

"While science dominates restoration thought, it seems increasingly clear that while science is necessary, it's not sufficient—and neither is art. The Crowley Creek Col-

-T. Allan Comp, Ph.D., Crowley Creek Collaboration Principal Resident



The goal of this exploration project is to restore estuarine health while creating opportunity for community learning - a restoration site dedicated to dialog and conversation, defined by its own communities and by the natural world, a synthesis of elements critical to a sustainable future for us all.

# The Crowley Creek Collaboration: A Report on a Residency Project

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## **Project Team**

#### **Principle Resident**

**T. Allan Comp, Ph.D** Historian, planner, artist. Recipient of national awards; founder and of AMD&ART; currently head of Watershed Assistance Team at the Office of Surface Mining, Department of the Interior; formerly Chief, Cultural Resources, Pacific Northwest Region, National Park Service.

#### Invited Collaborative Residents

David Bayles Eugene, Oregon River Restoration Scientist, Photographer, and Director of the Pacific Rivers Council

Karen Bennett Corvallis, Oregon Forest soils and hydrology scientist with the USFS; land suitability issues and stream restoration projects; international environmental consulting work

Henry Corning Corte Madera, California Artist, Meadowsweet Dairy

**Robert Deason** Johnstown, Pennsylvania Hydrogeologist - Partner in EarthTech, an environmental consulting firm; AMD&ART staff cientist for past ten years.

Charley Dewberry Newport, Oregon Fish Biologist

Sarah Greene Corvallis, Oregon USFS Manager, Cascade Head Experimental Forest Station; Research Liaison, CHEF, Neskowin Crest Natural Research Area

Glenda Griffith Corte Madera, California Meadowsweet Dairy

Eddie Huckins Newport, Oregon Lincoln County Soil and Conservation District Watershed Specialist

Paul Katen Otis, Oregon Retired Meteorologist; President, Cascade Head Ranch (CHR) Improvement District; CHR Water Master

Daniel McCormick Fairfax, California Environmental Artist. Currently working with Point Reyes National Seashore and Marin County Artist in School Program

Gale Ousele Neskowin, Oregon Local Artist, Scientist, Teacher, and Nestucca Watershed Council Member

Pete Owston Otis, Oregon Retired USFS Ecologist, Forest Ecologist, Sitka Center Board Member

Kathy Poole Timonium, Maryland Landscape Architect and Urban Designer with multiple gallery shows and publications

Robin V. Robinson San Jose, CA Photographer

\*Jim Wescoat Champaign, Illinois Geographer and Landscape Historian; Chair of the Department of Landscape Architecture, University of Illinois

Mike Walsh Beaver, Oregon Nestucca Valley Middle School teacher



#### Intern and VISTA Project Support & Research

**Catherine Byun** VISTA Summer Associate (June 2005 - Aug 2005). AmeriCorps Member, Masters student at Yale School of Forestry and Environmental Studies

Katie Brehm Project Assistant (June 2005 - present). recent graduate of Michigan State University with a B.LA. of Landscape Architecture

**Jessica Thuli** VISTA Summer Associate (June 2005 - Aug 2005). AmeriCorps Member, recent graduate of University of Madison, WI with a B.S. of Landscape Architecture

\*Lea Redmond Project Assistant (Nov 2004 - Aug 2005). AmeriCorps Member, artist, environmentalist. Recent graduate in Politics, Philosophy and Environmental Studies, Whitman College.

\* did not participate in planning session

## **Funders & Partners**

#### **Funders**

- The Sitka Center for Art & Ecology
- The Jackson Foundation
- The Juan Young Trust
- The Spring Creek Foundation
- Potrero Nuevo Fund
- ESRI Software
- AmeriCorps VISTA
- Individual Contributors to Library Fund--Eddie Huckins,
   T. Allan Comp, Howard McKee, and Randall Koch
- Howard McKee

## Partners/Contributing Organizations

- US Forest Service
- The Nature Conservancy
- Salmon River/Drift Creek Watershed Council
- Nestucca Valley Middle School
- Taft High School
- Taft Middle School
- The Learning Village
- Camp Westwind
- Other Local Experts—Joel Alexander & Tom McDermott
- Lincoln County Soil and Conservation District
- The Department of State Lands



- The Confederated Tribes of the Siletz Indians
- Oregon Coast National Wildlife Refuge Complex
- Local AmeriCorps School Volunteers
- Urban Water Works
- Cascade Head Ranch Association
- Oregon Department of Fish & Wildlife
- Lincoln County Historical Museum
- Tillamook County Surveyor's Office
- Lincoln County Surveyor's Office
- Tillamook Historical Museum

## **Foreword**

Welcome to the report on the Crowley Creek Collaboration. As Executive Director at Sitka, I want to explain the sequence of events that led to this project and this report. In 2002 the board of the Sitka Center for Art and Ecology committed to retaining its successful art programming and to seeking to balance those programs with ecology programs. Together with this reemphasis on ecology, the board expressed a desire for stable funding and greater diversity in Sitka Center's constituency.

