CLEAN HARBOUR INITIATIVES

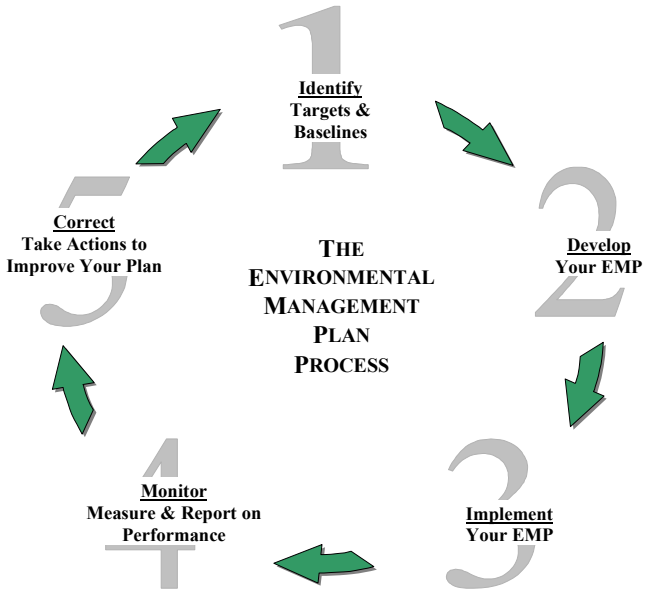
1

ENVIRONMENTAL MANAGEMENT PLANS

INITIATIVE 1: Environmental Management Plans (EMPs)

Exercising Stewardship

- In demonstrating environmental stewardship, DFO Harbour Authorities are developing and implementing Environmental Management Plans (EMP) at their sites.
- This initiative supports a sustainable, environmentally sound management process that is operationally oriented and makes good business sense.



Tools for Pragmatic Solutions:

EMP components:

- **Background Information** on the harbour and its environment to set baselines of measurement.
- **Policy and Procedures** that demonstrate best management practices (BMPs) and plan for emergencies.
- **Communicating** the EMP requirements and progress to harbour users and the public.
- **Monitoring** and Reviewing the EMP in a timely manner to ensure compliance and relevance.
- **Action Plan** to identify goals, needed infrastructure projects and progressive issues for the EMP components.

How Does the EMP Benefit the Harbour?

- The harbour is clean and healthy for fishers and the public.
- Reduces operating costs for such things as clean-ups, waste disposal and maintenance expenses, which in turn can lower moorage fees
- Attracts clients and partners to participate in the Harbour.
- Reinforces credibility as a well-managed and valued community harbour.
- Demonstrates and documents "due diligence" to reduce or eliminate liabilities or accidents.

Actions

- **Harbour Authority commitment**
- **Best Management Practices**
- **User Involvement**
- **Policies and procedures**
- **Continuous improvement**

Results

- **Protects the harbour environment**
- **Improves harbour operations**
- **Reduces costs and fees**
- **Ensures laws are followed**
- **Promotes "due diligence"**

Please direct enquires to: Small Craft Harbours Pacific Region, Fisheries and Oceans Canada, Suite 200 401 Burrard St Vancouver, British Columbia, V6C 3S4. Tel: (604) 666-4875 Fax: (604) 666-7056

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CLEAN HARBOUR INITIATIVES

2 GUIDE TO HARBOUR WASHROOMS

INITIATIVE 2: Guide To Harbour Washrooms

Environmental Impact

While most vessels have washrooms on board, they often lack waste holding tanks. Boaters therefore discharge waste into the harbours and near shore areas with these detrimental effects to the environment:

- Discharged solid waste is offensive both to the eye and the nose and can foul beaches and shorelines
- The solid waste components can take up to 36 hours to dissolve
- These contaminants are available for consumption by fish and other marine life during this period
- Human consumption of these species can cause disease problems
- Grey water originating mainly from sinks, shower stalls and washing machines may contain chlorine and detergents.

Exercising Stewardship

Small Craft Harbours (SCH) and local Harbour Authorities recognize that the most effective means to reduce vessel discharge in area waterways is by providing well maintained harbour-side sanitary facilities to preclude or reduce the use of vessels toilets in the first place.

Sointula Washroom Facilities

Planning A Washroom? Use These Tips:

Structure:

- Site your washroom on land, for fire safety and to avoid frozen pipes.
- It should be handicap accessible, complying with Barrier-Free Design.
- Use the National Building Code of Canada and those of the local jurisdiction.

Design:

- The design should be aesthetically pleasing without compromising existing structures and surrounding features.
- Design for ease of maintenance, cleanliness and attractiveness to good use.
- Place special emphasis on efficient and economical heating, lighting and ventilation.
- Incorporate other features such as storage, public telephones or bulletin boards.
- Include a wide roof overhang in the design to provide useful outdoor space.

Access:

- The facility should be convenient for boaters to walk to/from their vessels.
- It should be close enough for harbour staff to supervise for a variety of needs
- Controlled access to the premises through a security system, swipe cards, and push button locks keeps facilities clean and safe from vandalism.

