

Clean Water Holdings, LLC Presents the
SCAVENGER VESSEL

*Environmental Restoration
& Management Vessel*



cleanwaterholdings.com

CLEAN WATER HOLDINGS, LLC.

- A Water Management Company
- Patented the Scavenger Vessels
- Manufactures the Scavenger Vessels
- Sells, or Provides a Service Contract
- Can Provide Analysis of Water Bodies
- Designs and/or Implements Water Management Plan
- Uses Automated Equipment to Monitor Progress of Water Management Plan from Florida
- Can Provide Design, Monitoring, Management, Maintenance, and Training Support

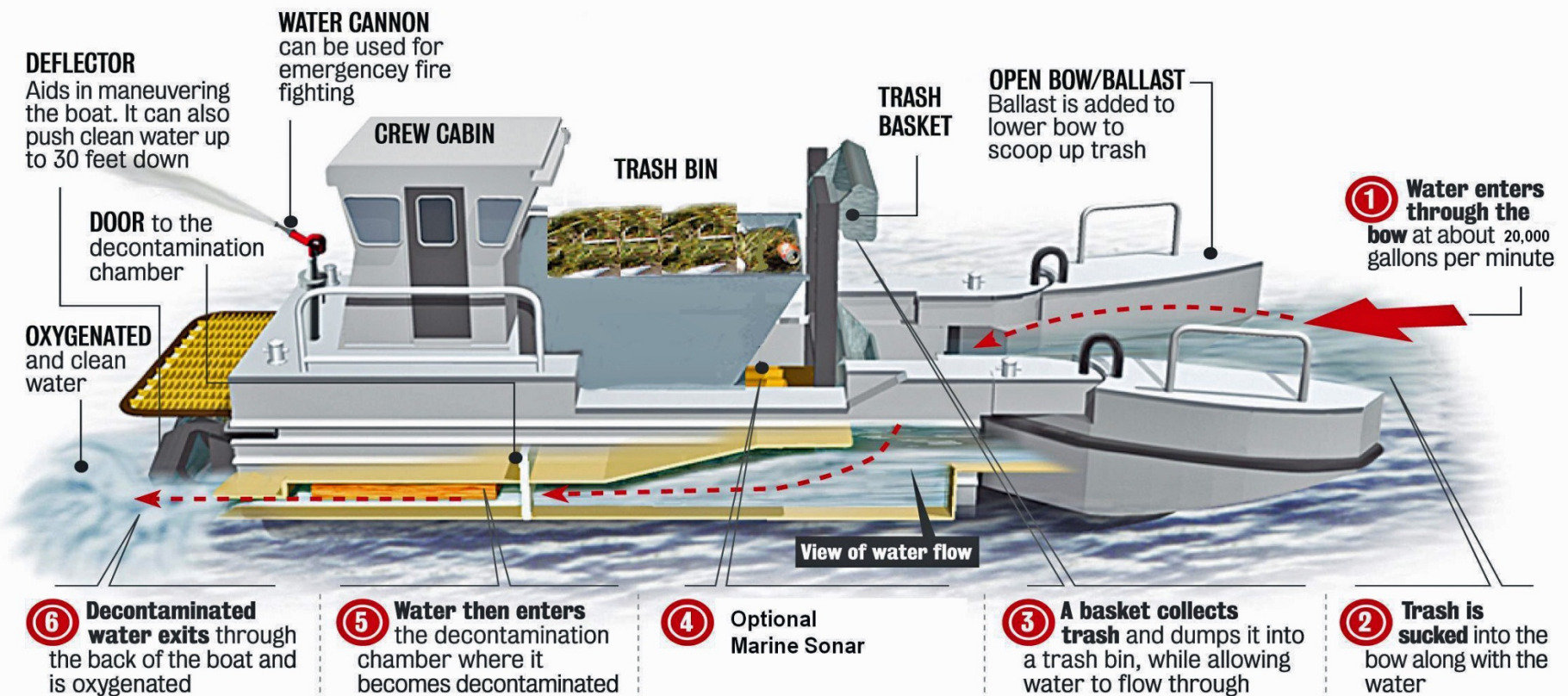
GENERAL SPECIFICATIONS

- Length 11.58 m or 38 ft
- Beam 2.44 m or 8 ft
- Height (from water line) 3.05 m or 10.5 ft
- Draft 1.22 m or 4.5 ft
- Freeboard 0.91 m or 3 ft
- Gross Weight 11.36 tonnes
- Cruise Speed 6.0 – 8.0 knots
- Work Speed 1.5 – 3.0 knots
- Hours per Tank of Fuel 40
- Water Treatment At least 20,000 gallons per minute
- Oxygenation At least 150,000 liters per hour