With that as a mandate of sorts, I sought a programmatic strategy to address these identified commitments. A number of events provided an opportunity to put the pieces together. One was an introduction to Eddie Huckins, who was also working with Howard McKee, a local landowner, on a riparian plan for his meadow on Crowley Creek. Eddie suggested to Howard that Howard work with Sitka Center to make the simple restoration into an educational effort. The three of us sat down and agreed to work together, and eventually the McKee family and the Sitka Center signed an educational easement outlining the parameters of activities on the McKee property.

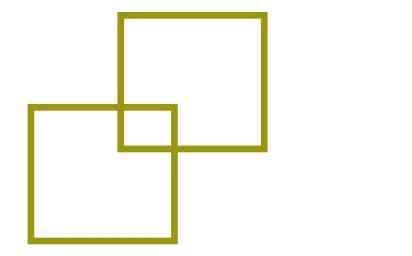
The next piece developed when a board member, Carol Ferris, and I traveled with our spouses to Chicago for the national "Future of Creativity" symposium at the Art Institute of Chicago. The theme of the conference sounded all encompassing and somewhat presumptuous, but, in fact, it was about how artists can participate in all levels of our culture - being active citizens and helping solve problems in their communities and it featured the work of six artists/projects as examples of this new creativity.

One of those presenters was T. Allan Comp, Ph.D, who told us about his project in a small town in coal country in which a collaborative group of artists, scientists and designers worked with a town to create a project that addressed environmental needs and the community culture as well. For over 12 years now, that project has served as a model for a highly functional purifying system for water while also serving the community as a community recreation center, place of remembrance and source of pride. The educational function it serves; to tell the history of the place; the reason for the wetlands; and the joy it brings to the community are significant. The once-cynical public in this town now "own" this place and maintain it

(see www.amdandart.org). Just in the last year the project won the Pennsylvania Environmental Council's Green Design Award and the US Environmental Protection Agency's national Phoenix Award. Allan was the obvious choice to lead a Sitka Residency project on Crowley Creek and we were delighted when he accepted the challenge.

In the following pages you will read about a different place and understand how this project fits the desires the Sitka board outlined. Sitka Center seeks to work the opportunities and values identified in this report into the educational activities it already conducts - workshops and residencies - retaining its small class size and intense hands-on methods; expand the audience to more small groups of school children from the local area; and grow the capacity for support of Sitka Center from both the arts and ecology communities. Together these programs can develop the art of ecology and the ecology of art in direct learning experiences while making the Crowley Creek Collaboration an enduring reality.

Randall Koch, Executive Director October 2005





## Introduction

## The Crowley Creek Collaboration: A Sitka Residency Project

Why Crowley Creek?
What was this Residency Project?
What was the Process that led to this Report?

#### Why Crowley Creek?

When Randall Koch first approached me about a possible Residency at Sitka and told me about his discussions with Howard McKee and Eddie Huckins, my interest in extending what I had been doing with AMD&ART into a totally different context but with the same kind of engagement among art, ecology and the community was definitely engaged. I learned that Crowley Creek was the first stream available to Salmon spawning on the Salmon River; that a myriad of governmental regulatory layers were involved in any action on this land; that the board of the Sitka Center was deeply committed to both the art and the ecology in their name; that Howard McKee had granted an educational easement to Sitka that opened new and unexamined possibilities; that human impacts over time had created serious problems for non-humans on the land, perhaps some for humans too; that this small creek stretched from ridge top to salt water estuary in a very short distance; and that there were lots of very able people willing to be involved. To me it was the ideal, the emblematic ordinary place which, on examination, reveals all the complex challenges present in working with environmental recovery in any community-driven, holistic approach. That, and a great Salmon dinner with Ran and Lainie, and I was hooked.

## What was this Residency Project?

There are residency programs like the Sitka Center for Art and Ecology all over America, but only a few that seek artists and others engaged in the connections between art and ecology. These residencies for artists and others create special opportunities for free inquiry, the chance to examine just where an idea might go if you just had the time and the space to develop that idea – that's a Residency. Sitka proposed that I accept a long-term, intermittent Residency that would allow me and others I might want to engage the opportunity to fully and freely examine every aspect of this little watershed – its ecology, its community connections, the demands on the water and the land, the needs of the local community for learning opportunities, the interests and concerns of the many government agencies with various roles that impact on this little place, the interests and concerns of local residents, many of whom were also watershed experts of one form or another, and more. The chance to freely inquire in the broadest way possible was what made this project a Residency and being a Sitka Residency gave us the power and the permission to do exactly that. That gift of a Residency is what brought this group of busy people together to donate their time and talent.