Maintenance:

- Plan for low maintenance and cleaning.
- Wall-mounted sinks, urinals and trash receptacles facilitate cleaning and make efficient use of space.
- High capacity towel and tissue holders eliminate daily refills.
- Electrical sensor-operated hand dryers minimise waste and daily cleaning.

Operation:

- Post clearly recognisable washroom symbols, including NO SMOKING signs.
- Emergency contact telephone numbers should be listed inside the washroom should problems arise.

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CLEAN HARBOUR INITIATIVES

3 VESSEL PUMPOUT FACILITIES

INITIATIVE 3: Vessel Pumpout Facilities

Environmental Impact

Discharge of solid sewage from vessels is detrimental to water quality particularly in sheltered and enclosed waters .
Harbour Authorities are recognizing the need for pump-out services as a result of:

- Limited disposal options for the increasing numbers of vessels having holding tanks.
- Designation of sewage no-dump zones within BC waters.

Exercising Proactive Stewardship

In anticipation of these needs local Harbour Authorities and Small Craft Harbours (SCH) have proactively installed sewage pump-out stations, often in conjunction with on-shore toilet facilities.
As part of the Harbour Authority's Environmental Management Plan (EMP), pumpout stations combined with on-shore toilets:

- Provide a preferable sanitary option to dumping waste overboard;
- Ensure that Harbour Authorities assist vessels in complying with regulations;
- Demonstrate due diligence by the Harbour Authority as part of their EMP;
- Demonstrate coastal stewardship.

Saltspring Harbour Authority Pumpout Facility

Planning a pumpout for your harbour ? Keep these tips in mind:

Planning:

- Check that you have good on-shore toilets so that boaters don't need to pump it out! (and to provide pump out connections)
- Look for matching funds from other sources.
- Build a solid proposal using information from your environmental management plan (EMP) and your business plan.
- Be sure to consider the pumpout's operational costs such as signage, training and maintenance in your planning.
- If a permanent pumpout is not feasible consider a portable unit or contracting out the service.

Design:

- Use your EMP to plan your pumpout project and design operational procedures.
- Plan your pumpout to connect to existing sanitary lines and access areas.
- Consider the pump's capacity, pumping height and distance in your design.
- Be aware of relevant building code requirements and consult with municipal public works department.

Operation:

- Keeping your pumpout clean and tidy will encourage use.
- Be sure that staff are familiar with the operational procedures and regulations related to the equipment.
- Install adequate signage to identify the pumpout and its location.
- Be sure that others in your harbour and community are made aware of your pumpout station.
- Provide and encourage use of on-shore toilets.

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CLEAN HARBOUR INITIATIVES

4

STORMWATER MANAGEMENT

INITIATIVE 4: Storm Water Management

Environmental Impact

Rainstorms falling on roads and service areas can carry pollutants into the marine environment. Long term accumulations of Non-point Source Pollution (NPSP), can be detrimental to the water and sediment quality of the harbour and near shore areas.

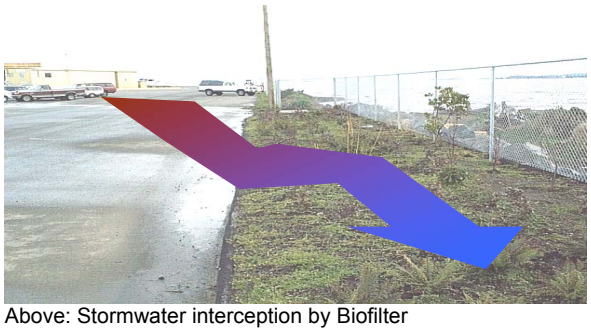
Exercising Proactive Stewardship

DFO Harbour Authorities and Small Craft Harbours Branch (SCH) are integrating cost-effective, low-maintenance methods to manage storm water and non-point source pollution.

These measures are implemented as part of a Harbour Authority's environmental management plan (EMP) to:

- Reduce NPSP carried into harbours and near shore areas
- Exercise due diligence
- Comply with regulations
- Facilitate "green management" with project partners.
- Demonstrate effective coastal stewardship

Porous Pavement- asphalt with large pores allows infiltration of storm water and trapping of pollutants for oxidation and bio breakdown. Can be used where foundation soils are granular in place of typical impervious pavement that simply flushes.



Above: Stormwater interception by Biofilter

Biofilter-is a type of vegetated channel (swale) with dense vegetation that controls the overflow of storm water while intercepting and enhancing the breakdown of particulate and adsorbed oil pollutants. Used for parking areas to deal with large volumes of water.

Vegetative Filter Strip- vegetative buffer along the water's edge to filter storm water runoff and remove contaminants and soil particles before they reach surface waters. Used in narrow areas near water where space is at a premium. Indigenous, low-maintenance plants are used whenever possible.

Oil/Sediment Interceptors- tanks or specialized catch basins separate and detain oil and sediments from stormwater run off. Existing storm drainage systems can be retrofitted.

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