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DEPARTMENT OF ENVIRONMENTAL QUALITY
DIVISION OF WATER QUALITY PROGRAMS
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SUBJECT: Guidance Memo No. 07-2007
Threatened and Endangered Species Screening for VPDES Permits

TO: Regional Directors

FROM: Ellen Gilinsky, Ph.D., Director 

DATE: May 2, 2007

COPIES: Water Permit Managers, Kyle Winter

Summary:

The purpose of this guidance is to describe new procedures for screening VPDES applications for impacts to threatened and endangered species during the permit drafting procedure.

Electronic Copy:

An electronic copy of this guidance in PDF format is available for staff internally on DEQNET and for the general public on DEQ's website at: <http://www.deq.virginia.gov>

Contact information:

Please contact Mike Gregory, Office of Water Permit Programs, (804) 698-4065 or mbgregory@deq.virginia.gov if there are any questions about this guidance.

Disclaimer:

This document is provided as guidance and, as such, sets forth standard operating procedures for the agency. However, it does not mandate any particular method nor does it prohibit any particular method for the analysis of data, establishment of a wasteload allocation, or establishment of a permit limit. If alternative proposals are made, such proposals should be reviewed and accepted or denied based on their technical adequacy and compliance with appropriate laws and regulations.

Procedures for Screening VPDES Applications for Impacts to Threatened and Endangered Species

While VPDES permits are written to maintain water quality standards established to protect all aquatic species in state waters, state and federal listed threatened and endangered species call for additional protection in mixing zones where standards are not required to be met. The federal and state Endangered Species Acts prohibit the “taking” of any threatened or endangered species. The Water Quality Standards mixing zone standard at 9 VAC 25-260-20 B.8 reflects this requirement and states that “The board shall not approve a mixing zone that violates the federal Endangered Species Act of 1973 or the Virginia Endangered Species Act ...” In order to assure mixing zones do not impact listed species the mixing zone area for new discharges needs to be screened for their presence. A Memorandum of Understanding (MOU), establishing a basic procedure agreed upon by DEQ, DGIF, DCR and USFWS, is attached for reference.

At the present time, this guidance will apply to individual permits and not to general permits. A threatened and endangered species screening should be made for new, individual VPDES permit issuances, and judgment should be used for individual VPDES modifications or reissuances that allow increased discharge flows such that an existing mixing zone is significantly expanded. Routine reissuances need not be screened by the region unless notified by OWPP. OWPP is providing DGIF and DCR with lists of permits coming up for reissuance, and if one of those agencies makes a request for more information on a particular permit OWPP will pass the request on to the regional office. Information requests on reissuances are due at last one year prior to expiration, according to the MOU. All screening should take place as soon as possible after an application is received.

There are three easily accessed data sources that may be used to screen for threatened and endangered species. For VPDES permits, the DGIF Virginia Fish and Wildlife Information Service may be used to make a geographical search in the area of the mixing zone or in the vicinity of the outfall pipe. Another database is the DCR Natural Heritage Data Explorer, which focuses on natural heritage resources, and includes more rare plants and animals (not usually found in a mixing zone). It is probably more appropriate for VWPP permits but it provides some good information and should be checked also. A third source of information that might be checked is the USFWS online County/City Lists for Species Occurrences. This guidance includes instructions for using these information sources. The VWPP permitting program is already conducting threatened and endangered species screening and should be familiar with using these information sources. For database access issues or password setup, please contact OWPP for assistance.

A “hit” in the natural resource agency parlance is an indication in a database that a threatened or endangered species has been confirmed in the area of the search. If a hit is encountered during screening some judgment must be used in determining if the species could actually occur in the outfall mixing zone and if the type of discharge could actually impact such a species. If so, an agency coordination process, described below under “Agency Coordination” is necessary. Any judgment calls or consultations and their results should be documented in the fact sheet. If there are no hits it should be indicated in the fact sheet that a screening was performed and no threatened or endangered species were determined to be present (a copy of the database generated report is sufficient). A boilerplate item will be added to the fact sheet templates to prompt threatened and endangered screening.

