U.S. Army Corps
of Engineers
Alaska District

Erosion Information Paper – Upper Chena, Alaska

Current as of August 15, 2007

Community Information

Upper Chena (CHEE-nuh) River basin includes portions of the Fairbanks North Star Borough (FNSB), Steese National Conservation Area, Fort Wainwright Military Reservation, and Chena River State Recreation Area.

Description of Erosion Problem

The Chena River basin is underlain by permafrost, which inhibits infiltration and increases runoff. Heavy rainfall or combined rainfall and snowmelt cause flooding, typically in spring of late summer. Major floods have occurred when a sudden rise in temperature combined with a warm rain on saturated snow cover. The last large flood was in August of 1967, with flows exceeding a 100-year flood event.

The meandering nature of the Chena River causes naturally occurring erosion throughout the region. Low water crossing at approximately mile 38 of Chena Hot Springs Road and a road crossing at Rosehip Campground, at mile 27 of Chena Hot Springs Road and have been eroded by recent events, and other crossings are eroded at least occasionally.

The erosion is an ongoing concern of many riverfront property owners; be they on the Upper or Lower Chena, Salcha, Chatinika or Tanana Rivers. Private riverbank erosion concerns correspond with high flows.

The Tanana Valley Watershed Association is currently in the early stages of preparing a riparian management plan that will hopefully lead to best management practices for riverfront property owners not only related to erosion, but also vegetation clearing, landscaping and land development practices occurring above the ordinary high water mark; an area often out of the jurisdiction of the Corps and other wetland regulators. The plan may result in recommendations for inclusion into the FNSB zoning code as they relate to riverine riparian management issues, not just erosion control.

Potential Damages

Floodwaters often add warmth to the ground, which promotes thawing of permafrost, initiation of "thaw ponds," and areas of unstable topography. Large floods cut new river channels, establish sloughs and cause other topographical changes. No actions are currently being taken by the state to address the problem. No specifics were provided regarding the erosion damage and potential repairs at mile 27 of Chena Hot Springs Road. Mile 38 of Chena Hot Springs Road was filled in by the Chena Hot Springs Resort owner.

Photos and Diagrams

No photos were provided by the community or other sources. Also, no diagram has been prepared for the Upper Chena area at this time.

References

AK Parks. 2007. *Chena River State Recreation Area.* Alaska State Division of Parks & Outdoor Recreation. www.dnr.**state**.ak.us/parks/units/**chena**/index.htm

AK Parks. 2006. *Chena River State Recreation Area Management Plan.* Alaska State Division of Parks and Outdoor Recreation.

USACE. 2007. *Alaska Community Erosion Survey, OMB approved number 07100001*, expires September 30, 2009 administered to Department of Transportation and Public Facilities northern region hydrologist and a planner with the Fairbanks North Star Borough on August 15, 2007.

Additional Information

This information paper, as well as those for other communities, can be accessed on the internet at www.alaskaerosion.com. For more information please contact the Corps of Engineers, project manager at (907) 753-5694 or email Alaska.Erosion.POA@usace.army.mil