



# Ship Creek Environmental Remedial Investigation and Feasibility Study (RI/FS)

## PROJECT FACTS

### Background

#### The Agreement

In 2004, the Alaska Railroad Corporation (ARRC) and the U. S. Environmental Protection Agency (EPA), Region 10 agreed to implement a long-term environmental assessment of the railroad's 600-acre Anchorage Terminal Reserve (the Site). Railroad operations and other industrial uses that began over 80 years ago have resulted in suspected environmental problems at the Site.

In May 2004, the ARRC agreed to a negotiated settlement with EPA designed to review historic uses of the property and environmental data from other sources, search for and identify possible contaminants, and devise strategies for either eliminating or mitigating risks according to regulatory guidelines.

Specifically, this is a Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) and Resource Conservation and Recovery Act (RCRA) Administrative Settlement Agreement and Order on Consent (Docket No. 10-2004-0065) dated June 29, 2004 and amended May 25, 2006.

Under EPA direction and oversight, ARRC is conducting a remedial investigation and feasibility study. The remedial investigation, or RI, will determine the nature, extent, and magnitude of any contamination of soils, groundwater, surface water

and fresh water sediments at the Site. The purpose of the investigation is to evaluate environmental impacts associated with industrial activity on the site and specifically the potential for these impacts to have affected the quality of Ship Creek. The feasibility study, or FS, will identify and evaluate site cleanup alternatives that will be considered by EPA for any cleanup action that may be needed.

Prior studies indicate that a number of industrial-related materials are present in some of the soils and shallow groundwater at the Site. The agreement calls for an assessment of risks from contamination to humans, wildlife or the environment. Assessment results will guide the development of a cleanup plan where appropriate and feasible. Any cleanup would be shared cooperatively with past owners/operators of the Ship Creek railroad yard who had previous responsibility for the property.

During the RI/FS process, ARRC and EPA encourage public involvement through public meetings, fact sheets, project documents to the community, and public comment opportunities throughout the process. Documents and periodic updates appear on the ARRC website, [www.alaskarailroad.com/scei](http://www.alaskarailroad.com/scei). The ARRC contact for more information is Tim Thompson, 907-265-2695. EPA's public information officer is Andrea Lindsay at (206) 553-1896 or 1-800-424-4372 x 1896; EPA website [www.epa.gov/r10earth](http://www.epa.gov/r10earth).



*The west end of the Anchorage Terminal Reserve, in the Ship Creek basin, is bordered by Cook Inlet.*

## The Area

The Anchorage Terminal Reserve lies in the industrialized Ship Creek basin, which is bordered by Cook Inlet to the west, Elmendorf Air Force Base to the north, the Mountain View community to the east, and downtown Anchorage to the south. Approximately half of the site is occupied by the ARRC rail yard and the remainder is under lease.

The rail yard is comprised of a track system, repair buildings, a fueling area, a steaming rack, warehouses, and offices. Rail yard activity has included fueling, painting, steam cleaning, freight loading, and locomotive and rail car maintenance.

Property outside the rail yard is leased to tenant businesses that have conducted many types of activities, primarily industrial. These include power plants, trucking and transit operations, office buildings, fuel storage and auto salvage, among other uses. The Alaska Railroad leases nearly 140 parcels of land in the Anchorage Terminal Reserve to 137 tenants.

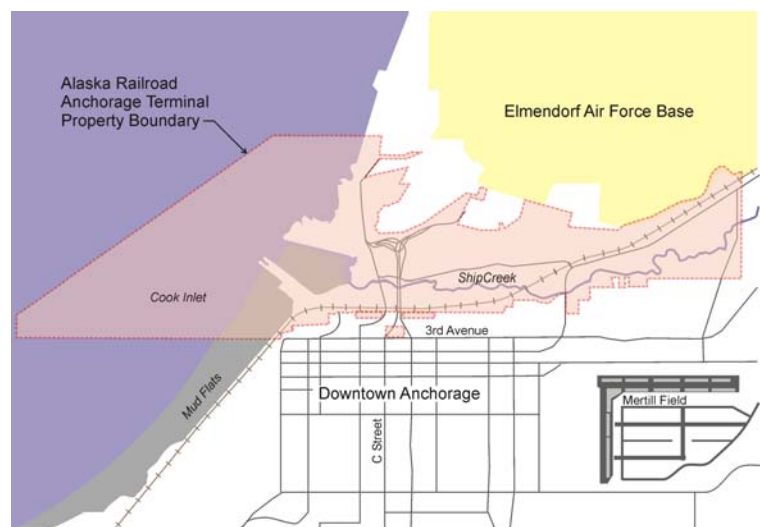
The U.S. Government began construction of The Alaska Railroad in 1915 and operated the railroad up to the date of its transfer of ownership to the State of Alaska. From 1915 to 1985, various agencies of the federal government, including the Federal Railroad Administration (FRA), owned and operated the railroad and the Anchorage Terminal Reserve in Ship Creek. In 1985, the State of Alaska took ownership of the railroad and the property in Anchorage, assuming previous Federal government leases to industrial and commercial businesses, ranging from small convenience stores to large oil storage operations.

