

Turning ^{the} TIDE



The Newsletter of the Morro Bay National Estuary Program

Fall 2011



Fall 2011

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Cover image:

This issue's cover shows the estuarine section of the Morro Bay mural, painted by Ben Lovejoy. The entire mural can be seen at the Estuary Nature Center, upstairs at Embarcadero and Marina.

Donate
Support the Estuary

Support the Morro Bay National Estuary Program in its efforts to protect and restore our beautiful and unique estuary and watershed. You can donate by sending a check to the address below or by visiting our website and clicking on the "Get Involved" tab, then selecting "Donate."

Your donations directly support projects like those highlighted in this newsletter!



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From the Director's Desk

Lessons From Estuary Programs Across the Country

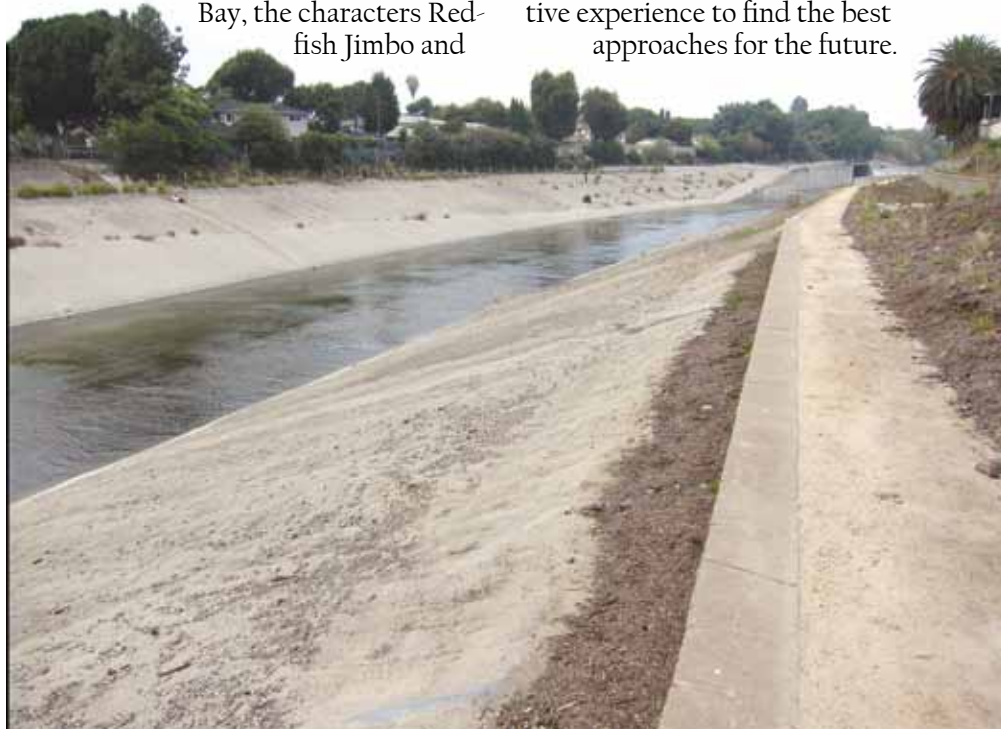
By Adrienne Harris, Program Director

Each fall and spring, the 28 National Estuary Programs convene to discuss common issues facing our communities and share techniques and approaches. In October, I traveled to Santa Monica, California to meet with program directors from across the country. Unlike my colleagues from Louisiana and Maine, I was able to take a relatively short bus ride to attend. Despite Santa Monica Bay's close proximity to Morro Bay, the two estuaries are very different. The watershed draining into Santa Monica Bay is approximately 50% impervious surface, meaning the surrounding communities have paved over the majority of the landscape, including many of their creeks. Standing on a Culver City bridge gazing up the concrete channel that is now Ballona Creek, I thought, regardless of where you live, taking a watershed approach to protecting water quality is a smart choice.

