

**Project Completion Report**  
**KEENE CREEK WATERSHED ASSESSMENT**  
**OWEB Grant No. 99-475**



**A Friends of the Greensprings Project**

**June 2005**

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## (1) Description of Project

The Keene Creek Project brings OWEB assessment to the western edge of the Klamath Basin and shows landowners can credibly assess checkerboard lands. BLM's 1995 *Jenny Creek Watershed Analysis and Assessment* summarized data on federal lands to meet the Northwest Forest Plan and Aquatic Conservation Strategy requirements; there was no existing plan for the 53% private lands. The federal lands data, desired future condition and recommendations were very helpful in adjacent private lands planning. A seamless Action Plan was built from BLM data, recent ODFW, FOG data, and current field data across ownerships. OWEB funds will be used to gather and integrate federal lands data, a smaller task since more public lands data exists.

This assessment shows where projects are needed and who is willing to work on them on private land. Projects are needed to minimize bank trampling and road runoff, to restore riparian shade and vegetation, to reduce stream temperature and sedimentation and to maintain stream flow. This work is needed to complement federal projects such as BLM's Keene Creek restoration, and *Late Successional Reserve Management Plan* and *Cascade/Siskiyou National Monument Management Plan*. Keene Creek projects will become part of DEQ's *Water Quality Management Plan*.

# Watershed Assessment Milestones

FV = Field Verification by volunteers

OWEB Components I to XI	Q1			Q2			Q3			Q4		
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
I. Install ArcView Themes	▲											
Create HUC-7 Basemaps	▲	FV										
Do Interest & Issues Canvas				▲								
II. Research Historic Conditions			▲									
III. Do Channel Habitat Typing				▲	FV							
IV. Do Hydrology				▲								
Assess Water Use				▲								
V. Assess riparian condition, recruit, shade						▲	FV					
Assess Wetlands						▲	FV					
Assess Oak Woodlands (new)				▲								
Assess Conifer Uplands (new)					▲							
Assess Wildfire Hazard (new)						▲						
VI. Do Stormchasing			▲									▲
Survey Culvert & Runoff							field	▲				
Survey Roads							field	▲				
Survey Landslide								field	▲			
Other Sediment Sources								field	▲			
VII. Assess Channel Modifications						▲	FV					
VIII. Assess Water Quality	▲		▲	▲	▲	▲	▲	▲	▲	▲	▲	▲
IX. Assess Fish & Habitat			▲	▲	▲	▲	▲	▲				
Assess Wildlife & Habitat (new)					▲			▲				
X. Do Watershed Conditions Report & List neighborhood's action priorities						▲		▲				
XI. Create HUC-7 Restoration Activity Plan										▲		▲



# Community Assessment Milestones

▲ = Milestone Achieved

Community Activities List	Q1			Q2			Q3			Q4		
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1. Map HUC-7 "Neighborhoods."	▲											
2. Update lists for neighborhoods. Ask access ok + volunteers.	▲	▼										
3. Develop key contacts. Ask access ok + volunteers.	▲	▼										
4. Raise neighborhood match \$	▲											
5. Host neighbor meetings. Ask access ok + volunteers.	▲	▼										
6. Do stormchase monitorings.			▲									
7. Mail wildlife checklist.			▲									
8. Do interest & issues Carvass. Ask access ok + volunteers + restorations.			▲	▼								
9. Do Macroinvertebrates for kids.			▲									
10. Host Cascade/Siskiyou Crest Conf. Ask access ok + volunteers + restrtions.			▲		▼							
11. Run watershed restoration field trips.						▲						
12. Run demos: ladder fuels, riparian.						▲			▲			
13. Run planting for wildlife workshop						▲			▲			
14. Host wildfire & watershed parties						▲			▲			
15. Publish "Owner's Manual" for neighborhood.						▲			▲			
16. Train field & research volunteers.						▲			▲			
17. Host HUC-7 condition eval. meetings.						▲			▲			
18. List neighborhood's action priorities.						▲			▲			
19. List monitoring plan priorities.						▲			▲			▲

Volunteers for summer

## (2) Volunteer Participation

A high degree of volunteer participation was developed through a community approach using watershed-focused neighborhood meetings, family activities and events, access approvals, Interest and Issues Canvass telephone surveys, agency referrals and follow-ups, and volunteer recruitment and training. Youth and resident volunteers handled large wood and riparian shade surveys, field verification of channel and wetland conditions, and other on-the-ground fieldwork as well as hosting community events.

Attached are signup sheets for the four neighborhood issues and action plan meetings and the seven tour and training events. These list 180 individuals volunteered or participated in this project. The field work, field verification and technical assessment totaled 886 hours for riparian condition assessment, channel habitat typing, sediment and wetland characterization and other on-the-ground data checking. An additional 332 hours of community involvement was volunteered, principally at neighborhood gathering or working with students. The value of these volunteered services totals \$18,270.00 and is summarized in the in-kind and cash match report.

Event KEENE NENE HOOR  
 Location MARQUETT SMITHS  
 Date OCT 23, 2001

Send Me  
 More Info  
 on FOG

# Friends of the Greensprings



Name (please print)	Zip	Street Address	Phone	Email Address
Ray Ellen Meager	97520	11600 Hwy 66	488-2499	ckramp@att.net
Beryl L. Bradley	97520	13641 Hwy 66	482-3120	
Tern Ayco	97520	13400 Hwy 66	488-1151	terri@sagea.com
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SLOWIKOWSKI		TALENT		
Wendy Maguire	97520	12340 Hwy 66	488 7921	
Hazlett Fox Smith	"	11600 " "	488 0576	crearing@csdnk.net
Suzi GIVEN	"	2020 Soda	482-0379	SUZIGIVEN@HOT
Miriam Slowikowski	97540	1514 TALENT AVE. TALENT, OR.	535-6799	
FRED BEVENSEE	97520	12124 Hwy 66	482-3212	bevensee@mind.net
CAM PATRISON	"	13400 Hwy 66	488-1757	CAMICSR66@COM
Jeff Gilmore	97520	12225 Hwy 66	488-2511	gilmote@mind.net
Greg Gattlin	97520	14650 Hwy 66	741-4404	
Dylan Gargas	97520	1188 Tyler Ck Rd	482-1001	dylangargas@hotmail.com
JULIE HEATHROW				
JOHN WARD				









AG 1010 PINEHURST School  
 MAY 30, 2001

NAME	MAILING ADDRESS	CITY
Cindy Waryn/Andrew Pratt	P.O. 3066 <del>Ashland</del> Or	Ashland 9752
Richard Taylor	P.O. Box 637 <del>Ash</del>	Ashland, 9752
Chris Martin	P.O. Box 13	Talent 97540
Char Cooke	P.O. Box 13	Talent 9754
Nancy Martin	PO Box 417	Ashland 9752
Richard Martin	" "	" "
WES NORTON	" "	" "
CINDY NORTON	" "	" "
Lorrie Rooker	1139 Hilt Rd	Hornbrook, 96044 Hilt CA
Bill Rooker	" "	" "
Ruth + Tom Walsh	P.O. Box 3586	Ashland 97521
Ernie Cornwell	2139 Hilt rd	Hilt Co. 96044
Kurt Stark	PO Box 1 <del>Ash</del>	Ashland 9752
Patrice Ward	8000 Copco Rd	Ash.
Deano Burke	1037 Terra	ashland
ale + Stewi Cotton	16194 Hwy 66	Ash
Sue Given	2000 Soda Mt Rd.	Ash
Offita Hard	1525 Baldy Cr. Rd	Ash
Joe + Johnnie	1601 Hwy 66	Ash
Thomas Stark	16399 Hwy 66	Ash



Event Fire Foxes @ Keeney Cr  
 Location Millpond @ Lime Lick  
 Date 8/19/01

Send Me  
 More Info  
 on FOG

### Friends of the Greensprings



Name (please print)	Zip	Street Address	Phone	Email Address
Tony + KAREN PIERCE	97520	7688 Hyatt Pr. Rd	488-2054	Tldraper@aol.com
James Dumas Dasee Bruckner	97520	12543 Hwy 66	552-0118	demea@mind.net
Erud Linnan	97520	7890 Hyatt Pr. Rd	482-8442	Erinmar@earthlink.net
GEORGE MCKINLEY	97520	13401 66	482-6120	
MARITRESS, GRIFF SULLINGER	97520	755 TYLER CK RD.	488-9652	solling@mind.net
DHUE MARY	97520	15789 Hwy 66	552 0147	
GENE DAVIES	97520	12915 Hwy 66	482-5372	AAGNP@MIMS.NET
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Jim Impara	97520	15573 Hwy 66	482-3320	email@juno.com
VAH SWANSON	97520	375 Old Greensprings	482 7302	
Laura Kahna	97520	1265 Tyler Cr Rd	482 5143	
Rick + Janice Williams	97520	12663 Hwy 66	201-1025	m.janice.williams@earthlink.com
Phil Kling	97520	15170 Hwy 66	482-8703	Kling@AOL.com
Leon Kinsaid	97520	P.O. Box 3564 14940 Hwy 66	488-9125	
Doug Grant	97520	15097 Hwy 66	482-0998	douggrant@cs.com
Butchimo's	97520	15785 Hwy 66	482-4410	
Lanell Raulson	97520	1001 Tyler Cr. Rd.	482-0511	
M. Brudgers	97520	12626 Hwy 66	482-4667	



# Friends of the Greensprings

Event Wildfire Committee  
 Location GILBERT'S  
 Date MARCH 5, 2002

Send Me  
 More Info

Name (please print)	Zip	Street Address	Phone	Email Address	on FOG
George Nowland	97520	13875 Hwy 66	488 3832	GEORGE NOWLAND @HOTMAIL.COM	YES
Eric Deobry	97520	600 Covifee way	488-4767		Yes
Craig Parker	97520	3320 old Hwy 99S Ashland	488-3954	See Julie	
ED PICKERING	97520	1919 TYLER CR. RD.	482-2921		
Marv Dew	97520	273 Steinman Dr	482-8640		
Denise Miller	97520	745 REITER DR.	482-1256	Denise to mind.net	SURE
Bob Miller	97520	..	482-180		YES
Les & Adru Gilchrist	97520	1050 Old Hwy 99S	488-9185	golledge@artwipeds	
Nedy Sackman	97520	11597 Corp Ranch Rd.	482-9441	Fjsackman@wind.net	Yes
Phil King	97520	15170 Hwy 66	482-8703		
Steve Bridges	97520	14985 Hwy 66	552-9395		
June Hightower	97520	1535 BALDY CRT			
John Ward	97520	1525 BAJOY CREEK	482-2859		



# RAINING FOR STREAM WALK

## Friends of the Greensprings

Event ~~STREAM WALK~~, KANAWHA  
 Location ~~KEENE CREEK~~ BOX D  
 Date 5/22/02

Send Me  
 More Info  
 on FOG

Name (please print)	Zip	Street Address	Phone	Email Address
LARRY BARTHAM		14201 GREENSPRINGS	890-3280	
SCOTT SAULSBURY	Green Springs	<del>13617</del> GREENSPRINGS	552 1043	
STEVE BACON		14670 GREENSPRINGS	482-1436	
COLE BACON		"	"	
GEORGE NOKLAND		13875 Greensprings	482-3832	
JERRY GREEN		14705 Greensprings	482-2706	
JOHN WARD				
Jen Gubera		in process	846-9561	6/27/02
Adam Honor		in process	810-9591	
Suzi Given				
DAVID MELENDER		14403 Greensprings	944 9407	6/30/02
LAURA MELENDER		"	"	
Eli Melender		"	"	
JAN MELENDER		"	"	
CAH SWANSON		375 Greensprings	482-7302	
Bob Givins		2020 Soda Mt. Road		7/28/02

Event **KIDS + BUSSES**  
 Location **KENNECOTT CREEK**  
 Date **7/20/02**

Send Me  
 More Info  
 on FOG

Friends of the Greensprings



Name (please print)	Zip	Street Address	Phone	Email Address
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Daniel Melander				
Jim Impara	97520	15573 Hwy 66	482-3320	emmelr@juno.com
Raymond	"			
Christine	"			
Charles Lunn	97520	14949 Hwy 66	488-9394	<del>chlunn</del> zlh1200@aol.com
Aria	"			
Gray	"			
Vicki Sitz	97520	1361 Quincy	488-2471	
C.S.	"	" " 110	" "	
Bob + Kieran Prince	97520	84 Wightman #5	482-9861	riprian@mind.net
Adrian + Lisa Gilber	97520	1050 Cold Hwy 99 S	488-9185	gollidge@i7xra2cds.com
Barbara Herel	97520	4884 Hwy 66	488-2001	
Nancy Scott + Eric Smith	97520	545 Grandview DR	601-5898	bob_kozal@aol.com
Debra + Leslie Deirna	97433	Portland	503 461-3173	
Walle Lightfoot				
Dabbie Nduka		309 ACADEM DR	482-7789	bavle@juno.com

ZACH + OLIVIA



Event FIRE EMERGENCY TRAINING  
 Location MILL POND @ LINCOLN  
 Date AUG 3, 2002

Friends of the Greensprings

Send Me  
 More Info on FOG

Name (please print)	Zip	Street Address	Phone	Email Address
GEORGE NOWLAND	97520	13875 Hwy 66	488-3832	George.nowland@att.net
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NELSON KING	"	15170 Hwy 66	482-3822	
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RICHARD SIKRITZ	97520	13403 Hwy 66	482-0724	TERESAGAT@MIND.NET
CAM PATTERSON				
MAURINE BRIDGES				

### (3) Other Participants

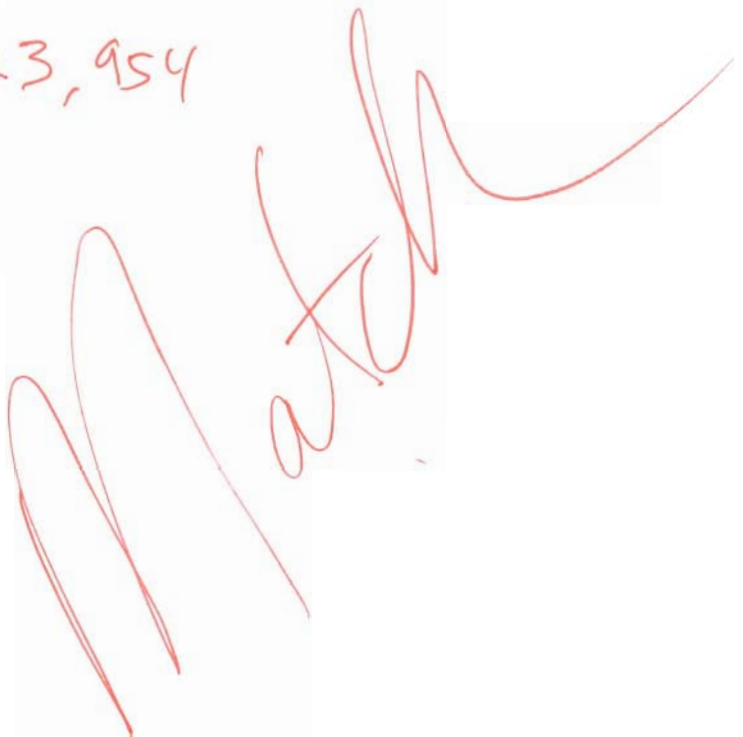
The other participants that assisted in this project include federal, state, county and non-profit organizations. The in-kind contribution from these totaled \$25,720.00 and is listed below:

Friends of the Greensprings	\$15,490.00
Oregon Department of Forestry	\$ 4,170.00
Bureau of Land Management	\$ 3,050.00
Oregon Institute of Technology GIS	\$ 1,280.00
U.S. Forest Service	\$ 700.00
Jackson County GIS	\$ 680.00
Oregon Department of Fish and Wildlife	\$ 350.00

**TOTAL**

\$25,720.00

99-475 - ~~\$1750.00~~ 23,954  
99-475A - 1695.00  
99-475B = 71.00



#### (4) Methods and Materials Used

The Keene Creek Watershed Assessment has two parts: community assessment of the need for individual and group action to resolve protection and restoration issues, and technical characterization of watershed conditions across ownerships. FOG divided the Keene Creek sub-watershed into three distinct neighborhoods and developed community and technical assessment and neighborhood Action Plan for each. Neighborhoods consisted of several seventh field hydrologic unit code areas (HUC-7). Each of the eleven HUC-7's became the responsibility of local Keene Creek landowners, including field verification and data mapping.

FOG closely followed the *Oregon Watershed Assessment of Aquatic Resources Manual (July 1999)* to assess riparian and upslope conditions across the entire Keene Creek sub-watershed. Seventh fields were grouped into three cohesive neighborhoods: Hyatt Lake, Greensprings, and Lincoln, and prioritized tasks addressed each neighborhood's top concerns. For example, all Greensprings area landowners are on high clay volcanic soils in a zone with frequent rain-on-snow events; special erosion control on roads and driveways is needed. Areas that function well and areas that are impaired were identified. Action Plans use categories from *Oregon Aquatic Habitat Restoration and Enhancement Guide (May 1999)* for upslope, riparian, and in-channel restoration to facilitate project tracking. Priority activities were developed to "protect the best, restore the rest", in a series of well-publicized open neighborhood meetings.

On federal lands, FOG worked closely with BLM and used their section maps and aerial photos so field work is linked by a common information base. BLM provided existing data that matched OWEB data requirements, and provided technical support and analysis to validate wildfire hazard models. FOG received GIS data sets, ArcView themes and stream survey data for Keene Creek area. Frequent data exchange and coordination meetings with BLM were held.

Project volunteers were trained and equipped in OWEB and DEQ standard methods for office and field verification and documentation. Oregon's *Water Quality Monitoring Guidebook, Version 1.0* was followed. All components were included: channel habitat typing (CHT); hydrology; channel modification; and assessments of wetlands, riparian condition, riparian recruitment, riparian shade, water quality and water use. Channel typing was found for BLM and private lands to permit analysis by ownership class. Field methods for sediment sources used Boise Cascade road inventory method modified to generate report data for Component VI, Sediment Sources. Fish and fish habitat protocols are consistent with Component IX requirements for Keene Creek where ODFW Aquatic Inventory data are available. Elsewhere, all available sources of ODFW and BLM fisheries data were included and combined with data collected during fieldwork for other components.

## COMPONENT 01

### **Introduction to the Project and Identification of Watershed Issues**

The assessment of the Keene Creek Watershed began July 17, 2000 and concluded with this report submitted June 30, 2005. This project, one of many being done across Oregon with funding from the Oregon Watershed Enhancement Board (OWEB), closely followed the components and methods outlined in OWEB's Watershed Assessment Manual (July 1999).

The watershed is on the eastern edge of the Klamath –Siskiyou Ecoregion. About two-thirds of the southeast portion of the watershed lies within the Cascade-Siskiyou National Monument, established in June 2000. Clearly, the watershed's location makes this project all the more important due to its geological and biological attributes. Historically, the watershed is significant too as, centuries ago; fur trappers and pioneers crossing the Applegate Trail explored and developed its resources.

The goal of this project was to demonstrate three results:

- Rural landowners can assess their own watershed following OWEB's Manual.
- Involved landowners gain personal commitment to projects and tasks in their neighborhood watershed Action Plan
- Fire danger and wildlife issues can be folded into private lands watershed work in the uplands.

A watershed assessment team was chosen from persons who lived in or near the Keene Creek Watershed, were familiar with the watershed's processes and people, and possessed the necessary skills to carry out the project. An important skill was the ability to work with the three neighborhoods of the watershed to give workshops, lead training sessions, and make presentations. The team worked well together, shared skills, and became very familiar with the watershed and its inhabitants.



## WATERSHED NEIGHBORHOODS AND ISSUES

During the project, the watershed was nearly half public lands and about 53 percent privately owned (Map 2), with private interests including six industrial timber companies. Five landowners held over 1000 acres: the Bureau of Land Management (BLM); Bureau of Reclamation; Boise Cascade; Roseburg Forest Products; and Lone Rock Timber. These five made up two percent of all owners, and together managed more than 80% of the watershed.

The Keene Watershed is a single 6<sup>th</sup> field hydrologic unit code, HUC-6. For this watershed assessment the Keene Creek Watershed was divided into three neighborhoods; Hyatt, Greensprings, and Lincoln. The neighborhoods of the watershed were formed by grouping several subwatersheds, technically referred to as 7<sup>th</sup> field HUCs (HUC-7).

Four meetings were held in the neighborhoods. Residents were recognized to have the knowledge, experience and memories needed to make this project relevant and therefore successful. Residents' concerns about watershed impacts affecting their land and community were gathered, grouped and are listed.

# Healthy Streams Field Trip

**purpose:** visit Jenny & Keene Creeks to  
show landowners which streams  
will withstand 30-year storms

- ▶ What do at-risk & healthy streams look like?
- ▶ How does this affect me & my property?
- ▶ Why should I care about this?
- ▶ How does the PFC checklist work?
- ▶ What should I be doing?
- ▶ What benefits will it bring me?

presenters:

**Lorena Corzatt**

National Riparian Service Team

**Mike Borman**

OSU Rangeland Professor (invited)

**Saturday September 16, 2000**

**coffee 8:30 am field day 9:00 am to 4:00 pm**

where:

the Library at Lincoln

15097 Highway 66 @ milepost 21.1

bring a sack lunch; FOG will bring beverages



**Klamath Watershed  
Council**

**Friends of the Greensprings**

**Klamath River  
Working Group**

**Klamath Basin Ecosystem Restoration Office**

# Healthy Streams

## Field Trip to Jenny & Keene Creeks

Saturday September 16, 2000

**MARK YOUR CALENDAR!**  
**JOIN THE NEIGHBORHOOD**  
**Saturday September 16, 2000**  
on Jenny Creek & Keene Creek



NON-PROFIT ORG.  
U.S. POSTAGE  
PAID  
Ashland, Oregon  
PERMIT # 104

address service requested

# FRIENDS OF THE GREENSPRINGS



Dear Friends and Neighbors,

Oct. 8, 2001

As many of you are aware, Friends of the Greensprings (FOG) worked on a watershed assessment for Emigrant Creek last summer. Riparian, water quality and stream channel work was successfully completed with neighborhood support and cooperation.

## NEXT STEPS

FOG is continuing that work in a year-long study of watershed, wildfire and wildlife conditions in Keene Creek watershed. Funding is from Oregon's Watershed Enhancement Board, Oregon Department of Forestry, Oregon Department of Fish and Wildlife, neighbors, and FOG. All neighborhoods in Keene Creek drainage including Hyatt Lake, Little Hyatt, and along Highway 66 – about 26,000 acres – will be included.

Landowners like you are the key data sources. FOG is actively seeking information from folks about "their neighborhood". Present residents, old timers and workers who travel the area in all seasons often know forgotten facts and important details. We need to draw on your personal knowledge to better understand what happened where and when. We live in a beautiful but fragile place. In common, we share concern and care for the land. Let's work together on this important project.

## NEIGHBORHOOD MEETING

Please join us for a neighborhood meeting to begin to know the whole area better.

**when:** Tuesday October 23 at 7:30 p.m.  
**where:** Harriett Rex Smith's home  
11600 Highway 66  
first driveway east of Green Springs Inn  
**what:** meet the project team:  
**Julie Hightower, Community Coordinator**  
**Rio Prince, Watershed Coordinator**  
**Kara King, Mapping and Data Entry**  
**John Ward, Project Coordinator**  
see aerial photos and incredible maps of your neighborhood  
hear what's planned and where you can share information or help

## Later

We will be announcing future event details, restoration tours and kids field trips. And we will need access permissions, volunteers to host meetings, get field data or dig out some history.

Thanks for your help ..... hope to see you at Harriett's  
Julie Hightower, Community Coordinator  
Emigrant Watershed Project 482-3407



# Keene Creek Watershed Assessment

## Neighborhood Meeting

when: Tuesday, October 23, 2001

7:30 to 9 pm

where: Harriett Rex Smith's home

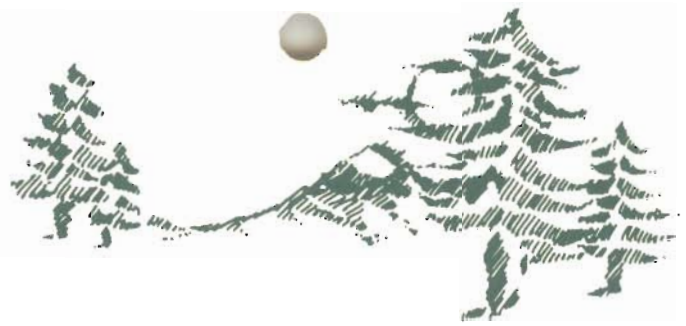
11600 Highway 66

Address Service Requested



Friends of the Greensprings  
15097 Highway 66  
Ashland OR 97520

# FRIENDS OF THE GREENSPRINGS



Dear Neighbor,

Nov. 5, 2001

We are starting a year-long study of watershed, wildfire and wildlife conditions in Keene Creek watershed. All neighborhoods in Keene Creek drainage from Hyatt Lake to Little Hyatt and along Highway 66 to the mill pond- about 26,000 acres - are included. Landowners who want to reduce fire danger, improve water quality, or benefit wildlife find that good data helps them get technical and financial assistance. The project will gather that data following Oregon's Watershed Assessment Manual.

At this point we need to find out issues and concerns folks have about "their neighborhood". Are there changes that would help solve problems on private land? We also need to draw on personal knowledge from new comers, present residents, and old timers to help us learn about present and historic conditions. The meeting will introduce the Project Team, explain what the project hopes to accomplish, and show ways you can get involved. We live in a beautiful but fragile place. In common, we share concern and care for the land. Let's work together on this important project.

## WATERSHED MEETING

- when:** Tuesday November 13 at 7:00 pm
- where:** Charles and Kristen Lunn's home  
14949 Highway 66  
(across from Department of Forestry office)
- what:** meet the project team:  
Julie Hightower, Community Coordinator  
Rio Prince, Watershed Coordinator  
Kara King, Mapping and Data Entry  
John Ward, Project Coordinator

see aerial photos and incredible maps of your neighborhood  
hear what's planned and where you can share information or help

### Later

We will be announcing future event details, restoration tours and kids field trips. And we will need access permissions, volunteers to host meetings, get field data or dig out some history.

Thanks for your help ..... hope to see you at the Lunn's  
Julie Hightower, Community Coordinator  
Emigrant Watershed Project 482-3407



# Keene Creek Watershed Assessment

## Neighborhood Meeting

when: Tuesday, November 13, 2001  
7 to 9 pm

where: Charles and Kristen Lunn's home  
14949 Highway 66

Address Service Requested



Friends of the Greensprings  
15097 Highway 66  
Ashland OR 97520

# Friends of the Greensprings



Dear Neighbor,

Jan. 8, 2002

We are starting a year-long study of watershed, wildfire and wildlife conditions in Keene Creek watershed. All neighborhoods in Keene Creek drainage from Hyatt Lake to Little Hyatt and along Highway 66 to the mill pond- about 26,000 acres - are included. Landowners who want to reduce fire danger, improve water quality, or benefit wildlife find that good data helps them get technical and financial assistance. The project will gather that data following Oregon's Watershed Assessment Manual.

At this point we need to find out issues and concerns folks have about "their neighborhood". Are there changes that would help solve problems on private land? We also need to draw on personal knowledge from new comers, present residents, and old timers to help us learn about present and historic conditions. The meeting will introduce the Project Team, explain what the project hopes to accomplish, and show ways you can get involved. We live in a beautiful but fragile place. In common, we share concern and care for the land. Let's work together on this important project.

## WATERSHED MEETING

when: Monday January 21 at 7:00 pm  
where: Teresa Giacomini and Richard Stiritz's home  
13403 Highway 66  
what: meet the project team:  
Julie Hightower, Community Coordinator  
Kara King, Mapping and Data Entry  
John Ward, Project Coordinator

see aerial photos and incredible maps of your neighborhood  
hear what's planned and where you can share information or help

### Later

We will be announcing future event details, restoration tours and kids field trips. And we will need access permissions, volunteers to host meetings, get field data or dig out some history.

Thanks for your help ..... hope to see you next Monday  
Julie Hightower, Community Coordinator  
Emigrant Watershed Project 482-3407



# Keene Creek Watershed Assessment Neighborhood Meeting

when: Monday, January 21, 2002  
7 to 9 pm

where: Teresa Giacomini & Richard Stiritz's home  
13403 Highway 66

Address Service Requested



Friends of the Greensprings  
15097 Highway 66  
Ashland OR 97520

# Friends of the Greensprings



Dear Neighbor,

March 8, 2002

Join the **Wrap-up Meeting** on watershed, wildfire and wildlife conditions in Keene Creek watershed. All neighborhoods in Keene Creek drainage from Hyatt Lake to Little Hyatt and along Highway 66 to the mill pond- about 26,000 acres - are included. Landowners who want to reduce fire danger, improve water quality, or benefit wildlife find that good data helps them get technical and financial assistance. The project will gather that data following Oregon's Watershed Assessment Manual.

We need to learn the issues and concerns folks have about "their neighborhood". Are there changes that would help solve problems on private land? We also need to draw on personal knowledge from newcomers, present residents, and old timers to help us learn about present and historic conditions. The meeting will introduce the Project Team, explain what the project hopes to accomplish, and show ways you can get involved. We live in a beautiful but fragile place. In common, we share concern and care for the land. Let's work together on this important project.

## WATERSHED MEETING

**when:** Tuesday March 19 at 7:00 pm

**where:** Hyatt Lake Resort in the restaurant  
no food service available but opened for this meeting  
7979 Hyatt Prairie Road

**what:** meet the project team:  
Julie Hightower, Community Coordinator  
Kara King, Mapping and Data Entry  
John Ward, Project Coordinator

see aerial photos and incredible maps of your neighborhood  
hear what's planned and where you can share information or help

### Later

We will be announcing future event details, restoration tours and kids field trips. And we will need access permissions, volunteers to host meetings, get field data or dig out some history.

Thanks for your help ..... hope to see you the 19th  
Julie Hightower, Community Coordinator  
Emigrant Watershed Project 482-3407

Friends of the Greensprings  
15097 Highway 66  
Ashland OR 97520

Address Service Requested

where: Hyatt Lake Resort in the restaurant  
7979 Hyatt Prairie Road  
no food service available but specially opened for this meeting

when: Tuesday, March 19, 2002  
7 to 9 pm

Keene Creek Watershed Assessment  
Neighborhood Meeting

Sponsored by

Friends of the Greensprings



# Parsnip Lakes Field Trip



Led by noted naturalist, Frank Lang

Will cover beaver ponds, rare Pebble snails, redband trout, amphibians and wood ducks living on these unique, sag pond lakes.



## Saturday, May 31

### Half-day Public Tour

Leaves at 9 a.m. from the Greensprings Inn  
11470 Highway 66 (about 15 miles east of Ashland)

A Free event, Families, seniors and children are invited on this easy hike!  
Wear sturdy shoes and warm clothes. Hot drinks will be provided.

More information? 482-3407 or 482-2859

Part of Friends of the Greensprings' Keene Creek Watershed Assessment  
funded with Oregon Lottery Dollars by the Oregon Watershed Enhancement Board

Friends of the Greensprings  
15097 Highway 66 Ashland OR 97520



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Ashland, Oregon  
PERMIT # 104

Saturday, May 31

Led by noted naturalist, Frank Lang



Parsnip Lakes Field Trip



Friends of the Greensprings

Keene Creek Watershed Assessment



Oregon Watershed Enhancement Board



Oregon Department of Forestry

# FIRE EMERGENCY PREPAREDNESS

## Initial Attack Refresher

Try to come "FIRE PREPARED"

- Long pants
- Long sleeve shirt
- Boots
- Gloves
- Hard Hat if available
- Eye protection if available
- Fire tools if available

## Get Steve Bridges' latest ODF ideas

Current Fire Restrictions

Fire Condition Situation

Community Fire Response

Home Defense Preparation

## Request fire consultation for your home, access road & wildlands

**who:** Adults and older children - but please, no kids or pets

**when:** **Saturday, August 3, 2002**  
**9 am to Noon**

**where:** **Behind the Mill Pond at Lincoln**  
**15097 Greensprings Highway**

need info? Call Julie Hightower, Community Coordinator  
Keene Creek Watershed Project  
482-3407

# Friends of the Greensprings



## Potluck Social and Annual Meeting

Thanks to your support and involvement, our watershed projects are wrapping up. Please come to a presentation of

# Wildlife of the Greensprings

Mammals by Tony Pierce

Reptiles & Amphibians by Karen Pierce

Bats by Mary Lou Schnoes

Aquatic Bugs by Pinehurst & Mazama Students

WHEN **SUNDAY Nov. 10, 2002**

& annual meeting 4:30pm, potluck 5-7, presentation 7-8pm

WHERE **In the Cookhouse at Lincoln  
15097 Highway 66**

Lasagne and beverages will be provided.  
Guests are asked to bring table service  
and a potluck snack, salad, or dessert.

Please RSVP: call Julie Hightower 482-3407 or John Ward 482-2859

Friends of the Greensprings  
15097 Highway 66  
Ashland OR 97520



Address Service Requested

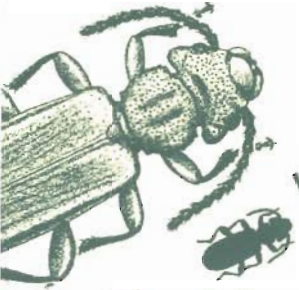
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Pottuck Social and Annual Meeting  
**Wildlife of the Greensprings**  
Sunday, November 10, 2002  
annual meeting 4:30pm, pottuck 5-7, presentation 7-8pm  
who: Members, Neighbors and Volunteers





# Insects & Dead Trees



what can you do to reduce your risk ??

Most folks notice all the dead & dying trees as they travel Highway 66. Learn which bugs attack the trees and how to control them. Ellen Goheen has personally mapped bug killed trees in our neighborhood for 8 years, and will lead a road-side field trip to show landowners what to look for and what to do to protect their remaining trees.

## Saturday April 12, 2003

9 a.m. to 1 p.m.



### Half-day Family Field Day

Starts at 9 a.m. along Buckhorn Springs Road just off Highway 66

Travels Buckhorn, up Tyler Creek Road and Highway 66 past Tub Springs State Park

A free event for beginners - children, parents, & seniors - no experience needed.

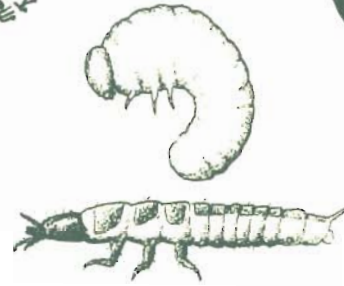
Bring snacks and your questions for a roadside tour; we'll have juice, hot chocolate, tea and coffee.

Call Julie Hightower (482 - 3407) if you need more information.