HOW SCAVENGER VESSEL WORKS

CLEANING THE WATER

How the 'Scavenger's' onboard water treatment system works:



SOURCE: Water Management Technologies;

GRAPHIC/LYNN OCCHIUZZO

DESIGNED FOR EASY TRANSPORT



GENERAL CAPABILITIES

- Disinfection of Water
- Increase Dissolved Oxygen Level in Water
- Surface Debris Collection
- Select Removal of Debris from Sediments
- Reduction of Volatile Organic Compounds
- Reduction of Nuisance Algae Levels
- Eliminate Anoxic/Anaerobic Conditions
- Improve Water Clarity
- Reduces Odors
- Reduce Biological Oxygen Demand
- Reduce Chemical Oxygen Demand
- Fire Fighting

THE SCAVENGER VESSEL AT WORK



05/27/2009

A SOLVABLE PROBLEM

The Scavenger Vessel can resolve a multitude of issues simultaneously: Debris Removal, High Level Disinfection, Resolution of the Extreme Algae Bloom



MATERIAL BEING PULLED TO COLLECTION BIN



RIVER OF RAW SEWAGE

The Scavenger Vessel can disinfect the heavily contaminated water and destroy bacteria such as e-coli, Cholera, and enterococcus as well as viruses



The Scavenger Vessel
disinfecting the sewage water



WATER JAR ON THE RIGHT
HAS BEEN TREATED BY
THE SCAVENGER VESSEL



HARVESTING NUISANCE PLANTS

The Scavenger Vessel can resolve this issue of nuisance plants blocking a harbor or other navigable waterways...



ALGAL BLOOM RESULTING FROM NUTRIENT CONTAMINATION

The Scavenger Vessel can remediate this situation by eliminating the algae blooms



The Scavenger Vessel injects Oxygen to improve the health of the water body



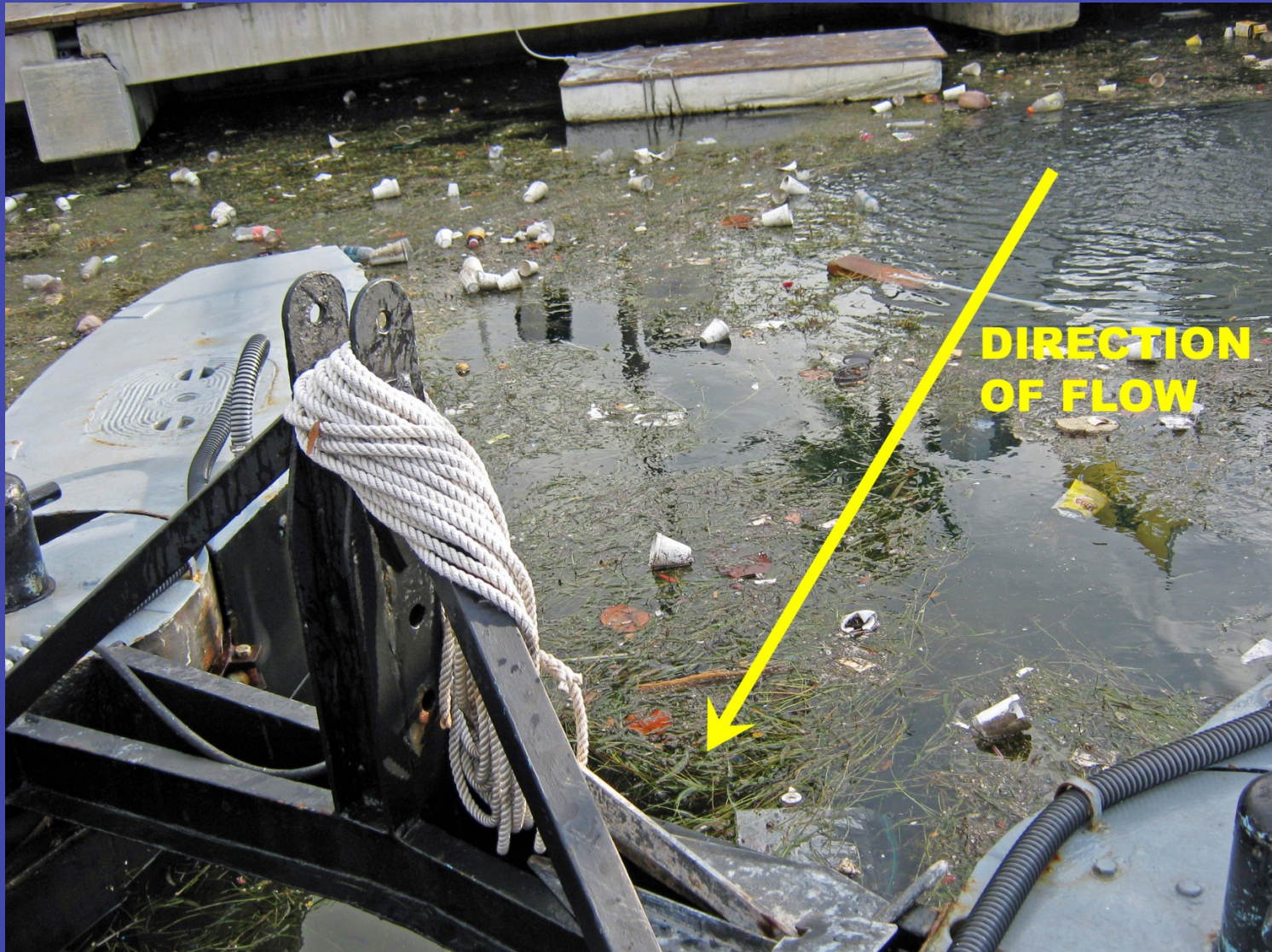
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SWIMMING IN A SEA OF TRASH

