

“To provide education and leadership in the conservation and sustainable use of soil- and water- related resources through cooperative programs that protect, restore and improve our environment.”



### FALL ISSUE:

- Suitability Map & Developers Certification
- Caribou Hills Trails Update
- Natural Resource Technologies Class Update
- NRCS Announces Available Funding for EQIP & WHIP

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- Tara Schmidt, District Manager
- Al Poindexter, Education Coordinator
- Caleb Slemmons, Natural Resource Specialist

# Natural Currents

## SUITABILITY MAP & DEVELOPERS CERTIFICATION PROGRAM

The Homer Soil and Water Conservation District, in conjunction with DnA Design of Homer, has been working to create GIS-based landscape systems maps. These maps can help guide development in Homer by integrating economic, ecological, and social land use patterns into the planning process. This 2-year project, funded through the US Environmental Protection Agency and the US Fish and Wildlife Service, is entering it's second phase.

Phase I of this project has been focused on identifying highly suitable development lands and ideal conservation lands. Suitability for developable lands is being determined based on physical landscape features affecting cost of construction such as drainage, topography, and soil types, along with appraised property values influenced by amenities such as view, proximity to trails and parklands. Identification of prime conservation lands is based on both physical and human features as well, including hydrologic functions, wildlife habitat corridors, trail connectivity and aesthetic qualities. Mapping these two land categories in a GIS then allows us to view overlapping areas, providing a management tool to facilitate land use planning that maximizes both the economic and ecological value of privately owned properties.

As this project moves into Phase II, DnA will design and test a Developer Certification Program whereby individuals can participate in learning how to use GIS tools to integrate landscape systems into their projects. (see page 2)

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## AN ORANGE INVASION

### AN ORANGE INVASION: District Demonstrates Hawkweed Management

Beginning this past spring, the District began a demonstration project to showcase the efficacy of best management practices for eradication of orange hawkweed (OHW). This aggressive plant has taken over lawns, road

right-of-ways and is now creeping onto pastureland and down trails in and around Alaska's Southcentral communities. Considered a noxious weed in five Western states and pending approval for addition to Alaska's noxious weed list, this species is bad news for the unwary landowner. Once established, OHW can quickly develop into (see pg.5)

## CARIBOU HILLS RECREATIONAL AREA

### TRAIL IMPROVEMENTS

Trail users accessing the Caribou Hills Recreational Area from the Gravel Pit parking lot off Oil Well Road, may have noticed a short stretch of trail improvement along the Water Hole trail. The Homer District installed 50-feet each of Geoblock and Geoblock II porous pavement trail hardening in an effort to determine the durability of this material for ATV use. The primary difference between these two types of Geoblock is thickness of material and cost. By testing the two available materials we hope to determine the viability of each thickness, allowing us to make the most cost effective decision for future trail improvements.

The Homer District has had success with managing ATV traffic with trail hardening projects in the past. With the award of Alaska Clean Waters Action grant, administered through the Department of Environmental Conservation, the HSWCD is set to begin a reroute of the Water Hole Trail away from areas with poor drainage capabilities to better suited soils. Where possible we hope to realign the trail so that sections will cross upland "islands" as much as possible. Stretches where this is not feasible we hope to install trail hardening to provide for a sustainable trail.

*(suitability map continued from pg. 1)* In addition, DnA is researching potential incentives to encourage development projects of any size to incorporate this training. Potential incentives may include expedited permitting, consultant support with storm water management, loan benefits or certification that may offer increased resale value.

Access the Suitability Map and Developers Certification Project website to view the preliminary maps and project updates at [www.suitabilitymap.org](http://www.suitabilitymap.org)

Currently, as traffic increases, trail users are finding themselves continually moving further and further off the original trail to find drier ground. This results in an increasingly wide trail and a pattern of braiding through the bog and muskeg. By installing porous pavement we hope to keep the traffic flow limited to an established corridor to prevent further impacts on area wetlands and to promote a regeneration of the existing vegetation.

The Homer District will be facilitating a trail users stakeholders meeting early this winter to gather information to use for our Trail Management Objectives. If you are interested in participating in these discussions or have feedback to provide please contact our office.

### SIGNAGE PROJECT

The Homer District recently installed a total of 44 signs along trails in the Caribou Recreational Area (pictured below) indicating to trail users when they are entering or leaving private lands. This project was funded through an Alaska State Parks 2006 Recreational Trails Grant.