#### What Was the Process?

I proposed a plan -- not a plan of what the outcome would be, but a plan to gather as many different disciplines as I might find that seemed useful, provide each of them the opportunity to spend time with Crowley Creek, develop a short report of their own making on the values and opportunities they saw in that place and then meet for a few days with all the other disciplines in the spirit of free and open inquiry, the great gift of a Sitka Residency. Our goal, as I stated at the outset, would be to develop a realistic proposal for this land that met the many layers of need, regulation, aspiration and hope that I found in Crowley Creek. Thanks to some VISTA positions and some early and adventuresome foundation funding sources (much appreciated!), we also did a lot of basic research, seeking to know as much as possible about this ordinary small place and then providing that information to all the Project Residents, those I asked to join me in this inquiring adventure.

It was frustrating for some to wait while this process unfolded -- bringing each invited Project Resident to Crowley Creek, gathering their report on values and opportunities, doing the place-based research, going for months without producing a "plan", then finally bringing all that could attend to a gathering in early October, 2005. While we were doing all that, I asked each of the Project Residents to avoid prescriptions in their reports, focusing on values and opportunities and avoiding pronouncements that would stifle inquiry by others. I also fought off efforts by well-meaning supporters to develop and present what the team would eventually do - my plan was not to have a plan until we all met in October. Only then could we start talking about what to do on Crowley Creek as a consensus recommendation from all the disciplines and perspectives that needed to be a part of that conclusion..

And that's exactly what we did - for nearly three straight days in October with 15 of us in constant conversation from morning through evening. We had a great time. We were all equally well informed by all our reports and the great research from interns and VISTAs, we all brought individual perspective and experience to the table freely, and none of us were reluctant to speak. Admittedly, the chance to work with 15 smart professionals on a project that allowed, even encouraged, open inquiry and interdisciplinary collaboration meant we all had a great time - we were still talking shop at the last dinner even after the final public presentation!



We started with a careful review of the research, split into a pair of breakout sessions to hammer out basics, reconvened to discuss results and implications, met as a group to talk over educational possibilities and partnerships and then implementation, then broke into four writing teams to get our decisions down clearly and ready to present in a public meeting at the Otis Fire Hall. We left no stone unturned, picked up ideas and examined them from multiple perspectives then reworked them until they truly fit this place. We listened with respect and contributed with fervor, then pulled together to create a solid core of what all of us agree are the right things to do for Crowley Creek and all of its inhabitants. You, good reader, now have those conclusions in your hands.

T. Allan Comp, Ph.D.
Principle Resident
Crowley Creek Collaboration
October 2005

## **RESEARCH: Land and Use History**

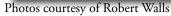
#### Fire and Regrowth

In 1848 there was an enormous fire that spread from the Willamette Valley to the Coast, destroying many forests in its path, including most of the Cascade Head area. Photos taken by local homesteader Nettie Long Walls in the early 1900s show a fire-scarred landscape of huge snags along a sparsely vegetated ridge known at the time as Grass Mountain. Later photographs, taken in the 1930s by Mrs. Walls, show the landscape of Grass Mountain beginning to fill in with vegetation. Today this same hillside is densely covered with spruce & alder forest. Robert Walls (Bob), son of Nettie, still lives on an upper tributary of Crowley Creek and collected many













1910 - View looking down towards Salmon River, taken from same point location as photo to right, but facing South. The snags remaining from the fires were often used by homesteaders for fence post. Snags are also valuable as habitat for a variety of species.

interesting and telling objects from his land (see interview notes in Sitka archive). He has large pieces of bark that were probably from the 1848 burn revealing the intensity of the fire as it moved through the trees "like a blow torch blast", burning one side of the trunk and leaving the other side untouched. He also collected chunks of lava rock from millions of years ago when molten lava flowed from a vent near what is known today as The Dalles along what was then the Columbia River bed to the ocean creating the basalt headland formation known as Cascade Head.

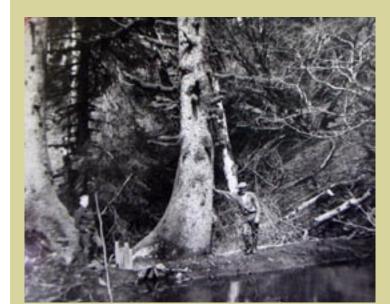
## People and the Land

People have manipulated the land that presently belongs to Howard McKee for different uses over many years. We don't know much about how the Crowley Creek watershed was used when the native Salmon River people lived here; it may have been a spruce forest, a meadow, a beaver pond, or something else. We do know, based on aerial photographs and oral history, that the land has been managed, with no little effort, for agriculture for more than 100 years. The first aerial photo, taken in



1910 - View of "Grass Mountain" and headwaters of "Crowley Crick" taken from the South property line of John Church's homestead.

