

TERRESTRIAL ENVIRONMENTAL SPECIALISTS, INC.

SUMMER 2004 NEWSLETTER

WETLAND PERMITS DELAYED BY OTHER REQUIRED STUDIES

If you have been involved with a state or federal wetland or water resource permit recently, you know that the process is complicated and can be inordinately time consuming. Permit application packages must include very specific information on existing wetland or water resources, project plans, alternatives, impacts, and possibly mitigation.

Although somewhat more detailed today than in past years, these items have always been part of permit application packages. What surprises a lot of applicants is the seemingly unrelated information required to make a permit application complete. The required information can include: (1) cultural resource studies, (2) endangered and threatened species surveys, (3) coastal zone consistency assessments, (4) State Environmental Quality Review Act (SEQRA) requirements, and (5) specific stormwater management information.

Cultural Resources

Historical and archeological resource concerns often delay permit processing. A permit application will not be considered complete until potential effects on cultural resources have been addressed, and a sign-off received from the New York State Office of Parks, Recreation and Historic Preservation. In recent years we have seen an escalation in the number of projects required to provide

find out if there are any conflicts as soon as possible (see accompanying article regarding the timing of endangered and threatened species surveys).

Coastal Zone Consistency

Projects in a designated Coastal Zone may trigger general or regional conditions for a Corps wetland permit. Coastal consistency must be addressed for any state permit.

SEQRA Requirements

SEQRA compliance is an absolute must before any state wetland or water resource permit application will be considered complete. SEQRA compliance consists of a negative declaration or acceptance of a complete DEIS by the lead agency, which could be either the NYSDEC or a local municipality.

Stormwater Management

Last in the required list of associated studies for permit review are details on stormwater management. The Stormwater Pollution Prevention Plan, Notice of Intent, and, in some NYSDEC regions, a self-assessment checklist must demonstrate compliance with the General SPDES permit requirements and be part of the application package.

TES strives to make the permit application process as smooth as possible. We find that identifying and addressing other required studies early in the process works the best and can help to avoid unnecessary delays in project implementation.



A successful created wetland.

in-depth cultural resource assessments. As a result, it is best to address this matter at the outset of the permitting process. Seasonal constraints should also be kept in mind if an archeological field survey is required. Failure to plan ahead could result in a delay of several months.

Endangered and Threatened Species

Questions about endangered or threatened species can also delay permit issuance, although these concerns do not usually preclude an application from being considered complete. Sometimes these species can only be assessed at certain times of the year, so we try to

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THE MYSTERIOUS VULNERABLE SPECIES LIST

In New York the value of state-regulated wetlands is designated by assigning each wetland to one of four classes, with Class I wetlands the most valuable and Class IV wetlands the least valuable. The regulations include a detailed list of characteristics used to determine the class of each wetland. Wetland class is important because permitting standards vary by class, with more stringent standards applying to higher-class wetlands.

One of the "special features" used to classify wetlands is the presence of a vulnerable plant or animal species. There are minor differences in the wording of the regulations in this regard, but vulnerable species play a role in determining which wetlands are Class II or Class III. Plus, if a wetland has four or more Class II characteristics, including the presence of a vulnerable species, it then meets the threshold for being a Class I wetland. The presence of both a vulnerable plant and a vulnerable animal would meet two of the four characteristics needed for Class I status.

This begs the obvious question: Which plants and animals are considered to be vulnerable species? A definition of vulnerable species is provided at 6 NYCRR 664.6 (c)(5).

The definition suffers from several subjective phrases, such as "is likely", "small numbers", "could be", "low tolerance", and "is restricted". Applying a definition loaded with so many subjective phrases could certainly generate legitimate disagreement among biologists. For that reason the regulations direct the NYSDEC to identify which species meet the definition, hold a public hearing, and then add the list to Part 664.