Meet at 9:00 am along Buckhorn Springs Road  
near Highway 66; car pool if you like



# Insects & Dead Trees

from Buckhorn Springs Road to Tyler Creek Road and Highway 66

..... what can YOU do to reduce your risk

## Saturday April 12, 2003



Friends of the Greensprings  
15097 Highway 66 Ashland OR 97520

address service requested

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PAID  
Ashland, Oregon  
PERMIT # 104

### Insects & Dead Trees

what can YOU do to reduce your risk ?

Saturday, April 12



Friends of the Greensprings

# POTLUCK SOCIAL

& Annual Meeting

## Historic and Current Photos

along Highway 66 & Highway 99 South

### Dr. Paul Hosten, Ecologist at BLM-Medford

has searched agency and organizational archives for old photos that show historic conditions near the Greensprings Highway and Old Siskiyou Highway, and places in between.

Paul then found the site of the original photo, and took a current photo to show what has changed. He will tell us what the images reveal about the last fifty or one-hundred years.

- ☞ Oldtimers and residents are asked to bring photos to show Paul other views from the past.
- ☞ Bring any dish or desert plus plates and silverware. FOG will provide lasagna and hot/cold beverages.

**Saturday, December 13, 2003**

annual meeting 4:30 pm  
potluck social 5 to 7 pm  
presentation 7 to 8:30 pm

**at the Pinehurst School 15337 Highway 66**

about milepost 2.1 ½ east of Ashland Oregon

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Ashland, Oregon  
PERMIT # 104

Friends of the Greensprings  
15097 Highway 66 Ashland OR



Potluck Social &  
**Historic and Current Photos**  
**along Highway 66 & Highway 99 South**  
Saturday December 13, 2003 7 to 8:30 pm in the Pinehurst School

## COMPONENT 02

### **Historical Conditions and Assessment**

The Keene Creek Watershed lies at the eastern edge of the botanically renowned Klamath-Siskiyou Ecoregion, which is considered an area of global botanical significance by the World Conservation Union. The area has been the main East-West inland route across the Cascade Mountains since people and animals traveled the area. Indian and animal trails crossing the plateau became wider due to cattle drives and wagon roads and now have widened into the multi-lane Highway 66, paralleling the older trails and wagon roads.

The Keene Creek Watershed drains 26,482 acres of multiple use resource land in southeastern Jackson County. Hydrologically, it is the most westerly sixth field in the Jenny Creek fifth field (135,00 acres). Keene Creek flows south and east for about 20 miles before joining Jenny Creek to continue south to California where it joins the Klamath River at Irongate Reservoir. The area is now 53% privately owned, 70% forested, and 99% open range. There are 130 miles of streams and 160 miles of roads with road densities in some sections exceeding 10 miles per square mile. Landowners must address wildfire hazards at the same time they deal with watershed health since high intensity fire likely poses the greatest single threat to watershed health.

### THE HISTORY

#### **Watershed Conditions and Resources Before Settlement**

##### Vegetation

In the 1820's and 30's, expeditions of scientists such as David Douglas, Archibald Menzies, and Thomas Nuttall, discovered and named the species of flora and fauna in the region. The early recorders wrote about the lush grasses in the meadows and tall pines and oaks in the open mixed forests of the Cascade-Siskiyou.

The fur trapper Peter Ogden passed through the area in 1827, descending from the Siskiyou Summit and traveling along Bear Creek and the Rogue River. In his 1826-27 journal, he

wrote: “At present it is certainly fine weather and certainly a country well adapted from its soil and timber (oaks and pine) for cultivation. The natives inform us that deer are abundant in the hills and mountains...from their being all well clad in leather, I can well believe them.”

In 1853, a 15 year-old pioneer Ann Hill wrote about crossing the Keene Creek drainage on the Applegate Trail: “Such a paradise. A beauty spot of the world. Bunch grass growing like grain fields, covered hills and valleys where cold, pure water flows in abundance.”

### Fire

Chief of the Mewuk Tribe, California, said: “All burning was limited to certain Indians who were looked up to as leaders or who understood how it should be handled.” Fire, both lightning-caused and Indian-made, maintained a sculpted landscape on the slopes and within the open mixed forests of the Cascade-Siskiyou. Indian-made fires gave vitality and light to the grasses, forbs, roots, nuts, and berries.

In pre-settlement times, fire was also the most effective form of disturbance within the watershed and surrounding bioregion. Fire determined the relative distribution of certain species, was the means for effective nutrient recycling, and quite possibly resulted in the recycling of whole plant communities.

### Fish Habitat

By the late 18<sup>th</sup> Century, Americans and Europeans exploited the Oregon coast for sea otter furs. The land-based trappers arrived in Oregon in the early 1800s. These mountain men, such as Jedidiah Smith, Kit Carson, Peter Ogden, and Ewing Young, roamed the West on the heels of the Lewis and Clark Expedition of 1804-06. Two fur companies, the British Hudson Bay Company, headquartered in Montreal, and the Rocky Mountain Fur Co. of St. Louis, competed for the lion’s share of the inland Pacific fur trade.

As Peter Ogden passed through the area in 1827, he came with a group of trappers, all working for the Hudson Bay Company. The Ikirukatsu Tribe of Shasta Indians inhabited the

southern-most portion of Bear Creek, and to the north of Ashland Creek, resided the Takelma (called the Rogue Indians by settlers). The Shasta had watched the early trappers deplete the streams of beaver from the creeks and directed Ogden and his trappers to take beaver from the land of their neighbors, the Takelma.

During the peak fur trapping years (1820-35) about 100,000 beaver pelts a year were used for the production of men's top hats. The beaver population was severely depleted by trapping before settlement creating a cascade of environmental disturbance and decline within the watershed. Beaver dams and structures no longer caught sediment; expanded the riparian areas; supported aspen, alder, and willow; supported the fish populations; and protected stream banks from erosion. Anadromous and resident fish habitat and populations began to diminish, and stream channels changed.

### **Land Use and Resource Management After Settlement**

#### Settlement Patterns

When the Applegate Trail opened in 1846, emigrants entered the watershed and the Bear Creek valley, but most continued northward to where it was safe to settle. The Takelma Indians, labeled as the Rogue Indians by the early travelers, incessantly attacked both travelers and the few settlers who stayed. In 1850 the Donation Land Claim Act was signed into law, allowing settlers to claim for free up to 320 acres for homesteads in the Oregon Territory. By the end of 1853, about 700 settlers with 159 wagons, thousands of cattle, sheep and horses had crossed the Keene Creek drainage.

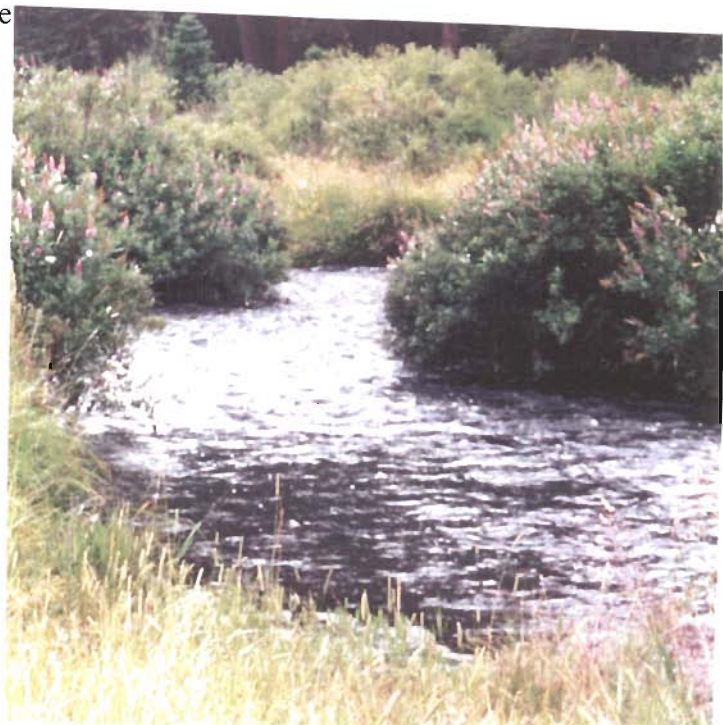
## COMPONENT 03

### Channel Habitat Types of Keene Creek Watershed

The setting and structure of a landscape influences the shape and function of its stream channels. The Keene Creek Watershed contains 130 miles of streams within its 26,482 acres. One quarter of this watershed consists of headwaters with high elevation streams, steep gradients, and stream channels that are highly confined by hill slopes, terraces or roads.

Classifying streams helps us understand how land use alters the forms of stream channels, and how streams will respond to restoration efforts. Component 03 presents the classification of Keene Creek watershed streams. The stream network of the watershed is shown in Map 9. The known presence

of fish and the stream sizes, as determined by Oregon Department of Fish and Wildlife are shown on Map 15. The average annual streamflow is shown as follows:  
Large: Flows are 10 cubic feet per second (cfs) or greater; Medium: Flows are greater than 2 cfs but less than 10 cfs; Small: Flows are less or equal to 2 cfs.



#### STREAM CLASSIFICATION

Streams were classified according to channel habitat types (CHTs) by visually inspecting aerial photos and stream channels shown on topographic maps, and dividing the stream channel into reaches with similar gradient and confinement. These CHTs describe how the streams might respond to changes in the environment, in particular, the flow of sediment, peak flows, and the presence of large woody debris. Map 9 shows the result of



watershed streams classification according to their degree of landscape gradient and confinement. The gradient was computed from the change in elevation of the stream reach divided by the length of the reach.

Confinement is the ratio of bankfull width to the width of the modern floodplain. Bankfull width is the point at which flooding over the bank occurs. Confinement is defined by OWEB as follows: Unconfined is when the floodplain is more than four times the bankfull width; Moderately confined is when the floodplain width is between two and four times the bankfull width; and Confined is when the floodplain is less than two times bankfull width. Confinement was estimated visually from aerial photos and topographic maps.

Keene Creek Watershed Assessment  
Access OK for Stream Survey



The Friends of the Greensprings asks permission for trained volunteers to come onto your property during 2000 to study stream and bank conditions, riparian vegetation, presence of fish or fish barriers, collect samples of water for testing or gather data on water temperature, flow or other conditions.

- Please  come anytime  
 call before coming  
 send me a copy of the data

- I've got a  creek that runs all year  
 creek that runs seasonally (it flows into Keene Creek)  
 creek that runs some years

- I've got a  pond or lake  
 wetlands  
 spring How many? ..?

- Watch out for  dogs  
 snakes  
 ..... other

- I'd like to be involved in .....
- verifying field conditions
  - searching for historic photos or info
  - checking roads & culverts
  - driving volunteers to get field samples
  - looking up data on water rights
  - taking photos in the field
  - volunteering for other tasks

I grant permission for Friends of the Greensprings to come onto my land.

signed *Jerry + Grace Green*  
name *Jerry + Grace Green*  
address *14705 Hwy 66*  
phone *Ashland 482-2706*  
date *12-7-00*

Please return to Friends of the Greensprings at 15097 Hiway 66, Ashland OR

## COMPONENT 04

### Hydrology and Water Use

Watersheds are usually a mosaic of different land “patches” that are strung together by a network of streams. These patches contain assemblages of plants, animals and humans that interact in ways that either enhance or degrade the quality of their relationships. Geology, weather, and natural events govern much of the patch activity. The natural unity or the lack thereof, is ultimately expressed in its water through abundance, distribution, and timely release into its stream systems. This water joins the biological life of the watershed by dissolving minerals and humus, and dispersing these nutrients down-slope.

#### **Geology**

The Keene Creek Watershed covers approximately 41 square miles (26,482 acres); its eastern flank and most of the bottomland lies in the Southern Cascade Geotectonic Province. Map 5 details the watershed’s geological features, characterized by slightly deformed and partly altered andesitic and basaltic lava flows shouldered by deeply eroded volcanic rocks. These ancient flows are spiked with intrusive rocks and vents, dramatically expressed by Pilot Rock, an exposed core of an old volcano.

The watershed’s plateau area was once connected to the Colestine Valley until the Siskiyou Summit fault uplifted and created a pass where the valley once was. It has created a bridge between the volcanic Southern Cascade Range and the much older Klamath Range. The Siskiyou Summit fault is considered one of the most significant faults in Oregon. It is this regional and local faulting and thrusting activity that has dramatically shaped the watershed.



## **Soils**

The soils of the watershed reflect its diverse and dramatic geology and weathering. Table 6 shows that the eight general soil types in the watershed have high to extreme erosion potential. The percentage of clays within these weathered soils has created many areas where water infiltration rates are very low and the shrink-swell rates are very high. The developing soils on top of these clays can quickly saturate and erode when they do not have an effective vegetative ground cover and soil depth (Map 6).

Once disturbed by compaction and/or displacement, the surface soils tend to erode and transport downslope into the stream system. Until the 1934 Taylor Grazing Act, large herds of cattle and huge flocks of sheep over-grazed the watershed's slopes and ridges. Turn of the century U.S. Forest Service Rangers were instructed to disregard violations of grazing regulations south of what is now Highway 66. The effective native ground cover has been replaced by exotic and noxious weeds that have overcome the native plants and do not protect the fragile soils from erosion.

Once these loose soils are transported by water or wind to the stream channels, they are no longer retained by the once prolific beavers, whose engineering has been replaced by Hyatt Reservoir, Little Hyatt Dam and Keene Creek Dam. Downstream the soils are deposited in deltas and terraces, where the deposited soil's color gives evidence as to their origin within the watershed.

## COMPONENT 05

### **Riparian/Wetlands Assessment**

Vegetation in a watershed affects fish habitat and water quality. Its roots stabilize stream banks by reducing erosion. Its canopy influences stream water temperature.. The large woody debris (LWD) contributes to the stream channel by slowing floodwater and creating fish habitat. Upland vegetation influences snow accumulation and the timing of snow melt and runoff.

#### RIPARIAN

Riparian areas are the green areas along streams and rivers. Usually riparian areas are well-vegetated and have higher levels of moisture in the soils. A riparian zone refers to the hydrologic, geomorphic, and living systems that characterize it, and includes the factors of shade cover along stream banks, channel habitat type, LWD and aquatic habitat. Two factors were used to assess the riparian conditions in the Keene Creek Watershed: stream shade and aquatic habitat.

For stream shade, heads-up on screen digitizing was performed to electronically reposition 130 miles of project area streams so that the stream was centered to correctly correspond with the location or riparian vegetation shown on digital ortho-quad (DOQ) “aerial photos”. Next, polygon buffers were created along the banks of the stream, which were subdivided at visible changes in riparian canopy to form a series of “Riparian Condition Units” (RCU). A visual estimate for three levels of stream shade, under 40%, 40 to 70 %, and over 70%, was then made for each



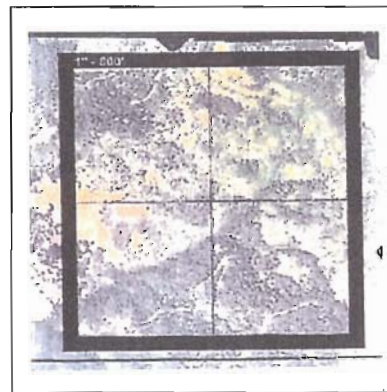
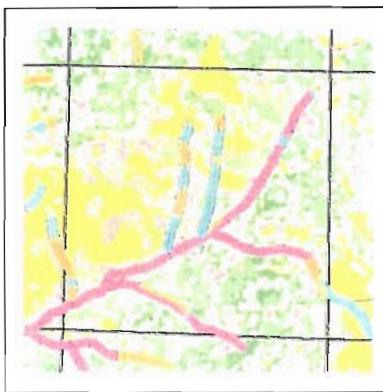
RCU and entered into a GIS database. An example of the map resulting from heads-up digitizing for riparian shade is shown at right.

Here, the stream has already been repositioned over the riparian vegetation, and buffers have been created from the confluence points for the main stream and its tributaries. Division points were not created separately for each streambank but do reflect visible changes in the bank vegetation.



Setting different division points for each bank was not done because both banks had the same owner, the land use was the same on both banks, and riparian condition was the same on both banks.

Actual canopy cover along streams may differ from the estimated shade due to harvest, storm impact, or other events that occurred in the years after the aerial photo was taken. A paired example of color aerial photo and corresponding digitized shade map for a one-square mile are is shown below. Any question of actual canopy requires a field verification visit to confirm current conditions.



The estimated stream shade was field verified at 23 sites, some selected because actual riparian shade was not clear on DOQ views and others were selected at random during the CHT process. Trained StreamWalk volunteers were asked to record estimated canopy at the site and to record overhead vegetation photographically. The estimated stream shade was adjusted to reflect the actual field verified shade, and the results were used to generate Map 11. Careful inspection of Map 11 shows stream shade variation

along each stream within the Keene Creek Watershed, a total of about 260 miles of stream bank.

The amount of shade along stream banks in the watershed represented on Map 11 is important for fish and wildlife habitat because it counteracts solar radiation and moderates water temperature. The solar radiation from riparian vegetation itself helps to decrease fluctuations of water temperatures. Other landscape characteristics such as slope and aspect also affect the amount of radiation received. Map 11 shows where riparian planting to correct low shade may be needed to reduce summer stream temperatures.

The miles of federal and private stream bank at various shade percentages was computed for each HUC-7 and aggregated into a total for each neighborhood. For all ownerships, Keene Creek Watershed has 43% stream bank miles with shade less than 40%, 34% of the stream bank miles have between 40 and 70% shade, and 23% of the stream bank miles have above 70% shade. Federal miles of stream bank are 25% of the total miles, and the remainder is mostly private.

## WETLANDS

Wetlands are important to a watershed, beyond the water, food and shelter they provide for wildlife. Wetlands also help improve water quality, lessen the effects of downstream flooding, recharge underground aquifers, and nourish stream in dry seasons. Wetlands can occur in riparian zones or in upslope areas with no obvious connection to stream channels.

In the Keene Creek watershed, wetlands are more numerous in the higher to mid elevations on the north, southwest and west sides of the watershed –the Hyatt Lake, Hyatt Meadows and Parsnip Lakes drainages. Fewer but larger wetlands occur near Hyatt Lake and Keene Creek. Map 12 shows the wetlands of the watershed, and within each neighborhood, areas or clusters of wetlands are defined as irregular polygons. The

wetlands were identified using aerial photos, baseline information provided by National Wetland Inventory (NWI) maps, soil survey maps, and BLM field data.

### **Wetland Characteristics in the Watershed**

Each cluster of wetlands within the three neighborhoods has been rated according to the contribution the cluster makes to specific watershed functions. Each cluster can have a “high”, a “medium” or a “low” contribution to each of five specific functions: flood control, water quality, groundwater supply, habitat, and sediment control. A matrix summarizing the contribution is presented in the tables.

#### Wetland Roles of Watershed Functions

##### Watershed Function: Flood Control

- A. Water Storage: Absorbs and hold groundwater flow from rain or snowmelt for gradual release.
- B. Flow Delay: Captures surface flow and releases it more slowly due to containing depressions or ponds.
- C. Floodplain Wetlands: Slows or absorbs floodprone water flow due to wetland being within a stream floodplain.

##### Watershed Function: Water Quality

- A. Discharge: Discharges clean and cold water to a stream from springs or seep.
- B. Vegetative Cover: Protects water from sediment, disturbance, erosion, and warming from solar radiation.
- C. Nutrient/Toxin Assimilation: Absorbs and breaks down toxins and nutrients from upland sources.
- D. Nutrient Source: Contributes beneficial nutrients to the watershed’s streams.

##### Watershed Function: Groundwater Supply

- A. Extension: Releases water slowly from winter/spring reserves that extend the duration of flow during summer/fall.
- B. Discharge: Discharges a perennial flow from springs or seeps.



Watershed Function: Habitat

- A. Migratory Species: Use of wetlands by migrating wildlife for refugia.
- B. Lifecycle Reliant Species: Use of wetlands by molluscs, amphibians, fish or insects for mating/rearing habitat.
- C. Fish/Stream Channel Habitat: Use of wetlands by fish species for refugia or for contribution to stream habitat diversity.

Watershed Function: Sediment Control

- A. Filtration: Vegetation acts as a sediment trap for runoff or stream-borne sediment.
- B. Velocity: Connected wetlands slow water velocity and allow sediment to settle.

The wetland areas are rated according to levels of performing watershed functions. A numerical score is assigned for the contribution of each wetland by role, and is identified in the Tables by the letters A, B, C, and D. The ratings (None, Low, Medium, High, Unknown) were assigned a numerical score as follows: None = 0; Low = 1; Medium = 2; High = 3; and Unknown = 0. A dash indicates no data available. Where two ratings are given, such as Low-Medium, the higher score was assigned. Then the scores for each function were added to provide a cumulative score for the neighborhood wetland areas. The cumulative score is presented as a ratio, with the maximum score being the number 3 for each possible role. Note that volunteers were not scheduled to verify the ratings, and only a few sites were field checked.

## COMPONENT 06

### **Sediment Source Assessment**

Erosion processes have been shaping and reshaping the Keene Creek watershed for millions of years. Unstable mountainous side slopes formed by volcanic events are thought to provide the largest volume of sediment and debris. Ancient landslides, earth flows, and slumps form today's landforms, especially near Table Mountain, Soda Mountain and Parsnip Lakes. The primary natural event that affects erosion processes is high stream flow caused by rain-on-snow events, when a deep snow pack in the transient snow zone melts rapidly during a warm rainstorm such as in 1927 and 1997. Such events over long periods of time have produced sheet, ravel and gully erosion on the steep and incised slopes. The effect has been large volumes of sediment transported from the slopes revealing the current plateau landform.

Human influences such as roads and railroads, livestock grazing, farming, intensive logging, and human-caused fires have increased slope instability and erosion processes above levels related to the ongoing natural disturbances. These have accelerated movement of sediment into streams, and adversely affected fish habitat and water quality.

The sediment arising from slope instability, road instability, road runoff, and other human and natural causes were studied in the Keene Creek watershed, and data tables summarizing the findings were developed. This work came about through broad community contacts and extensive field surveys by resident volunteers. Four neighborhood meetings and 30 in-home Interest and Issues Canvass interviews generated 27 comments from residents about sediment problems and sites needing special attention. Five residents were trained and equipped to conduct RoadWalk inspections for road prism failures, slumps and road cracks, high-risk culverts, and other road instability problems. RoadWalk volunteers covered 160 miles of public and private road and collected data on 44 road instability sites. Maps of potential debris flow sites and field maps, county soil maps, digital ortho-quads, and other Geographic Information System information maps were provided to all participants.

RoadWalk volunteers followed a standard protocol when surveying assigned road sediments, which included the condition of the road, road surface, ditch, cutslope, and culvert. A completed example of a RoadWalk Field Log form is presented in Figure 5.

## SLOPE INSTABILITY

Steep and geologically unstable lands in the watershed are subject to earth flows, soil creep, slumps, debris flows, landslides, mass wasting, stream channel cutting, and other changes to morphology. Four groups of “current slope instability” have been identified in this assessment; (1) landslides and slumps, (2) debris flow, (3) human caused channel cutting, and (4) potential debris flows.

Landslides and earth flow activity possibly began about two million years ago in the Ice Age. Glacial erosion produced soils and landforms not capable of maintaining stability when the glaciers retreated. The downslope movement of masses of soil and rock develop either slowly as earth flow and creep or rapidly as debris flow and torrents. These episodic events usually have occurred when intense, long duration winter storms reactivate earlier landslides.

### **Current Slope Instability**

Current landslides not related to roads are summarized for individual subwatersheds and for each neighborhood derived from data presented on Map 13. The project area includes four known current slope instability sites with three landslides, one human caused channel, and no debris flows. Landslides are most common along Keene Creek where soils contain high shrink-swell clay derived from volcanic material, while potential debris flows are much more likely near Soda Mountain possibly due to presence of springs and wetlands.

## COMPONENT 07

### Channel Modification Assessment

Channels are dynamic systems that modify themselves in response to both natural and human caused changes in the watershed. Activities such as damming and waterway use alter the structure of stream channels and affect fish migration, habitat and other life in the streams. The degree of impact to habitat depends on the type of channel and the type and magnitude of modification.



Several channel modifications were found in Keene Creek Watershed, and verified in the field. Table 20 lists these sites and shows stream miles of impact (Low, Medium, High) to channel characteristics such as pattern, width, substrate type, bank erosion, pool features, and distribution of large wood. The degrees of impact are as follows:

- Low: Channel impacts are not readily apparent; affect less than one percent of a channel or wetland; or channel characteristics are largely unchanged.
- Medium: Impacts are localized but apparent; and changes to channel characteristics are detectable but not obvious.
- High: Impacts are obvious and a significant length of channel or portion of wetland is affected.

**Table 20: Channel Modification by Neighborhood: Miles and Degree of Impact**

NEIGHBORHOOD	No. of sites	Miles of channel modification	Miles of low impact	Miles of medium impact	Miles of high impact
Hyatt	9	6.3	2.1	2.5	1.7
Greensprings	12	4.2	1.5	2.7	
Lincoln	5	3.7	1.5	2.0	0.2
Totals	26	14.2	5.1	7.2	1.9

Two-thirds of all identified channel modification sites in the watershed have resulted from Bureau of Reclamation dams and road proximity to interbasin water transfer canals of the Talent Irrigation District/Bureau of Reclamation system. Map 12 shows the locations of channel modification sites within the watershed according to type and cause of their modification. A “morphology change” indicates a significant alteration due to erosion, bank failure, or sediment deposition. Where “dam or impoundment” sites are indicated, note that there are few dams in the watershed but several impoundments, where diking, damming or excavation of channels allows water storage. “Flow alteration” indicates a site where the natural flow is altered, sometimes due to TID canal/stream crossing or highway runoff. Where “road crossing and/or proximity” sites are indicated, roads are within 200 feet of the channel, and crossings are bridges or culverts.

## COMPONENT 08

### **Water Quality Assessment**

The streams, rivers and lakes of a landscape support many uses of water. For assessing water quality assessment of a watershed, it is necessary to identify the beneficial uses of water that are important to a particular watershed. Water quality criteria provide a warning system when the effects of human activities are limiting beneficial uses of water. Water quality standards protect the most sensitive beneficial uses, such as a municipal and domestic water supply, anadromous fish passage, resident fish, and other aquatic life. No water supply is regulated by municipal water quality standards.

The Department of Environmental Quality recognizes the following 14 beneficial uses for the Emigrant Creek Watershed:

- Domestic water supply (municipal)
- Domestic water supply (private)
- Industrial water supply
- Irrigation
- Livestock watering
- Anadromous fish passage
- Salmonid fish spawning
- Resident fish and aquatic life
- Wildlife and hunting
- Fishing
- Boating
- Water contact recreation
- Aesthetics quality
- Hydropower

## WATER QUALITY-LIMITED STREAMS

The Keene Creek Watershed is part of the Klamath River system which is limited in water quality for summer temperature. Recent poor water quality in the Klamath Drainage has attracted state and federal agency attention to a need for water quality improvements. Section 303(d) of the Clean Water Act requires each state to identify streams, rivers, and lakes that do not meet water quality standards even after the implementation of required mitigation measures. These waters are referred to as “water quality limited” and states are required to submit 303(d) lists to the Environmental Protection Agency every two years. Four streams in the Keene Creek Watershed are on the 1998 DEQ 303(d) lists as shown on Map 4. Table 21 and Map 4 present the DEQ 1998 list of water quality limited streams within the Keene Creek Watershed. Further legislation has been passed affecting specific types of land uses in the watershed, such as forestry and agriculture, which led to water quality monitoring by FOG, BLM, DEQ and ODF at sites summarized in Table 22.

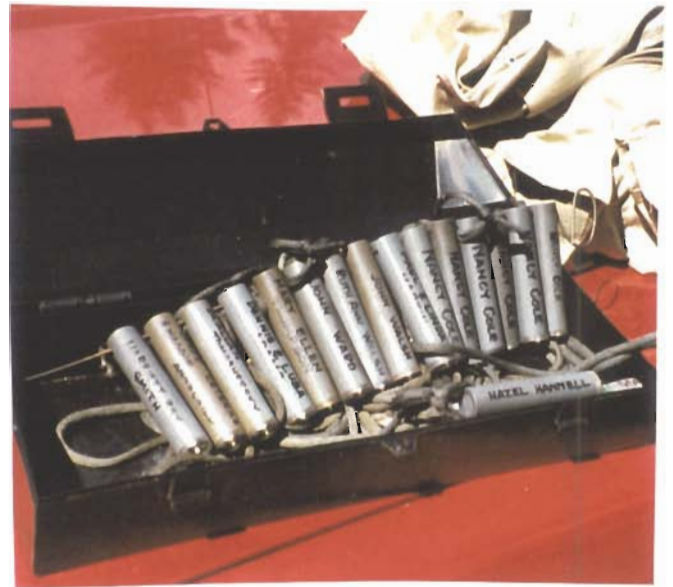
**Table 21: Water Quality Limited Streams**

<b>Stream</b>	<b>Description</b>	<b>Parameter</b>
<b>Keene Creek</b>	<b>Keene Cr. Reservoir to Hyatt Lake spillway</b>	<b>Temperature - summer</b>
<b>South Fork Keene Creek</b>	<b>Mouth to headwaters</b>	<b>Temperature - summer</b>
<b>Mill Creek</b>	<b>Mouth to headwaters</b>	<b>Temperature - summer</b>
<b>Lincoln Creek</b>	<b>Mouth to headwaters</b>	<b>Temperature - summer</b>

Water quality limited waters require the application of total maximum daily loads (TMDLs), which is a strategy for improving water quality to a point where recognized beneficial uses of water are fully supported. TMDL strategies include:

- \* Identifying point and non-point sources
- \* Establishing links to watershed characteristics and management practices
- \* Establishing objectives for water quality improvement
- \* Identifying and implementing new or altered management measures to achieve the above

Non-point sources of pollution come from diffuse sources on the landscape, from activities such as agriculture, forestry, untreated stormwater, and residential and non-resource sources. Development began in 2001 of a point and non-point Klamath Basin Water Quality Management Plan that includes the Keene Creek Watershed. This plan will be finished by 2006. To date there are no approved point sources.





## COMPONENT 09

### **Fish and Fish Habitat**

The Keene Creek watershed includes with three native fish and about nine other species in a system of streams, reservoirs, lakes, and riparian/wetland habitat. Two species, the Jenny Creek redband trout and the Jenny Creek sucker are endemic to the system and are “Category 2 Species” on the U.S. Fish and Wildlife Service’s Notice of Review list. Category 2 species are those whose listing as threatened or endangered may be warranted but data is lacking to substantiate such action. The *Klamath River Basin Fish Management Plan* (August 22, 1997) provides guidance on angling . At this time the redband trout is a game fish under Oregon Department of Fish and Wildlife angling regulations and may be taken within daily bag and possession limits. The other native species is the speckled dace. Fish presence is shown on Map 15.

The nine introduced species include the rainbow trout, fat headed minnow, golden shiner and other warm water species which escape into the stream system from their usual lake habitat during high water events. The native fish have been isolated due to impassable waterfalls near the California border for thousands of years, with some estimates up to 5-million years. The rainbow have the potential to inter-breed with the redband trout and destroy the gene pool. Keene Creek and its tributaries provide important refugia for redband trout and the sucker fish during spring and summer months due to dependable flow from cold water springs below the Keene Creek dam, as well as habitat and cover for juveniles.

Habitat was surveyed in 1993 from the confluence with Jenny Creek upstream to the Hyatt Lake Reservoir spillway by an Oregon Forest Industries Council contractor, A.G. Crook Company. Protocols in *Methods for Stream Habitat Surveys: Oregon Dept. of Fish and Wildlife, Aquatic Inventory Project, Version 3.1* were followed. Keene Creek was noted to flow through agricultural, grazed, mined, rural residential and forested land. The average complexity score for Large Woody Debris (LWD) in the stream was 1.4 on a scale of 1 to 5. This was judged to show little of no LWD was present. The stream gradient was also checked and determined to be 0.8% . Rapids and backwater pools were the dominant habitat

type over 13 reaches. Streambanks were predominantly stabilized by vegetation with less than 1% actively eroding, and undercut banks were infrequent. Trees in the riparian zone were found to be predominantly mixed conifers and hardwoods in the 1 to 20-inch DBH range. Debris dams, beaver dams, and two reservoirs were encountered during the late-June to Mid-July survey. But fish were only observed in the reach near Mill Creek Road.

Fish are known to be more widely distributed in Hyatt Lake above the spillway, in Keene Creek above Little Hyatt Dam, above the Keene Creek Reservoir, and below the reservoir spillway down to Jenny Creek.



Mail Tribune / Roy Musicelli

**Fish likely killed by high water temperatures and low oxygen levels lie along the shore near the dam at Hyatt Lake. The lake is still open for fishing, but biologists are warning anglers not to eat any sick or dead fish.**

# Hundreds of Hyatt fish die

*The rainbow trout deaths are likely a natural phenomenon*

**By MARK FREEMAN**

Mail Tribune

ASHLAND — Hundreds of rainbow trout are dead and many more are dying in Hyatt Lake, where biologists say a lethal mix of high water temperatures and poor oxygen levels is the likely culprit.

The trout, measuring from 6 inches to well over 20, started surfacing dead on Thursday along the south end of the popular high-mountain fishing lake east of Ashland.

By Friday morning, the banks were littered with the dead fish, while sick and dying ones finned lazily on the surface as the stench of rotting fish and decaying plant life hung over the water.

"The lake smells just awful," said Mary Dean, owner of the Campers Cove resort along the lakeshore. "When you go across the dam, the lake smells like a sewer. This is terrible."

No health advisories were issued Friday for the lake or the fish, and the lake is still open for fishing. But biologists were conducting tests for any diseases and warning anglers not to eat any of the sick or dead fish.

"That would be a personal choice," said David Haight, a biologist with the Oregon Department of Fish and Wildlife. "I don't know any reason to say the fish wouldn't be safe to eat, other than, obviously, people shouldn't eat the sick ones.

"Personally, I wouldn't want to eat any fish that are sick and up against the shore," he said.

The fish-kill is likely a natural phenomenon common in farm ponds and smaller lakes but rare at places like Hyatt, which is about 5,000 feet above sea level.

Haight said the lake's water had extremely low dissolved oxygen, which fish require for breathing.

Tests done Thursday showed a surface temperature of 74 degrees and dissolved oxygen levels of just 2.6 parts per million, Haight said. Levels of at least 4 parts per million are considered the minimum for trout survival, Haight said.

"Certainly, with oxygen that low and temperatures that high, it's not surprising the fish are having problems," Haight said.

Some of the live fish showed signs of lesions and bruising, possibly because they were attacked by ospreys and other birds while they floundered on the surface, Haight said.

Ten of the live fish were collected, killed, packed in ice and shipped Friday by Greyhound to an ODFW pathology lab in Corvallis for examination. The fish will be inspected for diseases, Haight said.

The lack of dissolved oxygen likely is caused by a sudden and rampant die-off of algae in the lake. The decaying algae can rob the lake of oxygen quickly.

