM - INSTRUCTIONS

Use this application to apply for Permits and Determinations from all of the listed state and federal agencies. This form is for all projects that affect streams, waterways, wetlands, wetlands, coastal areas, and sources of water withdrawal.

New York State
Department of Environmental Conservation (DEC)
Office of General Services (OGS)
Department of State (DOS)

Type or print clearly in ink. This form has 2 pages. Incomplete, illegible or incomplete information may delay processing and a final decision on your application. Individual agencies may request additional information to complete your application. If you have any questions, contact the Agency or the Agency website listed on Page 2 for further information.

PERMITS REQUESTED: You are responsible for obtaining all federal, state, or local permits or other approvals. Check all permits/determinations you are applying for from the listed agencies.

You must obtain separate authorizations or determinations of no permit required from each agency in accordance with their jurisdiction prior to initiation of work.

APPLICANT / OWNER / CONTACT INFORMATION AND SIGNATURES: Signatures of the Applicant, Owner and Agent, where applicable, are required.

Applications by a Corporation must be signed by a member of the board of directors or a "high managerial agent" of the corporation as that term is defined in the § 30.0 of the Penal Law; a Partnership by a general partner; a Sole Proprietorship by the proprietor; a Limited Liability Company by member or manager in accordance with the LLC's articles of organization as filed with the Secretary of State.

Applications by a State Agency must be signed by a person duly designated by the commissioner or other agency head. Applications by Municipalities (counties, cities, towns and villages) and Public Corporations must be signed by the head of a substantive agency or department, or a person duly designated by the chief executive officer.

Construction or work contractors may serve as a contact/agent on behalf of the applicant, but cannot be identified as the applicant or prospective permittee should a permit be issued.

PROJECT / FACILITY LOCATION INFORMATION: If you are able to supply accurate project location coordinates, please do so. Location coordinates must be expressed in North American Datum (NAD) units (i.e., UTM Zone 16 extended to encompass the entire state) or latitude and longitude.

Coordinates may be obtained from DEC's online Environmental Resource Mapper (http://dec.ny.gov/enviro/map.html), using the Identify tool.

PROJECT DESCRIPTION AND PURPOSE: Provide a complete narrative description of the proposed work and its purpose. Attach additional pages as necessary.

REQUIRED APPLICATION ATTACHMENTS
- Attach and submit the following to each involved Agency:
- 1) LOCATION MAP - A US Geological Survey (USGS) Quadrangle Map, or equivalent identifying the project location. The map should include wetlands, seasonally wet streams and ditches. An acceptable location map may be obtained from DEC's online Environmental Resource Mapper (http://dec.ny.gov/enviro/map.html), using the IdentifY tool.
- 2) PROJECT PLANS - A sketch plan view and cross-section drawn to scale with dimensions given, or engineering drawings showing location and extent of work. Note from which direction the photographs required in (3) are taken.

PHOTOGRAPHS - At least 3 color photographs, taken from multiple directions, which clearly depict the site of the proposed activity without any prior work. Include any existing structures on the site and the area surrounding the site. Indicate the time and date when the photographs were taken.

OTHER REQUIREMENTS
- If applying to State Agencies: State Environmental Quality Review Act regulation (SEQRA), 6 NYCRR Part 617 is applicable (see www.dec.ny.gov/permits/617.html) -
  a) If the project is an Unlisted Action, submit a completed Part 2 of a Short Environmental Assessment Form.
  b) If the project is a Type I Action, submit a completed Part 1 of a Full Environmental Assessment Form.

- If applying to NYS DEC - Complete the Permit to Inspect Property Supplement * to provide consent for DEC inspection. Failure to grant consent can be grounds for, and may result in, permit denial.

- If applying to USEPA/NYS DUS - If the project requires a federal permit and lies within or affects the Coastal Zone (see the DOSS Coastal Area Maps at http://www.dec.ny.gov/chemical/corpmap.html) submit a completed Federal Consistency Review Form (available at www.nyswaterways.com/consistencies/performer) to NYS DEC with a copy to USEPA.

SPECIAL SUPPLEMENTS AND REQUIREMENTS FOR SPECIFIC PERMIT APPLICATIONS

Applications for must be accompanied by:
- Structures Supplement D-1
- Docks and Moorings Supplement D-2
- Water Withdrawal... Supplement WW-1 *
- Long Island Woodland Regional specific supplement *
- Wetland, Scenic and Recreation... Supplement RSR-1 *
- Incidental Take... Supplement IT-1 *
- Aquatic Vegetation, Aquatic... Category specific form available
- Insect, and Fish Control... available at NYS DEC offices and www.dec.ny.state.ny.us/.

For USEPA Section 404 Clean Water Act permits and specific Nationwide permits - A 401 Water Quality Certification must be obtained from NYS DEC.

For projects within the Adirondack Park - To determine permitting applicability, contact -

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