



401 Program Summary **~Kentucky~**

Overview

Kentucky has developed a regulatory program for dredge and fill activities that relies on Section 401 Water Quality Certification, which remains its primary authority for wetland regulation. Corps permits (Section 10/Section 404) and FERC hydropower permits are reviewed by the Kentucky Department for Environmental Protection, Division of Water (DOW) or, for mining projects, the Department for Natural Resources, Division of Mining Permits (DMP). *In this summary, information related specifically to certification of mining projects is shown under mining headings to clarify distinctions between the two programs.* A large majority of permit applications reviewed by the states are for activities impacting stream resources, with wetland impacts being less common. Enforcement responsibility is shared between the state and the Corps.

Definition of Waters of the State

Kentucky's definition of Waters of the State includes wetlands:

“The word “stream” or “watercourse” shall mean any river, creek, or channel, having well defined banks, in which water flows for substantial periods of the year to drain a given area, or any lake or other body of water in the Commonwealth;

The word “diffused surface water” shall mean that water which comes from falling rain or melting snow or ice, and which is diffused over the surface of the ground, or which temporarily flows vagrantly upon or over the surface of the ground as the natural elevations and depressions of the surface of the earth may guide it, until such water reaches a stream or watercourse;

The word “groundwater” or “subterranean water” shall mean all water which fills the natural openings under the earth's surface including all underground watercourses, artesian basins, reservoirs, lakes, and other bodies of water below the earth's surface.” (Section 151.100)¹

Permits Requiring 401 Certification

Kentucky certifies all federal permits, including section 10 permits, 404 permits, and FERC Hydropower licenses.

States 401 Certification Standards (Water Quality and Other)

Kentucky does have water quality standards that are specific to wetlands. The 401 Certification program is based completely on whether the application or permit project is going to violate water quality standards. If the project does violate these standards, mitigation or fines may be triggered. Kentucky's water quality standards can be found here:

<http://www.lrc.ky.gov/kar/title401.htm>

Mining-Related 401 Certifications It is important to note a distinct situation that exists in Kentucky regarding the way that it separates responsibility for 401 certifications between two different departments. The Department for Environmental Protection - Division of Water (DOW) transferred review of 401 certification of mining projects to the Department for Natural Resources - Division of Mine Permits (DMP) in 2007. This provided potential for increased effectiveness of the 401 program specific to mining projects. DOW handles about 80% of the 401 certifications and DMP sees the remaining 20%. The direction of this program relating to mining permits has been influenced by the DMP Director and also the way that EPA interacts with the projects. The two divisions function relatively independently from each other and the DMP currently has little contact with the DOW regarding its certifications.

A 404 permit is fairly similar to a federal Surface Mining and Coal Reclamation Act (SMCRA) permit. A major benefit to having the DMP review 401 certification is that in cases where there is a major difference between the 404 permit and the SMCRA permit, the DMP can coordinate between the two and help find a solution that will be most beneficial overall. However, because the DMP is more familiar and traditionally geared towards SMCRA regulations and not the Clean Water Act, some concepts of the Clean Water Act are difficult to translate in specific cases. For example, the Clean Water Act delineates what needs to be protected but not how to protect. SMCRA has a much more specific and detailed framework.

Integrating staff in the DMP to work specifically with the CWA and SMCRA allows the process to be more streamlined and also prevents the DOW from needing to waive certification. About 30 DMP reviewers are assigned to SMCRA review, and one reviews Water Quality Certification (WQC) applications. The WQC reviewer compares 404 compensatory mitigation plans against the DNR SMCRA permit application to ensure there are no conflicts in stream mitigation/restoration plans.

There is still work to be done across the lines to ameliorate inconsistencies between SMCRA and the CWA. Currently, there is very minimal regulatory guidance in place, with the result that the DMP 401 review is not as rigorous as the DOW review. The DMP is not so much exercising the authority of 401 as they are making sure that the 401 guidelines are consistent with SMCRA. DOW therefore exercises more authority and has more direct guidance and requirements to follow when they employ the 401 program. Additionally, the DMP does not cover wetlands as much as DOW and they do not include monitoring of aluminum in the WQC.

