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"THE GULF IS BLEEDING, AND NO ONE KNOWS IF IT WILL EVER HEAL."

John Wathen, Hurricane Creekkeeper

**WATERKEEPERS REACT TO
THE BP OIL DISASTER**

Pages 44-50

**BEAUTIFUL AND THREATENED
BAJA CALIFORNIA**

page 30

Summer 2010

\$5.95



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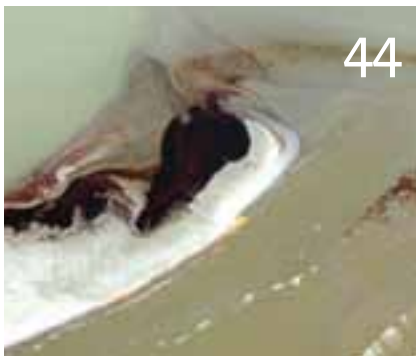
Volume 6, Number 2

Summer 2010



CHRONICLE OF A DISASTER

- 44 BP's Toxic Oil Comes Ashore
- 46 Keeping Faith: Coping the Waterkeeper Way
- 49 The Road to Destruction: Exxon Valdez to Deepwater Horizon
- 50 Call to Action on the BP Gulf Disaster



OVERDUE THANKS

In the last issue of the magazine, we neglected to thank Matt Carr for the incredible job he did documenting in photographs last year's annual conference in New York. Matt is both a consummate craftsman and a gifted artist and we are deeply grateful for his contributions not only to the conference but to the cause of clean water.

FEATURES

22 The New Color of Money: Blue

Investing in healthy waterways is good for the environment *and* the economy.

26 Living Beyond Our Means

Where some see a worthless swamp, scientists see an immensely valuable resource.

32 In the Shadow of the Salmon

Rogue Riverkeeper battles a massive LNG project in one of America's last wild places.

38 Deepening Crisis on the Delaware

If the Army Corps of Engineers gets its way, not only will the Delaware River be in peril—so will the foundations of America's environmental laws.

NEWS AND UPDATES

- 10 On the Columbia, One LNG Project Down, One to Go
- 12 Green Dragon of the Yellow River
- 14 Apps for Clean Water in Charleston
- 16 Power to Hudson Riverkeeper

The New Color of Money:

Blu



Massive discharge of sediment loads by a river entering the Caribbean Sea off the Meso-American coast.
MALIK NAUMANN/MARINE PHOTOBANK.



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Investing in **healthy waterways** can yield big **environmental** and **economic** returns.

By Linwood Pendleton

Picking stocks is still a roller-coaster ride. Confidence in the markets is at an all-time low. A mattress seems a reasonable alternative to the local savings bank. What's an investor to do? Get out of the office and walk down to the shore, that's what.

Investing is about growing capital, and this is a time to reconsider what we mean by capital, to look in new places for high economic returns – especially for social investments. Topping the list of those places is environmental capital.

We are a nation pre-occupied with the economic potential of technical progress and with clever new ways to turn a dollar. But while we've relentlessly created new goods, new services and new markets, we've let the capital inherent in our precious natural resources depreciate. iPhones are awesome, but they are a poor substitute for a good swim. We can fill our homes with smart gadgets, but we can't protect them from storms as well as a healthy wetland can.

Opportunity arises not only from new technology, but also from our ancient earth. Vibrant and sustainable ecosystems – especially aquatic ecosystems surrounding coasts, lakes, and rivers – are one form of natural capital. They can generate significant ecological returns by supporting productive habitats. But beyond that, they are valuable sources of economic growth. Beaches, coastal communities, ports, and fragile bays are economic engines that drive and support large sectors of the national economy.

In the Gulf, a Failure Both Private and Public

➡ **The opposite of investment opportunity is risk.** While the stock market does a reasonably good job of weighing risks against profit, industries and government don't do as well in assessing the true risks of their activities to the environment and to the jobs that depend on its health. The Deepwater Horizon oil spill in the Gulf of Mexico, one of our nation's most productive fisheries, is an all-too-clear example of their failure to do so.

➡ **The major commercial fishing ports in the Gulf bring in more than 1.2 billion pounds of fresh seafood each year, according to the National Oceanic & Atmospheric Administration.** Eighty-three percent of the total U.S. shrimp landings and 56 percent of U.S. oyster landings occur in the Gulf of Mexico. The region accounts for more than 40 percent of U.S. marine recreational fishing catch, with tourism and recreation providing more than 620,000 jobs, yielding more than \$9 billion in wages paid each year in the Gulf coast.