The phenomenon is somewhat common in smaller, shallow lakes subject to stagnant water and intense sunlight. But there have been no massive die-offs at Hyatt Lake since the 1980s, when the lake was overrun with brown bullheads that in some years died en masse when oxygen levels dropped, Haight said.

There were no fish kills reported at nearby Howard Prairie Lake, which is Hyatt Lake's sister reservoir, said Chris Johnston at the Howard Prairie Resort.

The likely difference is that Hyatt Lake is a shallow reservoir that now is no deeper than 23 feet, while Howard Prairie Lake still has spots 40 feet deep sporting water that Johnston said was about 50 degrees—a level optimal for trout survival.

Reach reporter Mark Freeman at 776-4470, or e-mail [mfreeman@mailtribune.com](mailto:mfreeman@mailtribune.com)

## COMPONENT 10

### Watershed Assessment Evaluation

Abraham Lincoln said that people and nations, not knowing their history, are bound to repeat the same mistakes. The same can be said for the residents of a watershed. The Keene Creek Watershed Project reports that fish still swim in the many streams, that trees and grass continue to grow, that deer browse in the meadows and oak woodlands, and on recently introduced rose bushes. Life seems to carry on amid the constant noise of highways, the increased number of vehicles, new homes and homesteads, and the increasing constellation of yard lights.

Life is good amid the ridges and valleys of the Keene Creek watershed. Yet, is it good for all living things great and small? How has this watershed fared since the arrival of the emigrants? What have we brought with us that has been and continues to be a questionable “good fit”? How much of the watershed now reflects our culture? It is a challenge to ask these questions, and a greater challenge to assess the observed conditions and adjust to the perceived ecological needs and goals.

This component is a report card for the project. The project’s goal was to assess the ecological systems in the watershed and compare them to the Jenny Creek Drainage and Klamath Basin. Although the Keene Creek watershed is unique, its watershed functions are universal but fragmented (Map 2).



This project is a first attempt by the residents within the Keene Creek watershed, led by the assessment team, to understand how the watershed functions. The objective was to identify the neighborhoods within the watershed, meet with its residents,

## COMPONENT 10

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Life is good amid the ridges and valleys of the Keene Creek watershed. Yet, is it good for all living things great and small? How has this watershed fared since the arrival of the emigrants? What have we brought with us that has been and continues to be a questionable “good fit”? How much of the watershed now reflects our culture? It is a challenge to ask these questions, and a greater challenge to assess the observed conditions and adjust to the perceived ecological needs and goals.

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This project is a first attempt by the residents within the Keene Creek watershed, led by the assessment team, to understand how the watershed functions. The objective was to identify the neighborhoods within the watershed, meet with its residents,

explain the project's goals, and learn their issues and concerns. Their issues gave a picture of their sense of place in the watershed, and how far their concerns extended across the landscape. High fire danger, wildlife retention and restoration, severe soil erosion, and water quantity and quality were the four most popular topics of discussion during the neighborhood meetings. The challenge for the team was to explain and demonstrate how these issues are interconnected; that in addressing one, the others are then affected. The team initiated a learning process for a large number of residents who volunteered to be trained to collect important information. Most want to continue with the process.

## CONFIDENCE EVALUATION

### **Soils and Vegetation**

While we may monitor fish, their immediate habitat, stream temperature and available food, we may miss the monitoring of a link to an essential resource that supports the fish – the “soil-shed”. While few property owners in the watershed depend on the soil's health for their livelihoods, nature's life forms still do. This loss of human connection to the soil perpetuates an ignorance of the relationship between plants, animals, and humans. The high level of watershed fragmentation and isolation by highways, roads, power lines, and logging has created a mosaic that is deeply imprinted on the watershed, perhaps permanently.

The percentage of acute surface disturbance, covering over half of the watershed, creates a major challenge for restoration. Soil repair and replacement is a multi-century process, needing effective ground cover protection, humus, and soil animals to process it. Exotic and noxious weed eradication is an expensive and long-term program. The removal of water pollutants and sediment and adjusting stream water temperatures requires riparian planting and stream bank and upslope stabilization.

The confidence level is medium for data collection and analysis of vegetation, but it is low for soils. We possess insufficient spatial information of the watershed's soil conditions to make recommendations beyond supporting state and federal regulations.

### **Water Yield and Use**

The snowmelt and precipitation collected within the watershed and impounded by Hyatt Lake Reservoir has been transferred by the interbasin agreement from the Klamath Basin water to the Rogue Basin for nearly 80 years. However, the agreement is currently under review and decisions could increase future water availability to the Klamath River system.

Several ranches depend on stream water withdrawals and springs to supply their needs. Some possess water rights established in 1864. Most residences seem to have a sufficient quantity and quality of well or spring water. Lack of water was not mentioned as a problem and groundwater does not appear scarce.

## COMPONENT 11

### Data Gaps

Development of an Action Plan requires the planned collection of information during the assessment and subsequent collection of other information to answer questions that arose during the assessment. Both must address What and Why to collect more information.

Several data gaps were noted during preparation of this watershed assessment due to denial of access; other gaps resulted from incomplete assignments given to volunteers or from individuals not completing assigned tasks. Table 30 lists these Field Verification Data Gaps. Confidence in the Condition Evaluation would be increased if the field verification data gaps had not developed. Perhaps review of this final report will encourage landowners to allow access or additional volunteers to take on omitted tasks.

A second and much larger set of data gaps developed from questions that appear to need answers prior to Action Plan formulation; most require data collection and analysis. These monitoring projects are considered short-term monitoring if they can be accomplished in a single season or year. Multi-year data collection and analysis may be needed to eliminate seasonal or annual variability in natural systems; these projects are considered long-term monitoring.

**Table 30. Field Verification Data Gaps**

Field verify channel habitat type in South Fork Keene, Keene and Mill Creeks where access was not authorized.
Determine amount and location of water right withdrawal by beneficial use.
Field verify large wood currently in place and recruitment potential to locate priority sites for Action Plans.
Field verify riparian conditions in private forest lands near South Fork Keene, Keene and Mill Creeks where access was not authorized.
Field verify sediment contribution from rock quarries.
Field verify fish presence and extent where access was not authorized.
Field verify absence of migration barriers to downstream fish passage during spring/summer and upstream during fall/winter.



## COMPONENT 12

### Action Plan

Development of Keene Creek Watershed Action Plans involved three stages: gathering input on neighborhood issues, collecting existing and field inventory information, and developing options and getting neighborhood feedback on Action Plan priorities. This approach developed high-priority Action Plans and 70 priority project ideas.

The Action Plans addressed over 25 issues developed during 4 neighborhood meetings, 7 special issue meetings, and 30 Interest and Issues Canvass interviews. At neighborhood and special issue meetings, 122 different individuals offered 35 comments. During Canvass interviews, an additional 7 comments were gathered. The interviews developed several comments regarding apparent illegal water diversions and unhealthy forests but elicited no comment about fear of government rules. Otherwise, issues developed during individual Canvass sessions were very similar to concerns expressed at neighborhood group meetings.

Categories of comments directly related to this watershed assessment from neighborhood, special issue, and Canvass contact with landowners were presented in Component 01. Comments related to watershed assessment but outside the project area and comments unrelated to the assessment topics were referred to other agencies and organizations, where appropriate.

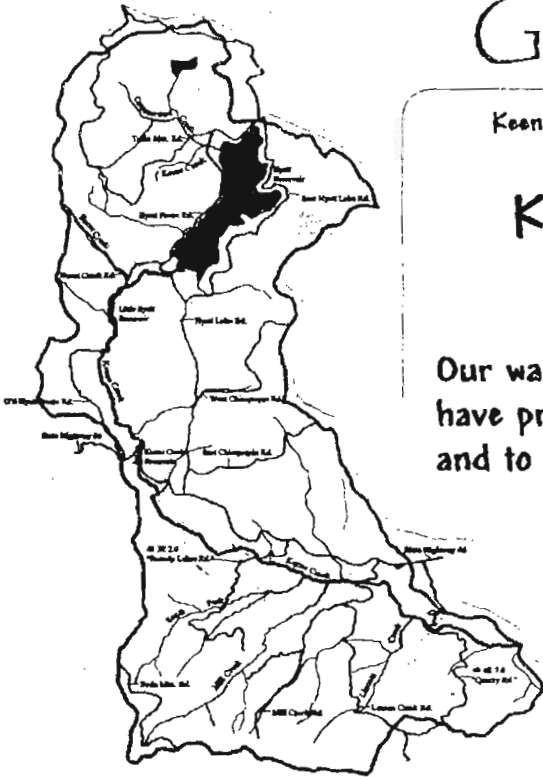
#### LINKAGE OF ACTION PLANS, ISSUES, AND AGENCIES

Neighborhood information developed during field work was summarized and presented to



landowners at two action plan meetings, and at a general Friends of the Greensprings Potluck. Attendance was high, with 37 individuals at neighborhood meetings and 27 at the potluck. About 15 issues, classified as upland, riparian/wetland, and instream, were discussed for each neighborhood so Action Plans could be matched with ***Oregon Plan Watershed Restoration Inventory (March 2001)*** categories. Feedback from landowners became the basis for neighborhood Action Plans. Twenty categories of Action Plan needs were identified.

# Friends of the Greensprings



Keene Creek Watershed Assessment

## Keene Creek Neighborhood Action Plan for Watershed, Wildfire and Wildlife

Our watershed project is wrapping up, field work is done, and we have pretty impressive results to share. Thanks to all volunteers and to help from Oregon's Watershed Enhancement Board.

- Key findings on watershed conditions
- Homesite Fuel Reduction Grants
- OWEB Small Grant Projects and Priorities

WHO?

	UP SLOPE	WATER SIDE	IN THE WATER
	<ul style="list-style-type: none"> <li>• VERY HI FIRE DANGER                             <ul style="list-style-type: none"> <li>- ↓ HOMESITE FUELS</li> <li>- ✓ ACCESS &amp; ESCAPE</li> <li>- ↓ SLASH &amp; THIN</li> <li>- ✓ OHV USE</li> </ul> </li> <li>• LEAVE LEGACY HARDWOODS &amp; CONIFERS</li> <li>• LEAVE DOWN LOGS &amp; SNAGS + RECRUITMENT</li> <li>• MAP &amp; CONTROL INVASIVE WEEDS &amp; EURO GRASSES + OVER GRAZING</li> <li>• ✓ CONIFER INSECTS DISEASE &amp; MISTLE TOE</li> <li>• ✓ WILDLIFE &amp; HABITAT</li> <li>• ✓ SUDDEN OAK DEATH</li> </ul>	<ul style="list-style-type: none"> <li>• PLANT RIPARIAN SHADE</li> <li>• REDUCE SEDIMENT &amp; TURBIDITY                             <ul style="list-style-type: none"> <li>- DITCHES INTO CREEKS</li> <li>- ROAD RUNOFF</li> <li>- PLUGGED CULVERT</li> <li>- SLUMPS &amp; SLIDES</li> <li>- STORM WATER SPREADING</li> </ul> </li> <li>• FENCE CATTLE @ WETLANDS &amp; SPRINGS</li> <li>• ? REINTRODUCE BEAVER</li> <li>• PROTECT STREAMBANKS CATTLE IN CREEKS</li> </ul>	<ul style="list-style-type: none"> <li>• TEST WATER FOR E. COLI TEMPERATURE TURBIDITY NON-POINT POLLUTION MACRO INVERTS FISH DIE OFF</li> <li>• ✓ FISH PRESENCE &amp; BARRIERS / SCREENING</li> <li>• ✓ FISH ESCAPE FROM LAKES</li> <li>• CATTLE GRAZING LAKESHORE</li> <li>• FLUSHING FLOW @ LOWER KEENE EVERY 1-2 YEARS</li> <li>• LOW FLOW IN LATE SUMMER</li> </ul>

# Friends of the Greensprings



Keene Creek Watershed Assessment

## Keene Creek Neighborhood Action Plan for Watershed, Wildfire and Wildlife

Our watershed project is wrapping up, field work is done, and we have pretty impressive results to share. Thanks to all volunteers and to help from Oregon's Watershed Enhancement Board.

- Key findings on watershed conditions
- Homesite Fuel Reduction Grants
- OWEB Small Grant Projects and Priorities

We want to help you get technical assistance, field survey help, and cost-share or other financial help so your on-the-ground ideas can become real. Please join us for Pie & Coffee, Tea or Hot Cider. If you can't make this meeting, please call.

WHEN **SUNDAY Feb. 9, 2003**  
& **1:30 to 4 pm**

WHERE **Greensprings Inn Forest Room**  
**11470 Greensprings Highway**

It's a great year to work together for this beautiful place. If you can bring a pie or need info? call Julie Hightower 482-3407 or John Ward 482-2859

**Keene Creek Action Plan  
for Watershed, Wildlife & Wildlife**

**when: Sunday February 9, 2003  
1:30 to 4 pm**

**where: Greensprings Inn Forest Room  
11470 Greensprings Highway**

**Address Service Requested**

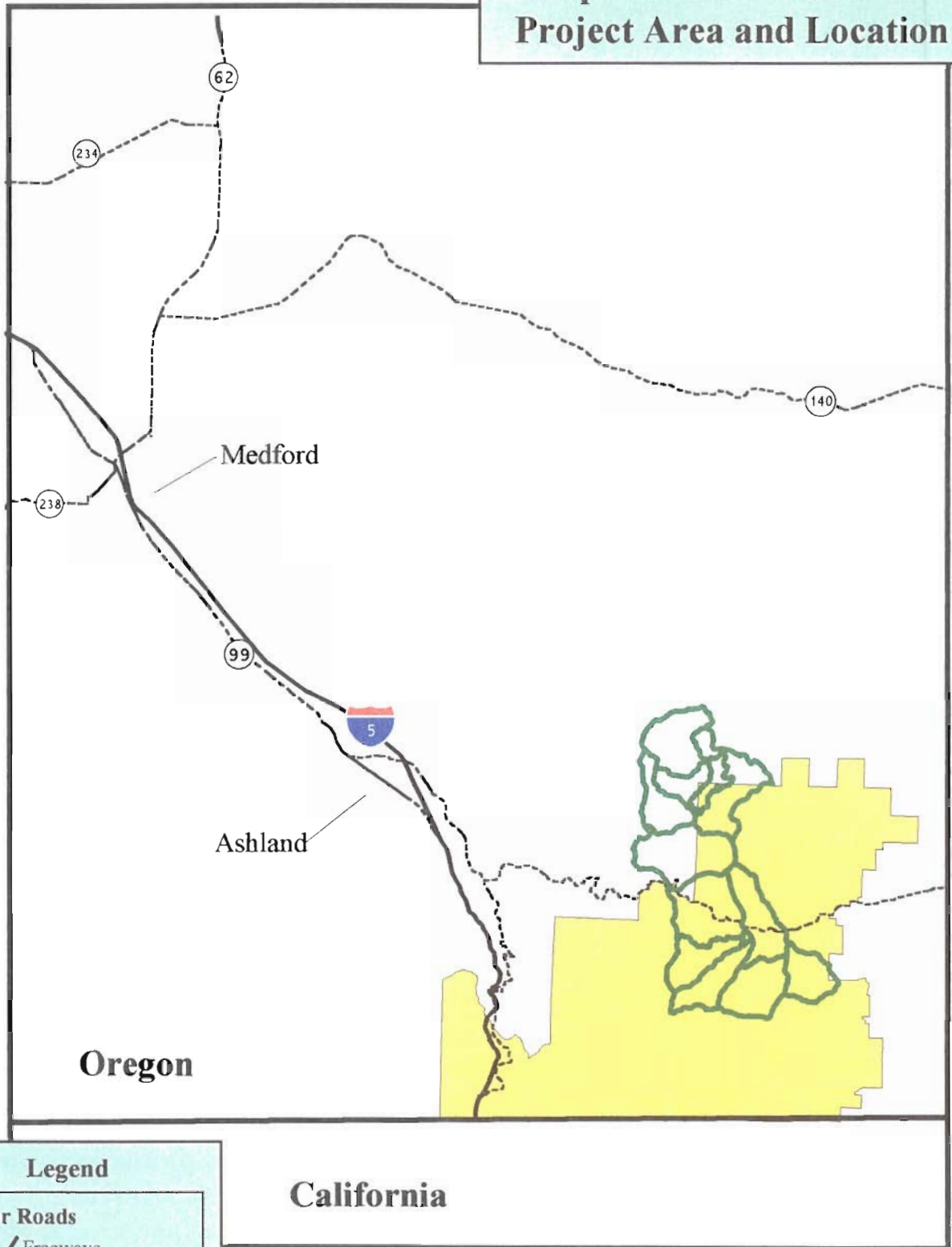
**Friends of the Greensprings  
15097 Highway 66  
Ashland OR 97520**



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Map 14:	Water Quality Sampling Stations .....
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# Map 1: Keene Watershed Project Area and Location



**Legend**

**Major Roads**

- Freeways
- Highways

Cascade - Siskiyou National Monument

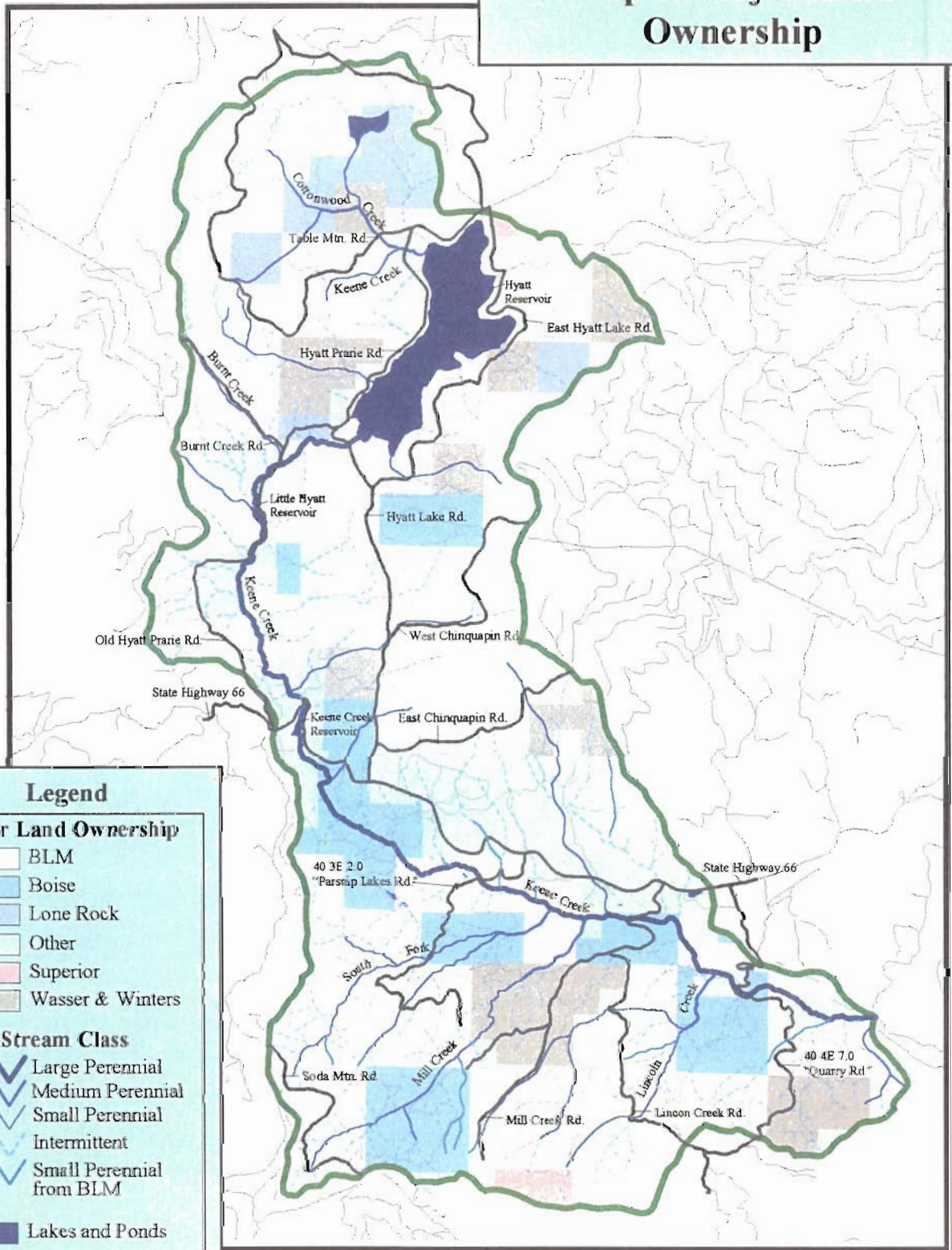
Keene Watershed Boundary

Base Mapping  
 Major Roads from Jackson County GIS  
 Monument Boundary from Jackson County GIS  
 Keene Watershed Boundary from SRG  
 Created December 22, 2003 by Kara King  
 c:\emigrant\keene\project\_area.apr



FRIENDS OF THE GREENSPRINGS

# Map 2: Major Land Ownership



**Legend**

**Major Land Ownership**

- BLM
- Boise
- Lone Rock
- Other
- Superior
- Wasser & Winters

**ODF Stream Class**

- Large Perennial
- Medium Perennial
- Small Perennial
- Intermittent
- Small Perennial from BLM

Lakes and Ponds

Roads

Major Roads

Keene Watershed Boundary

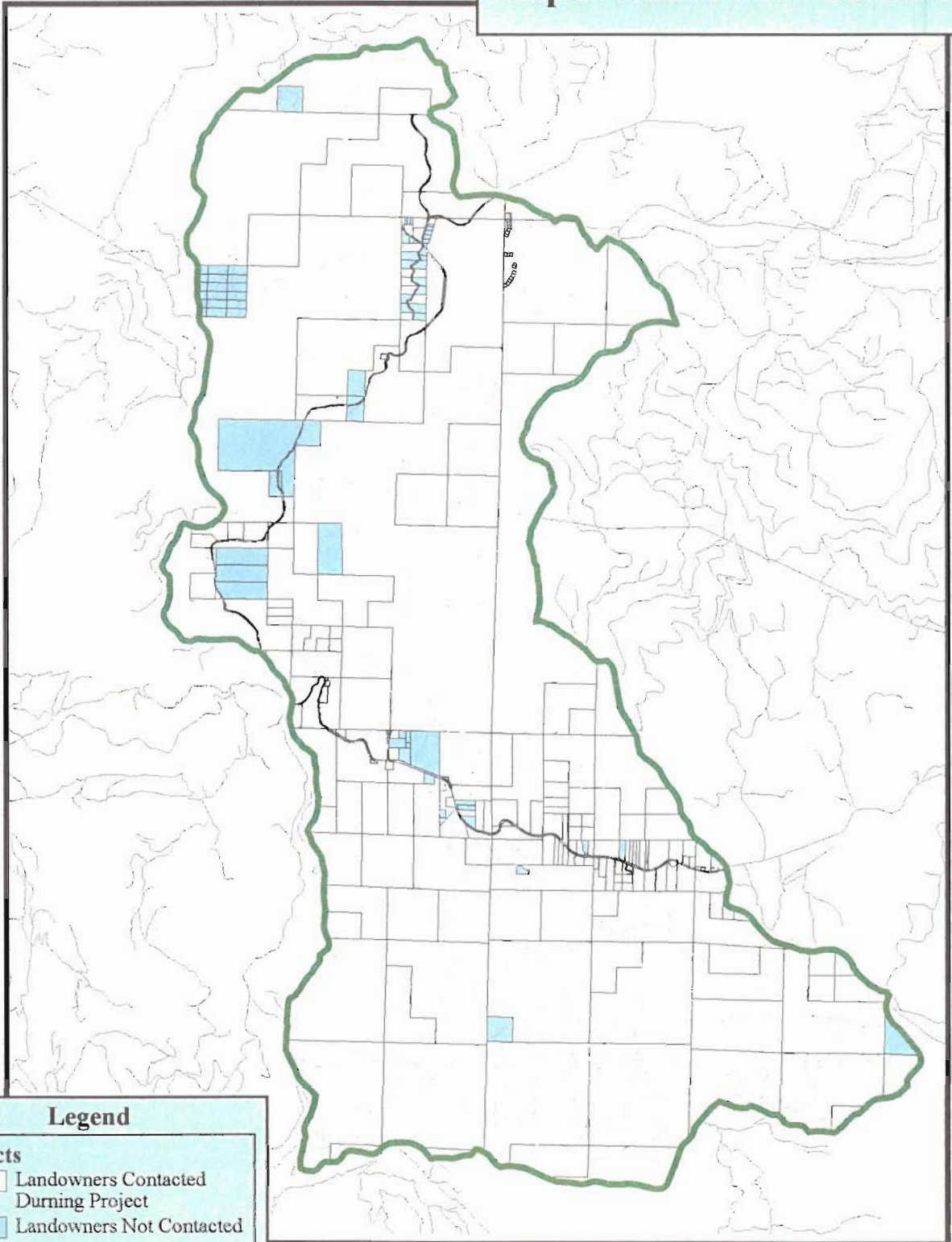
*Basic Mapping*  
 Major Land Ownership from Jackson County GIS  
 Streams from ODF, BLM, SRG, & FOG  
 Lakes and Ponds from FOG  
 Roads from Jackson County GIS  
 Keene Watershed Boundary from SRG  
 Created September 5, 2005 by Kara King  
 c:\erigrant\keene\land\_ownership.apr



FRIENDS OF THE GREENSPRINGS



# Map 3: Landowner Contacts

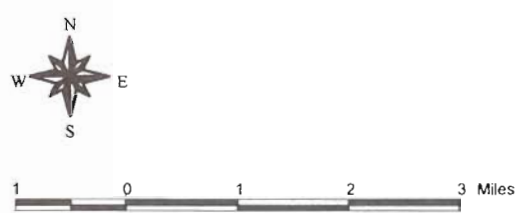


**Legend**

**Contacts**

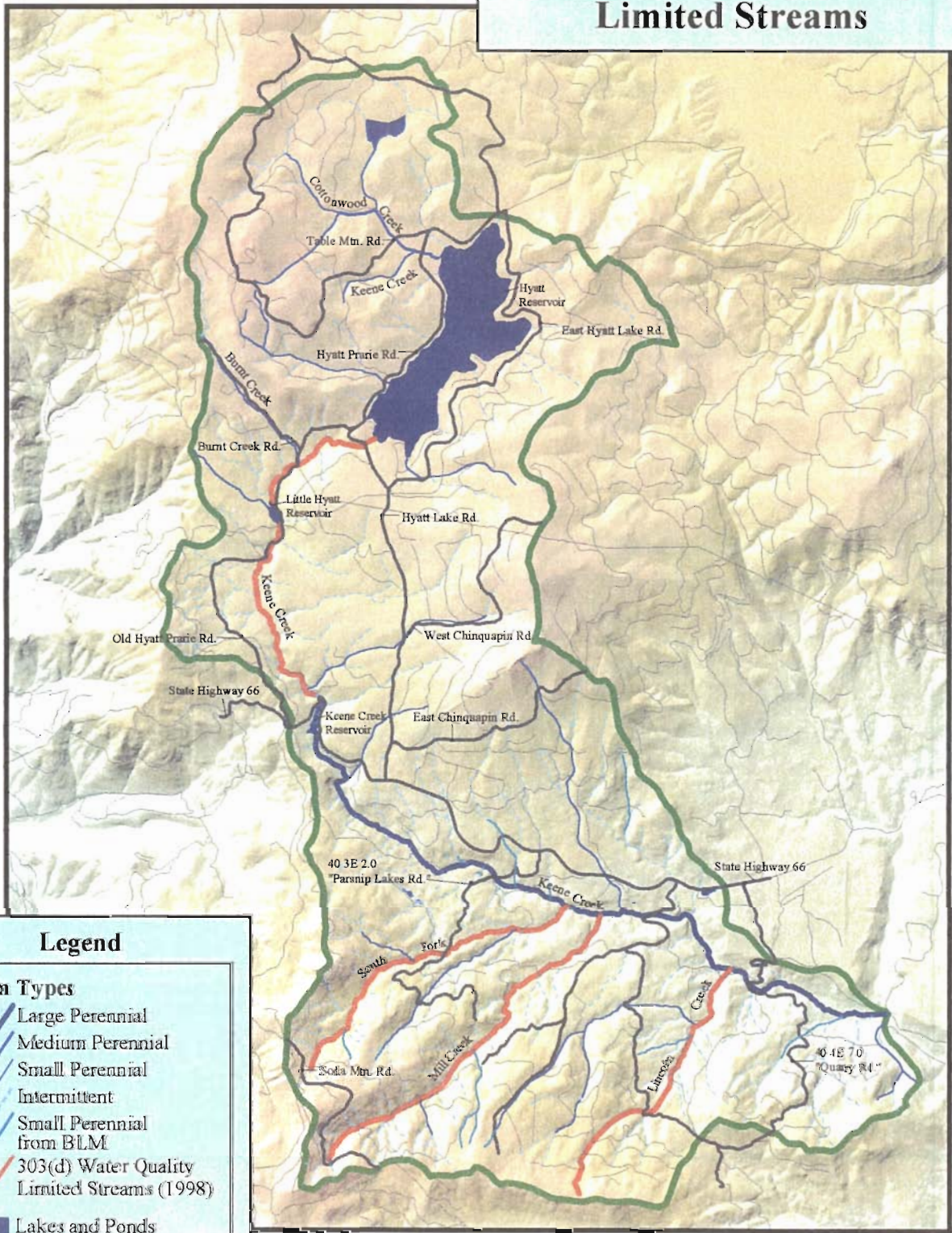
- Landowners Contacted During Project
- Landowners Not Contacted
- Taxlots
- Roads
- Keene Watershed Boundary

Base Mapping  
Landowner Contacts from FOG  
Landowner Not Contacted from FOG  
Taxlots from Jackson County GIS  
Roads from Jackson County GIS  
Keene Watershed Boundary from SRG  
Created September 5, 2003 by Kara King  
c:\em\gram\keene\landowner\_contacts.apr



FRIENDS OF THE GREENSPRINGS

# Map 4: Water Quality Limited Streams



### Legend

**Stream Types**

- Large Perennial
- Medium Perennial
- Small Perennial
- Intermittent
- Small Perennial from BLM
- 303(d) Water Quality Limited Streams (1998)

Lakes and Ponds

Major Roads

Roads

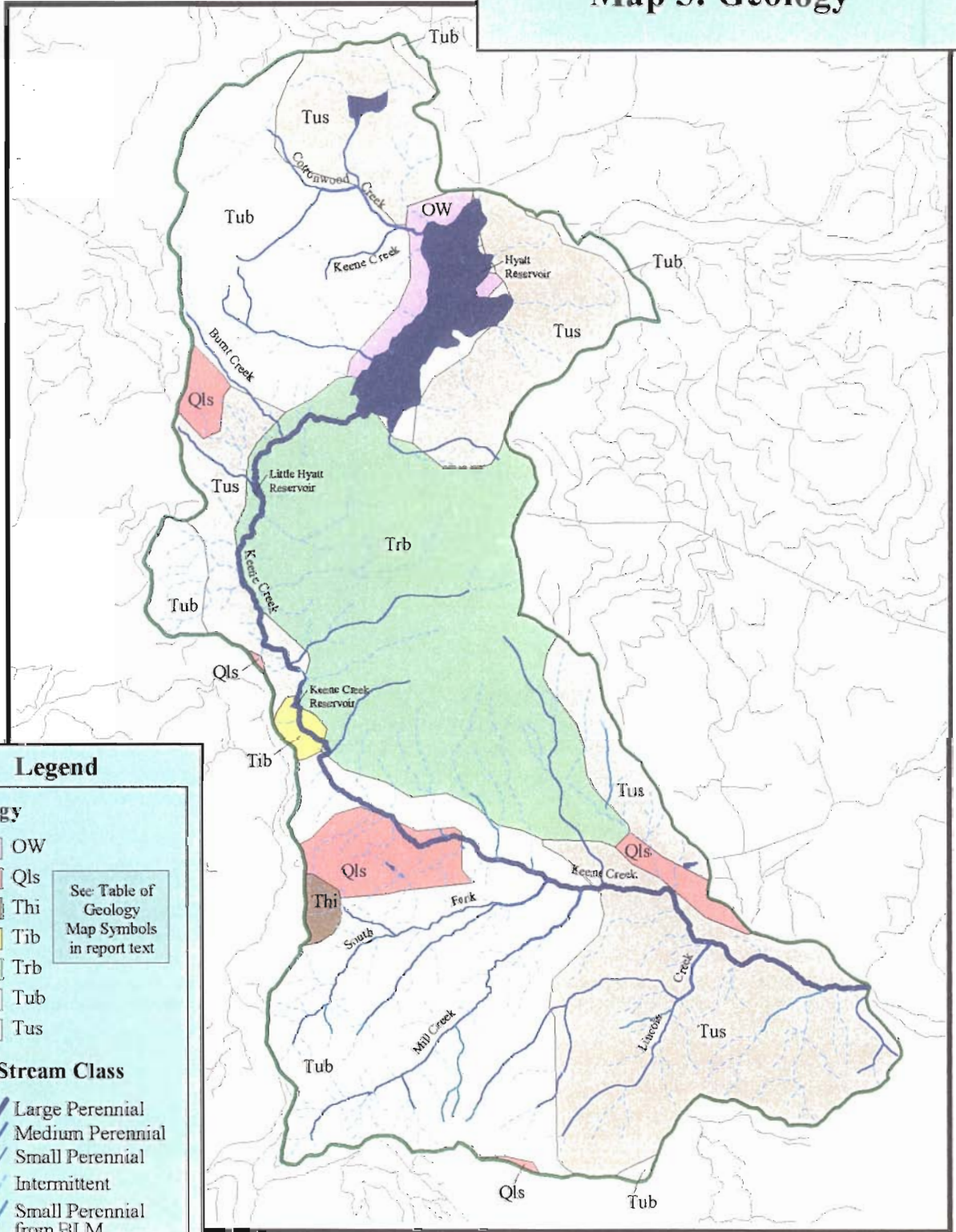
Keene Watershed Boundary

Base Mapping  
 Streams from CIDE, BLM, SRG, & FOG  
 Water Quality Limited Streams from DESQ  
 Lakes and Ponds from FOG  
 Roads from Jackson County GIS  
 Scene Water shed boundary from SRG  
 Created September 1, 2003 by Kara King  
 c:\omigrat\keene\water\_quality.apr