DGIF Database Search

1. Go to the DGIF web page <http://vafwis.org/WIS/ASP/default.asp>. Enter the appropriate Login Name and Password on the left margin and click ‘Login’ button.
2. There are different ways to use this database to conduct a search, or to obtain information, but in order to conduct a quick screening for VPDES purposes, click on “Geographic Search”;

once there, searches may be conducted by map, by project coordinates, or by place name. Permit writers can use the map provided with the VPDES application, the latitude and longitude provided for the outfalls for coordinates, or the place name of somewhere near the discharge to close in on the outfall location on the database maps.

3. If using a map click on “by map”, then click on the appropriate area of the state. At this point, it will probably be easier to choose the “topography” option for the “Base Map Choices” dropdown on the left of the screen. Then the “zoom-in” button on the top of the screen can be used to appropriately scale the map and zero in on the outfall.
4. If using coordinates, click on “by coordinates” and enter the latitude and longitude from the VPDES application in the format provided, then click on “view map”. Again, “topography” is probably the easiest base map to use, and the zoom-in button can be used to get the desired view of the outfall location.
5. To use “by place name” click on it and enter the name of a town or city near the outfall and then choose the location from the list and maneuver within the map that is produced.
6. After zooming in, move within the map by clicking on an area to center the map and so move to the outfall location.
7. All three locating methods offer a search radius selection of 2 to 15 miles. Unless there is some reason to consider a larger area the 2 mile default is recommended. Based on the nature of the receiving waters, center the search area ring near the discharge so as to cover an appropriate area upstream (if tidal) and downstream of the outfall to cover the actual or assumed mixing zone. The search will be within the circle an equal distance above and below where the map is centered. Since the search area is circular, more than water is covered, so it is necessary to use judgment when the species list is produced unless the search has been limited to aquatic species (see below).
8. Once satisfied with the location and size of the search ring, click on “submit” at the top left of the map screen.
9. Click the “Step 1 of 3” button on the screen.
10. On the next screen, the default “project review” allows selection and review of threatened and endangered species, but it will provide all types of species including non-aquatic. One then has to choose aquatic species by the BOVA code, scientific name, or common name if provided. For viewing aquatic species only, the quickest way appears to be to click on “species list” rather than “project review”, put a check in “fishes”, “aquatic mollusks” and “other aquatic invertebrates”, then click the ‘Step 2 of 3’ button at the bottom of the page. The project review screen should also be checked, however, for an indication at the bottom of the page of “Threatened and Endangered Species Waters”.
11. On the Project Review or Species List Report that is produced, look for a “Yes” under the “Confirmed” column where the “Status” column includes either a “FE” (federal endangered), “FT” (federal threatened), “SE” (state endangered) or “ST” (state threatened). The other codes (FS, etc.) are explained at the bottom of the table but we are not required by law or MOU to give them the same consideration as threatened and endangered species. The Species List Report lists all species whether threatened, endangered or other, but those species with status are listed first, so when the status column begins to show empty one need not progress further.

12. Print a hard copy of the report for the file or fact sheet if desired. A 'printer-friendly version' link exists at the top of the report page to allow quick printing. Right click on the map screen and save it for printing for a copy of the map.
13. If there is a hit, click on the "yes" in the confirmed column to get more details on the study that confirmed a species presence. The next screen will provide a map link that will show the exact location of the species collection. This is a point where some judgment might be used to decide if the discharge could impact the threatened or endangered species. The study map may indicate that the species was confirmed in a waterway near the discharge location but not in the discharge receiving stream (due to the circular search area), or that the confirmation is for an area outside of the mixing zone or where the discharge could not impact the species. Consideration might also be given to the type of discharge compared to the type of species. If in doubt, contact OWPP for assistance or proceed to agency coordination and let the natural resource agencies decide. Document any hits determined to be inapplicable to the discharge or proceed to the agency coordination procedures.
14. For assistance with the DGIF search process, click on the 'help' link located along the left-hand margin of the search page. A *User Manual for the Virginia Fish & Wildlife Information Service (VaFWIS)* can be accessed to assist in conducting data searches.