Each of the National Estuary Programs tackles water quality on a watershed-scale in a way unique to them. In Mobile Bay, the characters Redfish Jimbo and

Thibodeaux educate school kids about hypoxia in the Gulf of Mexico through a video titled *A Redfish Tale*. In San Juan, Puerto Rico the community has planted red mangrove trees to rebuild capacity for natural water filtration, and here in Morro Bay, one of the program's activities is to work with interested ranchers to protect steelhead streams from excess sediment and bacteria. Where I stood in Culver City, a rain garden project collects stormwater run-off from adjacent industrial and commercial facilities, capturing the flush of toxics, oil, and other chemicals before they enter Ballona Creek which drains to Santa Monica Bay where millions of Californians fish, surf, and swim.

During the conference, the Estuary Program directors discussed better ways to engage the public, monitor environmental changes, and restore natural landscapes, all when budgets are decreasing and priorities multiplying. Although we come from vastly different watersheds and communities, we still face the same watershed management challenges at the core. Together we learn from our collective experience to find the best approaches for the future.



This Culver City creek serves as a stark contrast to our Morro Bay watershed creeks. The rainwater garden project mentioned above can be seen in its early stage on the far right. Photo by Adrienne Harris

Welcome Watershed Stewards Thomas and Karissa

Americorps' Watershed Stewards Project (or WSP), now in its 18th year, involves members in a wide variety of watershed assessment, restoration and conservation projects by placing individuals in organizations committed to preserving and restoring California's watersheds and native salmon runs. Working under the guidance of a natural resource professional, WSP members teach watershed and fisheries-based curriculum to K-12 students, participate in community outreach events, and receive high quality training in both natural resources and professional development, all while assisting environmental agencies and organizations with projects.

The program is in its second year of placing members at sites throughout the central coast. The Estuary Program, in conjunction with California Conservation Corps, Central Coast Salmon Enhancement and the Land Conservancy of San Luis Obispo, welcomes this year's central coast WSP members Thomas Sanford and Karissa Willits.

Thomas was raised in West Covina, California. After high school, he moved

to San Luis Obispo to attend Cal Poly, earning a degree in Forestry and Natural Resources. He later became a certified arborist and worked for The Davey Tree Expert Company.

Now happily contributing his talents to the Americorps Watershed Stewards Program, Tom spends most of his free time relaxing on the couch or going on outdoor adventures. His newest goal in life is to catch one of each of the California native trout species, and he is halfway there.

Karissa grew up roaming the rivers, ocean, and redwood forests near Arcata, California and remembers WSP members teaching the Real Science curriculum while she was in elementary school.



Last year's WSP members conducting a snorkel survey of Chorro Creek.

She graduated from UC Santa Cruz in 2010 with a B.S. in Marine Biology. Since graduating, Karissa has worked as a lab technician at the Bodega Marine Lab, and as an outdoor educator with The Catalina Experience.

Karissa is excited to be part of the Watershed Stewards Program and to explore San Luis Obispo County.

Welcome Thomas and Karissa!

Bits 'n' Pieces

GRANTS AWARDED

Three grants have been awarded this fall.

- The Los Osos Community Services District received \$2654 to translate Sammy the Steelhead Activity Book and Coloring Book into Spanish, and to print a limited run of the publications.
- The Central Coast Natural History Association received funds in the amount of \$3646.53 to purchase stereo-microscopes for educational programs.
- The San Luis Obispo Botanical Garden will receive \$3800 for interpretive signs and brochures for the new Firesafe Garden.

MANAGEMENT PLAN

UPDATE

The effort to update the Comprehensive Conservation and Management Plan (CCMP) continues. At a public meeting in September, community members gathered in Los Osos to weigh in on proposed structure and action items. If you missed the meeting, we are still collecting comments at this interim stage! Visit www.mbnep.org and click on the 'CCMP' tab for details.

