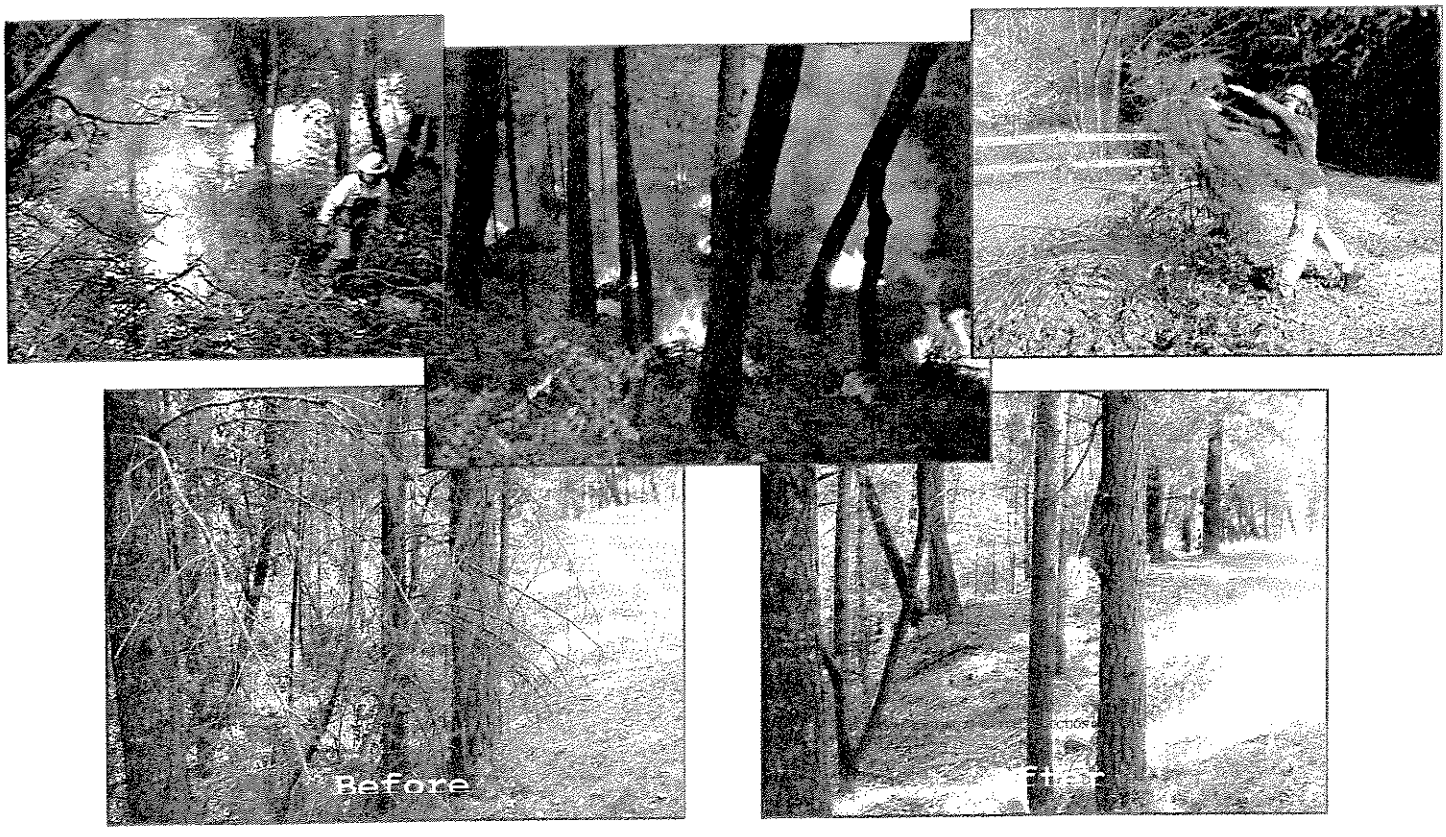
Orleans/Somes Bar Fire Safe Council

Lower Mid-Klamath Riparian Ecosystem Enhancement Project

2002 Jobs In The Woods Program

Project # 2002-JITW-02
Agreement # 11333-2-J009

Prepared by Will Harling and Ben Riggan



August 28, 2003

Abstract:

This Orleans/Somes Bar Fire Safe Council (FSC) project planned and implemented approximately 23 acres of fuels reduction to create strategic fuelbreaks along Ishi Pishi Road. Displaced local timber workers were employed to treat extreme fuel loading conditions along this well traveled critical access route. The fuels treatments buffered riparian areas and wetland habitat where they cross the road, effectively mitigating the effect of potential human-caused fires. Landowners were educated in the need to protect watercourses from uncharacteristically intense wildfire through maintenance of these fuelbreaks.

Tasks in this project have been performed in consultation with the USF&WS, the USFS, and the Karuk Tribe of California. This project was also coordinated with a 2001 BLM Community Based Wildfire Prevention Grant that treated 20 acres on the uphill side of Ishi Pishi Road.

Introduction:

Program Objectives

A. Modify excessive fuel loading, with a focus on reducing the risk of catastrophic fire at several prioritized parcels of private lands situated in neighborhoods and located in more isolated areas.

B. Identify and release desirable native vegetation in riparian areas and associated buffer zones and in areas associated with fuel breaks where targeted native vegetation is currently being suppressed.

C. Reduce road surface related sediment to the stream through the maintenance of existing and installation of new minimal drainage structures.

D. Identify useful and efficient techniques that the FSC, landowners and managers can use regarding fuels management, erosion control, monitoring and other restoration activities in the communities of Orleans and Somes Bar.

E. Create new job opportunities for displaced workers who have worked in logging related activities or live in timber dependant communities.

F. Enlist landowners to increase responsible stewarding of their private lands in a manner that is consistent with federal management direction at a landscape level. This participation will foster others in the community to partake in land managing and use activities that are more appropriate.

G. Fireproof concentrations of rural residencies to a condition that requires low maintenance in the future. This approach will reduce the spread of house fires into wildlands and reduce demands for residential protection during catastrophic fires.

Specifically, shaded fuel breaks were designed by thinning out flammable species, removing dead and down fuels and trimming up remaining trees and shrubs. This technique reduces and breaks up fuel continuity and fuel ladder, while maintaining the vegetative cover needed to prevent unwanted growth of flammable brush species. The resulting fuel break is a long lasting solution to vegetation management in this fire-prone area.

Description of Study Area:

The Lower Middle Klamath is a major subbasin of the Klamath River. The project area includes two communities with a total population of roughly 1200 people. The Mid-Klamath Subbasin is the primary contributor of high quality waters to the Klamath River and is critical to maintaining minimum water quality standards. The Mid-Klamath sub-basin tributaries, as a whole, originate in wilderness areas and contribute more cold water to the Klamath River than any other sub-basin. Mid-Klamath tributaries are typically 10° Celsius lower than the main stem, buffering the extent of occasional fish kills in the lower part of the sub-basin (Rhode 1999, Reed 2000). These tributaries support large runs of potentially threatened steelhead, as well as Spring and Fall Chinook.

The Project focuses on private property in the rural wildland/urban interface/intermix along Ishi Pishi Road between the towns of Orleans and Somes Bar. Midslope properties along Ishi Pishi road include valuable late successional habitat interspersed with adjacent old clearcuts at various stages of succession. These Late Successional areas are critical habitat for several federally listed species, including the Spotted Owl, Marbled Murrelet, Humboldt Marten, and the Red Tree Vole. Human caused ignitions in the Lower Mid-Klamath are the leading cause of fires.

These areas consist of predominantly second growth mixed coniferous forest (Douglas fir, pine and cedar overstories, conifer/hardwood understories, and significant amounts of brush). All proposed project areas are considered severely threatened by catastrophic wildfires.

A growing body of scientific evidence suggests that mechanical treatments followed by prescribed fire can reduce overall adverse impacts to water and air quality by reducing the amount of fuel that would otherwise be available during the wildland fire season (USFS 2000). The USFS Land and Resource Management Plan supports the reintroduction of fire to the landscape in the form of fuels treatment followed by prescribed fire (med-high fuel loading), prescribed fire (low-med fuel loading), or in some areas and fuel types, a let burn policy (USFS 1994). However, escaped prescribed fires near private inholdings and outlying communities within public-held lands (Los Alamos and Whiskeytown Lake to name a few recent examples) have hindered attempts by agencies to increase the use of fire as a management tool.

We propose that the fastest way to facilitate the reinstatement of pre-European contact fire regimes is to treat the areas around homes and municipal watersheds first so that private property owners feel more secure when agencies and tribes steps up their burning and fuels treatment programs to address fuel loading at the landscape level. In response, agencies and the tribes will feel more comfortable reinstating natural fire regimes in a timely manner.

Methods Used:

Fuels Treatment

Fuels treatment techniques included handpiling and removal of excessive fuels from site. To create a system of shaded fuel breaks on private property, we utilized existing roads, skid trails and ridges. Fuel reduction also took place in buffer zones next to the riparian areas to protect the riparian areas from fire.

Native Vegetation Release

During the fuels treatment activities, individual plants of desired species that are currently suppressed were released. These desirable plants include Pacific Dogwood (*Cornus nuttalli*), Big Leaf Maple (*Acer macrophylum*), Pacific Madrone (*Arbutus menzesii*), Oregon White Oak (*Quercus garryana*) and Black Oak (*Quercus kellogii*).

Noxious Weed Identification and Removal

Remove, when possible, noxious weeds from restoration sites. Species targeted for removal were: star thistle, Scotch broom, Klamath weed, Marlahan mustard, Himalayan blackberries, and bull thistle. Identify Knapweed populations if present and inform the Mid Klamath Watershed Council staff of location and size of site.

Roads

Chips from project areas were spread on roads and fill slopes to mitigate surface erosion. No waterbars or culvert and ditch cleaning were needed within the project areas.

Monitoring:

All areas on which project activities were performed were mapped using site surveys then heads-up digitizing in GIS, thus identifying accurate locations of project areas. GPS boundaries were not recorded due to our inability to secure a GPS unit from the Orleans Ranger District and the SRRC.

Photo-documentation took place at all restoration sites before, during, and after project activities.

Landowner Participation:

Site #1	Frank Fischl and Diane DesChaine	Upper Ishi Pishi Neighborhood
Site #2	Michael and Melinda Stearns	Upper Ishi Pishi Neighborhood
Site #3	Jim Henderson	Upper Ishi Pishi Neighborhood
Site #4	Phil Purcell and Margaret Lawson	Upper Ishi Pishi Neighborhood
Site #5	Kris and Carole Kehrig	Upper Ishi Pishi Neighborhood
Site #6	Martin Turner	Thunder Mountain Neighborhood
Site #7	Ken Ratihn	Thunder Mountain Neighborhood
Site #8	Pat and Marguerite Pierce	Lower Ishi Pishi Neighborhood
Site #9	Claudia Holzinger	Lower Ishi Pishi Neighborhood
Site #10	Helen Mason	Offield Mountain Neighborhood
Site #11	Rick Ward	Offield Mountain Neighborhood

Summary of Monitoring Component

OSB FSC staff conducted implementation monitoring activities during and after project activities. Landowners will perform annual monitoring of project sites for at least 10 years following completion of the project. In addition, the OSB FSC will retake after photos in five years to document the effectiveness of the shaded fuelbreaks. Photo-point documentation was taken at each site before during and after (at completed sites) from the same point and perspective to assess the project. A sample of these before-and-after pictures is attached in Appendix 1.

Community Outreach/Education Plan

As part of this project, the OSB FSC sponsored three Community Hazard Fuels Reduction Volunteer Workdays where we enlisted community members to treat fuels around the homes of elderly and disabled community members. These included workdays at the Bouse Residence, the McClane Residence and the Davis Residence. Participants were educated in the proper treatment and disposal of hazard fuels, and the importance of protecting riparian and upslope habitats from uncharacteristically intense wildfires. Additionally, we hosted a Fish, Wildlife and Hazard Fuels Reduction Workshop to gather input from biologist and specialists on the effects and implications of our fuels reduction projects. Work completed under this grant was highlighted at the workshop.

Geographic Information System (GIS) maps and photo displays of JITW project sites were highlighted in several major publications, including the Eureka Times Standard (40,000 copies circulated) and the North Coast Journal (35,000 copies circulated). In addition, the project is highlighted in our brochure and in our Somes Bar office.

Results:

- Fuels reduction activities occurred on approximately 23 acres (see GIS) of

private land. We utilized Ishi Pishi Road, the major arterial route for the neighborhood, and treatments above the road through a 2001 BLM grant to create an effective fuelbreak.

- Reduction of sediment from roads was accomplished by spreading wood chips from treated areas to stabilize bare slopes.

- Before and after pictures were taken at all sites and photo layouts were created to highlight the work done. Approximately 60% of the treatment area is covered by the photopoints.

- Three volunteer workdays and one field trip to treatment sites were coordinated. Agencies and the general public were educated about and engaged in our community-based fuels reduction program.

- This project is part of a continuing fuels reduction program in the lower Mid Klamath Subbasin. By coordinating with all stakeholders, including the Karuk Tribe, the Forest Service, the Fish and Wildlife Service, NOAA Fisheries, the Orleans Volunteer Fire Department, the Orleans Community Services District, and the community, we have planned projects that are feasible and share widespread support. We are currently working with the Forest Service and the Karuk Tribe on a comprehensive Fire Management Plan for the Orleans and Ukonom Ranger Districts.

Summary and Conclusions:

23 acres of fuels reduction was completed along a critical access route, and several wildfire safety zones were created around the homes of elderly or disabled community members. Due to high fuel loading (deep soils, adequate light), the slope of the project area (predominantly on the fill slope below Ishi Pishi Road with 50-90% slopes), and wet conditions (hard to burn piles), cost per acre was increased and we were unable to complete work on all sites. In particular, the Mason, Holzinger, and Ward sites were not treated. We are pleased that work on these sites will be completed this season through a 2003 USFS Community Protection Program grant.

We have found that cost per acre for fuels projects in this area are expensive ($1000 - $2000/ac) due to high growth rates, fertile soils, ample sun and rainfall, and mild winters. This project, combined with a 2001 BLM and 2002 RAC project, allowed us to train and employ 15 displaced timber workers for seven months from the fall of 2002 to the spring of 2003. This seasonal work is critical to our local communities, which are traditionally economically depressed during the winter months when recreation and other forest work slows down.

Summary of Expenditures:

No major property was purchased through this project.

In-Kind Contributions:

In-Kind contributions consisted of several categories:

1. Project Manager: The project manager was covered for $1000 in coordination labor toward this project from a previous 2001 USFS Community Protection Program grant. The Project Manager also volunteered 55 hours of their time to the project for a total of $880.00.

2. Technical Assistance: Technical assistance from the US Fish and Wildlife service was provided to complete NEPA and SHPO documentation. Two FWS personnel spent 16 hours each surveying project areas. At $35.00/hr this equals $1,120. A grant from the USFS was used to establish an office and purchase needed equipment for computer services, fax services and internet access essential for project documentation. This totaled $730.00. The cumulative total for Federal technical assistance is $1,840.00.