FRIENDS OF THE GREENSPRINGS

# Map 5: Geology



**Legend**

**Geology**

- OW
- Qls
- Thi
- Tib
- Trb
- Tub
- Tus

See Table of Geology Map Symbols in report text

**ODF Stream Class**

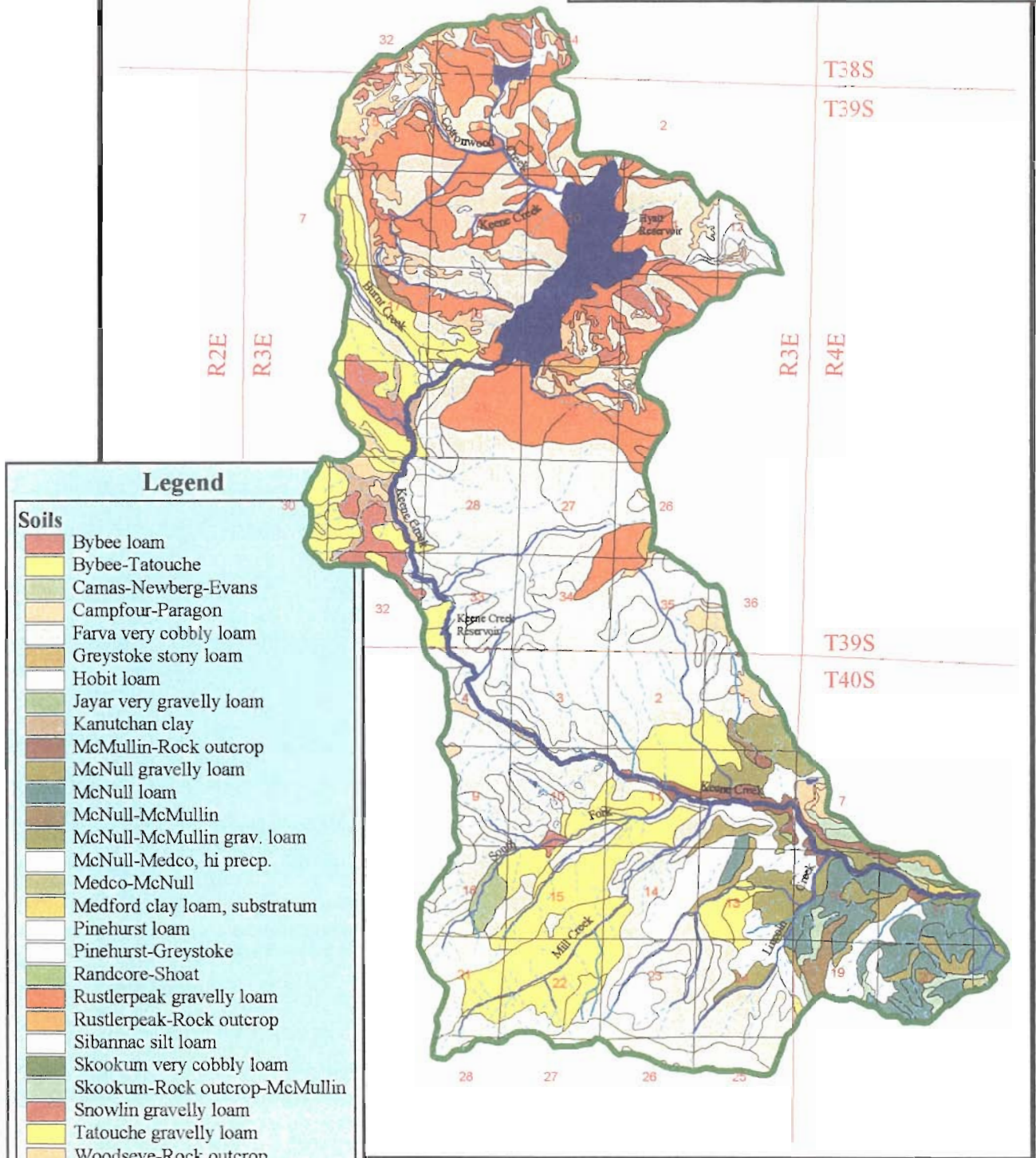
- Large Perennial
- Medium Perennial
- Small Perennial
- Intermittent
- Small Perennial from BLM
- Lakes and Ponds
- Roads
- Keene Watershed Boundary

Base Mapping  
 Geology from USGS Geologic Map of Oregon  
 Streams from ODF, BLM, SRFG, & FOG  
 Lakes and Ponds from FOG  
 Roads from Jackson County GIS  
 Keene Watershed Boundary from BRG  
 Created December 1, 2009 by Kara Sving  
 clemgrant@keene.org/geology.apr



FRIENDS OF THE GREENSPRINGS

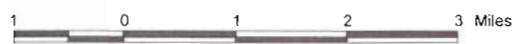
# Map 6: Soil Types



## Legend

### Soils

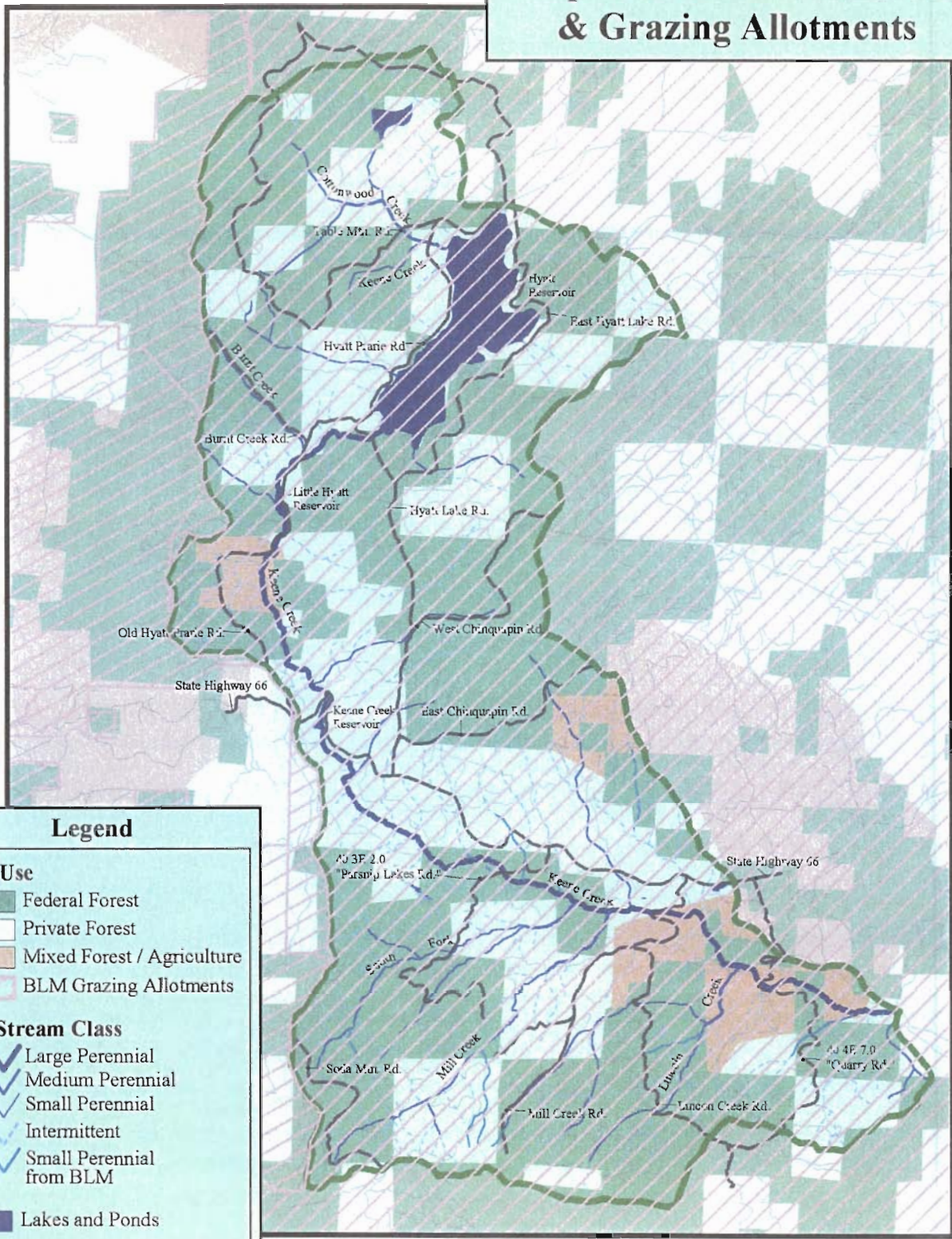
- Bybee loam
- Bybee-Tatouche
- Camas-Newberg-Evans
- Campfour-Paragon
- Farva very cobbly loam
- Greystoke stony loam
- Hobit loam
- Jayar very gravelly loam
- Kanutchan clay
- McMullin-Rock outcrop
- McNull gravelly loam
- McNull loam
- McNull-McMullin
- McNull-McMullin grav. loam
- McNull-Medco, hi precp.
- Medco-McNull
- Medford clay loam, substratum
- Pinehurst loam
- Pinehurst-Greystoke
- Randcore-Shoat
- Rustlerpeak gravelly loam
- Rustlerpeak-Rock outcrop
- Sibannac silt loam
- Skookum very cobbly loam
- Skookum-Rock outcrop-McMullin
- Snowlin gravelly loam
- Tatouche gravelly loam
- Woodseye-Rock outcrop
- Woodseye-Rock outcrop complex
- Sections
- Lakes and Ponds
- Streams
- Keene Watershed Boundary



FRIENDS OF THE GREENSPRINGS

Base Mapping  
 Soils from Jackson County GIS  
 Streams from ODF, BLM, SRG, & FOG  
 Sections from BLM, Medford  
 Lakes and Ponds from FOG  
 Keene Watershed Boundary from SRG  
 Created December 2, 2003 by Kara King  
 c:\emigrant\keene\gis\geology.apr

# Map 7: Dominant Land Use & Grazing Allotments



## Legend

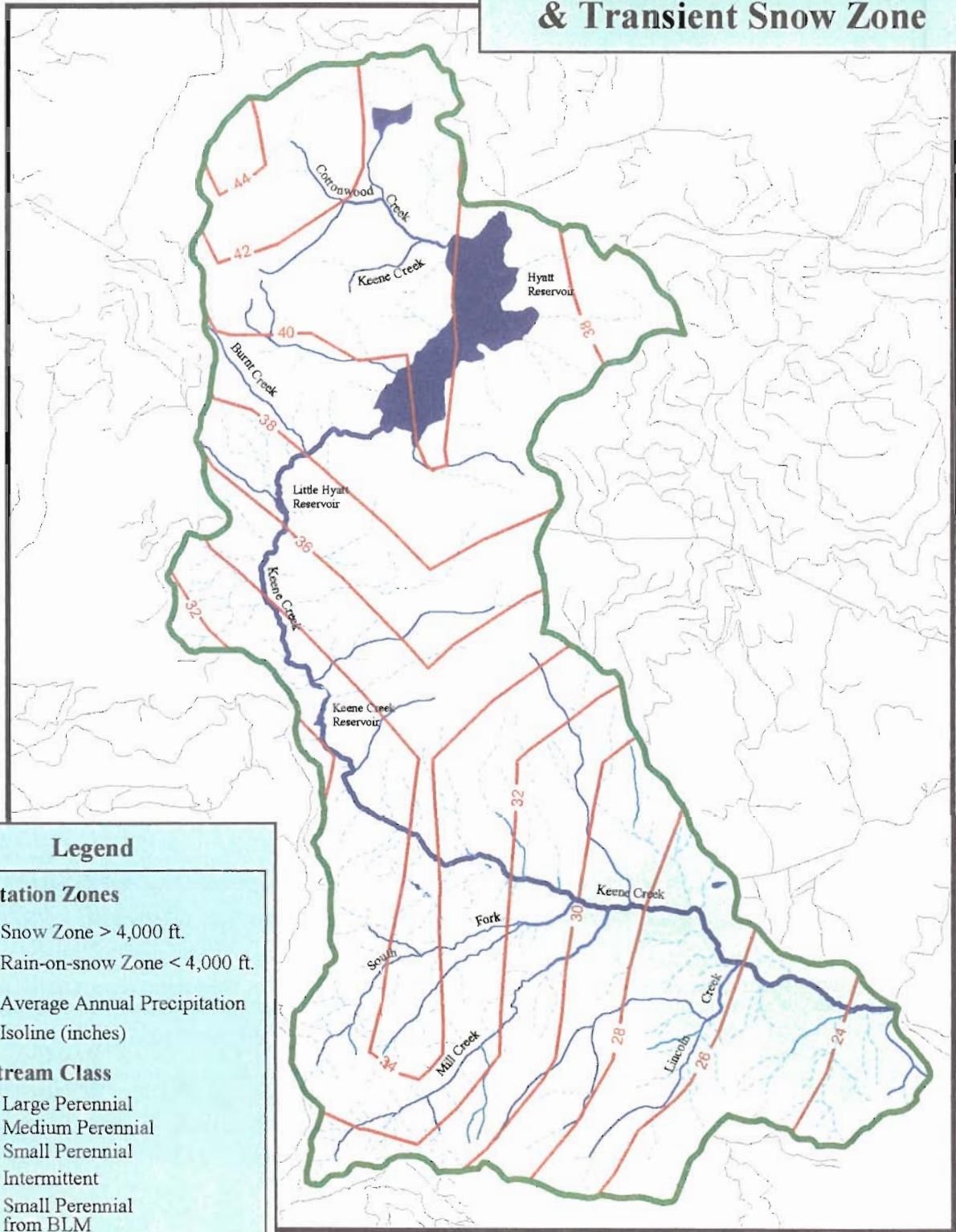
- Land Use**
- Federal Forest
  - Private Forest
  - Mixed Forest / Agriculture
  - BLM Grazing Allotments
- ODF Stream Class**
- Large Perennial
  - Medium Perennial
  - Small Perennial
  - Intermittent
  - Small Perennial from BLM
- Lakes and Ponds
- Roads
- Major Roads
- Keene Watershed Boundary

Base Mapping  
 Land Use from Oregon Department of Forestry 1994  
 Grazing Allotments from BLM, Medford 2000  
 Streams from ODF, BLM, SRG, & FOG  
 Lakes and Ponds from FOG  
 Roads from Jackson County GIS  
 Keene Watershed Boundary from SRG  
 Created February 2, 2004 by Kara King  
 c:\emigrant\keene\land\_use.apr



FRIENDS OF THE GREENSPRINGS

# Map 8: Annual Precipitation & Transient Snow Zone



**Legend**

**Precipitation Zones**

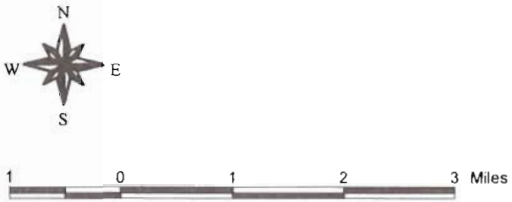
- Snow Zone > 4,000 ft.
- Rain-on-snow Zone < 4,000 ft.
- Average Annual Precipitation Isolines (inches)

**ODF Stream Class**

- Large Perennial
- Medium Perennial
- Small Perennial
- Intermittent
- Small Perennial from BLM

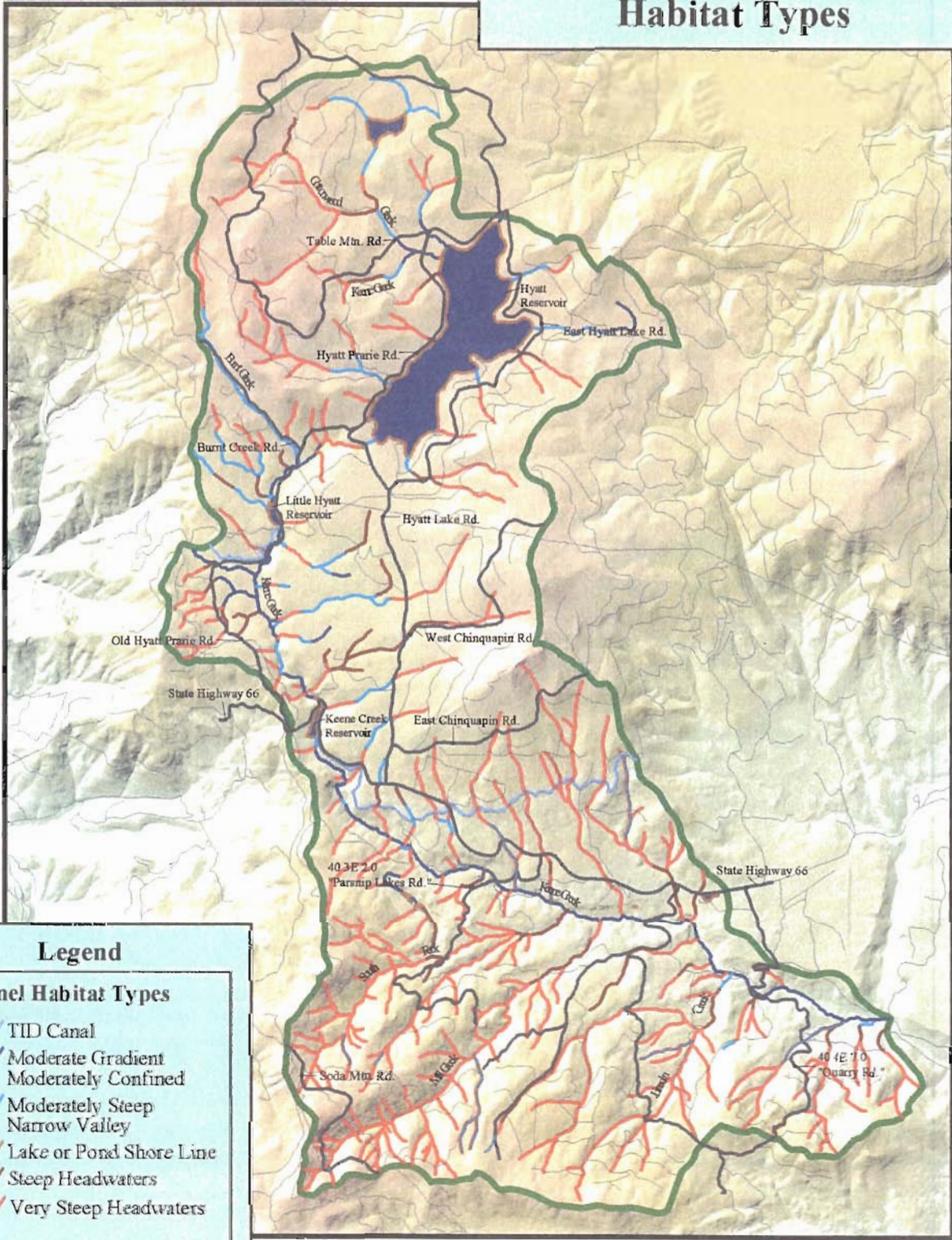
- Lakes and Ponds
- Roads
- Keene Watershed Boundary

Base Mapping  
 Precipitation Zones from Oregon Climate Services 1995  
 Precipitation Isolines from Jackson County GIS  
 Streams from ODF, BLM, SRG, & FOG  
 Lakes and Ponds from FOG  
 Roads from Jackson County GIS  
 Keene Watershed Boundary from SRG  
 Created December 8, 2003 by Kara King  
 c:\emigrant\keene\news\precip\_snowzn.apr



FRIENDS OF THE GREENSPRINGS

# Map 9: Channel Habitat Types



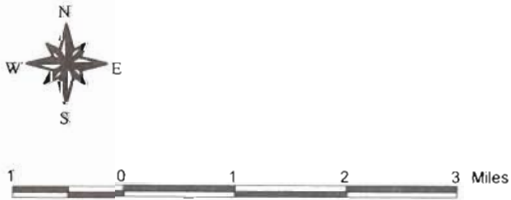
**Legend**

**Channel Habitat Types**

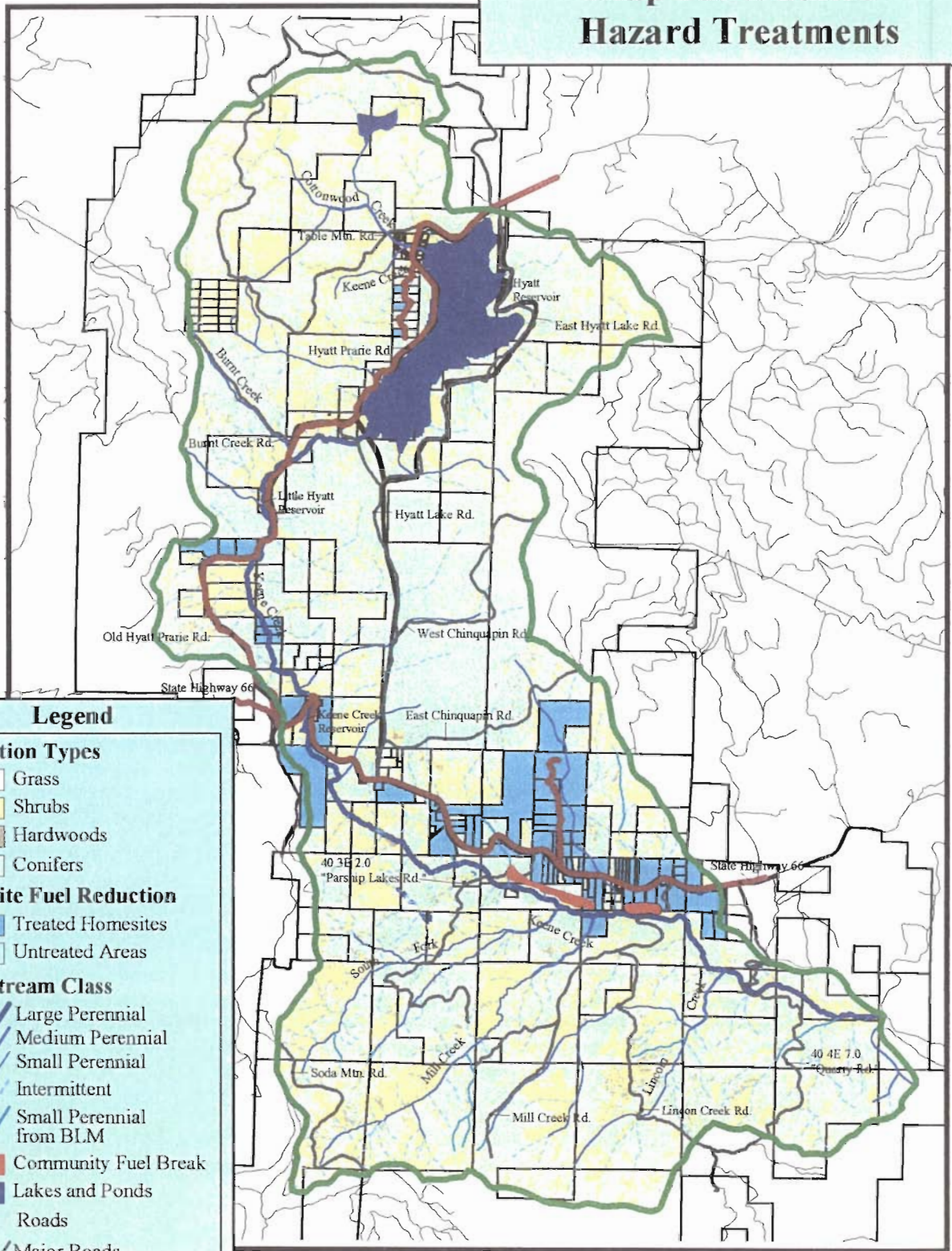
- TID Canal
- Moderate Gradient Moderately Confined
- Moderately Steep Narrow Valley
- Lake or Pond Shore Line
- Steep Headwaters
- Very Steep Headwaters

- Lakes and Ponds
- Major Roads
- Roads
- Keene Watershed Boundary

Base Mapping  
 Channel Habitat Types from SRG & FOG  
 Lakes and Ponds from FOG  
 Roads from Jackson County GIS  
 Keene Watershed Boundary from SRG  
 Created December 2, 2003 by Kara King  
 c:\emigrant\keene\sws\channel\_habitat.apr



# Map 10: Wildfire Hazard Treatments



**Legend**

**Vegetation Types**

- Grass
- Shrubs
- Hardwoods
- Conifers

**Homesite Fuel Reduction**

- Treated Homesites
- Untreated Areas

**ODF Stream Class**

- Large Perennial
- Medium Perennial
- Small Perennial
- Intermittent
- Small Perennial from BLM
- Community Fuel Break
- Lakes and Ponds
- Roads
- Major Roads
- Roads with High Value & Fire Risk
- Keene Watershed Boundary

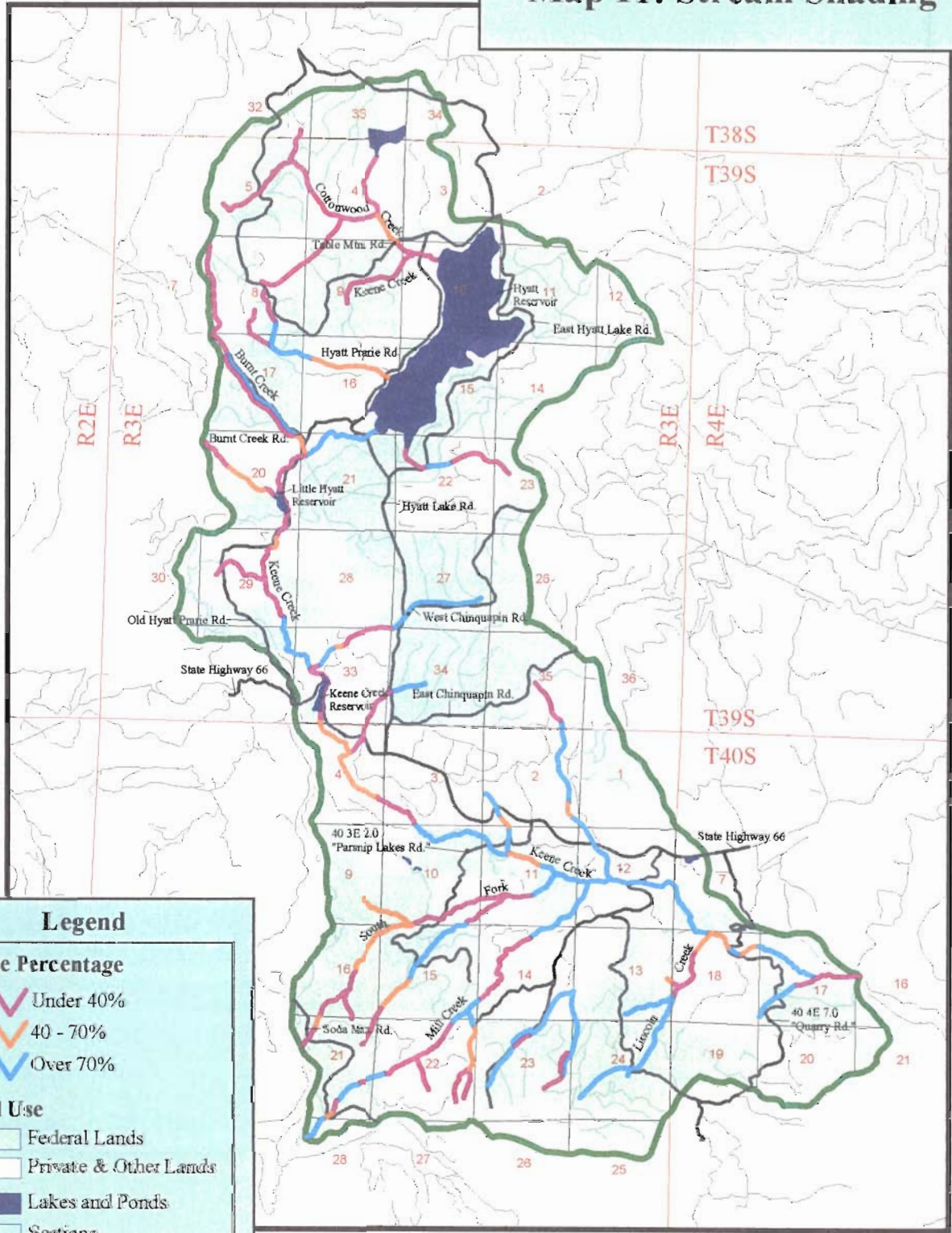
Basic Mapping  
 Vegetation Types from BLM, Medford  
 Homesite Fuel Reduction from FOG & ODF  
 Streams from CRP, BLM, SRG, & FOG  
 Community Fuel Break by FOG & ODF  
 Lakes and Ponds from FOG  
 Roads & Fire Risk from Jackson County GIS & FOG  
 Keene Watershed Boundary from SRG  
 Created December 12, 2003 by Kara King  
 c:\emigrant\keene\wsh-fire.apr



FRIENDS OF THE GREENSPRINGS



# Map 11: Stream Shading



**Legend**

**Shade Percentage**

- Under 40%
- 40 - 70%
- Over 70%

**Land Use**

- Federal Lands
- Private & Other Lands
- Lakes and Ponds
- Sections
- Major Roads
- Roads
- Keene Watershed Boundary

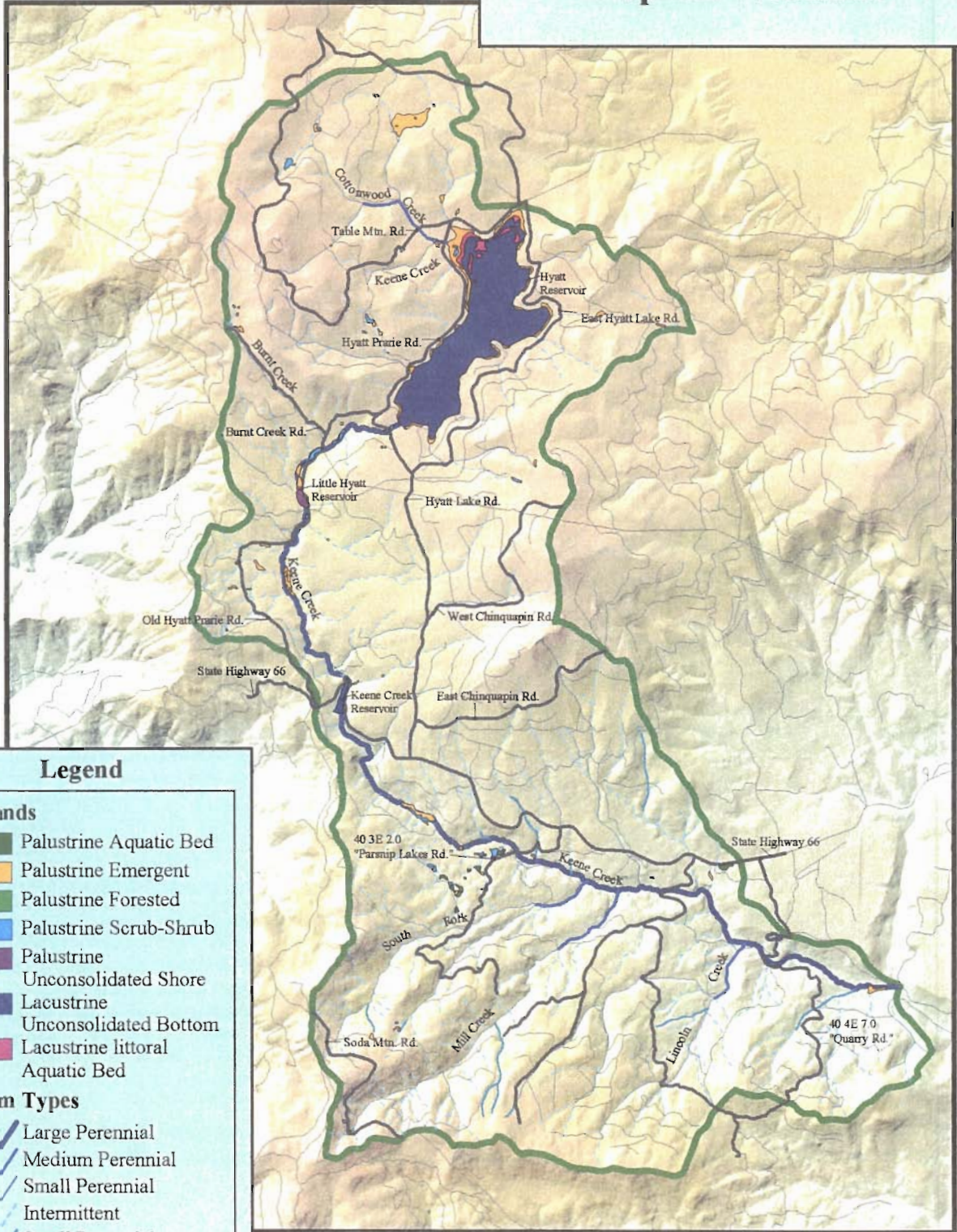
**Base Mapping**

Shade Percentage from SRG  
 Federal, Private & Other Lands from BLM, Medford  
 Lakes & Ponds from FOWB  
 Sections from BLM, Medford  
 Roads from Jackson County GIS  
 Keene Watershed Boundary from SRG  
 Created December 16, 2003 by Kara King  
 C:\migrant\kenews\stream\_shade.apr



FRIENDS OF THE GREENSPRINGS

# Map 12: Wetlands



## Legend

### Wetlands

- Palustrine Aquatic Bed
- Palustrine Emergent
- Palustrine Forested
- Palustrine Scrub-Shrub
- Palustrine Unconsolidated Shore
- Lacustrine Unconsolidated Bottom
- Lacustrine littoral Aquatic Bed

