

# **FINAL REPORT**

**U.S. Fish and Wildlife Service  
Salmon River Restoration Council**

**Project Title:** Middle Klamath and Salmon Rivers Research  
Library  
(*now* the Klamath-Salmon Natural History Library)

**Project Number:** 2002-E-02  
**Agreement Number:** 113332G002

**Date Submitted:** March 1, 2003

## **ABSTRACT**

Standard library science methods were used to develop a print and digital specialized information resource which pertains to natural and cultural resources in the Mid-Klamath/Salmon River region of the Klamath Basin. Planning efforts included conducting a survey of the potential library group, and developing a strategic plan and collection development policy based on the results of the survey. Library space was developed at the Orleans Community Computer Center and on the web at: <http://www.klamathsalmonlibrary.org>. Selections for an initial library collection were made after a prioritized bibliography of desired acquisitions was developed. The library project was successfully completed, resulting in a solid foundation for growth of a potentially major information resource for professionals and other researchers concerned with the Klamath River watershed and its mid-river tributaries.

## **INTRODUCTION**

The Klamath-Salmon Natural History Library (formerly the Middle-Klamath and Salmon Rivers Research Library) was created as a result of funding provided by the US Fish and Wildlife Service Klamath Basin Fisheries Task Force. The library was initiated to support the variety of organizations and individuals interested in the region, by providing equal access to a specialized information resource focused on the mid-Klamath and Salmon River watersheds.

The library serves as a central portal for resources and services that were previously scattered amongst a variety of offices and libraries in a wide geographic range. It provides equal access to technical resources that were previously only easily available to a subset of those interested. It also provides access to many documents and publications that were previously hard to find. The library makes many publications and services available online, making them easily accessible to non-local as well as local researchers.

The library also provides general, non-technical information resources that are relevant to the local area, to support resident's and visitor's interests in natural and cultural histories of the area, and in identifying plants, animals, and other organisms.

The creation of the Klamath-Salmon Natural History Library has resulted in a promising and growing new information resource for service professionals and other researchers concerned with the Klamath River watershed and its mid-river tributaries.

## **DESCRIPTION OF STUDY AREA**

The Klamath River watershed in Northern California is part of an exceptional bioregion with unique natural history, complex geology, high species diversity, and high numbers of endemic organisms. The Klamath River supports some of the strongest wild coho, chinook, and steelhead salmon runs in California, and is thus an important "anchor" for the southern native ranges of these species. The region also has some of the richest conifer diversity in the world, and is host to numerous endemic plant species. The region has a very low density of human settlement, with only a few, small urban centers.

Two important subbasins within the Klamath River watershed are the Salmon River and the mid-section of the Klamath River. Both are within the bounds of the Klamath and Six Rivers National Forests. The Salmon River, a congressionally designated Wild and Scenic river, flows into the Klamath River at the town of Some Bar. The Mid-Klamath is defined as the stretch of river between the Iron Gate Dam and the confluence with the Trinity River at to the town of Weitchpec. Both of these subbasins have largely federal ownership. They also encompass the Karuk Tribe ancestral territory, and include a small amount of private land. Several entities are responsible for land management within the mid-Klamath and Salmon River watersheds, including the USDA Forest Service, US Fish and Wildlife Service, California Department of Fish and Game, and a variety of private landowners. In addition to these groups, the Karuk Tribe, academic researchers, local residents, watershed councils, and environmental organizations all have special interest and involvement in the region's natural history, ecological health, and land management activities.

## METHODS AND MATERIALS

Standard library science methods were used to create the Klamath-Salmon Natural History Library. The following sources were used to identify and remain consistent with these methods:

1. Regular consulting with Dr. Matthew Saxton, associate professor of library science at the University of Washington Information School
2. Individual consultations with members of the Special Libraries Association
3. Library literature research. The following texts were primary sources:

Berk, Robert A. *Starting, Managing, and Promoting the Small Library*. Armonk, NY: M.E. Sharpe, Inc., 1989.

Bryson, Jo. *Managing Information Services: an Integrated Approach*. Brookfield, VT: Gower. 1997.

Evans, Edward G. *Developing Library and Information Center Collections*. Englewood, CO: Libraries Unlimited, Inc., 1995.

Katz, Bill, ed. *The How-to-Do-it Manual for Small Libraries*. New York: Neal Schuman Publishers, Inc. 1988.

Kreizman, Karen. *Establishing an Information Center: a Practical Guide*. London: Bower Saur, 1999.

Reed, Sally Gardner. *Small Libraries: a Handbook for Successful Management*. Jefferson, NC:Mc Farland & Company, Inc., 1991.

Sager, Donald J. *Small Libraries: Organization and Operation*. 3<sup>rd</sup> Edition. Fort Atkinson, WI: Highsmith Press, 2000.

Weingand, Darlene E. *Administration of the Small Public Library*. Chicago: American Library Association, 1992.

## **RESULTS AND DISCUSSION OF ACCOMPLISHMENTS DURING THE PROJECT**

All of the tasks agreed upon in the grant agreement were completed. The Klamath-Salmon Natural History Library was successfully initiated and is open to the public, both at a physical location and online. The following discussion outlines the specific accomplishments associated with each task.

### **Task 1: *Identify and Incorporate Existing Resources***

The project coordinator conducted research to identify existing resources that provide information about the Klamath region. Personal communication, internet searching, and library research were utilized to identify these resources. Resources identified were then posted on the library web site under the “resources” section. Links are provided for each resource.

### **Task 2: *Develop a long-term plan of operations, including administrative methods, a system for users to seek and find library materials, and funding sources***

A user survey of the potential library user group was conducted to serve as the basis for long term library planning and collection development (see appendix B for details about the methods used and the results of the survey). Based on the results of the user survey, a strategic plan and a collection development policy were developed (appendices C and D). The user survey revealed that online access to the library is essential to maximize usefulness, and so an online library catalog of library materials was created for library users to seek and find materials, posted on the library web site. The strategic plan also includes a strategy for securing ongoing funding for the library. The completion of the user survey, strategic plan, and collection development policy were all conducted under the guidance of Dr. Matthew Saxton of the University of Washington Information School.

#### **Associated Work Products:**

*Long-term plan of operations:*

See the Strategic Plan (appendix C) and Collection Development Policy (appendix D)

*System in place for users to seek and find information:*

See the online library catalog on the web at:

<http://www.klamathsalmonlibrary.org/catalog/>

### **Task 3: *Develop the library space (physical infrastructure)***

The “library space” consists of both a physical location and an internet location. Permission was granted by the Orleans Community Computer Center Board of Operations to house the print collection at the Orleans Community Computer Center. The physical library space was developed by purchasing and setting up shelving for the reference collection of books, journals, government publications, maps, theses and dissertations. A web site was developed to house the digital library collection, library catalog, and general library information. This was done by purchasing a web site and domain, purchasing web site development software, and working in conjunction with a private consultant to create the site.

Associated Work Products:

*Developed library space*

A room in the Orleans Community Computer Center was developed to house the print collection. A website was developed to house the digital collection, library catalog, and general library information.

**Task 4:** *Develop a prioritized working list of desired acquisitions*

A bibliography of desired acquisitions was made, based on the collection development policy and the results of the user survey. A large bibliography was developed, which represents an ideal “opening day” collection, budgeted at \$15,000. This amount is far more than was funded by the current grant; however, it serves as a ready reference from which to make selections for further acquisitions, as additional funding is secured for the library collection. A detailed description of methods and sources used to develop the “opening day” bibliography are available in appendix E. From the “opening day” bibliography, a smaller bibliography of target purchases to be made with the current available funding was developed. This bibliography, the “October 1” collection, was budgeted at \$4,100. This bibliography includes 25 government documents, 25 theses/dissertations, 8 subscriptions to journals, and 45 books. Average prices for these items were estimated using professional judgment. Endnote software was purchased and utilized for bibliographic management of desired acquisitions for the library collection. .

Associated Work Products:

*Prioritized list of desired acquisitions and initial purchases*

See the opening day bibliography (appendix E) and October 1 bibliography (appendix F) for lists of desired acquisitions. See the online library catalog for initial purchases.

**Task 5:** *Initiate Acquisitions*

Acquisitions made were selected from the October 1 bibliography described above. Some of these items were not available, in which case similar items were acquired.

Associated Work Products

*Initial Library Collection*

The initial print reference collection is located at the Orleans Community

Computer Center. The initial digital collection is located on the web.

**Task 6:** *Seek additional funding*

Two proposals for additional funding were written and submitted to granting agencies. One proposal, for \$26,323.50 was submitted to the Klamath Task Force. This proposal was not granted. One additional proposal, for \$24,167.50 was submitted to the River Network Watershed Assistance Grants program. This proposal made it into the final round of consideration, but was not funded.

Upon completion of the current grant, the project will be reassessed and additional proposals will be submitted.

**Task 7:** *Submit Progress, Draft and Final Reports*

A progress report was submitted on April 22, 2002.

## SUMMARY AND CONCLUSIONS

The Klamath-Salmon Natural History Library was successfully completed as agreed in the grant agreement between the US Fish and Wildlife Service and the Salmon River Restoration Council. The result of the project was to create an excellent infrastructure from which to base the library's continued growth. The initial print and digital collection is functional and open to the public. This immediate availability of resources is serving to gain interest and feedback in the library, which will guide further growth of the resource.

The user survey that was conducted validated the need for the library, helped to identify the potential user group and to determine their specific information needs. Planning documents that were developed were based closely on the user survey results, providing a solid foundation and administrative direction for developing proposals and securing funding that will meet the long term goals for meeting the information needs of the user group.

The next steps for library development are to: a) actively market the resource to maximize awareness of it, b) monitor use of the library by using web site statistics provided by the site server and by tracking use by visitors to the physical location, and c) continue to update and improve the resource through volunteerism and by securing additional grants.

## APPENDICES

- A. Summary of Expenditures
- B. User Survey Analysis
- C. Strategic Plan
- D. Collection Development Policy
- E. Opening Day Bibliography Rationale
- F. October 1 Bibliography and Rationale

APPENDIX A:  
Summary of Expenditures

Appendix A - Summary of Expenditures.xls

Salmon River Restoration Council  
 Research Library - Mid Klamath & Salmon  
 October 1, 2002 to February 26, 2003

02/26/2003

Expense	Salaries w/ Benefits	Expendable Equip, Mat, Spls	Operations & Maintenance	General & Admin Expenses	Total
6010 · budget entries	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
6190 · Contract Labor	\$800.00	\$0.00	\$0.00	\$0.00	\$800.00
6220 · Dues and Subscriptions	\$0.00	\$456.00	\$0.00	\$11.95	\$467.95
6560 · Payroll Expense	\$4,888.95	\$0.00	\$0.00	\$1,248.50	\$6,137.45
6580 · Payroll Taxes	\$637.81	\$0.00	\$0.00	\$154.58	\$792.39
6610 · Postage and Delivery	\$0.00	\$1.00	\$0.00	\$0.00	\$1.00
6620 · Printing and Reproduction	\$0.00	\$0.00	\$30.27	\$0.00	\$30.27
6770 · Supplies	\$0.00	\$3,369.15	\$1,205.82	\$123.34	\$4,698.31
6880 · Telephone	\$0.00	\$0.00	\$19.94	\$250.00	\$269.94
6890 · Web Page & ISP expense	\$0.00	\$0.00	\$235.35	\$0.00	\$235.35
6900 · Travel & Ent	\$0.00	\$0.00	\$450.71	\$25.88	\$476.59
<b>Total Expense</b>	<b>\$6,326.76</b>	<b>\$3,826.15</b>	<b>\$1,942.09</b>	<b>\$1,814.25</b>	<b>\$13,909.25</b>

In Kind

Program coordination @ \$15/hr + implied benefits @ .1224	\$10,727.50
* Non Staff volunteer services	\$5,100.00
* Non Staff volunteer miles	\$68.25
Program Mileage @ \$.345/mile	\$258.75
Administration @ \$12&\$18/hr + implied benefits @ .1224	\$67.19
Administrative Mileage @ \$.345/mile	\$42.44
<b>Total</b>	<b>\$16,264.13</b>
* see Non Staff Vounteerism	