Description of Designated Uses and Existing Uses

Kentucky does have designated uses specific to wetlands. In a recent legislative session, all outstanding state resource waters took on a new level of protection, making it much harder to impact these waters.

Antidegradation Applications

The potential for antidegradation application to 401 certifications is available, but has not yet been utilized.

401 Certification Implementation

The DOW in Kentucky rarely waives certification, and may deny on rare occasions, only when the project as proposed will violate the state water quality standards. The state has the ability to waive but they do not currently do so very often. They used to handle the coal permits and their personnel were overburdened and therefore waived a lot of permits, relying on the Corps.

Kentucky's DOW denies two or three permits a year, mostly related to outstanding state resource waters or projects proposed in threatened or endangered species areas. For every 100 permit applications they receive about 90 are for streams and 10 for wetlands. Many are also a combination of the two. They see about 125 individual permit applications annually, and over 250 general permit applications. Kentucky conditioned all but three of the nationwide permits and the ones that were not conditioned were denied, requiring individual permits. A link to how the Nationwide permits are handled in Kentucky can be found here:

<http://kywater.org/wq/wqcertification/nwp.htm>

Most of the state's conditions are related to designated uses. For exceptional, cold water habitat that would otherwise fall under a Nationwide permit, the project automatically activates an individual permit application process. In addition Kentucky has a threshold of 300 feet; if a stream is impacted above that threshold it activates an individual permit process. Likewise if a project is going to disturb more than one acre of wetland, the applicant must file an individual application.

In the application Kentucky will, for the applicant's reference, include items such as mitigation requirements, contingency plans, and analysis monitoring. This introduces the requirements up front so that applicants are advised of the basis for certification conditions that might follow. Examples of how permits have been conditioned include buffers for stream stabilization or the need to pay into the in-lieu fee program.

Once an application is submitted, the DOW has 30 days to write a letter that further outlines the requirements and asks the applicant how they will mitigate, what their monitoring plan is going to be, etc. When a response is received from the applicant, the DOW assumes that it becomes part of their application so that when they write the certification, they underline that these things all need to be done in order to receive the certification. Consultants are also sometimes involved to help find compromise solutions.

Kentucky has not given itself the independent state authority to expand the 401 process into a state permit program. They are in the process of developing wetland monitoring capability, and have an EPA grant to put towards development of a rapid assessment for all wetlands. They are working with the Kentucky administration to lay the groundwork and establish the science and baseline needed for a permit program, but do not foresee legislation that will support this in the near future.

Kentucky has a list of standard conditions that are outlined below.

PLEASE NOTE: These general conditions apply to water quality certifications of individual projects by the Division of Water. Applicants should not assume that following these conditions removes the obligation of obtaining required section 401 and 404 permits.

- Measures shall be taken to prevent or control spills of fuels, lubricants, or other toxic materials used in construction from entering the watercourse.
- All dredged material shall be removed to an upland location and/or graded on adjacent areas (so long as such areas are not regulated wetlands) to obtain original streamside elevation, i.e. overbank flooding shall not be artificially obstructed.
- In areas not riprapped or otherwise stabilized, revegetation of stream banks and riparian zones shall occur concurrently with project progression. At a minimum, revegetation will approximate pre-disturbance conditions.
- To the maximum extent practicable, all in-stream work under this certification shall be performed during low flow.
- Heavy equipment, e.g. bulldozers, backhoes, draglines, etc., if required for this project, should not be used or operated within the stream channel. In those instances where such in-stream work is unavoidable, then it shall be performed in such a manner and duration as to minimize resuspension of sediments and disturbance to substrates and bank or riparian vegetation.
- Any fill or riprap including refuse fill, shall be of such composition that it will not adversely affect the biological, chemical, or physical properties of the receiving waters and/or cause violations of water quality standards. If riprap is utilized, it is to be of such weight and size that bank stress or slump conditions will not be created because of its placement.
- If there are water supply intakes located downstream that may be affected by increased turbidity and suspended solids, the permittee shall notify the operator when work will be done.
- Removal of existing riparian vegetation should be restricted to the minimum necessary for project construction.
- Should evidence of stream pollution or jurisdictional wetland impairment and/or violations of water quality standards occur as a result of this activity (either from a spill or other forms of water pollution) the Kentucky Division of water shall be notified immediately by calling 800/564-2380.

