

Greening Marinas and Marine Facilities in San Francisco

Virginia St. Jean, CIH
Industrial Hygienist/DPH Green
Programs Manager
SF Hazardous Materials Unified Program
Agency
415-252-3907

Virginia.stjean@sfdph.org
www.sfdph.org/dph/eh/green


SFDPH's GOALS

- ◆ Need for marine specific resource guides for the regulated community- to provide the latest on toxics of concern and multi agency compliance assistance
- ◆ Need to provide unbiased information on greener products and best management practices (BMPs)

SFDPH's GOALS

- ◆ Collaborate with existing industry and gov't stakeholders so no wheel get's reinvented!
- ◆ Coordinate to achieve multi-reg agency recommendations for current and future regulations/mandates.

SFDPH's GOALS

- ◆ Provide on-site compliance assistance and toxics reduction recommendations.
 - ◆ Select an agreed upon award standard that acknowledges good compliance and green BMPs.
 - ◆ Recognition program for high achievers.
- 

SFDPH Clean and Green Program

- ◆ Launched in 2001 as pilot award program
 - ◆ Compliance excellence
 - ◆ Pollution prevention
 - ◆ Toxics reduction
 - ◆ Auto repair sector only



SF Green MarineTeam


◆ SFDPH

- Virginia St. Jean
- Ilana Gauss
- Kristan Anderson
- Dana Kong

◆ SFE

- Cynthia Knowles (used oil collection program)
- Marjaneh Zarreparver (waste diversion)
- SF Recology

Why Marine Sites?

- ◆ Interest from SF industry/businesses
 - ◆ Toxics/green washing concerns
 - ◆ Businesses already well associated- had their own green standard/award program, great starting point.
- 
- A stylized silhouette of a mountain range in shades of teal, located at the bottom right of the slide.

Why Marine Sites

- ◆ Many agencies interested in “helping” marinas- Coastal Comm, DBW, SFDPH, DTSC, Water Boards, Fish and Game.....other states
- ◆ SFDPH need to inform of impending rule changes and solvents/toxins of concern
- ◆ Opportunity to collaborate/coordinate efforts.

Need for Standardization

- ◆ Complex multi-agency rules/regulations-changing as we speak
- ◆ Define/compliance assistance for 4+ types of marine businesses-
 - Marinas
 - Marine repair/dry docks
 - Marine fleets/transport
 - Marine fueling
 - Commercial fishing
- ◆ Get compliance agencies on same page (example: AD vs WD)

What's the Hold Up?

- ◆ Too many green programs out there- need to determine most appropriate standard for our Clean and Green Program, with local industry input; may develop into CA Green Business Program standard.
- ◆ Too many data gaps- what are the greener products and are they really greener? How do you know as a consumer?

What's the Hold Up?

- ◆ Need to research products used, routine and non-routine wastes generated, BMPS.
- ◆ Local infrastructure issues- household waste collection, gov't sponsored waste diversion programs, abandoned waste vs routine waste management, varied pump-out services availability, compliance/funding assistance options, outreach assistance

Industry Group Partners

- ◆ Harbormasters
- ◆ Maritime support businesses-
boatworks, chandleries, transportation
(ferries, tugs, bar pilots), divers,
marine construction, fueling
- ◆ Recreational boaters
- ◆ Commercial fishing
- ◆ Suppliers/mfrs of boat/marina
maintenance products

Government Agency Partners...

- ◆ CUPAs
- ◆ Fire Depts
- ◆ Air quality districts
- ◆ Water quality districts
- ◆ BCDC
- ◆ Port authorities
- ◆ Health Depts
- ◆ Fish and Game
- ◆ Coastal Commission (DBW, Oil Spill Response)
- ◆ Pesticide Regulation/invasive species concerns


Specifics On Current Project

- ◆ DTSC/SFDPH Marine BMPs Toolkit Project
- ◆ Goal to determine greener products, BMPs for waste minimization, green supply chain, awareness campaign for ingredients of concern
- ◆ Partner with existing research projects (greener cleaners, greener hull coatings, integrated pest management programs)


Long Term Goals

- ◆ Recognize deserving businesses with Clean and Green Award
- ◆ Avoid use of carcinogens, repro toxins, PBTs, emerging chemicals of concern (n-methyl 2- pyrrolidone, n-bromopropane, siloxanes)
- ◆ Educate on BMPs, work with vendors and demos
- ◆ Resource Guide/Toolkit

Long Term Goals

- ◆ Infrastructure works for all- boaters, waste managers (enough pumpouts, hazwaste collection sites, spill mgmt svcs)
 - ◆ Recycling, composting, reuse, waste diversion services
 - ◆ Easier to obtain valid green info for products used
- 


Long Term Goals

- ◆ Credible sources for compliance help, ideally regionally specific for all of CA
 - ◆ Business networking-success/lessons learned with new products/methods
 - ◆ Public as aware of environmental impacts as harbormasters!
- 

Current SF Industry Partners

- ◆ SF Maritime Museum
- ◆ SF Marina
- ◆ South Beach Harbor
- ◆ Coast Marine Supply
- ◆ West Marine
- ◆ Westar Marine
- ◆ Blue and Gold Fleet