<p>⊙</p> <h1>STAY ON TRAIL</h1> <p>⊙</p> <h2>PUBLIC TRAIL NOW CROSSES PRIVATE LAND</h2> <p>PLEASE RESPECT PRIVATE PROPERTY</p> <p>⊙</p> 	<p><b>LOOK OUT TRAIL USERS...</b></p> <p>for new trail signs (pictured left) that were posted by the Homer District in the Caribou Hills to inform users when crossing private lands. The signs are a reminder to <u>stay on the established trail</u> - thank you for respecting private property.</p> <p>Signs were developed in cooperation with Alaska Department of Natural Resources, Alaska State Parks, and Caribou Hills Cabin Hoppers.</p>
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## NRCS ANNOUNCES AVAILABLE FUNDING

The U.S. Department of Agriculture Natural Resources Conservation Service (NRCS) has announced that 2008 funding available for conservation projects in Alaska will be at a similar level as last year's. NRCS' financial and technical assistance programs help Alaska landowners address natural resource concerns, promote environmental quality, and protect valuable wetland ecosystems and wildlife habitat on property they own or control.

With obligated 2007 financial assistance from NRCS, Alaskans will replace culverts that impede salmon passage, construct fencing that promotes grazing and keeps livestock out of sensitive wetland areas, and construct ATV trails that prevent soil from eroding into waterways. Other projects receiving NRCS financial assistance have improved forestland health, irrigated a commercial strawberry operation, and enhanced wetland areas for migratory waterfowl.

Cost-share funds are available to Alaskans through the Environmental Quality Incentives Program

(EQIP) and the Wildlife Habitat Incentives Program (WHIP), two programs administered by NRCS.

WHIP helps landowners create, restore, and enhance wildlife habitat on their land. EQIP assists agricultural landowners in improving soil, air and water quality and other related resource conditions on working lands. Working lands are those that are managed to produce food and/or fiber from eligible animal and plant sources.

Additional information on these conservation programs, including eligibility requirements, is available at <http://www.ak.nrcs.usda.gov/programs>.

Landowners who want specific information regarding program participation or who want to apply for cost share programs should contact the Homer NRCS field office at 235-8177 ex 3

*See related story on page 4 for an example of a WHIP project*

## NATURAL RESOURCE TECHNOLOGY CLASS UPDATE

The Homer District sponsored Natural Resource Technology Class is off to a running start. Twelve high school students have registered for the program and are meeting with facilitator Al Poindexter at Homer High at 8:30am each day. Students have worked on identifying plants, macroinvertebrates, and soils, and have spent one extended class period in the Homer Demonstration Forest removing dead trees and moving boardwalk materials. Students have been preparing for a 3-day extended canoe trip at the Kenai National Wildlife Refuge, giving them a beginning peek into the Envirothon issue of recreational impacts. Students will also be visiting the City of Homer Wastewater Treatment plant soon.

Five students who qualified for the Natural Resources Competition and Creed Speaking in FFA will be traveling to Indianapolis at the end of Octo-



ber for that national competition. They are Anna Duz, Hannah Bradley, Tyler Haas, Jessica Jones and Lilli Connor. They will be accompanied by the Superintendent of Schools Donna Peterson.

Al Poindexter and Eric Wade, Executive Director of AACD, have been meeting with various natural resource agencies in preparation for this spring's Envirothon competition held in Fairbanks. The Homer Natural Resource program usually does very well in that competition, qualifying for national competition. We hope this year will be no exception.

## HOMER DEMONSTRATION FOREST NEWS

### WHAT'S NEW IN THE DEMO-FOREST?

An additional 943 feet of newly installed boardwalk along the Summer Trail was added to complete the 2,500 feet of boardwalk through the HDF. This project, funded by the Natural Resources Conservation Service Wildlife Habitat Incentives program, has greatly improved this summer trail, featuring a pleasant 5 km loop from the Rodgers Loop trail head. This hike will lead you through the muskeg, then upward along Diamond Creek into a meadow offering magnificent views of Kachemak Bay. After crossing the meadow the trail meanders back down along the forest on east side of the HDF and merges with the trail leading back to the trailhead. This trail offers a wonderful hike just minutes from town. Check it out!



Installation of the boardwalk this past July.

**ARBORTEUM IMPROVEMENTS** While visiting the HDF be sure to set aside time to visit the Arboretum (located on the self-guided nature trail). This summer, with the help of Division of Forestry Community Forestry Program, we were able to set up a weed control demonstration site. Bluejoint grass became the targeted weed, due to its nature of dying back and forming a thick mat, effectively insulating the ground. With the accumulation of this thick matted grass it was suggested the soil temperatures around the base of the trees were not warming up in the early summer, stagnating the growth of the trees. With help from the Homer Chapter FFA all the trees were well weeded and then six different types of weed control were applied to determine their effectiveness. Options demonstrated includes pea gravel, wood chips, infrared transmissible (IRT) plastic, weed guard ground cover and native sphagnum peat moss.

## HABITAT IMPROVEMENT

The Homer District has received funding through the NRCS's Wildlife Habitat Incentive Program (WHIP – see story page 3) to work with Homer Field office to improve salmon habitat along a tributary of the Chakok River in the Anchor River watershed. The Homer District will address a poorly designed road crossing that has significantly altered stream hydrology, resulting in the development of a “perched” culvert preventing juvenile salmon passage (see diagram on right). The current crossing consists of a 16” culvert that was recorded to be “perched 2 feet” by survey crews. The Homer District, with technical support of the NRCS's engineers and the Kenai Watershed Forum, plan to design and install an appropriate structure and restore in-stream and adjacent habitat continuity. With the removal of this barrier to fish passage a half of previously inaccessible stream habitat will be opened up to salmon spawning.