Mining-Related 401 Certifications The Division of Mine Permits (DMP) in Kentucky does not waive any individual certifications for coal mining. They certify all projects with conditions and have not yet denied any projects but instead have required that applicants make changes to the project to satisfy the departments concerns. In the case of general permits, the Corps will send a copy to the DMP for comment. The DMP has a list of general conditions that apply to all Nationwide permits and a list that apply to all individual permits. They have seen about 300 permits over a two and a half year period. More recently the number that they see has slowed down dramatically.

The DMP is beginning to make greater use of in-stream standards. However, there are no in-stream standards for some parameters associated with coal mining, and some of the in-stream standards that exist are narrative standards tied to the health of the aquatic community, and are not as readily enforced as numeric standards. DMP has recently encountered a major issue regarding the EPA's conductivity standards, resulting in extensive discussion. Although there is a numeric total dissolved solids (TDS) standard applicable to streams that serve as domestic water supply sources, in-stream numeric conductivity standards do not exist. In spite of the lack of a numeric conductivity standard, current interest in lowering conductivity has resulted in EPA, the Corps of Engineers, and DMP to consider experimental practices in an effort to reduce conductivity levels.

The DMP definition for cumulative impact relates to a quantifiable adverse change to the hydrologic balance. They use the state's water quality standards reduction cap to support this analysis and require changes in design. The DMP has the ability to look at pH levels, sulfate levels, water quantity, geomorphic conditions, channel erosion, and the degree of alteration to groundwater.

The DMP potentially has a lot to leverage, though many regulatory issues have not been tested as the program is still in its early stages of development. They are working on how to apply the DOW standards most appropriately to the mining permits. The coal industry would like to use cumulative impact statements that they do for DMP in their 404 permits to fill the requirement for the Corps cumulative impact analysis. The DMP is trying to mesh SMCRA and CWA requirements to make them work together better. It has been helpful to have staff on the DMP side that are familiar with SMCRA and CWA to assist in bridging the gaps. They are enhancing the process step by step, and working toward better protection of wetlands.

Coordination of Programs

Coordination with Corps Districts

Kentucky works with the following corps districts: Louisville, Nashville, Memphis and Huntington. Interaction across the districts has been found to be generally consistent and productive. All of the state's conditions become conditions of the permits. The Corps will not issue a permit without the state's certification.

Coordination with other Agencies

Kentucky looks to other agencies within the state for guidance, but does not generally send them a copy of the certification. They ask other departments, such as the Department of Fish and Wildlife, for their input specific to protecting species and habitat requirements. The in-lieu fee program is run through the Fish and Wildlife department. They aim for a general reaction from the other agencies in response to their certification. All agencies are notified about individual permits and input is incorporated into the formation of conditions. The 401 certification program in Kentucky does not make a decision to deny a project independently/without input from the different agencies to ensure that all appropriate and necessary conditions are included. Recently they have been putting more effort into giving technical advice as well. Due to major flooding that has occurred in the last couple of years, they are doing more work with FEMA and the Natural Resources Conservation Service.