Current SF Industry Partners

- ◆ Red and White Fleet
 - ◆ Alcatraz Cruises/Hornblower
 - ◆ Port of San Francisco
 - ◆ Pier 39
 - ◆ Gashouse Cove
 - ◆ SF Boatworks
 - ◆ SF Fisherman's Wharf
- 

Most Common Products Used

- ◆ Aerosol Degreasers
- ◆ Paints, paint related products
- ◆ Oils/lubes
- ◆ Fuel additives
- ◆ Coolants
- ◆ Adhesive removers
- ◆ Cleaners- household vs industrial
- ◆ Facility maintenance
- ◆ Sanitizers

Pollutants of Concern

- ◆ Carcinogens/repro toxins (Prop 65 list)- chlorinated hydrocarbons, toluene, n-methylpyrrolidone,
- ◆ Endocrine disrupters- cleaning products, plastics, coatings
- ◆ Neurotoxins- solvents, paint related
- ◆ Heavy Metals- Lead, copper, chromium, tin, zinc, aluminum, arsenic


Pollutants of Concern

- ◆ Petroleum hydrocarbons- fuels, solvents, lubricants, bilge waste water
- ◆ Surfactants- oil/fuel dispersants, detergents
- ◆ Pesticides/disinfectants- bleach, anti-foulants, harbor pest management


Greener Product Alternatives

- ◆ Mild, biodegradable detergents
- ◆ Water-based/low VOC coatings
- ◆ Non-biocide hull coatings
- ◆ Bio-based fuels/cleaners


Greener Product Alternatives

- ◆ Vegie-oil based wood treatments
 - ◆ Organic (vs heavy metal) pigments in paints, other coatings
 - ◆ Substrates that need no coatings
 - ◆ Plain water/microfiber cleaning cloths
- 

Greener BMPs

- ◆ Educate DIYers and boatyards- no over/under water sanding of paints
 - ◆ Provide info on where they can work on boats
 - ◆ Vacuum sanding vs wet sanding updates
 - ◆ Bilge, sewage, waste oil pump-outs
- 
- A decorative graphic at the bottom right of the slide, consisting of a stylized mountain range silhouette in various shades of teal and blue.

Greener BMPs

- ◆ Collect cleaning product waste, sewer vs. surface water discharge
 - ◆ Boatyards- boat washing, surface and industrial waste water treatment systems
- 

Infrastructure Issues

- ◆ No legal authority to collect HW from tenants
- ◆ Abandoned waste OK!?!?!?!?
- ◆ Used oil, bilge pads, batteries OK.
- ◆ No paints, solvents, etc...

Infrastructure Issues

- ◆ HHW facilities not always convenient to boaters
- ◆ Commercial tenants- technically businesses, can't use HHWs
- ◆ Access to sewer drains for water treatment prior to surface water discharge


HW Collection Options

- ◆ Deal with abandoned waste as it get's abandoned (emergency variance)
- ◆ Register site as a HHW collection facility
- ◆ Each commercial tenant manages own waste

HW Collection Options

- ◆ Educate tenants to “service out” maintenance that would generate HW
- ◆ Educate boaters- what marina can manage, where to take other HW
- ◆ Harbor sponsors one-day mobile HW collection event

BMPs/Hazmats

- ◆ Keep an area for tenants to store their DIY products-individual lockers or common areas
 - ◆ Encourage tenants to buy only that they need and use up all they can
 - ◆ Help facilitate greener product choices
- 
- A decorative graphic at the bottom right of the slide, consisting of a stylized mountain range silhouette in various shades of teal and blue.


BMPs/Hazmats

- ◆ Keep common storage for leftovers- not HW until generator says it's waste.
- ◆ Minimize harborage to discourage pests
- ◆ Offer BMP tools for rent such as vacuum sanders, siphon pumps, containers...

Low Hanging Fruit- Existing Resources

- ◆ HESIS Hazard Alerts
 - ◆ www.cdph.ca.gov/programs/hesis
- ◆ DTSC Toolkits
 - ◆ www.dtsc.ca.gov/pollutionprevention
- ◆ EPP lists
 - ◆ www.epa.gov/dfe/
 - ◆ www.sfenvironment.org/sfapproved
 - ◆ www.goodguide.com
 - ◆ www.greenseal.org
 - ◆ www.responsiblepurchasing.org
- ◆ Other national standards/checklists
- ◆ Prop 65/MSDSs
 - ◆ www.oehha.ca.gov/prop65/prop65_list/Newlist.html

Wrap Up

- ◆ SF to finalize report for DTSC-greener products, BMPs toolkit
 - ◆ Continue to industry test Clean and Green standard for all marine type businesses
 - ◆ Provide BMPs to CAGBP for statewide GB program checklist
- 

THANKS!!!

- ◆ SF appreciates the opportunity to partner on this project!
 - ◆ Without all regulatory entities at the table, impossible to sort out just the compliance mandates.
 - ◆ Demonstrates combined/coordinated effort for industry sector with industry involvement.
- 