DCR Natural Heritage Data Explorer

1. Go to the DCR Natural Heritage Explorer web page: <http://vanaturalheritageexplorer.org>
Enter the appropriate Login Name and Password on the left margin and click 'Login' button.
2. The site requires specific internet option settings to function properly. Click on "Tools > Internet Options" and go to the "security" tab. Click on the "Custom Level" box. Under the "ActiveX Controls and Plug-Ins" section make sure the following three entries are set to "prompt":

Download signed ActiveX controls
Download unsigned ActiveX controls
Initialize and script ActiveX controls not marked as safe

Under the "Internet Options" "Advanced" tab, make sure the "Print Background Colors and Images" box is checked. To print materials correctly set the printout to Landscape with 1" margins.

3. On the state map, zoom to the area of interest either by entering the application latitude and longitude at the bottom of the screen (in degrees, minutes and seconds with no symbols or spaces), by clicking on the "search" button and using the USGS Placenames or DRG Quad grid layers, or click on the general area on the map until a usable scale is produced. Note that for a project review the scale should be 1:30,000 or less.
4. Click on the "Draw Project for Review" box.
5. Draw a polygon to approximate the mixing zone boundaries by clicking and dragging the mouse, clicking at each change of direction. Double click to end the polygon. (Hit the "Clear Selection" button to start again.)
6. After double clicking a window will open to allow entry of information about the project. Enter required fields and an email address and click the "submit" button.

7. Once the project is submitted for review, a response will automatically be sent to the email address that was indicated. The response will list species in the area and their status, and one of two automated letters will indicate either there are no impacts to natural heritage resources or that there may be and further information or recommendations will be sent within 30 days. For the purposes of this screening, our main interest is with threatened and endangered species. The permit writer can check out the occurrence of these immediately with the automated species listing. Look in the state and federal status columns of the report for LT (listed threatened) or LE (listed endangered). If threatened or endangered species are present the 30 day follow up letter from DCR will recommend consultation with DGIF or USFWS.
8. It is very likely that an automated DCR comment, or a DCR staff follow-up may address a plant, insect or animal that is rare but will not be impacted in a receiving stream mixing zone and that is not threatened or endangered. Consideration should be given to the comment but if there could be no impact respond with that information if a response is necessary and document it in the fact sheet.

USFWS Online County/City Lists for Species Occurrences

1. Go to this site: <http://www.fws.gov/northeast/virginiafield/> and click on “Endangered Species”.
2. Scroll down past item 4 in the “project review” section to the listing of resources and click on “D. Listed Species and Species of Concern by County/City”.
3. Scroll down to the list or click on the first letter of the city or county in which the discharge is proposed and then click on the county or city if available.
4. Look at the listings for LE (listed endangered) and LT (listed threatened), and if there are any of concern (could occur in a mixing zone) they can be investigated further using the other databases or by contacting USFWS.
5. This website just provides a listing of federally listed species and is not as location specific as the DGIF or the DCR databases. However, it could be consulted for a quick, rough check. Back on the “project review” section, “F. Species Fact Sheets” provides information on species habitat, etc. that may help determine if a species could be impacted by the proposed discharge.

Agency Coordination

Review the information that is provided using the databases and consider if it is possible for the species to occur in the mixing zone, if there is suitable habitat, and if the proposed discharge could have an impact on the listed species. Also consider the nature of the species including mobility. If it is determined that there is a potential impact, consult the appropriate agencies by using the attached Threatened & Endangered Species Coordination Form. Complete the form as thoroughly as possible and attach a copy of the pertinent pages of the database report and a location map for the site. If the permit has been drafted, the proposed effluent limits page can be attached as well.

For state listed threatened or endangered species, the coordination form and information should be sent to DGIF. An electronic copy of the coordination form, database report and map or any other information can be emailed to DGIF at projectreview@dgif.virginia.gov. DGIF should respond within **30 days** from the date a

T&E Species Coordination Form package is received. For follow-up discussions with the DGIF reviewers, either contact them directly, or send an email to the project review address. At present, the DGIF contacts are Andy Zadnik (804) 367-2733, Amy Martin (804) 367-2427 and Shirl Dressler (804) 367-6913.

