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FWIA Scope of Work

April 2021

TACONIC INC.
136 COON BROOK RD
PETERSBURGH, NY 12138

Scope of Work for Fish & Wildlife Impact Analysis
(Part 1) for the Taconic Plastics Facility

SCOPE OF WORK FOR FISH & WILDLIFE IMPACT ANALYSIS (PART 1) AT TACONIC 136 COON BROOK ROAD, PETERSBURGH, NY 12138

The following is a scope of work summary for the preparation of a Fish and Wildlife Impact Analysis (Part 1) for the Taconic facility located at 136 Coon Brook Road, Petersburg, NY 12138.

The purpose of the Fish and Wildlife Impact Analysis (FWIA) Part 1 is to identify actual or potential impacts to fish and wildlife resources from site contaminants of ecological concern. The FWIA will be conducted to meet the requirements of the New York State Department of Environmental Conservation (NYSDEC) – Division of Environmental Remediation DER-10 Technical Guidance for Site Investigation and Remediation, dated May 2010.

This phase includes completing a qualitative evaluation of actual or potential impacts to fish and wildlife resources from Site-related constituents. The evaluation will include the identification and description of the ecological resources located on and within 0.5-miles of the Site. Prior to site work and/or sampling, a detailed field work plan will be developed for review and approval by the NYSDEC. Available information and the resource descriptions developed from the desktop review and Site evaluation will be used to characterize the exposure setting, identify the constituents of potential ecological concern, constituent migration pathways, and evaluate potential Site-related effects to local fish and wildlife resources. The findings of the Part 1 FWIA will be presented in draft and final reports for Taconic and NYSDEC review and comment.

The resource characterization consists of the following five steps:

1. Identify all fish and wildlife resources based upon knowledge of the site and a search of DEC records and/or other sources. Resources identified will be indicated on a site map. The base map may be derived from such sources as aerial photos, ground-level photos, USGS topographic maps or soils maps. All deliverables will be provided in accordance with the FWIA, 1994 guidance document.
 - a. a topographic map covering an area within two (2) miles of the site boundary, illustrating the location of the site, the site perimeter, and the following documented fish and wildlife resources:
 - i. NYSDEC significant habitats as defined by the NYS Natural Heritage Program;
 - ii. habitats supporting rare, threatened and endangered species;
 - iii. NYS regulated wetlands;
 - iv. waterways including all classified waters;
 - v. wild, scenic and recreational rivers;
 - vi. significant coastal fish and wildlife habitats, streams and lakes; and

- vii. state forests, forest or nature preserves, parks, or other designated open or green spaces.
 - b. a general cover type map for the area within one-half (1/2) mile of the site showing any:
 - i. terrestrial, marine or freshwater habitat, such as woodlands, fields, wetlands (tidal, freshwater), shellfish beds, weed beds or NYS significant habitats; and
 - ii. any rare NYS ecological communities.
 - c. a drainage map illustrating surface flows after hydrological events.
- 2. Describe the resources on the site and within one-half (1/2) mile of the site. Much of the information required for the description of resources may be based upon existing knowledge of the site and a search of DEC records or other sources. Field verification will be completed as a part of this task to confirm field conditions and verify desktop mapping results. If resources that may be affected by site-related contaminants exist farther than one-half mile from the site, this information will be provided. The description of the resources will include:
 - a. a description of cover types, typical vegetative species, rare or protected plants;
 - b. DEC freshwater wetlands and stream classifications, and tidal wetland types;
 - c. typical fish and wildlife species to be expected for each cover type and endangered, threatened, rare species or species of special concern;
 - d. observations of stress including leachate or other seeps, exposed waste, absence of biota and dead or dying vegetation;
 - e. recorded fish kills or other instances of wildlife mortality associated with the Site;
 - f. existing fish or wildlife consumption advisories;
 - g. a qualitative assessment of the general ability of the area to support fish and wildlife or act as corridors for fish and wildlife movement; and
 - h. the current and potential use of the resource by humans for hunting, fishing, wildlife observation, scientific research and other recreational or economic activities.
- 3. Identify all applicable fish and wildlife regulatory contaminant-specific and site-specific criteria. Contaminant-specific criteria shall include guidance values and water quality standards for the protection of aquatic life, and sediment criteria as described by the Division of Fish and Wildlife. Site-specific criteria shall describe performance standards for issued permits. Criteria which include the regulation and maintenance of fish and wildlife resources for human use shall be identified.

