

MAINE STATE LEGISLATURE

The following document is provided by the
LAW AND LEGISLATIVE DIGITAL LIBRARY
at the Maine State Law and Legislative Reference Library
<http://legislature.maine.gov/lawlib>



Reproduced from electronic originals
(may include minor formatting differences from printed original)

Funding for the Surface Water Ambient Toxic (SWAT) Monitoring Program

Maine Department of Environmental Protection
17 State House Station
Augusta, Maine 04333-0017

January 8, 2008

Contact: Andrew Fisk, Director
Bureau of Land and Water Quality
(207) 287-7671

INTRODUCTION

The Maine Legislature enacted Public Law 2007, chapter 445, An Act to Strengthen the Laws Concerning Surface Water Ambient Toxic (SWAT) Monitoring, amending the program (38 MRSa §420-B sub-§1(B)(5) by adding a non-voting legislator from the Marine Resources Committee to the SWAT Technical Advisory Group. The bill also required a report which provides a plan to ensure a reliable and consistent funding mechanism for the SWAT program, and that is the basis for this report.

SUMMARY OF FINDINGS

- The SWAT program will need to rely on a combination of funding sources, some that are on-going program sources such as the General Fund and targeted dedicated funds, as well as some discrete project-driven sources.
- The General Fund contribution to the SWAT program has declined in recent years, but the Legislature has expressed a desire to maintain a fully functional program which will require some continuing General Fund support.
- The Maine Coastal and Inland Surface Oil Clean-up Fund has funded certain appropriate portions of the SWAT program in the past. The proposal is to continue this funding in the future.
- There are no other identified “reliable” and “consistent” sources of funding for the SWAT program given present State and federal budget realities.
- Several discrete project-driven funding sources have been identified that match the aims of the SWAT program, including those in the marine environment.

FUNDING BACKGROUND

The SWAT program has fluctuated with respect to sources and level of funding since it began in 1994, as noted in Table 1 below. The primary source has been the State General Fund. In the first year (1994) and the last three years (2005-2007) there were also funds from the Maine Coastal and Inland Surface Oil Clean-up Fund (MCISOCF) which collects fees assessed on the volume of petroleum products transported in Maine. In these years, the funds were used to monitor marine locations affected by pollution from petroleum products.

As data in Table 1 shows, funding available for actual monitoring from the General Fund has decreased by almost 75% during the last few years. This is a result of increasing personnel costs as well as reductions in General Fund appropriations. When the MCISOCF funds are included, total funds available for monitoring have been reduced by about 45% in the last few years.

From the General Fund, there are administrative and program expenditures for supplies, equipment, travel, rental of trucks, repairs, other general operating expenses, and in 2005-2007 up to \$20,000 per year for database development which are all identified as miscellaneous costs in Table 1. The General Fund supports two full-time Environmental Technicians and one seasonal Conservation Aide who assist with the collection and processing of the samples, data

management, equipment maintenance and repair, and other associated tasks. Several other personnel working on the SWAT program part-time are supported by other funds.

TABLE 1: SWAT MONITORING PROGRAM EXPENSES 1997-2007

FY	Monitoring¹	Misc¹	Personnel¹	MCISOCF²	Total
1997	226,199.95	14,813.25	49,963.04		290,976.24
1998	523,019.84	22,013.29	50,307.16		595,340.29
1999	375,601.79	23,641.80	65,518.67		464,762.26
2000	400,666.93	17,904.61	70,828.46		489,400.00
2001	408,676.63	13,807.21	82,978.44		505,462.28
2002	455,547.26	12,404.52	92,710.54		560,662.32
2003	459,429.64	13,760.58	85,166.25		558,356.47
2004	295,224.38	17,397.58	104,024.91		416,646.87
2005	229,008.88	34,488.36	108,834.63	113,955	486,286.87
2006	182,735.96	41,304.16	119,290.95	125,000	468,331.07
2007	114,561.30	37,272.37	123,955.62	125,000	400,789.29

SOURCES OF FUNDING

¹ General Fund

² Maine Coastal & Inland Surface Oil Cleanup Fund

FUTURE FUNDING

Given the mandate of the statute establishing the SWAT program, statewide monitoring of a variety of matrices (i.e., tissue, sediment, water) on an ongoing basis is necessary. Since there are numerous activities conducted by businesses, local governments, and citizens all over the State that may contribute pollutants, support of much of the SWAT program should be broad-based. For the pollution that can be tied to more specific activities, funding has been targeted to fees assessed to dischargers, such as the Dioxin Monitoring Program which is run separately from but complementary to the SWAT program. Potential sources for SWAT funding include on-going program funds, which can provide reliable and consistent support for programs like SWAT, and discrete (one-time) project funds that may complement the core mission of SWAT. These are discussed in more detail below.