➡ **And yet, instead of being completely honest and transparent about the true costs of ocean and coastal development, government and industry have tended to say, explicitly or implicitly, that technology, when properly applied, makes the risks negligible.** Moreover, political factors, public relations and the profit motive, rather than careful economic analysis, tend to determine where industrial activity and development occur along our coasts and in our oceans.

➡ **Offshore oil exploration and extraction will always involve potential environmental and thus economic costs, but these costs and the probability of an accident will differ depending on the "where" and "how" of exploration and extraction.** The "where" has much to do with the coastal and marine economies that are at stake. This is why we don't see new offshore oil activity in California—the potential costs are deemed too huge. The "how" reflects the fact that certain areas and technologies are inherently riskier—with accidents more likely to occur in some places (for instance, hurricane zones and deep sea sites) and responses more likely to be limited in others (for instance, northern Alaska).

➡ **Because all new energy production involves some likely environmental impact, it is important that our national energy policy include careful consideration of the total costs and benefits of potential energy sources, and that it favors the mix that has the highest net benefit and least potential cost to the environment.** All offshore and coastal energy projects have potential impacts. But right now, our national energy policy, new climate and energy legislation, and President Obama's new national ocean policy are not integrated.

➡ **For example, approval of Cape Wind, the nation's first offshore wind farm, off the coast of Cape Cod, and removal of the moratorium on offshore drilling both were enacted even though the President's proposed national ocean policy will require that all new offshore wind and power projects be planned in a regional context that includes all of the other major ocean uses—which did not happen in either of these cases.** These moves may make political sense, but as the unfolding disaster in the Gulf of Mexico makes all too clear, keeping these policies separate doesn't make environmental or economic sense.



While estuary regions only make up 13 percent of the land area of the United States, they produce a staggering 49 percent of the country's economic output. In eight coastal states, estuary regions are home to 80 percent or more of the state's economy. In a book released last year, the group "Restore America's Estuaries" and a panel of economic experts examined a cross-section of our economy that depends directly on healthy estuaries and coastal ecosystems. They found that 75 percent of all U.S. commercial fisheries depend in some degree on estuaries. More striking, though, were their findings about how many other parts of the economy depend on healthy waterways. These include jobs associated with recreational fishing, bird watching, beach going, surfing and scuba diving. They also demonstrated that healthy waterways are critical for the vitality of ports. Clean waterways, moreover, create value for waterfront homes. In Waukegan, Illinois, for instance, a harbor clean-up increased home values by more than \$7 billion, as estimated by John Braden of the

University of Illinois. And David Dismukes and his colleagues at Louisiana State University estimate that 45 percent of U.S. oil refining capacity and 43 percent of the U.S. petroleum strategic reserve would be subject to massive floods and storm damage if not for mangroves and wetlands along the Louisiana coast.

Unfortunately, for the last two hundred years, we've been burning through our natural capital. We've converted wetlands to farms, dunes to neighborhoods, and streams, rivers, and coasts into trash containers and toilets. We are much poorer for this profligacy. We have lost the direct value of healthy waterways plus the value of all we have created around them. Homes, ports, and businesses are all far less valuable than they would be if they were situated along ecologically productive and sustainable waterways.

For an environmentalist, this is a grim diagnosis. But for an investor, our sorry history of waterway pollution and habitat loss has created a world of opportunities. Why?



GERICK BERGSMA 2009/MARINE PHOTOBANK

Evaporation ponds are used to extract salt from seawater along the southern shore of the San Francisco Bay in California. The vibrant colors arise from blooms of microorganisms that are able to tolerate the highly saline water. The ponds were built over tidal marshes, and were operated by Cargill. Recently, the State of California and the Federal government purchased 15,000 acres of salt ponds that are now being restored to wetland habitat.

Well, let's try a thought experiment. Imagine that Warren Buffet were the chief environmental officer of Waterkeepers, LLC. Mr. Buffet is famous for his ability to identify businesses that are operating far below their potential, businesses he can buy cheaply and develop profitably. He could easily find waterways that are functioning substantially below their economic potential. Now, how could he apply his strategy to them?