Here is the problem: **There is no list of vulnerable species.** The NYSDEC never developed a list of vulnerable species, never held a public hearing, and never amended Part 664 to include a list of vulnerable species. Determining if a species meets the vulnerable species definition is thus left to department personnel or, if challenged, to the courts. It was exactly this kind of arbitrary and contentious situation that the language in the regulations tried to avoid.

A somewhat similar quirk exists in the definition of endangered or threatened species, another characteristic used to classify wetlands. Part 664 defines endangered and threatened species to include all **federally-listed endangered and threatened**

plants and animals, as well as all **state-listed animals**. But regarding **state-listed plants**, the regulation states: "...or in additions to this Part after public hearing, in the case of plants". Again, the NYSDEC never amended Part 664 to include the list of state endangered or threatened plants. At least a list of such plants actually exists. It was simply never incorporated into Part 664.

While these matters may appear to be trivial oversights, they can become serious legal issues when dealing with a controversial project. So far, there is no indication that a remedy is in the works.

Which plants and animals are considered to be vulnerable species?

STREAM IMPACT ASSESSMENTS

Development projects sometimes require disturbance or alteration to existing stream corridors. Impacts may include piping some portion of the stream, crossing the stream with a bridge, filling the existing channel and rerouting the stream, or altering the natural vegetation on or near the stream bank. Recently we have seen an increase in the number of projects that involve impacting streams.

In New York, permits are required for any alteration to protected stream channels or areas immediately adjacent. Additionally, the Army Corps of Engineers regulates streams as "Waters of the United States" and most have wetland areas associated with them.

Permit applications often require supporting information on the biological and physical characteristics of the stream, and an

STREAM IMPACT ASSESSMENTS (CONTINUED)

estimate of the stream impacts resulting from proposed construction activities. These assessments can put the impacts into perspective and assist in the development of any required restoration. Supporting stream assessments can take many forms depending upon the nature of the proposed development and the water resource at issue.

Physical and Chemical Characteristics

A physical characterization of the stream may include measurements of the stream channel at regular intervals and a series of cross-sections of the channel. It often includes measurements of water depth, current velocity, temperature, dissolved oxygen concentration, conductivity, and pH. Descriptions of stream substrate characteristics and the occurrence of riffles, runs, and pools are also important.

Fisheries Resources

TES fisheries biologists conduct stream fish surveys using a pulsed DC Electrofisher. Fish are stunned momentarily then netted and identified to species and measured. The fish are then returned unharmed to the stream. This equipment and technique provide a very efficient means of estimating fish population density and diversity in many types of streams.

Aquatic Macroinvertebrates

Sampling of macroinvertebrates (aquatic worms, insects, snails, and other invertebrates) is routinely used by the NYSDEC to evaluate the quality of streams throughout the state. TES uses the same "Rapid Biological Assessment" technique, including the Biological Assessment Profile (BAP) method, as the state. Macroinvertebrates are collected and preserved in the field. Organisms are identified and counted, and first several biological index values are calculated from the results. For example, Species Richness (SPP), Hilsenhoff Biotic Index (HBI), EPT Richness (EPT) and Percent Model Affinity (PMA) are the indices calculated for samples from stream riffle areas. These indices are then converted to a common scale of water quality using the BAP method. The final computational model used to numerically evaluate the water quality of the stream is specific to the type of stream habitat and the sampling method employed. Kick samples from riffles, net samples from slow, sandy streams, and Ponar samples from soft sediments each require that a unique model be applied to the indices, to permit normalizing each of the biological indices to this common scale of water

quality. The numerical results allow the categorization of the stream as non-impacted, slightly impacted, moderately impacted, or severely impacted.

A thorough stream assessment and detailed report provide important information to agency personnel to help them make decisions when reviewing permit applications. This information can also be employed as a baseline model in preparing a mitigation and monitoring plan, such as would be called for in the case of a stream relocation.



