JUNEAU FLUORIDE STUDY COMMISSION

REPORT TO ASSEMBLY
OF THE
CITY AND BOROUGH OF JUNEAU

JULY 11, 2006

EXHIBIT F
(March 28, 2006)
Oral Health - Water Fluoridation - Safety

Key Resources on Topic
Fact Sheets  Guidelines & Recommendations  Questions & Answers

Safety

Overview
Nearly all water on earth contains naturally occurring fluoride at levels below, equal to, or above those used in community water fluoridation. Investigation of the decay preventing effects of naturally occurring fluoride in water led to the start of community water fluoridation in 1945. For more than 60 years scientists have conducted epidemiological and animal studies to determine the effectiveness and safety of fluoride in water.

- Systematic and Evidence-based Reviews about Fluoridation Safety

Systematic reviews provide the best evidence about fluoridation safety. These reviews are completed by panels of experts following a set of carefully-designed protocols to methodically search for and retrieve evidence; assess the quality of and summarize the strength of the body of evidence; summarize information regarding other evidence; and identify and summarize research gaps.

- National Research Council (NRC) Report on Fluoride in Drinking Water

The NRC released its report, Fluoride in Drinking Water: A Scientific Review of EPA's Standard, on March 22, 2006. The purpose of this report is to provide recommendations to the Environmental Protection Agency (EPA) on whether the current maximum contaminant level goal (MCLG) of 4 mg/L protects children and others from adverse health effects. The NRC committee did not examine the health risks or benefits of water at the levels recommended for fluoridation of water to prevent tooth decay. The current range for water fluoridation of community water systems is 0.7 to 1.2 ppm (equivalent to 0.7-1.2 mg/L). Water that has fluoride at these levels is safe and effective for preventing tooth decay.

CDC statement on the 2006 NRC report.

See Frequently Asked Questions about the responsibilities of the EPA for setting standards for fluoride in water.

Additional information on the NRC report including a Report in Brief *(PDF-1.58Mb)* and how to order copies of the full report is available at The National Academies.*
• Enamel Fluorosis

The proper amount of fluoride helps prevent and control dental caries (tooth decay). Fluoride ingested during tooth development can also result in a range of changes in tooth enamel. Because fluorosis is a condition that occurs when teeth are forming, only children aged 8 years old or younger are at risk. Children older than eight, adolescents, and adults are not susceptible to fluorosis.

• Recommendations to Reduce the Risk for Enamel Fluorosis

Enamel fluorosis occurs among some people in all communities, even in communities that do not fluoridate and have a low natural concentration of fluoride in drinking water. All persons are encouraged to know what steps can be taken to reduce the risk for enamel fluorosis.

• CDC Statement on Water Fluoridation and Osteosarcoma

Recent media coverage has increased public interest in a Harvard doctoral student's unpublished dissertation, which reportedly suggests an association between drinking fluoridated water and osteosarcoma in adolescent males. CDC continues to strongly support community water fluoridation as a safe and effective public health measure to prevent and control tooth decay and to improve overall health.

• Health Effects and Environmental Impact

The safety of fluoride in drinking water at levels recommended for preventing tooth decay has been affirmed by numerous scientific and professional groups.

Scientists have found a lack of evidence to show an association between water fluoridation and a negative impact on people, plants, or animals.

• Fluoridation Additives

Three additives—sodium fluoride, sodium fluorosilicate, and fluorosilicic acid—may be used to adjust the natural fluoride levels in water to concentrations that prevent or reduce tooth decay. Learn more about these additives and how they work in water.

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