Appendix A - Summary of Expenditures.xls

Non Staff Volunteerism

Name	Activity	Date	Hours		
Julia Storey	user survey design	11/11/2001	5		
	web site consultation	7/12/2002	4		
	web site consultation	8/1/2002	4		
	web site consultation	8/15/2002	4		
	web site consultation	9/1/2002	4		
	web site consultation	9/7/2002	4		
	web site consultation	9/14/2002	4		
	web site consultation	9/21/2002	4		
	web site consultation	9/28/2002	4		
	web site consultation	10/4/2002	4		
	web site consultation	10/11/2002	4	at \$50/hr	
	web site consultation	10/18/2002	12	57	\$2,850.00
	Will Harling	user survey distribution	2/5/2002	3	
user survey interview		12/19/2001	1		
proposal proofreading		7/1/2002	2		
proposal proofreading		4/23/2002	1		
developing library space		1/28/2003	3		
Erin Perkins	user survey assembly	2/7/2002	1		
	bool processing	2/26/2003	3		
Brendan Rose	user survey assembly	2/7/2002	1		
Dara Pearson	user survey distribution	2/10/2002	1		
	letter of reccommendation	5/1/2002	1		
	advising and consulting	7/26/2002	1		
	user survey interview	1/29/2002	1	at \$15/hr	
Laura Smith	web site development	1/15/2003	3	22	\$330.00
Matt Saxton	advising and consulting	11/4/2001	2		
	advising and consulting	11/11/2001	2		
	advising and consulting	1/17/2002	2		
	advising and consulting	1/29/2002	2		
	advising and consulting	2/19/2002	2		
	advising and consulting	2/28/2002	1		
	advising and consulting	3/8/2002	1		
	advising and consulting	3/14/2002	1		
	advising and consulting	4/12/2002	2		
	advising and consulting	4/16/2002	2		
	advising and consulting	4/23/2002	2		
	advising and consulting	5/1/2002	1		
	advising and consulting	5/14/2002	1		
	advising and consulting	5/21/2002	1		
	advising and consulting	5/31/2002	1		
	advising and consulting	6/6/2002	2	at \$50/hr	
	advising and consulting	9/3/2002	4	29	\$1,450.00
	Carol Greene	advising and consulting	10/12/2001	2	
Louise Richards	advising and consulting	4/16/2002	2		
Cynthia Raquepeau	advising and consulting	4/16/2002	2		
	research assistance	5/20/2002	5		
Linda Shippert	advising and consulting	10/17/2001	1	at \$25/hr	
Lisa Sanders	advising and consulting	10/26/2001	2	14	\$350.00
Michael Hendryx	research assistance	10/3/2001	2		
Michael Clossin	advising and consulting	4/11/2002	2		
	proposal proofreading	4/23/2002	1		
Ben Riggan	proposal proofreading	7/11/2002	1		
Venitia Flores	proposal proofreading	7/18/2002	1	at \$15/hr	
Rachel	proposal proofreading	7/12/2002	1	8	\$120.00
total					\$5,100.00
	mileage	9/3/2002	210	0.325/mi	\$68.25
					\$5,168.25

**APPENDIX B:**  
**User Survey Analysis**

# **Information Needs Assessment of Land Managers and Stakeholders in the Mid-Klamath and Salmon River Watersheds: Implications for the Mid-Klamath and Salmon Rivers Research Library**

**Adrienne R.S. Harling**

## **BACKGROUND**

The Klamath River watershed in Northern California is part of an exceptional bioregion with unique natural history, complex geology, high species diversity, and high numbers of endemic organisms. The Klamath River supports some of the strongest wild coho, chinook, and steelhead salmon runs in California, and is thus an important “anchor” for the southern native ranges of these species. The region also has some of the richest conifer diversity in the world, and is host to numerous endemic plant species. The region has a very low density of human settlement, with only a few, small urban centers.

Two important subbasins within the Klamath River watershed are the Salmon River and the mid-section of the Klamath River. Both are within the bounds of the Klamath National Forest. The Salmon River, a congressionally designated Wild and Scenic river, flows into the Klamath River at the town of Somes Bar. The Mid-Klamath is defined as the stretch of river between the Iron Gate Dam to the town of Weitchepoc. Both of these subbasins have largely federal ownership. They also encompass the Karuk Tribe ancestral territory, and include a small amount of private land. Several entities are responsible for land management within the mid-Klamath and Salmon River watersheds, including the USDA Forest Service, US Fish and Wildlife Service, California Department of Fish and Game, and a variety of private landowners. In addition to these groups, the Karuk Tribe, academic researchers, local residents, watershed councils, and environmental organizations all have special interest and involvement in the region’s natural history, ecological health, and land management activities.

Although there is a diversity of stakeholders in the mid-Klamath and Salmon River watersheds, not all of these groups have equal access to existing information about the area. Federal agencies generally have technical resources for use by their employees, and academic researchers have use privileges in university libraries. However, many of the other stakeholder groups do not have equivalent resources. A considerable portion of the stakeholder group is non-academic and not agency-affiliated, and access to technical information resources can be especially limited for this constituency. Further, the need for technical information by this group is not well recognized.

Much of the technical information about the Klamath region is unpublished or not copyrighted, and can be difficult to find. It is unclear whether the existing technical resources for agencies and university affiliates contain the entirety of available scientific information that is about or relevant to the Klamath region. Having access to and applying the “best available science” is central to current land management standards, and is mandated by the Northwest Forest Plan under which the Klamath National Forest is governed.

General information is also important for interested individuals within the stakeholder groups. Many residents and visitors are interested in the natural history of

## Appendix B – User Survey Analysis

the area, and in identifying plants, animals, and other organisms. Many people have an interest in keeping informed about land management activities and / or participating in public comment exercises regarding proposed activities. In addition, local elementary schools are actively engaged in watershed education programs which require information suitable for children.

Largely due to low population numbers and the remote location, there are minimal information resources of any kind in the mid-Klamath and Salmon Rivers region. Both libraries for Humboldt and Siskiyou counties are each at least two hours away. Local equal access information resources, such as the Humboldt County bookmobile, do not include technical resources for land managers and stakeholders.

The mid-Klamath and Salmon Rivers Research Library was initiated to support the variety of organizations and individuals interested in the region, by providing equal access to a specialized collection focused on the mid-Klamath and Salmon River watersheds. The collection is intended to serve the diversity of interests and levels of technicality sought by the stakeholder group. The Klamath River Basin Fisheries Task Force awarded a grant of ~\$14,000 for the library planning and development process. The library initiation is a project of the Salmon River Restoration Council (SRRC), and services are tentatively scheduled to be launched in October 2002. A long term goal for the library is to eventually widen the focus to include the entire Klamath River watershed.

This user survey was conducted for purposes of determining what information resources and services are most needed by the potential library user group, as well as what resources are currently available and being used. The survey results will be used for library planning, particularly in development of the library collection and services.

### **LITERATURE REVIEW**

There are many library and archive collections in the United States that focus on or include materials that are useful for conducting research about natural systems. Although many have special emphasis on specific subjects, few are specialized in terms of a particular biological region (Welch 1999). An example of one of these organizations is the *Center for Environmental Information, Inc.* (CEI). CEI is a clearinghouse of information regarding various environmental issues, including acid rain and global climate change. This organization serves a similar, though much larger user group than that which is intended to be served by the mid-Klamath and Salmon Rivers Research Library. The CEI user group includes “government agencies and officials, businesses and industries, organizations, academicians and concerned citizens”. The organization has largely been a technical resource, and has grown considerably since its 1974 inception in response to increasing demands for information about various issues as they have come to the forefront in environmental research (Stoss 1989).

The information needs of land managers and others interested in natural systems have not been thoroughly studied. However, Holdgate (1982) theorized that stakeholders at different positions in the hierarchy of land management decision making had different information needs. He explained that resource users and conservationists, for example, need to understand the effects of different management practices on the environment, effects of environmental phenomena on resources, and social and economic factors but do not need much technical ecological information. Scientific data and academic

## Appendix B – User Survey Analysis

research is used more by those who advise resource users and conservationists. Such advisors may include governing agency specialists, private consultants and academic researchers. Policy makers and lawmakers also need less scientific data directly, and rely on advisors to educate them about the content of pertinent scientific information, according to Holdgate.

In a study of the information needs of biological researchers of various types (not only in environmental biology), use of university or institutional libraries and personal communication were found to be important resources. Personal communication was used both internally and externally to the organizations surveyed, but internal communication was reported to be of primary importance. Scientific journals were the most frequently used resource. Books and conference proceedings were used at moderate frequency, and these and government publications were used less frequently (Rolinson, Al-Shanbari and Meadows 1996). In a similar study, a detailed analysis of use of computer-based information resources showed that biological researchers commonly use computers for information gathering and use, including the internet and email (Rolinson, Meadows and Smith 1995).

In a study of use of archives by environmental researchers, environmental history and assessment of environmental impacts were the two most common research categories. Common topics for research included forestry, land use, water resources, and wildlife. However, a diversity of subject matter for research was reported by the survey respondents. Nontextual sources such as maps and photographs were reported to be important for environmental research. Oral histories were not used very much relative to other sources. Some sources used by environmental researchers were collected by the institution for other purposes, such as travel diaries and aerial photographs. The archival institutions that were surveyed reported a rise in environmental research in recent years. There was also a large portion of nonacademic researchers found to use archival records for environmental research (Welch 1999).

## **METHODS**

### **Objectives**

The primary objectives for the survey are to determine:

- What information resources are currently being used by the potential user group?
- What types of publications and sources are useful to the potential user group?
- What information do individuals have limited or no success in finding?
- What resources, services, subject matter, and types of sources do potential library users need? What would they like greater access to?
- What types of work and interests are members of the potential user group engaged in?
- What is the relative importance of various information sources and services to the potential user group?
- What is the ideal location and format of the library?
- How often will various sources and services be used if made available in the library?

An additional, overall objective of the study is to verify interest in and need for a specialized information resource for land managers and stakeholders in the Klamath region.

### **Identification of the Potential User Group**

The potential user group was identified as all individuals with a known interest or involvement in work regarding natural history, ecology, and ecosystem-based land management in the mid-Klamath and Salmon River subbasins. The SRRC mailing list was used as a reference in the identification process, as well as personal knowledge and recommendations from SRRC staff and others. A number of stakeholder groups and organizations were represented by the final list of 124 recipients, including federal and state land management agencies, independent scientists and specialists, residents and landowners, community based land management organizations, environmental organizations, the Karuk and Yurok tribes, elementary educators, university-affiliated academics, local business owners, related non-local businesses and organizations, and unaffiliated interested parties. Personal knowledge was used to assign designations to survey recipients from these various constituencies. Individuals were assigned at least one, but often multiple designations.

### **Definitions of User Group Designations**

Independent scientists and specialists were defined as professional scientific researchers whose work is not done in affiliation with a university or agency. Independent consultants were included in this group. Residents and landowners were defined as current landowners and / or individuals currently living in the Salmon River or Mid-Klamath River watersheds. Community-based organizations include the SRRC, Mid-Klamath Watershed Council, and Orleans / Somes Bar Fire Safe Council. Environmental Organizations were defined as special interest groups involved in environmental activism and litigation. Individuals were given designations of “community-based organizations” and “environmental organizations” if they currently participate in activities in relation to those groups, whether paid or voluntary. Related non-local organizations and businesses include groups that are in any way relevant to the Klamath Region or the land-related work within it, but are located outside of the area. “Unaffiliated interested party” is a miscellaneous category which includes former residents and individuals who are interested in the area but do not fit any other designations. Local business owners include individuals who own businesses in the mid-Klamath and / or Salmon River watersheds that participate in the local economy.

### **Survey development and distribution**

A two-part pilot questionnaire was initially developed, and included 9 open-ended questions, one multiple choice question, and a checklist of 19 sources and services to be rated by how frequently they would be used if made available. Berk (1989) and Kreizman (1999) were primary resources in developing the survey questions and survey format. This pilot survey was distributed to 36 individuals. Personal interviews were conducted with three of these individuals.