Stream fish survey in progress

PROPOSED MITIGATION GUIDELINES BUFFALO CORPS DISTRICT

On December 15, 2003, the Buffalo District of the U.S. Army Corps of Engineers published a request for comments regarding its proposed mitigation and monitoring guidelines. Finalization of the guidelines was anticipated in June 2004.

The language in the overview to the proposed guidelines suggests an elevated level of concern by the Corps regarding mitigation. The tone of the proposed guidelines is perhaps best illustrated by the following paragraph from the overview.

"The conceptual mitigation plan must be elaborate and contain measurable, specific, detailed information pertaining to each aspect of the proposed mitigation. Construction specifications should be detailed. The mitigation plan should include appropriate contingency plans to address possible failures in the mitigation. All mitigation plans should consider placement of the functions within the landscape's

PROPOSED MITIGATION GUIDELINES BUFFALO CORPS DISTRICT (CONT.)

limitations and take into account off-site influences, such as urbanization, floods, etc."

It appears that the Corps is no longer requesting a conceptual plan to be followed by a detailed plan after issuing a permit. A plan described as "elaborate" and calling for "detailed information" is certainly not conceptual, it is detailed. The extreme level of detail is apparent in the extensive checklist that constitutes the proposed guidelines.

The checklist is divided into nine categories, with numerous subcategories. Not all of the requested information would be pertinent to every situation; some details apply to compensatory wetlands and others apply to stream relocation projects. Many of the required items are currently provided with a mitigation plan, either conceptual or detailed. But there is unquestionably more detail and narrative support required, especially in terms of wetland functions, rationale for site selection, contingency plans, and monitoring. The nine major checklist categories are listed below.

- **Mitigation Goals and Objectives**
- **Baseline Information for Impact and Proposed Mitigation Sites**
- **Mitigation Site Selection and Justification**
- **Mitigation Work Plan**
- **Performance Standards**
- **Site Protection and Maintenance**
- **Monitoring Plan**
- **Adaptive Management Plan**
- **Financial Assurances**

Considering that the Corps requires mitigation for any wetland impacts over 1/10 acre, these guidelines will seriously complicate matters for permit applicants. The significance of these guidelines, if implemented as proposed, is even greater because the Buffalo District has not been receptive to in-lieu-fee mitigation in recent months. In-lieu-fee mitigation is a type of mitigation where an applicant provides funds to a sponsor (private or public) that uses the money to restore, create, enhance, or preserve wetlands or other valuable natural habitats. Limiting use of the in-lieu-fee option leaves restoration or compensatory creation as the only practical forms of mitigation, which could become far more time consuming and expensive than in the past.

ISOLATED WETLANDS UPDATE

It has been 3 years since the United States Supreme Court handed down the SWANCC decision (*Solid Waste Agency of Northern Cook County v. U.S. Army Corps of Engineers*). The SWANCC decision held that certain isolated wetlands were beyond the jurisdiction of the Corps. Despite fears held by many that this decision would dramatically reduce federal regulation of wetlands, such has not proven to be the case in our region.

TES has been involved in several projects where jurisdictional determinations considered the question of isolation. When the District Corps determines that a particular wetland is not isolated, the applicant can appeal to the Division level. But the ap-



A vernal pool

peal process does not enable the Division to override a determination issued by District staff. The appeal process results in a merit decision. In other words, does the applicant's claim have merit? If not, the matter is concluded. If the appeal is determined to have merit, the case is remanded to the District level for reconsideration. We have yet to see a case where District staff changed their minds after being told to reconsider an isolation decision.