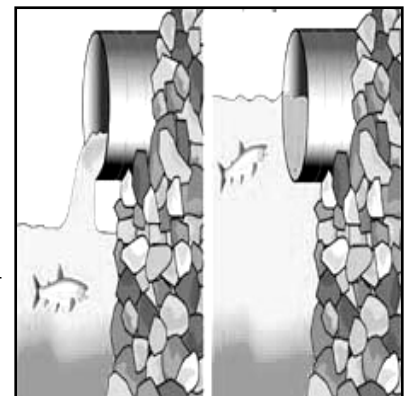


Diagram of “perched” culvert, blocking fish passage

monoculture, out competing turf grass species and native plants alike. Many local landowners have struggled with finding a way to eradicate hawkweed because it spreads underground via stems (called rhizomes) and can re-sprout from impossibly small root fragments.

Identified as an important local resource issue, due in part to the extent of local hawkweed spread and the volume of requests for information about OHW, the District looked for a way to assist. Last fall, the Homer District planned and received funding to implement management efforts as a demonstration for those struggling with managing OHW. Working cooperatively with Brent and Sally Keene, who own a parcel with both lawn and pasture infestations of hawkweed just off of Diamond Ridge Road, the project began this year during the first week of June.

Effectively managing OHW requires multiple methods (formally called integrated pest management) including an appropriately-timed herbicide application and improvement of the competitive ability of desirable turf and pasture grasses. The first step undertaken was to fertilize the lawn and pasture which were in dire need of nutrient input. In early June, (see project timeline). the pasture and lawn received appropriate rates of granular fertilizer using a broadcast spreader. Over the summer, the lawn also received two more fertilizer applications, as recommended by University of Alaska Fairbanks (UAF) Cooperative Extension. Although a relatively large expense to the overall cost of the project, the fertilizer applications were very effective at improving the vigor of the desirable grasses to compete more aggressively with hawkweed.

About a week following fertilization, a systemic, broad-leaf specific herbicide was applied by spot

treating OHW-infested areas with a backpack sprayer. A non-ionic surfactant, which is a detergent that helps the herbicide to soak into the leaf tissues, was also tank-mixed with the herbicide. The use of surfactant is very important for treating hawkweed because the hairy leaf surface causes liquid droplets to form and evaporate when herbicide is applied. The surfactant breaks the surface tension holding the droplets together and allows the herbicide to spread and soak into the leaf.

Three herbicides\* were used in different areas of the demonstration project and all were very effective at providing season-long control of hawkweed seedlings. Resulting bare patches were reseeded with an appropriate turf grass mix and pasture areas with “Engmo” timothy. Overall, control was achieved on approximately 90% of the OHW on the property! The remaining OHW may have been missed during herbicide application or sprouted after application. It has also been suggested that some plants were at growth stages that were more resistant at the time of application. Final spot treatments will occur in mid-September on the remaining hawkweed to limit re-sprouting in spring.

Maintain vigilance... Elimination of OHW is at the least a three year process, because of the potential for seedlings continuing to sprout from seeds resident in the soil. With lessons learned, the District will continue the project next year and organize additional site visits for those interested in eliminating hawkweed on their property. Preliminary results are encouraging and two main factors that seemed to contribute to success this year were the use of herbicide surfactant and ensuring the correct timing in spring application.

*\* Please contact UAF - Cooperative Extension for current herbicide recommendations and follow label instructions carefully.*

TIMELINE	PROJECT ACTIVITY
<b>2007 component</b>	
June 6	Pasture fertilization (400 lbs/ac of 20-10-10-8), first lawn fertilization (15 lbs/1,000ft <sup>2</sup> of 16-16-16) and reseeding bare patches
June 14-15	Herbicide application
Early July and early August	Continuing lawn fertilization (each at 20 lbs/1,000 ft <sup>2</sup> of 22-4-4) and reseeding
Early to Mid-Sept.	Final spot re-treatment with herbicide
<b>2008</b>	Repeat 2007 procedure and assess

To find out more about the various programs the Homer District is involved with visit our website at [www.homerswcd.org](http://www.homerswcd.org)

## UPCOMING EVENTS & DEADLINES

October 11-13 AACD Fall Meeting —Palmer  
October 17 Homer SWCD Board Meeting 5:00  
November 14-15 CNIPM Workshop—Fairbanks  
TBA —Caribou Lake Trail Stakeholders Meeting

Good Luck To Caleb Slemmons Caleb has recently accepted a new position with Center for Environmental Management of Military Lands. Caleb will be relocating to the Big Island of Hawaii at the end of October.



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