   Technical assistance volunteerism came from one fisheries biologist, one wildlife biologist and two archaeologists who, on their own time, supplied trainings to the FSC staff and contract crew. Their cumulative time, 25.5 hours at $40.00/hr, equals $1,020.00. A training for equipment operators was provided by a local mechanic to instruct the crew on proper use of the chipper, tractor and other machinery. The operator volunteered 5 hours at $40.00/hr for a total of $200.00. 10 workers attended this training without pay for a total of 50 hours at $10.00/hr, which equals $500. Additional technical assistance came from a computer technician who spent 20 hours maintaining office systems and programs necessary for project documentation, mapping and coordination. At $35/hr, this equals $700.00. Technical support also came from the Karuk Tribe: 4 persons x 8 hrs x $35.00/hr = $1,120.00, California Dept. of Forestry: 1 person x 8 hrs x $35.00/hr= $280.00, and one person for 5 hours from the Orleans Vol. Fire Department: 1 person x 5 hours x $20.00/hr = $200.00 The cumulative total equals $4,020.00.

3. Worker Volunteer Time: The fuels reduction crew volunteered 450 hours at $10/hr traveling to and from project sites in the company vehicle. This totals $4,500.00. In addition, workers volunteered approximately 20 hours after paid hours to collect and deliver firewood to elderly landowners.

4. Landowner Volunteerism: Landowner in-kind contributions in the form of fuel reduction, piling, chipping and/or burning, and monitoring totaled 515 hours at $10 hour = $5,150.00. In total, 36 landowners and residents contributed their in-kind labor to the project.

5. FSC Planning and Prioritization: the State Fire Safe Council granted $15,525.00 to the FSC for initial planning, prioritization, and survey efforts.

6. FSC Follow-Up Monitoring: 30 hours were volunteered by FSC staff to accomplish the follow up monitoring. At $10/hr this totals $300.00.

7. Materials and Supplies: The FSC donated $450.00 of photographic material and plotter supplies to this project. The USFS donated $300 worth of plotter supplies to the FSC for this project.

8. Operating Expenses: In-kind contributions for the chipper were from a tractor/chipper/mower from another grant that was used on this project for a total of 8 hours. At $60/hr, this equals $480.00. Also, a landowner volunteered his tractor/chipper/mower for two volunteer workdays. At $60/hr for 8 hours, this equals $480.00. This totals $960.00.

   We were not able to secure a GPS unit to map the project areas. Excess in-kind from Worker Volunteer Time should cover this item.

   The FSC used GIS equipment to map the project. Approximately 45 hours was spent mapping locations. GIS equipment was used for making the Arc View Project. GIS services typically cost between $40.00-$60.00/hr, however our GIS technician charged only $16/hr for their time. Taking the average of $50.00hr minus $16/hr multiplied by 45 hours equals $1,530.00.

   The project manager and all FSC staff volunteered all of their transportation costs, which, at $0.31/mi. for 1310 miles equal $406.10.

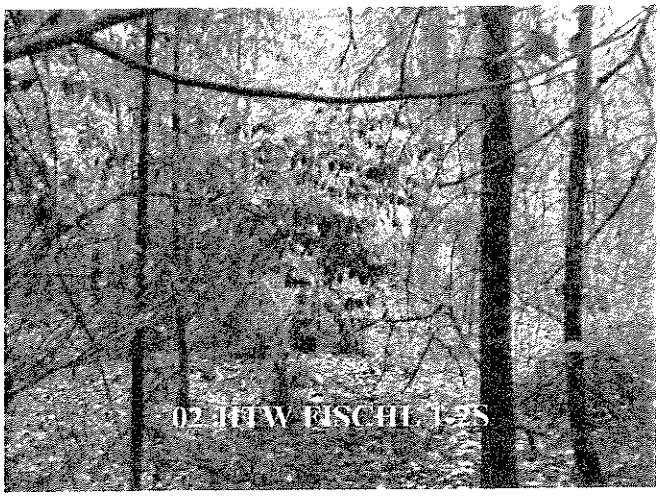
This totals $18,196.00 in In-Kind Contributions from the FSC, local organizations, the crew and community members to date. Landowners will continue to maintain the project on their properties. $3,140 in other federal in-kind funds was contributed, as well as $15,525.00 in other non-federal cost share cash.

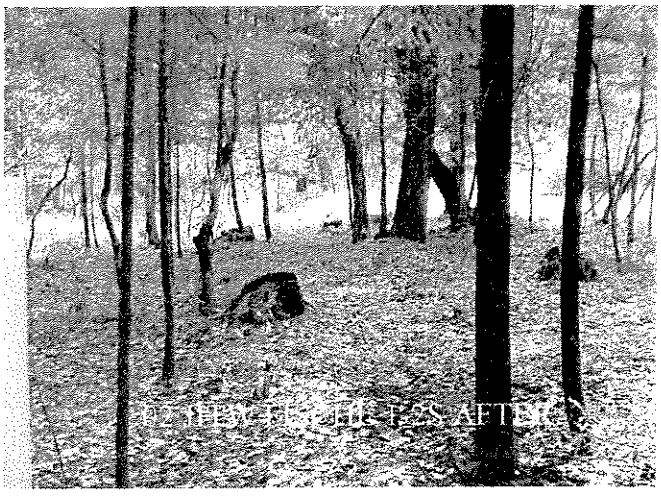
APPENDICES:

Appendix 1: Before and After Photos
Appendix 2: Project Location Map and Site Maps
Appendix 3: Final Budget and Invoices