1939, shows that Crowley Creek had already been rerouted to the side of the meadow and some farm structures are evident. From 1939 to 1984, removal of some standing vegetation as well as large fallen wood in the meadow and drift wood in the estuary enlarged the pasture space. Jack Knight's family ran a dairy farm on the meadow from 1949 to 1974, the plat was purchased by Louise Morley and leased t



Bob & his cousin building a water wheel for electricity



Wall family digging for clamming on the Salmon River



Homestead (1918)



Bob's Grandma Long tending the garden

The native flora and fauna of the Crowley Creek watershed have always been valued for multiple uses. The native dwellers used plants for medicine, food, and cultural applications. More recent denizens such as Robert Walls remember local people picking sword ferns and selling them for 2 cents a bunch for use as funeral bouquets. Bob never picked the sword ferns, but did pick digitalis (foxglove) and sold it for 1 penny a pound as an ingredient for a heart medication. It was only a penny, but still, "a penny was a penny, you could buy all sorts of candy with a penny." Bob, his mother and grandparents also used to clam at the mouth of Crowley Creek, a great place to pick clams, "until the boat ramp was put up and the place was covered in mud and all the clams left". He and Jack Knight also remember the meadow as an excellent hunting ground for both deer and elk. Walls ran a small logging business on his land until 1974 when he sold all but 80 acres of their land to



House east of Crowley Creek, when it was owned by Louis Morley & rented by the Guerenas in the 1970's

the Publishers Paper Company because they "were tired of [farming or logging] the land." The Paper Company later sold it to the U.S. Forest Service and this is the current ownership of most of the land around the Walls.

The water flowing through Crowley Creek provided not only essential drinking water, but comforts and even education. The Bob Walls and his cousin Clarence built a water wheel on a fast-flowing tributary in the upper reaches of Crowley Creek to generate electricity to run the washer, radio, and lights in his grandparents home. Marybeth Guerena described how her daughter, Audrey, would play in and around Crowley Creek. "There weren' t many kids around so she considered [their dog] Cooper and Crowley Creek her friends!" In fifth grade, Audrey conducted a science experiment measuring the effect of precipitation on the time it took for a spruce cone to travel between two points on Crowley Creek. Her findings concluded "the more it rains, the deeper the creek became and the faster the water flowed."

In 1984, owner Louise Morley recognized the importance of preserving this piece of land and sold a conservation easement to the federal government, protecting the meadow and the creek from future development. In the 1990's, new owner Howard McKee removed the cattle from the land in an effort to improve the ecological health of the watershed. McKee converted the formal land use from "Agriculture" to "Open Space" and a subsequent Wildlife Management Plan was established by the Oregon Department of Fish & Wildlife. Recently, Howard McKee recognized the educational opportunities on this site and gave an education easement to the nearby Sitka Center for Art and Ecology.

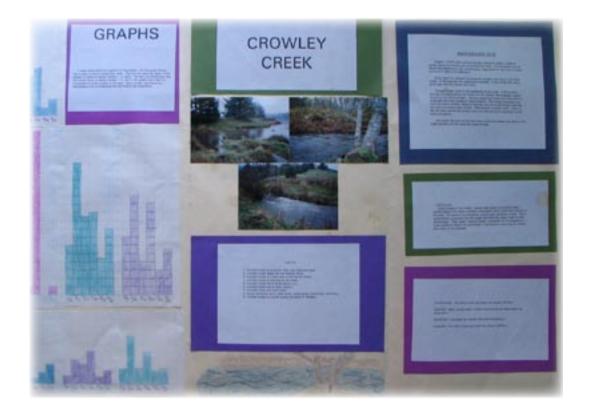
Right: While in fifth grade, Audrey conducted a science experiment measuring the effect of precipitation on the time it took for a pine cone to travel between two points on Crowley Creek. She also wrote a poem entitled "Home is Crowley Creek". We think Audrey's early work helped established a tradition integrating the arts and ecology on Crowley Creek.



