

Maine Beaches Conference 12 July 2013 Concurrent Session Notes: Clean Water for Clams

Kohl Kanwit

Illnesses noticed with shellfish consumption became cause for concern in late 1800s. The National Shellfish Sanitation Program (NSSP) is a state-federal cooperative program to control the safety of shellfish produced and sold for human consumption. The program standardizes the sanitation in interstate commerce; the program's model ordinance establishes minimum requirements and protects public health. Shellfish for sale should be safe to eat. The NSSP's requirements allow for tracing back to where clams were bought if someone becomes sick.

All foreign countries selling shellfish need to be members of the International Shellfish Sanitation Conference (ISSC).

DMR's Growing Area Program does classifications for water quality identification and testing at 48 shellfish areas. Five classifications – Approved, Conditionally Approved (most of time water excellent), Restricted (have to be put through a cleansing process), Conditionally Restricted, and Prohibited. A Growing Area Classification covers whole shore where approved. Establishes water quality standards and biotoxin limits and safe handling and traceability.

The water quality components of the program include sampling at more than 1,000 stations coastwide six times per year. Water is tested for fecal coliform bacteria by two microbiology labs in Maine.

A walking survey of each area's shoreline is conducted every 12 years. DMR can close or reclassify an area with problems, such as leaking septic systems. Shoreline surveys cover properties within 500 feet of shore (residential, industrial & agricultural). Other agencies/departments assist or are referred.

*Q. Does the classification program apply to private recreational folks too? Yes.*

*Q. Any movement in FDA to change program? No, very difficult.*

*Q. How do you account for areas served by public sewer? We work with DEP. Make appropriate agencies address their issues and make decisions collaboratively.*

*Q. Does Maine have rules or regulations about fixing leaking sewer lines? Yes. We have tightened up on this issue. Town has to fix it within 30 days.*

*Q. When there is a Red Tide and an "All clear" has been issued, are the shellfish testing clean before issuance? Yes.*

## Ruth Indrick

We use a community focus on clean water and raise awareness and interest. Water from one-third of the state of Maine flows through the Kennebec Estuary, expansive and interconnected. About 2,000 people make their living through harvesting of shellfish. In 2009, we had lots of rain and classifications changed and/or were closed. Diggers could not dig. Flats were closed for almost of the year. Wardens came to the Land Trust for help/

Clams are filter feeders and they eat the pollutants. People then consume these contaminants when they eat clams raw or partially cooked. Harvesting is prohibited in some areas due to fecal pollution from warm-blooded animals and people (wildlife, livestock & pets).

Wastewater treatment plans help when working properly, but many have sewer overflows and releases that have impacts during storm events. Manage manure piles better.

Boat discharges and marinas can pollute water. One solution is to have the boat pumped out instead of dumping. Other scattered pollution sources include Licensed Overboard discharges (septic systems). No new ones since 1976.

*Q. What is being done about overboard discharges (OBDs)?* DEP is focusing target areas next to the flats and trying to work with landowners. There is some funding available for mini-treatment plant in a house. Inspectors check annually to see that OBDs are working properly. There still is a potential to go into the water. Septic systems are widespread in Maine. If it malfunctions, it can release into the water. Not an issue until it rains.

*Q. What is being done about septic systems?* The state makes landowners replace failed septic systems with grants or loans. We need to make people aware about how to keep their septic system working properly, to pump it out every 3-5 years. No oils, paints or additives should be put into your septic system.

We work in partnership with communities to address issues. Work directly with agencies and then with towns. Attended meetings, gathered issues, created ordinances.

Doing lots of outreach programs to speak with more people about keeping flats open. Hold town events and gatherings. Make community aware. Gather families to dig with wardens. Work with schools and youth through field trips, etc.

*Q. When do you think Maine will do year-round inspection of sewer treatment plants?* Different licenses given to different treatment plants, so they have different regulations. Permits might not require them, but they do the inspection anyway. Some treatment plants run tests five days a week, others two days a week. Different bacteria is a factor.

*Q. Are clams bought from a fish market run through a filter process?* Not necessarily. Some come directly from the clam flats.

*Q. What is shelf life after harvesting?* Depends on the species and storage choice.

*Q. With the Red Tide and the biotoxin limits, is it different for kids and people of different sizes?* Actually size is irrelevant. The limit is set very low at about 80 micrograms. Most folks would have to have 200 micrograms before they would get ill.

*Q. During a statewide closure for rainfall, what is the rainfall threshold?* 200 inches in 24 hours to be closed.

### Sebastian Belle

Farmers are on or in the water every day. We watch our animals or plants on an hourly basis, which tells us about the environment they are in.

Our relationship between clean water and food is strained as population grows. As standards of living increase, diets shift, energy shifts impacting resources.

More than 90% of seafood is imported. Less than 2% of imports are inspected. 59% of seafood consumed in US is farmed outside of the US. Inspection rate is very low on seafood. China is concerned about their seafood and wants to start purchasing ours for future consumption.

We have lost about 100,000 fishing jobs since 1990. 25% of earth's surface is land; 30% can grow plants. Our population is 7.2 billion, and will go to 9.6 soon. Known world phosphorus reserves run out in 2050. Productivity of existing crops will go down. Groundwater extraction rates exceed recharge rates in 87% of known aquifers.

It is more efficient to grow food in water than land because the lesser resistance to gravity uses less energy and water usage is less. Farming in both freshwater and saltwater. Our businesses rely on clean water.

*Q. If a consumer is interested in leading a lifestyle with commercial fish instead of farmed fish. Is the food really traced?* Fish has been farmed for 35 years in Maine. Consumers can ask where their fish comes from.

*Q. What are farmed fish fed?* Currently standard is about 28% fishmeal, 10% fish oil, other plant protein or animal bi-products. Once challenge is that omega-3 fatty acids are primarily marine derived, and there is much research to find plant and seaweed sources of lipids. We are getting away from genetically modified organisms. They grow slower than our selected fish. Trick is to pick a species that is native to growth area, if not and is forced, it will not work.

Australia is trying to grow tuna, but it is very early in the evaluation. Tuna has an amazing growth rate, from egg to 100 lbs within 1 year. Also very good price structure and an existing market. There will be lots of challenges.

*Q. Do you know of anyone wanting to grow eel in Maine?* No.