Based on the responses and feedback generated from the pilot survey, questions were rewritten so that they would be better understood, and the survey was shortened so that it would be more convenient for people to fill out. The final version included six open-ended questions, one multiple choice question, and a checklist of 16 sources and services.

## Appendix B – User Survey Analysis

The user survey was distributed to a total of 124 individuals in at least one format, including the pilot. 84 (68%) revised surveys were distributed by hand or by mail, and 35 (28%) were distributed by email. A total of four (3%) personal interviews were conducted. 27 (22%) individuals received more than one version or format of the survey.

### **Methods of Analysis**

#### ***Open-ended Questions***

Analysis of both versions of the survey was based on the format of the final survey version. Five questions were nearly the same on both surveys, and responses were compared directly. Four questions from the pilot were condensed into two different questions on the final version. In each case, responses to the original two questions on the pilot version were compared to responses to the single condensed question on the final version. Question three of the pilot was considered separately, as there was not a comparable question on the final version (see Appendix 1). Results from this question were not found to be helpful in meeting the objectives of the survey, and are not reported in the analysis.

Responses to each open-ended question were organized according to similar content. Responses were then manually tabulated according to the prominent themes that were identified. Questions left unanswered were also tabulated. Similar responses by 10% or more of the user group (at least four people) were considered to be important patterns; the relative strength of those patterns was determined by the number of responses.

#### ***Sources and Services Checklist***

The pilot and final versions of the sources and services checklist differed in four major ways:

- *The pilot version gave four options for respondents to check: daily, often, sometimes, and never, whereas the final version offered five choices: daily, weekly, monthly, yearly, and never.* It was decided that a five point scale of possible responses was preferable to a four point scale, because it includes a middle choice in the range of possible responses. Checklist responses from the pilot survey were converted to the five point scale of the final survey. Responses of “daily” and “never” were the same on both versions. Pilot responses of “often” were assumed to correspond with “weekly” of the final version. Pilot responses of “sometimes” were assumed to correspond with “monthly” of the final survey. Responses from all surveys were assigned numbers from one (daily) to five (never). Although this conversion of responses from one version of the checklist to the other does not give exact representation of survey responses, it does give a sense of use frequency patterns among the user group.
- *The pilot version included a service description of “bibliographic searches involving complex subjects” which was excluded from the final version.* Respondents that were interviewed using the pilot version of the survey expressed confusion about what this description referred to. Another service description on the checklist is “reference service” which respondents understood better and which more generally describes the service of conducting bibliographic searches for library users. Thus, “bibliographic searches involving complex subjects” was

## Appendix B – User Survey Analysis

excluded from the final survey, and respondent answers to this field on the pilot version were not considered in the survey analysis.

- *Two source descriptions on the pilot version were combined for the final version.* “Online publications” and “Resource Links on the Library Web Page” were two separate fields on the pilot checklist, but were represented as “online resources” on the final version. This was done to shorten the survey and minimize redundancy. The most frequent use indicated for either of the fields on the pilot survey was used in the analysis of “online resources”.
- *A typo on the final version of the sources and services checklist was identified.* What was meant to read “watershed education materials and curricula” instead read “watershed materials and curricula” on the final survey. “Watershed education materials and curricula” primarily refers to information used for elementary educators and students, a relatively small portion of the potentials user group. However, responses from the group were highly variable. There was also a moderately strong correlation between responses to this field and “government documents”. These results indicate that respondents did not understand what this field represented, which may largely be due to the typo on the final version. Thus, responses to this field were not considered in the analysis.

Microsoft Excel 2000 was used to calculate mean and median responses for each source and service, to create histograms for each source and service for visual analysis of the distribution of responses, to create a correlation matrix for all sources and services, and to calculate probability values for the correlation matrix. Probability values were calculated with a t test formula, using a 1 tailed distribution and paired analysis.

## FINDINGS

### Return Rate

Forty-one of the 124 survey recipients returned the survey. Thirty-eight respondents filled out the sources and services checklist. A considerable portion of the surveys returned were pilot surveys. The total return rate and proportion of versions returned are shown in Figure 1:

a)			b)		
# returned	# distributed	% returned	Version	# of returned	% of returned
41	124	33%	Pilot	14	34%
			Final	27	66%
			Total	41	

**Figure 1: Total return rate (a) and return rates by version (b) of the Mid-Klamath and Salmon Rivers Research Library user survey.**

Several stakeholder groups and constituencies are represented by the potential user group (Figure 2).

Designation	Recipients	Respondents
Agency employees	16%	15%

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Independent scientist / specialist	15%	15%
Resident / landowner	63%	83%
Community-based organizations	24%	44%
Environmental organizations	12%	12%
Karuk tribe	10%	7%
Elementary educators	10%	17%
University affiliated academic	7%	10%
Related non-local organizations	7%	2%
Unaffiliated interested party	2%	0%
Yurok Tribe	4%	2%
Local business owners	10%	15%

**Figure 2: Comparison of proportions of constituencies between the recipient group and respondent group of the Mid-Klamath and Salmon Rivers Research Library user survey.**

The return rate of 33% is considered to be more than adequate for getting a sense of the user needs of the entire potential user group. In addition, the respondent group reflects the recipient group relatively well in terms of proportion of stakeholder groups. Community-based organizations and resident / landowners are overrepresented by the respondent group by 20% in both cases. It is likely that this parallel increase is due to respondents who have both designations. The pilot survey was primarily distributed to community-based groups, and recipients of the pilot survey were more actively solicited for survey responses than the rest of the recipient group. Additionally, the mailing list of the SRRC, a prominent community-based group, was used to develop the recipient group. These factors may explain why this group was disproportionately represented.

**Open-ended Questions**

***Question 1: How do you get information you need currently? What specific resources do you use?***

Libraries, the internet, and personal communication are the three most important information resources currently used by the survey respondents, respectively. University libraries, particularly Humboldt State University library, were mentioned as currently used resources by 13 (32%) respondents. Other libraries cited include agency and small organizations’ collections, such as the USF&W office library at the Yreka, CA office, various Forest Service library and information services, and the SRRC office collection. Personal collections were referred to by 8 (20%) respondents. Federal and state agencies, and community based organizations were mentioned in general as useful resources – the SRRC and USFS being the most frequently referenced. CaF&G, USF&W, and the USFS were the only three agencies mentioned by respondents. Klamath Resource Information System (KRIS), a database on CD format of Klamath-specific data and publications was referred to by 4 (10%) of the respondents (Figure 3).

Resource	Tally	Percent
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<b>Libraries</b>	<b>26</b>	<b>63%</b>
• University	13	32%
• Organization	7	17%
• Agency	5	12%
<b>Internet</b>	<b>22</b>	<b>54%</b>
<b>Personal Communication</b>	<b>17</b>	<b>41%</b>
<b>Personal Collection</b>	<b>8</b>	<b>20%</b>
<b>KRIS</b>	<b>4</b>	<b>10%</b>

**Figure 3: Resources most commonly used by the Mid-Klamath and Salmon Rivers Research Library potential user group**

A wide variety of specific source types were referenced, the most common being government documents / gray literature, field guides and texts on specific subjects, scientific journals, and non-technical periodicals such as newspapers and newsletters, respectively. A few respondents also mentioned that they use geographic information such as maps, GIS, and remote sensing imagery. Legal documents such as environmental policies and laws were also mentioned. No single source type was cited by more than 7 respondents.

***Question 2: What information has been particularly hard to find?***

Specific ecological data / studies regarding the Klamath region, and historical information were the two dominant responses to this question. Specific ecological data needed include current and historical conditions of fish, wildlife, plant species / populations, and water quality. 18 respondents mentioned ecological data needs, and 14 respondents mentioned historical information in response to this question. There was overlap between these responses, as 7 people expressed interest in historical ecological data. Indigenous knowledge and practices were referenced by 5 respondents. Source types included photographs (particularly historical photographs), government documents / gray literature (especially agency reports), texts and field guides, and personal accounts (Figure 4).

<b>Subject / Source</b>	<b>Tally</b>	<b>Percent</b>
<b>Ecological Data / Studies</b>	<b>18</b>	<b>44%</b>
• Current Conditions	9	22%
• Historical / Reference Conditions	7	17%
<b>Historical Information (of any kind)</b>	<b>14</b>	<b>34%</b>
<b>Photographs</b>	<b>6</b>	<b>15%</b>
• Historical	5	12%
<b>Indigenous Knowledge / Practices</b>	<b>5</b>	<b>12%</b>
<b>Government Documents</b>	<b>5</b>	<b>12%</b>
<b>Personal Accounts</b>	<b>4</b>	<b>10%</b>
<b>Texts and Field Guides</b>	<b>4</b>	<b>10%</b>

**Figure 4: Information reported to be difficult to find by the Mid-Klamath and Salmon Rivers Research Library potential user group**

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Smaller numbers of respondents referenced geographic information (aerial photographs, remote sensing imagery, and maps), graduate theses, information about local management activities and projects, and scientific articles and journals as difficult to find. 7 respondents left this question blank.

### ***Question 3: Are there resources or services that you wish were currently available but currently are not?***

A wide variety of resources and types of information sources were indicated as desired by survey respondents. No single dominant pattern was detected, but a large number of resources, types of sources, and subject areas were mentioned by many respondents.

#### *Resources*

Respondents commonly expressed desire for a Klamath-specific research library. Library services, especially reference services, were mentioned by several respondents. Many individuals stated that they would like database resources, including online databases, subscriptions to existing databases, and Klamath-specific databases. Several respondents also mentioned that they would like the library to be an active learning center, at which people would congregate and share information. Online resources were also referenced frequently. Several individuals also mentioned that they would like more access to and partnerships with academic resources and institutions (Figure 5).

<b>Resources</b>	<b>Tally</b>	<b>Percent</b>
<b>Research Library</b>	<b>13</b>	<b>32%</b>
<b>Online Resources</b>	<b>13</b>	<b>32%</b>
<b>Databases</b>	<b>7</b>	<b>17%</b>
<b>Academic Resources</b>	<b>4</b>	<b>10%</b>

**Figure 5: Resources commonly desired by the Mid-Klamath and Salmon Rivers Research Library potential user group**

#### *Types of Information Sources*

Types of information sources that were commonly mention include Klamath – specific information / materials, geographic information (such as maps, GIS, aerial photos and satellite imagery), historical information, , gray literature / government documents, personal accounts, indigenous knowledge and practices, photos (both current and historical), field guides, graduate theses, professional / academic journals, information on local land management activities and projects, and materials suitable for children / elementary education. Videos and DVDs, non-technical periodicals, and info from non-local community-based orgs were mentioned by a smaller number of respondents (Figure 6).

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<b>Source Types</b>	<b>Tally</b>	<b>Percent</b>
<b>Klamath – specific information / materials</b>	<b>16</b>	<b>40%</b>
<b>Historical Information</b>	<b>10</b>	<b>24%</b>
<b>Ecological data / research / studies</b>	<b>8</b>	<b>20%</b>
<b>Geographic Information</b>	<b>8</b>	<b>20%</b>
• Maps	7	17%
<b>Government Documents</b>	<b>7</b>	<b>17%</b>
<b>Indigenous Knowledge / Practices</b>	<b>6</b>	<b>15%</b>
<b>Personal Accounts / Experiential knowledge</b>	<b>6</b>	<b>15%</b>
<b>Photos</b>	<b>5</b>	<b>12%</b>
<b>Field Guides</b>	<b>4</b>	<b>10%</b>
<b>Graduate Theses</b>	<b>4</b>	<b>10%</b>
<b>Professional / Academic Journals</b>	<b>4</b>	<b>10%</b>
<b>Local Management Activities and Projects</b>	<b>4</b>	<b>10%</b>
<b>Materials for Children / Elementary Education</b>	<b>4</b>	<b>10%</b>

**Figure 6: Source types commonly desired by the Mid-Klamath and Salmon Rivers Research Library potential user group**

### *Subject Areas*

The most commonly referenced subjects areas were vegetation (including native and non-native plants), fisheries, general ecology and natural history, fire ecology and management, wildlife, restoration (particularly watershed restoration), general land management approaches and practices, and geology, respectively. Conservation and water quality were mentioned to a lesser extent (Figure 7).