Appendix A

Fischl Property Photo Layout

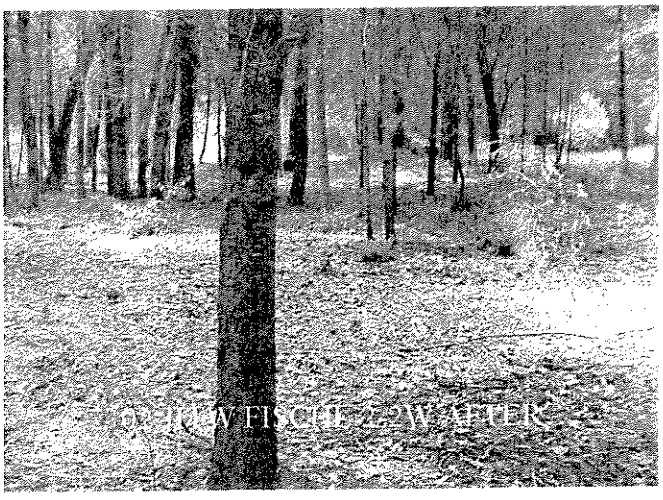





02 JTTW FISCHL 2-1N


02 JTTW FISCHL 2-1S

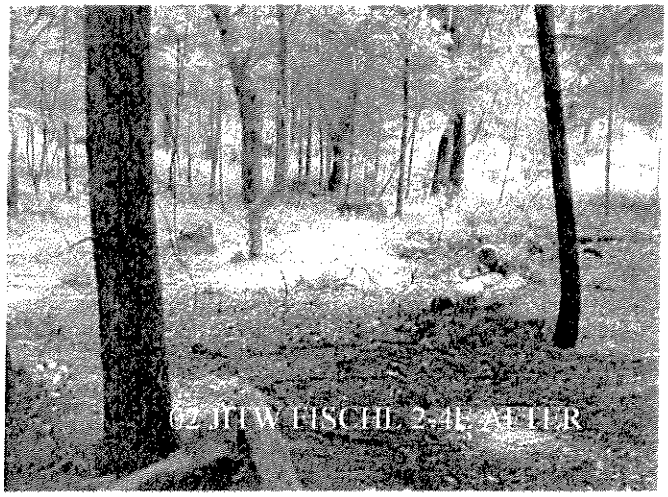

02 JTTW FISCHL 2-2W


02 JTTW FISCHL 2-2W AFTER

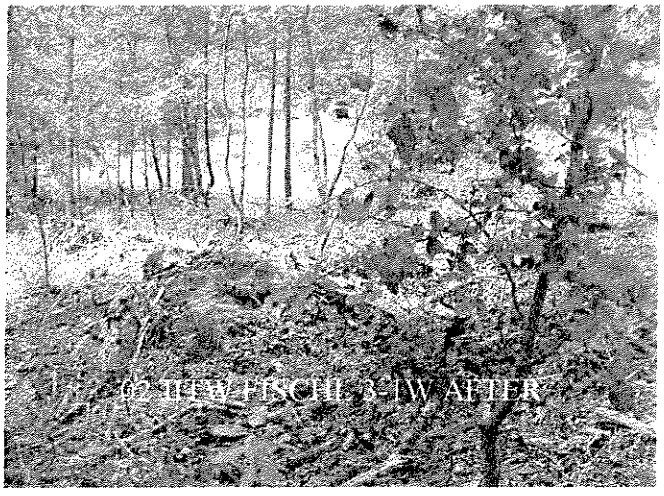

02 JTTW FISCHL 2-3S


AFTER

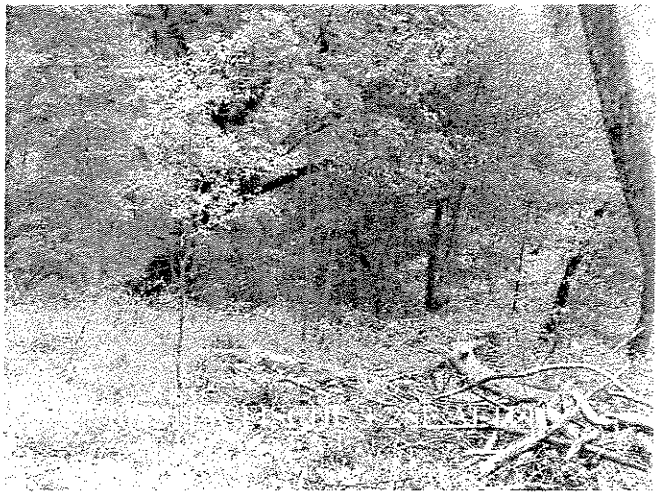

02 JITW FISCHL 2-4E


02 JITW FISCHL 2-4L AFTER


02 JITW FISCHL 3-1W

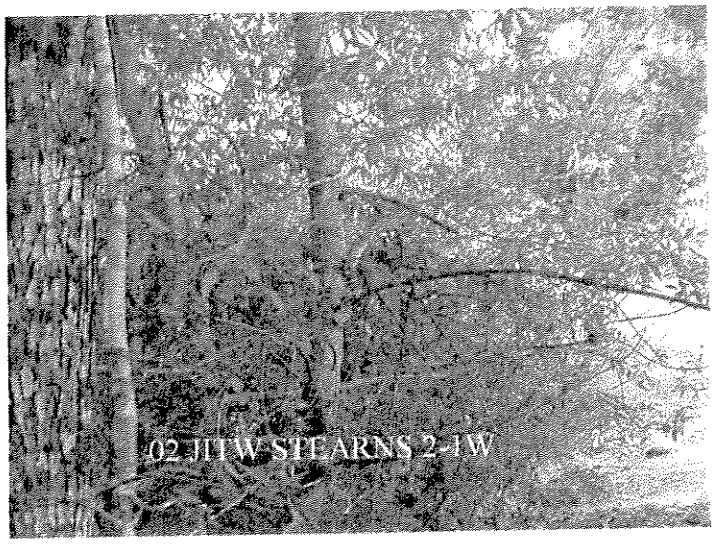

02 JITW FISCHL 3-1W AFTER

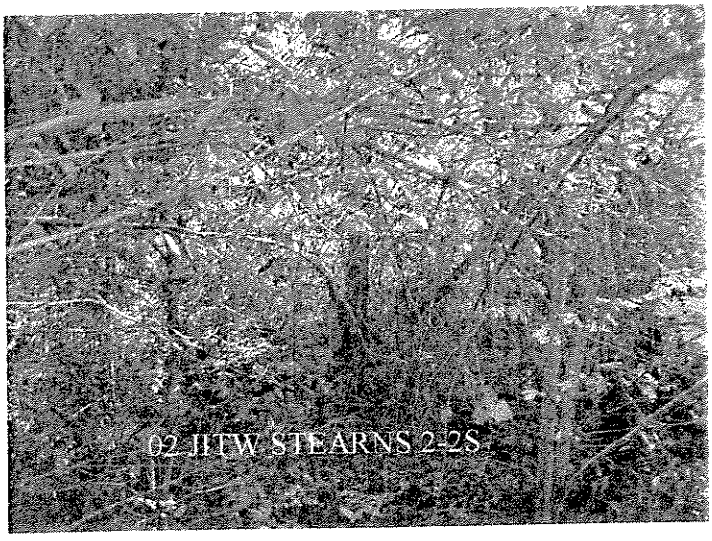

02 JITW FISCHL 3-2SE

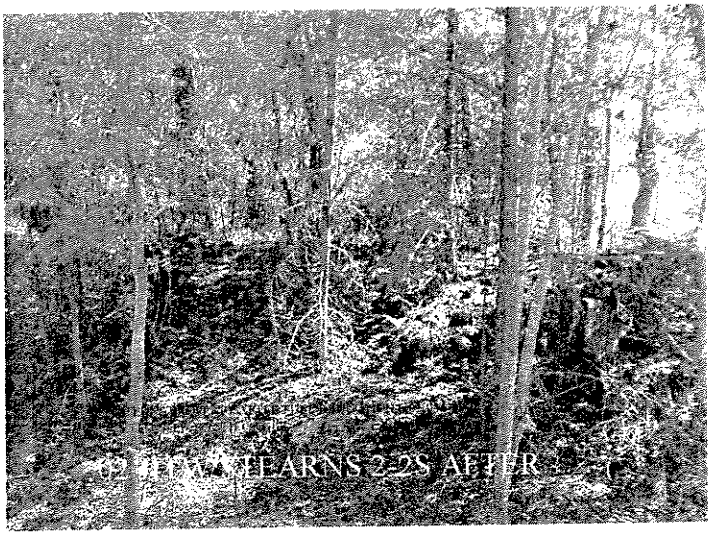


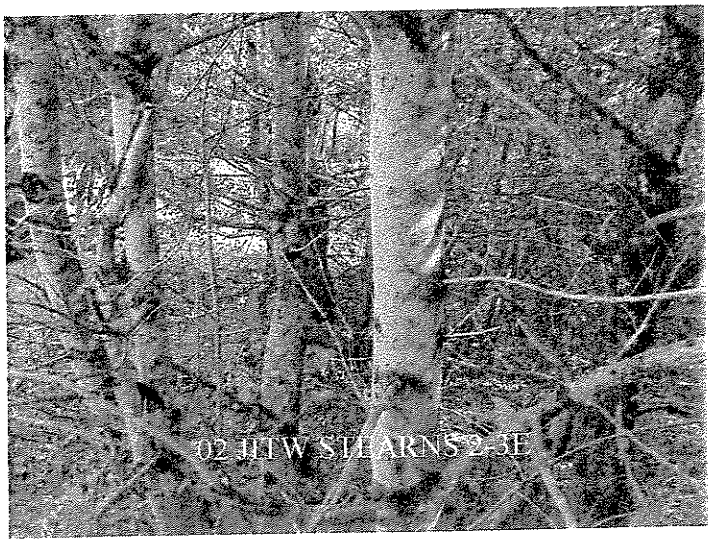
Appendix A

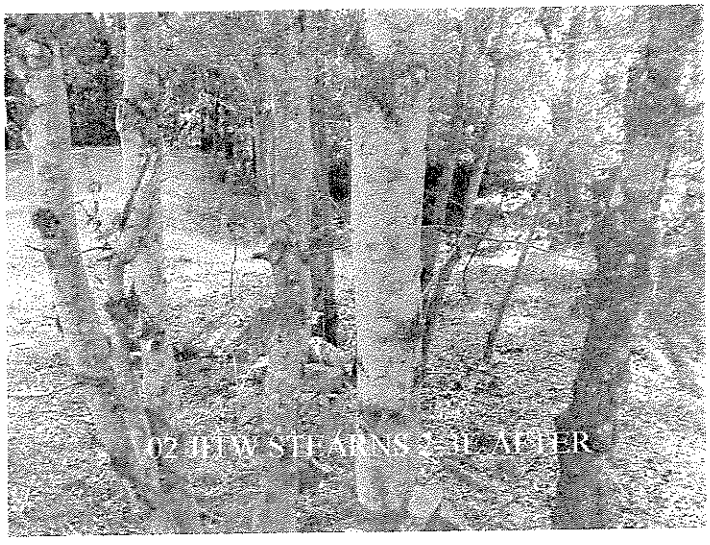
Stearns Photo Layout





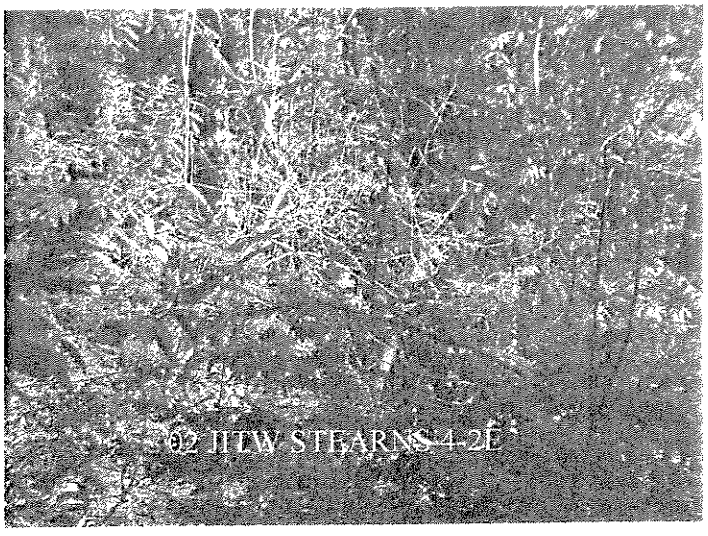




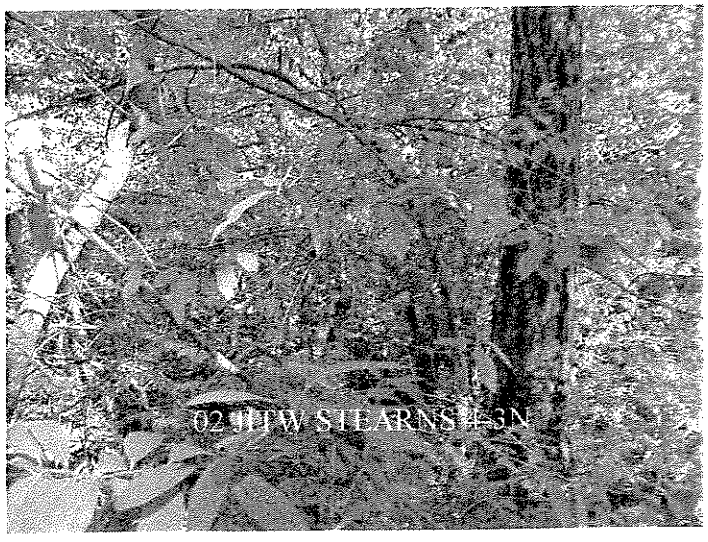


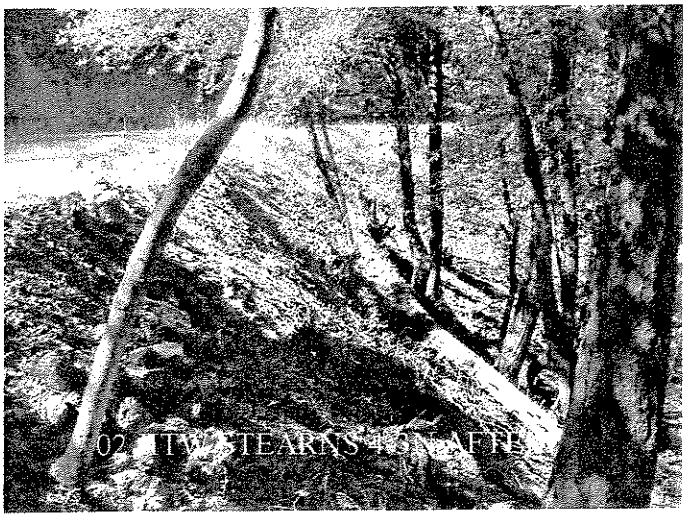

02 JTW STEARNS 4-1S


02 JTW STEARNS


02 JTW STEARNS 4-2E

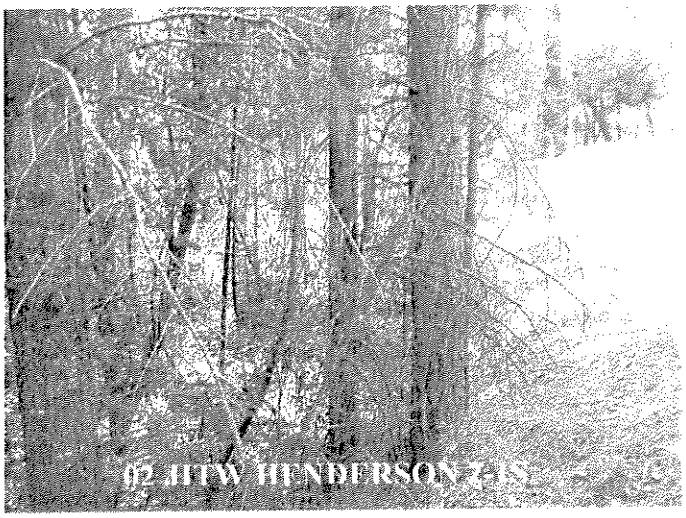

AFTER

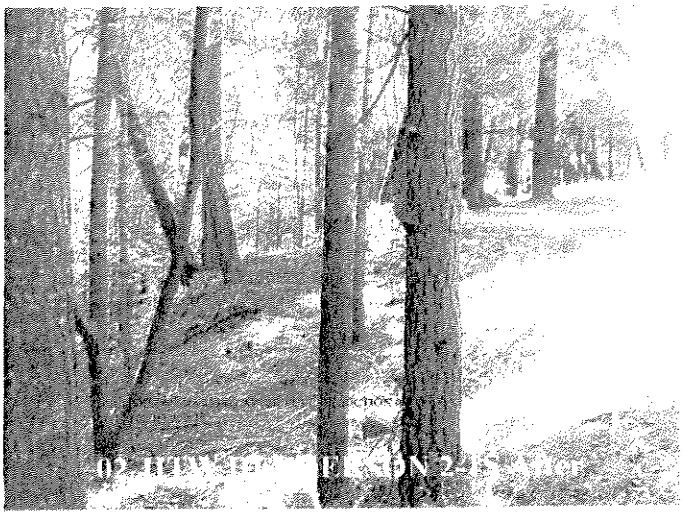

02 JTW STEARNS 4-3N

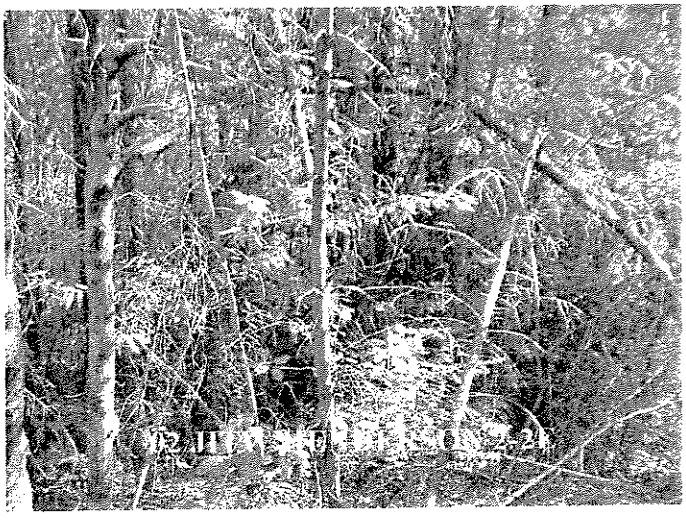