His first need would be to understand what makes a waterway valuable. Here are three rules of thumb he should consider:

- Waterways have high value when people use them. So those near urban populations often have high economic potential because there are many potential users.
- Waterways have high value when they provide benefits such as fishing (commercial and recreational), scenery and wildlife, such as a variety of birds, and leisure opportunities, such as swimming and boating.
- Finally, waterways have high value when they support species or cultural assets that are charismatic or rare, such as salmon, whales and grizzly bears, even shell middens.

Since a good investment is one where the returns to your investment are much greater than the investment

itself, his next step would be to identify waterways that have low cost relative to their potential value. In the world of environmental capital, this involves not only finding bargains in the real-estate market, but also leveraging volunteer labor and spending precious conservation funds wisely. Do you spend \$50 million to buy land you can never afford to restore or do you spend \$50 million restoring creeks, daylighting streams, and pushing for better implementation of environmental laws?

Warren Buffet, we can assume, would quickly reach these realizations. But optimizing environmental capital is more often the challenge of governments, not of shrewd capitalists. And it is encouraging to observe that governments are starting to recognize the economic power of watershed management and restoration. In the United States, President Obama's Council on Environmental Quality (CEQ) recently proposed new guidelines that would require all federal water projects to maximize the benefits they contribute to the economy – including the provision of ecosystem services and values, including those generated by associated fisheries, bird and wildlife viewing, shoreline protection, even oxygen production and water purification. During the same week, the National Oceanic and Atmospheric Administration convened a blue-ribbon panel to chart a course for better understanding and measuring the economic value of estuary and coastal habitat restoration.

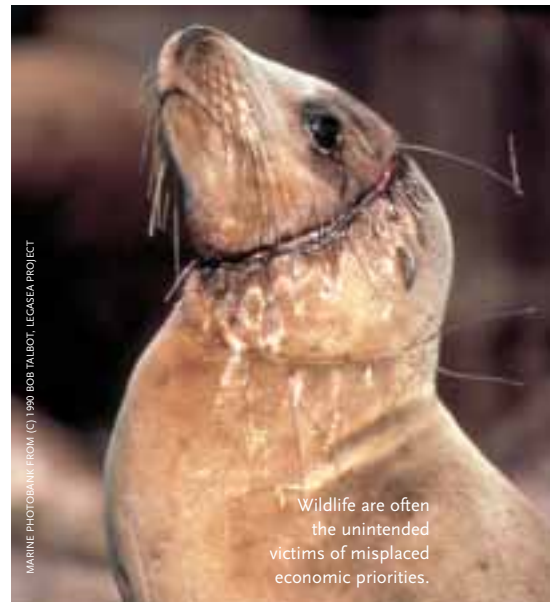
Some worry that the new federal focus on the economic value of waterways will mean more old-school economic development—building, commercialization and industrialization. The new guidelines, however, are clear: The old economy is dead, long live the new economy—one where we recognize and invest in economically important ecosystem services and ecosystem-dependent economies.

Already the switch to the new “blue-green economy” is paying off. Nearly \$170 million of U.S. stimulus funds were allocated directly to waterway-habitat restoration. If the new CEQ guidelines for federal water projects are approved by the National Research Council, government investments in pollution reduction, restoration, and conservation in waterways will be functionally equivalent to investments in economic development, trade and jobs. This could open doors for allocating federal funds for watershed,

coastal and estuary management.

For Waterkeepers in the United States, who can set precedents around the world, these developments have three immediate implications. First, Waterkeepers can now make the claim that environmental protection is not bad for the economy; it is essential for economic development. Second, they can leverage the economic importance of their work by actively choosing projects that meet the investment guidelines laid out earlier—projects with potential to increase the value of ecosystem-dependent economies, including ecosystem services, at reasonable costs. Finally, Waterkeepers can better protect natural-ecosystem capital that currently has high value—in the face of threats like habitat loss, overdevelopment and pollution—because it is clearer and better understood than ever before that it is a much more savvy financial decision to protect a waterway than it is to destroy it.

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MARINE PHOTOBANK FROM (C) 1990 BOB TALBOT, LEGAISEA PROJECT

Wildlife are often the unintended victims of misplaced economic priorities.



RUSSELL DOOLAS/MARINE PHOTOBANK