<b>Subject Areas</b>	<b>Tally</b>	<b>Percent</b>
<b>Vegetation</b>	<b>11</b>	<b>27%</b>
• Native Plants	6	15%
• Noxious Weeds	4	10%
<b>Fisheries</b>	<b>8</b>	<b>20%</b>
<b>General Ecology / Natural History</b>	<b>8</b>	<b>20%</b>
<b>Fire Ecology / Management</b>	<b>7</b>	<b>17%</b>
<b>Wildlife</b>	<b>6</b>	<b>15%</b>
<b>Restoration</b>	<b>5</b>	<b>12%</b>
<b>Geology</b>	<b>4</b>	<b>10%</b>
<b>Land Management Approaches / Practices</b>	<b>4</b>	<b>10%</b>

**Figure 7: Subject areas commonly desired by the Mid-Klamath and Salmon Rivers Research Library potential user group.**

7 respondents (17%) left this question blank or answered it with “no” or “none”.

### ***Question 4: Is there a particular project, problem, or topic regarding the Klamath region that you are especially interested in or with which you are primarily engaged in your work?***

Fisheries and aquatic ecology is the most common focal subject of respondents. Anadromous fish (Salmon), fish habitat, physical dynamics of rivers and streams, water

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quality, and fisheries conservation, restoration and management were included under this heading. Spring chinook in particular was mentioned by 2 respondents.

Land management approaches and practices is also an important area, as well as restoration. Forestry is of particular importance, including alternative forest practices and sustainable forestry. Restoration was mentioned in general and with reference to natural fire regimes, fish, vegetation, ecosystem processes, and watershed restoration. Land management philosophy and ethics were mentioned by several respondents. Several respondents mentioned Karuk / indigenous land and resource management practices (including basketry plants and fire management and use), as well as land and resource rights.

Other important focal topics are the history of the Klamath region, (including cultural, natural and land use history), fire ecology and management, vegetation (including native plants and noxious weed management), and elementary and / or community education. Several individuals expressed that they were interested in change in watershed conditions over time, both physical and biotic (Figure 8).

Toxics, community economics, erosion and sedimentation, and wildlife, were mentioned by a small number of respondents.

<b>Focus of Work / Interest</b>	<b>Tally</b>	<b>Percent</b>
<b>Fisheries / Aquatic Ecology</b>	<b>17</b>	<b>41%</b>
• Fish	11	27%
• Anadromous Fish	4	10%
<b>History (cultural and natural)</b>	<b>11</b>	<b>27%</b>
<b>Fire ecology and management</b>	<b>10</b>	<b>24%</b>
<b>Land Management</b>	<b>9</b>	<b>22%</b>
• Forestry	8	20%
• Alternative Forest Practices	4	10%
<b>Vegetation</b>	<b>7</b>	<b>17%</b>
• Native Plants	6	15%
• Noxious Weeds	4	10%
<b>Education</b>	<b>6</b>	<b>15%</b>
• Elementary	4	10%
<b>Change in watershed conditions over time</b>	<b>4</b>	<b>10%</b>

**Figure 8: Common focus subjects of the work and interests of the Mid-Klamath and Salmon Rivers Research Library potential user group.**

### ***Question 5: Describe your work (paid or unpaid) in the Klamath region.***

A wide range of descriptions of the work and interests of respondents was reported. Answers were similar to the responses given to the previous question, as questions #4 and #5 are related. Fisheries and aquatic ecology, education of the community as well as elementary school students, vegetation, restoration and conservation, land management approaches and practices, and fire ecology and management were all indicated as important subjects of respondents' work. Differences to the results from question # 4 include river recreation, general natural history,

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community economic development and stability, Karuk land management and land and resource rights, and personal enrichment / religion as important interests and work topics.

### ***Question 6: How far would you travel to use the library?***

Respondents answered this question in a variety of ways, such as by indicating specific mileage they would travel, how much time they would spend traveling, or what towns they would travel to or from. 18 respondents are residents of Somes Bar, 11 are residents of Forks of Salmon, 2 are residents of Sawyers Bar, and 1 is a resident of Happy Camp. All of these towns are located within the mid-Klamath and Salmon River watersheds. There were 9 non-residents in the respondent group.

#### *Non-residents*

Most non-residents stated that they would travel from their town of residence to visit the library in the mid-Klamath / Salmon River region. One respondent said they would only use the library online. In general, non-residents expressed willingness to travel farther than residents.

#### *Somes Bar Residents*

Most of the residents of Somes Bar used mileages to answer this question, which ranged from 1 mile to 100 miles. Four individuals responded that they would travel under 20 miles to visit the library. Five respondents gave answers between 20 and 30 miles, three respondents gave answers between 40 and 50 miles, and one individual said they would travel 100 miles. The average response for these 13 respondents is 30 miles. Two people said they would travel for ½ hour to 1 hour to visit the library, and another would travel for 3 hours. One respondent stated they would only use the library if it was in Orleans or Somes Bar, and another said that they would not travel out of the region.

#### *Forks of Salmon Residents*

Six Forks of Salmon residents gave mileages, all of which were between 20 miles to 30 miles. One respondent said they would travel for two hours to visit the library. Another said that they would rarely visit the library if it was in Orleans. Another would travel to any of the local towns.

#### *Sawyers Bar Residents*

One respondent said they would travel 50 miles, and the other said they would only visit the library if it were in Sawyers Bar or Forks of Salmon.

For many individuals across the user group, how far they are willing to travel is dependent on the quality of the information resource.

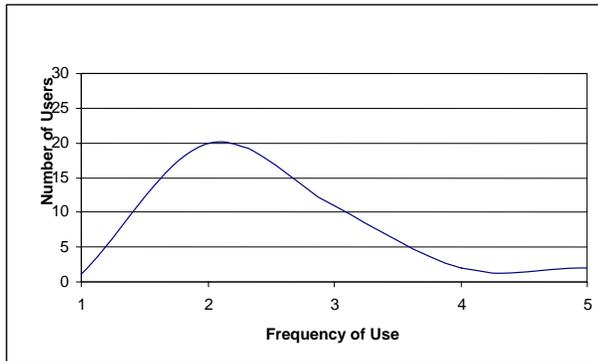
### ***Question 7: Would you use the library resources and services primarily at the library, via the internet, or both?***

Well over 60% of the survey respondents indicated that they would use the library both at the library facilities and via the internet. Five respondents indicated that they would use the library only on the internet, and five indicated that they would use the library only at the physical facility.

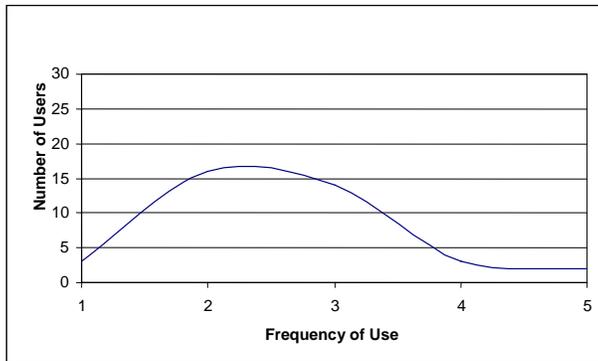
### Sources and services Checklist

Most sources and services will be used monthly by most people. However, six of the sources and services are expected to be used more than once a month. These include maps, online resources, an online library catalog, field guides, general natural history texts, and an alerting service to let library users know about new information in their field.

- *Online resources and an online library catalog will be used more frequently than once a month. An online library catalog is expected to be used weekly and online resources between once a week and once a month (Figures 9 and 10).*



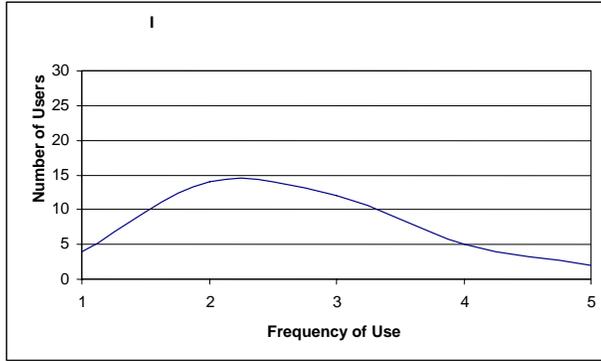
**Figure 9: Distribution of expected frequency of use of an online library catalog if made available at the Mid-Klamath and Salmon Rivers Research Library.**



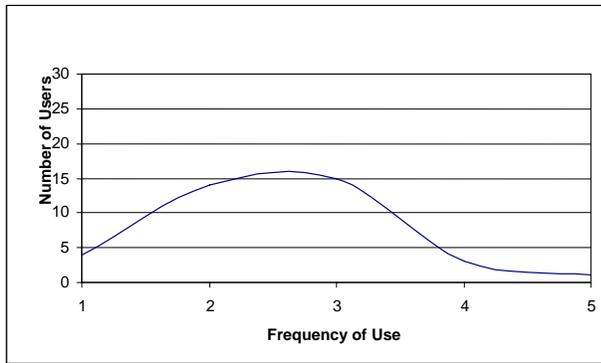
**Figure 10: Distribution of expected frequency of use of online resources if made available at the Mid-Klamath and Salmon Rivers Research Library.**

- *Field guides, maps, and an alerting service informing library patrons of new information in their field are expected to be used more than once a month and less than once a week (Figures 11, 12, and 13).*

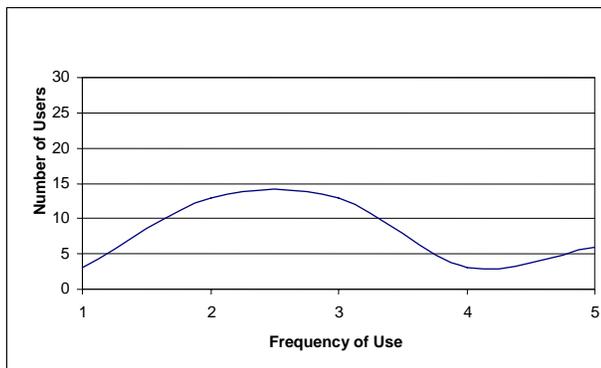
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**Figure 11: Distribution of expected use frequency of field guides if made available at the Mid-Klamath and Salmon Rivers Research Library.**



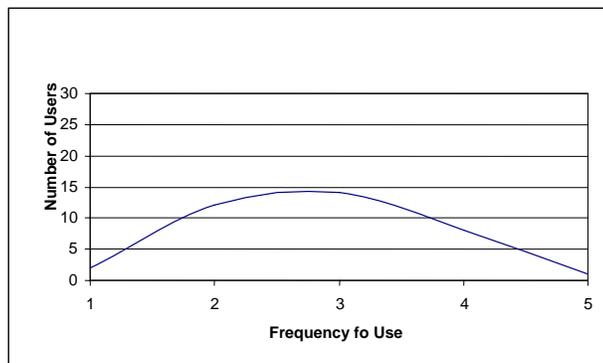
**Figure 12: Distribution of expected use frequency of maps if made available at the mid-Klamath and Salmon Rivers Research Library.**



**Figure 13: Distribution of expected use frequency of an information alerting service if made available at the Mid-Klamath and Salmon Rivers Research Library.**

- *General texts on natural history are expected to have a wide range of use frequency (Figure 14).*

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**Figure 14: Distribution of expected use frequency of general texts on regional natural history if made available at the Mid-Klamath and Salmon Rivers Research Library.**

### *Correlations*

Several pairs and one triad of sources and services were found to have moderate to strong correlation. Correlated sources and services are likely to be used by the same library users at the same frequency. Scientific journals, government documents, and graduate theses were correlated as a triad. Only two of these pairs are statistically significant, including scientific journals and graduate theses, and graduate theses and government documents ( $p < 0.05$ ). Graduate theses and reference service had a p value equal to 0.05. Correlated pairs are listed in Figure 15. The entire correlation matrix is found in Figure 16.