#### Home is Crowley Creek By Audrey Guerena

Home is Crowley Creek. It has beautiful, rapidly flowing water with both smooth and sharp stones and rocks. Whisky, blowing grass with little bunches of weeds cling to the banks of mud covered with swaying green grass and trees with bark shaped like puzzle pieces. Sticks, twigs, and branches of both high and low levels hang to the water. Pine cones, in bushy bundles, splash upon the banks. Stumps chewed on by beavers line the banks of lumps of mud. Deers drink out of this creek. There are meadows on each side iwth a few mole holes and moss hanging down from the trees. Crowley Creek has the beauty.

Home is Crowley Creek.



#### Structures

In the early 1900's, a barn was built on the site, probably by the Ford family. Fairly large and constructed of big fir planks, Babe Knight remembers a hayloft and Bob Walls a recalled a shake roof. The central area was used for loose hay storage on a dirt floor. Cows lined up around the perimeter of the barn to feed from hay in the center. It was torn down in the early to mid 1970's according to Frank Boyden.

The Knight family built a milk parlor out of concrete blocks on the south side of the barn in about 1952. A one-room cabin, probably the "home of John Wallace" as recorded in the 1872 survey notes, was located to the southeast and across the creek from the barn. Bob Walls remembers a man named Banky owned it, although it is unclear whether he lived in it or not. Jack Knight described how his father Bill taught him and his brother how to box in that "run-down, old room".

Jack Knight has photos of a Small farmhouse at the corner of Three Rocks Road and the driveway to the barn. Merle McMillen lived there when the Knights bought the property and shortly thereafter it was converted into a chicken house. There was also a small garage just to the north of the house that had a lean to on the north side of the building.

Jack Knight recalls a Smoke house up the creek where the family used to smoke salmon for the winter meals.

The Guerena's remember a **small shed** on what would have been the southeast corner of the barn, which was probably a grain storage area. It is the small concrete slab for this room that still remains on the site.





Above: Barn formerly located on McKee property (photo coutesy of Jack Knight)

