



# **Boat Washing Regulations and Management**

The Regulatory Issue and Management Strategies



# Contact information:

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# What is the problem?

- **Bottom wash water contains significant levels of pollution.**
- **In most cases facilities do not contain, control, or treat the wash water, allowing it to run into the water or into the ground.**
- **Contamination of the ground at the washing site may be significant and could prove to be a liability in the future.**
- **The untreated wash water poses a threat to the aquatic community.**
- **The discharge of untreated wash water without a license is illegal.**

# What is the problem?!



# Contaminant Analysis

## ● Sanding Dust

- Copper 228-330,000 (33%) parts per million (ppm)
- Lead 269-9,900 ppm
- Zinc ~2100 ppm

## ● Bottom Washwater

- Copper 20-170 ppm
- Lead 0.2- 3.7 ppm
- Zinc 5.4 -15 ppm

## ● Soil under bottom washing area

- Copper 35,000 ppm (3.5 %)      Copper 750 ppm
- Lead 640 ppm      Lead 88 ppm
- Zinc 8400 ppm      Zn 390 ppm
- After 5 months . . .
- Background: Copper 28 parts per billion (ppb), Lead 7 ppb, Zinc 19 ppb

# What do we do?

- **In most cases the current practices are illegal. No enforcement to date because of no clear “fix” or plan for consistent implementation.**
- **Collection and treatment is essential but expensive.**
- **Recycling Vs. disposal.**
- **Discharging to POTW.**
- **Discharge permits in Maine vs. NH.**
- **Earth-shattering concept: don't pressure wash.**

# Maine's Draft BMPs

- **Install a collection pad (or temporary containment device) with sump, pump effluent to treatment system and discharge to ground water or surface water. Requires discharge permit.**
- **Install a collection pad (or temporary containment device) with sump, pump effluent to treatment system and recycle the washwater. Dispose of filtrate/wastewater when required.**
- **Use an alternate process like soda blasting, collect waste and dispose of properly.**
- **Where appropriate, don't use anti-fouling paint.**
- **Don't pressure wash. Let hull dry and sand will vacuum sander.**

# Example containment



# Temporary Berm and Containment

- **This type of containment and collection can be rolled up at the end of the season.**



# Treatment Systems

- **Mechanical filtration.**
- **Chemical or electrical flocculation.**
- **Membrane filtration or reverse osmosis.**
- **All of the above can be used in recycling systems.**
- **No treatment, disposal.**
- **More information, see EPA's virtual trade show.**

[www.epa.gov/region01/assistance/ceitts/bpwwts/index.html](http://www.epa.gov/region01/assistance/ceitts/bpwwts/index.html)

# Regulatory and Implementation Issues

- Only an issue for anti-fouling paint contaminated wash water.
- Point source discharges to the water must be licensed separately from stormwater discharges.
- Discharges to the ground will also need permit.
- EPA is not interested in permitting boat bottom wash water, so permitting probably not an option.
- BMP installation expensive.
- Maintenance of treatment systems ongoing expense.
- Cost for wash water disposal will vary.

# Wrap Up



# Anti-fouling paint contaminated wash water is a problem.

- Discharging contaminated wash water to surface water is a violation of federal law (and probably state law).
- Discharging contaminated wash water to the ground may cause significant soil contamination with metals and contamination of groundwater. Probably illegal as well.
- Wash water may be discharged to a POTW with permission, may trigger pre-treatment requirements.
- EPA is not interested in permitting boat bottom wash water, so permitting probably not an option.
- BMP installation expensive.
- Maintenance of treatment systems ongoing expense.
- Cost for wash water disposal will vary.

# Things we can do together.

- **Put pressure on the paint industry to formulate anti-fouling paints with less toxic ingredients, or ingredients that don't wash off.**
- **Work with boat owners to educate them on choosing the anti-fouling paint appropriate for their application, including not using anti-fouling paint.**
- **Develop BMPs for do-it-yourselfers.**
- **Prohibit in-the-water hull scrubbing.**
- **Develop methods for keeping boat hulls clean without biocides.**

# Thank You

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**Your regulatory agency, NHDES, wants to help you be in compliance, use them as a resource.**