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 recent regulated contaminant sampling please refer to the public water systems' Source Water Assessment. Public water systems located in the basin are identified by their Public Water System Identification Number (PWSID) and are listed below.

PWSID

260139	260155	260820	261371	262319	270061
270215	270223	270231	270338	270346	270469
270493	270613	270621	270697	270728	270736
270786	270794	270833	270875	270883	270930
270948	270956	270964	270980	271017	271025
271041	271059	271083	271091	271106	271114
271148	271172	271211	271245	271253	271261
271334	271431	271473	271504	271538	271554
271643	271700	271716	271721	271724	271732
271790	271952	271982	271999	272000	272005

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, honey bucket disposal areas, airports, incinerators, boatyards/marinas, 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: 37
- Inactive: 16
- Closed/No Further Action: 21

LUST: 17
UST: 17

Details on CS, LUST and UST sites identified in this Basin can be obtained from:
http://www.dec.state.ak.us/spar/csp/db_search.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 first in a series of fact sheets being developed for each Hydrologic Unit Code area in Alaska.

Alaska's Drinking Water Protection Program

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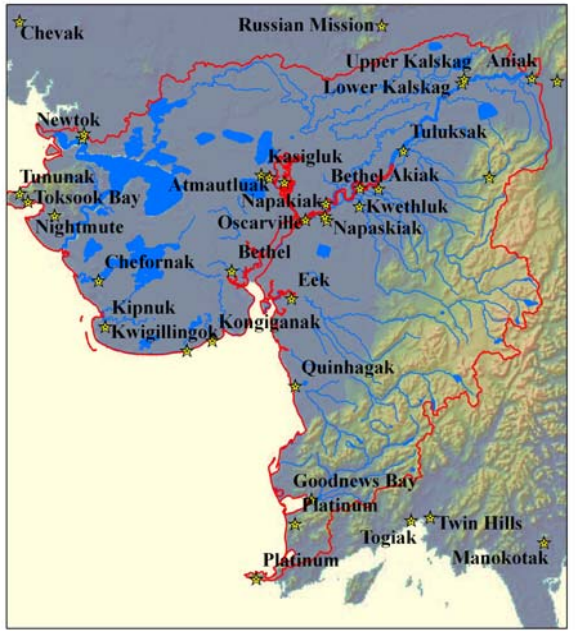
BASIN FACT SHEET FOR KUSKOKWIM DELTA

USGS HUC: 19030502

ALASKA DEPARTMENT OF ENVIRONMENTAL CONSERVATION

DRINKING WATER PROTECTION



BASIN OVERVIEW

AREA DESCRIPTION

The Kuskokwim Delta Basin is the general area surrounding the Kuskokwim River as it flows toward and into Kuskokwim Bay, which is its southwestern border. The area is bordered by the Izaviknek River to the north, by the Kilbuck Mountains to the east, by Cape Newerham to the south, and by Etolin Strait to the west.

AREA GEOLOGY

While there are many similarities in the Basin's geology, there are four geographic areas that have some subtle differences. The following describes the geology within these areas:

The north-central area of the Basin borders on the continuous permafrost zone and most of the area west of the Kuskokwim River appears to be underlain with permafrost. The geology in the area consists primarily of unconsolidated floodplain alluvium, silt deposits, and reworked silt. The area consists of poorly drained wetland and sloughs; and small lakes, ponds, and marshes surround the area.

The northwest area of the Basin is a delta complex consisting of a lake-dotted marshy plain rising from the sea level in the discontinuous permafrost region of Alaska. The largest geologic unit is the delta itself. The delta consists of silt, sands, silty sands, and organic soils (peat bogs). The sediments are a complex of river, marine, swamp, and wind deposits.

The northeast area of the Basin is considered to be in a discontinuous permafrost zone and the permafrost masses are small, thin and generally isolated. The area is located on a flat former floodplain of the Kuskokwim River and the topographic relief is less than 20 feet. Generally, the soils consist of sandy silt overlying sand and fine gravels.

The south-central area of the Basin lies within an area characterized by isolated masses of deep or thin, shallow permafrost. Generally, the soils consist of muskeg (peat/organics) overlying gravel and fine sand that is underlain by clay and glacial drift. Soils are apparently beach or alluvial deposits overlying glacial till.

PUBLIC DRINKING WATER USAGE

The basin has 60 public water systems consisting of 65 separate sources. These sources serve a total population of 15,143. The estimated annual usage of water from these systems is 726,224,075 gallons per year (1,989,655 gallons per day).

53 sources are ground water, 10 are surface water and 2 sources are classified as groundwater under the direct influence of surface water. Of the 60 public water systems, 30 are community water systems, 8 are non-community and 22 are classified as non-transient/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

Drinking water within the Basin meets the Maximum Contaminant Levels (MCL) for all regulated contaminants accept for arsenic. The MCL is the maximum level of contaminant allowed to exist in drinking water and still be consumed without harmful effects. Nineteen public water systems have an average arsenic level above the MCL of 10 ppb. These systems have until January 23, 2006 to reduce levels of arsenic below the MCL.