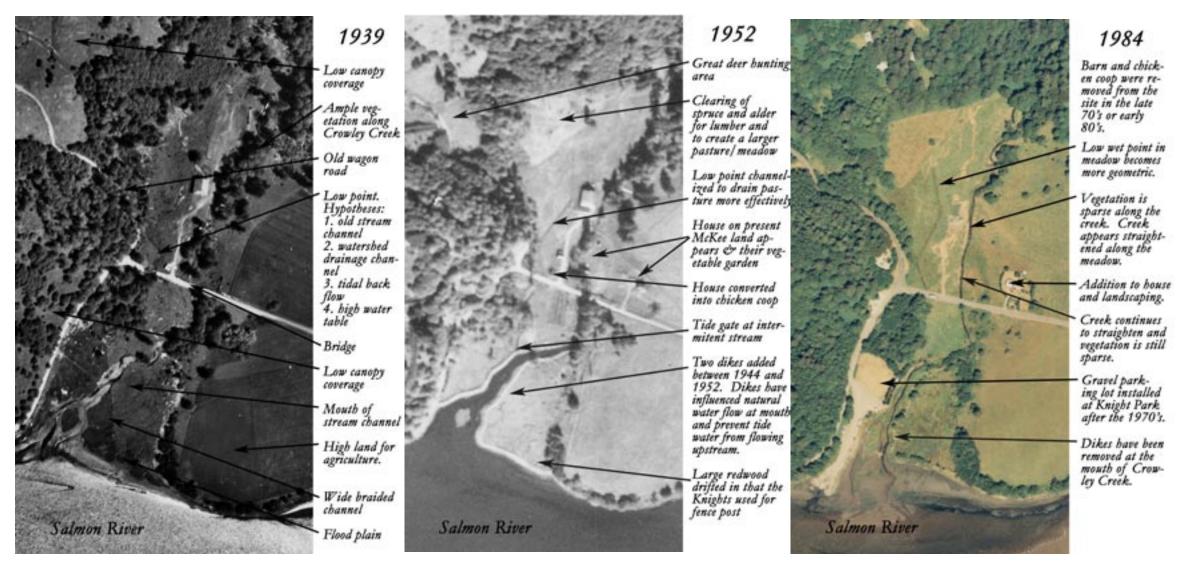


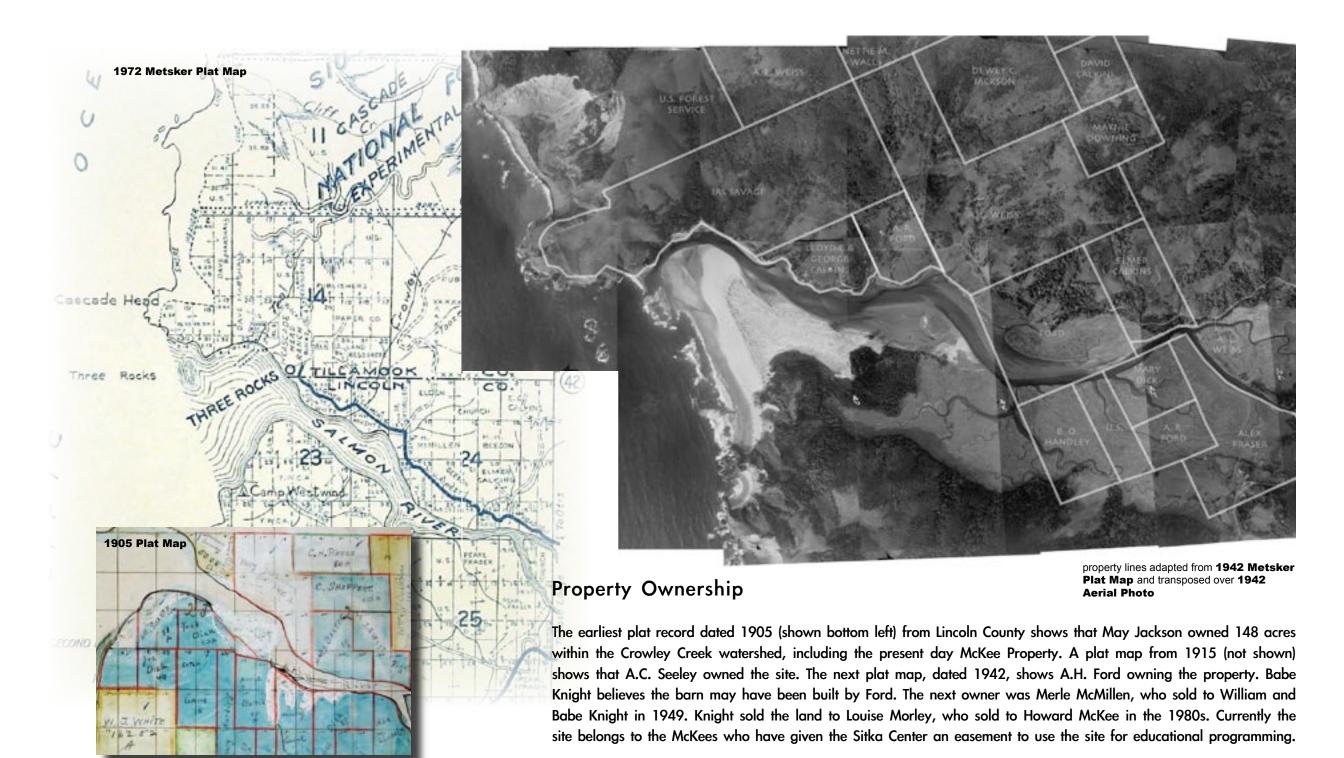
Above: Cabin of John Wallace in 1872 Survey, was occupied by a man named 'Banky' according to Jack Knight.

1944 Aerial Photo

#### Crowley Creek & the Meadow

Early aerial photos show many large, dead trees on the ground that would have drifted in with storm tides or washed down from the forested slopes of the headwaters. The presence of such large wood can force the stream to deviate from its streambed and forge a new path. It is fairly common for Three Rocks Road to flood during a heavy storm and a high tide. One such event occurred in the mid 1950s that blew out the wooden bridge on Three Rocks Road. A new bridge was constructed and the creek bed deepened, but flooding has still occurs during major storm events. Between 1944 and 1952, two dikes were installed at the mouth of Crowley Creek to create more acreage for pasture land. The dikes were removed between 1970 and 1980 by the Forest Service, and the recovery of the estuarial ecosystem is now underway. It is interesting to note the braided pattern of the stream in both the earliest aerial photos and the most recent, clearly showing the braided pattern of a constantly shifting streambed characteristic of this region.