Program funds

1. General Fund. It is appropriate that the General Fund continue to be a major source of funds for the program. This is a broad-based source of funds for monitoring the variety of matrices, locations, and contaminants by multiple sources in the state.

Maine’s Biomonitoring Program described above is the State’s primary effects-based monitoring program that determines attainment of Maine’s Water Quality Standards and Biological Criteria for aquatic life. Almost 75% of this program is supported by the General Fund SWAT funds and the amount spent has not increased in several years, resulting in less monitoring being conducted each year due to the impact of inflation.

2. Maine Coastal and Inland Surface Oil Clean-up Fund

The DEP's Maine Coastal and Inland Surface Oil Clean-up Fund (MCISOCF) (38 MRSA §551) was established as a non-lapsing, revolving fund that collects a fee of 3 cents per barrel of petroleum product transferred in Maine. The fund is used to eliminate pollutant discharges, restore contaminated waterbodies, pay for third party damages, and conduct research and monitoring. The law provides that up to \$250,000 of the \$6 million fund can be allocated to research and monitoring. The fund will continue to provide \$125,000 each year to the SWAT program for monitoring the effects of petroleum pollution at marine and inland sites. This fund will support one element of the SWAT program on an annual basis provided there are available funds.

3. Clean Water Act, Section 106 grant (EPA Performance Partnership Agreement)

As part of the Performance Partnership Agreement (PPA) between EPA and DEP, there is an annual grant under the Clean Water Act (Section 106) for sustaining core programs in water quality management. Historically, there has been approximately \$60,000 of these funds available for discretionary monitoring by the DEP Bureau of Land and Water Quality. These funds are used by all divisions and regional offices for routine and complaint driven monitoring, not necessarily related to toxic pollution. For example, the funds have been used by the Biomonitoring Program to monitor rivers and streams with impairments other than toxics. The funds are also used for gathering data for use in the development and validation of water quality models for waste load allocations necessary for wastewater permitting. Historically, there has not been an excess of these funds for use by the SWAT program. There have been Section 106 supplemental funds used on occasion for specific toxic related projects, but these funds can only be expected to be available in limited amounts for SWAT related projects. Furthermore, EPA now has recently placed requirements to conduct probabilistic monitoring with these funds. Such monitoring does not meet the current needs of the SWAT program. However, funds as available will be applied to SWAT program needs. It is estimated that in any one year up to \$20,000 might be available depending on the federal guidance for the use of these monies.

Project funds

1. The National Fish and Wildlife Foundation

The National Fish and Wildlife Foundation (NFWF) provides funding on a competitive basis to projects that sustain, restore and enhance fish, wildlife, plants and their habitats through the Keystone Initiative Grants and other Special Grant Programs which are multi-year programs active around the country.

Keystone initiatives include: (1) bird conservation, (2) fish conservation, (3) marine and coastal conservation and (4) wildlife and habitat conservation. The focus of these initiatives is more action or management oriented than the goal of the SWAT program, and it is not certain the DEP could successfully compete for funds. However, the Overseas Oil Mitigation Fund (discussed below) is part of the NFWF's Keystone Initiative and is a potential source of funds.

In response to a number of illegal discharges of oil contaminated bilge water to Casco Bay, the Overseas Shipholding Group entered into a federal agreement to provide funds for a Community Service Payment (CSP) of \$2.1 million to be administered by the NFWF through the Overseas Oil Mitigation Fund. This fund will be used where opportunities exist to contribute to the ecosystem integrity of the State's coastal and inland watersheds, specifically directed towards conservation projects in the coastal watersheds of Maine, including the study of the marine environment of the coastal waters. More specific project types will focus on: coastal wetlands and upland (i.e., native grasslands and pine barrens) buffers; rivers and riparian corridors that support Maine's native searun fish; lands and waters that support coastal federally endangered and threatened species such as: shortnose sturgeon, bald eagle, roseate tern and piping plover, habitat for migratory birds (i.e., seabirds, wading birds etc.); and lands that support the purposes of Maine's coastal national wildlife refuges. DEP has been placed on a list to be notified of future details for this fund and at that time (likely in early 2008), DEP will determine whether or not there is a SWAT project consistent with the specific funding criteria, assess the chances of success in acquiring funds, and decide whether or not to apply.