02 JTW STEARNS 4-3N AFTER

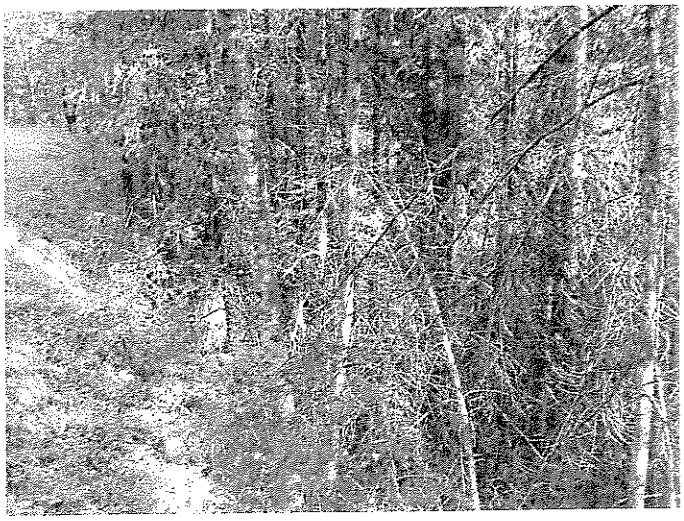
Appendix A

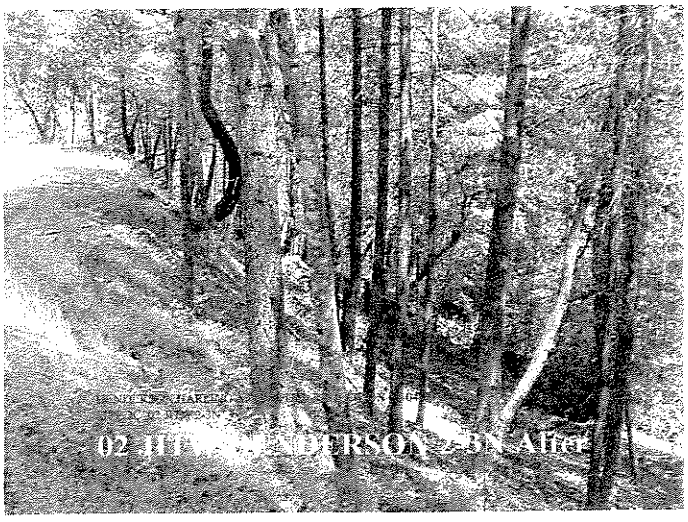
Henderson Property Photo Layout

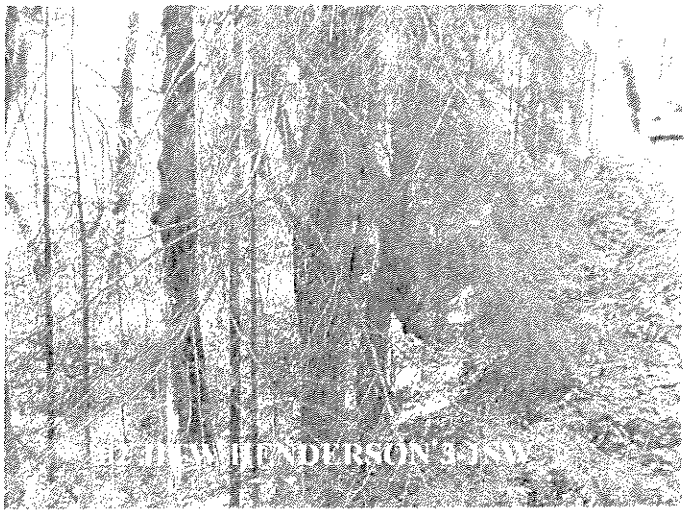










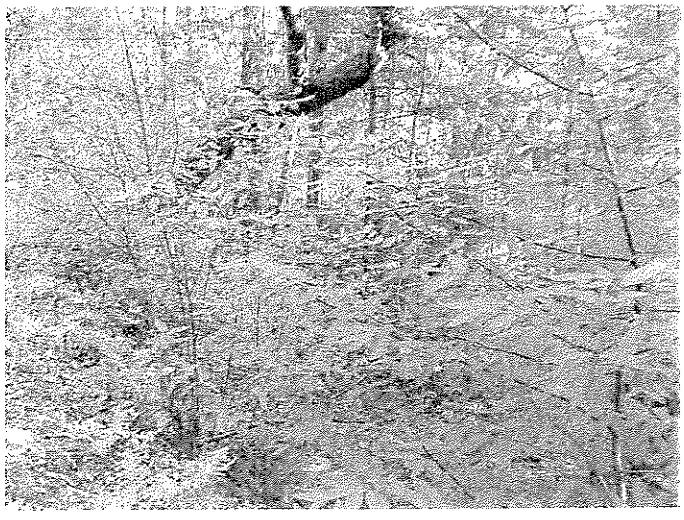


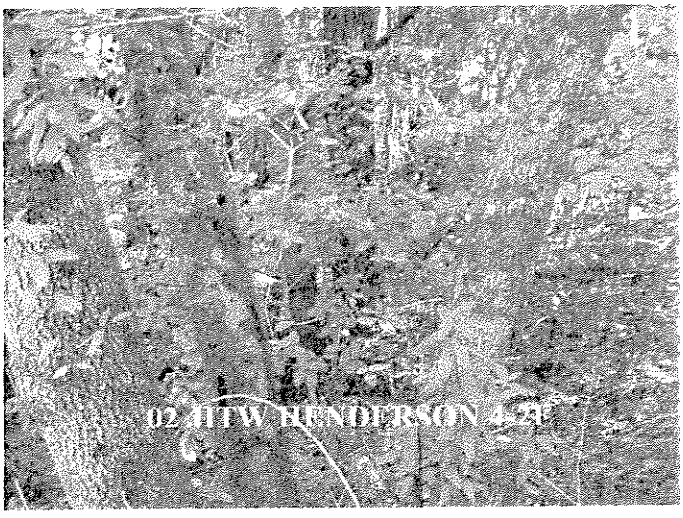
02-11TW-HENDERSON 3-1SW

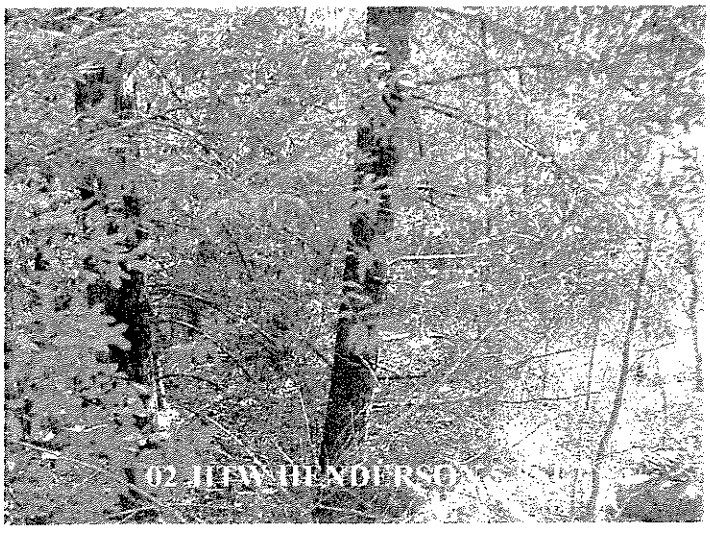
02-11TW-HENDERSON 3-1SW-After

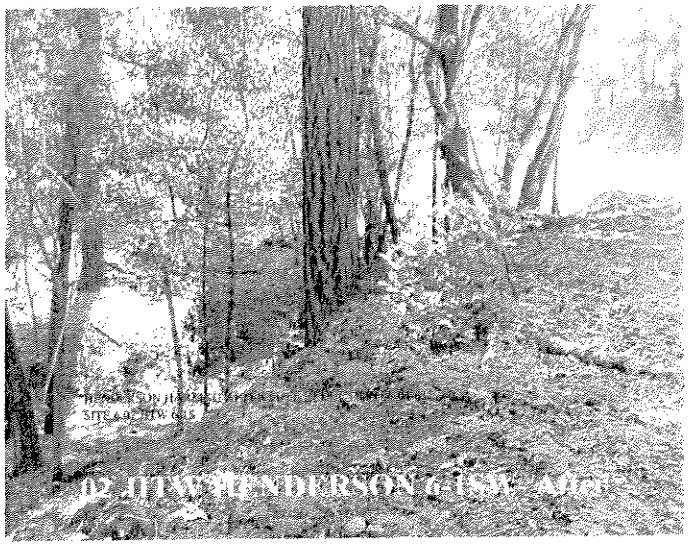
02-11TW-HENDERSON 3-2SE

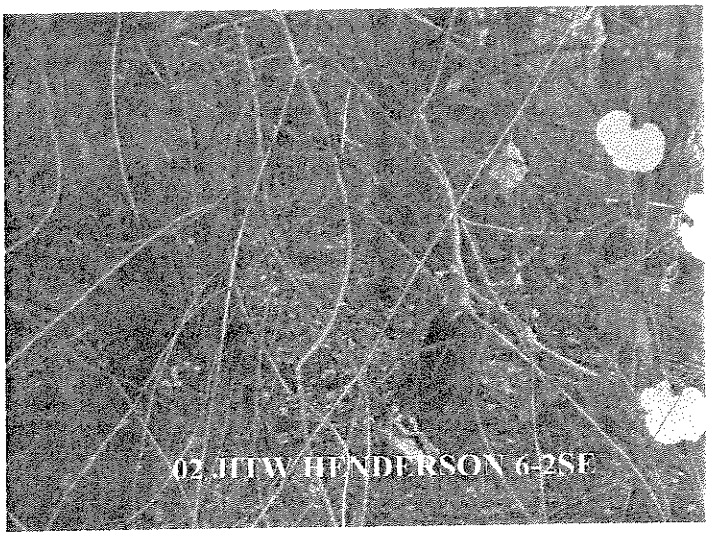
02-11TW-HENDERSON 3-2SE-After





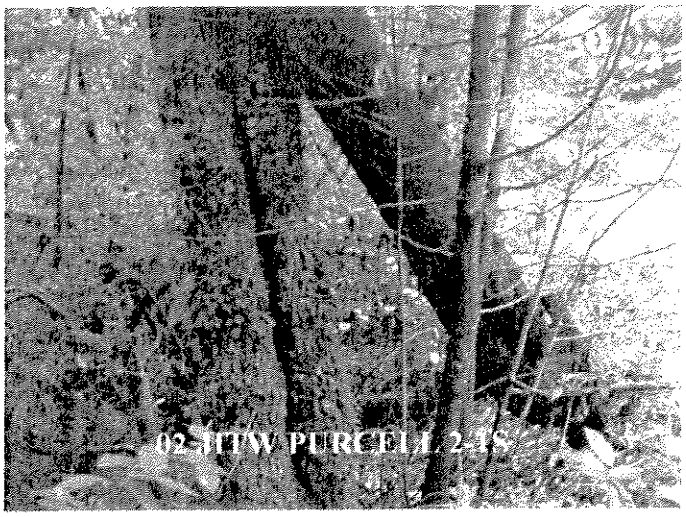


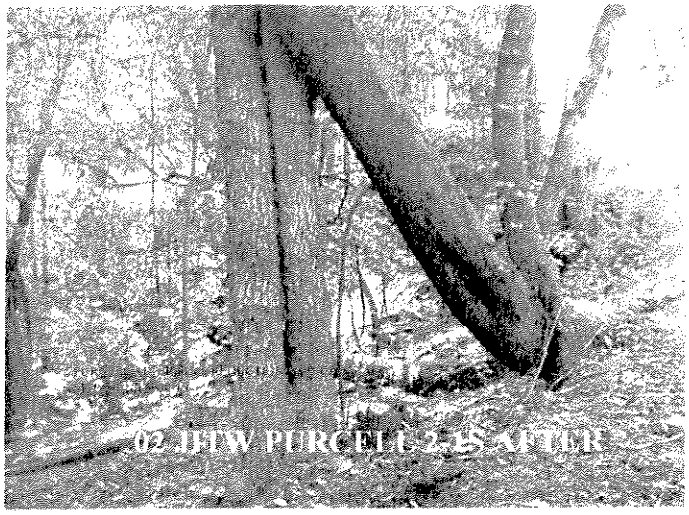


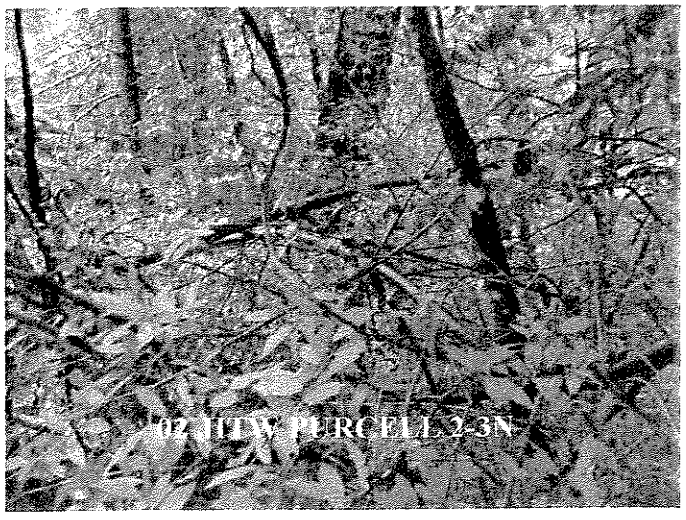


Appendix A

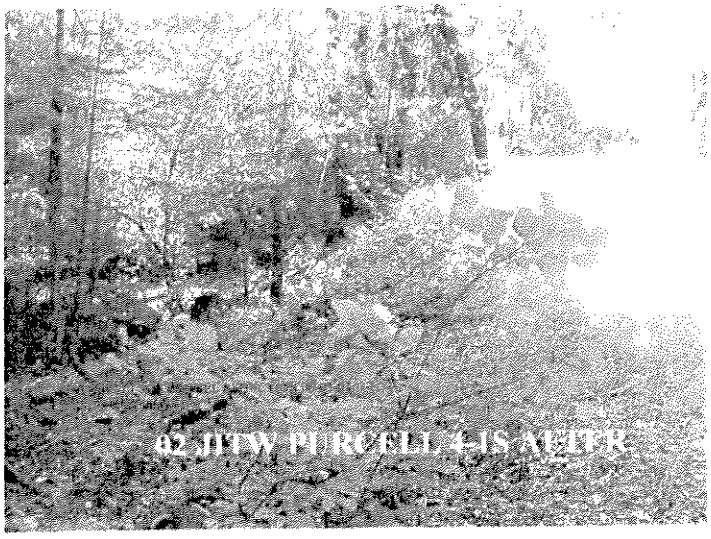
Purcell Property Photo Layout





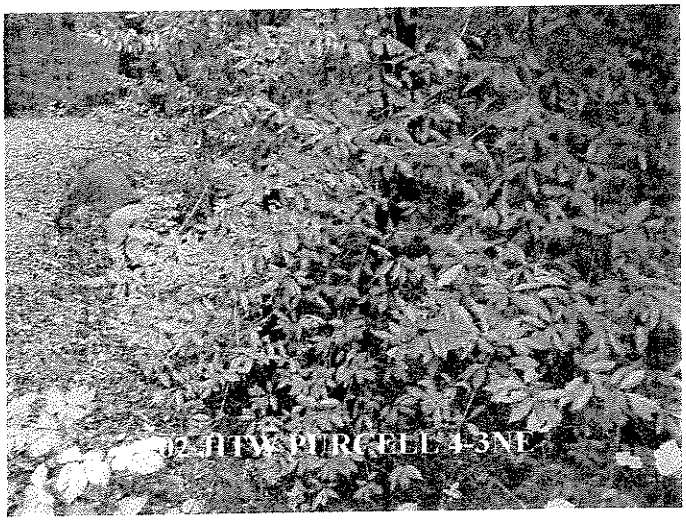



02 JITW PURCELL 4-1S


02 JITW PURCELL 4-1S AFTER


02 JITW PURCELL 4-2

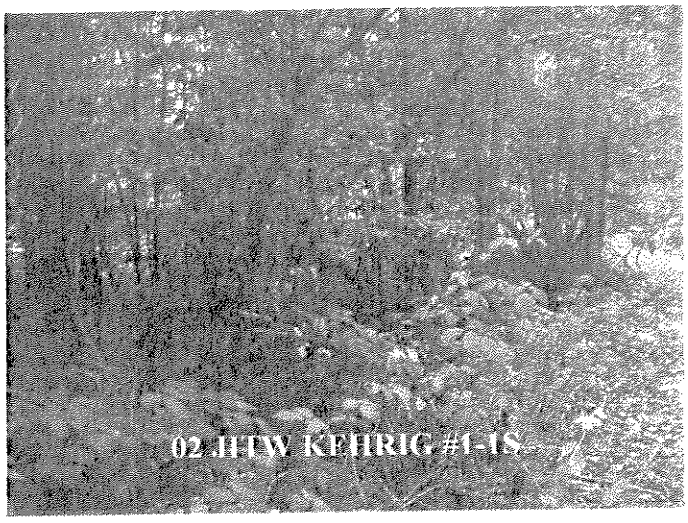

02 JITW PURCELL 4-2 AFTER

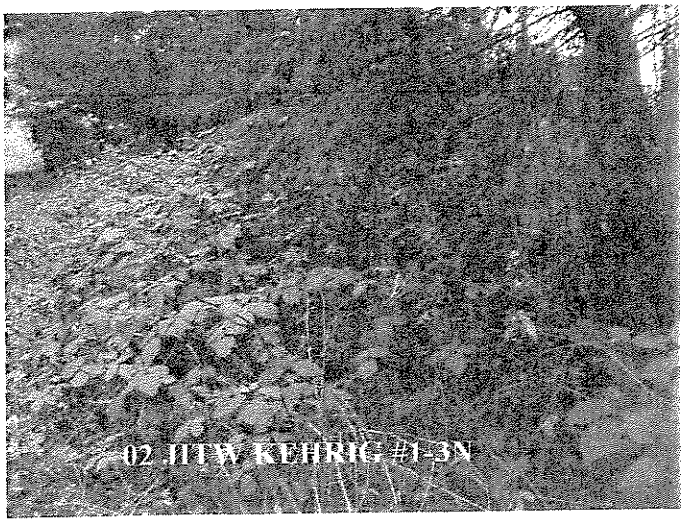

02 JITW PURCELL 4-3NE

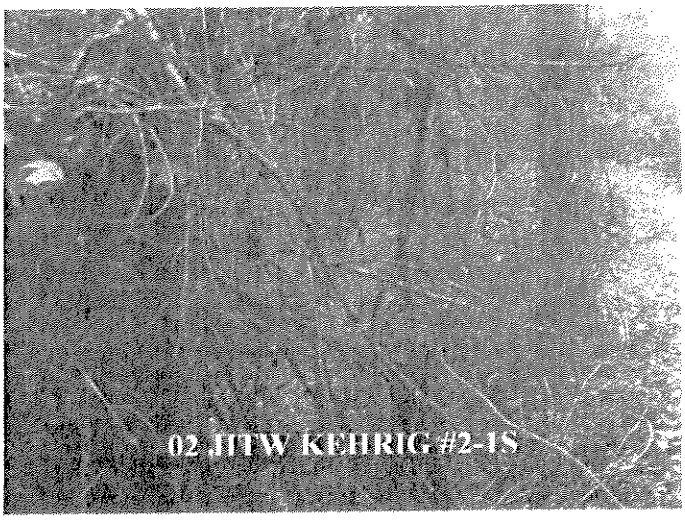

PURCELL AFTER