<b>Pairs of correlated sources and services</b>	<b>r-value</b>	<b>p-value</b>
scientific journals and government agency publications	0.63	0.128428074
scientific journals and graduate theses	0.66	0.000367404
graduate theses and government agency publications	0.67	0.005122627
graduate theses and reference service	0.68	0.05159027
personal / mail delivery of library materials and reference service	0.69	0.260278778
field guides and library instruction	0.61	4.03163E-06
editing assistance and field guides	0.67	3.90526E-05

**Figure 15: Pairs of moderately to strongly correlated sources and services and their correlation values and significance values (calculated by Microsoft Excel).**

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	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
1	1	0.49 123	0.462 882	0.63072 4794	0.484 065	0.320 856	0.220 83	0.438 721	0.663 089	0.349 544	0.110 026	0.461 568	0.426 643	0.302 527	0.429 494	0.372 089
2		1	0.489 169	0.42883 1491	0.414 86	0.406 832	0.414 448	0.448 96	0.361 453	0.142 92	0.132 339	0.533 654	0.319 019	0.365 631	0.353 924	0.189 333
3			1	0.50482 4589	0.556 587	0.508 369	0.358 365	0.448 401	0.453 89	0.161 088	0.216 184	0.556 092	0.498 683	0.610 011	0.671 245	0.383 681
4				1	0.655 096	0.457 477	0.212 256	0.329 702	0.669 796	0.185 034	0.122 753	0.449	0.540 569	0.447 421	0.552 462	0.368 655
5					1	0.284 661	0.266 297	0.437 249	0.553 607	0.193 134	0.259 377	0.542 459	0.472 621	0.423 24	0.548 982	0.407 939
6						1	0.460 475	0.338 889	0.212 298	0.068 008	0.123 408	0.396 162	0.464 874	0.376 52	0.262 846	0.016 15
7							1	0.329 631	0.064 327	0.111 256	0.129 213	0.512 004	0.290 533	0.255 378	0.323 146	0.120 759
8								1	0.395 592	0.287 587	0.103 273	0.340 322	0.293 095	0.363 012	0.472 684	0.313 256
9									1	0.464 135	0.425 422	0.526 063	0.683 784	0.563 099	0.489 847	0.503 522
10										1	0.314 517	0.156 023	0.236 273	0.251 175	0.566 607	0.038 23
11											1	0.528 712	0.335 685	0.351 683	0.068 599	0.334 825
12												1	0.689 777	0.560 079	0.318 232	0.365 463
13													1	0.498 507	0.384 482	0.353 243
14														1	0.486 034	0.258 889
15															1	0.213 967
16																1

Figure 16: Correlation table of sources and services of the Mid-Klamath and Salmon Rivers Research Library user survey sources and services checklist. Sources and services are numbered according to the order given on the final version of the survey (see Appendix 1).

## DISCUSSION

Many helpful conclusions can be drawn from the user survey findings for application in the development of the Mid-Klamath and Salmon Rivers Research Library. All of the objectives for the study were met, and many insights about ideal library format and location, collection priorities, and mission were gained from this analysis.

Overall, it was verified that libraries are important to the user group, and that a specialized collection about the Mid-Klamath and Salmon Rivers region would be useful. The current use of libraries by the user group is especially impressive due to the high proportion of Klamath area residents who must travel at least an hour and a half to access a library facility. When asked how far they would be willing to travel to use the Mid-Klamath and Salmon Rivers Research Library, most residents would travel no more than thirty miles. This indicates the burden of having to travel so far to get needed information, the importance of making the library a local facility.

Use of small, limited collections such as the SRRC and personal collections may be common because these are some of the only local resources. This indicates that a larger, more thorough resource would be used locally. However, it was stressed by many that use of the library would strongly depend on the quality of the information resource. Due to the wide geographic range of the potential user group, the library must be a high quality resource to draw users to it. To be worthwhile and sustainable, the library should be created as an information clearinghouse with a wide range of technical and general resources.

### ***Library Format and Location***

*It is clear that a physical facility as well as an internet resource should be developed to serve the user group.* The importance of internet use by the user group was verified multiple times throughout the user survey. Currently, internet resources are one of the three most common means of obtaining information by the user group. Many users expressed that they would like access to more online resources, and indicated that they use internet resources more frequently than other types of information sources. Thus, *the library should feature a highly functional internet resource.* It should include an online library catalog, links to other helpful resources, and publications that can be downloaded whenever possible under copyright law.

Although many respondents indicated that they would like Klamath-specific databases to be made available, the existing database Klamath Resource Information System was mentioned by relatively few respondents. This indicates that this resource may not be sufficiently available to a user group who would use it if possible. The strong use of internet resources indicates that making KRIS available online may be the most effective way to increase use of this resource and meet user needs. *Management of KRIS online should be researched as a possible library objective and responsibility.*

Many survey respondents also indicated that the nature of the physical library facility was important to them, including the atmosphere, level of organization, and functionality. *Photocopying capacity, appropriate furniture for study, and conveniently cataloged resources should be provided.* Further, *efforts should be made to facilitate informal and formal education opportunities at the library.* Community outreach and communication with the user group through library updates should be ongoing.

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Although there are limited possibilities in terms of where the library is located, *effort should be made to find a facility between Forks of Salmon and Somes Bar to house the library.* Consideration of residents' locations and willingness to travel should be central when making decisions about library location, as non-residents expressed greater flexibility in visiting the library anywhere in the Mid-Klamath and Salmon River area. A higher proportion of the resident user group is in the Somes Bar / Orleans area, and a smaller portion is in Sawyers Bar and Forks of Salmon. However, people from the Somes Bar / Orleans area expressed willingness to travel slightly farther than residents of Sawyers Bar and Forks of Salmon.

Library services are important and should be developed, but it can be expected that many of the library patrons will be largely self-sufficient in their library use. *Emphasis should be placed on building, cataloging, and promoting the collection; services should be developed as demand for them increases.* However, *an alerting service should be developed immediately, in which library patrons can sign up to be notified of new information in their field that is available at the library or elsewhere.*

### **Library Collection**

It is clear that developing a collection of both general and technical information resources is essential to serve the user group. Primary technical resources include government documents, academic journals and graduate theses. It was indicated that government documents are the most important of these three source types, perhaps reflecting the relatively low amount of published and academic scientific work specifically done in the Klamath region. As specifically recommended by some of the survey respondents, *a goal of the Mid-Klamath and Salmon Rivers Research Library should be to develop a thorough government document repository. Subscriptions to scientific journals should be carefully selected and should pertain to the most common interests of the user group. Individual published scientific articles as well as graduate theses with information specifically about the Klamath region should be acquired. General resources such as field guides, personal accounts, natural history texts, newsletters and other periodicals should be researched and carefully selected to reflect high priority subject areas identified as important to the user group.*

Nontextual resources such as maps, satellite images, Geographic Information Systems (GIS), and photographs were also identified as important to the user group. Maps were expressed to be the most important geographic resource, and are expected to be used more frequently than many other sources. Historical photographs the most desired type of photographs. *The availability of various map resources should be researched and a thorough map collection should be developed. A complete collection of 7 ½ minute quadrangle maps and transportation maps of the Mid-Klamath and Salmon River watersheds should be included if possible. Existing archives of historical and other photos pertaining to the Klamath region should be identified. Library users should be made aware of access they have to these resources. The availability of photograph resources should be researched and a collection of relevant photographs should be pursued.*

Interest in a specialized natural history collection for children was also expressed by elementary educators and parents within the user group. Several educators mentioned that the Siskiyou County Office of Education has a library and resources that are very

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helpful for their classroom needs. However, this resource is over two hours away. *High demand resources needed from the County Office of Education collection should be identified, and duplicates of these resources should be acquired for the Mid-Klamath and Salmon Rivers Research Library collection. Collaboration with the County Office of Education should be pursued in an effort to increase the convenient use of that resource by local educators. Parents and teachers should be further consulted for guidance in the development for an appropriate children’s collection for the Mid-Klamath and Salmon Rivers Research Library. Collaboration with the local elementary school library collections should be pursued.*

It is clear from survey responses that information about human cultures in the region directly pertains to the natural systems and history. Understanding land use patterns and history is central to understanding ecological conditions of the Klamath region. Interest in cultural information such as settlement patterns, indigenous knowledge and practices, and resource extraction activities in the past and present were common amongst the user group. Thus *it is recommended that the library collection development policy embrace the view that cultural information is relevant to the needs of land managers and stakeholders, and that cultural information be pursued for the library collection.*

*High priority subject areas were identified from the user survey results, and these should serve as general guides for prioritization when developing the library collection.* However, the subject areas identified from the survey should not be thought of as complete. Although common themes should be the focus of collection development, *library staff should also strive to provide more obscure resources and pursue individual requests for information.* Common subject areas that should have high priority include vegetation (native and non-native plants), fisheries and aquatic ecology, general ecology and natural history, fire ecology and management, wildlife, restoration, geology, land management approaches and practices, cultural and natural history, community economic development and stability, indigenous knowledge and practices, and land ethics and philosophy. *It should be noted that descriptive ecological data such as the abundance and distribution of organisms in the watershed is of particular importance to the user group, both in terms of historical and current conditions. Acquiring such information for the library should be considered an especially high priority.* Interestingly, several respondents defined what they meant by historical, and these definitions ranged from “pre-european” to “before 1990”.

### ***Special Library Goals***

To best serve the user group, library staff should adopt the following special objectives:

- **Increase awareness and use of existing information resources**  
Several important agencies and organizations were mentioned as useful resources to the user group. Personal communication may be an important means of obtaining information from these resources, including agency and academic resources. However, these resources tend to be spread out and often offer limited access to the general public. The Mid-Klamath and Salmon Rivers Research Library serve to facilitate greater use and access to these existing resources by the user group. This may include development of cooperative agreements with these

## Appendix B – User Survey Analysis

institutions, as well as active education of the library user group about what resources they have access to, what information those resources contain, and how to use them. *A directory of existing services should be developed as well as library services to augment the accessibility of those resources when possible.*

- **Strive to locate and acquire hard-to-find information**

*Library staff should conduct ongoing research for purposes of finding obscure or unknown resources relevant to the Klamath region. Of particular importance is past and present ecological data, as well as regional historical information.*

- **Promote the creation of new information relevant to the Klamath region**

Some of the information that the user group expressed to be difficult to find, such as ecological data, historical information, indigenous knowledge and practices, personal accounts, and summary information about the region for education purposes, may not commonly exist in a format that researchers can find and use. To increase the availability of this kind of information, it may need to be actively created or compiled. *Library staff should identify information needs, and stimulate the creation of such information. Initial priorities include supporting the Karuk tribe in creating information resources of indigenous knowledge and practices, and collaborating with land managers in the region to create a comprehensive list of land management projects and activities in the Klamath region to be continuously updated.*

## REFERENCES

Berk, Robert A. *Starting, Managing, and Promoting the Small Library*. Armonk, NY: M.E. Sharpe, Inc., 1989.

Holdgate, Martin W. The environmental information needs of the decision maker. *Nature and Resources*. 18(1): 5-10. 1982.

Kreizman, Karen. *Establishing an Information Center: a Practical Guide*. London: Bower Saur, 1999.

Rolinson, J., H. Al-Shanbari and A.J. Meadows. Information usage by biological researchers. *Journal of Information Science*. 22(1): 47-53. 1996.

Rolinson, J., A.J. Meadows and H. Smith. Use of information technology by biological researchers. *Journal of Information Science*. 21(2): 133-139. 1995.

Stoss, Frederick W. The center for environmental information: meeting community information needs. *Science and Technology Libraries*. 10(2): 17-28. 1989.

Welch, Todd. "Green" archivism: the environmental response to environmental research. *The American Archivist*. 62(1): 74-94. 1999.

Pilot Survey Form

 **MID-KLAMATH AND SALMON RIVERS  
RESEARCH LIBRARY**

January 2, 2002

Greetings!

I am excited to inform you of a new resource that is being developed in the Klamath basin, the *Mid-Klamath and Salmon Rivers Research Library*. With the help of the Salmon River Restoration Council and the Klamath River Basin Fisheries Task Force, we are developing a specialized library highlighting natural sciences, resources, and land use in the mid-Klamath and Salmon River watersheds. These are areas of exceptional natural features and systems, and much work is being done to understand and manage them. However, information and resources regarding these watersheds can be hard to find or access. Our hope is to provide equal access to a thorough collection of information and publications relevant to the Klamath region, and customized library services to all who are interested. Although we are focusing on the mid-Klamath and Salmon River subbasins initially, our goal is to ultimately widen the focus of the library collection to include the entire Klamath River watershed.

