
14. ENFORCEMENT, SPILLS & KILLS MONITORING SUPPORT

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Status: Currently in Place

This program has been in place since the inception of the agency. Lab samples are supported by a portion of the Basic Agreement with the SLOH, but staff time investment comes at the expense of work planned projects.

Monitoring Objectives

Clean Water Act Objectives

- Identifying causes and sources of water quality impairments
- Supporting the implementation of water management programs
- Supporting the evaluation of program effectiveness

Specific Objectives

Enforcement - WDNR enforcement programs frequently are more effective when they include information about the effect of the permit violation on waters of the state. This most often involves specific WPDES permits but can also include general WPDES permits, Chapter 30 Permits, WDNR landfill licenses, groundwater remediation or other regulatory programs with WDNR involvement. The objective of this monitoring is to provide staff pursuing enforcement actions with environmental data that strengthens the case, determines necessary remediation actions, and often influences the amount of penalties.

Spills & Kills - WDNR staff are frequently called on to investigate pollutant spills and fish kills. These investigations sometimes identify a pollutant source in need of control or enforcement action. Other times, they document instances of natural mortality, such as fish disease outbreaks. Usually, some kind of monitoring is involved. The objective of the monitoring is to determine the cause of a kill event or the consequences of a spill event, with the possibility of assessing a penalty or identifying corrective measures.

Monitoring Design

The designs of these monitoring efforts are very case-specific and usually developed with relatively short notice in response to an evolving enforcement case, spill event or fish kill report.

Core and Supplemental Water Quality Indicators

Water chemistry (BOD, DO, various toxicants) and physical measurements (temperature, sediment deposition, etc) are the most commonly used indicators. However, sampling of fish or invertebrate populations is sometimes appropriate as well. A count of dead fish by species is sometimes incorporated into determination of penalties. Collection of fish in distress or fresh/dead fish can be part of fish kill investigation.

Quality Assurance

Sampling and analytical procedures follow established Department protocols. In addition, this type of monitoring typically includes chain of custody procedures to ensure admissibility of data into legal proceedings.

Data Management

Electronic data from this type of monitoring follows the path of other, more routine sampling: water chemistry into SLOH system, invertebrates into the UW Stevens Point database, fish and habitat data into the Fisheries Management Database. File data and voucher samples are sometimes kept temporarily in separate, locked facilities until the enforcement case is resolved.

Data Analysis/Assessment

With the understanding that the conclusions of the analysis will likely be disputed, special care is usually given to collecting additional supporting data and enlisting additional individuals with specialized training to evaluate the results. This may mean replicate sampling where statistical applications are required.

Reporting

Monitoring results are introduced in report format as an exhibit, or as professional testimony. A database for reporting and tracking fish kill investigations has been developed by the FH Bureau.

Programmatic Evaluation

Programmatic evaluations likely to reflect these activities are annual summaries on fish kills investigated, enforcement actions, enforcement success rate and penalties recovered.

General Support and Infrastructure Planning

Staff & training – WDNR staff with the necessary professional skills to perform this work are decentralized around the state and in position to perform the work. There are approximately 2-3 persons in each of the 22 WDNR basin service areas capable of providing at least a portion of this kind of expertise. Currently, staff time spent responding to enforcement issues requires a workplan modification; if time were allocated at the beginning of the year (perhaps based on previous years' time codes) less time would be pulled away from other jobs. Specific training on monitoring in support of enforcement actions and spill/kill investigation is limited and occurs at an inadequate frequency to support new hires. More is needed.

Laboratory resources – Adequate chemical analytical capacity exists at SLOH to perform this work (\$25,000 annually in the Basic Agreement). However, the centralized nature of the lab creates problems for enforcement samples with very short holding times (6 hours for bacteria). A limited capability to have invertebrate samples analyzed also exists. Toxicity testing in a centralized facility (SLOH) is available and lab staff are usually able to respond to short term emergency sampling. A fish disease specialist with the FH Bureau in Madison is available for consultation on these cases.

Funding – No specific staff resources or time allotments are dedicated to this activity. Since this is probably the highest priority monitoring work, any activity in this area comes at the expense of other planned actions. Where extremely complicated and involved enforcement cases develop, this creates a workload management problem. Since this work is infrequent and impossible to predict far in advance, it is hard to avoid this problem. To the extent that routine monitoring resources are reduced, capability to perform this work is similarly diminished. Around \$2,000 of expense funds are committed to this effort by the WT Bureau annually, though the amount varies. It is hard to tell the amount of expense funds contributed by the FH Bureau since this account seems to be a catch-all for multiple activities, primarily supporting the fish disease specialist.