





#### The Regulated Community







# Properties & Environmental Fates

 Heavy Fuel Oils (Bunker)
 Commercial fuels

Persistent, heavy, easy to contain, difficult to recover and clean

- Diesel
   Commercial and pleasure craft fuels
- Gasoline
   Pleasure craft fuel

Persistent, lighter, easy to contain, relatively easy to recover and clean

Non-Persistent, highly flammable, light, dangerous to contain, "heavy" ends are like diesel





### The Sheen

- Persistent
- Difficult to remove
- Keeps coming back
- Wants more money every time you see it

- Electrostatic charge
- Use of polymer "dusts"





# **Typical Sources - Commercial**







# Sources – Pleasure Craft & Marinas

**Un-controlled bilges** 

Oil changes

**Fuel overflows** 

**Boat damage** 

Leaking underground/above ground tanks

Parking lot vehicular releases

Off-site migration of contaminants

Storm sewers

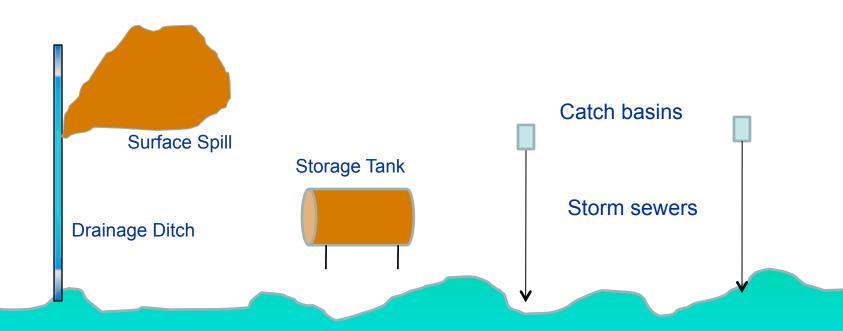
**Fires** 

Deliberate dumping/vandalism (rare)

Unidentifiable / drifting releases







#### **Typical Marina Paths**





# **Impacts & Costs**

- Marina surroundings/property impacts
- Gel coats
- Adjacent third party property
- Marina operations
- Punitive regulatory
- Public concerns





# Common Equipment











OPC





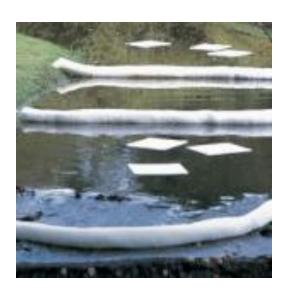
# Preparedness Equipment



Oleophilic Pads



Oleophilic Sorbent Booms



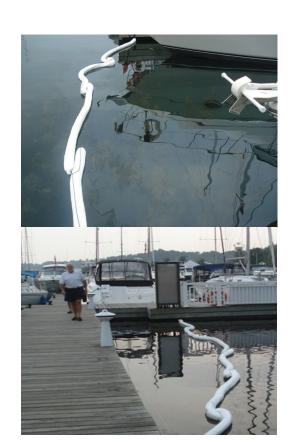


Sweeps





#### At The Marina Level











# The Ultimate Cleanup Weapon



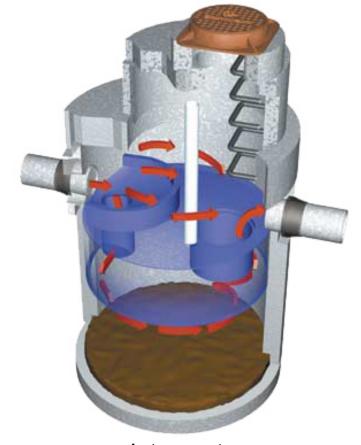




#### On The Hard!



**Drain Mats** 



Interceptors





# Contingency Planning

A well proven concept Missing in many marinas

- Contacts & contracts
- Alerting procedures
- Equipment inventory
- Human resources
- Training
- Temporary Storage
- Pre-designated recovery spots
- Waste management





## Clean-Up Resources

- < 10 litres, boat owner</li>
- < 100 litres, Marina</li>
- > 100 litres
- "Contractors"
  - Three national
  - Many local groups
- Networks
  - Local Mutual Aid
  - CERCA
  - ECRC and siblings
  - OMOA initiatives





# The Regulators

- Coast Guard
- Police
- Fisheries and Oceans
- Port Authorities
- Ministries of Environment
- Natural Resource Ministries





### Summary

- Focus is on, audited
  - Preparedness
  - Prevention
- Resources are scattered
- Regulators regulate





"Never delegate authority; delegate <u>liability</u>."



#### Thank - You

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