Coordination with Other Authorities

In terms of other state authorities that offer a similar level of protection but under a different authority, besides the DMP/DOW separation, there may be other authorities that permit the same project but only one that will authorize from the perspective of water quality standards. The floodplain regulations have some similarities but are much more focused on flooding. At times their work will overlap briefly. Kentucky does have an inland/freshwater dredge and fill program with permitting authority that works with the Corps on those types of projects. Regarding section 10 dredging permits, there is a state certification, but usually it overlaps with the areas that the 401 program certifies, for matters such as where a project will dispose of its dredged material.

Mining-Related 401 Certifications

Coordination with Corps Districts

The Corps districts in Kentucky normally wait to issue their permit until after they have received 401 certification. The WQC conditions are tied to the face of the certification. The DMP does have a time limit in which to complete its certification, but it is very generous and has never been an issue. The division defines a complete application as one that includes the Corps public notice, so the clock does not start for their review until the Corps releases the permit to the public.

Coordination with Other Agencies

The Coal Mining 401 certification review coordinates with the Fish and Wildlife department, which comments to the Corps and DMP on projects. DMP receives these comments automatically as part of the process.

The Department for Natural Resources and Department for Environmental Protection have a Memorandum of Agreement regarding inspections that involve mines and water-related issues. Inspections are done by the Department for Natural Resources Division of Mine Reclamation

and Enforcement (DMRE). The inspections focus primarily on chemical water quality rather than geomorphic characteristics such as stream stability or presence of appropriate aquatic habitat.

Application of 401 Certification to Wetlands that have been declared non-jurisdictional due to the US Supreme Courts decisions in SWANCC?

Kentucky can utilize 401 certification to protect wetlands the Corps has deemed non-jurisdictional if the area is one acre in size or more. As long as they can demonstrate that there is a nexus to their regulations from the wetland in question, they can protect it and ask for mitigation. If a project destroys an isolated wetland that does not fall under the Corps jurisdiction, that is a violation of the state's water quality standards and the state can prosecute them even though they did not have the opportunity to apply for a permit. The state has not done this yet but they have this ability.

The 401 certification program does not have jurisdiction over ephemeral streams. Impacts to ephemeral streams do not require mitigation, but can condition projects that will significantly affect perennial or intermittent streams.

Project Analysis/Integration of 404(b)(1) Guidelines

Kentucky does consider the 404(b)(1) guidelines and predominantly relies on the Corps to evaluate these criteria. They can ask the Corps questions related to these guidelines at any time. If they were considering a denial, they would look closely at the 404(b)(1) guidelines.

Mitigation Requirements

Kentucky does require mitigation and has established policies and guidelines. They are working with the Corps to synchronize their mitigation requests. In cases where there is a discrepancy between the DMP and the Corps, the applicant needs to follow whichever mitigation plan is more demanding. Mitigation of culverts is one example of where the state and the Corps districts often disagree. If in-lieu fee is involved, the state requires a higher price than the Corps and the applicant needs to pay according to the state.

Kentucky's Mitigation Guidelines can be found here:

http://kywater.org/wq/wqcertification/Wetland_guide.pdf

Mining-Related 401 Certifications *The coal mining 401 certification division also requires mitigation. In the eastern Kentucky coalfield, the mitigation is based on credits gained from ecological "lift," that is, expected improvement in the restored stream. Therefore, it is theoretically possible for an applicant to restore fewer feet of stream than was originally impacted. In the western Kentucky coal field, where surface mines typically involve area mining rather than contour mining, mitigation is based on a simple 1:1 ratio (DOW, on the other hand, uses a higher 2:1 ratio to determine mitigation lengths).*

Monitoring and Enforcement Approaches

Kentucky's DOW has an active enforcement program. They have an enforcement division under the Environmental Protection, Air, Water and Solid Waste state program that includes enforcement related to wetland dredge and fill projects. The state submits about 10 enforcement requests to the enforcement division per year. The Corps does not enforce 401 certification, but they may elect to enforce their own 404 permit. If there is no difference between the 401 and 404 the state would ask the Corps to take on the enforcement. Most enforcement cases are after the fact and it is an enforcement of a violation that is going to require 404 and 401 certification.

