

## Protecting Recreational Beneficial Uses in the North Fork Coeur d'Alene River Subbasin



Waterbodies in Idaho must provide water quality for existing or designated uses as described in Idaho laws (IDAPA 58.01.02.100). The designated use of a waterbody does not imply any rights to access or ability to conduct any activity related to the use designation, nor does it imply that an activity is safe. For example, a designation of primary or secondary contact recreation may occur in areas where it is unsafe to enter the water due to water flows, depth, or other hazardous conditions. Another example is that aquatic life uses may be designated in areas that are closed to fishing or access is not allowed by property owners. Wherever attainable, the designated beneficial uses for which surface waters of the state are to be protected include aquatic life, recreation, water supply, wildlife habitats, and aesthetics (IDAPA 58.01.02.100). Recreational beneficial uses of Idaho surface waters are divided into two categories: **primary contact recreation** and **secondary contact recreation** (IDAPA 58.01.02.100.02)



**Primary contact recreation** requires water quality appropriate for prolonged and intimate contact by humans or for recreational activities when the ingestion of small quantities of water is likely to occur. Such activities include, but are not restricted to, those used for swimming, water skiing or skin diving.



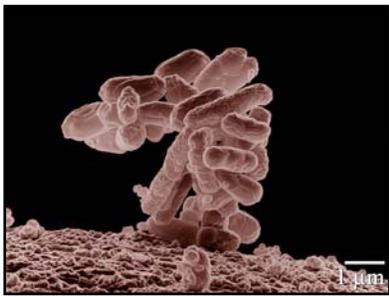
**Secondary contact recreation** requires water quality appropriate for recreational uses on or about the water and which are not included in the primary contact category. These activities may include fishing, boating, wading, infrequent swimming, and other activities where ingestion of raw water is not likely to occur.

## Recreational beneficial uses in the North Fork Coeur d'Alene Subbasin

In the North Fork Coeur d'Alene Subbasin, the main North Fork Coeur d'Alene River from source to mouth has beneficial uses designated by statute. These are cold water aquatic life, salmonid spawning, primary contact recreation, drinking water supply, and special resource water designations (IDAPA 58.01.02.110.08). Prichard Creek is also designated for primary contact recreation among other uses. Secondary contact recreation is a presumed or existing use for the remainder of streams in the subbasin.

### Applicable State of Idaho water quality criteria

Water quality protections for recreational beneficial uses primarily address human safety and the potential health hazards of ingesting untreated surface waters during recreational activities. To protect human health, there are water quality criteria for bacteria and toxic substances.



Above, Cluster of *E. coli* bacteria.

Bacteria criteria for primary and secondary contact recreation are described in the water quality standards (IDAPA 58.01.02.251) and are summarized here:

Geometric Mean Criterion. Waters designated for primary or secondary contact recreation are not to contain *E. coli* bacteria in concentrations exceeding a geometric mean of 126 *E. coli* organisms per 100 ml water based on a minimum of five samples taken every three to seven days over a 30-day period.

Single Samples. Single water samples can indicate the presence of harmful pathogens. Single sample maximum values have been established for secondary contact recreation, primary contact recreation and designated public swimming beaches. These include:

Secondary Contact Recreation:	576 <i>E. coli</i> per 100 ml
Primary Contact Recreation:	406 <i>E. coli</i> per 100 ml

A water sample exceeding these *E. coli* single sample maximum values indicates the geometric mean criterion is probably exceeded; however, a single sample is not enough to prove a violation of water quality standards. If a single sample contains high numbers of *E. coli*, then additional sampling must be conducted to determine if the water body complies with the 5-sample geometric mean standard described above (126 *E. coli* per 100 ml). *E. coli* is used as an indicator organism whose presence likely indicates the presence of other, more harmful, microorganisms.

Besides bacteria, other water quality criteria that may apply to recreational uses are included in the general surface water quality criteria for the state (IDAPA 58.01.02.200) and as numeric criteria for toxics (IDAPA 58.01.02.210). For toxic substances and recreational uses, the criteria address human health risks from consumption of contaminated aquatic organisms (i.e. metals in fish tissue).

## **What about cold temperatures?**

Idaho water quality standards do not address a minimum temperature for recreational uses of surface waters. Besides hot springs and some reservoirs, most Idaho surface waters naturally cold year-round. This naturally cold water is not caused by human impacts or pollution and is not considered a human health hazard that would impair recreational beneficial uses. Instead, the naturally cold waters of Idaho support a diverse and sensitive community of cold water aquatic life. Idaho surface water temperature criteria have been developed to protect these more sensitive beneficial uses.

## **Support status in the North Fork Coeur d'Alene Subbasin**

Data collected in the North Fork Coeur d'Alene Subbasin for bacteria have not shown any exceedances of water quality criteria for recreational beneficial uses. Additional sampling will take place in summer 2008 during periods of high recreational use to further verify the high quality of water for recreation. Toxic substance exceedances have not been documented, and further evaluations will be conducted during development of metals Total Maximum Daily Loads (TMDLs) for the subbasin. Each summer thousands of visitors float, wade and swim in the North Fork Coeur d'Alene River system. While water temperatures are generally cold, there are impairments of recreational uses due to temperature because these cold temperatures are natural and are desirable for support of coldwater fisheries. At this time, all recreational beneficial uses in the North Fork Coeur d'Alene Subbasin are considered fully supported by water quality.



### **For more information:**

[http://www.deq.idaho.gov/about/regions/north\\_fork\\_cda\\_river\\_wag/index.cfm](http://www.deq.idaho.gov/about/regions/north_fork_cda_river_wag/index.cfm)