2. Funding for Toxics Analysis of American Lobster

There are two dedicated funds whose purposes align with the marine element of the SWAT program. They are the Lobster Seed Fund and the Lobster Research, Education and Development Fund. Both funds are specifically related to American lobster and while they might provide a source of funding for contaminant analyses in lobster, they would not provide funding for other species or types of marine toxics analyses.

a. Lobster Seed Fund

The Lobster Seed Fund is administered by the Maine Department of Marine Resources' (DMR) Lobster Advisory Council (LAC). The LAC fulfills multiple functions as organized in statute. These functions include advising the commissioner of DMR on departmental activities related to the lobster industry and submitting recommendations to the DMR and the Marine Resources Advisory Council (MRAC) concerning its investigations. Similarly, LAC reviews lobster research programs and plans for research on lobster stock and submits to DMR and MRAC its recommendations on those programs.

This fund has traditionally administered a sum of money to compensate lobster pound operators for the value of female lobsters that "egg out" while being held by lobster pounds.

Typically, the entire fund is not consumed by compensating lobster pound owners for egg bearing females, with \$25,000 distributed to pound owners in the last year. The remaining \$75,000 in the fund has gone to lobster monitoring efforts including ongoing monitoring work conducted by Bob Steneck and the Bigelow Laboratory for Ocean Sciences, which costs approximately \$25,000, and the remaining \$50,000 is spent on additional research or monitoring projects including funding of V-notch work by the lobster management councils. DMR's lead lobster scientist, Carl Wilson, works on the prioritization of monitoring and research needs and recommends directing fund money toward appropriate research priorities. Considering the limited amount of money available in the fund and the ongoing monitoring work supported from the fund, it would not be reasonable to expect to support a regular or

substantial amount of lobster toxics work from this fund. However, DEP will work with DMR to address areas where work on lobster contaminants might fit into the Lobster Seed Fund's goals.

b. Lobster Research, Education and Development Fund

Money for this fund comes from the sales of lobster motor vehicle registration plates. Lobster Research, Education and Development Fund (LREDF) money may be used for research and education in support of the Maine lobster industry, and to support the operation of the LREDF board. The DMR Commissioner was directed to appoint the board and consult with them regarding expenditure of LREDF money.

The "lobster plate fund" has a history of two grant cycles since its inception. The first grant cycle occurred approximately 3-4 years ago. Carl Wilson, the lead lobster scientist at DMR, provided oversight to the second grant cycle, which occurred approximately 1 to 1.5 years after the first cycle. This second round of grants focused on priority research in the areas of lobster aging and growth and included approximately \$400,000 in funding. Approximately \$100,000 went to sole source contracts while \$300,000 was administered through a competitive grant application process.

Currently, the LREDF Board is requesting proposals for assistance in lobster research in three areas, one of which is the assessment of "substances in the marine environment having sub-lethal effects on lobsters (contaminants, pesticides, metals, organics, etc.)." The current grant process is the third round of grants from the plate fund and will allocate up to \$150,000 to lobster research with a \$50,000 limit per proposal. Proposals are due to DMR in early February 2008.

In 2008, DEP will work with DMR and lobster stakeholders to determine areas of common interest for additional testing of lobster for toxics. Testing for substances with sub-lethal effects might include analyses for emerging contaminants that are thought to have some impact on lobster growth, reproduction, or life history. For example, alkyl phenols are thought to act as molt inhibitors and have been suggested to be a factor contributing to lobster die-offs in southern New England. Work in testing for these chemicals in Maine lobster may provide insight into the status of our lobster population in relation to this potential impact. Local fishermen have shown concern for the potential impacts on lobster of currently applied insecticides, some of which have effects at very low concentrations in the environment. Progress in laboratory detection limits now allows the detection of these chemicals at the concentrations where they may already be having effects. Work could be completed to assess toxic contaminants in lobster bait, a potential vector for uptake of contaminants by lobster. Additionally, lobster toxics analyses might focus on broadening the spatial coverage of existing data for previously tested contaminants known to have adverse impacts, such as heavy metals, pesticides, or other organic contaminants.

With a common interest in contaminants in lobster by both DEP and DMR, it appears likely that a collaborative effort for additional testing of lobster (or related matrices) should be undertaken as part of SWAT. A proposal will be submitted to DMR for the LREDF Board for the February 2008 RFP/grant cycle.