2011 DATA SUMMARY REPORT

View the newly released implementation effectiveness data summary report at www.mbnep.org/Understand.

2011 T-PIER DIVE CLEANUP

For the fourth consecutive year, Depth Perceptions Diving Services hosted the T-Pier Dive Cleanup with support from Morro Bay Harbor Department.

On Saturday, November 12, 55 volunteers - 38 divers and 17 on-deck support - showed up to bring trash to the surface, safely remove sea life and then dispose of an unusual array of debris. In addition to the expected assortment of glass, metal and plastics, volunteers removed fishing gear, auto and motorcycle parts and tires, boat parts, electronics,

ammunition, and a grocery cart.

A 3/4 size refrigerator was too large for divers to bring up and remains to be surfaced.



Debris brought up from the bay floor was loaded onto Harbor Dept trucks for disposal.

Zeroing in on Zero Waste at Dairy Creek



Local Golf Course Works to Close the Loop on Food Waste

“It really all started over a cup of ‘compost tea,’”
quips Richard McConaghay.

McConaghay is referring to a conversation he had with Josh Heptig, Golf Superintendent for the County of San Luis Obispo. McConaghay, a volunteer course marshal for Dairy Creek Golf Course at the time, had asked for a meeting with Heptig to discuss the potential for Dairy Creek to become the first zero-waste golf course. Before long, Heptig had folded in his dream of reducing or replacing the course’s use of chemical fertilizers and pesticides through the use of compost tea.

Fast-forward about a year. After implementing a successful pilot project in which select greens were tested with applications of compost tea, Heptig and McConaghay, were ready to move forward. They enlisted the support of the San Luis Obispo County Integrated Waste Management Authority, Morro Bay Eco-Rotary, and Hayward Lumber. Grant funds from the Morro Bay National Estuary Program provided resources for infrastructure, as well as signage, education and outreach materials.

The golf course now diverts food scraps from their restaurant, approximately 100-120 pounds of waste per day, into a composting system, creating the ingredients to manufacture compost tea on-site. Greenskeepers using the product have already reported good results, particularly in the area of disease prevention.

Self-guided tours of the facility, supplemented with informational signage, make the entire system available for local residents, visitors, and school groups — golfers or not — to view and learn from this innovative project. Plans are in the works for future docent-guided tours.

Visit www.zerowasteconcepts.com to see a video on the project.

Photos: In the background, worms hard at work converting food waste to compost. Top left, McConaghay shows the compost tea brewer; center left, tea brewing; bottom left, students and community members learn about worms at a ribbon cutting event on November 10th.

Morro Bay's Migrant Brant Population



by John Roser

November signals the arrival of wintering Brant geese to Morro Bay. These Brant breed across Arctic areas from eastern Asia to mid-Canada. In the fall they fatten up on eelgrass in lagoons on the Alaska Peninsula. Then they are ready and able to fly non-stop from Alaska to Morro Bay in as little as 48 hours.