The Scavenger Vessel can remove surface debris and disinfect the water to save lives



MATERIAL BEING PULLED TO COLLECTION BIN



EXAMPLE OF COLLECTED DEBRIS



THE SCAVENGER VESSEL CAN INJECT 150,000 LITERS OF OXYGEN PER HOUR TO PREVENT FISH KILLS



THE SCAVENGER VESSEL DISINFECTING THE WATER



THE SCAVENGER VESSEL WAS DESIGNED TO TREAT CANALS SUCH AS THIS



EXAMPLE OF COLLECTED DEBRIS



THE SCAVENGER VESSEL CAN MINIMIZE THE TIME NEEDED FOR REDUCTION OF SURFACE DEBRIS



EXAMPLE OF COLLECTED DEBRIS



SCAVENGER VESSEL CAN CLEAR SURFACE WATERS UPSTREAM OF DAMS AND POWER STATION COOLING WATER INTAKES



EXAMPLE OF COLLECTED DEBRIS



EXAMPLE OF COLLECTED DEBRIS



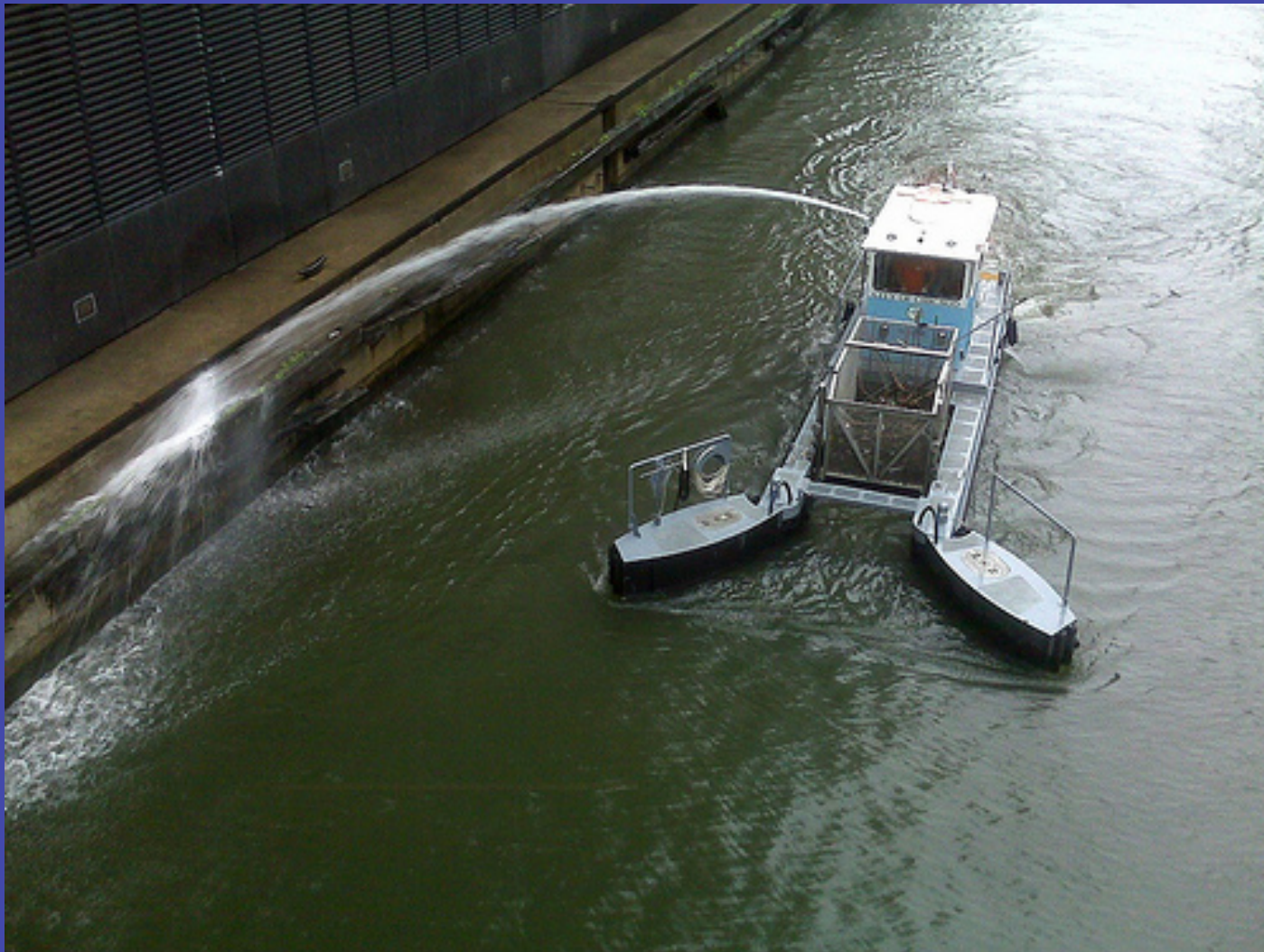
EXAMPLE OF COLLECTED DEBRIS



EXAMPLE OF COLLECTED DEBRIS



USING REMOTE CONTROL FIRE CANON TO CLEAN SEA WALL
WHILE SIMULTANEOUSLY CLEANING WATER OF FLOATABLE
DEBRIS AND DECONTAMINATING THE WATER AND INJECTING
OXYGEN INTO WATER



EXPANDED FUNCTIONS

- The Scavenger Vessel Can Be Modified for Other Uses Such As:
 - Management of Nuisance Vegetation
 - Fertilizer Production
 - Phosphorus Reduction
 - Biological Nitrogen Removal
 - Neutralize Methane Release from Sediments

INTEGRATED DESIGN

- Can Pre-Treat Upstream of Conventional and Natural Water Treatment Systems to Enhance the Performance of These Processes
- Can Provide Downstream Treatment for the Same Processes
- Can Provide Off-Line Treatment for Shallow Water Bodies or Lakes
- Can Form the Main Treatment Process When Used With Natural Treatment Systems

MARKETING SECTORS

- Ports, Harbors, Rivers and Lakes
- Urban Waterways
- Agricultural Canals
- Irrigation point protection
- Minimization of Evapotranspiration in Semi-Arid and Arid Regions
- Waterways Impeded by Floating Plants
- Recycling of Nutrients Stored in Waterways
- Can Form Primary Treatment System in Developing Nations or Areas with No Water Treatment
- Fish farming

WHY SCAVENGER VESSEL

- Implemented Directly in Water Body Thereby Reducing Land Requirements
- Can Treat Pollutants Discharged Directly into a Water Body AND Those Already Stored in the Water Body
- Most Effective Debris Removal System – Can Stay On-Station
- Continuously Without Returning to Shore
- Minimal Land Requirement for Debris Handling
- Easily Integrated into Other Conventional and Natural Water Treatment Systems