## Project Activities

- On June 29, 2004, ARRC and EPA Region 10 signed an Administrative Settlement Agreement and Order on Consent to implement the RI/FS.
- During 2004, ARRC carried out interim actions to accelerate data collection. First, ARRC conducted a documentation survey and focused surface water and sediment sampling in Ship Creek. Secondly, ARRC took samples along the bluff at the northern boundary of the site to help determine possible contamination that may be entering the site from higher ground sources.
- In October 2004, ARRC completed a comprehensive Site Background Report

and delivered this to the EPA and Alaska Department of Environmental Conservation (ADEC). The report compiled and organized a large volume of existing site information into a database so data can be evaluated and summarized. This information formed the basis for the RI/FS investigation and helped to identify “data gaps” that must be filled to develop a complete understanding of environmental conditions.

- In November 2004, ARRC completed a Ship Creek Habitat Assessment and Northern Boundary Survey.
- In the summer 2005, ARRC submitted an RI Work Plan to EPA and ADEC.
- During late summer and fall 2005, ARRC began the RI work with EPA oversight.
- During January - June 2006, data was reviewed and it was determined that additional sampling was needed.
- During the 2006 field season, additional groundwater, sediment and soil sampling was conducted to fill data gaps and delineate areas of concern.
- During winter-spring 2006-2007, ARRC will validate and analyze the data and prepare draft RI and Risk Assessment Reports for submission to EPA. A draft Feasibility Study is expected by late summer 2007.
- Public meetings will be held and public comment sought throughout 2007 on a schedule to be established by EPA. The Technical Assistance Grant recipient, Anchorage Waterways Council, may conduct separate public meetings. ARRC will participate at any public forum.



- The RI/FS process requires detailed study and evaluation and can take several years to complete. ARRC is hopeful that the final reports will be approved by EPA by year end 2007.

## Activities in More Detail

Most of 2005 and 2006 have been dedicated to completing a site investigation in order to evaluate potential environmental impacts. Once the site investigation is complete, ARRC will prepare a series of reports which detail the findings, evaluate the results for potential human health or ecological risk, and present a plan for remedy of impacts if necessary. Following EPA approval, all reports will be available to the public.

The first round of Remedial Investigation / Feasibility Study (RI/FS) field activities was completed between August and November 2005. Additional groundwater sampling was conducted in April 2006, and soil sampling was completed in May. A map of sampling locations is available on the ARRC web site. The analytical results indicate that there were localized areas that required further investigation. This additional sampling was accomplished in October 2006.

Additionally, a water supply well inventory was conducted, which identified eight water supply wells currently in use. Seven of the eight wells were sampled. Although specific depth data were not available, historical reports and user interviews indicated that the wells are drawing from a deep aquifer that is isolated from the shallow water table aquifer currently under investigation by up to 100 feet of Bootlegger Cove Formation clay.

Untreated water from these deep wells was sampled. Each well was analyzed for a full suite of inorganic and organic compounds, which included drinking water quality parameters. Results from the sampling indicated that the deep aquifer groundwater beneath the Anchorage Terminal Reserve meets all federal drinking water standards. As a result, no further sampling of these wells is necessary.

In 2006, additional surface water and sediment were collected from Ship Creek to determine natural metals concentrations in sediment and surface water upgradient from the site. In addition, further characterization of potential sources of environmental impacts in sediment and surface water was conducted in drainage ditches and ponds on either side of Ship Creek.

Based on the 2005 groundwater results, several new monitoring wells were installed in 2006. Sources of low level organic chemicals detected in groundwater

along the south bank of Ship Creek required further investigation. New wells were also installed to help further evaluate groundwater flow conditions south of Ship Creek. On the north side of Ship Creek, limited additional data collection will occur near where Post Road crosses the creek and in a couple of locations along Whitney Road.

Three new wells will be installed along Reeve Boulevard to evaluate the water quality of groundwater flowing onto the Anchorage Terminal Reserve from off-site areas. These wells will also be used to better understand groundwater flow directions on the east side of the property.

Work was done to further characterize the extent of metals in soil identified near Ship Creek along Railroad Avenue and to collect metals and PCBs near the Post Road creek crossing.

## Anticipated Schedule for 2007

In early 2007, ARRC will conduct a small amount of sampling to complete data gaps, and then spend the winter and spring validating the data and producing draft RI and Risk Assessment Reports for EPA and ADEC comment. A draft Feasibility Study will follow shortly, and agency and public meetings will be held in conjunction with all three work products. The Technical Assistance Grant recipient, Anchorage Waterways Council, is expected to participate and assist in public understanding of the findings and reports. The goal is to receive EPA approval of all three documents by year end 2007. At that point, ARRC will have completed the work it committed to perform under the 2004 settlement agreement. Remediation, if any is required, will be the subject of a separate negotiation between EPA, ARRC, and other responsible parties.

For more information, please feel free to contact Tim Thompson, ARRC Public Affairs Officer, 265-2695, or visit the ARRC website at [www.alaskarailroad.com/scei](http://www.alaskarailroad.com/scei)

## Project Costs

ARRC is funding the RI/FS. ARRC, the federal government agencies that were former owners and operators at the Site, and other parties that have contributed to the release of contaminants at the Site are potentially responsible for carrying out or funding any remedial action that may be needed. Depending on the results of the RI, ARRC may seek reimbursement of some or all of its costs from other responsible parties.