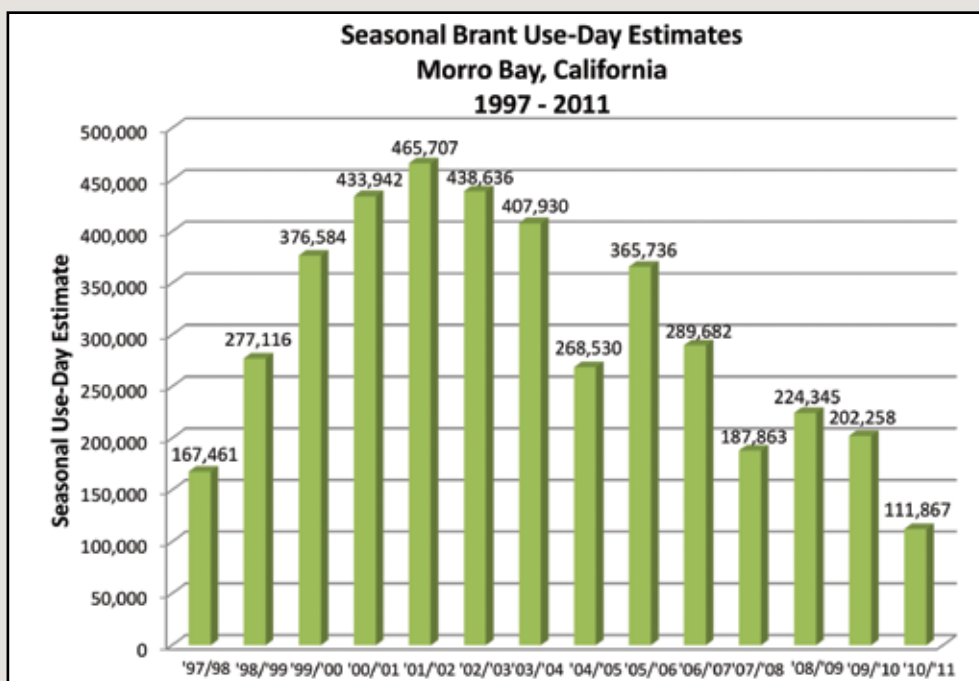
Long-term monitoring of Morro Bay's wintering Brant population has documented a steady decline over the past decade. By last season, Brant numbers had dropped 76% compared to the 2001-2002 season. Establishing the cause for this local decline is difficult to determine. Wintering Brant are distributed along the Pacific coast from Alaska to Baja. Environmental

changes at one part of the flyway can cause population shifts seen in distant locations.

For example, in recent years there has been a dramatic increase in the number of Brant that winter in Alaska rather than migrating south. A recent study analyzed over 40 years of data comparing the number of Brant wintering on the Alaska Peninsula to climate data. It documented that the peninsula is experiencing increasingly warmer winters with less ice on the eelgrass bearing lagoons. This warming trend correlates well with the increase in Alaska's wintering Brant, but the northward population shift seems to explain only a portion of Morro Bay's decline.

Eelgrass is the main food for wintering Brant and its abundance is tied to Brant numbers; however, changes in Morro Bay's eelgrass coverage do not explain the recent steady decline in Brant. During the first several years of the Brant decline eelgrass acreage more than doubled while Brant numbers fell almost 40%. Since then eelgrass acreage has dropped by almost half while Brant have continued to decline.

Although questions remain regarding Morro Bay's declining Brant numbers, some things are clear. Many events across the flyway are beyond local control, but monitoring and managing the health of Morro Bay's eelgrass is within local control and healthy eelgrass beds are essential to wintering Brant.



This graph presents a relative index of how many Brant use Morro Bay during the November through April season each year. One hundred Brant spending one week on the bay would equal 700 Brant use-days. Multiple Brant counts on the bay from November through April are used to produce a use-day estimate for the entire season. During the 1997-1998 season Morro Bay's eelgrass beds were in extreme decline due to the combined effects of a tremendous sedimentation event followed by an El Niño winter. As the eelgrass beds recovered after the winter of 1997-1998, Brant use rose, peaking during the winter of 2001-2002. It is unclear what combination of factors has been responsible for the 10 year decline since then.

Volunteers Make a Difference

"IT'S EASY TO MAKE A BUCK.
IT'S A LOT TOUGHER TO MAKE A
DIFFERENCE" ~Tom Brokaw

Our volunteers make a difference with every hour they contribute. In 2011, those volunteers contributed many hours, without which important monitoring efforts and community programs would not be possible. In 2011, 76 volunteers contributed 2,783 hours to these efforts.

To recognize this important workforce, give back a little to those who give so much, and to honor outstanding contributions to the program, the Volunteer Monitoring Program (VMP) holds an awards dinner every fall. This year, the newly formed Community Volunteer Program joined the party. Community volunteers handle the Mutt Mitt program, undertake beach cleanups and will soon include DockWalkers. At this year's dinner, a volunteer from each program received special recognition for their contributions.