To retain jurisdiction over as many wetlands as possible, the Corps has resorted to using historical information. The Corps not only considers if a wetland is presently connected to a navigable waterway, but whether or not it **was ever** so connected. A wetland may not be considered isolated if soil survey maps, topographic maps, or old aerial photographs indicate a past hydrological connection to a navigable waterway. There are many problems and questions with this approach. First, is it valid for the Corps to use historical information from prior to their 1975 jurisdiction? Second, the accuracy of historical maps cannot be

ISOLATED WETLANDS UPDATE (CONTINUED)

validated. We often see errors in maps when they are compared to existing conditions. How do we know if the historic information is accurate? Lastly, the Corps uses historic information selectively; they use it to prove a connection but not to disprove a connection. The hypocrisy of this logic is obvious. Just try arguing that a wetland is not under the Corps' jurisdiction because it was created by beavers and was historically an upland. History doesn't count in that case, only when it serves to protect regulatory jurisdiction.

Despite these hurdles, TES has managed to secure jurisdictional determinations designating wetlands as isolated. For example, a 150-acre project site in Central New York included three wetlands totaling about 25 acres. None of the wetlands were under state jurisdiction. TES concluded that one was connected to a tributary system of a navigable waterway, and the other two were isolated. Following a field review, the Corps agreed and determined that one wetland was a jurisdictional wetland and the other two wetlands, which encompassed approximately 21 acres, were isolated and non-jurisdictional. This decision provided the developer with greater planning flexibility than would have existed otherwise.



Snapping turtles –surveys don't always yield rare species

ENDANGERED AND THREATENED SPECIES SURVEYS “TIMING IS EVERYTHING”

By definition, rare species are uncommon and usually do not represent a problem for developers. But sometimes projects do have the potential to impact an endangered or threatened species. The risk varies by the project location. Certain parts of New York, such as the Hudson Valley, Long Island, and the Lake Ontario shoreline, have a greater potential for conflicts with rare species than other regions of the state.

In the event of a potential conflict, it is important to conduct field surveys at the appropriate time. What constitutes the "right time" varies depending on the species at issue and should

take into account: (1) the geographic range of the species, (2) habitat preferences, (3) phenology, (4) behavior, (5) time of year, (6) time of day, (7) temperature, and (8) precipitation patterns. An endangered species issue can be a real project stopper. Because survey timing is so critical, a development plan can be delayed a whole year if a window of opportunity is missed.

Many rare plants are found in unusual, easily definable habitats, such as limestone

outcroppings. Surveys can thus focus on such places. However, timing can affect the ability to find or identify a rare plant. Seasonal timing determines if above ground plant parts are visible and if those parts are in the proper stage of development for identification. Usually rare plant surveys should be conducted at least twice, once in spring and again in fall. Occasionally a third survey is recommended depending upon the list of potentially occurring species. However, the one advantage of dealing with rare plants is the fact that they don't move. Wherever you find them, that's where they'll stay.

ENDANGERED AND THREATENED SPECIES SURVEYS...(CONTINUED)

Rare animals are a little tougher to address sometimes. They come and go, and they move around a lot. For example, migratory birds are only present for part of the year, which can range from mid April to mid July, with June being the peak of most breeding activity. Breeding birds vocalize to advertise their presence and tend to sing most intensively very early in the morning. Therefore, breeding bird surveys should be conducted over the course of several days and usually from before sunrise to late morning.

Surveys of amphibians are a different matter. Many frogs are only conspicuous when calling in or near breeding ponds, especially at night and more so when it's raining. Salamanders, on the other hand, are quiet. They spend their time under rocks or logs or underground in the woods, and some migrate to breeding ponds on a single night, and typically when it's raining. Not only is the timing of these movements very specific and limited, it can vary considerably among

species, with some species moving to breeding ponds very early in the spring when ice is still present. If salamanders are found at a breeding pond, it may be necessary to determine where they came from. Just because a project avoids the breeding area of a rare salamander doesn't mean the non-breeding habitat is not impacted.

Turtles can pose other sampling problems. The females of some aquatic turtle species, which are normally found in ponds, wander around before nesting, often far from water bodies. After nesting, they cover the nest so it is nearly impossible to detect.

In summary, timing is everything with rare species surveys. Anticipating the need for rare species surveys and planning ahead can avoid costly time delays in project development.

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