

# Bingham-Magna Ditch Update

## December 2007



Kennecott Utah Copper Corporation continues to work with the United States Environmental Protection Agency (EPA) and the Utah Department of Environmental Quality (UDEQ) to investigate and remediate the historic Bingham-Magna Ditch. Kennecott has prepared this newsletter to update property owners along the historic Bingham-Magna Ditch about work progress.

### Where's the Ditch and What's in it

Initial maps showing the alignment of the ditch were created using historic land records and 1937 air photos; however, more precise mapping was needed through residential areas. In July, Kennecott utilized a tractor-mounted soil probe to confirm the location of the ditch. Based on these results, Kennecott has produced updated maps showing the location of the ditch through residential areas. These maps are posted at the project website maintained by UDEQ -- [http://www.deq.utah.gov/Issues/Bingham-Magna\\_Ditch/index.htm](http://www.deq.utah.gov/Issues/Bingham-Magna_Ditch/index.htm).

Kennecott has also excavated trenches through the ditch at a number of locations along its 17-mile corridor to collect detailed information about the ditch, including depth below the surface, width, and thickness of the ditch sediments. Samples were collected for analysis of arsenic and other metals to understand how arsenic concentrations change along the length of the ditch and if there are other concerns. Arsenic can be found in different forms, and the form determines the hazard posed by the arsenic. Kennecott collected samples from the trenches to determine the form and whether there is a potential health hazard related to the arsenic in the ditch. Kennecott will report all of the information collected from this investigation in a final report to EPA and DEQ by March 2008.

### Residential and School Sampling

Kennecott offered testing, at no cost to the homeowner, for residential properties within 30 feet of the centerline of the ditch and obtained permission to access over 95% of the properties within this corridor. The sampling program in residential areas along the Bingham-Magna Ditch is focused on testing the shallow (0 to 12 inches) soil to detect potential health risks to property owners. It is possible that during home construction or utility excavation, sediments from the ditch might have been disturbed and deposited at the surface.

### What is the Bingham-Magna Ditch?

The ditch was used by the Utah Copper Corporation (a predecessor of Kennecott Utah Copper Corporation) to transport waste water from the Bingham Mine to mining mills in Magna during the 1930's. The ditch was abandoned and filled with top soil by 1940.

The historic ditch originated west of Copperton, ran east to about 7000 west, then north through what are now West Jordan, West Valley City, Kearns and Magna. It ended at the Utah and Salt Lake Canal northwest of Magna. Recent sampling indicates that some levels of arsenic may be present in sediments and soil associated with the ditch.

## **Spreading the Word, Answering Your Questions**

Kennecott, EPA, and UDEQ have held public information sessions in the communities of West Jordan, Kearns, and West Valley City over the past several months to share what we know about the ditch and to answer your questions. If you missed those meetings, project managers from Kennecott, EPA, and UDEQ are available to respond to questions by phone or e-mail. The UDEQ also maintains a project website where information about the Bingham-Magna Ditch is posted. We will hold additional public meetings in late Spring 2008 to discuss results of the investigation and to present remediation plans.

### **UDEQ Website:**

[http://www.deq.utah.gov/Issues/Bingham-Magna\\_Ditch/index.htm](http://www.deq.utah.gov/Issues/Bingham-Magna_Ditch/index.htm)

### **Project Managers:**

Kelly Payne  
Kennecott Utah Copper  
569-7128  
[kelly.payne@kennecott.com](mailto:kelly.payne@kennecott.com)

Doug Bacon  
UDEQ  
536-4282  
[dbacon@utah.gov](mailto:dbacon@utah.gov)

Rebecca Thomas  
EPA  
(303) 312-6552  
[thomas.rebecca@epa.gov](mailto:thomas.rebecca@epa.gov)

Kennecott has also collected shallow soil samples from the athletic fields at Thomas Jefferson Jr. High School in Kearns and at Silver Hills Elementary School in West Valley City, where construction of the fields may have disturbed ditch sediments.

Residential and school sampling results received so far show that arsenic concentrations in surface soil are well below the residential clean up level specified in work plans that EPA has approved for the Bingham-Magna Ditch, except at one location. Where arsenic is found on a property at a level that exceeds the level EPA has specified as acceptable for residential use, Kennecott will contact the home owner to discuss what actions should be taken. Kennecott has offered to assist landowners with the necessary removals.

Although shallow surface soils have low arsenic concentrations that allow unrestricted use, undisturbed ditch sediments remain buried in residential areas. It is important that these sediments not be excavated without taking proper precautions. Kennecott is working with EPA and DEQ to determine what protective measures should be taken in areas where the ditch remains buried in residential areas.

## **Cleaning up the Ditch in Open Spaces**

Crews and equipment have been working in fields and open spaces in West Jordan, Kearns, and West Valley City since early August to remove sediments from the historic Ditch. These clean-up activities will be completed by the end of the year and reported on to EPA and UDEQ.

Kennecott, EPA, and UDEQ are confident that while these sediments remain buried, they do not pose a risk to human health or the environment. However, as development in the valley spreads westward, Kennecott, EPA, and UDEQ wants to assure that the ditch sediments are not dug up without proper precaution.

The clean up of the ditch in open spaces, as with any excavation, can create dust. Kennecott has prepared and implemented a rigorous dust control program that includes using water to wet the sediments as they are excavated, generous watering of the work area, covering haul trucks, and suspending work on windy days. Air monitors are placed upwind and downwind of the work area each day. These monitors have not detected any arsenic in air-borne dust.