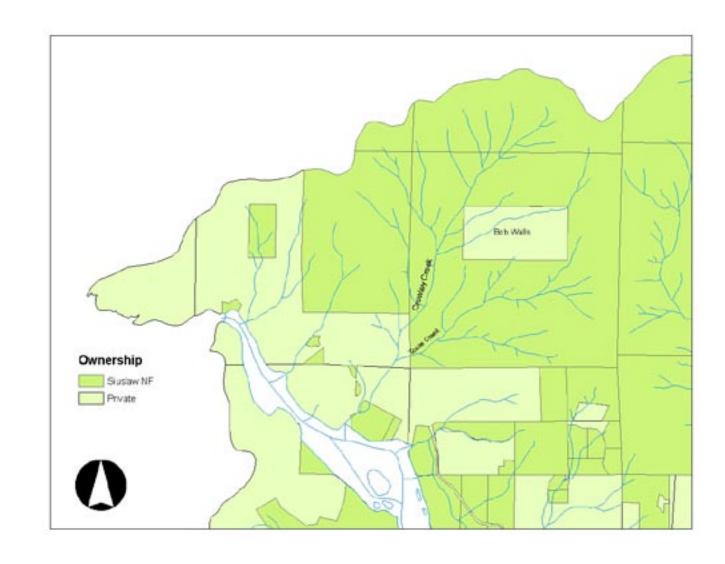




## **Current Ownership**

About 1/3 of the total Crowley Creek watershed is privately owned and about 2/3 is owned by the Forest Service. The Forest Service bought the land along Crowley Creek south of Three Rocks Road in the early 1970s to return it to an estuarine profile. The Forest Service also owns the headlands. The privately held land is partly owned by Cascade Head Ranch, and partly by individual owners.





## Plants & Animals



## "The Zone"

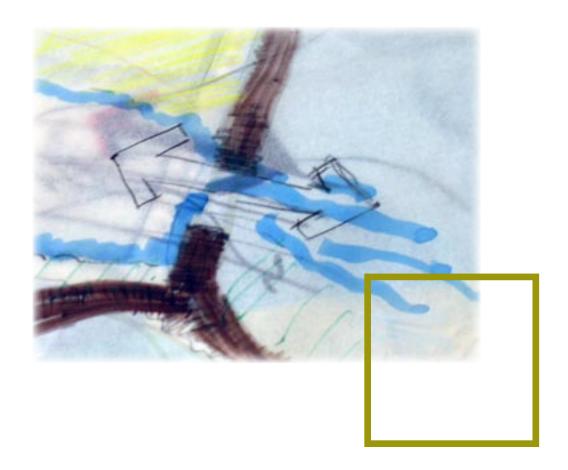
## Note from Allan Comp:

This was one of two initial breakout sessions in our planning meeting. Members of the group, listed on this page, represented the full gamut of both scientific and artistic interests in watershed restoration and decades of experience. The group examined all the research accumulated by the CCC, walked the land together, debated numerous alternatives and arrived at a single, clear conclusion. They reviewed the behavior of Crowley Creek as seen in the accumulated aerial photography, fish counts and other ecological analyses, points at the upper end of the meadow where the stream might best be "released" to find its own way through the meadow in a natural braided pattern, the potential for educational engagement in the process and much more. After this group came to its conclusions, they were then presented for further discussion to the whole CCC group in order to establish a clear consensus for the direction supported by the breakout group.

What follows essentially set much of the pattern for the rest of the planning discussions as well. The emphasis on natural systems to create change we know will come with the next big storm or the one after; the concern for human safety and for good habitat in the creek and on the land; and an adaptive approach that adjusts in both concept and action each time natural processes create a new situation. In one of the most dynamic natural environments in the nation, this seems only reasonable.

## The Group Report

Our focus is on the McKee Meadow: its history is important to inform future decisions about how to best manage the land. We do not know what the meadow looked like during Native American use. We do know that for the last 100 years it was managed for agriculture, and part of that management involved routing the creek out of the meadow and over to the side where it is today. As far as we can tell from the historical aerial photographs from 1939 through today, the creek has been kept in its current channel, which is fine for agriculture,



but is not good for salmon habitat.

Nowadays, with new conservation easements and management plans in place, the meadow is no longer being managed for agriculture; it's being managed for open space and for wildlife and salmon recovery, consistent with the terms of the legal agreements.

Given these new conditions, the absence of land management for agriculture and the opportunity for the creek to behave as it may, it is our theory that the creek will not stay in its current channel much longer. Sooner or later during a major storm event, the creek will likely jump its banks, flood back into the meadow, overwhelm the small culvert at the bottom of the meadow, go over the top of the road and wash it out. This is a potential problem for human habitat; the existing road is the only point of access to the homes on Cascade Head. This is not a problem for salmon habitat

Our proposed solution is to install a new stream/tide passage structure for the road that is big enough to allow the tidal influence to flood the estuarine zone -- and the flooding creek to exit -- without damaging the road. This might take the form of a viaduct that allows the creek and tide to move up and down the estuarine area of the lower meadow unimpeded or, less desirable but better than what Is there now, a series of culverts that would allow this same freedom of movement to stream flows.

Once this is completed, Crowley Creek could be purposely "released" at the top of the meadow to carve new salmon pools and meander through the low points in the meadow. Alternately, given the presence of large dead trees standing at the edge of the upper creek channel, one can just wait for those to fall (they will) divert the stream flow and accomplish the same new salmon pools and meanders.