4. Identify contaminant migration pathways and any fish and wildlife exposure pathways. Fish and wildlife exposure pathways are considered:
 - a. complete pathways in all instances where contaminants are potentially available for exposure to fish and wildlife resources regardless of the total extent of the contaminant exposure area or number of individuals exposed. Where complete pathways are identified:
 - i. they will be included in the conceptual site model; and
 - ii. any site or near-site features that could act as exposure pathways on or off the site, such as drainage ditches, lagoons, outfalls and seeps, will be included on the site maps; or incomplete pathways, if no exposure pathways are present. Where no complete pathways are identified, no further work on the FWRIA is needed.
5. Identify contaminants of ecological concern. As described in DER-10, contaminants of potential ecological concern are:
 - a. those contaminants that have been identified by the investigation as having been discharged or disposed at a site, which have been determined to exist in areas of identified fish and wildlife resources at concentrations that are known to:
 - i. bioaccumulate or biomagnify in the aquatic, marine or terrestrial food chain;
 - ii. result in toxic effects in biota; and/or
 - iii. potentially contribute to the need for a health advisory for the consumption of fish or wildlife; and
 - b. identified at a site by:
 - i. comparing site contaminants to SCGs for the protection of biota in each medium of concern (surface water, sediments, soil or biota); or
 - ii. if such SCGs do not exist, criteria should be derived using methods established in SCGs (e.g., 6 NYCRR Part 706 for surface water) and/or by a toxicity assessment. A toxicity assessment should:
 - be conducted using applicable state or federal guidance;
 - be based on available scientific literature; and
 - compare levels of site contaminants to the reference toxicity values developed; and
 - c. are considered to be present at a site when the contaminant concentrations exceed the applicable SCGs or the developed reference toxicity values, identified by subparagraph b. above.

For this FWIA Part 1, “contaminants” to be evaluated for ecological concern will consist of those compounds meeting the definition of “contaminants” in 6NYCRR Part 375-1.2 (g). Additionally, as requested by the NYSDEC, the FWIA Part 1 will also consider the other PFAS as listed in the DEC document “Sampling, Analysis, and Assessment of Per and Polyfluoroalkyl Substances (PFAS), October 2020, Appendix G-PFAS Analyte List.

Both contaminant-specific and site-specific criteria applicable to the remediation of fish and wildlife resources will be identified. Examples of contaminant-specific criteria include water quality standards and guidance values for the protection of aquatic life (6 New York Codes, Rules, and Regulations [NYCRR] Part 701 and NYSDEC Division of Water Technical and Operational Guidance Series [TOGS] 1.1.1) and sediment criteria developed by the Division of Fish and Wildlife (Technical Guidance for Screening Contaminated Sediments).

Site-specific criteria include the Freshwater Wetlands Act and its implementing regulations (NYS Environmental Conservation Law [ECL] Article 24, 6 NYCRR Parts 663 and 664), The Tidal Wetlands Act (ECL Article 25, 6 NYCRR Part 661) and the laws and regulations governing streams and navigable water bodies (ECL Article 15, 6 NYCRR Part 608). Identification of site-specific criteria will briefly describe performance standards for permit issuance cited in the regulation, as appropriate.

The responsibilities of the Division of Fish and Wildlife include the regulation and maintenance of fish and wildlife resources for human use. Consequently, the Division and other agencies have developed criteria that reflect this role. These criteria will also be identified.

Since there are no SCGs for the PFAS Analyte List for the protection of biota, for this FWIA Part 1, evaluation of the ecological toxicity of PFAS will consist of a desktop literature review of the ecological toxicity of those PFAS on the Analyte List that have been detected and are associated with the Site. Development of site-specific SCGs and toxicity assessments as described in DER-10 subparagraph 3.10.1 (c) 4. ii. are not proposed for in the FWIA Part 1.

Prior to proceeding with the FWIA Part 2, Taconic and the DEC will discuss the appropriate list of PFAS and other compounds for further evaluation of actual or potential adverse impacts to fish and wildlife resources.

All documentation and results of a FWRIA Part 1 will be submitted to the NYSDEC for review.