SITE 40 02 JITW
PURCELL 4-3NE AFTER

Appendix A

Kehrig Property Photo Layout






02 JITW KEHRIG #2-1S


02 JITW KEHRIG #2


02 JITW KEHRIG #2-2E

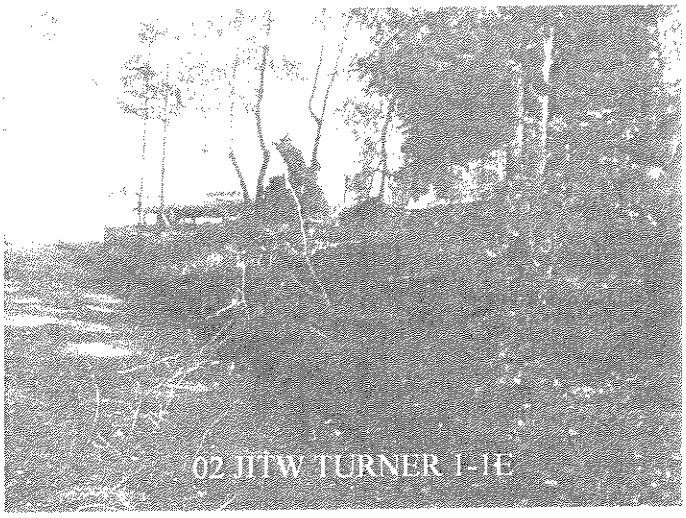

HRIG #2-2E AFTER

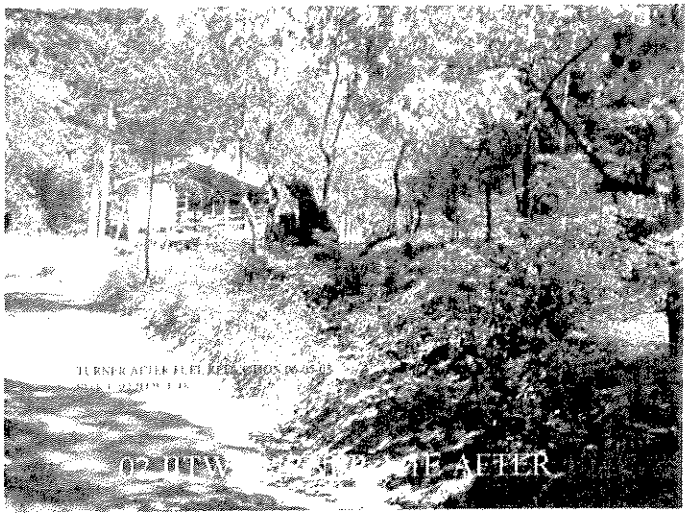

02 JITW KEHRIG #2-3N

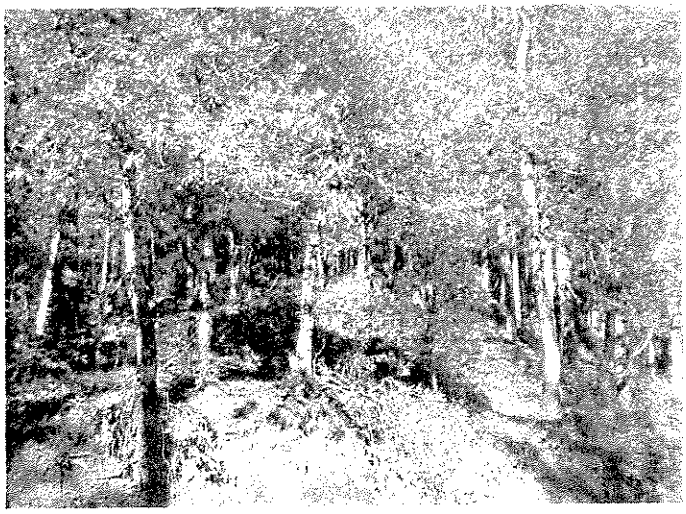

02 JITW KEHRIG 2-3N AFTER

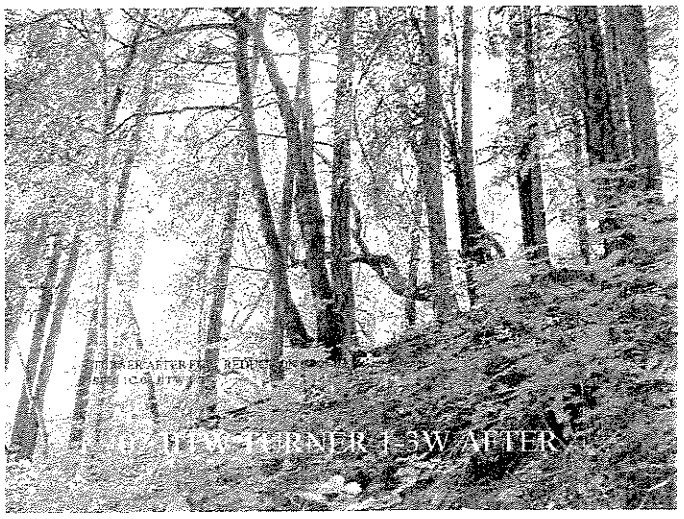
Appendix A

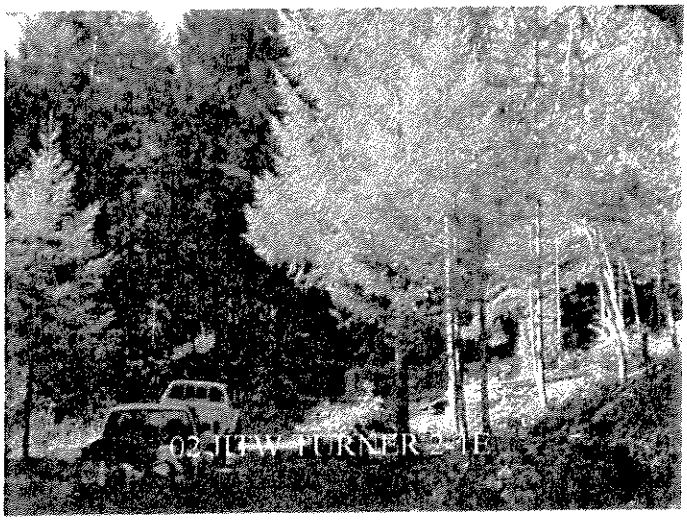
Turner Photo Layout









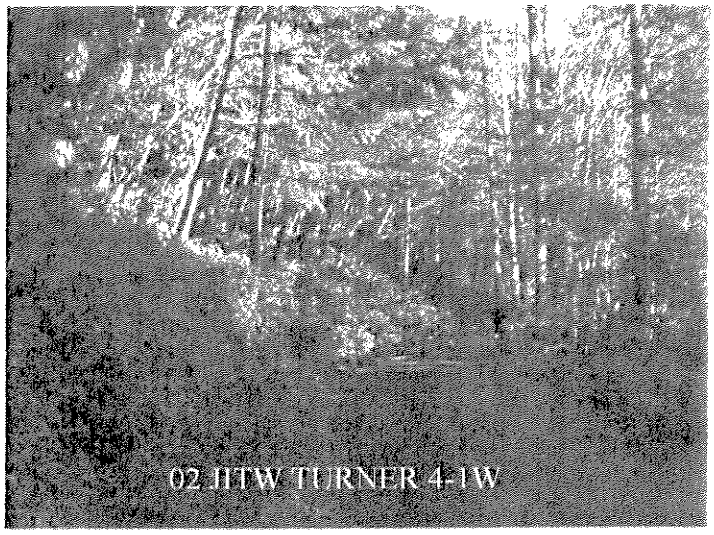

02 HTW-TURNER 2-1E


ER 2-2N


02 IITW TURNER 3-1E

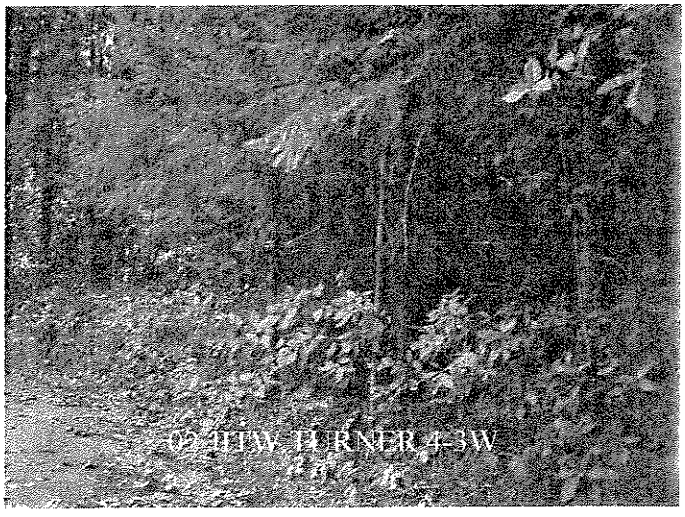

02 IITW TURNER 3-2N

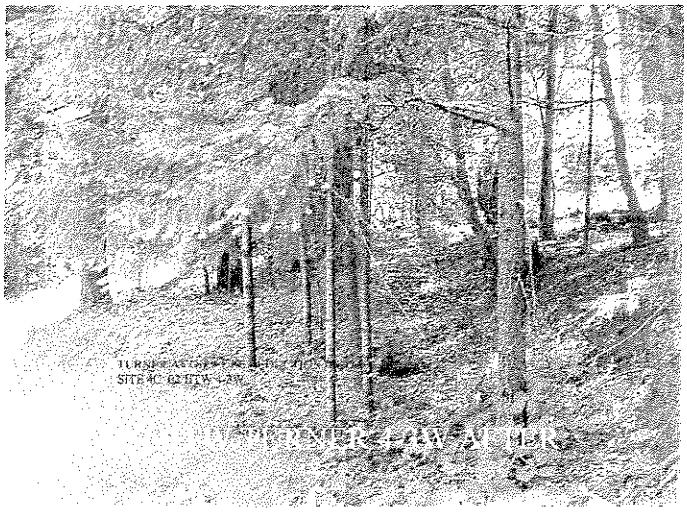

02 IITW TURNER 3-3W


02 IITW TURNER 4-1W

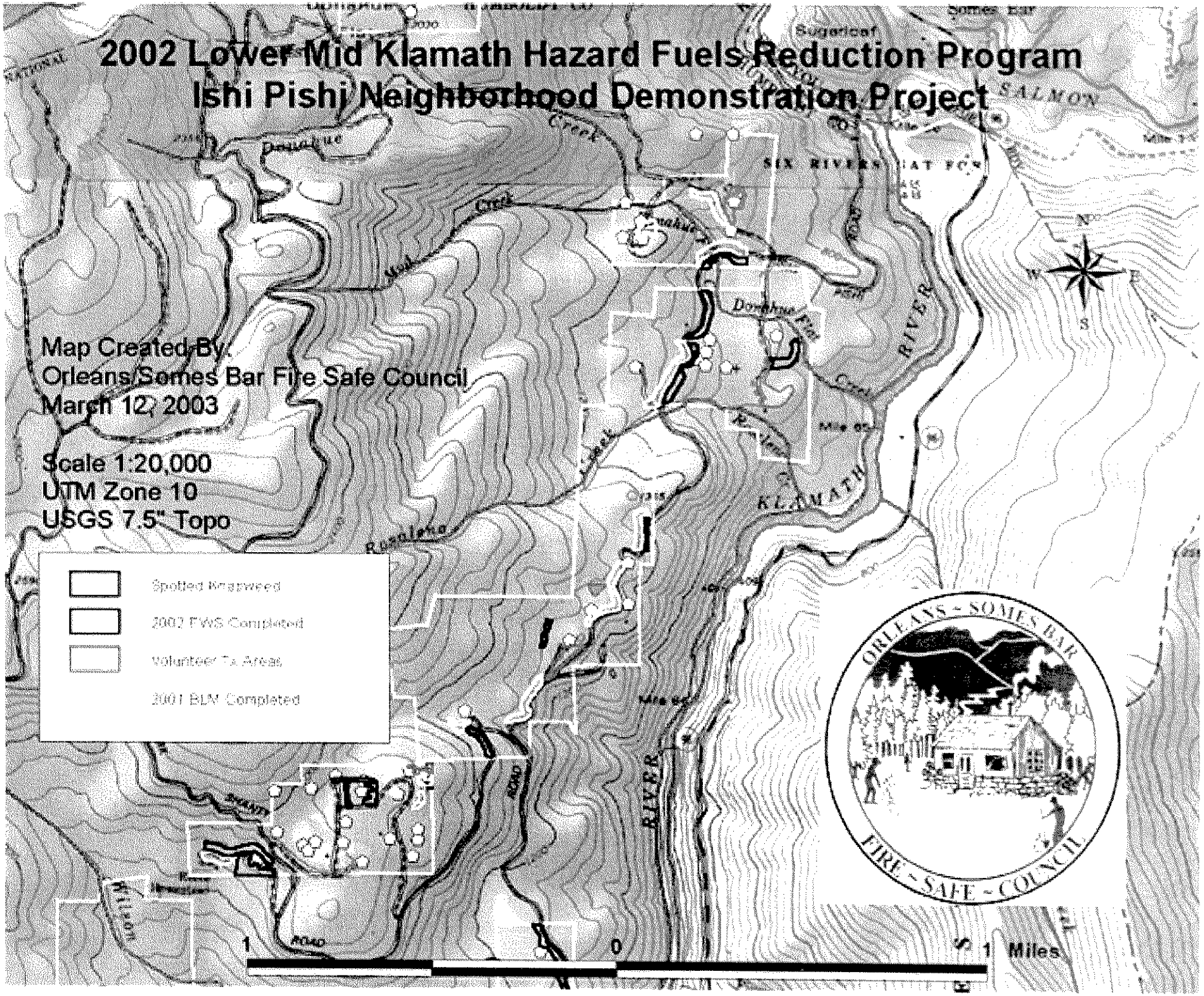

02 IITW TUR


02 IITW TURNER 4-2N

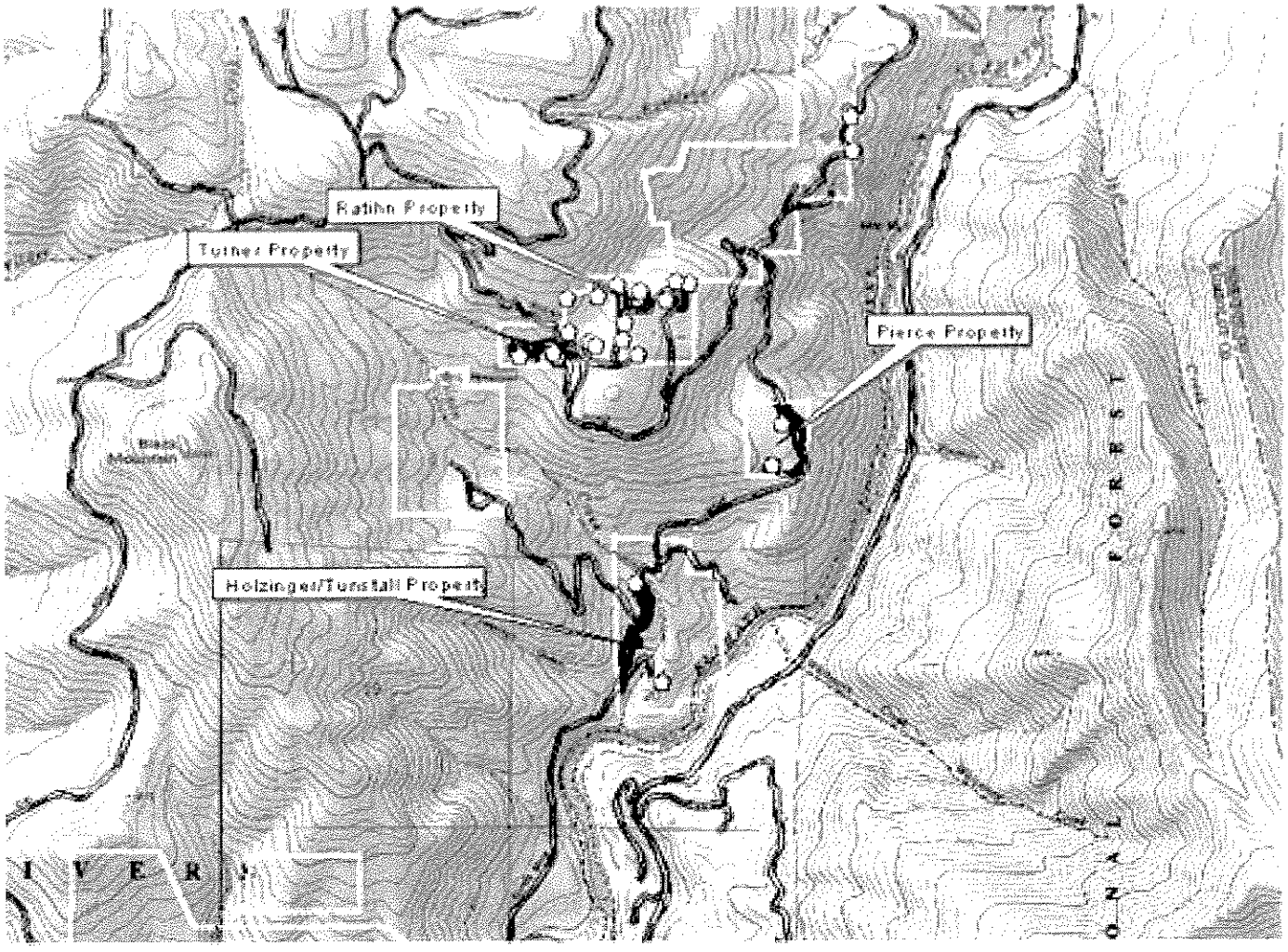

02 IITW TURNER 4-3W



2002 Lower Mid Klamath Hazard Fuels Reduction Program
Ishi Pishi Neighborhood Demonstration Project



2002 JITW Lower Mid Klamath Riparian Ecosystem Enhancement Project
Map 1



1 0 1 2 Miles