### Stream Types

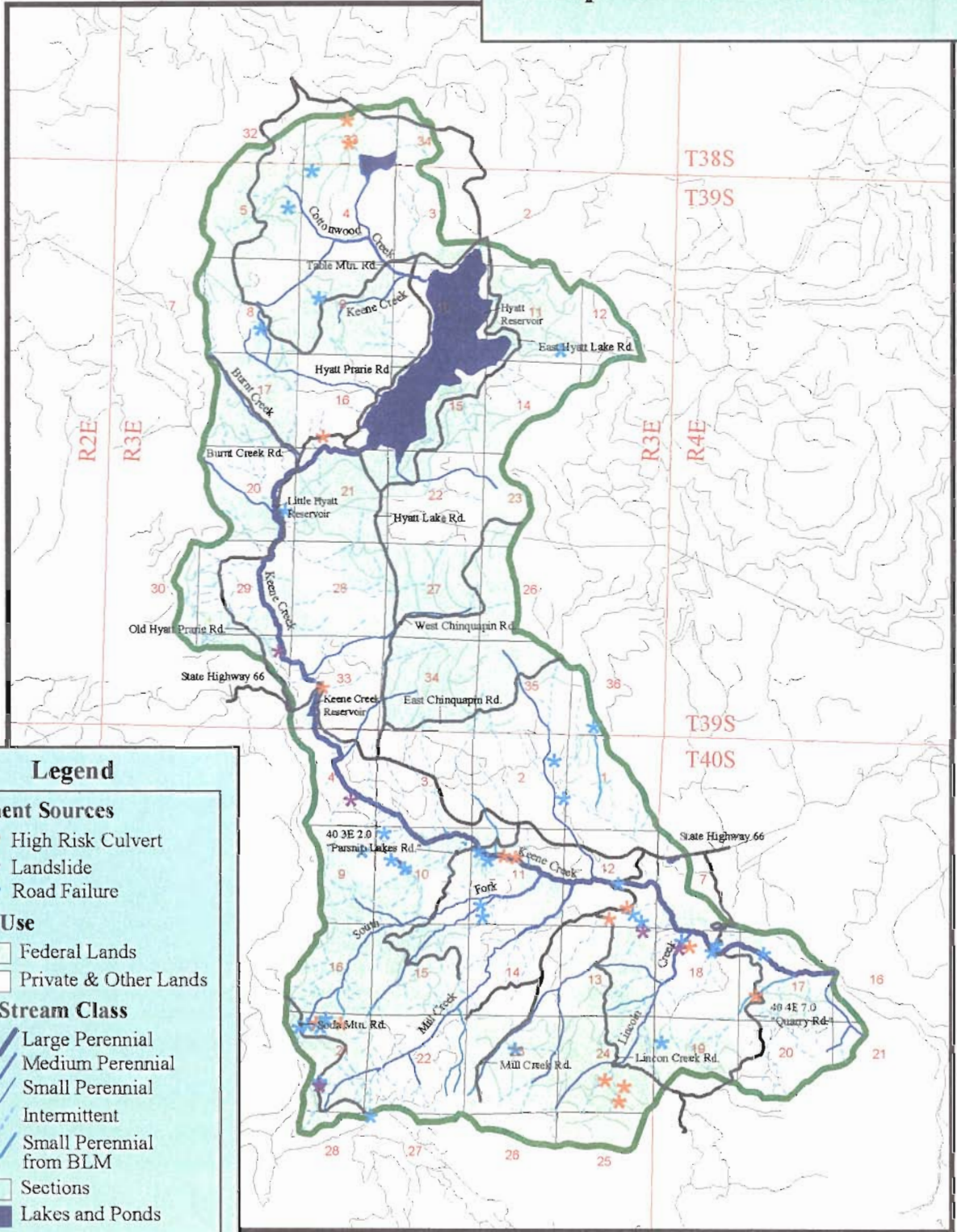
- Large Perennial
- Medium Perennial
- Small Perennial
- Intermittent
- Small Perennial from BLM
- Major Roads
- Roads
- Keene Watershed Boundary

Base Mapping  
 Wetlands from Jackson County GIS  
 Streams from ODF, BLM, SRG, & FOG  
 Roads from Jackson County GIS  
 Keene Watershed Boundary from SRG  
 Created December 9, 2003 by Kara King  
 c:\emigrant\keene\wetlands.apr



FRIENDS OF THE GREENSPRINGS

# Map 13: Sediment Sources



**Legend**

**Sediment Sources**

- ★ High Risk Culvert
- ★ Landslide
- ★ Road Failure

**Land Use**

- Federal Lands
- Private & Other Lands

**ODF Stream Class**

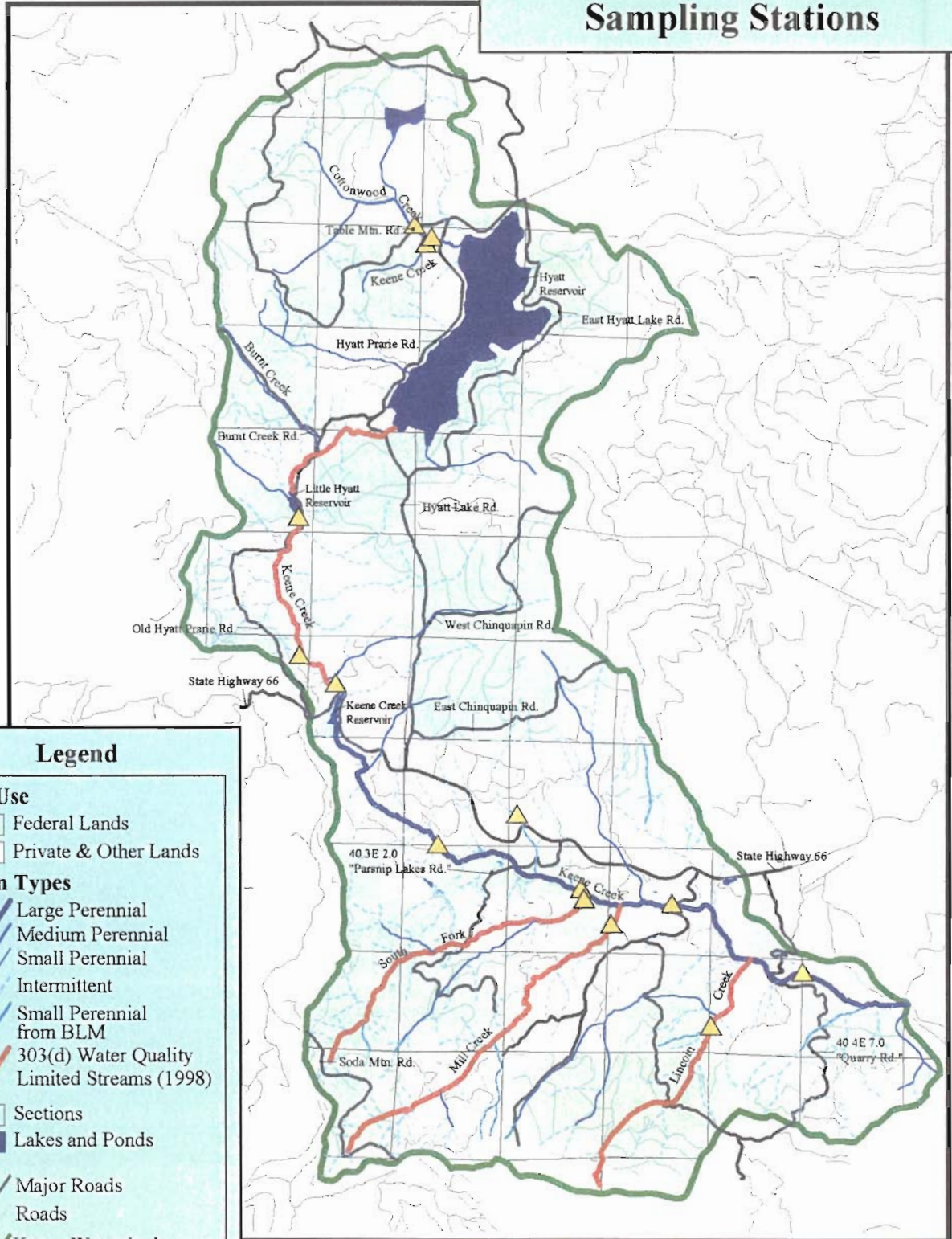
- ▬ Large Perennial
- ▬ Medium Perennial
- ▬ Small Perennial
- ▬ Intermittent
- ▬ Small Perennial from BLM
- Sections
- Lakes and Ponds
- ▬ Roads
- ▬ Major Roads
- ▬ Keene Watershed Boundary

Base Mapping  
 Sediment sources from SRG & FOG  
 Federal, Private & Other Lands from BLM, Medford  
 Streams from ODF, BLM, SRG, & FOG  
 Sections from BLM, Medford  
 Lakes and Ponds from FOG  
 Roads from Jackson County GIS  
 Keene Watershed Boundary from SRG  
 Created February 3, 2004 by Kara King  
 c:\emigrant\keenews\sediment\_sources.apr



FRIENDS OF THE GREENSPRINGS

# Map 14: Water Quality Sampling Stations



### Legend

**Land Use**

- Federal Lands
- Private & Other Lands

**Stream Types**

- Large Perennial
- Medium Perennial
- Small Perennial
- Intermittent
- Small Perennial from BLM
- 303(d) Water Quality Limited Streams (1998)

Sections

Lakes and Ponds

Major Roads

Roads

Keene Watershed Boundary

Water Quality Sampling Stations

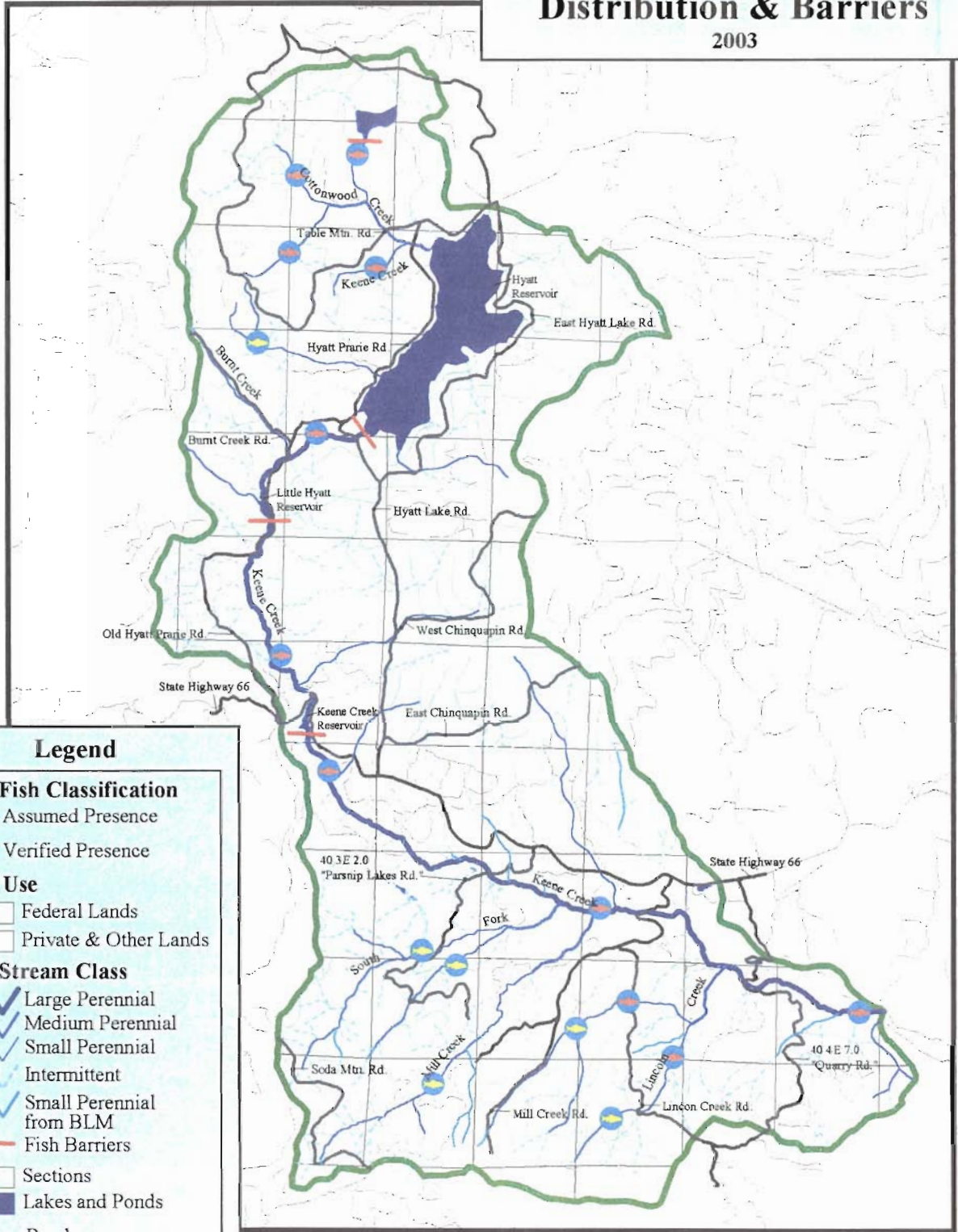
Base Mapping  
 Federal, Private, & Other Lands from BLM, Medford  
 Sections from ODF, BLM, SRG, & FOG  
 Water Quality Limited Streams from DEQ  
 Sections from BLM, Medford  
 Lakes and Ponds from FOG  
 Roads from Jackson County GIS  
 Keene Watershed Boundary from SRG  
 Water Quality Stations from FOG  
 Created September 3, 2003 by Kara King  
 c:\enigran\keene\swq\_sampling.apr



FRIENDS OF THE GREENSPRINGS

# Map 15: Fish Distribution & Barriers

2003



**Legend**

**ODF Fish Classification**

- Assumed Presence
- Verified Presence

**Land Use**

- Federal Lands
- Private & Other Lands

**ODF Stream Class**

- Large Perennial
- Medium Perennial
- Small Perennial
- Intermittent
- Small Perennial from BLM
- Fish Barriers
- Sections
- Lakes and Ponds
- Roads
- Major Roads
- Keene Watershed Boundary

Base Mapping  
 Fish Classification from ODFW 1988, & BLM 2003  
 Federal, Private & Other Lands from BLM, Medford  
 Streams from ODF, BLM, SRG, & FOG  
 Fish Barriers from FOG  
 Sections from BLM, Medford  
 Lakes and Ponds from FOG  
 Roads from Jackson County GIS  
 Keene Watershed Boundary from SRG  
 Created January 27, 2004 by Kara King  
 c:\en\grant\keene\fish\_distribution.apr



FRIENDS OF THE GREENSPRINGS

What Problem:

PRIORITY



2.5 MILE SPRINGS RD

~~RAISED~~

**ACTIONS:**

- 4500LF 4410 - 3900 = 410 + 4500 = 9% ?
- 1) Armored Rolling Dips w/ Rock Outfall
  - INSLOPE TO DITCH w
  - DITCHOUTS EVERY 500'
  - OUTSLOPE TO VEGETATED SLOPE
  - INSTALL # BAKET #
  - ? CROSS DRAIN & ACCESS ROAD
  - CONVERT

**BENEFITS:**

SAND ESCAPE INCREASE SAFETY COMMUNITY

RESTORE WQ QUALITY, PROTECT ENDEMIC NATIVE FISH, RESTORE WS FUNCTION, ~~SEMI~~ ROAD, IMPROVE ACCESS FOR EMERGENCIES

MAKE COMMUNITY ROAD SAFER & MORE ACCESSIBLE FOR FIRE, FISH & WILDLIFE OTHER AGENCY VEHICLES

**DELIVERABLES:**

**BUDGET:**

40S 3E 2  
 40S 3E 1  
 39S 3E 36

20-MILE SPRINGS ROAD

Road Walk Field Log for

~~McKinley's Barham's Hwy~~

RoadWalker names: JOHN WARD

Access OK  yes

Landowner: McKinley

Call first

Date surveyed: 9/5/02

military time of day 13:30

Road Mile @ start 74911.6

Road Mile @ end 74914

Segment starts at Hwy 66

Segment ends at LARRY BARHAM'S HWY

GPS if known N.....W.....

Quad map

Location T. 39S N. R. 3E Sec. 12, 1, 2, 36

Road is (v)  sidecast  inslope  outslope

full bench  ditched?  yes  no

39S3E

Road Runoff factors

Road surface is  native  crushed rock  paved Water Clarity  none  clear  turbid  muddy

Road condition  OK  potholes  gullied  ruts under 8"  ruts over 8"  other

Note Stream w/in 200 feet?  yes  no Direct discharge to stream?  yes  no

Road Instability factors

Sunken grade? Road cracks? Slump on cutslope? Slump on fillslope? Washout? Debris flow likely?

Streamcrossing: Inlet eroding? Upstream wood? Downstream headcutting? Shotgun outlet? Fish barrier?

Cross drains: inlet plugged or damaged? Outlet plugged or damaged?

Photo Site	Odometer Miles	✓ Road Runoff	Risk	Inlet	Outlet	Comment on Runoff, Road Instability or Slope Instability show photo roll letter ..... & frame number .....
	74911.6			●	●	CULVERTS PLUGGED
	.9			NONE		GATE @ ? MCKINLEY'S
	12.9					NATIVE SURFACE w/ WHEEL RUT EROSION & SHEAR EROSION OFF TID ROAD. NO WATER BARS
	74914.3 @ Hwy 66					MODERATE EROSION ON BARHAM'S ROAD ABOVE TID DITCH.
			△			SAULSBURY SEIZ DRIVE WASHES OUT IN HVY RAINFALL 40S 3E 2

Culverts: ○ = OK ○ = 1/3 plugged or damaged ○ = 2/3 plugged or damaged ● = non-functional

codes: CMP, Conc, U/S, D/S, Jacty, BLM, ODOT

please use comment space on back of form to add the key details to help us see what you saw

20-MILE SPRING  
McKinley DRIVE ROAD

2/11/03

0.85 mi to Canal

- .80 Need W. Turnout to West FROM 22
  - .70 Hi FUELS Road @ lowest of drainage
  - .65 oppy for Turnout to East side <sup>SCOTT CARD - must</sup>
  - .55 oppy for " " " HSE on West <sup>BIG DITCH w/ SWALE, CANAL FAILS?</sup>
  - .50 " " " " " <sup>GEORGE W. OLD</sup>
- OUT DRAINS TO GREEN GATE / Green Road
- .45 & .40 Need turnout to East & West into Landings <sup>EAST ABOVE</sup>
  - .35 Silver Gate <sup>EAST CATCHMENT just below</sup> oppy for Turnout to West <sup>W/ NEW ROAD " CULVERT" Jim Mills</sup>
- 13405 Need Turnout to West <sup>Need Culvert</sup>
- Hi FUELS Photo Frame 27 PAVED <sup>may need where</sup>
- .20 oppy for Turnout to West Xydriveway <sup>PPL topped dress into 10' HEDGE; Hi FUELS</sup>
  - Hi Ladder FUEL
  - .15 GIACOMINI driveway WATER BACK ON ROAD  
∴ Need ditch
  - .10 Turnout to West probably too tight &  
WATER follows TIRE TRACKS due to ditch <sup>IDEAL SUSAN GABRIEL BUT RARELY USES</sup>
  - .05

0.0 East ditch turns W. BACK ONTO ROAD

Need Culvert to Patterson's ditch

McKinley ↓ FUELS NOW } maybe SAC? FUELS  
Cohen 405 }  
? COPI

520  
- 85  
26400  
42200  
3980



A





A





# SMALL GRANT PROGRAM APPLICATION

**Application Processing Information** (to be completed by the Small Grant Team contact):

Application #: 21-04-13 \_\_\_\_\_

Date Rcv'd: \_\_\_\_\_

Date Acted On: \_\_\_\_\_

Recommended/ Denied: \_\_\_\_\_

Signature: \_\_\_\_\_

## GENERAL INFORMATION

OWEB Funds Requested **\$ 5,805** *Round to nearest dollar*      Total Project Cost **\$ 9,995** *Round to nearest dollar*

Name of Project (five words or fewer) **Table Mountain Spring Rehabilitation Project**

Project Location (if more than one, include location/landowner information on each map in #2 below)

**Klamath Basin, Jenny Creek Watershed**  
*Basin/Watershed*

**Jackson**  
*County*

**39S      3E      8**  
*Township    Range    Section*

**South Fork Cottonwood Creek**  
*River or Creek Name (if applicable)*

**1**  
*River Mile (if applicable)*

Have you previously submitted an application to OWEB, either through the regular or small grant program, for this project, or one similar to it on the same property?  Yes       No

If yes, explain: \_\_\_\_\_

## CONTACT INFORMATION

Applicant Org: Klamath River Watershed Working Group	Applicant Contact: Anita Ward, Chair
Mailing Address: c/o OSU Klamath County Extension Service, 3328 Vandenberg Road, Klamath Falls, OR 97603	
Phone: (541) 883-7131 or (541) 884-2015	Email: warda2j@cvc.net

Landowner (if not applicant) : Kathy Uhtoff	
Landowner Address: 633 Roca St., Ashland, OR Zip: 97520	
Phone: (541) 488-0603	Email: kathyuhtoff@yahoo.com

Project Manager for the Grantee: Anita Ward, Chair, Klamath River Watershed Working Group	
Project Manager Address: 129 Southshore Lane, Klamath Falls, OR 97601	
Phone: (541) 884-2015	Email: warda2j@cvc.net

Fiscal Agent:	Klamath Soil and Water Conservation District
Fiscal Agent Address	2316 S. 6th, Suite C, Klamath Falls, OR 97601
Phone:	(541) 883-6932, ext 106

Technical Contact:	Nicola Giardina, NRCS / Larry Peach, Klamath Soil and Water Conservation District
Phone: (541) 776-4270, Email:	<a href="mailto:nicola.giardina@or.usda.gov">nicola.giardina@or.usda.gov</a> / (541) 883-6932, ext 106; <a href="mailto:larry-peach@or.nacdn.net">larry-peach@or.nacdn.net</a>

**PROJECT INFORMATION**

Type of Watershed Concern the project will address (check one only; see application instructions):

- Instream Process & Function
- Riparian Process & Function**
- Urban Impact Reduction
- Wetland Process & Function
- Road Impact Reduction
- Upland Process & Function
- Fish Passage
- Water Quantity/ Irrigation Efficiency

If you checked Riparian Process & Function, have you explored the Conservation Reserve Enhancement Program?

Yes  No Explain: **No listed salmonid species present; native fish present in Cottonwood Cr.**

Small Grant Team priority project type(s) addressed by the project (see application instructions):

**Manage nutrient and sediment input: Fence out livestock    Develop off-channel watering**

**Manage vegetation and control weeds**

Approximate area of   2   acres or  1000 -feet of fencing involved in the restoration project.

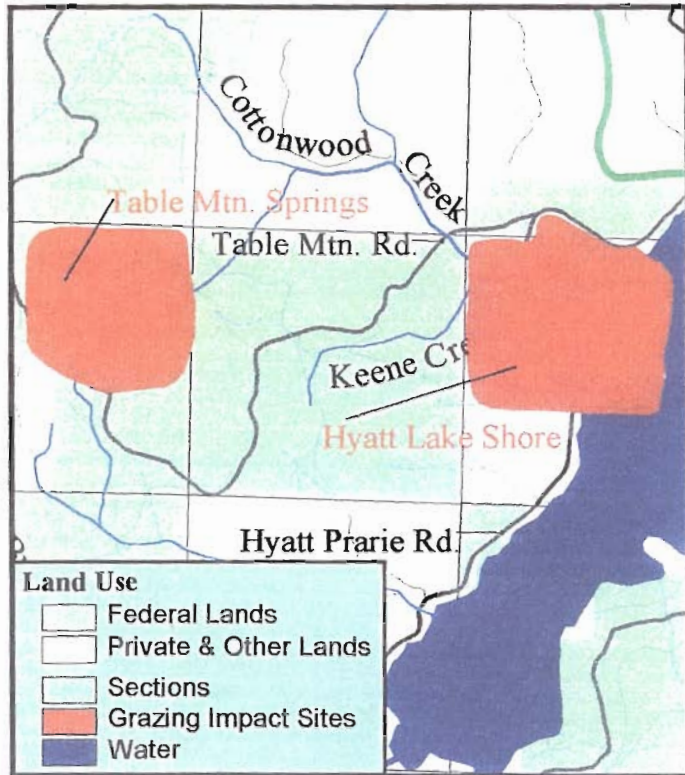
1. Describe the current watershed problem(s) you are seeking to address.

**This project seeks to continue productive use of seasonal rangeland by others and to secure a water supply for agriculture and wildlife while protecting riparian habitat. The project site is located on unfenced private lands within the BLM Keene Creek cattle allotment at an elevation of 5800 feet. Heavy winter snows in the exposed meadow occur every year because the site is well above the transient snow zone.**

**Water quality and riparian vegetation surrounding two high elevation springs near Table Mountain are damaged during seasonal grazing by open range cattle owned by BLM permittees. Excellent water quality from the springs is degraded by sediment from disturbed soil and contamination by animal waste. Flow of the springs is reduced by compaction and loss in the trampled vegetation. The spring area offers high quality wildlife habitat due to the presence of forage, water, good cover, and a location adjacent a large meadow with willow and conifer stringers.**

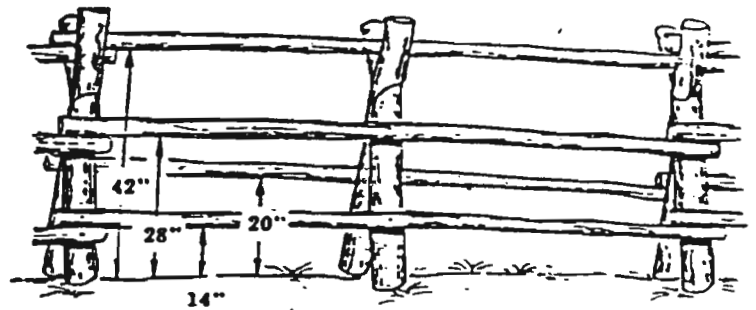
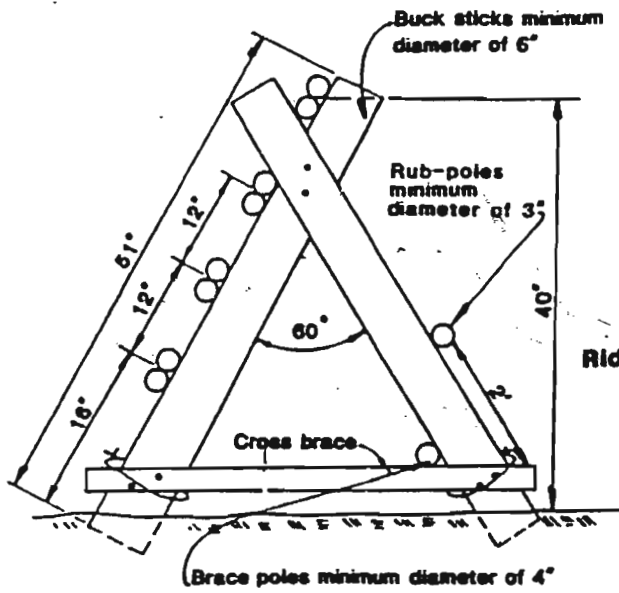
2. Describe the solution you are proposing to use to address the current problem (attach a site map, project drawing, and/or photos).

**See attached topographic map, aerial photo, and color site photos.**

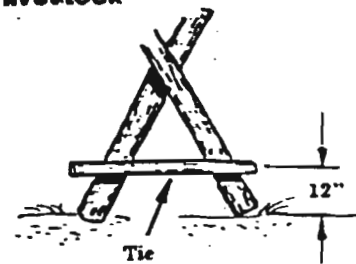


# Exhibit 19

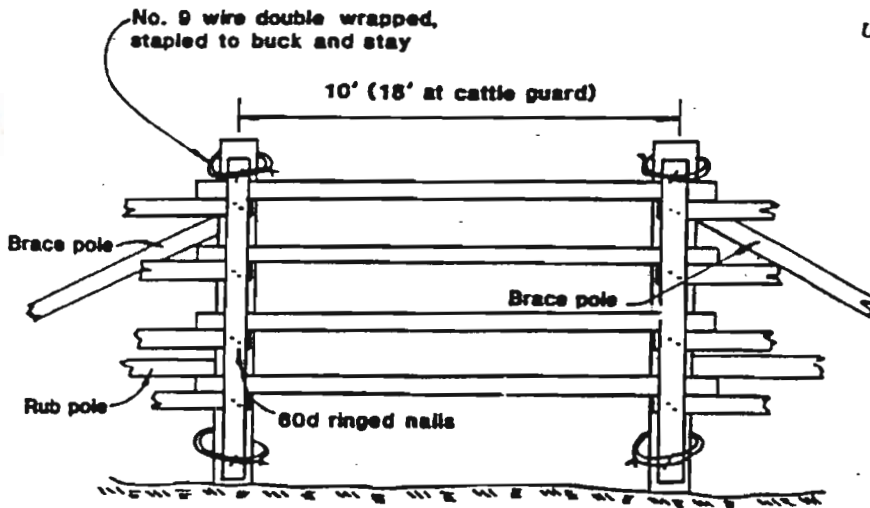
## BUCK-AND-POLE FENCE



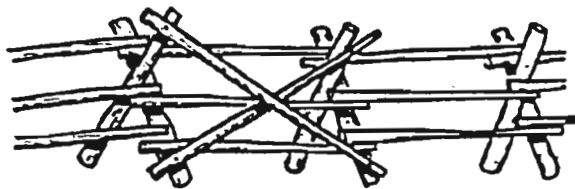
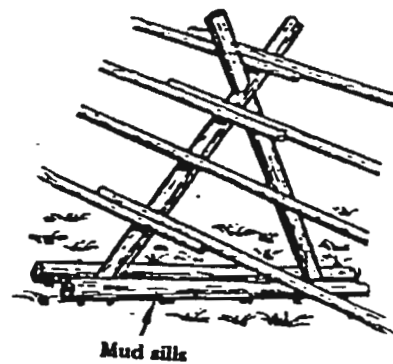
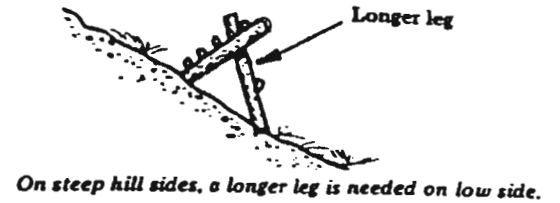
Rider-pole spacing for livestock



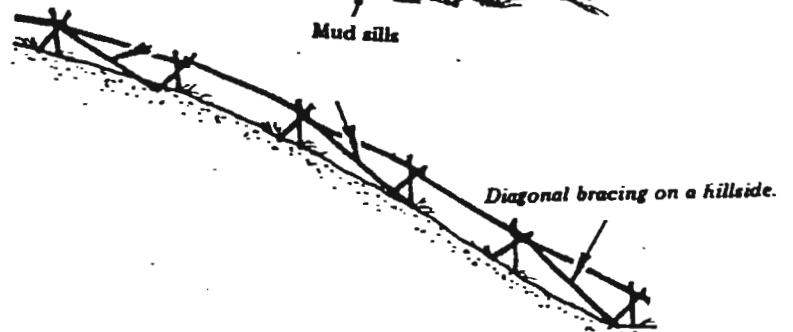
Using a reinforcing tie to prevent legs from spreading.



Gate poles are slightly smaller in diameter than fence poles to allow gate poles to slide freely.



After fence has been completed, a double pole "X" brace may be attached for reinforcement.