We are busy in the planning stages of the library, with the goal of launching services by October 2002. The following survey is to help us determine the needs of those we hope to serve. Your input will be extremely valuable in the planning process, and is essential to this project. Any time you can take to complete this survey is greatly appreciated.

The enclosed return envelope has been included for your convenience. If lost, please return your completed survey to the address below. Feel free to contact us with additional questions, requests, or recommendations at any time.

***Thank you!***

Sincerely,

Adrienne R.S. Harling  
Library Project Coordinator  
The Mid-Klamath and Salmon Rivers Research Library  
P.O. Box 840, Somes Bar, CA 95568  
email: [adereed@yahoo.com](mailto:adereed@yahoo.com)  
phone: 530-469-3203, 206-527-6520

 **MID-KLAMATH AND SALMON RIVERS  
RESEARCH LIBRARY**

**USER SURVEY**

Your Name \_\_\_\_\_  
Address \_\_\_\_\_  
Affiliation \_\_\_\_\_  
Occupation \_\_\_\_\_

*Please answer the following questions as thoroughly as possible. Please keep in mind that the library has a special focus of natural sciences and land management, and direct your answers accordingly. Use an additional sheet if necessary.*

1) Describe your interest and / or work (paid or unpaid) in the Klamath region. In particular, describe your interest or work regarding natural history, natural resources, and / or land management in the Klamath region.

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

2) Is there a particular project, problem, or topic that you are especially interested in, or with which you are primarily engaged in your work?

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

3) What information needs do you encounter in your work or regarding your interest? For example, in what situations do you need specific information that requires some research? What kinds of information do you need at these times?

\_\_\_\_\_  
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\_\_\_\_\_  
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## Appendix B – User Survey Analysis

4) How do you meet your information needs currently, and what specific resources do you use?

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5) What information has been particularly hard to find?

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6) Are there resources or services that you wish were available that currently are not?

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7) What is the most useful information you currently seek out or receive on a regular basis? Where / who does it come from and why is it important?

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8) What subject areas and types of materials would you like to see in the library collection?

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9) How far would you travel to use the library?

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10) Would you use library resources and services primarily at:  
[the library | via the internet | both]

## Appendix B – User Survey Analysis

***The following information sources could be made available in the library.  
Please indicate which of these might be useful to you:***

	Daily	Often	Some- times	Never
<b>SOURCE</b>				
Scientific journals ( <i>technical</i> )	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
General texts on regional natural history ( <i>written for a general audience</i> )	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Identification manuals and field guides	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Government agency publications	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Watershed education materials and curricula	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Maps	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Historical Photos and Documents	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Narratives set in the Klamath Region	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Doctoral dissertations or Masters theses	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Online publications	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Resource links on library web page	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>SERVICE</b>				
Online library catalog	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Personal or mail delivery of library materials	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Reference service( <i>providing citations, facts, referrals</i> )	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Bibliographic searches involving complex subjects	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Orientation and instruction in the use of library and information resources	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Editing assistance, proofreading	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
An alerting service notifying you of information in your field on a regular and recurring basis without your asking for it	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Please indicate any additional sources or services important to your information needs:				

## Final Survey Form

# MID-KLAMATH AND SALMON RIVERS RESEARCH LIBRARY

January 2, 2002

Greetings!

I am excited to inform you of a new resource that is being developed in the Klamath basin, the *Mid-Klamath and Salmon Rivers Research Library*. With the help of the Salmon River Restoration Council and the Klamath River Basin Fisheries Task Force, we are developing a specialized library highlighting natural history, watershed restoration, and ecosystem-based land management in the mid-Klamath and Salmon River watersheds. These are areas of exceptional natural features and systems, and much work is being done to understand and manage them. However, information and resources regarding these watersheds can be hard to find or access. Our hope is to provide access to an extensive library of information and publications relevant to the Klamath region, to all who are interested. Although we are focusing on the mid-Klamath and Salmon River subbasins initially, our goal is to ultimately widen the focus of the library to include the entire Klamath River watershed.

We are busy in the planning stages of the library, with the goal of launching services by October 2002. The following survey is to help us determine the needs of those we hope to serve. Your input will be extremely valuable in the planning process, and is essential to this project. Any time you can take to complete this survey is greatly appreciated.

The enclosed return envelope has been included for your convenience. Feel free to contact us with additional questions, requests, or recommendations at any time.

Thank you!

Adrienne R.S. Harling  
Library Project Coordinator  
The Mid-Klamath and Salmon Rivers Research Library  
P.O. Box 840, Somes Bar, CA 95568  
Email: [adereed@yahoo.com](mailto:adereed@yahoo.com)  
Phone: 530-469-3203, 206-527-6520

 **MID-KLAMATH AND SALMON RIVERS  
RESEARCH LIBRARY**

**USER SURVEY**

*Please answer the following questions as thoroughly as possible. Please keep in mind that the library has a special focus of natural history and land management, and direct your answers accordingly.*

1) How do you get information you need currently? What specific resources do you use?

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2) What information has been particularly hard to find?

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3) Are there resources or services that you wish were available that currently are not?

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Appendix B – User Survey Analysis

4) Is there a particular project, problem, or topic regarding the Klamath region that you are especially interested in or with which you are primarily engaged in your work?

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5) Describe your interest or work (paid or unpaid) in the Klamath region.

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6) How far would you travel to use the library?

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7) Would you use the library resources and services primarily at:  
[the library | via the internet | both]

Your name *(optional)* \_\_\_\_\_

Affiliation *(optional)* \_\_\_\_\_

Occupation *(optional)* \_\_\_\_\_

Appendix B – User Survey Analysis

***The following information sources and services could be made available in the library. Please indicate how frequently you might use these by marking a check in the appropriate box after each item:***

	Daily	Weekly	Monthly	Yearly	Never
<b>SOURCE</b>					
Scientific Journals ( <i>technical</i> )					
General texts on regional natural history ( <i>written for a general audience</i> )					
Identification Manuals and Field guides					
Government Agency Publications					
Watershed materials and curricula					
Maps					
Historical Photos and Documents					
Narratives Set in the Klamath Region					
Doctoral Dissertations or Masters theses					
Online Resources					
<b>SERVICE</b>					
Online Library Catalog					
Personal or Mail delivery of library materials					
Reference service ( <i>providing citations, facts, referrals</i> )					
Instruction in the use of library and info resources					
Editing assistance, Proofreading					
An alerting service notifying you of information in your field on a regular and recurring basis without your asking for it					

APPENDIX C:  
Strategic Plan

 **MID-KLAMATH AND SALMON RIVERS  
RESEARCH LIBRARY  
STRATEGIC PLAN 2002-2006**

Adrienne R.S. Harling  
Library Project Coordinator

**MISSION**

Our mission is to collect, and provide equal access to, quality information relevant to the ecology and land management of the Klamath River watershed, with an emphasis on the mid-Klamath and Salmon River subbasins.

The library serves as a technical resource to individuals and organizations active in conservation, restoration, research, and other land management efforts in the Klamath region. It also serves as a general resource for independent learning (of both adults and children) and community programs, to enhance knowledge and enjoyment of the unique natural features of the area.

We promote and facilitate the ongoing study of the Klamath River watershed, as well as the creation of new quality information about the area. The library also serves as a common resource for the diversity of land managers and stakeholders in the Klamath region, and thus facilitates communication between these groups.

Library management and personnel actively promote use of the collection and services, so that everyone in the community is aware of these resources and their entitlement to them.

**GOALS**

1. Establish and maintain an information center, identifiable as a major resource to land managers, scientists, and stakeholders within the Klamath River watershed, that will
  - a. Provide a comprehensive collection of information, print and digital, relevant to the ecology and land management of the Klamath River watershed and which meets user needs
  - b. Provide convenient means for library users to access information
  - c. Provide quality services that will aid research efforts
2. Promote awareness and use of existing information resources pertinent to the Klamath River watershed, as well as the ongoing study of the region that will result in the creation of new information
3. Facilitate an ongoing forum about the ecology and land management of the Klamath River watershed

## OBJECTIVES

*This section outlines the objectives that will achieve the fulfillment of the project goals. Objectives are listed under the goal they are associated with (goals are notated by “G” followed by their number as listed in the prior section; objectives are identified by capital letters.) This is followed by a section which contains lists of specific tasks for each objective, including identification of the year(s) each task will be accomplished, and a quarterly task calendar for 2002 and 2003. Both correspond to this outline, and utilize the same notations. Please note that not all tasks will commence before 2004, and that therefore not all tasks are represented on the 2002-2003 task calendar.*

### **G-1 Objectives:**

- A. Assess the information needs and uses of the potential user group
- B. Develop and maintain the library collection of print and digital resources
- C. Obtain equipment, furniture, and supplies which facilitate research and study
- D. Provide reference and other services to aid research efforts
- E. Provide an online, searchable catalog of library materials
- F. Create and maintain a library web page that will serve as a central portal for accessing Klamath-related information and research resources
- G. Obtain funding needed to achieve target collection, services and operations by 2006, and to maintain and update the library collection, services and operations once the target has been reached
- H. Provide ongoing staff training

### **G-2 Objectives:**

- A. Establish regular communication with representatives of managing agencies, local tribes, scientific researchers, local residents, educators,
- B. Conduct outreach about the library resource at community and professional meetings and events
- C. Develop and make available a directory of existing information resources which support Klamath-related research efforts
- D. Investigate the possibility of establishing a partnership with Humboldt State University
- E. Develop and make available guides to Klamath-related literature
- F. Give workshops about techniques for conducting literature research about the Klamath region through the Siskiyou Field Institute
- G. Identify gaps in available information on relevant topics within the watershed

### **G-3 Objectives:**

- A. Host reading / discussion groups featuring selections from the literature about the Klamath River watershed
- B. Sponsor and organize a regularly updated list of descriptions of events, projects and activities regarding the ecology and / or land management of the Klamath River watershed
- C. Host two presentations by specialists per year

## TASKS

**G-1(A)**

Objective: Assess the information needs and uses of the potential user group

<b>Tasks</b>
Conduct user survey every two years
Monitor patron use of collection and services
Analyze use data annually
Develop a system for obtaining and processing information requests and feedback about the collection and services

**G-1(B)**

Objective: Develop and maintain the library collection of print and digital resources

<b>Tasks</b>
Write collection development policy based on user needs assessment results
Receive training in environmental research.
Develop working bibliography of desired acquisitions (update quarterly)
Purchase / acquire collection (update annually)
Catalog acquisitions

**G-1(C)**

Objective: Obtain equipment, furniture, and supplies which facilitate research and study

<b>Tasks</b>
Develop a working list of needed / desired furniture and equipment
Purchase / acquire priority furniture and equipment
Acquire art and other aesthetic / educational displays to enhance the library atmosphere

**G-1(D)**

Objective: Provide reference and other services to aid research efforts

<b>Tasks</b>
Develop services based on user needs assessment
Inform the library user group of the availability of services

**G-1(E)**

Objective: Provide an online, searchable catalog of library materials.

<b>Tasks</b>
Acquire online library catalog software
Enter library holdings data into software
Make catalog available on library web page

**G-1(F)**

Objective: Create and maintain a library web page that will serve as a central portal for accessing Klamath-related information and research resources.

<b>Tasks</b>
Review user needs assessment for internet resource recommendations
Hire technical expert to develop initial web site and to make significant technical revisions
Develop and update a three year plan for the library web page, including budget

Appendix C – Strategic Plan

Purchase and update web site domain
Arrange and attend training sessions for web site management
Update the web page quarterly

**G-1(G)**

Objective: Obtain needed funding to achieve target collection, services and operations by 2006, and to maintain and update the library collection, services and operations once the target has been reached

<b>Tasks</b>
Assess / revise annual budget needs to achieve annual target collection, services and operations
Contact five potential funding agencies each year
Write three proposals each year
Submit additional proposals as needed to obtain annual budgetary needs

**G-1(H)**

Objective: Provide ongoing staff training

<b>Tasks</b>
Consult with library professionals quarterly
Attend professional workshops or training programs as needed

**G-2(A)**

Objective: Establish regular communication with representatives of managing agencies, local tribes, scientific researchers, local residents, and educators

<b>Tasks</b>
Assemble an advisory committee
Communicate with the members of the advisory committee quarterly about library progress, and seek advice from them as needed

**G-2(B)**

Objective: Conduct outreach about the library resource at community and professional meetings and events.

