

Regulated contaminants are divided into six categories: Bacteria/Viruses, Nitrate/Nitrites, Inorganic and Heavy Metals, Volatile Organics, Synthetic Organics, and Other Organics. This fact sheet reviews only Inorganic, Heavy Metals, and Nitrates/Nitrites. For complete results of all the regulated contaminants, please refer to the Source Water Assessments. The public water systems located in the basin are identified by their Public Water System Identification Number (PWSID) and are listed below.

PWSID

226397	291245	291300
291261	291279	291376
291342	291368	291407
291384	291392	291499
291431	291473	291596
291504	291512	292099
291724	291805	292608
292186	292330	296802
294002	296608	
299012	370659	
380214	291253	

LAND USE ACTIVITIES

ADEC has identified the following land use activities in the area that have a potential to impact water quality: landfills, wastewater treatment plants, pit toilets, airports, heavy equipment storage, taxidermists, lumber processing, petroleum pipelines, incinerators, cemeteries, electric power generation, firehouses, gasoline stations, Class V injection wells, laundromats, medical facilities, motor vehicle repair shops, petroleum storage, ADEC recognized Contaminated Sites (CS), Leaking Underground Storage Tanks (LUST) and Underground Storage Tanks (UST).

ADEC regulated sites within the Basin are:
Contaminated Sites (CS):

Active: 11

Inactive: 14

Closed/No Further Action: 14

LUST: 24

UST: 43

Details on CS, LUST and UST sites identified in this Basin can be obtained from:
http://www.dec.state.ak.us/spar/csp/db_sear_ch.htm

PROTECTION EFFORTS

Currently wellhead protection plans have not been established for public water systems in the Basin. Protection efforts should include implementing a wellhead protection plan, and identifying and managing improperly abandoned wells or other features that may provide direct pathways for contamination to enter the aquifer. ADEC has created a CD ROM to assist communities in developing a wellhead protection plan.

Applications for the CD are available at:
http://www.dec.state.ak.us/eh/dw/DWP/source_water.html

This is the third in a series of fact sheets being developed for each Hydrologic Unit Code area in Alaska.



Alaska's Drinking Water Protection Program

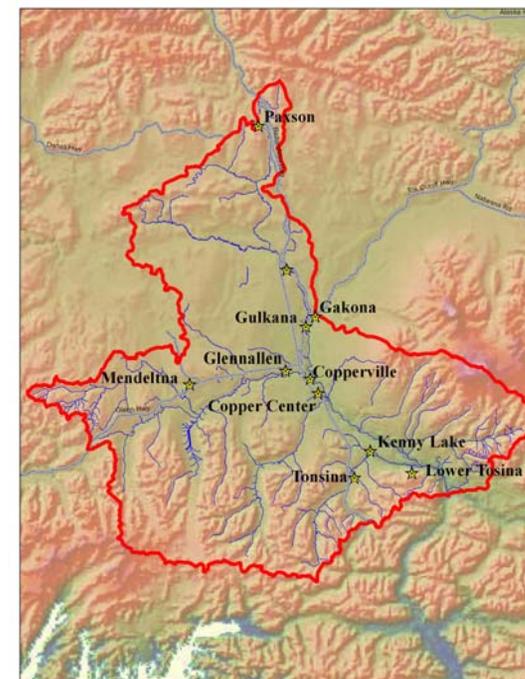
555 Cordova Street
Anchorage, Alaska 99501
Phone (907) 269-7521
Fax (907) 269-3990

**BASIN FACT SHEET FOR
MIDDLE COPPER RIVER
BASIN**

USGS HUC: 19020102

ALASKA DEPARTMENT OF
ENVIRONMENTAL
CONSERVATION

DRINKING WATER
PROTECTION



BASIN OVERVIEW

AREA DESCRIPTION

The Middle Copper River Basin is in southeastern Interior Alaska. The area is bordered by the Alaska Mountain Range to the north, by the Wrangell Mountains to the east, by the Chugach Mountains to the south, and by the Talkeetna Mountains to the west.