## Table Mountain Spring Rehabilitation Project Preliminary Estimate

**basis:** two buck and four-pole plus rub-pole enclosures,  
about 600-lineal feet each  
two out-of-channel wildlife and cattle watering troughs

quotations obtained Feb. 14, 2004

	<u>quantity</u>	<u>unit price</u>
Pole, 3-inch min. x 10-feet	600 pcs	\$2.25 each
Brace pole, 4-inch x 12-feet	60 pcs	3.65 each
Buck post, 5-inch min. x 8-feet	300 pcs	4.25 each
Buck tie, 3-inch x 4-feet	150 pcs	
cut from 3-in x 8-feet	75 pcs	1.80 each
60d or 70d galvanized ring shank 1,500 nails @ 10 nails/lb	150 lbs	1.50/lb
# 9 smooth iron wire	50 lbs	0.70/lb
Water trough, used bath tub	2-each	82.00 each
Black iron pipe, 1 ½-inch x 21-feet	5-each	33.52 each
90° Black iron elbows	8-each	3.85 each



(B)



(B)



8





TURCO'S 440177-28 FOLG  
A/DA

MSProj	has	Landowner	LOAddress1	LOCity	OSia	LOZip
440177	28	Hickman, Bob	600 Tyler Creek Rd	Ashland	OR	97520
440177	28	Golling, John	PO Box 362	Ashland	OR	97520
440177	28	Chaves, Joe & Pierce, Malloy	PO Box 1356	Ashland	OR	97520
440177	28	Rahm, Laura	1265 Tyler Creek Rd	Ashland	OR	97520
440177	28	Carpenter, Duane	627 Tyler Creek Rd	Ashland	OR	97520
440177	28	Wolf, Steve	8135 Hwy 66	Ashland	OR	97520
440177	28	Ward, John	1525 Baldy Creek Rd	Ashland	OR	97520
440177	28	Alzado, Peter & Sullivan, Kate	1001 Tyler Creek Rd	Ashland	OR	97520
440177	28	Ragnell, Deanne	3000 Buckhorn Springs Rd	Ashland	OR	97520
440177	28	Hisatomi, Ty & Lauren	1720 Tyler Creek Rd	Ashland	OR	97520
440177	28	Baril, Cecile	2012 Soda Mountain Rd	Ashland	OR	97520
440177	28	Sollinger, John & Mary	755 Tyler Creek Rd	Ashland	OR	97520
440177	28	Freeman, Kim	2000 Soda Mountain Rd	Ashland	OR	97520
440177	28	Webb, Bill & Donna	330 Buckhorn Rd	Ashland	OR	97520
440177	28	Sargent, Bruce & Leslie	2200 Buckhorn Spring	Ashland	OR	97520
440177	28	Given, Bob & Suzi Passafero, Hank & Rose	2020 Soda Mountain Rd	Ashland	OR	97520
440177	28	Lieta	1450 Tyler Creek Rd	Ashland	OR	97520
440177	28	Adams, Dennis & Luba	827 Tyler Creek Rd	Ashland	OR	97520
440177	28	Foster, Linda N	520 Tyler Creek Rd	Ashland	OR	97520
440177	28	Pickering, Ed	1919 Tyler Creek Rd	Ashland	OR	97520
440177	28	Collumbine, Lance & Jo Woods, Bob & Stewart,	837 Tyler Creek Rd	Ashland	OR	97520
440177	28	Daphne Woods, Bob & Stewart,	1770 Tyler Creek Rd	Ashland	OR	97520
440177	28	Daphne	1770 Tyler Creek Rd	Ashland	OR	97520
440177	28	Cook, Jack & Linda	800 Tyler Creek	Ashland	OR	97520
440177	28	Dresner, Hal & Joyce	1550 Tyler Creek Rd	Ashland	OR	97520
440177	28	Fowler, Chris	966 Tyler Creek Rd	Ashland	OR	97520
440177	28	Garfas, Joe	1188 Tyler Creek Rd	Ashland	OR	97520
440177	28	Hightower, Julie	1535 Tyler Creek Rd	Ashland	OR	97520
440177	28	Warner, Robert A	1397 Tyler Creek Rd	Ashland	OR	97520
440177	28	Boardman, Randy	1700 Tyler Creek Rd	Ashland	OR	97520
440177	28	Wardell, Larry	555 Tyler Creek Rd	Ashland	OR	97520
440177	28	Prince, Jon	1580 Tyler Creek Rd	Ashland	OR	97520
440177	28	Rushel, Kathy	1109 Tyler Creek Rd	Ashland	OR	97520
440177	28	Ragnell, Deanne	3000 Buckhorn Springs Rd	Ashland	OR	97520

TOLSON 440177-29 FOG  
3/4/

MSProj	has	Landowner	LOAddress	LOCity	DSta	LOZip
		Oberlin, Abe & Bringhamst-				
440177	29	Oberlin N	9870 Mt Ashland Ski Rd	Ashland	OR	97520
440177	29	Shanafelt, Jerry & Elaine	500 Mt Ashland Ski Rd	Ashland	OR	97520
440177	29	Bixler, Jim & Blankin, Toni	5485 Old Siskiyou Hwy	Ashland	OR	97520
440177	29	Bianca, Mike	192 Steinman	Ashland	OR	97520
440177	29	Woolsey, Scott & Donna	1978 Old Siskiyou Hwy	Ashland	OR	97520
440177	29	Lieberman, Jonnie	277 Steinman Dr	Ashland	OR	97520
440177	29	Simmons, Robert	12001 Old 99	Ashland	OR	97520
440177	29	Kraut, Randy & Susan	5580 Old 99	Ashland	OR	97520
440177	29	Vermillion, Veva Jean	3200 Old 99	Ashland	OR	97520
440177	29	Addicott, Warren	2260 Old Siskiyou Hwy	Ashland	OR	97520
440177	29	Walker, Rod & Belinda	3700 Old Hwy 99 S	Ashland	OR	97520
440177	29	Bukey, Kathleen	3872 Old Hwy 99S	Ashland	OR	97520
440177	29	Mitchell, Maureen	570 Conifer Way	Ashland	OR	97520
440177	29	Aho, Verna	7500 Hwy 66	Ashland	OR	97520
440177	29	Bergquist, Ron	7100 Old Hwy 99 S	Ashland	OR	97520
440177	29	Biegert Jr, Charles W	550 Mt Ashland Rd	Ashland	OR	97520
440177	29	Cole, Marshall B	12297 Hwy 99 S	Ashland	OR	97520
440177	29	Cole, Nancy Ames	12050 Hwy 99 S	Ashland	OR	97520
440177	29	Daves, Tod & Cox, Alex	1892 Colestin Rd	Ashland	OR	97520
440177	29	Dew, Mary	273 Steinman Dr	Ashland	OR	97520
440177	29	Fiore, Jim	10200 Mt Ashland Rd	Ashland	OR	97520
440177	29	Golledge, Adrian	1050 Old Hwy 99S	Ashland	OR	97520
440177	29	Gregos, Candace L	5480 Old Hwy 99 S	Ashland	OR	97520
440177	29	Henriksen, Patrick E	2262 Old Hwy 99 S	Ashland	OR	97520
440177	29	Jessie, Susan	163 Beacon Hill	Ashland	OR	97520
440177	29	Keple, Raul & Thalia	500 Jeffrey Dr	Ashland	OR	97520
440177	29	Klein, Carole	9999 Mt Ashland Ski Rd	Ashland	OR	97520
440177	29	Loram, Kathy	180 Beacon Hill Ln	Ashland	OR	97520
440177	29	Parker, Richard A	3320 Old Hwy 99S	Ashland	OR	97520
440177	29	Smith, Al & Lucretia	PO Box 833	Ashland	OR	97520
440177	29	Sutherland, Jack	11200 Highway 99 S	Ashland	OR	97520
440177	29	Sutton-Borgilt, Laureen	4930 Old Hwy 99 S	Ashland	OR	97520
440177	29	Verburgt, Anthony	PO Box 416	Ashland	OR	97520
440177	29	Yeoman, Sue	6710 Hwy 66	Ashland	OR	97520
440177	29	Beatty, Dennis & Colleen	6601 Old 99 S	Ashland	OR	97520
440177	29	Polish, Ed	1140 Old 99 S	Ashland	OR	97520
440177	29	Moore, Matt & Libbi	11291 Mt Ashland Rd	Ashland	OR	97520
440177	29	Smoot, Robert C	5100 Old Hwy 99 S	Ashland	OR	97520
440177	29	Medeck, Robert J	115 Steinman Dr	Ashland	OR	97520
440177	29	Gubser, Janis	158 Beacon Hill Ln	Ashland	OR	97520
440177	29	Beatty, Dennis	6633 Old 99 S	Ashland	OR	97520
440177	29	Maher, Sheila	11700 Hwy 99 S	Ashland	OR	97520
440177	29	Faerber, Kim	184 Beacon Hill	Ashland	OR	97520
440177	29	Masters, Jerry & Renee	6245 Old Hwy 99 S	Ashland	OR	97520
440177	29	Benjamin, Aaron L & Judy	740 Emigrant Creek Rd	Ashland	OR	97520
440177	29	Palzewicz, Michal	414 Steinman Dr	Ashland	OR	97520
440177	29	Johnson, Steven R	425 Steinman Dr	Ashland	OR	97520
440177	29	Swanson, Valdomar	375 Old Greensprings	Ashland	OR	97520
440177	29	Saturen, Steve & Harriet	265 Steinman Dr	Ashland	OR	97520

440177	29	Lassner, Keith	178 Meadow Oaks Dr	Ashland	OR	97520
440177	29	Burgess, Mary	300 Steinman	Ashland	OR	97520
440177	29	Capo', Cleo	7130 Hwy 66	Ashland	OR	97520
440177	29	Wessler, Daniel B & M Jenelyn	11800 Hwy 99 S	Ashland	OR	97520
440177	29	Wessler, Daniel B & M Jenelyn	11900 Hwy 99 S	Ashland	OR	97520

TURCO'S 440177-30 FDB  
2/1/04

MSPProj	has	Landowner	LOAddress1	LOCity	DSta	LOZip
440177	30	Miils, Jim	PO Box 3196	Ashland	OR	97520
440177	30	Impara, Jim	15573 Hwy 66	Ashland	OR	97520
440177	30	Gilmore, Jeff	12235 Hwy 66	Ashland	OR	97520
440177	30	Cheek, Jack & Melinda	14350 Hwy 66	Ashland	OR	97520
440177	30	Wood, Bob & Cindy	14689 Hwy 66	Ashland	OR	97520
440177	30	Davies, Bill & Carole	Box 16200 Hwy 66	Ashland	OR	97520
440177	30	Green, Jerry & Grace	14705 Hwy 66	Ashland	OR	97520
440177	30	Trimble, Mike	14392 Hwy 66	Ashland	OR	97520
440177	30	Patterson, Cam & Ayers, Terri	13400 Hwy 66	Ashland	OR	97520
440177	30	Green, Gerald & Grace	14705 Hwy 66	Ashland	OR	97520



Tuaco's 440177-08 FOG  
2/4/08

Applicatio	LocalID#	ProjectName	SubProject	FMSProje	Phase	Landowner	Address	City	State
2890		2002 Friends of the Greenspri ngs		449909 08		Garfas, Joe	1188 Tyler Creek Rd	Ashland	OR
2897	1869	2002 Friends of the Greenspri ngs	3	449909 08		Mattos, Annie	7500 Hwy 66	Ashland	OR
0	1891	2002 Friends of the Greenspri ngs	3	449909 08		Kim, Milton	1694 Old Siskyou Hwy	Ashland	OR
0	1048	2002 Friends of the Greenspri ngs	3	449909 08		Gabrielle, Susan	13409 Hwy 66	Ashland	OR
0	1049	2002 Friends of the Greenspri ngs	3	449909 08		Barham, Larry	14201 Hwy 66	Ashland	OR
0	1050	2002 Friends of the Greenspri ngs	3	449909 08		Bevensee , Fred	12124 Hwy 66	Ashland	OR
0	1966	2002 Friends of the Greenspri ngs	3	449909 08		Salisbury, Scott	13617 Hwy 66	Ashland	OR
0	1967	2002 Friends of the Greenspri ngs	3	449909 08		McLaughli n, Mike	15797 Hwy 66	Ashland	OR
0	1968	2002 Friends of the Greenspri ngs	3	449909 08		Nori, Chris	17631 Hwy 66	Ashland	OR
0	1900	2002 Friends of the Greenspri ngs	3	449909 08		Parker, Richard A.	3320 Old 99	Ashland	OR

0 1981	2002 Friends of the Greenspri ngs 2002	3	449909 08	Addicott, Warren	2260 Old Hwy 99 South	Ashland	OR
0 1983	2002 Friends of the Greenspri ngs 2002	3	449909 08	Caffrey, Paul	13415 Hwy 66	Ashland	OR
0 1974	2002 Friends of the Greenspri ngs 2002	3	449909 08	Ault, Laurie	15922 Hwy 66	Ashland	OR
0 1978	2002 Friends of the Greenspri ngs 2002	3	449909 08	Cheek, Melinda	14350 Hwy 66	Ashland	OR
0 1973	2002 Friends of the Greenspri ngs 2002	3	449909 08	Crandell, Mary Ann	15793 Hwy 66	Ashland	OR
0 1975	2002 Friends of the Greenspri ngs 2002	3	449909 08	Fowler, Chris	966 Tyler Cr Rd	Ashland	OR
0 1976	2002 Friends of the Greenspri ngs 2002	3	449909 08	Hickman, Mildred	600 Tyler Cr Rd	Ashland	OR
0 1971	2002 Friends of the Greenspri ngs 2002	3	449909 08	McGuire, Diarmuid	11470 Hwy 66	Ashland	OR
0 1972	2002 Friends of the Greenspri ngs 2002	3	449909 08	McKinley, George	13401 Hwy 66	Ashland	OR
0 1984	2002 Friends of the Greenspri ngs	3	449909 08	Coker, Libba	15757 Hwy 66	Ashland	OR

0 1979	2002 Friends of the Greenspri ngs	3	449909 08	Crary, James	14393 Hwy 66	Ashland	OR
0 1986	2002 Friends of the Greenspri ngs	3	449909 08	Foster, Linda	520 Tyler Cr Rd	Ashland	OR
0 1982	2002 Friends of the Greenspri ngs	3	449909 08	Henriksen , Pat	2262 Old Hwy 99 South	Ashland	OR
0 1985	2002 Friends of the Greenspri ngs	3	449909 08	Randall, Mark	17575 Hwy 66	Ashland	OR
0 1980	2002 Friends of the Greenspri ngs	3	449909 08	Worthingt on, Matt	13614 Hwy 66	Ashland	OR
0 1997	2002 Friends of the Greenspri ngs	3	449909 08	Norman Walters	13300 Hwy 66	Ashland	OR
0 1998	2002 Friends of the Greenspri ngs	3	449909 08	Cleland Debra	840 Harmony Ln.	Ashland	OR
0 1999	2002 Friends of the Greenspri ngs	3	449909 08	Deerfeild Learning Asso.	15097 Hwy 66	Ashland	OR
0 2000	2002 Friends of the Greenspri ngs	3	449909 08	Boardma n Randy	1700 Tyler Creek Rd.	Ashland	OR
0 1995	2002 Friends of the Greenspri ngs	3	449909 08	Faerber Kim	188 Beacon Hill Lane	Ashland	OR

0 1994	2002 Friends of the Greenspri ngs	3	449909 08	Mallis Jim	1450 Tyler Creek Rd.	Ashland	OR
0 1992	2002 Friends of the Greenspri ngs	3	449909 08	Mitchell Maureen	570 Conifer Way	Ashalnd	OR
0 1991	2002 Friends of the Greenspri ngs	3	449909 08	Brorby Eric	600 Couifer	Ashland	OR
0 1996	2002 Friends of the Greenspri ngs	3	449909 08	Bianca Mike	192 Steinman	Ashalnd	OR
0 1988	2002 Friends of the Greenspri ngs	3	449909 08	Johnson Steve	425 Steiuman Drive	Ashland	OR
0 1989	2002 Friends of the Greenspri ngs	3	449909 08	Lee Mike	170 Beacon Hill	Ashland	OR
0 1990	2002 Friends of the Greenspri ngs	3	449909 08	Medeck Bob	1155 steinman Dr	Ashland	OR
0 1993	2002 Friends of the Greenspri ngs	3	449909 08	Preister Kevin	163 Beacon Hill	Ashland	OR
0 1987	2002 Friends of the Greenspri ngs	3	449909 08	Velasque z Tony	196 Beacon Hill	Ashland	OR
0 5151	2002 Friends of the Greenspri ngs	3	449909 08	Foltho matt	8416 Hwy 66	Ashland	OR

0 5154	2002 Friends of the Greenspri ngs	3	449909 08	Jim Impara	15573 Hwy 66	Ashland	OR
0 5156	2002 Friends of the Greenspri ngs	3	449909 08	Smith Janine	187 Beacon Hill	Ashalnd	OR
0 5153	2002 Friends of the Greenspri ngs	3	449909 08	Thompso n Eric	14670 Hwy 66	Ashland	OR
0 5155	2002 Friends of the Greenspri ngs	3	449909 08	Valasgue z Tony	557 Conifer	Ashland	OR
0 5152	2002 Friends of the Greenspri ngs	3	449909 08	Webb Bill & Donna	330 Buckhorn Rd	Ashland	OR
0 5758	2002 Friends of the Greenspri ngs	3	449909 08	Aikins Jerry	3350 Old 99 South	Ashland	OR
0 5159	2002 Friends of the Greenspri ngs	3	449909 08	Harrison, charles	16399 hwy 66	Ashland	OR
0 5157	2002 Friends of the Greenspri ngs	3	449909 08	Mannat Marie	11878 Hwy 66	Ashland	OR
0 1043	2002 Friends of the Greenspri ngs	3	449909 08	Bright Steve	13395 Hwy 66	Ashland	OR
0 1046	2002 Friends of the Greenspri ngs	3	449909 08	Glimore Jeff	12225 Hwy 66	Asland	OR

0 1045	2002 Friends of the Greenspri ngs	3	449909 08	Hanor Adam	14946 Hwy 66	Ashland	OR
0 1042	2002 Friends of the Greenspri ngs	3	449909 08	Kincaid Leon	14940 Hwy 66	Ashland	OR
0 1044	2002 Friends of the Greenspri ngs	3	449909 08	Stark Dan	1948 Soda Mtn. RD	Ashland	OR
0 5162	2002 Friends of the Greenspri ngs	3	449909 08	Crewshaw Carl	8612 Hwy 66	Ashalnd	OR
0 5160	2002 Friends of the Greenspri ngs	3	449909 08	Cotts Christine	525 Confer way	Ashland	OR
0 5161	2002 Friends of the Greenspri ngs	3	449909 08	Hightower Julie	1553 Baldy Creek Rd	Ashland	OR
0 5165	2002 Friends of the Greenspri ngs	3	449909 08	Fresen Ray	25 Steinman	Ashalnd	OR
0 1970	2002 Friends of the Greenspri ngs	3	449909 08	Ackles, John	14298 Hwy 66	Ashland	OR
0 1047	2002 Friends of the Greenspri ngs	3	449909 08	Janeway, Gus & Julia	2000 Ashland mine Rd	Ashland	OR
0 1041	2002 Friends of the Greenspri ngs	3	449909 08	Olsen, Linda	8009 Dead Indian Rd	Ashalnd	OR

0 5168	2002 Friends of the Greenspri ngs	3	449909 08	Box R Ranch	16799 Hwy 66	Ashland	OR
0 5169	2002 Friends of the Greenspri ngs	3	449909 08	Jeff Gilmore	12225 Hwy 66	Ashalnd	OR
0 5170	2002 Friends of the Greenspri ngs	3	449909 08	Smith, Jim	13350 Hwy 66	Ashland	OR
0 5171	2002 Friends of the Greenspri ngs	3	449909 08	Osmus, Stuart	175 Beacon Hill	Ashland	OR
0 5164	2002 Friends of the Greenspri ngs	3	449909 08	Vermillion , Ve VA Jean	3200 Old 99	Ashland	OR
0 5172	2002 Friends of the Greenspri ngs	3	449909 08	Thomas, Dan	18227 Hwy 66	Ashland	OR
0 5174	2002 Friends of the Greenspri ngs	3	449909 08	Cohen, Dean	13405 Hwy 66	Ashland	OR
0 5173	2002 Friends of the Greenspri ngs	3	449909 08	Wood, Candy	14689 Hwy 66	Ashland	OR

Quapin Rd.

\*Olson, Larry\*  
\* \* \*

Enclosure 3A - Project Summary Form

MASTER COPY

NATIONAL FIRE PLAN COMMUNITY ASSISTANCE AND WILDLAND URBAN INTERFACE PROJECTS

Application for Wildland Urban Interface Fuels / Education and Prevention / Community Planning for Fire Protection Projects

Applicant

Applicant/Organization:

Friends of the Greensprings

Phone:

(541) 482-2859

FAX:

(541) 482-2859

Email:

johnward @ qwest.net

Address (Street or P. O. Box, City, State, Zip):

15097 Highway 66, Ashland OR 97520

Project Coordinator

Project Coordinator (Name and Title):

John Ward, Chairman

Organization/Jurisdiction:

Friends of the Greensprings

Phone:

(541) 482-2859

FAX:

(541) 482-2859

Email:

johnward @ qwest.net

Project Information

Project Title:

FOG Community Fuels Reduction Project

Project Start:

June 1, 2002

Project End:

May 31, 2004

Federal Funding Request:

\$96,292

Total Project Funding:

\$176,054

Are you submitting multiple projects? If so, please explain and prioritize:

no

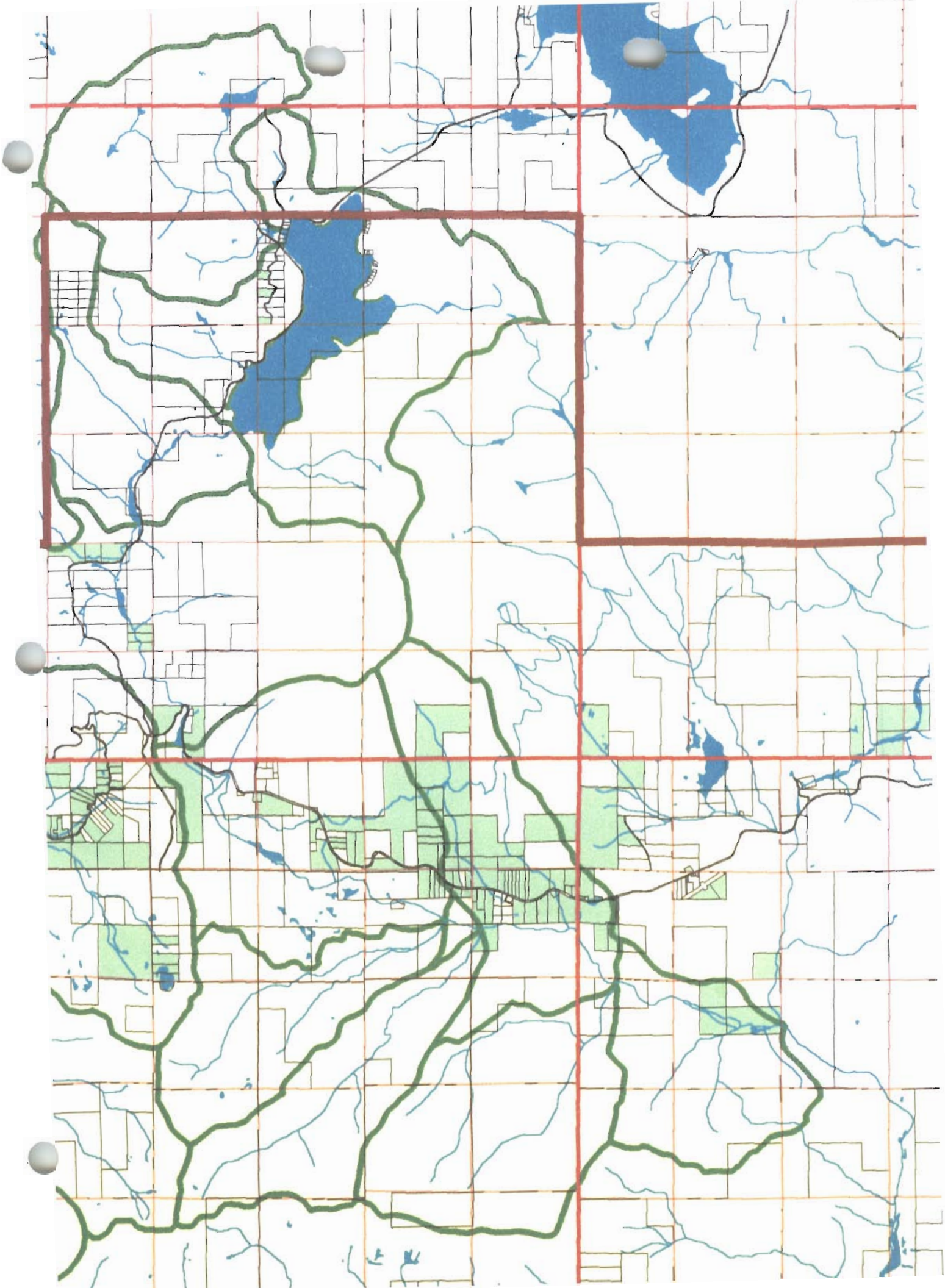
Brief Project Description:

This project asks landowners to join and cost share in a voluntary effort to reduce fuels and create Defensible Space around their homesites. Heavy fuel loads, hot dry summers and rapid residential development put homeowners and the Cascade-Siskiyou National Monument in peril.

Project reduces fuels at 131 homesites, reduces ladder fuels on critical access and escape roads for 30 homeowners, and builds a community fuel break protecting 12 homes. Total area treated is about 248 private acres, including 203 adjacent to or intermingled in the Cascade-Siskiyou National Monument and 45 acres about one mile distant.

Last year, Friends of the Greensprings (FOG), a 350-member community based 501c(3) organization field checked fuel loads, mapped high fire danger areas, developed 146 requests for





PRIVATE  QUARRY RUNOFF

WHAT ACTIONS:

GPS for AREA of QUARRY?  
PULL BACK LOOSE ROCK <sup>SIDE CAST</sup> & FILL IN PIT.  
WHO OWNED PIT? MAIN FIRE LBR?  
IS ROWLETT <sup>TO TAKE OUT MORE</sup> TO TAKE OUT MORE  
ROCK OR ARE PLANS TO CLOSE PIT?  
QUARRY RUNOFF DOES NOT OCCUR, PERHAPS  
(FILTERS THAN FRACTURED)  
IS ROWLETT OPENING NEW PIT W. ~~SIZE~~ OF YEAR

BENEFITS:

MUST SIGNIF. SED. SOURCE ON MAINSTEM KAN  
TO PROTECT SPANNING HABITAT.  
DO WE NEED MORE FINES? NO LIKELY IN  
WARD MAKE > DON'T MENTION CHANGING WIDTH OF DEPTH.  
AVOID CLAIMING ↑ OF

DELIVERABLES:

↓ angle of repose  
REMOVE LOOSE SOIL  
AVOID ARMORING  
@ bend of creek

WHO TO TALK W/  
JR > TALK W/ John SAMUELSON ABOUT VISITING  
SITE? & TALK W/ ROWLETT re  
ROAD ACCESS

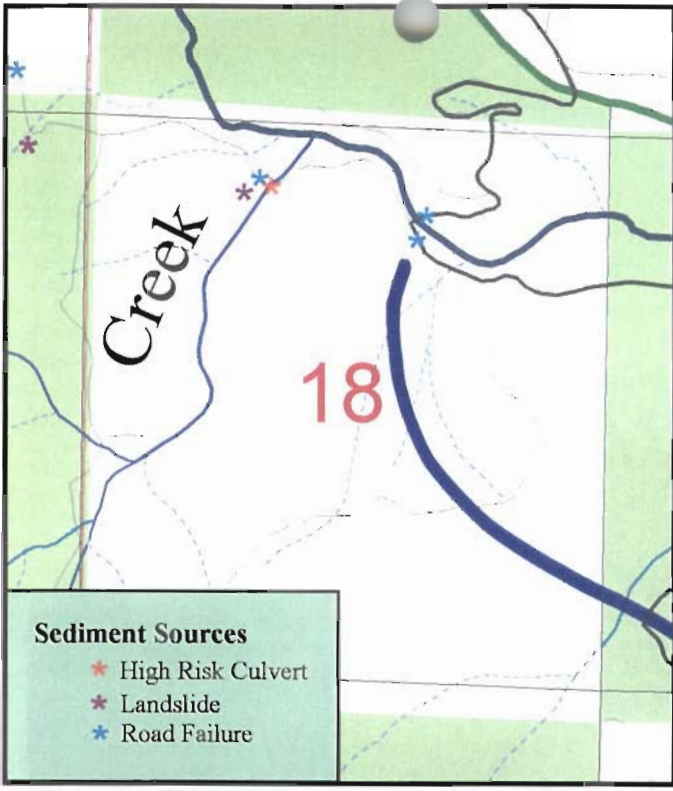
BUDGET:

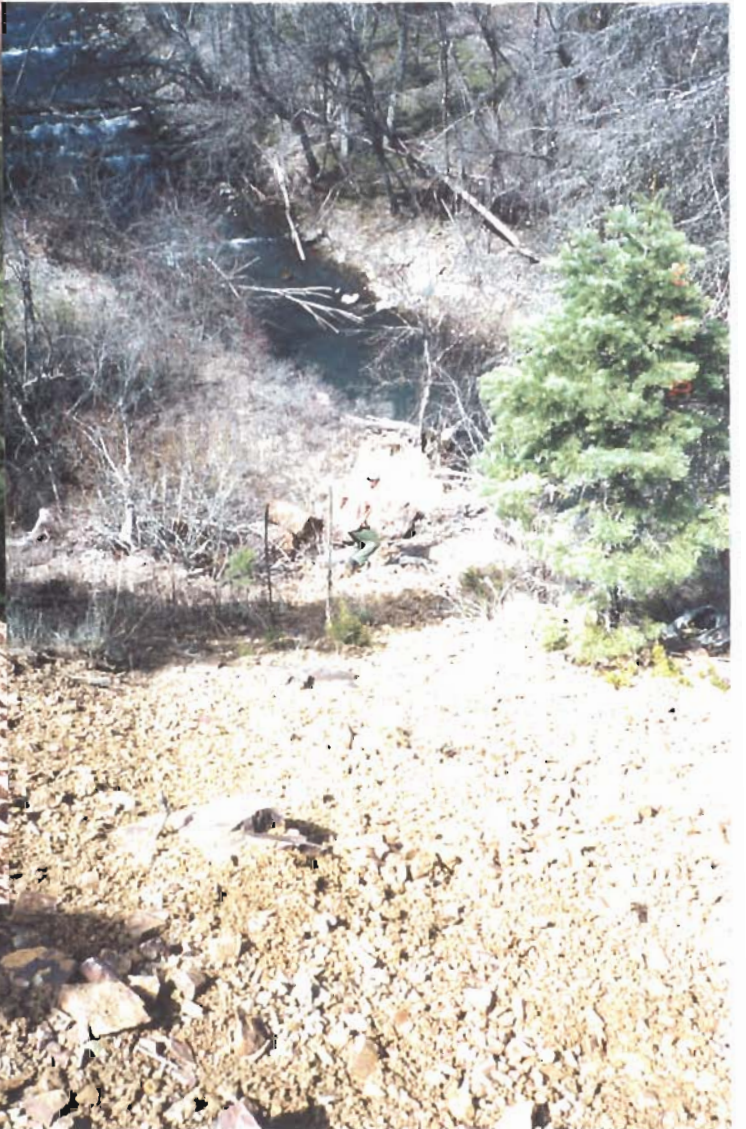
TITLE II \$10-20  
1-2 hrs w/ excavator @ \$3K

PERMIT TO [R]

Probably no FEDERAL Nexus, No NEPA  
Improvements Access & Comul values

Lack of runoff really serious &  
fuel, and freeze soil





WHAT PROBLEM?

KEENE CR ROAD  
GOARRY HAUL RD

40-4E-7

**PROPOSED ACTIONS:**

W/IN CSNMA

JR → ASK SAMUELSON re condition of bridge & ABUTMENTS / NEED FOR DRAINAGE DITCHES / CROSS DRAINS. NEED ROCK SURFACE?

BIG FLOOD COULD BLOW OUT BRIDGE DUE TO RR BRIDGE, PUBLIC JUST FORCED <sup>NARROWING</sup> CRK.

EXPECTED

**BENEFITS:**

↓ SEISMIC, LONGEVITY OF BRIDGE, PUBLIC SAFETY

**DELIVERABLES:** of need for INVESTMENT.  
BLM EVALUATION

**BUDGET:**

BLM

SAFETY TEST

PRE-CAST BRIDGE \$50-60K??  
+ ABUTMENTS

Whose pumpchance? ODF?  
if so, then ODF can fund.

**E**

# QUARRY PUMPCH.

## WHAT ACTIONS:

CONSTRUCT ~~CRIBION~~ TO Reduce downslope  
OR RIP-ROD MOMENTUM  
FINES?

DUST CONTROL & FIRE TRUCKS

WHO PUMPS? WHO USES? WHO WOULD

CONTRIBUTE \$ TO PROJECT

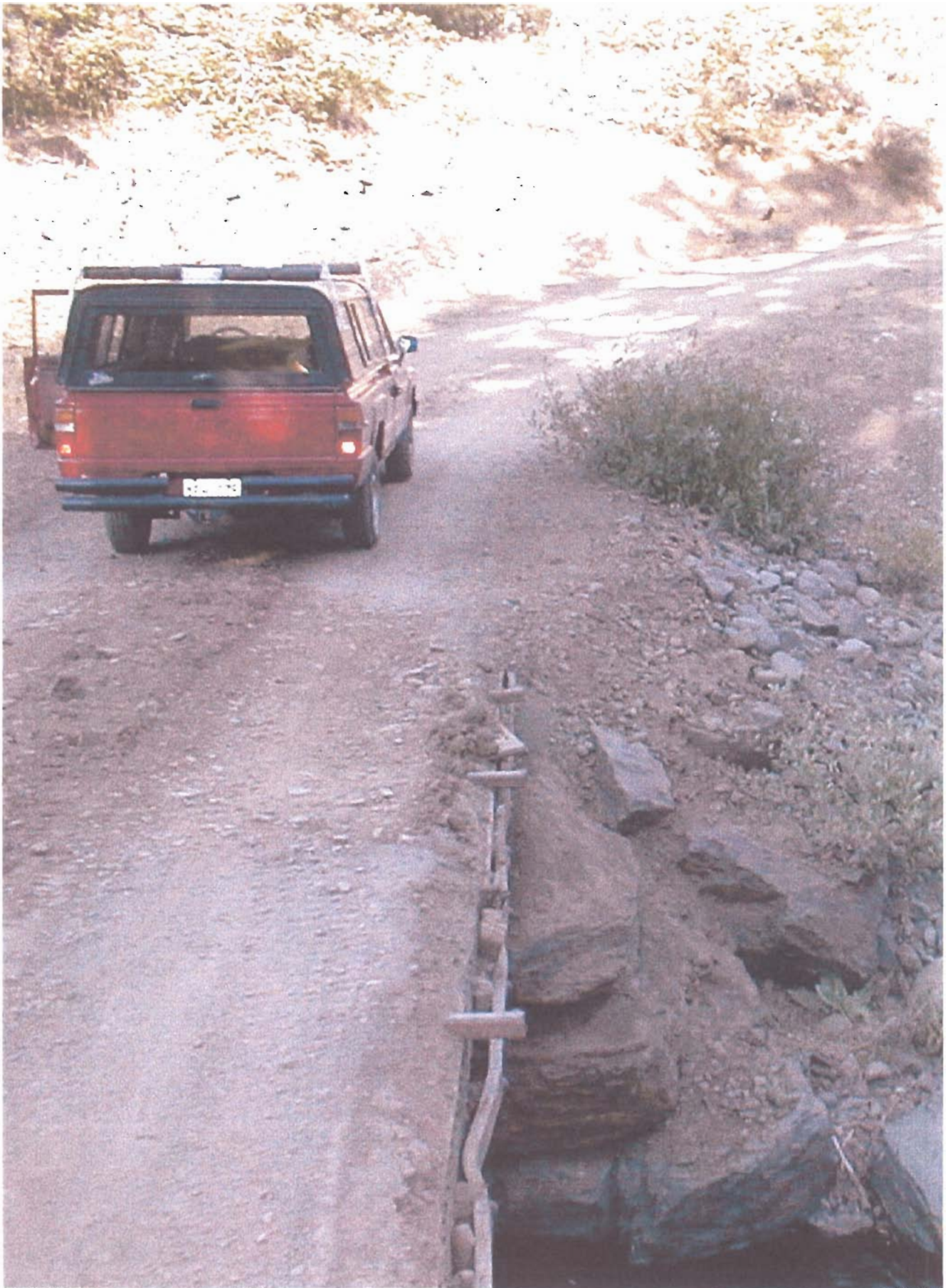
MILL POND IS W. SOURCE NOW.

## BENEFITS:

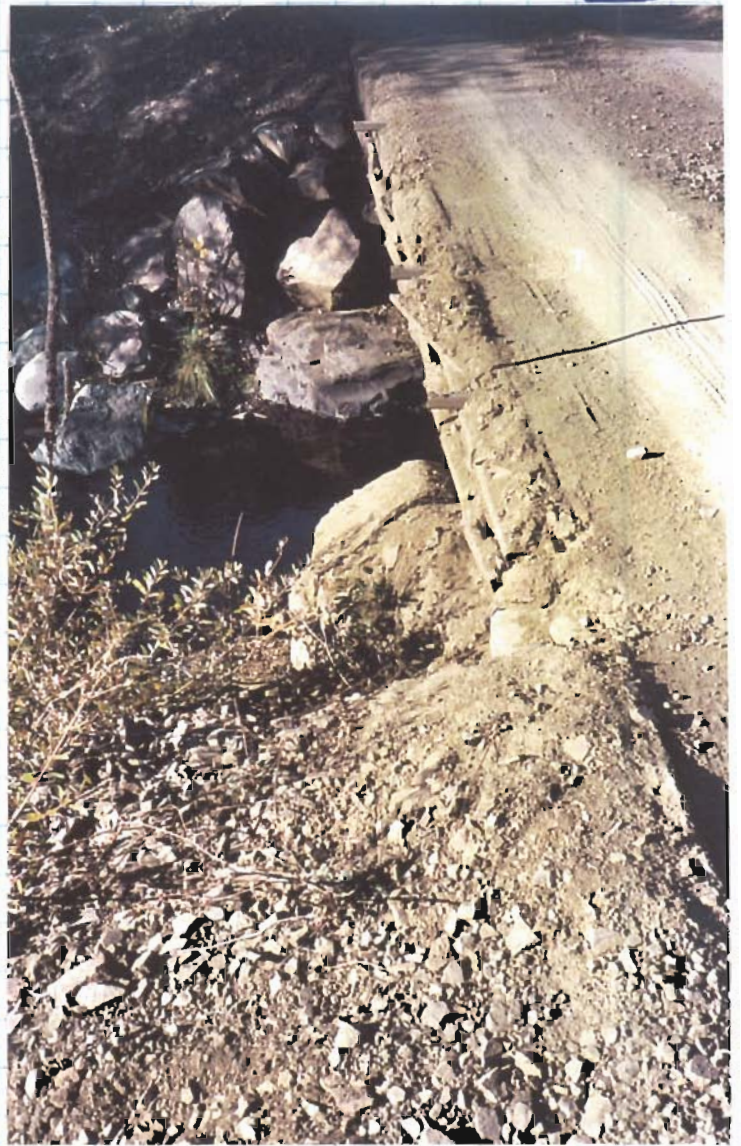
## DELIVERABLES:

BOULDER BERM TO DACK

## BUDGET:



③





PRIORITY **F**

BARRIERS Pushup  
SLASH  
Other??