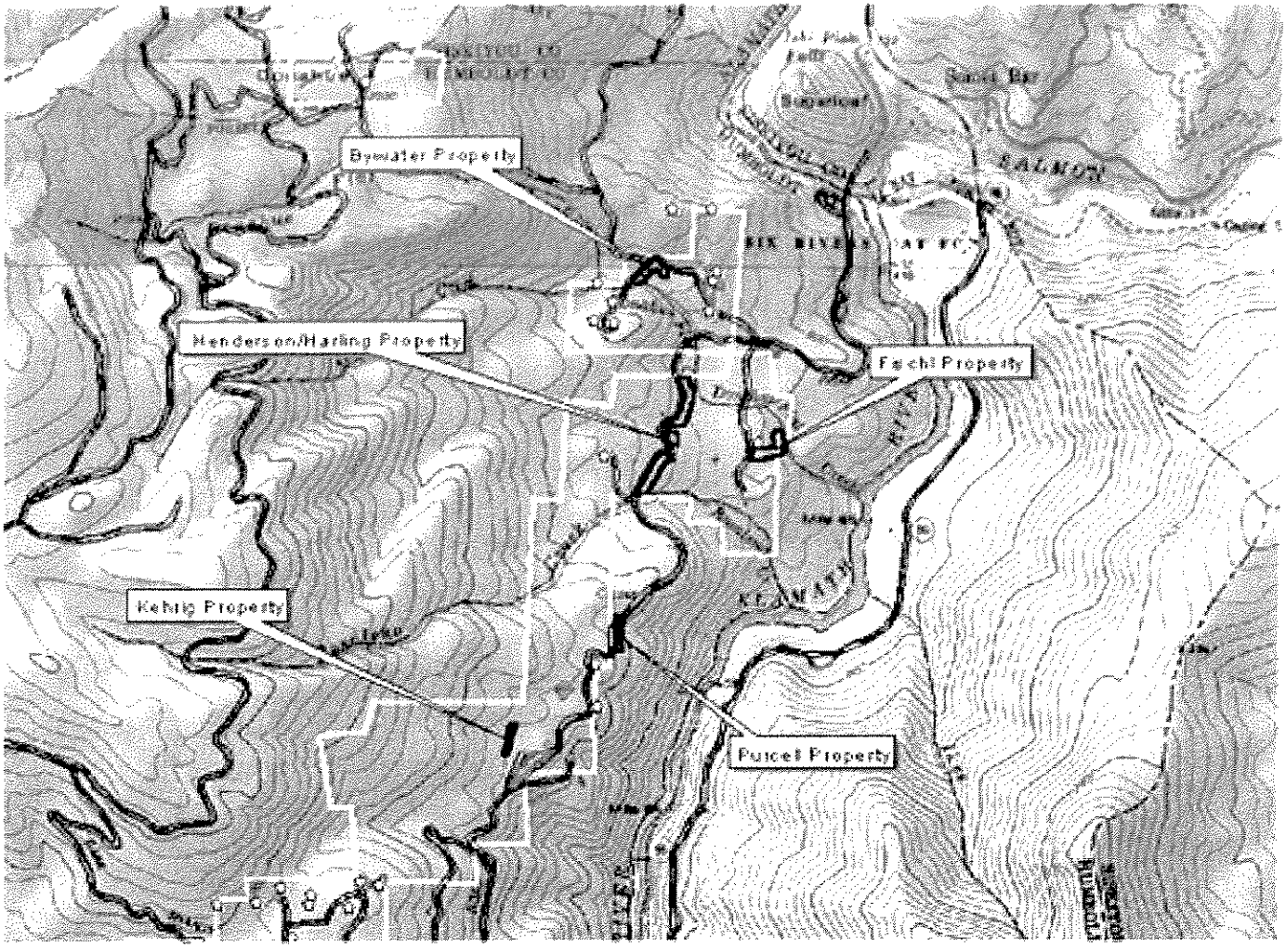
Structures
Streams
Roads
Private Property
Tx Areas

N
W E
S

Map Created by W. Harling
Orleans/Somes Bar Fire Safe Council
August 1st, 2002

Scale - 1:26,144

2002 JITW Lower Mid Klamath Riparian Ecosystem Enhancement Project
Map 2



0.8 0 0.8 1.6 Miles

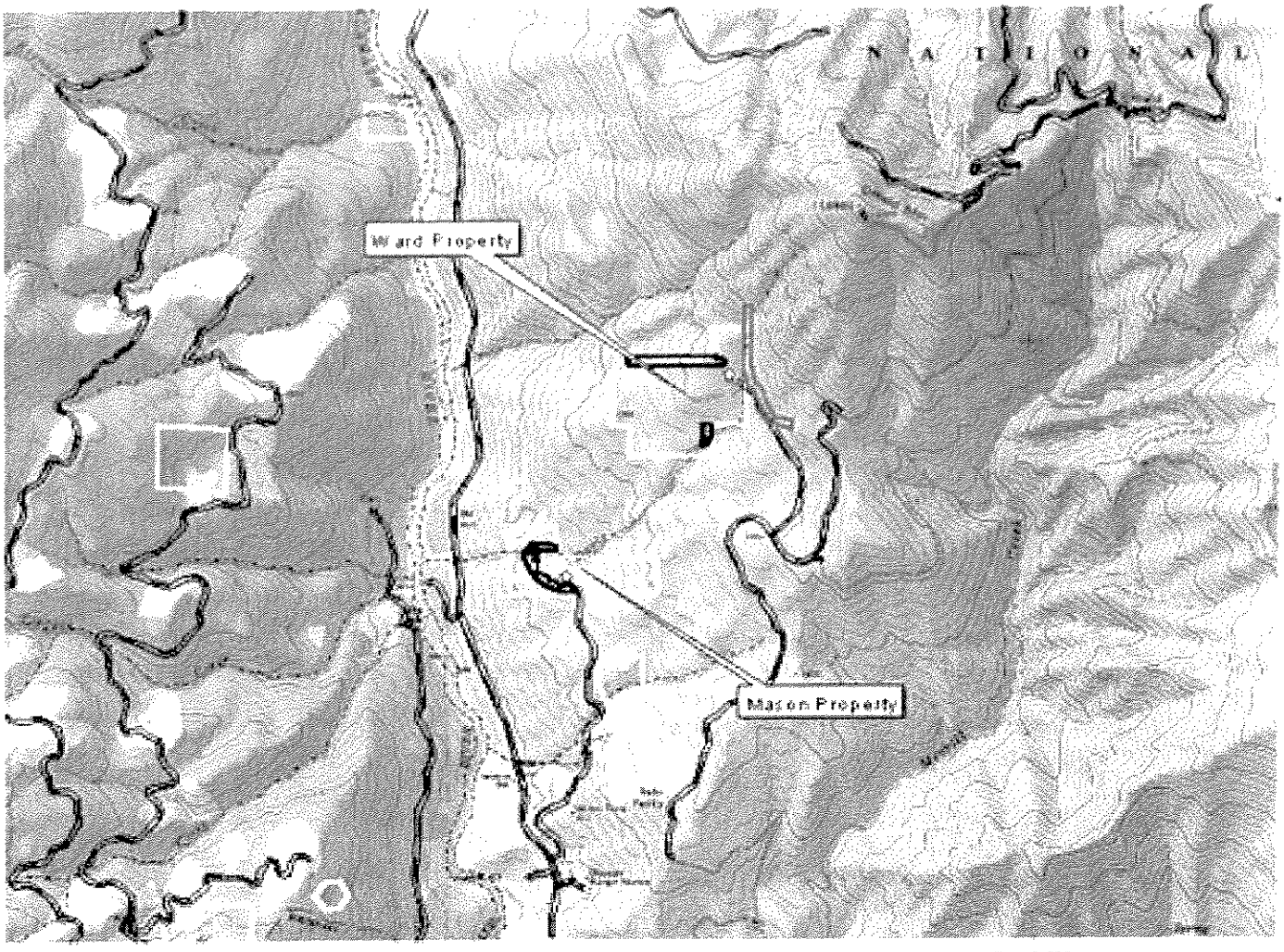
N
W E
S

Structures
Streams
Roads
Private Property
Tx Areas

Map Created By W. Harling
Orleans/Somes Bar Fire Safe Council
August 1st, 2002
Scale - 1:20,000

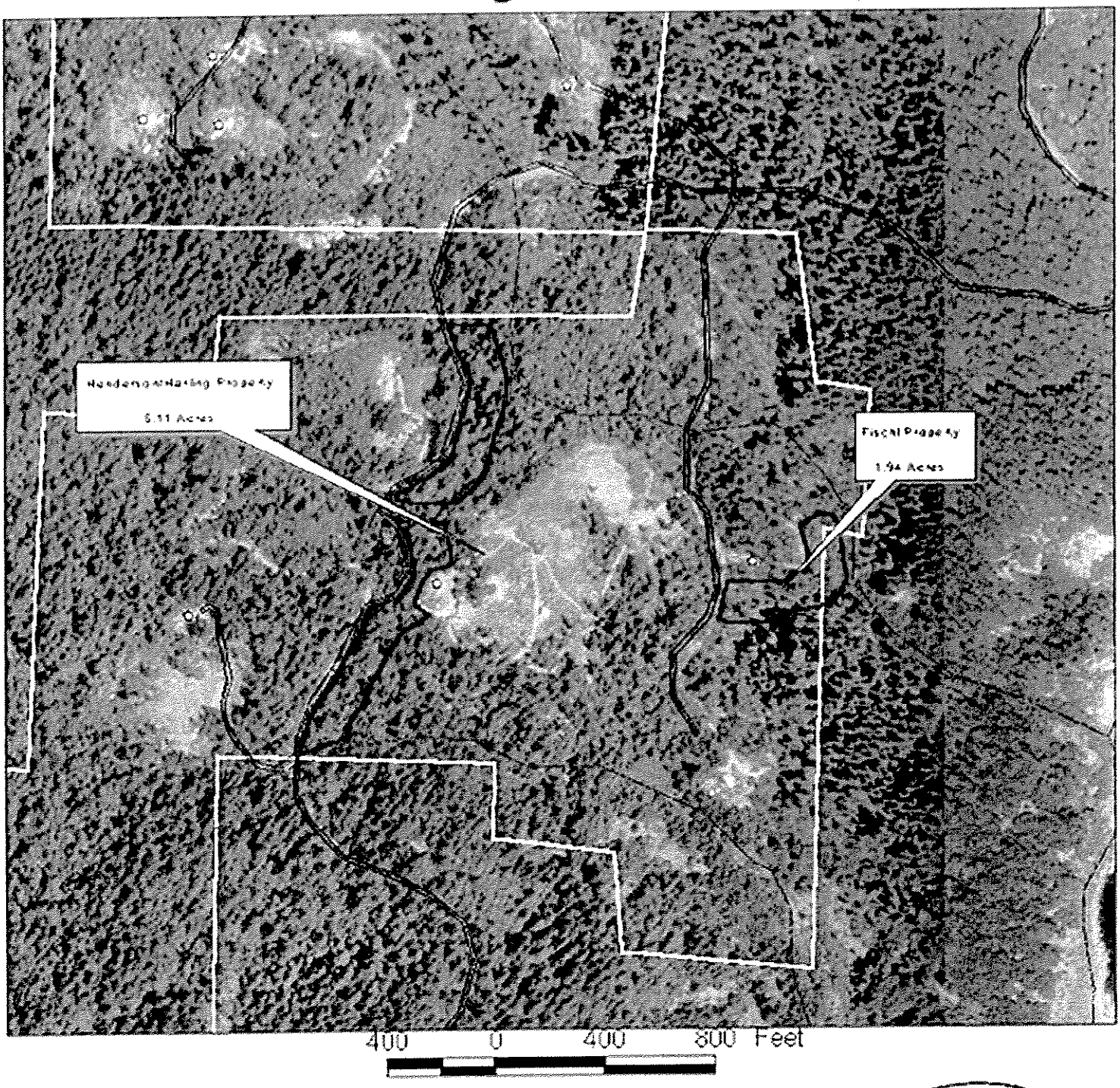
ORLEANS - SOMES BAR FIRE SAFE COUNCIL

2002 JITW Lower Mid Klamath Riparian Ecosystem Enhancement Project
Map 3



Map Created by W. Harling
Orleans/ Somes Bar Fire Safe Council
August 1st, 2002
Scale - 1:30,000

2002 JITW Lower Mid Klamath Riparian Ecosystem Enhancement Project Henderson/Harling and Fischl Properties



Structures

Streams

Roads

Private Property

Tx Areas

N

W E

S

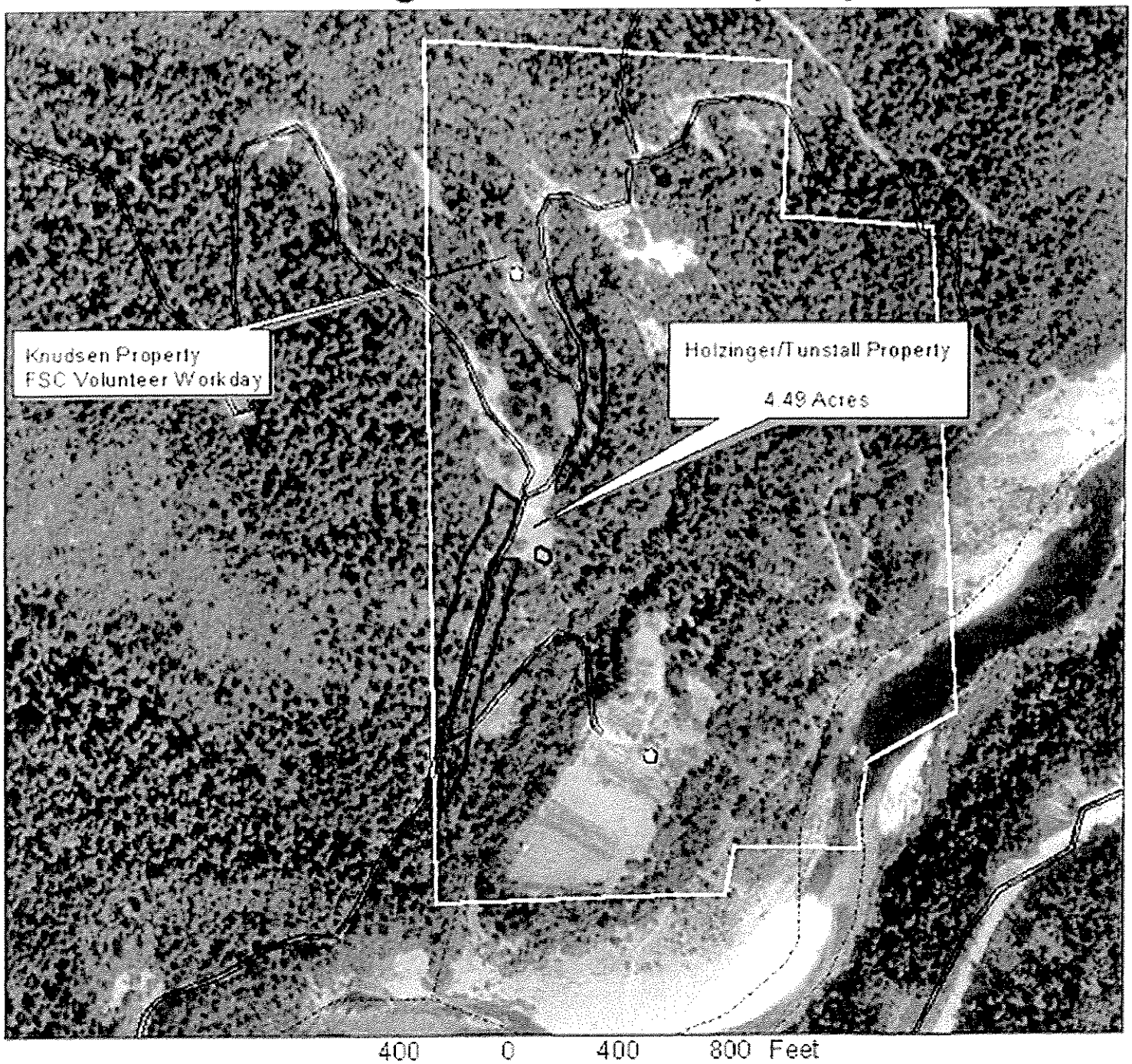
Map Created by W. Harling
Orleans/Somes Bar Fire Safe Council
August 1st, 2002
Scale - 1:4,497