In terms of monitoring projects after a 401 certification has been issued to make sure the conditions are met, one way that they do this is by requiring monitoring reports in relation to the mitigation that the applicant has agreed to. The enforcement division also goes out to check to make sure that they are following their commitment. They follow up on all individual permits that are released. In the course of a five year period they normally would do a site visit to check in twice.

Kentucky does not monitor general permits. If there is a violation to a 401 or 404 permit, the federal enforcement team will talk with the state enforcement division to discuss and determine that the state can handle the enforcement. There have only been a couple of instances where the state asked for the EPA to be involved in cases where no permit was issued but there was a violation to water quality standards.

Kentucky has found that the most effective form of enforcement is to require mitigation that replaces whatever damage has been done. In general, the DOW first tries to work with the project owners on a voluntary basis. The applicant may instead opt to pay an in-lieu fee. Generally the applicant cooperates with the requests of the state. The fine is determined in terms of what is required to pay for the cost of what needs to be replaced.

***Mining-Related 401 Certifications** Department for Natural Resources (DNR) permits are inspected by Division of Mining Reclamation and Enforcement (DMRE) inspectors who take on SMCRA, 402, and 401 inspections, and 404 permit inspections are done by the US Corps of Engineers and, in certain instances, US EPA. DMRE inspectors do not inspect off-site mitigation, so in these cases, only the federal agencies will inspect the projects.*

Staffing

DOW has six staff members that devote themselves completely to 401 certification. Four of these are project managers that work on specific projects/certifications, one is a compliance inspector, and one is a supervisor. In the last several years, the DOW received a grant from EPA and funding from the transportation department that have allowed them to expand their staff and capabilities.

Additionally the DMP has one staff member that reviews 401 applications on a part-time basis.

Tracking Techniques/Databases

DOW utilizes a Tempo database. This program was developed in another state. It tracks all of the department of environmental protection air, water and waste projects. They aim to input 100% of the projects. They have found deficiencies in how user friendly this program is, but it has been effective in capturing all of the information.

***Mining-Related 401 Certifications** DMP tracks the status of projects via SMIS (Surface Mining Information System), an Oracle-based information system. In addition, all documents, including certifications, letters, maps and any other related materials, are scanned into DocTree, a document-viewing software system. DocTree quickly retrieves material via the DNR permit number, but does not support other search options.*

Program fees

Two years ago Kentucky adopted regulations to achieve application fees. The fee structure is as follows:

Fee Structure

- Stream impact greater than 500 linear feet and less than 1,000 feet: \$1,000
- Stream impact 1,000 to 5,000 linear feet: \$2,500
- Stream impact greater than 5,000 linear feet: \$5,000
- Wetland impacts: \$500 per acre, not to exceed \$5,000

Further information related to fees can be found here:

<http://water.ky.gov/permitting/Pages/KYWaterQualityCertProg.aspx>

***Mining-Related 401 Certifications** DMP charges the same fees as the DOW.*

Overall Comments

Kentucky has been grateful for the increasing interaction between the EPA and wetland managers. In addition, their increase in personnel has been vital to allowing them to do their jobs and protect wetlands.

***Mining-Related 401 Certifications** DMP expects to continue coordinating with other federal and state agencies in order to increase its effectiveness and continue its goals of protecting the health and safety of the citizens of the Commonwealth as well as protecting and regulating its natural resources.*

An Example of Kentucky's individual application can be found here:
<http://dep.ky.gov/formslibrary/Documents/WQCAApplicationAmended1209.pdf>

General further info can be found here:

<http://water.ky.gov>

and here:

<http://water.ky.gov/permitting/Pages/KYWaterQualityCertProg.aspx>

General Regulatory information related to the Division of Water can be found here:

<http://lrc.ky.gov/kar/TITLE401.HTM>

ⁱ ECOS Report <http://www.lrc.ky.gov/KRS/151-00/CHAPTER.HTM>