WHAT ACTIONS:  
MAIN STREAM

- WARD > UNSCREENED INTAKE ON BOX D DIVERSION  
NEEDS ACTION. ✓ W/ DDFW
- WARD > ✓ IN-STREAM BULLDOZER WORK IN KEENE  
MAY NOT BE LEGAL. ✓ W/ DDFW
- JR > ✓ W/ BLM REALTY IN BOX D RTS ON BLM  
LAND

BENEFITS:

- WARD > SLASH IN ANY STREAM, EVEN INTERMITTENT  
IS NOT LEGAL, PER ... MARZEN (RAINING  
SESSION)
- DOES NOT HAVE TO BE "TYPE F" STREAM  
= TO BE PROTECTED FROM SLASH.

DELIVERABLES:

BUDGET:

PRIORITY



FISH SCREEN @ BOX D

FISH BARRIERS

### WHAT ACTIONS:

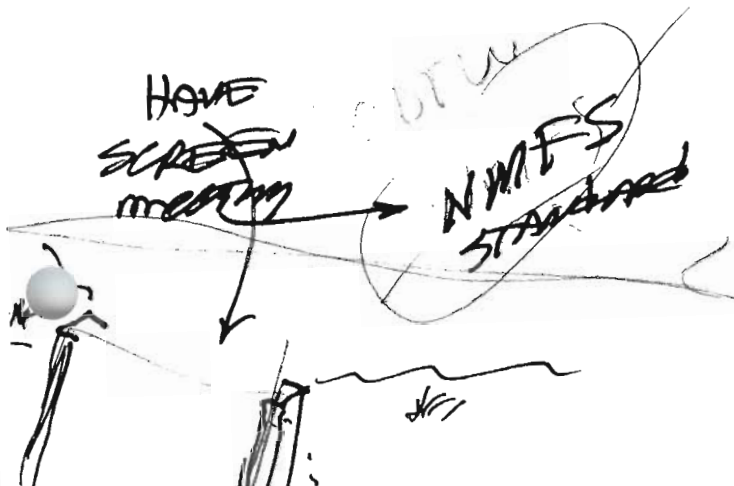
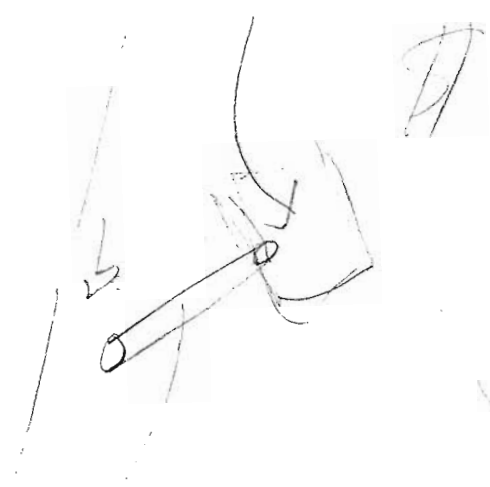
TOTAL FISH BARRIER IS NOT ~~USE~~ but KORME IS STILL OPEN

SPECIAL USE PERMIT THAT REQUIRE

SHOULD SHOW CONDITIONS FISH SCREEN AND FISH PASSAGE

cell

1/4" mesh      cfs      ?  
line @ year



PUT LOCKING BAR OVER TOP TO PREVENT CASUAL SCREEN REMOVAL

40S 3E 12 40S 4E 7  
 13 20  
 24 17

Road Walk Field Log for RANDCORE PASS ROAD 40 3E 12.1  
LINCOLN CR ROAD

RoadWalker names JOHN WARD

Access OK  yes Landowner BLM Call first  NO

Date surveyed 7/29/02 military time of day 14:00

Road Mile @ start 74552.8 Road Mile @ end \_\_\_\_\_

Segment starts at JCT MILL CR RD & RANDCORE Segment ends at \_\_\_\_\_

GPS if known N \_\_\_\_\_ W \_\_\_\_\_ N \_\_\_\_\_ W \_\_\_\_\_

Quad map \_\_\_\_\_ Location T 40 R 3E Sec 12/13/24

Road is (v)  sidecast  inslope  outslope  full bench ditched?  yes  no

40 4E

19/20/17/18/12

Road Runoff factors

Road surface is  native  crushed rock  paved Water Clarity  none  clear  turbid  muddy  
 Road condition  OK  potholes  gullied  ruts under 8"  ruts over 8"  other \_\_\_\_\_  
 Note → Stream w/in 200 feet?  yes  no Direct discharge to stream?  yes  no

Road Instability factors

Sunken grade? Road cracks? Slump on cutslope? Slump on fillslope? Washout? Debris flow likely?  
 Streamcrossing: Inlet eroding? Upstream wood? Downstream headcutting? Shotgun outlet? Fish barrier?  
 Cross drains & ditch: Inlet plugged or damaged? Outlet plugged or damaged? Ditch needs cleaning?

Site on Odometer  Road Problem Culverts

Comment on Runoff, Road Instability or Landslides 01 AUG 02  
06 JUL 02

Photo Miles Runoff Risk Inlet Outlet show photo roll letter \_\_\_\_\_ & frame number \_\_\_\_\_

Photo	Miles	Runoff	Risk	Inlet	Outlet	Comment
12	53.3			⊙		X DRAIN NEEDS CLEANING
13				○	○	SEE WETLAND @ JCT W/13.0, 13.1
24	55.4					SUMMIT RANDCORE PASS
	55.7	OUTSIDE HUC				JCT 40 4E 19 TO ROSEBUD HELI FRAME 6
	56.0					RUTTED > 8" NATIVE FRAME 7
	57.7					~ 1/2 mi. TO LARRY OLSON CUT FRAME 8/10/11
	57.7					TUAN RT ON 40 4E 7.0 ROAD TO BOX D
7	58.8			○	○	✓ BOX D Bdy & RETURN FRAME 13/13/14
	59.5					40 4E 7.0
	59.6			○	○	Possible Fish Passage? Plunge Pool's Seep on Perennial
18	60.6					JCT RR BRIDGE @ QUARRY DIVERSITY
						SEE ROAD & BANK EROSION @ BOX D
						FRAME 7, 8, 9, 10, 25

Culverts: ○ = OK ⊙ = 1/3 plugged or damaged ● = 2/3 plugged or damaged ● = non-functional  
 codes: CMP, Conc, U/S, D/S, Jct, BLM, ODOT  
 please use comment space on back of form to add the key details to help us see what you saw



F





PRIORITY

G

# FISH BARRIERS & ESCAPE

- #1. KEENE Reservoir
- #2. HOWARD

## WHAT ACTIONS:

WARD > ADVISE JANNINE re Fish Sp <sup>HYATT NOT TOO WAT. LILHYATT & KEENE</sup>

KEENE #1 <sup>TERRY KAU</sup> CONCERN BUT J.R. HAS MENTAL ~~PLAN~~ NON-NATIVE in Keene. Rainbow ESCAPE may be concern... but can't tell. \$10K FIN CLIP > \$500K SCRAM MAKES SW

WARD > RICH (ODPW) & CHUCK KERGOM re COST EST

HOWARD PRJ #2 BUT ✓ TID DITCH T2D should "be considered for study"

## BENEFITS:

KEEPING INTRODUCED Rainbow & other Fish <sup>APPEARS TO BE THE MOST</sup> OUT OF ~~CONTROL~~ <sup>RED BAND</sup> WPT SPAWN & REARING ~~FISH~~

IS VERY WPT GENETICALLY

"MOST RED BAND JUVENILE in whole <sup>Jenny</sup> SYSTEM in J.R.'s Jenny CR study

## DELIVERABLES:

FISH STUDY >

242 did fish

GO OVER "DAM"

ENTER KEENE CR @ TOP?

ONE TIME COST, NO \$0 \$/M

COSTED AFFECTS WHOLE DESIGN > of Jenny CR

## BUDGET:

\$10K FIN CLIP

PLANT <sup>TRIPLOID</sup> ONLY STER

( \$5K for ~~TRIPLOID~~ MIKE PARKER ~~TRIPLOID~~ SOU STU STUDY )

PLANT \$500K?

"STERILE TRIPLOIDS" = CONSIDER <sup>SCREEN</sup> ~~TRIPLOID~~ (100%, NOT 99% STERILE)

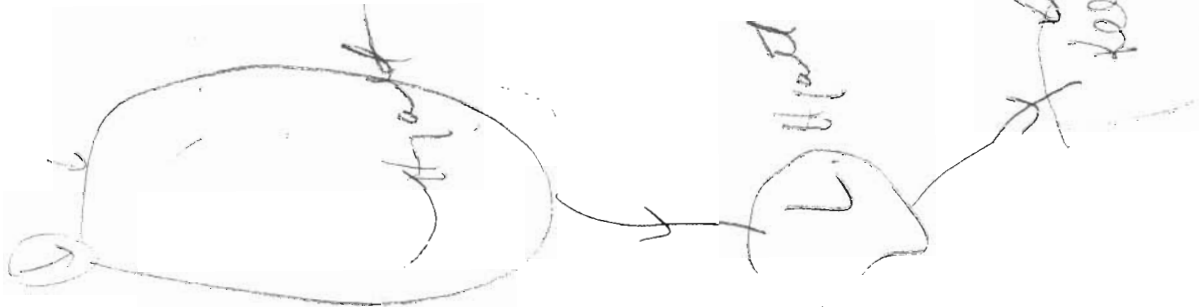
Q WHAT FISH GO THRU TURBINE ??

into Howard Prj TO ASSURE FISH ESCAPE

# FISH BARRIER

Presence of Hatchery Fish grown to 20"  
 OR big fish that escaped in  
 Keene Reservoir & Lake Umbagog  
 Establishes #1  
 ∴ of Fin Clip

Tenny  
 Cade



STERILE FISH &  
 FISH SCREEN TO KEEP TRASH FISH  
 CHANGE MGT DECISION (Pg 115)  
 for most of HOWARD BRADY  
 ASSE DDFW TO KEEP  
 (Pg 117)

GETTING OUT OF JENNY  
 by changing policy

"Potential adverse effect  
 in planning

Pg 87

(sterile)  
 (10,000,000)  
 TRIPLOID  
 470, -30,000



- a. Fingerling rainbow stocked in late spring should grow to 10 inches by the following spring.
- b. Condition factors should average 1.30.
- c. The catch rate during late April should average 0.75 fish per hour.
- d. Stocking levels should reflect reservoir levels at time of stocking.

**Objective 2. Protect unique wild trout in the tributaries to Howard Prairie Reservoir and the wild trout and sucker populations downstream from Howard Prairie Reservoir in Jenny Creek from hatchery fish that may move out of the reservoir.**

**Assumptions and Rationale**

2.1 The Oak Springs stock of rainbow trout is currently used in Howard Prairie Reservoir; if those trout leave the reservoir, they may compete with and displace native fish in streams above and below the reservoir.

2.2 Native trout in the tributaries to Howard Prairie Reservoir are assumed to be of the same unique redband trout stock found in the Jenny Creek system downstream from the reservoir.

**Actions**

2.1 Determine the classification of native trout living in tributaries to Howard Prairie Reservoir.

2.2 Inventory tributaries to Howard Prairie Reservoir for presence and abundance of Oak Springs stock rainbow trout that may have emigrated from the reservoir.

2.3 Inventory Jenny Creek below Howard Prairie Reservoir for presence and abundance of Oak Springs stock hatchery rainbow trout and other species that may have emigrated from the reservoir.

2.4 If fish are moving downstream through the outlet structure, work with staff from BOR and TID to provide and maintain facilities to prevent movement of fish from Howard Prairie Reservoir to Jenny Creek.

*NEED BOX TRAP on LATERAL*

*NEED PERMIT*

*GENERAL TRAPPING*

*GRANT APP! EVALUATION & FINCLP*

*FISH SCREEN*

*Unsuccessful diversion*

*ASK VSPWS ABOUT PROFESS STAFF? COST: WHO LUC DAVIS? BECOMES AVOID VOB MONTANA*

c. If changes in habitat conditions, reservoir level at time of stocking, angler use, or other factors that could change harvest or recreation opportunities occur.

**Objective 2. Provide a consumptive fishery for naturally reproducing largemouth bass.**

**Assumptions and Rationale**

2.1. Largemouth bass were stocked in 1990 as part of an established mini-plan to control the brown bullhead population.

2.2 A goal for the future is to produce bass large enough to allow management consistent with the Quality Fish Management Option, (ODFW, 1987b).

**Actions**

2.1. Monitor bass populations with periodic net or electrofishing inventories.

2.2. Determine if the lake can produce large enough bass to be considered for management consistent with the Quality Fish Management Option (ODFW, 1987b).

2.3. Develop regulations and management strategy to provide as many above average sized largemouth bass as possible.

**Objective 3. Protect unique wild trout and sucker populations downstream from Hyatt Lake in Jenny Creek from hatchery fish escaping from the reservoir.**

**Assumptions and Rationale**

3.1. If Oak Springs stock rainbow trout are allowed to move downstream, they may compete with and displace native fish in the outlet streams below Hyatt Lake. This stock generally spawns in the fall and should not interbreed with native spring spawning stocks.

3.2. Summer and winter steelhead have also been released in Hyatt Lake; these stocks are more likely to emigrate and compete with native fish in the streams below the lake if water spills downstream, otherwise flows are directed to the Rogue River Basin for irrigation uses.

**Actions**

3.1. Determine the potential of hatchery trout escaping and mixing with the unique native fish that inhabit the Keene and Jenny Creek systems downstream from Hyatt Lake.

3.2. Inventory Keene Creek below Hyatt Lake for presence and abundance of exotic fish stocks that may have emigrated from the lake.

*Steelhead*  
*Major problems*  
*INTRODUCED STOCK*  
*RESIDUAL STOCK*  
*WATER RESIDUAL HABITAT*

3.3. If fish are moving downstream through the outlet structure, work with BOR and TID staff to provide and maintain facilities to prevent movement of fish from Hyatt Lake to Keene Creek.

3.4. Eliminate future stocking of steelhead stocks in Hyatt Lake if they are determined to be impacting native fish in the Jenny Creek system.

# ROGUE RIVER BASIN PROJECT TALENT DIVISION – OREGON

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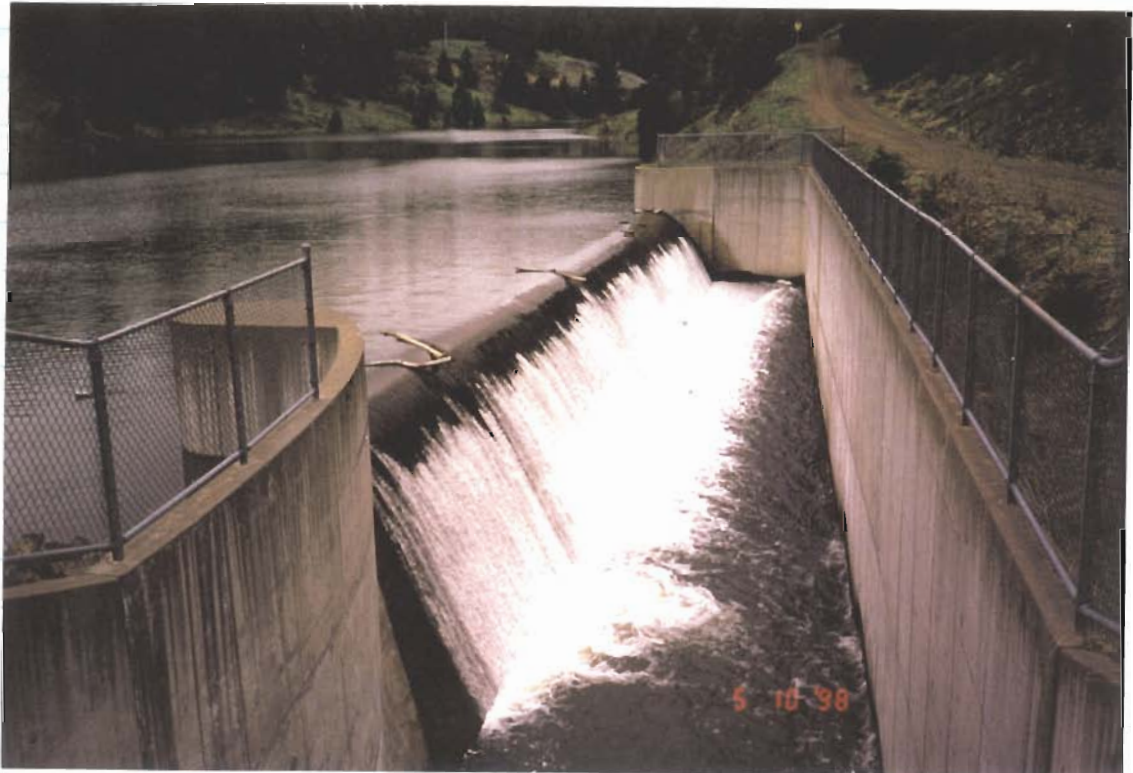
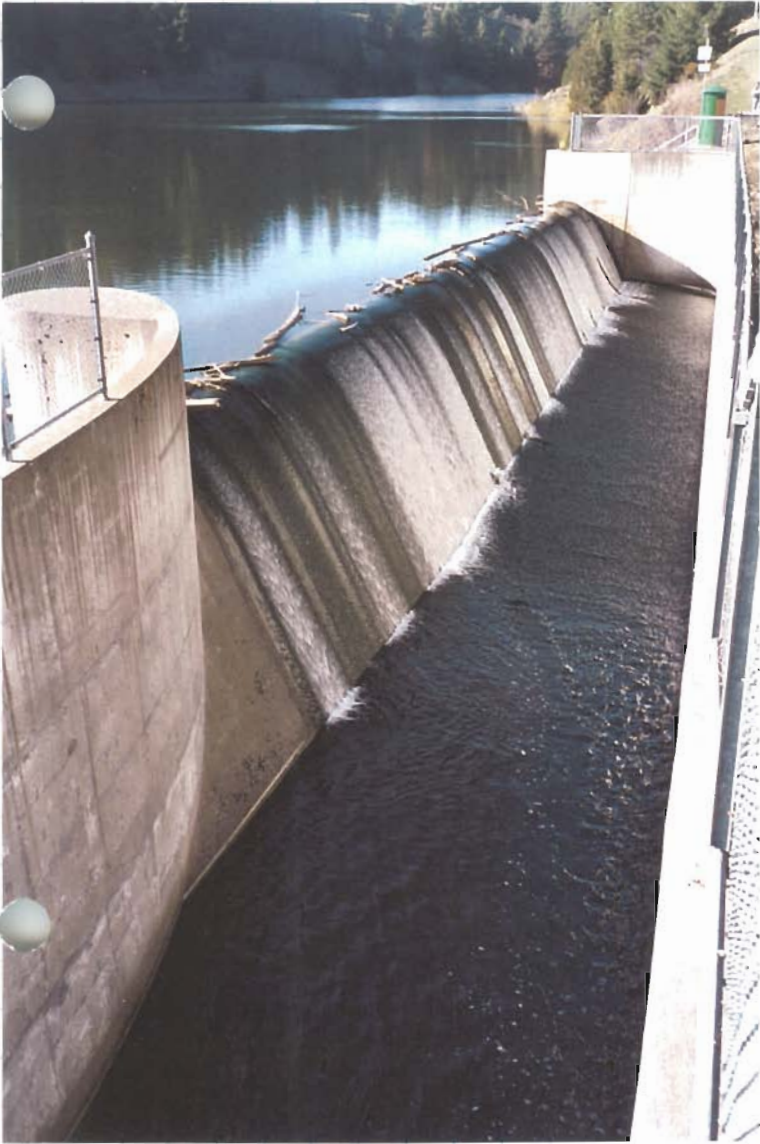
## FACILITIES AND OPERATIONS



Prepared for the  
United States Department of the Interior  
Bureau of Reclamation  
Lower Columbia Area Office  
Portland, Oregon

By Larry Vinsonhaler  
Boise, Idaho

April 2002



H

PRIORITY H AVERTS / MAINTENANCE

WHAT ACTIONS:

BENEFITS:

DELIVERABLES:

BUDGET:

455 3E 23 12

(H)a

Road Walk Field Log for MILL CREEK RD 40 3E 12

RoadWalker names JOHN WARD

Access OK  yes Landowner BLM, BOISE Call first  NO

Date surveyed 7/20/02 NO military time of day

Road Mile @ start 74545.1 Road Mile @ end

Segment starts at Jct Hwy 66 & Mill Cr Rd Segment ends at

GPS if Known N.....W..... N.....W.....

Quad map Location T 40S R 3E Sec 13/14/23/24

Road is (v)  sidecast  inslope  outslope  full bench ditched?  yes  no

Road Runoff factors

Road surface is  native  crushed rock  paved Water Clarity  none  clear  turbid  muddy

Road condition  OK  potholes  gullied  ruts under 8"  ruts over 8"  other

Note → Stream w/in 200 feet?  yes  no Direct discharge to stream?  yes  no

Road Instability factors

Sunken grade? Road cracks? Slump on cutslope? Slump on fillslope? Washout? Debris flow likely?  
Streamcrossing: Inlet eroding? Upstream wood? Downstream headcutting? Shotgun outlet? Fish barrier?  
Cross drains & ditch: Inlet plugged or damaged? Outlet plugged or damaged? Ditch needs cleaning?

01 AUG 02

Site on Odometer  Road Problem Culverts  
Photo Miles Runoff Risk Inlet Outlet

Comment on Runoff, Road Instability or Landslides  
show photo roll letter & frame number

Photo	Miles	Runoff	Risk	Inlet	Outlet	Comment
(B)	45.8			○	○	X DRAIN CRUSH & BLOCKED INLET FRAME 2
	46.5			○	○	JCT RAND CORE PASS; CONTINUE 40 3E 12
	46.9					JCT MILL CR WATER QUAL MONITOR SITE
	47.6	SEE NOTES				BASE 12.0 SEED ROAD PROJECT TO ROAD 2
	47.7					MAJOR SLOPE EROSION DUE ROSEBURY SET 14/09
	47.8					COBBLE & FRIABLE SOIL INTO S RK KEEP CLEAR
	48.0					JCT 24.2 LOCKED GATE FORD ON BLM FRAME 5
	48.9					JCT 23.1; TURNED LEFT SE RUTTED 18" NATIVE
	49.0	Δ				TURN AROUND ROAD BLOCKED W/ DG. FORD @ STRM
	49.5					JCT 23.1; TURN LEFT & CONTINUED SOUTH
	49.8			○	○	JCT 23.3; DRY
	50.3					END OF ROAD; TURN AROUND PILEATED TILL @ DG
	52.8					JCT RAND CORE PASS 40 3E 12.1

Culverts: ○ = OK ● = 1/3 plugged or damaged ● = 2/3 plugged or damaged ● = non-functional  
codes: CMP, Conc, U/S, D/S, Jct City, BLM, ODOT

please use comment space on back of form to add the key details to help us see what you saw

ADS 3E 11

(H) b

BLM 11.1 AND

Road Walk Field Log for SOUTH PARK KEENE (BOISE)

RoadWalker names JOHN WARD

Access OK  yes

Landowner BOISE & BLM

Call first  NO

Date surveyed 8/7/02 military time of day 15:00

Road Mile @ start 77792.0

Road Mile @ end

Segment starts at Hwy 66 & BLM 11.1

Segment ends at

GPS if Known N. W.

N. W. Location T. ADS R. 3E Sec. 11

Quad map

Road is (v)  sidecast  inslope  outslope  full bench ditched?  yes  no

Road Runoff factors

Road surface is  native  crushed rock  paved Water Clarity  none  clear  turbid  muddy  
Road condition  OK  potholes  gullied  ruts under 8"  ruts over 8"  other  
Note Stream w/in 200 feet?  yes  no Direct discharge to stream?  yes  no

Road Instability factors

Sunken grade? Road cracks? Slump on cutslope? Slump on fillslope? Washout? Debris flow likely?  
Streamcrossing: Inlet eroding? Upstream wood? Downstream headcutting? Shotgun outlet? Fish barrier?  
Cross drains & ditch: Inlet plugged or damaged? Outlet plugged or damaged? Ditch needs cleaning?

09 AUG 02

Site on Odometer  Road Problem Culverts  
Photo Miles Runoff Risk Inlet Outlet

Comment on Runoff, Road Instability or Landslides  
show photo roll letter & frame number

Photo	Miles	Runoff	Risk	Inlet	Outlet	Comment
	92.0					1st Hwy 66 & 39 3E 11.0
	92.7					92.7 FORD @ KEENE CR ON - 11.1
	92.7+					DRY SEASONAL FORD ON LOWER RD TO PRIVATE
	92.9		0 0			TWO CULVERTS ON BLM IN GOOD CONDITION RETURN TO BLM 11.1; TURN UPHILL TO BOISE
	93.7					4X W. BARS w/dips for INTERMITTENT FRAGILE SOIL w/ LOW ROCK = RUTS to 8 inch and soil EROSION w/ TRACKS.
	93.9	△				PARKED & WALKED <sup>SOUTH</sup> 0.1 mile TO FLOWING SPRING CROSSING logging road Frame 14A
	94.2	△				CONTINUE TO KEENE CR <sup>SOUTH PARK</sup> ERODED & RUTTED > STREAM WALK DATA COLLECTED CHT FRAME 17/18/19/20 15A 16A 17A 18A FRAME 19A

Culverts: ○ = OK ● = 1/3 plugged or damaged ● = 2/3 plugged or damaged ● = non-functional  
codes: CMP, Conc, U/S, D/S, Jacty, BLM, ODOT  
please use comment space on back of form to add the key details to help us see what you saw



40 S 3E 16  
 40 S 3E 21

Mill C  
 VIA SPA MTN RD

(H) C

Road is (✓)  sidecast  inslope  outslope  full bench ditched?  yes  no

Road Runoff factors.....

Road surface is  native  crushed rock  paved Water Clarity  none  clear  turbid  muddy  
 Road condition  OK  potholes  gullied  ruts under 8"  ruts over 8"  other .....  
 Note → Stream w/in 200 feet? ?  yes  no Direct discharge to stream?  yes  no

Road Instability factors.....

Sunken grade? Road cracks? Slump on cutslope? Slump on fillslope? Washout? Debris flow likely?  
 Streamcrossing: Inlet eroding? Upstream wood? Downstream headcutting? Shotgun outlet? Fish barrier?  
 Cross drains & ditch: Inlet plugged or damaged? Outlet plugged or damaged? Ditch needs cleaning?

Site on Odometer ✓ Road Problem Culverts Comment on Runoff, Road Instability or Landslides  
 Photo Miles Runoff Risk Inlet Outlet show photo roll letter ..... & frame number .....

Photo	Miles	Runoff	Risk	Inlet	Outlet	Comment
	13.9					BEAM 40-3E-16-0
	14.0	△				DEEP RUTS > 8" FRAME 10A
BLM 0.04	14.1	○		●	○	BLM STAKE @ PLUGGED CULVERT @ P. Co 155. Outlet Washout FRAME 13A, 13A, 13A
	14.1+	△		○	○	CULVERT DRY w/ SPRING FLOW ON ROADWAY FRAME 15A, 15A, 15A
(D) NOT STAKED				○	○	WET HEAVILY GRAZED MEADOW FRAME 16A
(E) = BLM 0.5A		○		●	○	w/ trampled, plugged culv @ Jct - 21.01 FRAME 15A, 16A
	BLM 0.12			○	○	NEED CULVERT MAINTENANCE @ CANADIAN
	15.1					CULV SAC SCATTERED CANADIAN STRINGER
	15.3					BOISE Partial CUT FRAME 17A

Culverts: ○ = OK ● = 1/3 plugged or damaged ● = 2/3 plugged or damaged ● = non-functional  
 codes: Jn, Br, CC, WB, Dip, Ford, CMP, Conc, U/S, D/S, Jacty, BLM, ODOT  
 please use comment space on back of form to add the key details to help us see what you saw

38S 3E 33  
39S 3E 3

(H) D

Road Walk Field Log for TABLE MTN RD LOOP (North to South)  
KEENE & COPPIN WOOD

RoadWalker names: JOHN WARD

Access OK  yes Landowner BLM Call first

Date surveyed 8/4/02 military time of day 13:30 FINISH @ 1800

Road Mile @ start HYATT PRAIRIE & BUCK DIVIDE Road Mile @ end HYATT PRAIRIE & TABLE MTN

Segment starts at 77563.9 Segment ends at \_\_\_\_\_

GPS if known N \_\_\_\_\_ W \_\_\_\_\_ Location T 39 R 3E Sec 10/9/3/5

Road is (v)  sidecast  inslope  outslope  full bench ditched?  yes  no

Road Runoff factors

Road surface is  native  crushed rock  paved Water Clarity  none  clear  turbid  muddy  
Road condition  OK  potholes  gullied  ruts under 8"  ruts over 8"  other \_\_\_\_\_  
Note → Stream w/in 200 feet?  yes  no Direct discharge to stream?  yes  no

SOME GOOD, FEW BAD OFF-ROAD REC. USE CAUSES EROSION

Road Instability factors

Sunken grade? Road cracks? Slump on NO cutslope? Slump on NO fillslope? Washout? Debris flow likely?  
Streamcrossing: Inlet eroding? Upstream wood? Downstream headcutting? Shotgun outlet? Fish barrier?  
Cross drains & ditch: Inlet plugged or damaged? Outlet plugged or damaged? Ditch needs cleaning?

Site on Odometer  Road Problem Culverts Comment on Runoff, Road Instability or Landslides  
Photo Miles Runoff Risk Inlet Outlet show photo roll letter \_\_\_\_\_ & frame number \_\_\_\_\_

07 AUG 02

Site	Odometer	Runoff	Risk	Inlet	Outlet	Comment
	63.9	OUTSIDE HUC				BUCK DIVIDE ROAD 38-3E-33
	64.0	OUTSIDE HUC				NATIVE ROAD 7.5 INCH RUTS $\Delta$ 38-3E-3-1
	65.7	INSIDE HUC				HUC Bdy FOR KEENE
	65.9			O O		Jct 3A.1, 34 & 33. CONTINUE ON 33 TURN SOUTH 38-3E-33.3; 33.2 TANK TAP W/ GREEN SEDAN
(G)	67.2		L	●	O	FALLEN TREE block INLET BLM MPO 0.75
	67.7			O X		CULDE SAC; TURN AROUND FRAME 19, 20
	68.8			O X		REJOIN 33; CONTINUE SOUTH
	69.0			O X		TURN EAST ON 33.4
	70.1			O X		CULDE SAC; TURN AROUND FRAME 21, 22
(H)	71.2		H	●	●	Jct 33.4' & 33 Major Cross Culvert PLUGGED
	71.3	OUTSIDE HUC				Jct. 19.0 & 33; CONTINUE S. ON 33
	71.8	OUTSIDE HUC				PC NOT MAPPED ??
	72.1	OUTSIDE HUC				Jct 33 - & 38-3E-32 INSIDE HUC @ 73.1

Culverts: O = OK ● = 1/3 plugged or damaged ● = 2/3 plugged or damaged ● = non-functional  
codes: CMP, Conc, U/S, D/S, Jcty, BLM, ODOT  
please use comment space on back of form to add the key details to help us see what you saw

Ha



Ha





HC



(H) c







JR IDEA  
HAVE GOMI  
SITE SOIN  
MAP SHOWING  
25 SITES

PRIORITY

I

RD WATER BAR I  
X DRAIN

**WHAT ACTIONS:**

BLEEDS  
MILL CR FINE SED directly from  
Logging RD. is VERY SERIOUS  
Small FLOW  
LESS CAPACITY  
STREAM  
Small FLOW cant flush SEDIMENT OUT??

20 McBRIDE SPRING  
LINCOLN CR RD  
LITTLE WOOD  
YI & CAT  
MILL CR @ WASSER WINTER

Why?? Upslope cut GRAND WATER?? EXISTING SPRING  
NEED TO KNOW ← OBLITERATE ROAD  
ABANDON RD

Add ditches & ROCK w/ xdr

INCLUDE THIS in Keene WSAs ? SHOW F

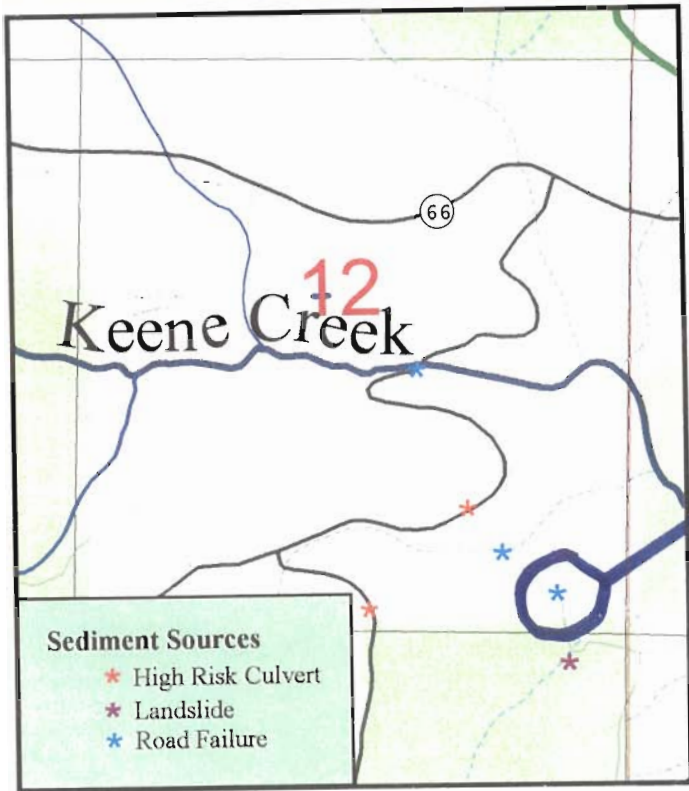
**BENEFITS:** PREPARE THIS

MAY NEED A BAR  
ACROSS ROAD.