VMP Volunteer of the Year, Kate McAbee, has volunteered for just one year, but contributed 40 hours during that time while maintaining a full-time load at Cal Poly.

Originally from Orange County, Kate has handled water quality monitoring at one of the more challenging sites, has participated in the ag water quality monitoring (which has taken her to some other challenging sites), and has assisted with macroinvertebrate monitoring. Kate's been a real trooper, enduring all kinds of formidable field experiences, and is a real asset to the program.

Diane Moore, the program's first **Community Volunteer of the Year**, has contributed nearly 900 hours to the program in the past year with the help of her husband, Fred. Diane stepped forward to coordinate the Mutt Mitt program last year when Sandra Beebe, the program's creator, relocated to southern California. Diane has handled fundraising, mitt storage and distribution, interfaced with State Parks and

the City of Morro Bay to coordinate efforts throughout Morro Bay, and began a system to provide inventory records and usage information for each dispenser.

Thank you to all the volunteers, past and present, who help so much to protect and preserve the Morro Bay estuary and its watershed.

Get Involved!

Many volunteer opportunities exist with the Estuary Program. If you are interested in finding the right opportunity, visit www.mbnep.org/get-involved.

Upcoming programs include a spring 2012 launch of the DockWalkers project, an educational effort encouraging clean and green boating. Watch the website for details or email ssullivan@mbnep.org to be on the email notification list.

Calendar

DECEMBER

- Dec. 3** - Lighted Boat Parade 6:30 pm
- Dec. 7** - Bay Foundation Meeting*
6pm-8pm
- Dec. 23-26** - Office Closed
Happy Holidays!
- Dec. 30-Jan 2** - Office Closed
Happy New Year!



JANUARY

- Jan. 4** - Bay Foundation Meeting*
6pm-8pm
- Jan. 13-16** - Morro Bay
Winter Bird Festival
www.morrobaybirdfestival.org
- Jan. 16** - Offices Closed
Martin Luther King Day

FEBRUARY

- Feb. 1** - Bay Foundation Meeting*
6pm-8pm
- Feb. 2** - Implementation Committee Meeting*
- Feb. 8** - Executive Committee Meeting*
- Feb 13** - Offices Closed
Lincoln's Birthday
- Feb. 20** - Offices Closed
President's Day
- Feb. 28- March 1** - Association of National Estuaries Meeting in Washington D.C.

* Agendas available at www.mbnep.org

Coastal Cleanup Day 2011

On Saturday, September 17, 1500 volunteers removed close to 39,000 pounds of trash from San Luis Obispo County beaches and creeks during the 26th annual Coastal Cleanup Day (CCD).



Estuary Program staff led two groups to clean the north end of the sandspit. Photo by Mike Baird

wildlife, poses health threats to humans, contaminates marine environments, and clogs boat propellers. CCD participants help by removing the debris and by recording the data on the

type of debris found. That data is then entered into the Ocean Conservancy Database, which helps inform the development of Environmental Policy.

California's Coastal Cleanup Day is part of the larger International Coastal Cleanup, which is the largest volunteer effort for ocean health.

This year, SLO County Creek Day joined forces with CCD to share volunteers and raise awareness regarding healthy watersheds, creeks and oceans.

Trash in coastal waterways harms



A large portion of those 39,000 pounds can be credited to an effort to raise a sunken sailboat from the back bay. Celebrate Los Osos, in conjunction with Depth Perceptions Diving Services, raised the vessel which had been submerged for several years.



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The Morro Bay National Estuary Program is a local non-profit working to protect, preserve and restore the Morro Bay estuary and its watershed. The MBNEP is funded by the U.S. Environmental Protection Agency.

"Turning the Tide" is a free quarterly newsletter. To subscribe, call the MBNEP office or visit our website.