DCR will have been automatically notified by the Natural Heritage Explorer database search and will provide any comments within 30 days. Comments from various agencies may become confusing. If it is possible for a mixing zone to impact threatened or endangered plants or insects, note that the Virginia Department of Agriculture and Consumer Services has authority over the Endangered Plant and Insect Species Act, but DCR provides initial project coordination for these species. But DCR will also send comments for other natural resources including non-plant or insect threatened and endangered species. Note that for non-plant or insect species DGIF (and USFWS for federal listings) will have the primary role.

For federal listed threatened or endangered species, the information should be sent to DGIF as above, and to the U.S. Fish and Wildlife Service. For the U.S. Fish and Wildlife Service, the information should be faxed to the Endangered Species Branch at **(804) 693-9032**. U.S. Fish and Wildlife has **30 days** to respond after which “no comments” may be assumed.

Agency comments for which consultation is required are those pertaining to threatened and endangered species in the mixing zone of a proposed discharge or in the increased area of a mixing zone resulting from an expansion. Other comments can be addressed by the regional offices as deemed appropriate. The natural resource agency making a comment should provide a specific water quality based reason for a request. If only general comments are received, the commenting agency might be questioned as to, for example, the water quality criterion that the agency feels is inadequate, the pollutant in the discharge that is of concern, or what is lacking in the permit that would address the problem. DEQ should provide a response to agency comments it receives and proceed accordingly. If no comments are received, or if the comments have been addressed to the satisfaction of DEQ staff, documentation should be made in the fact sheet and issuance of the permit should proceed.


Some potential comments that might be received from the natural resource agencies are:

- A statement that the discharge does not pose a threat to the listed species. In this case the permit writer should proceed with issuance.
- A recommendation such as a permit limit set at the aquatic life criterion for a parameter. In this case the permit writer should either draft the permit accordingly or consult further with the agency to come to an agreement, involving the DEQ Water Quality Division staff as necessary. A response should be sent to the agency making the recommendation.
- Comments that express concern but offer no recommendations. In this case continue processing the permit unless further consultation is requested. A response should be sent to the agency making the comment.
- A determination that a federal or state listed species may be adversely affected by the discharge, or a request for a survey. In these cases, further consultation may be required involving DGIF, USF&W, DEQ Water Quality Division staff and the applicant. If it is agreed that the discharge will have an adverse affect, or if a survey is necessary the situation and various options should be discussed with the applicant. Options may be for DEQ to reduce the mixing zone (mathematically using agency software, by actual in-stream measurement, or through use of a diffuser), or otherwise condition the permit, for the applicant to provide further treatment, alter the discharge or discharge location, withdraw the permit application, or perform a survey, depending on the situation.

If surveys are recommended, the potential outcomes should be discussed. The natural resource agency may insist on project alteration whether or not the species is found, due to the existence of habitat. If this is the case, the value of a species survey might be questioned. Also, survey design should take into

account the extent of the mixing zone. If a survey is to be conducted, considerable time may be lost in the process. Negotiations on survey requirements need to begin as soon as possible during or before the application process. The survey is the responsibility of the applicant. DGIF will provide a list of qualified consultants for surveys upon request.

If the applicant does not agree to a survey or other available options the permit staff will have to assume the presence of, and the need to protect, a threatened or endangered species in the mixing zone, and write the permit accordingly (e.g., provide limits that reduce the mixing zone to an acceptable size). The applicant has the option of challenging the limits in appeal.

 <p>DEQ VIRGINIA DEPARTMENT OF ENVIRONMENTAL QUALITY</p>	<p>VPDES PERMITS</p> <p>Threatened and Endangered Species Coordination</p>
<p>To:</p> <p><input type="checkbox"/> DGIF, Environmental Review Coordinator <input type="checkbox"/> DCR <input type="checkbox"/> USFWS, T/E Review Coordinator</p> <p>From:</p>	<p>Date Sent:</p> <p>Permit Number:</p>
<p>Facility Name: Contact: Phone: Address:</p>	<p>Location:</p> <p>USGS Quadrangle:</p> <p>Latitude/Longitude:</p> <p>Receiving Stream:</p> <p>Receiving Stream Flow Statistics used for Permit:</p>
<p>Effluent Characteristics and Max Daily Flow:</p>	<p>Species Search Results (or attach database report and map):</p>

Attach draft permit effluent limits page if available.