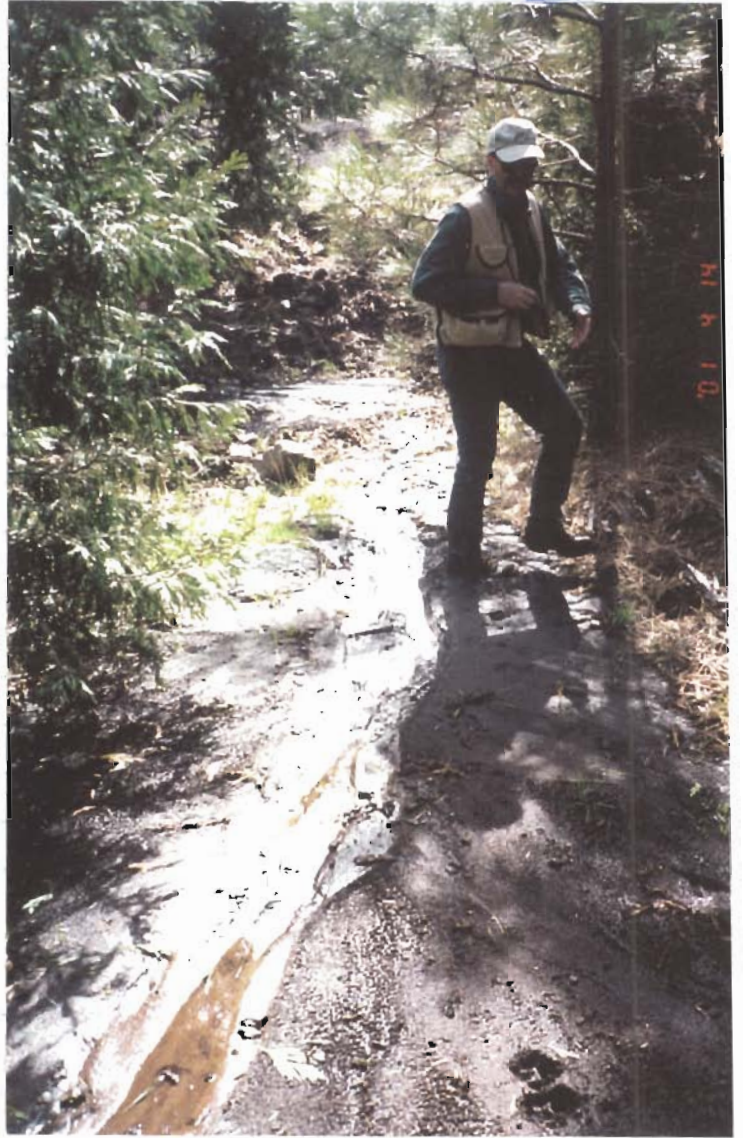
FLAG X : DRAINS  
USE SLASH TO TRAP SEDIMENT w/ FLAG  
LOOK LIKE LOTS OF DUFF  
FOR SIZE 3' X 6', etc

**DELIVERABLES:**

**BUDGET:**



1



PRIORITY

**J**

# NETLANDS

PARSNIP LAKES / MAYFIELD

ⓐ

NETLANDS ?

ⓑ

ASK b  
HOSTEN  
2295

## WHAT ACTIONS:

WARD > HAVE ROADS REDUCED INFLOW TO SPRINGS  
ARE FENCES ON BOISE ? BLM PLANNED?

GREEN WARD > MEET W/ C-S IA TEAM FOR WETLAND REPORT / LOOP  
+ BOISE (TIM BURMETT) CAN HE MEET

JEANMILOK WILL TALK W/ BLM IN 1-2 WK

ALTERNATIVE  
MAYFIELD GARDENS CAN CONTRIBUTE TO KENNEDY  
A HEALTHY. NEED TO TALK W/ BOISE  
W/ CYCLES BURNING / DYING W/ INSECT POPM

## BENEFITS:

## DELIVERABLES:

## BUDGET:

40 S 3E 10

Road Walk Field Log for PARSNIP LAKES (WEST)

RoadWalker names JOHN WARD

Access OK  yes Landowner BOISE, BLM Call first

Date surveyed 8/7/02 military time of day : : 3  
10

Road Mile @ start 77785.6 Road Mile @ end \_\_\_\_\_

Segment starts at Boise rd & Hwy 60 Segment ends at \_\_\_\_\_

GPS if known N. \_\_\_\_\_ W. \_\_\_\_\_ N. \_\_\_\_\_ W. \_\_\_\_\_

Quad map SODA MOUNTAIN Location T. 4DS R. 3E Sec 3/10/9

Road is (v)  sidecast  inslope  outslope  full bench ditched?  yes  no

Road Runoff factors

Road surface is  native  crushed rock  paved Water Clarity  none  clear  turbid  muddy

Road condition  OK  potholes  gullied  ruts under 8"  ruts over 8"  other \_\_\_\_\_

Note → Stream w/in 200 feet?  yes  no Direct discharge to stream?  yes  no

Road Instability factors

Sunken grade? Road cracks? Slump on cutslope? Slump on fillslope? Washout? Debris flow likely?  
Streamcrossing: Inlet eroding? Upstream wood? Downstream headcutting? Shotgun outlet? Fish barrier?  
Cross drains & ditch: Inlet plugged or damaged? Outlet plugged or damaged? Ditch needs cleaning?

Site on Odometer  Road Problem Culverts Comment on Runoff, Road Instability or Landslides  
Photo Miles Runoff Risk Inlet Outlet show photo roll letter \_\_\_\_\_ & frame number \_\_\_\_\_

Photo	Miles	Runoff	Risk	Inlet	Outlet	Comment
AUG 4, 2002						SLOPE INSTABILITY ON SOUTH SIDE KEENE SYSTEMATICALLY WITH BINOCULARS ON CAMERON/WEISLER/BOISE. NO SLIDES ABOVE OR BELOW LOGGING ROADS EXCEPT ONE <sup>40S 3E4</sup> 100 X 150 AREA; NO SLIDE ABOVE OR BELOW LARGE QUARRY IN BUILDING KEENE DAM; SCREE SLOPES LOOK STABLE.
			LS			
8/7/	77785.6					BINOCULAR SURVEY OF PARSNIP SADDLE & KEENE RIDGE TO EAST WHERE BOISE LOGGED DID NOT APPEAR TO SHOW ANY ACTIVE SLIDE. SIDE CAST MATERIAL BELOW TLD ROAD & CANAL IS MOSTLY LOOSE SOIL & ROCK SEEN. A NARROW LONG OPEN WATER AREA WEST SIDE

Culverts: ○ = OK ● = 1/3 plugged or damaged ● = 2/3 plugged or damaged ● = non-functional

codes: CMP, Conc, U/S, D/S, Jacty, BLM, ODOT

please use comment space on back of form to add the key details to help us see what you saw

MAN TUCKER GARDEN

AW

# PARSONS (WEST)

BOYK

Road is (v)  sidecast  inslope  outslope  full bench ditched?  yes  no

## Road Runoff factors

Road surface is  native  crushed rock  paved Water Clarity  none  clear  turbid  muddy  
 Road condition  OK  potholes  gullied  ruts under 8"  ruts over 8"  other .....  
 Note → Stream w/in 200 feet?  yes  no Direct discharge to stream?  yes  no

## Road Instability factors

Sunken grade? Road cracks? Slump on cutslope? Slump on fillslope? Washout? Debris flow likely? **No Culverts**  
 Streamcrossing: Inlet eroding? Upstream wood? Downstream headcutting? Shotgun outlet? Fish barrier?  
 Cross drains & ditch: Inlet plugged or damaged? Outlet plugged or damaged? Ditch needs cleaning?

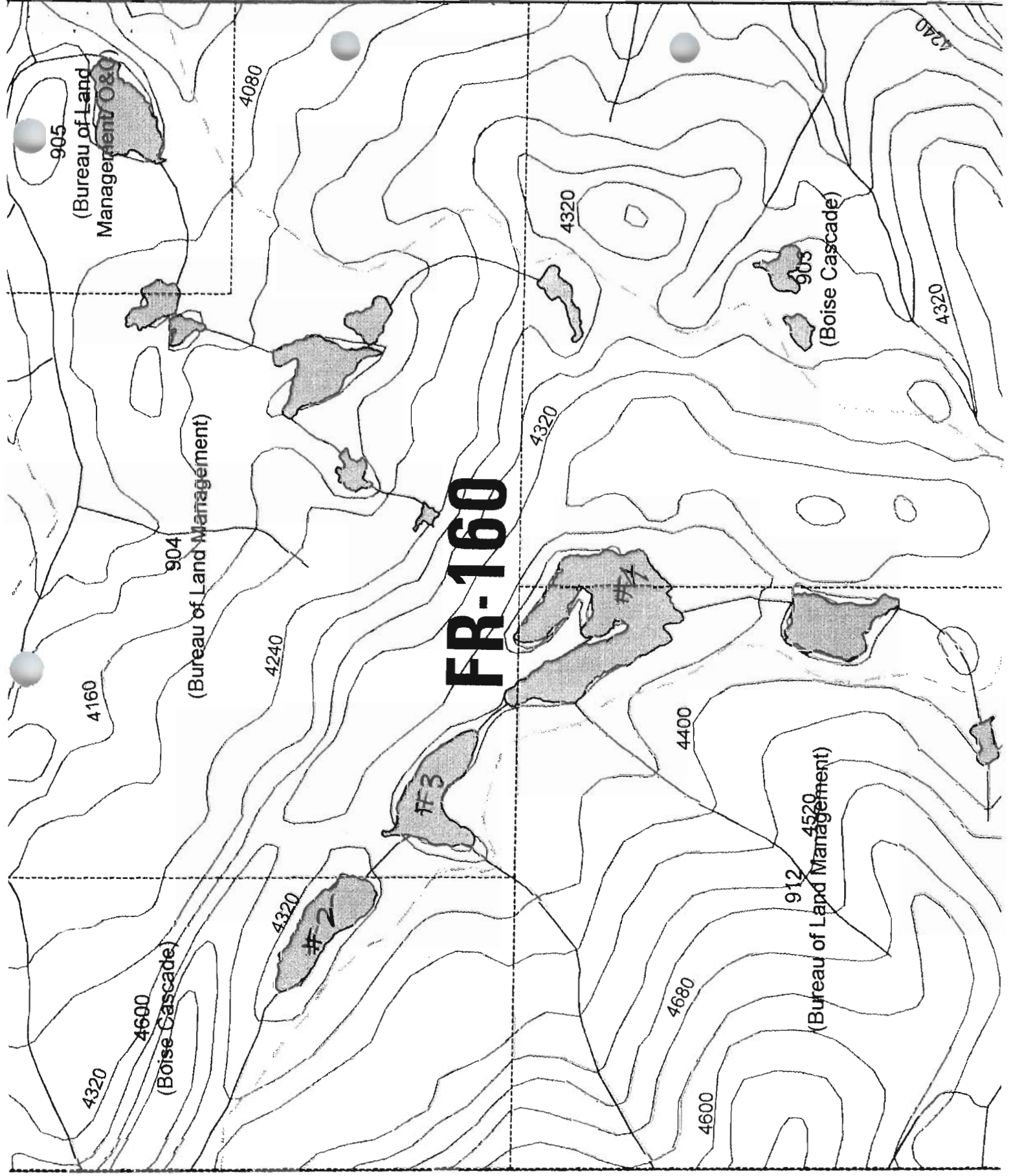
09 AUG 02

Site on Odometer  Road Problem Culverts Comment on Runoff, Road Instability or Landslides  
 Photo Miles Runoff Risk Inlet Outlet show photo roll letter ..... & frame number .....

1					
					0
	87.1			✓	DRY FORD @ KEENE CA NO DRY OR POND @ END of MARY TRILE
	87.9				Uphill 57.9° FNIST 2 <sup>ND</sup> LAKE SAW GRASS Clump w/ open W. <sup>FRAME</sup> 2A, 3A. NATIVE ROAD IN LOOSE SOIL < 200 FT LAKE
	88.0				BLM, BOUNDARY MKR #? TADPOLES?
	88.1				LARGE OPEN WATER LAKE w/ HARVESTED OG <sup>stumps</sup> on edges & SIDES; MAILED FRAME 4A
	88.14				TANK TRAPS ON ROAD; WALKED IN; P FLOW
1300	88.3				4 <sup>TH</sup> LAKE 57.1° FNIST. W. down 12" MAILED here w/ info duckling + CANADIAN PULLET, Robin; Some CATTLE GRASSY YELLOW W. LILIES / OVAL LEAF / ? GRASS / GRASS F, W, F, R, C, A, F, W P, PINE ASPEN / Ash / Willow
	88.1			VERY HIGH OF ↓	TURN AROUND some CATTLE SIGN w/ TRAMPING & MANURE
	90.4				65.7° FNIST HOWARD PRAIRIE CANAL @ 13:30
	90.5				@ Hwy 60 Drought
	89.4				DRIED UP DEAFER POND FRAME 7A
	89.5				ENT BLUE HERON WALKED IN ON LOWER ROAD TO ✓ LAKE NARROW OPEN W.; COLLISION
					MIXED BREED YELLOW TAG COWS FRAME 8A, 9A, 10A, 11A, 12A, 13A LEFT EAR 3 BLACK CAVES w/ GREEN LOTS TAG

Culverts: ○ = OK ● = 1/3 plugged or damaged ● = 2/3 plugged or damaged ● = non-functional  
 codes: Jn, Br, CC, WB, Dip, Ford, CMP, Conc, U/S, D/S, Jacty, BLM, ODOT  
 please use comment space on back of form to add the key details to help us see what you saw

NOT SHOWN ON MAPS



**FR-160**

905  
(Bureau of Land  
Management O&G)

904  
(Bureau of Land Management)

905  
(Boise Cascade)

912  
(Bureau of Land Management)

#2

#3

#4

4160

4600

4240

4320

4320

4320

4400

4680

4600

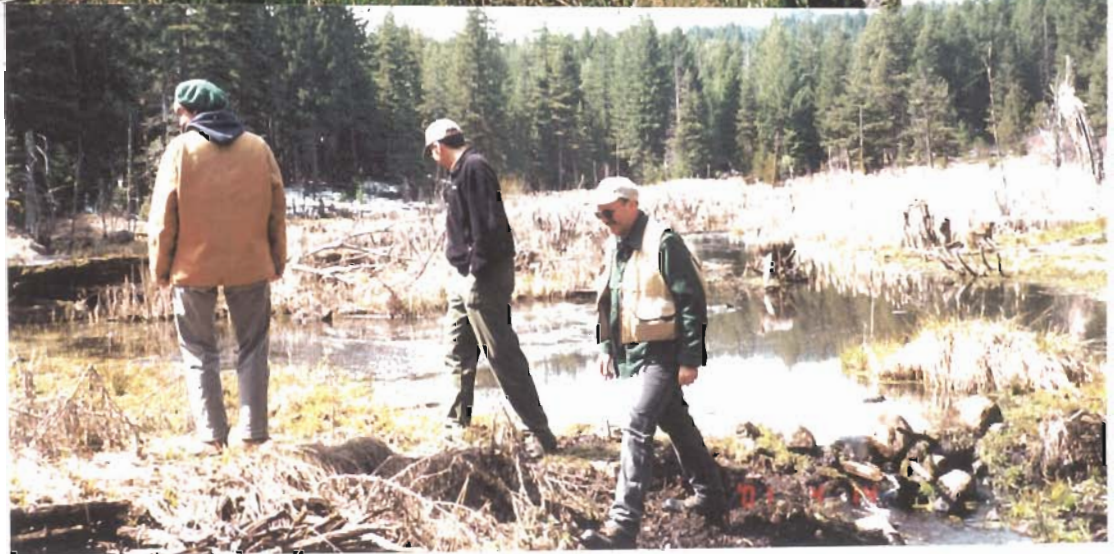
4320

4240

(Boise Cascade)

(Bureau of Land Management)

Ja





① b



PRIORITY **K** ROAD STREAM X9

WHAT ACTIONS:

LINCOLN WIDE FLAT / SHALLOW - LOOK UPSTREAM @ EROSION W/ STREAM USING ROAD WAY + UNMANTAINED BRANDED CHANNEL  
NEED TO DISCUSS W/ BOISE WHETHER THEY WILL WORK W/ USA: PLANT WILLOWS TO CHANNEL VEHICLES  
USE QUARRY ROCK TO PUT DEEPER FLOW IN NARROW CHANNEL WIDTH

KEENE CATHEED: INSPECT UNDER BRIDGE (OR TRY SEE QTY. NOT LIKELY SEE)

BENEFITS:

FISH SPAWNING IN WIDE FLAT CHANNEL SITES. MUCH BETTER STREAM IN RED BAND @ THIS POINT. PRIORITY @ THIS POINT.

WHICH ROAD DOES BOISE PLAN TO USE

DELIVERABLES:



Low Priority

BUDGET:

\$1000 FOR SIMPLE X9 + \$5000 W/ BINDER PROJECT W/ PLANTING, HAULING ROCK

ASK C S OMM. HOW THIS CROSSING RELATES TO MAN PLAN HOW DOES IT RELATE TO FISH.

### Road/Stream Crossings

HUC 7	Crossings	Perennial	Intermittent
18010206030503	16	8	8
18010206030506	29	12	17
18010206030509	10	3	7
18010206030512	0	0	0
18010206030515	18	8	10
18010206030518	42	7	35
18010206030521	43	4	39
18010206030524	19	5	14
18010206030527	0	0	0
18010206030530	27	4	23
18010206030533	22	11	11
18010206030536	26	11	15
18010206030539	23	8	15



file://A:\03\_03.JPG



4/8/03



# QUARRY EARTH FLOW

GROUND WATER PROBLEM,  
NOT SED. SOURCE

## WHAT ACTIONS:

STANDING WATER YEAR - DONNIE SAYS JERR  
PROBABLY SPRING OR GROUND WATER?  
CLOSE ROAD TO VEHICLES?

INSTALL "FRENCH DRAIN" TO  
PASS GROUND WATER?

WHAT'S THE XPORTATION PLAN for  
THIS AREA??

WARD > NEED SITE VISIT TO ASSESS.

## BENEFITS:

? DOES CLAY GET INTO UNCLINCA?  
IS ROAD "IN-SLOPED" DUE  
TO WET CLAY LACKING SUPPORT  
for VEHICLES



## DELIVERABLES:

JR > COOR w/ BLM ON C-S NM XPORT PLAN  
GATE or BLOCK OR OBLITERATE?  
ASK LANDOWNER

## BUDGET:

④



UPDATE

**M**

# FLUSHING FLOW

## WHAT ACTIONS:

WARD > GET TURASKI'S INPUT: WHY HI COBBLE & SAND/FINE BUT NO GRAVEL  
 DOES HI EVENT CAUSE REMOVAL OF FINES & NOT YET FILLED? (1974 PER GREEN)  
 (IR HAS PHOTOS OF LOW OR Boulders QUARRY)

WARD > ASK TURASKI: WILL HI FLOW DESTROY MANTFIELD GARDEN. WILL POOLS DRY OUT??  
 TIME @ HI SNOW SEASONS

RESERVOIR TRAPS GRAVEL  
 REDUCED PEAK FLOW ON HAS FINE COBBLE DOES NOT MOVE ON PEAK FLOW  
 ↳ See Boulder density  
 Q: HOW FAR D/S ARE

## BENEFITS:

↳ NO

DAM EFFECT?  
 100% OF BASE FLOW TAKEN AWAY  
 SMALL % OF PEAK FLOW & NOT TOO IMPORTANT.

## DELIVERABLES:

TRUNCATED W/S DUE DAM.

Bedrock in Reach 5 @  
 ↳ MANTFIELD CR

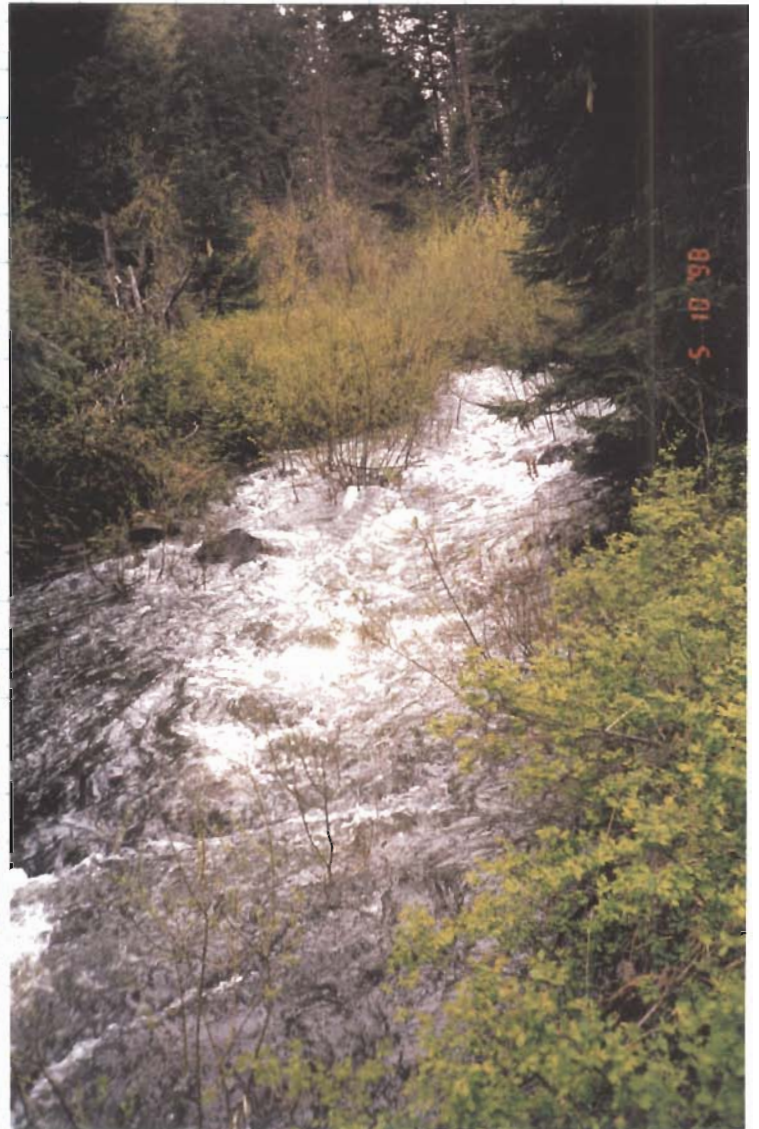
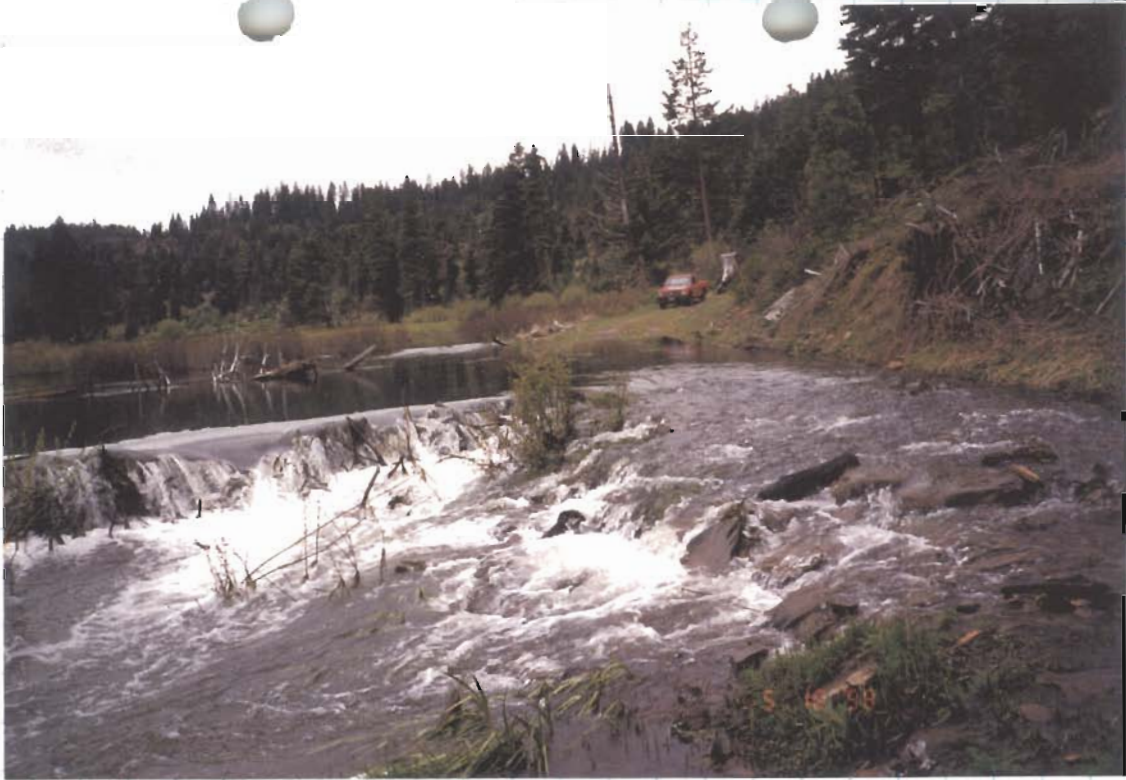
## BUDGET:

ONE WISH?  
 FISH BARRIER STUDY, MA  
 DP

Would you really benefit whole stream - NO -

Goal: STOP NON-NATIVES from entering

M



5-10-98



PRIORITY

N

RIPARIAN SHADE

SLOVINSKI/SPEED/HANDOR  
? COTTON WOOD / BURNT BOXD / MELON  
NASSER & WINTER

WHAT ACTIONS:

BENEFITS:

DELIVERABLES:

BUDGET:

PRIORITY



OHV

WHAT ACTIONS:

WARD > TAKE C-S ID

BENEFITS:

DELIVERABLES:

BUDGET:

39S 3E 11

Road Walk Field Log for HYATT EAST 39-3E-11

RoadWalker names JOHN WARD

Access OK  yes Landowner BLM Call first

Date surveyed 8/4/02 military time of day 11:30

Road Mile @ start 77559.7 Road Mile @ end

Segment starts at E. HYATT # 39 3E 11 Segment ends at

GPS if known N.....W..... N.....W.....

Quad map Location T. 39 R. 3E Sec. 11

Road is (✓)  sidecast  inslope  outslope  full bench ditched?  yes  no

Road Runoff factors.....

Road surface is  native  crushed rock  paved Water Clarity  none  clear  turbid  muddy  
 Road condition  OK  potholes  gullied  ruts under 8"  ruts over 8"  other .....  
 Note → Stream w/in 200 feet?  yes  no Direct discharge to stream?  yes  no

39-3E-11.1 = Wildcat Hills Road  
OR 11.2 ?

Road Instability factors.....

Sunken grade? Road cracks? Slump on cutslope? Slump on fillslope? Washout? Debris flow likely?  
 Streamcrossing: Inlet eroding? Upstream wood? Downstream headcutting? Shotgun outlet? Fish barrier?  
 Cross drains & ditch: Inlet plugged or damaged? Outlet plugged or damaged? Ditch needs cleaning?

**△ EROSION ON ORV SPUR SOUTH FROM #11**  
07 AUG 02

Site on Odometer ✓ Road Problem Culverts Comment on Runoff, Road Instability or Landslides  
 Photo Miles Runoff Risk Inlet Outlet show photo roll letter ..... & frame number .....

Photo	Miles	Runoff	Risk	Inlet	Outlet	Notes
						SEE WILDCAT NOTE for 39 3E 11 FRAME 17, 18
						NATIVE ROAD, RUTS TO 3 INCH & SOME POTHOLES
	59.7					JCT 39 3E 11.2 & ROCKED 11.1
						CONTINUE ON 11.3
	60.0					HVC Bdy; RETURN TO 11.2 ROCKY NATIVE ROAD
						CONTINUE EAST ON 11; 2X WATER BARS
	60.					TURN SOUTH ON 11.4 TO END OF "ELDERBERRY" PROPERTY TEST SITE
	61.0					RETURN WEST ON 11
	61.5					JCT EAST HYATT # 11 TURN SOUTH
	62.2			○ ○		TURNED AROUND @ JCT W 39 3E 11
	62.9					JCT EAST HYATT # 11.2 "WILDCAT HILLS RD"
	63.6					JCT EAST HYATT # HYATT PRARIE RD, TURN SOUTH

Culverts: ○ = OK ● = 1/3 plugged or damaged ● = 2/3 plugged or damaged ● = non-functional  
 codes: CMP, Conc, U/S, D/S, Jcty, BLM, ODOT  
 please use comment space on back of form to add the key details to help us see what you saw





PRIORITY

P

ROAD SLUMPS  
LAND SLIDES

WHAT ACTIONS:

BENEFITS:

DELIVERABLES:

BUDGET:

Road Walk Field Log for UPPER MILL CREEK  
 From SODA Mtn ROAD

RoadWalker names JOHN WARD

Access OK  yes Landowner BLM + BOISE Call first

Date surveyed 8/2/02 military time of day 09:30 21 22

Road Mile @ start 14.7033 Road Mile @ end \_\_\_\_\_

Segment starts at \_\_\_\_\_ Segment ends at \_\_\_\_\_  
 GPS if known N. \_\_\_\_\_ W. \_\_\_\_\_ N. \_\_\_\_\_ W. \_\_\_\_\_

Quad map \_\_\_\_\_ Location T. 40S R. 3E Sec 21/22  
 Road is (✓)  sidecast  inslope  outslope  full bench ditched?  yes  no

Road Runoff factors.

Road surface is  native  crushed rock  paved Water Clarity  none  clear  turbid  muddy  
 Road condition  OK  potholes  gullied  ruts under 8"  ruts over 8"  other \_\_\_\_\_  
 Note → Stream w/in 200 feet?  yes  no Direct discharge to stream?  yes  no

Road Instability factors.

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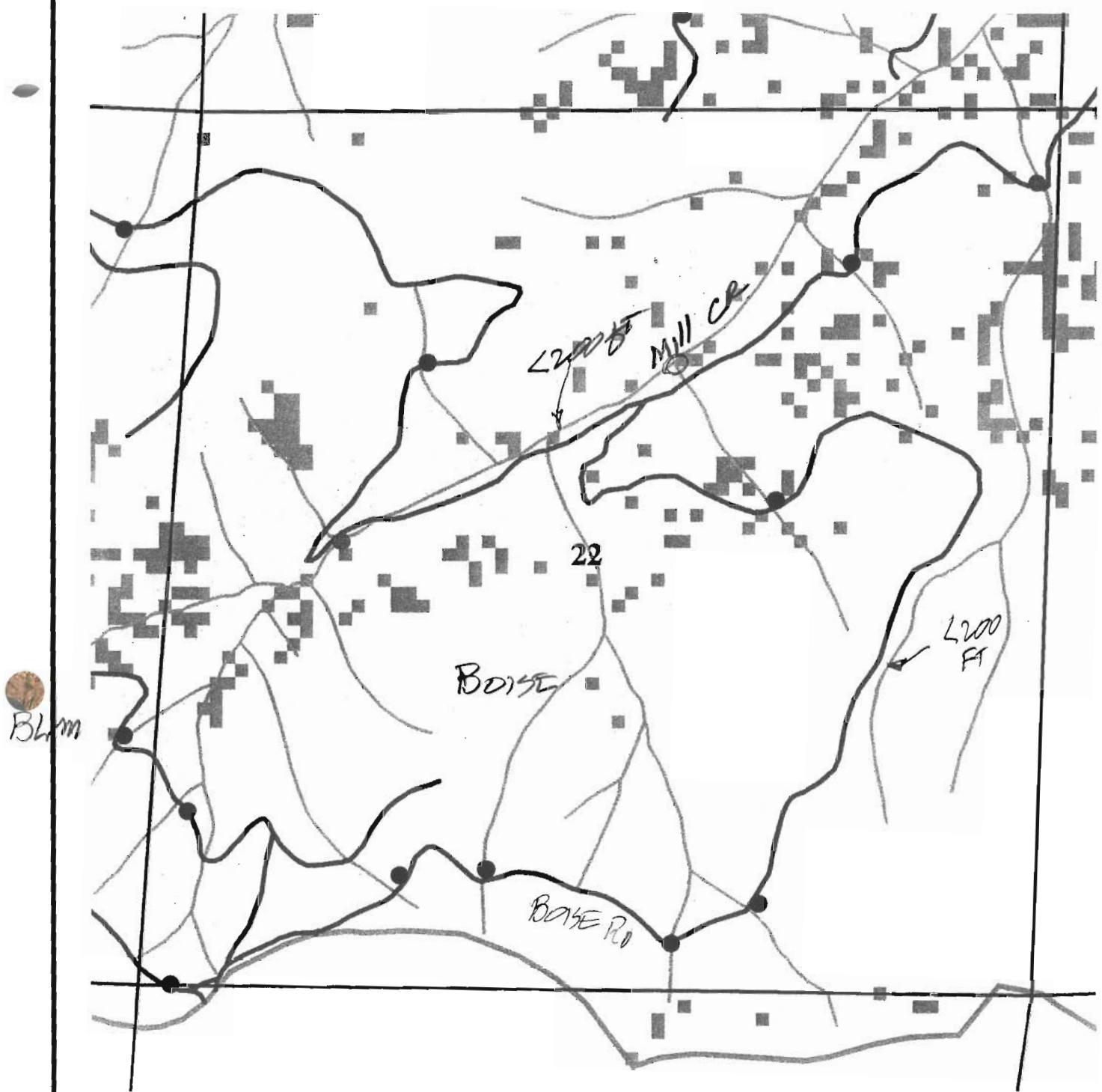
**04 AUG 02**

Site on Odometer  Road Problem Culverts Comment on Runoff, Road Instability or Landslides  
 Photo Miles Runoff Risk Inlet Outlet show photo roll letter \_\_\_\_\_ & frame number \_\_\_\_\_

Photo	Miles	Runoff	Risk	Inlet	Outlet	Comment
	07.4	△				SODA Mtn ROAD POTHOLED ROCKED/outslope
	08.6	△				FRAME <del>2A</del> UNDER OVERLINE DITCHED 80'x250' EARTH FLOOR ACROSS ROAD REPAIRED
	08.8			○ ○		ADJACENT TO SEEP FRAME 2A
	08.9			○ ○		PERENNIAL Stream
11.5	08.9			○ ○		SODA Mtn LOOKOUT NOT FRAME 1A
	09.4	△	L			STEEP CLEAR CUT UPSLOPE w/SEEPS. <del>Earth</del> ROAD PRISM FAILURE ON FILL FRAME 2A/3A/4A/ @ Soda Mtn CORRA <del>SLOPE</del> 5A/6A
7.6 = 20KVA 9PL	10.2					~1/4 MILE HERBICIDE ON CANADIAN THISTLE HIGHLY KILLED ELDERBERRY TO STEEP SLOPE <del>EROSIVE</del> WALKED 0.2mi Post Toxic Trap 2 W. BARS Soil to Boise YARDING SITE. 2X W. BARS NEED ATV TO DESCEND FRAME 7A/8A/9A HERBICIDE

Culverts: ○ = OK ● = 1/3 plugged or damaged ● = 2/3 plugged or damaged ● = non-functional  
 codes: CMP, Conc, U/S, D/S, Jacty, BLM, ODOT  
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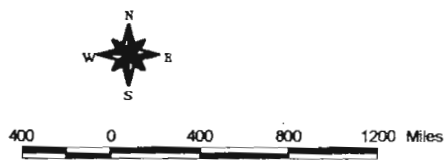
T40S R3E 22



**Vegetation Class**

- Grass
- Hardwoods
- Large Poles
- Late-Successional
- Mature
- Seeding Thru Poles
- Shrubs
- Water

- Roads
- Streams
- Sections
- Keene Watershed Boundary
- Perennial Stream Crossing
- Road / Stream Crossing





(P)