Providing this work is funded by the LREDF Board, it would be an important component of a more complete marine monitoring program. The intermittent nature of the LREDF Board grant cycle (only the third to date and greater than yearly in frequency) coupled with the competitive nature of the funding suggests it is not likely to be an annual or regular portion of marine SWAT monitoring.

3. Supplemental Environmental Projects (SEPs)

38 MRSA § 349(2-A) authorizes the Maine DEP and the Attorney General (AG) to settle civil enforcement actions with agreements that include environmentally beneficial projects, referred to as Supplemental Environmental Projects (SEPs). SEPs are not a tool for bringing persons charged with a violation into compliance with environmental requirements. Rather, SEPs are environmentally beneficial activities that a person, charged with a violation, voluntarily agrees to perform as part of a comprehensive enforcement resolution.

The DEP may only consider proposals meeting the SEP definition in at least one of seven categories: pollution prevention, pollution reduction, environmental enhancement, environmental awareness, scientific research and data collection, emergency planning and preparedness, and public health. A scientific research or data collection project must significantly advance the scientific bases upon which regulatory decisions will be made. The SWAT program fits into the scientific research and data collection category.

SEPs are highly variable from year to year with a range of \$20,000-\$100,000 per year of total projects. Success in acquiring any such funds depends on the amount available and a general match of the project to the subject of the violation.

4. Casco Bay Estuary Partnership

In 1990, Casco Bay was designated an "estuary of national significance" and included in the U.S. Environmental Protection Agency's National Estuary Program, which protects nationally significant estuaries threatened by pollution, development or overuse. As a result of this designation, the Casco Bay Estuary Partnership (CBEP) was formed with the mission of preserving the ecological integrity of Casco Bay and ensuring compatible human uses of the Bay's resources through public stewardship and effective management. CBEP partners with local, state and federal government organizations, non-profits, local businesses, citizens, universities and more to protect and restore the water quality and fish and wildlife habitat of the Casco Bay ecosystem. CBEP was charged with initiating a Comprehensive Conservation and Management Plan for Casco Bay which was completed in 1996 and updated in 2006 to address new issues and threats.

In the 2006 Update, the action items are organized by the five priority topics as follows:

1. Stormwater
2. Shellfish and Swimming Areas

3. Habitat Conservation
4. Toxic Pollution, and
5. Stewardship

As a partner, DEP has made a commitment to implementation of the Plan and its 2006 Update. CBEP uses its funding to support its mission in these priority areas consistent with companion documents. Companion documents include the “2004 Casco Bay Monitoring Plan,” which is an updated monitoring plan for Casco Bay, and CBEP’s annual workplans which outline the yearly priorities implementation and budget. DEP has used funds from CBEP in the past 2 years for SWAT projects monitoring toxic pollution. In future years, DEP will continue to submit funding proposals for SWAT projects that fit yearly CBEP priorities and are within the Casco Bay Watershed.

5. Maine Outdoor Heritage Fund.

The Maine Outdoor Heritage Fund (MOHF) was established in 1995 and is funded by dedicated lottery ticket sales. The purpose of this fund is for maintaining, improving, and expanding state and local natural resource conservation programs and associated compatible public uses in accordance with a strategic plan developed by the MOHF Board. Guiding principles through December 2007 include the following:

- Conserve Maine’s outdoor heritage and demonstrate outstanding natural-resource or recreational benefits
- Maximize degree and diversity of public/private partnerships or other levels of matching funds; projects with a cash match of 1/3 or higher are encouraged
- Form alliances between natural resource agencies, interest groups and organizations based on shared visions and mutual responsibility;
- Take a preventive approach to addressing natural resource problems;
- Address natural resource concerns of statewide significance and/or broad geographical distribution;
- Demonstrate consistency with the strategic plan or mission of the sponsoring natural resource agency; and
- Promote innovative and cost-effective solutions to natural resource or recreational issues

The MOHF Board makes grants to appropriate groups to meet these principles. Only natural resource agencies may apply for a MOHF grant. They may do so independently or in partnership with other entities, including non-governmental organizations (NGOs). Dollar amount of grants vary. The MOHF Board will allocate funds according to four major fund categories, three of which may include environmental monitoring such as that conducted in SWAT.

DEP has used MOHF funds for SWAT-type projects in the past. Subsequently, similar proposals were denied funding because the MOHF Board felt that MOHF is designed for support of projects, but not support of ongoing programs. Mindful of this caveat, the DEP will work to develop appropriate monitoring projects that we believe would be competitive for support of MOHF funds.