

Session D7: Influencing Behavior through Public Education

Room C124
8:00 – 9:30 am

0440
D7-1

Training the Public to Identify Aquatic Invasive Plants

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Aquatic plants are beneficial and essential components of freshwater ecology. But proliferation of non-native species can have a negative impact on the health and function of ecosystems. Generally referred to as “exotic, or invasive,” non-native plants can crowd out native species, reducing biodiversity, and harm water quality. Early detection of new infestations can help reduce these impacts, and even allow for eradication of the invaders. Engaging the public in identifying and monitoring for invasive aquatic plants not only increases the potential of early detection, but also builds stewardship and may prevent the spread of species. This presentation will highlight the curricula, materials and experiences of the aquatic plant workshops that URI Cooperative Extension has offered since 1994. It will discuss results from past surveys, and highlight recent efforts to launch a boater inspection and education effort in order to prevent the spread of AIS in Rhode Island.

0557
D7-2

Making Clear Choices for Clean Water: A Pledge-Based Social Marketing Campaign

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Clear Choices, Clean Water is a social marketing campaign that increases public awareness about the choices we make and the impacts they have on our lakes and streams. Two watershed groups and a university teamed up in 2010 to implement a unique strategy to increase awareness and knowledge about lawn care, pet waste, native plants, and septic systems and their impacts on water quality in our watersheds. The ultimate vision for the campaign is to help change people’s behavior while evaluating our success at the same time.

The focal point of the *Clear Choices, Clean Water* campaign is a modern, interactive website at www.ClearChoicesCleanWater.org. Citizens who take the pledge are immediately “put on the map.” The map provides immediate feedback and gratification for the participant that they are doing their part to make a difference. It helps people visualize how their pledge of action alongside thousands of other pledges will impact water quality in their watershed. For the sponsors, the map also provides real-time evaluation of the success of the campaign.

In addition to the maps, participants are provided with an estimate of water quality improvements (*e.g.*, decrease in weeds and algae in a downstream lake or river) based upon their clear choice behavior pledge. They also have the opportunity to invite others via social media to join them in making a difference. Follow-up emails and reminders are sent to participants for two months following their pledge using automated email responders.

In order to change behaviors, individuals need to feel like their actions matter and are socially acceptable, encouraged, and positively recognized. Reaching them with messages about simple behavior changes not only improves water quality by cumulative impact, but begins to incubate a culture of stewardship that transcends the family, business, or classroom. The *Clear Choices, Clean Water* campaign provides opportunities for everyone to do something and make their mark on the watershed map. Although the campaign was developed for Indiana, it could be expanded nationally or used as a model in other states or regions.

0270
D7-3

Addressing Threats from Increasing Development in the McKenzie Watershed

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Eugene Water & Electric Board, Eugene, Oreg., USA

The McKenzie River is the sole source of drinking water for over 200,000 people in Eugene, Oregon. The Eugene Water & Electric Board (EWEB) has developed a comprehensive source water protection program to protect the excellent water quality of the McKenzie as a valuable drinking water resource for current and future generations. EWEB has identified increasing development as a major threat to water quality. Development may cause an increase in pesticide/fertilizer use, loss of riparian vegetation, increased use of revetment, loss of floodplain function, increased traffic density, and higher septic system density, among other things.

Mitigating for development can be addressed through both regulatory and non-regulatory measures. EWEB was involved in a county initiative to protect drinking water through a proposed land use ordinance to limit development near drinking water sources. Strong local opposition to both the content and ordinance development process essentially caused this to fail. Consequently, EWEB has re-focused its efforts into non-regulatory approaches and voluntary incentives to address threats from development. These efforts include:

- 1) McKenzie Septic System Assistance Program: In the McKenzie Watershed upriver of EWEB's drinking water intake, approximately 4,000 households rely on septic systems to dispose of their wastewater and sewage. Failing septic systems may release bacteria, viruses, nitrates and other contaminants into nearby groundwater which may ultimately reach the McKenzie. EWEB is interested in encouraging homeowners to properly maintain their septic systems. This program provides financial assistance to homeowners in conducting regular septic system inspections and pump-outs and access to zero interest loans for septic system repairs/replacements;
- 2) Landowner educational program: Landowners along the river have the potential to influence water quality through both their day-to-day activities and longer-term actions. This program provides short workshops on various topics that landowners have expressed interest in: riparian areas, healthy lawns, invasive species control, pest management, and septic systems and home maintenance. It emphasizes the connection between these activities and the health of the river.
- 3) Development of a voluntary incentives program: EWEB is working with partner organizations to find a way to financially reward landowners who maintain high quality riparian buffers on their properties.

0047
D7-4

Applying Kitsap Public Health's Pollution Identification and Correction Methods for the Restoration & Protection of Shellfish Growing Areas

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In Kitsap County surface water quality provides early warning for determining whether development, land use, and other human activities are being managed to effectively protect public health and the environment. This project is designed to implement a proven on-the-ground approach to investigate and correct sources of fecal pollution to restore and protect shellfish growing areas throughout Kitsap County. The project is being funded through a watershed protection grant from the US Environmental Protection Agency. It was initiated in 2010 and will continue through 2014.

The goals for the Shellfish Restoration and Protection project are to restore and protect water quality of both fresh and marine waters of Kitsap County by correcting sources of fecal pollution that impact shellfish growing areas and pose a threat to public health. The objectives for this project are: to implement a targeted program to clean up "Closed" shellfish growing areas, and protect "Open" growing areas with a routine shoreline monitoring program that locates fecal "hot spots," identifies sources, and corrects them; to improve coordination with the Washington State Department of Health (DOH) regarding response to potential fecal pollution sources affecting shellfish growing areas and investigate sources identified in the DOH annual sanitary survey of shellfish growing areas; to connect residents with healthy shellfish growing areas through the establishment of a Port Madison Community Shellfish Farm; to ensure correction of failing onsite sewage systems by providing financial assistance to qualified Kitsap County residents through the Enterprise Cascadia Septic Loan Program; to provide education to residents regarding sustainable land use practices for the protection of water quality, that impact shellfish growing areas.

This report will present the activities being implemented to meet the goals and objectives of the project. It will also present results accomplished during the first year of this project, which includes the completion of shoreline monitoring along approximately 56 miles of shoreline in Kitsap County, and the identification, investigation and correction of fecal pollution sources.