#### **EACH PERSON'S SMALL EFFORTS** ADD UP TO A BIG DIFFERENCE FOR FISH HABITAT!

#### THANKS FOR REMEMBERING TO:

- · Recycle used oil and filters, batteries, and antifreeze:
- Keep trash from blowing overboard;
- · Use shoreside restrooms and pump out facilities:
- Use oil absorbent materials in your bilge and for spill cleanup;
- · Keep detergents and bilge cleaners out of the water:
- Whenever possible, do repairs and painting away from the water;
- · Avoid boating in shallow waters, especially those with submerged vegetation;
- · Keep wakes down in shallow or near shore areas to prevent erosion;
- · Tell your friends and fellow fishermen about the importance of fish habitat and the simple things they can do everyday to protect it.

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## PROTECTING **FISH HABITAT** A GUIDE FOR FISHERMEN AND BOATERS



### THE IMPORTANCE OF PROTECTING FISH HABITAT

#### THE COAST

Anyone who's spent time on the water can appreciate the beauty, power, and richness of our bays and oceans. Whether fishing for sport or work, fishermen are especially in tune with the benefits of clean and bountiful marine waters.

More and more people are being drawn to the water. By the year 2010, more than 53% of the people in the U.S. are expected to live within 50 miles of the coast. With the increasing population, there will be an increase in threats to the richness and beauty of the waters which provided the attraction in the first place. Even boating related activities can contribute substantially to the degradation or loss of important coastal resources.

#### IMPORTANT FISH HABITAT

Estuaries and near-shore waters are essential habitat for many important fish and shellfish species. Unfortunately, these areas are also the ones that are most frequently exposed to pollution from vessel activity. Even when greatly diluted, pollutants can have harmful impacts, especially on vulnerable eggs and larvae.

#### HOW SMALL IMPACTS ADD UP

One quart of engine oil spilled in one million quarts of seawater will kill half of the exposed crab larvae. Negative impacts are aggravated when detergents or soaps are used to "treat" these spills. These pollutants reduce the amount of oxygen in the water, impair the functioning of fish gills, and reduce the ability of seabirds to stay warm and dry.

When untreated sewage is discharged rather than disposed of at a pumpout station, it can result in bacterial contamination as much as 10,000 times greater than that of treated sewage, which severely impacts the harvestability of shellfish such as clams and ovsters.

When vessels are being fueled or topped off, up to 8 ounces of fuel can spurt out and spill into the water. Although some of the chemicals in gas and diesel fuel evaporate rapidly, many toxic compounds remain behind in the water column. Multiplying these relatively small spills by the number of boats in a busy marina and the number of boating days per year can add up to big water quality problems.

Other activities associated with fishing or boating that can cause serious problems include sanding toxic hull paint over the water, littering, and spilling or washing cleaners, paints or solvents into drains or directly into the water. Boat propellers and wakes can disturb submerged aquatic vegetation and can cause bank erosion.

#### WHAT YOU CAN DO

It is important for us to realize the impact of our combined actions, and do what we can to minimize them. Read on to learn some of the simple things we can do to help protect fish habitat.



Bring trash back to port for proper disposal.



Prevent pollution by pressure washing, painting, and completing boat repairs in dry dock whenever possible.



Never discharge treated or untreated sewage; wait to use pump out facilities.



Use the smallest amount of the least toxic products available. Wipe up rather than hose off any chemical residues.



Recycle used oil, antifreeze, and batteries.



Use oil absorbent materials in your bilge and for spill cleanup. Refrain from using detergents and bilge cleaners; never pump them overboard.

# PROTECTING FISH HABITAT IT ALL ADDS UP

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#### UNDERWAY:

- Keep trash from blowing overboard; bring it back to port for proper disposal.
- Avoid boating in shallow waters, especially those with submerged vegetation.
- Follow "no wake" postings, and keep wakes down in shallow or near shore areas to prevent erosion.
- Never discharge treated or untreated sewage; wait to use pump out facilities.
- Report oil spills or debris violations to the proper authorities.

#### AT THE DOCK:

REPAIRS

Recycle used oil and filters, batteries and antifreeze.

Use shoreside restrooms and pump out facilities.

Tell your friends and fellow fishermen about the importance of protecting fish habitat.

Minimize fish waste disposal in marina waters.

- Encourage your marina to provide facilities for recycling and dry dock repair.
- Whenever possible, do repairs and painting in dry dock; keep paints and paint chips away from the water.

#### ON YOUR BOAT:

- Use oil absorbent materials in your bilge and for spill cleanup.
- Refrain from using detergents and bilge cleaners; never pump them overboard.
- Use the smallest amount of the least toxic products available when cleaning.
- Be careful when fueling; catch any overflow with petroleum absorbent materials.

Install an overflow alarm on your fuel tank.

When doing small repairs, sanding or scraping, use tarps to catch pollutants.