ORLEANS - SOMES BAR FIRE SAFE COUNCIL

2002 JITW Lower Mid Klamath Riparian Ecosystem Enhancement Project
Mason Property

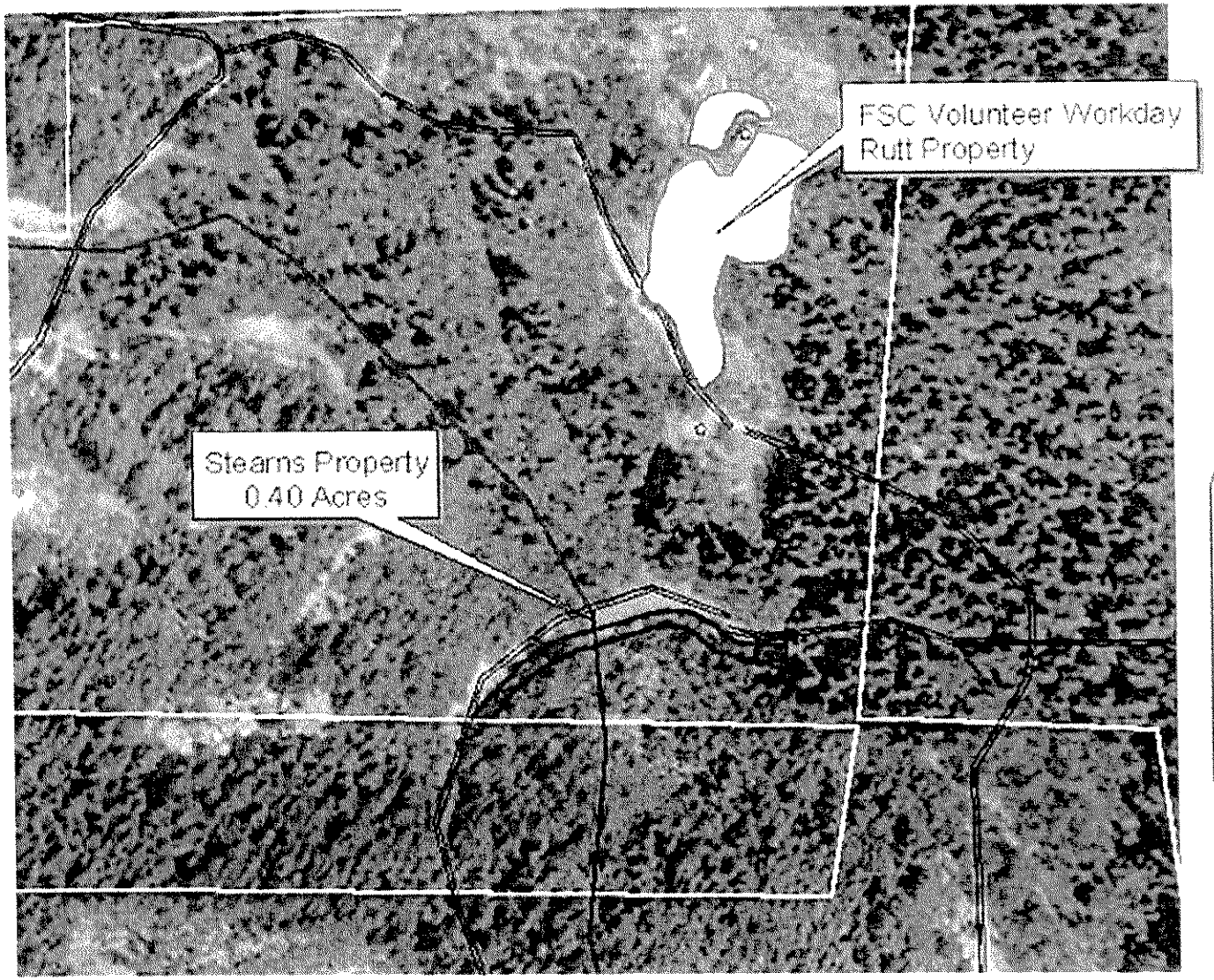
Map Created by W. Harling
Orleans/Somes Bar Fire Safe Council
August 1st, 2002
Scale - 1:5,000

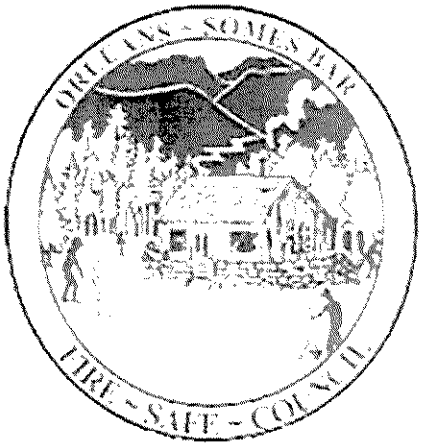
2002 JITW Lower Mid Klamath Riparian Ecosystem Enhancement Project
Holzinger/Tunstall Property

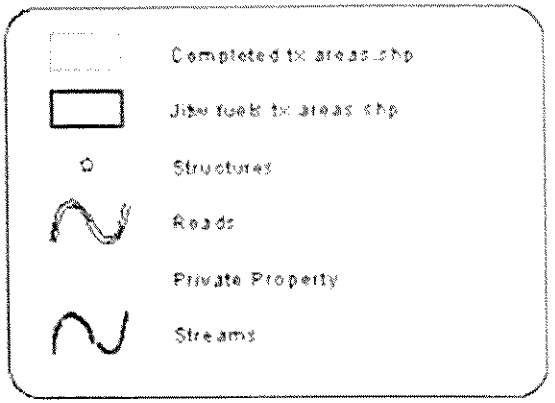


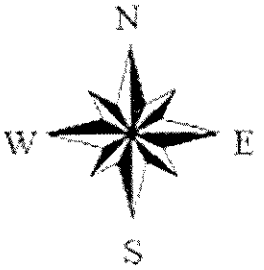
Map Created by W. Harling
Orleans/Somes Bar Fire Safe Council
August 1st, 2002
Scale - 1:5,138

2002 Lower Mid Klamath Riparian Ecosystem Enhancement Project
Stearns Property







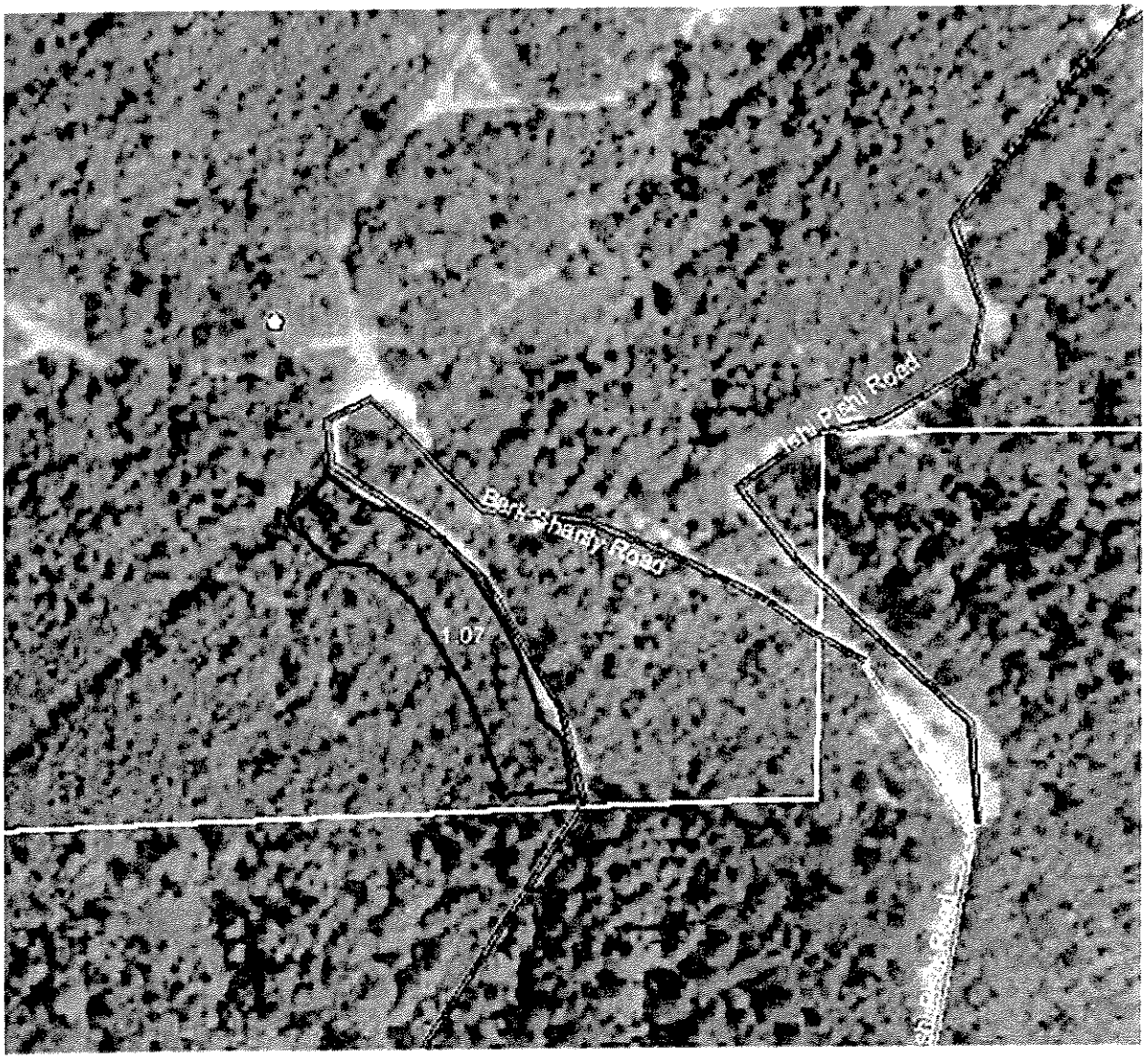


0.1 0 0.1 0.2 Miles

Shorelines
400
0
400
800
1200 feet
Turner Property
5.67 Acres
Rabin Property
1.12 Acres