<b>Tasks</b>
Present information about the library at six community events per year
Distribute two mailers, highlighting library features, to the user group each year
Give presentation at a professional / academic conference annually

**G-2(C)**

Objective: Develop and make available a directory of information resources which support Klamath-related research efforts

<b>Tasks</b>
Identify resources to be included in directory
Contact resources for permission to be included in directory, when necessary
Make directory available

**G-2(D)**

Objective: Investigate the possibility of establishing a partnership with Humboldt State University

<b>Tasks</b>
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Appendix C – Strategic Plan

Develop a proposal which clearly defines the nature of the partnership sought
Contact representatives of Humboldt State and discuss proposal and partnership possibilities

**G-2(E)**

Objective: Develop and make available guides to Klamath-related literature

<b>Tasks</b>
Determine priority topics for literature guides
Make selections from the literature on identified topics
Write text describing selections from literature
Post guides on library web site

**G-2(F)**

Objective: Give a workshop about techniques for doing research about the Klamath region through the Siskiyou Field Institute

<b>Tasks</b>
Contact the Siskiyou field institute
Arrange necessary logistics
Prepare for workshop content
Promote attendance at workshop
Hold workshop

**G-2(G)**

Objective: Identify gaps in available information on relevant topics within the watershed

<b>Tasks</b>
Develop methods for quantifying data / information gaps
Collect data according to methods developed
Analyze data
Write a report summarizing the study
Discuss results with a team of specialists
Develop and distribute recommendations for filling identified information gaps

**G-3(A)**

Objective: Host a discussion group featuring selections from the literature about the Klamath region

<b>Tasks</b>
Identify and assemble individuals interested in participating in the discussion group
Decide together on subject areas for discussion group
Make reading selections from literature
Reproduce and distribute selections
Host bimonthly gatherings

**G-3(B)**

Objective: Sponsor and organize a regularly updated list of descriptions of events, projects and activities regarding the ecology and / or land management of the Klamath River watershed.

<b>Tasks</b>
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Appendix C – Strategic Plan

Conduct ongoing research about activities in the watershed, by personal communication
Post a list of activities on the library web site
Update list monthly

**G-3(C)**

Objective: Host two presentations by two specialists per year

<b>Tasks</b>
Identify priority topics for educational events regarding current issues in the watershed
Identify presenters and solicit / confirm their attendance
Advertise event

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*The following references were used to develop this strategic plan:*

Asantewa, Doris. *Strategic Planning Basics for Special Libraries*. Washington, DC: Special Libraries Association., 1992.

Jacob, M.E.L. *Strategic Planning: A How-To-Do-It Manual for Librarians*. New York: Neal-Schuman Publishers, Inc., 1990.

Kreizman, Karen. *Establishing an Information Center: a Practical Guide*. London: Bower Saur, 1999.

Mount, Ellis. *Special Libraries and Information Centers: An Introductory Text – 2<sup>nd</sup> Edition*. Washington DC: Special Libraries Association, 1991.



APPENDIX D:  
Collection Development Policy

 **MID-KLAMATH AND SALMON RIVERS  
RESEARCH LIBRARY  
COLLECTION DEVELOPMENT POLICY**

## **SCOPE**

The library collection is to serve as a technical and general resource for land managers, scientists, stakeholders, and other researchers in the Klamath region. The Mid-Klamath and Salmon Rivers Research Library is a special library, focused on the ecology and land management of the Klamath Bioregion. Cultural information that addresses regional land use and ecology is considered to be relevant to the special focus of the library, and will be acquired for the collection. The collection will primarily include materials for an adult audience, but will also include a section specifically for children between the approximate ages of five and thirteen. Individuals of all ages will have access to all parts of the collection.

### *Subject areas*

The ultimate goal for the library is to house and make available an exhaustive collection of information about the Klamath River watershed, and additional background materials in key subject areas. Thus, materials of any subject or format which contain information specifically about the Klamath River watershed will be collected. This collection will be built according to geographic, subject area, and format priorities. Geographic priorities are as follows: 1) Mid-Klamath and Salmon River subbasins 2) remaining area of the Klamath River watershed

Materials which contain information specifically about the Klamath region, and can be described by any of the following categories, are high priorities for acquisition:

- Historical and current ecological data
- Peer reviewed information
- Historical information, including historical documentation, personal accounts, and photographs
- Government documents
- Geographic information
- Indigenous information
- General / summary information

The highest priority subject areas for the collection are as follows:

- Fisheries
- Vegetation
- Fire Ecology
- Wildlife
- Land management approaches / techniques / impacts
- Indigenous land management
- General ecological principles / natural history

## Appendix D – Collection Development Policy

- Geology / geomorphology / hydrology
- Water quality
- Restoration ecology
- Conservation biology
- Land management ethics / philosophy

### *Formats*

The library will collect both hard copy and digital resources. Hard copy materials will include the following formats:

- Textual
  - Government documents
  - Theses and dissertations
  - Serials
    - i. Journals
    - ii. Magazines
    - iii. Newsletters
    - iv. Newspapers
  - Monographs
- Nontextual
  - Maps
  - Photographs / satellite images
  - Videos
  - DVD
  - CD

Digital materials will include the following formats:

- Textual
  - Government documents
  - Serials
    - i. Journals
    - ii. Magazines
    - iii. Newsletters
    - iv. Newspapers
  - Online databases
- Nontextual
  - Maps
  - Photographs / satellite images

### *Currency of Materials*

Materials of any age that contain any of the following information will be collected:

- Primary ecological data for the Klamath region
- Personal accounts from the Klamath region
- Descriptions or discussions of the Klamath region
- Photographs taken within the Klamath region
- Satellite / aerial images of the Klamath region
- Historic relevance to the Klamath region
- Classic works regarding priority subject areas

All other components of the collection will be kept current

### *Languages*

Materials will only be collected that are in English, or in any of the languages indigenous to the Klamath region.

## Appendix D – Collection Development Policy

### *Materials selection*

The project coordinator will be primarily responsible for making recommendations and selecting library materials. However, the library advisory committee will have the opportunity to offer feedback regarding collection goals quarterly. The project coordinator will select specific materials based on the following:

- Conformity to library mission
- Identified priority subject areas among user group
- Identified priority formats among user group
- Information identified as hard-to-find by the user group
- Recommendations from patrons
- Reputation of author, editor, or publisher
- Balance of views represented
- Cost

### *Multiple copies*

Multiple copies will be collected of high-demand materials only, when allowed by the library budget, after primary copies of priority new materials have been acquired.

### *Gifts*

Gifts to the library must meet the same criteria for any addition to the collection in order to be accepted. Every effort will be made to return gifts that are not accepted by the library to the donor. Those gifts left with the library will be disposed of according to the discretion of library staff.

### *Collection Assessment*

The existing collection will be evaluated by the project coordinator annually. The library advisory committee will have opportunity to give feedback and recommendations regarding the acquisition goals annually. A library user needs assessment will be conducted every two years, and will include questions about patron use of the library collection. Use of the library collection will be continually monitored, and data from this monitoring will be used to improve the collection.

### *Collection Maintenance*

Weeding of the library collection will be done according to the guidelines presented in the “Continuous Review, Evaluation and Weeding” (CREW) document.

### *Intellectual Freedom*

In the case that different views exist about a particular topic pertinent to the ecology and land management within the Klamath River watershed, library staff members will strive to collect materials which represent the full spectrum of those perspectives.

The library welcomes feedback and suggestions from library users about the content of the collection. Verbal comments regarding the collection will be directed to the project coordinator. If desired, questions about specific works or aspects of the collection can be

## Appendix D – Collection Development Policy

communicated to library staff in a writing, which will be reviewed by the library advisory committee.

### *Policy Revision Process*

The project coordinator will assess and revise the collection development policy annually, and will make changes as necessary.

*The following references were used to develop this collection development policy:*

Kreizman, Karen. *Establishing an Information Center: a Practical Guide*. London: Bower Saur, 1999.

Mount, Ellis. *Special Libraries and Information Centers: An Introductory Text – 2<sup>nd</sup> Edition*. Washington DC: Special Libraries Association, 1991.

APPENDIX E:  
Opening Day Bibliography Rationale

**Mid-Klamath and Salmon Rivers Research Library**

Opening Day Collection Bibliography

RATIONALE

Prepared by: Adrienne R.S. Harling, Project Coordinator

The Mid-Klamath and Salmon Rivers Research Library opening day collection bibliography consists of one-hundred monographs (and some novels), ten serials, fifty theses, two searchable online databases, and fifteen web sites. The limits of the opening day collection were set by the 2003 fiscal year estimated budget, which is not to exceed \$15,000 (Figure 1). Priority subject areas and information formats were derived from on the following two sources:

1. results of an assessment of the information needs of the potential library user group, conducted during the 2002 fiscal year.
2. the Mid-Klamath and Salmon Rivers research library collection development policy

Format	Number	Average price	Subtotal	Total
Theses and Dissertations	50	\$ 40.00	\$ 2,000.00	\$ 2,000.00
Serials	10	\$ 150.00	\$ 1,500.00	\$ 1,500.00
Monographs	100	\$ 85.00	\$ 8,500.00	\$ 8,500.00
Online Databases	2	\$ 1,500.00	\$ 3,000.00	\$ 3,000.00
				\$ 15,000.00

**Figure 1: Estimated budget allocated for the Mid-Klamath and Salmon Rivers Research Library collection for fiscal year 2003**

It should be noted that the formats and subject areas represented by this opening day collection bibliography are only a subset of those that will ultimately be collected. Additional formats that were reported to be important to the user group are photographs, maps, government documents, and videos/DVDs.

The following discussion outlines the reasoning behind specific selections made within subject areas and formats. Overall, level of technicality was considered in making selections, as well as the criteria described here. Having a range of technicality was identified as important to the potential user group. However, selections for younger readers were not made for the opening day collection. The children’s collection will be developed in future years.

*Monographs*

The one-hundred monographs (with some novels included) selected for the opening day collection are divided up into five major subject areas. These subject areas are distributed by percentages that approximate the relative importance of each subject area to the potential user group, according to the user needs analysis. Fisheries / aquatic ecology (particularly pertaining to Pacific salmon), vegetation, and fire ecology each represent approximately 20% of the selected monographs for the opening day collection.

## Appendix E – Opening Day Bibliography Rationale

These subject areas rated as the most important topics to the potential library user group, each mentioned by at least 20% of the survey respondents.

Two additional subject areas highlighted in the opening day bibliography are wildlife and geology. Each of these represents approximately 10% of the monographs selected for the bibliography, which generally reflects their relative importance to the library user group as determined in the user needs analysis.

The remaining ten percent of the bibliography includes texts specific to the Klamath region that do not fit any of the subject areas directly, but that are known to be commonly sought works (determined by personal experience of the library project coordinator with the potential library group). In addition, some general texts pertaining to restoration and land management are included to further round out the collection. These topics were also identified as important to the user group.

Within each subject area, works specifically about the Klamath region were identified and included in the bibliography. Then, works specific to the northern California region were identified, and the most pertinent and current of those were selected. Finally, additional general works were selected, based on currency and inferred demand.

The primary databases used to select monographs were the Online Computer Library Center (OCLC), Library of Congress, and Amazon.com. OCLC and Amazon.com were used to gauge the relative demand of general works on specific topics. OCLC has a function which allows searches to be ranked by the number of libraries which carry titles, and Amazon.com rates books according to consumer demand. Amazon.com also contains sample pages of books, viewable online, which proved useful in determining the relevance of the book's content to the Klamath region.