AREA GEOLOGY

The Copper River Basin, ranging from 500 to over 4,000 feet above sea level, is an intermontane basin rimmed by peaks of the Chugach, Alaska, Talkeetna, and Wrangell mountains. The terrain of the basin can be divided into two physiographic sub-units: the rolling, hummocky Copper River basin piedmont surface, and the Copper River basin trough. The Copper River basin trough is generally flat and lacks the hummocky, rolling character of the piedmont surface.

The terrain, geology of the unconsolidated deposits, and foundation materials of the Copper River Basin area are related to Pliocene and recent events. Glaciers from the Chugach, Wrangell, Talkeetna, and Alaska Ranges repeatedly invaded the Basin, perhaps at times filling it and flowing across the divides to the north, west, east, and south. Such extensive glaciations has resulted in the deposition of large thicknesses of coarse glacial boulder clays (till) and coarse outwash gravel and sand on the piedmont surface,

with finer till and outwash interbedded with lake deposits in the basin trough.

The Middle Copper River Basin is within the discontinuous permafrost zone. Surface soils in the area generally consist of silt and clay with pebbles underlain by boulder clay with till, underlain by glacial outwash sand and gravel, underlain by boulder clay or till.

PUBLIC DRINKING WATER USAGE

The basin has 34 public water systems consisting of 36 separate sources. These sources serve a total population of 1,723. The estimated annual usage of water from these systems is 84,900,825 gallons per year (232,605 gallons per day).

33 sources are ground water, 2 are surface water and 1 source is classified as groundwater under the direct influence of surface water.

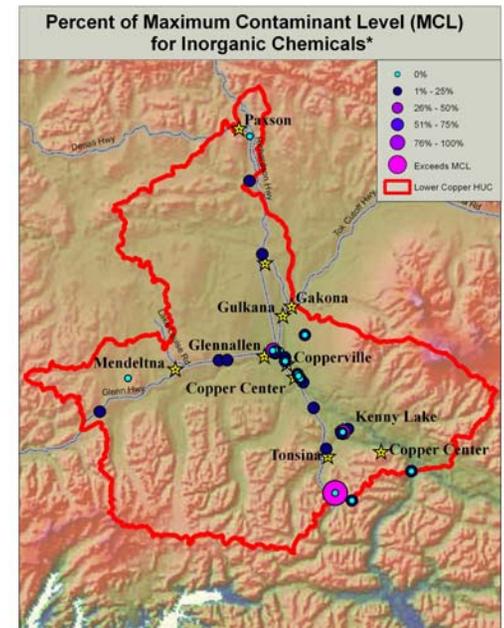
Of the 34 public water systems, 10 are community water systems, 6 are classified as non-transient/non-community and 18 are non-community.

WATER QUALITY

The Alaska Department of Environmental Conservation (ADEC) has prepared Source Water Assessments reports for all public drinking water systems in the basin. Source Water Assessments provide a detailed description of each Public Water System in the Basin. The results of the assessments can be reviewed at: <http://www.dec.state.ak.us/eh/dw/DWP/complete.aspx>

Naturally occurring levels of contaminants exist in all drinking water sources. Inorganic chemicals are the most likely contaminants to occur naturally. Concentrations of the following inorganic chemicals have been detected in public drinking water systems in the Basin: antimony, arsenic, nitrates/nitrites, barium, beryllium, chromium, fluoride and nickel.

One public water system in the Basin has an average arsenic level above the Maximum Contaminant Levels (MCL) of 10 ppb. This system has until January 23, 2006 to reduce the arsenic level below the MCL. The MCL is the maximum level of contaminant allowed to exist in drinking water and still be consumed without harmful effects.



* Inorganic Chemicals reviewed: antimony, arsenic, nitrates/nitrites, barium, beryllium, cadmium, chromium, cyanide, fluoride, mercury, nickel, selenium and thallium.