Pierce Property

2002 Lower Mid Klamath Riparian Ecosystem Enhancement Project Kehrig Property

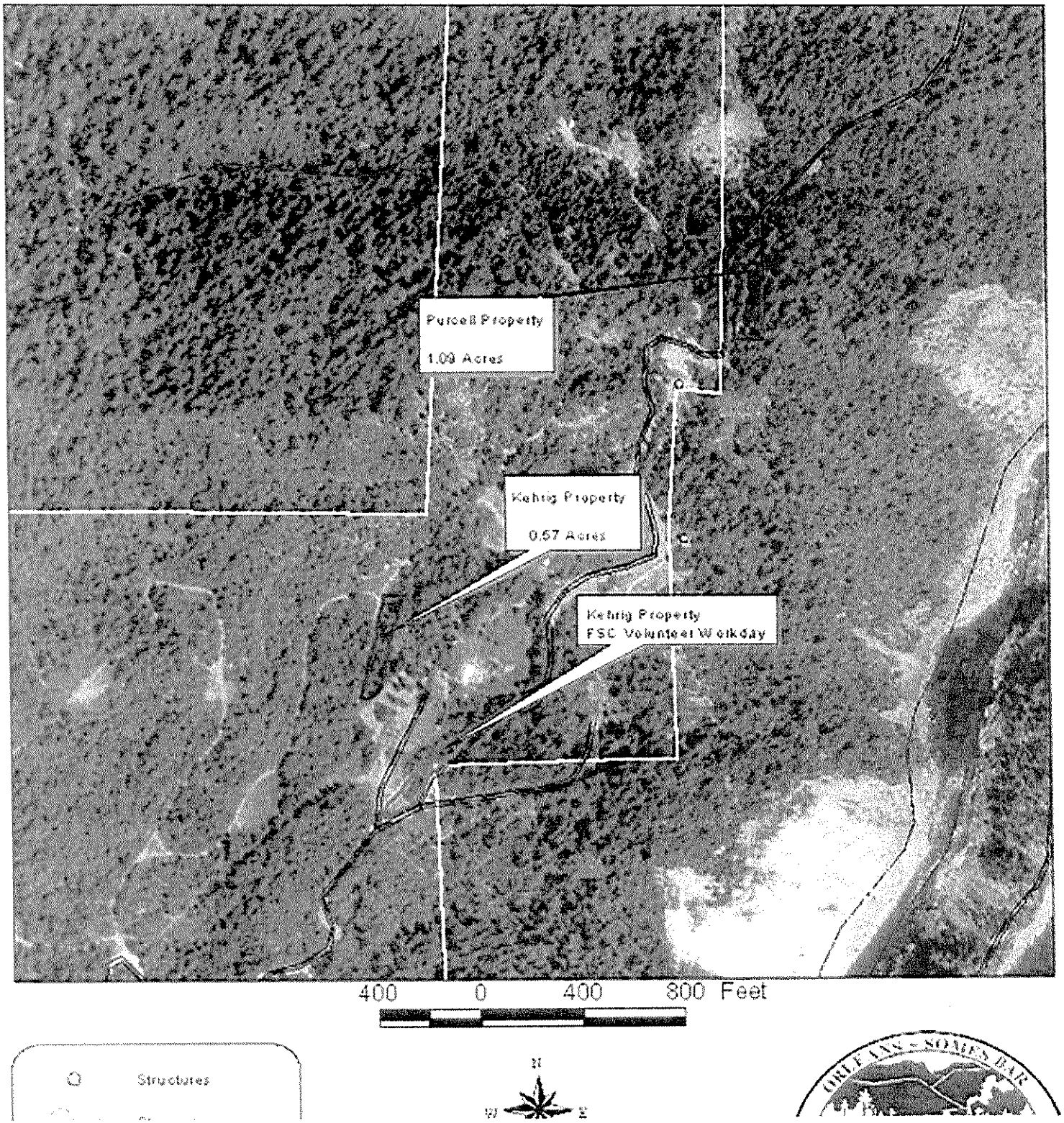


Completed fx a
Jdw fuels fx ar
Structures
Roads
Private Propert
Streams

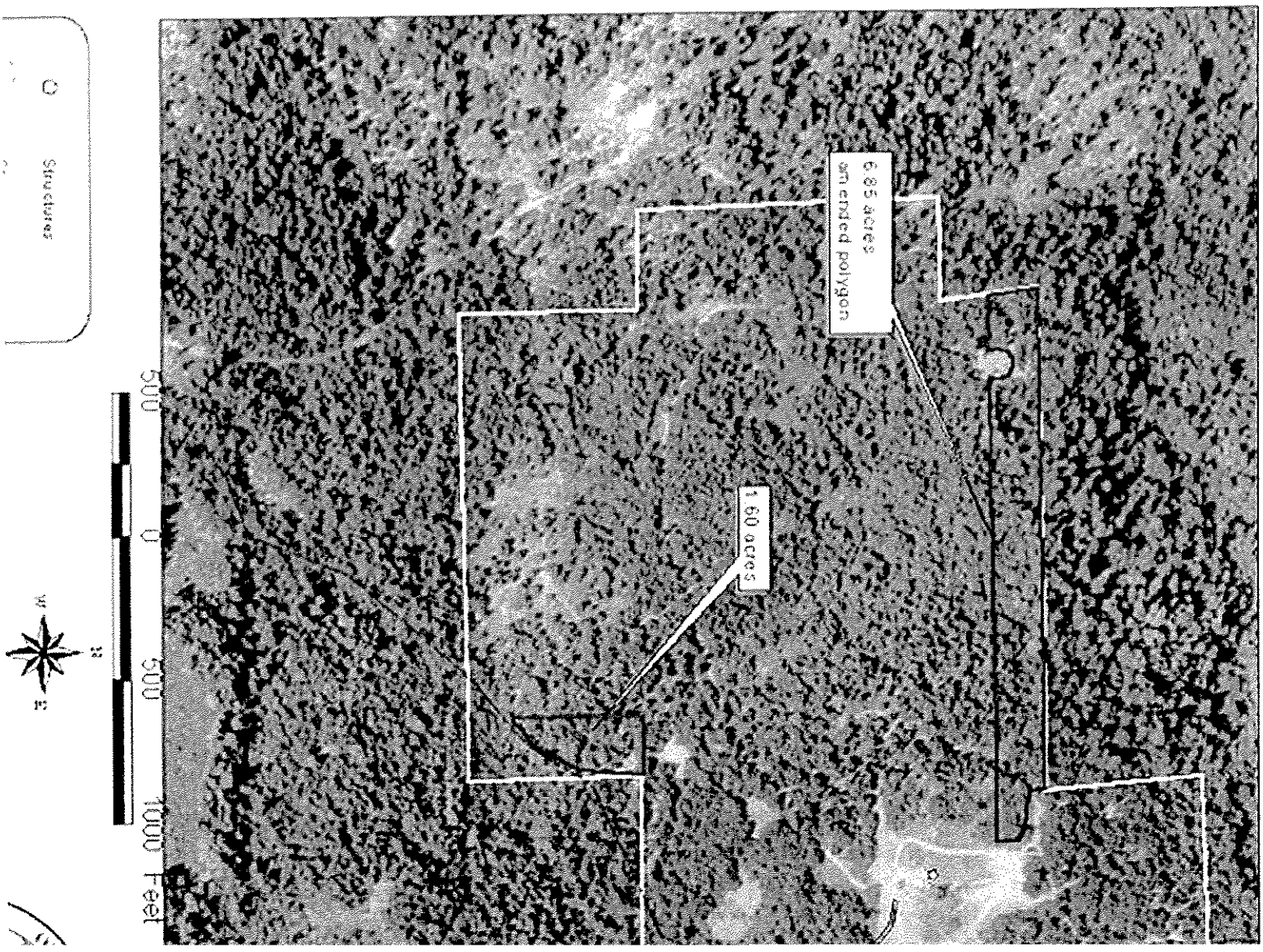
N
W
S

0 0.06 0.12 Miles

1:3000


Purcell Property
1.09 Acres
Kehrig Property
0.57 Acres
Kehrig Property
FSC Volunteer Workday
400 0 400 800 Feet
Structures
N
W
E
ORLEANS - SOMES BAR

Ward Property



Appendix C - Initial Budget

2002 JITW - Lower Mid-Klamath River Riparian Ecosystem Enhancement Project

1) Personnel (Wages)	# Hours	Hourly Rate	Funding Requested	Other Federal Funds	Other Non-Federal Cost Share Cash	In-Kind
Project Manager	140	$16.00	$2,240.00	$1,000.00	$0.00	$0.00
Technical Assistance	80	$16.00	$1,280.00	$1,840.00	$0.00	$4,020.00
Worker Volunteer Time	180	$10.00	$0.00	$0.00	$0.00	$1,800.00
Landowner Volunteer Time	475	$10.00	$0.00	$0.00	$0.00	$4,750.00
FSC's Planning and Prioritization	1125	$16.00	$0.00	$0.00	$15,525.00	$0.00
FSC's Follow up Monitoring	105	$10.00	$1,050.00	$0.00	$0.00	$300.00
SubTotal Personnel			$4,570.00	$2,840.00	$15,525.00	$10,870.00
2) Subcontractors (see explanation below)			$26,460.00	$0.00	$0.00	$0.00
SubTotal Personnel			$31,030.00	$2,840.00	$15,525.00	$10,870.00
3) Materials & Supplies	**# Units**	**Cost/Unit**				
Photographic Material			$200.00	$0.00	$0.00	$200.00
Plotter Supplies			$250.00	$300.00	$0.00	$250.00
Subtotals Materials & Supplies			$450.00	$300.00	$0.00	$450.00
4) Operating Expenses	**# Units**	**Cost/Unit**				
Chipper	40	$60.00	$2,400.00	$0.00	$0.00	$960.00
GPS System	40	$10.00	$0.00	$0.00	$0.00	$400.00
GIS System	40	$40.00	$0.00	$0.00	$0.00	$1,600.00
Transportation	2000	$0.31	$310.00	$0.00	$0.00	$310.00
Subtotal Operating Expenses			$2,710.00	$0.00	$0.00	$3,270.00
Total Direct Costs			$34,190.00	$3,140.00	$15,525.00	$14,590.00
5) Indirect Costs (Overhead) 15%			$5,128.50	$0.00	$0.00	$0.00
TOTALS			$39,318.50	3,140.00	15,525.00	$14,590.00
TOTAL PROJECT COST						**$72,573.50**

Subcontractor Information

Salmon Mountain Forestry will employ a 6 person crew of displaced workers for approximately 32 days. Crew will perform tasks as outlined in project schedule.

Subcontractor Pay Rates and Job Descriptions		
Description	**Rate per Hour**	**# on Crew**
Supervisor / & Sawyer	$12 or $14	1
Chain Saw Operator	$12.00	3
Handpiler	$10.00	2

Appendix C - Final Budget: Actual Expenditures

2002 JITW - Lower Mid-Klamath River Riparian Ecosystem Enhancement Project

1) Personnel (Wages)	# Hours	Hourly Rate	Funding Requested	Other Federal Funds	Other Non-Federal Cost Share Cash	In-Kind
Project Manager	140	$16.00	$2,240.00	$1,000.00	$0.00	***$880.00***
Technical Assistance	80	$16.00	$1,280.00	$1,840.00	$0.00	***$4,020.00***
Worker Volunteer Time	***450***	$10.00	$0.00	$0.00	$0.00	***$4,500.00***
Landowner Volunteer Time	***515***	$10.00	$0.00	$0.00	$0.00	***$5,150.00***
FSC's Planning and Prioritization	1125	$16.00	$0.00	$0.00	$15,525.00	$0.00
FSC's Follow up Monitoring	105	$10.00	$1,050.00	$0.00	$0.00	$300.00
SubTotal Personnel			***$4,570.00***	$2,840.00	$15,525.00	***$14,850.00***
2) Subcontractors (see explanation below)			***$27,513.00***	$0.00	$0.00	$0.00
SubTotal Personnel			***$32,083.00***	$2,840.00	$15,525.00	***$14,850.00***
3) Materials & Supplies	**# Units**	**Cost/Unit**				
Photographic Material			$200.00	$0.00	$0.00	$200.00
Plotter Supplies			$250.00	$300.00	$0.00	$250.00
Subtotals Materials & Supplies			$450.00	$300.00	$0.00	$450.00
4) Operating Expenses	**# Units**	**Cost/Unit**				
Chipper	40	$60.00	$2,263.00	$0.00	$0.00	$960.00
GPS System	40	$10.00	$0.00	$0.00	$0.00	***$0.00***
GIS System	40	$40.00	$0.00	$0.00	$0.00	***$1,530.00***
Transportation	***2310***	$0.31	$310.00	$0.00	$0.00	***$406.10***
Subtotal Operating Expenses			$2,573.00	$0.00	$0.00	***$2,896.10***
Total Direct Costs			***$35,106.00***	$3,140.00	$15,525.00	***$18,196.10***
5) Indirect Costs (Overhead) 12%			***$4,212.50***	$0.00	$0.00	$0.00
TOTALS			$39,318.50	3,140.00	15,525.00	$18,196.10

TOTAL PROJECT COST: ***$76,179.60***

1. $1,053 added to Subcontractor Wages to treat more acres: $916.00 was taken from indirect costs (Contractor (FSC) portion of approx. 3%), plus $137.00 from Chipper Operating Expenses.

2. Total Indirect Costs ($4,212.50) now go to the Klamath Institute.

3. Amounts that have changed since the initial budget are in bold and italicized.

Subcontractor Information

Salmon Mountain Forestry employed two 6-8 person crews of displaced workers for approximately 18 days.

Subcontractor Pay Rates and Job Descriptions		
Description	**Rate per Hour**	**# on Crew**
Supervisor / & Sawyer	$13 or $15	2
Chain Saw Operator	$13.25	5
Handpiler	$10.50	6

Orleans/Somes Bar Fire Safe Council

INVOICE

for services completed August 15th - December15th, 2002 for

Lower Mid Klamath Riparian Ecosystem Enhancement Project: 2002-JITW-02

1) Wages (Contractual)	Funding Requested	Other Federal Funds	Other Non-Federal Cost Share Cash	In-Kind
Project Manager	$320.00	$0.00	$0.00	$720.00
Technical Assistance	$0.00	$0.00	$0.00	$70.00
Worker Volunteer Time	$0.00	$0.00	$0.00	$264.00
Landowner Volunteer Time	$0.00	$0.00	$0.00	$160.00
FSC's Planning and Prioritization	$0.00	$0.00	$15,525.00	$0.00
FSC's Follow up Monitoring	$0.00	$0.00	$0.00	$0.00
SubTotal Personnel	$320.00	$0.00	$15,525.00	$1,214.00
2) Subcontractor Expenses	$24,513.88	$0.00	$0.00	$0.00
SubTotal Personnel	$24,833.88	$0.00	$15,525.00	$1,214.00
3) Materials & Supplies				
Photographic Material	$84.00	$0.00	$0.00	$200.00
Plotter Supplies	$35.99	$0.00	$0.00	$150.00
Subtotals Materials & Supplies	$119.99	$0.00	$0.00	$350.00
4) Operating Expenses				
Chipper	$280.00	$0.00	$0.00	$960.00
GPS System	$0.00	$0.00	$0.00	$0.00
GIS System	$0.00	$0.00	$0.00	$1,280.00
Transportation	$0.00	$0.00	$0.00	$310.00
Subtotal Operating Expenses	$280.00	$0.00	$0.00	$2,530.00
Total Direct Costs	$25,233.87	$0.00	$15,525.00	$3,040.00
5) Indirect Costs (Overhead) 12%	$3,109.01	$0.00	$0.00	$0.00
TOTALS	$28,342.88	$0.00	$15,525.00	$3,040.00

Total Requested **$25,233.87**

Make Check Payable to: Orleans/Somes Bar Fire Safe Council

Klamath Institute Representative:

Date:

Orleans/Somes Bar Fire Safe Council

INVOICE

for services completed December 16th, 2002 - March 15th, 2003 for

Lower Mid Klamath Riparian Ecosystem Enhancement Project: 2002-JITW-02

1) Wages (Contractual)	Funding Requested	Other Federal Funds	Other Non-Federal Cost Share Cash	In-Kind
Project Manager	$1,783.00	$1,000.00	$0.00	$0.00
Technical Assistance	$896.00	$1,840.00	$0.00	$4,020.00
Worker Volunteer Time	$0.00	$0.00	$0.00	$4,500.00
Landowner Volunteer Time	$0.00	$0.00	$0.00	$3,540.00
FSC's Planning and Prioritization	$0.00	$0.00	$0.00	$0.00
FSC's Follow up Monitoring	$120.00	$0.00	$0.00	$120.00
SubTotal Personnel	$2,799.00	$2,840.00	$0.00	$12,180.00
2) Subcontractor Expenses	$2,999.12	$0.00	$0.00	$0.00
SubTotal Personnel	$5,798.12	$2,840.00	$0.00	$12,180.00
3) Materials & Supplies				
Photographic Material	$116.00	$0.00	$0.00	$0.00
Plotter Supplies	$214.01	$300.00	$0.00	$100.00
Subtotals Materials & Supplies	$330.01	$300.00	$0.00	$100.00
4) Operating Expenses				
Chipper	$0.00	$0.00	$0.00	$480.00
GPS System	$0.00	$0.00	$0.00	$0.00
GIS System	$0.00	$0.00	$0.00	$320.00
Transportation	$0.00	$0.00	$0.00	$68.20
Subtotal Operating Expenses	$0.00	$0.00	$0.00	$868.20
Total Direct Costs	$6,128.13	$3,140.00	$0.00	$13,148.20
5) Indirect Costs (Overhead) 12%	$755.03	$0.00	$0.00	$0.00
TOTALS	$6,873.61	$3,140.00		$13,148.20

Total Requested **$6,128.13**

Make Check Payable to: Orleans/Somes Bar Fire Safe Council

Klamath Institute Representative:

Date:

Orleans/Somes Bar Fire Safe Council

INVOICE

for services completed March 16th - June 30th, 2003 for

Lower Mid Klamath Riparian Ecosystem Enhancement Project: 2002-JITW-02

1) Wages (Contractual)	Funding Requested	Other Federal Funds	Other Non-Federal Cost Share Cash	In-Kind
Project Manager	$137.00	$0.00	$0.00	$160.00
Technical Assistance	$384.00	$0.00	$0.00	$0.00
Worker Volunteer Time	$0.00	$0.00	$0.00	$0.00
Landowner Volunteer Time	$0.00	$0.00	$0.00	$1,610.00
FSC's Planning and Prioritization	$0.00	$0.00	$0.00	$0.00
FSC's Follow up Monitoring	$930.00	$0.00	$0.00	$180.00
SubTotal Personnel	$1,451.00	$0.00	$0.00	$1,950.00
2) Subcontractor Expenses	$0.00	$0.00	$0.00	$0.00
SubTotal Personnel	$1,451.00	$0.00	$0.00	$1,950.00
3) Materials & Supplies				
Photographic Material	$0.00	$0.00	$0.00	$0.00
Plotter Supplies	$0.00	$0.00	$0.00	$0.00
Subtotals Materials & Supplies	$0.00	$0.00	$0.00	$0.00
4) Operating Expenses				
Chipper	$1,983.00	$0.00	$0.00	$480.00
GPS System	$0.00	$0.00	$0.00	$0.00
GIS System	$0.00	$0.00	$0.00	$1,210.00
Transportation	$310.00	$0.00	$0.00	$27.90
Subtotal Operating Expenses	$2,293.00	$0.00	$0.00	$1,717.90
Total Direct Costs	$3,744.00	$0.00	$0.00	$3,667.90
5) Indirect Costs (Overhead) 12%	$328.73	$0.00	$0.00	$0.00
TOTALS	$6,873.61	$0.00	$0.00	$3,667.90

Total Requested **$3,744.00**

Make Check Payable to: Orleans/Somes Bar Fire Safe Council

Klamath Institute Representative:

Date: