

ISLAND COUNTY BOARD OF HEALTH

JANUARY 12, 1998 - MINUTES OF MEETING

The meeting of the Island County Board of Health convened at 10:45 a.m. on January 12, 1998, in the Island County Courthouse Annex, Coupeville, Wa. Board of Health members attending included: Wm. L. McDowell, Chairman; Tom Shaughnessy, Member; and Mike Shelton, Member. Others present: Tim McDonald, Health Services Director; Roger Case, M.D., Health Officer; Joye Emmens, Environmental Health Director; Jan Dahl, Assessment Coordinator; Tony Marthaller, Public Health Nurse, and Rob Hallbauer, Environmental Health Specialist.

APPOINTMENT TO CHAB

The Board, by unanimous motion, appointed Russ Meyer, Coupeville, to the Community Health Advisory Board to fill a current vacancy in position #1, for a term to run until March 8, 2001, Rev. Meyer having been interviewed in December by the Interview Team and recommended for appointment.

NITRATE STUDY

Rob Hallbauer presented a study he performed in 1995 and 1996 to help understand in part the quality of drinking water, and provided a draft report on the work he performed funded in part by Island County and DOE Centennial Clean Water Fund, the goal to look at data available and look at the "big picture".

History of Nitrates:

- 1945 first recognized nitrates caused blue baby syndrome in infants
- 1962 U.S. Public Health Service first recommended 10 parts per million [10 milligrams per liter] as the standard maximum contaminant level in drinking water.
- 1986 the most recently reported infant fatality in the U.S.
- 1991-92 542 nitrate exposures reported in children under 6 by the poison control center. Before it becomes acute it is suspected that many babies suffer from nitrates at lower levels, the most common way through water mixed with baby formula. nitrate poisoning is rate to find in adults and generally is only recognized in an acute condition in infants less than 6 months in age.

Background Research

- Identified any well in the County that had ever recorded a nitrate concentration above 2.0 milligrams per liter
- Visited every well site in the County that ever recorded a nitrate level above 2.0 to look at the well site and surrounding areas [in many cases found old wells with cracked seals, improperly sealed with bugs and mice going in and out of the well casing, and drainage problems with contaminated ground water flowing near the well].
- Land Uses. Looked at land uses around the well site, particularly up hill of the well site to see types of activities on the surface of the land that might affect the well and impact water quality. Old data from 1984 Comp Plan was used to indicate the various types of land uses in the County.
- Other relevant data reviewed: well logs; well construction standards; land uses ; other water quality data and aquifer data.

Results of Background Study – since 1990

Results are generally encouraging. The data base started with every well that ever recorded a nitrate level:

Levels above 2.0 Levels above 5.0 Levels above 10.0

individual wells 11% individual wells 4.9% individual wells 1.1%*

public wells 12-1/2% public wells 3.3% public wells 0.5%

Generally agricultural areas are where nitrates are found from over-fertilization and improper manure management. Every well over 2.0 nitrates per milligram per liter, was mapped and color-coded for nitrate levels and reviewed those based on those designated focus areas in terms of known nitrate problems to attempt to identify nitrate sources. Seven focus areas were identified, almost all areas with a history in the past century of intense agriculture use:

Maxwelton Valley Freeland Greenbank

Ebey's Prairie Hastie Lake area Green Valley area

North Camano

The highest nitrate level recorded through the course of the study was at the Dynes Egg Farm at 68, very high for that area. Throughout the center of the area lower levels were found at the range of 3.8, 16, 2.9, one level at the Blue Fox Drive-in area was 8.3. The area has a history of agricultural use and very poor drainage. The study seems to indicate that where there is poor drainage and everything ponds off the surface and soaks into the ground, there tends to be higher nitrate levels.

Nitrate levels were found [Old County Road and Christian Road area]: 13, 6.3, 7.8, 4.9, 5.3, 5.1, all in the same aquifer, about 300' deep; and in researching, found in this area the site of an old dairy farm. It was the only place in the County where levels were found that high at that depth. That area has a real history of small farms, and in fact, he was shown a dug well 100' deep, dry, and told there were a number of those in that area, and he suspected some of those were likely used for manure disposal 50 to 80 years ago

which would explain the high nitrate levels in such deep levels. Those are practices that no longer go on.

Findings

- High incidents of nitrate contamination in agricultural areas
- Agriculture is the main source of nitrates,
- Shallow wells are more susceptible than deeper wells
- Well construction standards have improved greatly; proper sealing and casing of a well is very important in prevention
- A dug well is a worst case scenario
- Did not find a lot of correlation between sewer systems and nitrates
- Drainage patterns play a role in some cases but it is site specific.
- In areas of high density along the shorelines, generally wells are not down gradient and the study did not find overall a strong correlation between sewage systems densities and nitrate contamination. Soils in Island County generally under that there is a very restrictive layer between the bottom of a septic system and aquifer. A sand filter system provides 40 to 50% nitrate removal when it leaves the sand filter and goes to the drainfield.

Recommendations

- Public Education
 - Best Management Practices
 - Source Protection
 - Source consolidation for people with problems
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- Island County has a strong drinking water code; well construction standards of DOE do a good job to make sure all new wells are constructed properly.

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FINAL RESULTS OF CAMANO ISLAND PRIORITIZATION SURVEY

Handouts:

- *Island County Health Information for Camano Island, North, Central, South Whidbey Island, Supplement to the Regional Health Status Report for Island, San Juan, and Skagit Counties*, prepared by the Island county Health Department, December, 1997
- *Final Results of Camano Island Prioritization Survey.*

Tony Marthaller noted the time frame of the pilot project on Camano was July 1996 through December 31, 1997. An evaluation of work will be completed and to the Board of Health sometime in February or March. Actual work of the project will continue, and the Community Action Advisory Team will be proposing in the near future how to continue to function on Camano Island. The project question for the pilot project to the community was: "can a community (its residents, its associations and institutions), with the assistance of a core health department team, improve its health status by using its strengths and assets to identify, prioritize and address health concerns?"

The structure to do the work was based on a model from the Missouri Department of Health. The goal for Island County: healthy people, healthy environment, healthy community. The five steps of the process used included:

1. Developed a Community Coalition. Community Coalition for the project included a Core Team, a Community Health Advisory Team and a Sponsor Group – 23 Camano Island residents.
2. Created a vision of a healthy community. Community Coalition developed a vision of a healthy Camano Island in 2020, with seven themes:

Accessible and affordable health care, both traditional and alternative medicine, with a focus on prevention, and with services for all ages

Community gathering places that support the local economy, including artists, offer education, recreation and healthy entertainment for all ages

A healthy rural environment with open spaces, green areas, gardens, wildlife, lake and beach access and a network of pedestrian and bicycle paths

Provision for youth – a community enriched by intergenerational interactions which support individual and family physical, mental, emotional, social and spiritual well being and growth needs

Comprehensive and environmentally friendly transportation systems that connect residents with services and recreation

Growth of unobtrusive business clusters which meet basic needs and provide increased shopping and economic opportunities

Provision for the safety of citizens, neighborhoods and communities.

3. Conducting a community health assessment. Conducted during winter 1996-97, and consisted of: review of 1990 U.S. Census data; review of most current data available; telephone behavioral risk factor survey; windshield survey.
4. Prioritizing community health issues. Camano Community Health Advisory Team is presenting results of the health assessment to community groups in a slide show version, and results were published in a Fire district newsletter and residents asked to complete a survey indicating which of the seven themes were most important. Results of the survey, out of 400 returned, were:

Supporting our youth 24.9%

Safety 23.7%

Health Care 20.8%

Healthy Rural environment 18.2%

Community Center 6.0%

Economic Growth 4.7%

Transportation 2.2%

5. Developing and implementing a community health plan. Community health plan will be developed based on the priorities identified. Special interest groups will be convened to identify existing resources in the community. Gaps between what has been identified in 1997 and the vision for 2020 will be identified, and the community health plan will address those gaps.

The Team will integrate priority concerns in the Plan for 1998. The whole group on January 23rd will be reviewing and revising that, a beginning focus to take the broad base assessment and themes and break them down into specifics the community can get behind and support. The Team wants to organize themselves into a community policy development group and will in near future share that with the Board of Health. They see their work as identifying Camano-Stanwood and regional resources to meet community health needs; network and communicate local community resources and organizations; develop policies and facilitate action plans to fulfill community health needs.

There being no further business to come before the Board at this time, the Chair

adjourned the meeting at 11:55 a.m. The next Regular Meeting is scheduled for

February 9, 1998, beginning at the normal time, 11:15 a.m.

ISLAND COUNTY BOARD OF HEALTH

Wm. L. McDowell, Chairman

Tom Shaughnessy, Member

Mike Shelton, Member