Either way that is our most important recommendation -- work with the realities of this situation: upgrade the ability of stream water and tide to flow freely under the road and then either reroute the creek back into its historic channel or wait and watch it do the same on its own. During subsequent large winter storms the creek will continue to carve salmon pools into the meadow and then pass harmlessly under the road, creating the full, braided stream pattern characteristic of good stream habitat in the region. The road would be protected while at the same time the creek would be freed from its straightjacket, and the real restoration would work itself.



Release Point One
\*Above Tooze Creek; problem with re-routing
\*Above level of meadow, allows creek maxi-

mum movement
\*Loss minimum of 4 pools



Release Point Two
\*Below Tooze Creek, no affecting this
junction
\*Above level of meadow to allow maximum movement

\*Loss of two pools



Release Point Three
\*Five feet below meadow; minimum creek
movement through meadow unless there
is a lot of cut
\*Retain all good pools

\*Minimal gain in fish habitat

## Intervention



## **Education**

**Public Understanding** will be the goal of education. Interpretive signage will be placed appropriately in Knight Park and at the proposed Overlook on The Nature Conservancy Trail. A viewing platform will be extended from new raised roadway as a means of observing without entering the restoring ecosystem.

**School Groups** will be accommodated through Sitka programs for public, private, charter, and homeschoolers. All field studies will small groups with focused, service-learning oriented programs that promote land stewardship.

The old shed concrete slab foundation will be left as a historic relic and utilized as a dry place from which to observe from with the site.

Sitka Workshops will continue to explore art and ecology on the McKee site

Sitka Residencies will bring together artists and ecologists in collaborative work on the site.

Education and Outreach AmeriCorps VISTA Coordinator will facilitate educational programs on the CCC site

Public Updates will continue through the existing website and newsletter. Photo Documentation will record visual change of time for the archive and for webcasting.

Public Forum will contine to engage partnerships with others including Salmon River/Drift Creek Watershed Council, Camp Westwind, The Nature Conservancy, The Forest Service

Learning as We Go will help the CCC programming remain open to all potential opportunities



An afternoon field trip organized by Sitka's Education & Outreach AmeriCorps VISTA Coordinator in collaboration with AmeriCorps VISTA for the Midcoast Watershed Council

## **Implementation**

The Strategy is subtle and centered around honoring nature, history, and people and therefore highly adaptable. The most major change to the site will be the construction of a raised roadway or other upgraded culvert. Other changes will be implemented slowly so as to be inclusive. Every new phase of change on will be rooted in art and science together as a way of knowing.

Access for education purposes will be allowed through Three Rocks Road until Sitka is connected to the existing Nature Conservancy trail. he general public can view the site by parking at Knight Park and walking the existing Nature Conservancy trail to the site.

Benchmarks of Change will be recorded through a system of monitoring will be developed by the Crowley Creek Council. It will engage schools and community members in a way that encourages long-term interaction and is therefore sustainable. Artistic expression will also be used as a highly visual means of documenting change. Data gathering will be incorporated as well.

A Crowley Creek Council will be assembled of local stakeholders to engage the community in watershed renewal and to evaluate and opportunities as they arise.

An Elevated Roadway design and cost estimate will be obtained for the Crowley Creek Council to evaluate. A coalition of local institutions will present the plan to Lincoln County Public Works.

Water Balance Where does it come from? Where is it? Where is it going? We ask the same questions for funding sources. Potential funders include: The National Forest Foundation, The Pacific Power Foundation

**Educational Outreach** will be incorporated into Sitka's programming through an Americarps VISTA position. The Salmon River/Drift Creek Watershed Council will provide

support where needed. Potential funding sources include the Flint Ridge Foundation, Juan Young Trust Foundation, the Potrero Nuevo Fund, The Spring Creek Foundation, and the Spirit Mountain Community Fund.

**Sitka Programming** already provides a program of workshops about the ecology of the Cascade Head area. A VISTA would drive educational outreach and stream/forest restoration. All restoration phases of the CCC project would be enacted through artist/scientist collaborative residencies. A photodocumentation workshop would be develop to help visually monitor the changes of the restoration. Sitka would also hold a yearly workshop as a forum for artists and scientists to interrelate their visions of the landscape.

But First we will commence implementation through explative signage as we initiate the restoration process with few small steps:

- 1. The entry from the road will be closed small sign posted to explain the reason for doing so. Then the driveway would be removed and an explanative sign posted.
- 2. Debris removed with minimal explanation
- 3. Fencing removed, but leave the posts as a ghost reminder of the land's agricultural use history
- 4. An overlook from The Nature Conservancy Trail with would be explored. There is potential here for a larger interpretive sign or signs.
- 5. Native plantings to enhance stream cover along the existing channel
- 6. Bird houses and bat boxes added to meadow to provide temporary housing until more vegetation can be established