Eighty-four percent of the monographs selected for the opening day collection were published between 1990 and 2002. Seven percent were published between 1980-1989. Nine percent were published prior to 1980, with the earliest publication at 1935. The older works in the collection are specific to the Klamath region, and are included because historic works specifically about the Klamath were determined to be important to the user group in the results of the user survey.

### *Theses*

Fifty theses, both masters and PhD dissertations, are included in the opening day collection bibliography. Forty-eight of them are specifically about the Klamath region. Eighteen of them are in the field of fisheries, sixteen of them are regarding vegetation, seven of them are in the field of fire ecology, seven are regarding wildlife, and seven are in the field of geology. Some of the theses are about more than one of these fields, which is why the totals for each subject area add up to more than fifty total theses.

Thirty-two of the theses were published between 1990-2002. Fourteen were published between 1980-1989. Four were published before 1980, with the earliest publication date in 1965. Although more current theses were considered priorities for the initial collection, historic data is important to the user group, and older theses are also considered to be valuable.

## Appendix E – Opening Day Bibliography Rationale

The primary databases used to develop the opening day bibliography of these were Dissertation Abstracts, OCLC, Humboldt State University Library Catalog, Oregon State University Library Catalog, and Southern Oregon University Library Catalog. The university library catalogs were chosen because they are the closest large universities to the Klamath Region, and are known to generate higher numbers of graduate theses about the Klamath Region than colleges elsewhere.

### *Serials*

Ten serials were chosen, also reflecting priority subject areas and geographic relevance. One serial publication that was chosen is specifically about the Klamath region. Another frequently publishes articles about the Klamath region. Two publications regarding vegetation are specifically relevant to California and the western United States. The remaining journals were selected on the bases of subject area, and how many libraries in the OCLC network carry them. All of the highest priority subject areas, except for geology, are represented by the journals selected. Although geology is an important subject area to the library user group, it is the least important of the five priority subject areas. It was decided that for the initial library collection, journals of more broad, relevant content (such as *Restoration Ecology* and *Conservation Biology*) would be more useful to the user group than a journal specifically dedicated to geology.

### *Databases*

Although not included in the Endnote bibliography, two online, searchable databases are recommended for acquisition for the opening day collection. These are *BIOSIS previews* and *Aquatic Sciences and Fisheries Abstracts*. If possible, these full text versions of these databases should be acquired. These two are recommended, because they specialize in the highest priority subject areas that were identified by the user needs analysis. Journal articles represent some of the greatest wealth of information specifically about the Klamath region, as well as some of the highest quality information (in terms of being peer-reviewed). These databases also would give the library user group access to extensive scientific information that is not specifically about the Klamath region, but is relevant to the region and the ecological and land management issues therein.

### *Web Links*

Fifteen web sites were selected to be links on the initial library web site. Due to the extensive number of relevant internet sites, this number was chosen in order to identify the most important sites. The sites chosen are primarily home pages of the primary stakeholders and land managing agencies in the Klamath River Watershed. A few additional sites that contain extensive information about the Klamath basin are included, as well. Some of these contain political content, and thus the mandate for

## Appendix E – Opening Day Bibliography Rationale

collection “balance” was applied. For example, a web site entitled “Klamath Basin Crisis” contains full text links to a number of scientific publications regarding current issues on the Klamath River, but has overt political bias. The web site for the “Klamath Forest Alliance” contains political information from an opposing point of view than that of the “Klamath Basin Crisis”.

APPENDIX F:  
October 1 Bibliography and Rationale

**Mid-Klamath and Salmon Rivers Research Library**

October 1, 2002 Proposed Collection - Rationale

Prepared by: Adrienne R.S. Harling, Project Coordinator

The Mid-Klamath and Salmon Rivers Research Library October 1, 2002 collection will contain (approximately) twenty-five government documents, forty-five monographs, fourteen serials (six of which are free on the internet), twenty-five theses, five maps, several informational CDs (including those containing regional photographs) and a variety of resources that are available for free on the internet. The limits of the opening day collection were set by the 2002 fiscal year budget, which is not to exceed \$4,200 (Figure 1). Priority subject areas and information formats were derived from on the following two sources:

1. results of an assessment of the information needs of the potential library user group, conducted during the 2002 fiscal year.
2. the Mid-Klamath and Salmon Rivers Research Library Collection Development Policy

Format	Number	Average price	Subtotal	Total
Government Documents	25	\$ 0.00	\$ 0.00	\$ 0.00
Theses and Dissertations	25	\$ 30.00	\$ 750.00	\$ 750.00
Serials	8	\$ 150.00	\$ 1200.00	\$ 1200.00
Monographs	45	\$ 50.00	\$ 2250.00	\$ 2250.00
Maps	5	\$ 10.00	\$ 50.00	\$ 50.00
				\$ 4250.00

**Figure 1: Budget allocated for the Mid-Klamath and Salmon Rivers Research Library collection for fiscal year 2002**

It should be noted that the formats and subject areas represented by this opening day collection bibliography are only a subset of those that will ultimately be collected. Additional formats that were reported to be important to the user group are videos/DVDs, aerial photographs, satellite images, watershed education supplies and curricula, and online databases of journal articles.

The following discussion outlines the reasoning behind selections for purchases to be made within subject areas and formats. Free resources that will be made available at the library, besides government documents, are not discussed in this rationale. Overall, level of technicality was considered in making selections, as having a range of technicality was identified as important to the potential user group. However, selections for younger readers were not made for the opening day collection. The children’s collection will be developed in future years.

This proposed bibliography and rationale are to be reviewed by the library advisory committee, who will make suggestions for revisions if desired. The project coordinator will consider suggestions and make appropriate revisions. Then, acquisitions will begin. The bibliography is based solely on content, not on ease of availability. Thus, some selections may not be able to be acquired by the desired date, due to being out of print or otherwise difficult to locate. Related or similar materials will be purchased

## Appendix F – October 1 Bibliography and Rationale

instead of those that can not be located or acquired by the acquisitions deadline for FY 2002.

### *Government Documents*

The twenty-five government documents selected for the October 1<sup>st</sup> collection are all available at no cost, and are not copyrighted. These criteria were selected in light of plans to make them available on the internet. Key, broadly focused, regional management documents were highest priority for the selection process. These documents contain information about all of the subject areas that were determined to be most important in the user needs assessment. Eleven such broad management documents were selected. Additional documents were selected according to individual subject areas. Nine documents pertaining to fisheries were selected, six pertaining to vegetation were selected, two pertaining to fire, and two pertaining to geology. Recommendations from local Forest Service, Fish and Wildlife Service, and Salmon River Restoration Council employees, were the primary basis for selecting specific government documents for the October 1 collection. Specialists from each of these agencies were consulted for recommendations regarding the different subject areas.

It should be noted that government documents collected in the future will be selected according to different criteria. In particular, General Technical Reports will be collected, as well as reports from the Pacific Northwest and Pacific Southwest Research Stations, and smaller scale environmental documents than those included in this initial collection.

### *Monographs*

Forty-eight monographs were selected for the October 1st collection, and are divided up into five major subject areas. (This number slightly exceeds the forty-five monographs that are expected to be afforded by the FY 2002 budget; however, the list serves the purpose of prioritizing material to be purchased). The subject areas are distributed by percentages that approximate the relative importance of each subject area to the potential user group, according to the user needs analysis. Fisheries / aquatic ecology (particularly pertaining to Pacific salmon), vegetation, and fire ecology each represent approximately 20% (8-10) of the selected monographs for the October 1st collection. These subject areas rated as the most important topics to the potential library user group, each mentioned by at least 20% of the survey respondents.

Two additional subject areas highlighted in the opening day bibliography are wildlife and geology. Each of these represents approximately 10% (5) of the monographs selected for the bibliography, which generally reflects their relative importance to the library user group as determined in the user needs analysis.

The remaining ten percent of the bibliography includes additional texts specific to the Klamath region, as well as texts regarding local and general indigenous land management. The topic of indigenous land management was also identified as important to the user group in the user survey, and need for information on this topic has been further emphasized since the survey was conducted.

## Appendix F – October 1 Bibliography and Rationale

Within each subject area, a combination of works specifically about the Klamath region, works specific to the northern California region, and additional general works were selected. Materials regarding broader geographical regions were selected based on currency and inferred demand.

The primary databases used to select monographs were the Online Computer Library Center (OCLC), Library of Congress, and Amazon.com. OCLC and Amazon.com were used to gauge the relative demand of general works on specific topics. OCLC has a function which allows searches to be ranked by the number of libraries which carry titles, and Amazon.com rates books according to consumer demand. Amazon.com also contains sample pages of books, viewable online, which proved useful in determining the relevance of the book's content to the Klamath region.

Seventy-one percent of the monographs selected for the opening day collection were published between 1990 and 2002. Ten percent were published between 1980-1989. Nineteen percent were published prior to 1980, with the earliest publication at 1932. The older works in the collection are specific to the Klamath region, and are included because historic works specifically about the Klamath were determined to be important to the user group in the results of the user survey.

### *Theses*

Thirty theses, both masters and PhD dissertations, are included in the opening day collection bibliography. (This number exceeds the twenty-five theses that are expected to be afforded by the FY 2002 budget; however, the list serves the purpose of prioritizing material to be acquired). All of them are specifically about the Klamath region. Nine of them are in the field of fisheries, twelve of them are regarding vegetation, seven of them are in the field of fire ecology, four are regarding wildlife, and five are in the field of geology. Some of the theses are about more than one of these fields, which is why the totals for each subject area add up to more than thirty total theses.

Nineteen of the theses were published between 1990-2002. Four were published between 1980-1989. Two were published before 1980, with the earliest publication date in 1965. Although more current theses were considered priorities for the initial collection, historic data is important to the user group, and older theses are also considered to be valuable.

The primary databases used to develop the opening day bibliography of theses were Dissertation Abstracts, OCLC, Humboldt State University Library Catalog, Oregon State University Library Catalog, and Southern Oregon University Library Catalog. The university library catalogs were chosen because they are the closest large universities to the Klamath Region, and are known to generate higher numbers of graduate theses about the Klamath Region than colleges elsewhere.

### *Serials*

Eight serials were chosen, also reflecting priority subject areas and geographic relevance. All of the highest priority subject areas, except for geology, are represented

## Appendix F – October 1 Bibliography and Rationale

by the journals selected. Although geology is an important subject area to the library user group, it was decided that for the initial library collection, a journal of more broad subject matter (such as Northwest Science) would be more useful to the user group than a journal specifically dedicated to geology. Leading scientific, peer reviewed journals regarding fire, fisheries, California vegetation, wildlife, forest management, and ecology of the Pacific Northwest were selected. A journal regarding California indigenous cultures was also selected. Several additional free internet journals were also identified, some of which are peer reviewed, scientific publications. Links to these publications will be made available on the library web site.

### *Maps*

The library will collect forest maps for the Klamath and Six Rivers National Forests, and transportation maps of each district for which they are available, for the October 1 collection.

## Appendix F – October 1 Bibliography and Rationale

### *Government Documents*

Busby, P. J., T. C. Wainwright, G. J. Bryant, L. J. Lierheimer, R. S. Waples, F. W. Waknitz, and I. V. Lagomarsino. 1996. Status review of west coast steelhead from Washington, Idaho, Oregon, and California. NOAA Technical Memo NMFS-NWFSC-27, U.S. Department of Commerce, Seattle, WA.

California Department of Fish and Game. 2002. Status review of California coho salmon north of San Francisco. Report to the California Fish and Game Commission California Department of Fish and Game.

de la Fuente, J., and P. Haessig. 1994. Salmon sub-basin sediment analysis. USDA Forest Service, Klamath National Forest, Yreka, CA.

Department of Natural Resources, K. T. o. C. 1999. Karuk Forest Management Perspectives: Interviews with tribal members, Vol 2: Appendices. P.O. 43-91W8-5-7053, USDA Forest Service, Ashland, OR.

Department of Natural Resources, K. T. o. C. 1999. Karuk forest management perspectives: interviews with tribal members, Volume 1: Report and Interview Transcriptions. P.O. 43-91W8-5-7053, USDA Forest Service, Klamath National Forest, Ashland, OR.

Elder, D., B. Olson, A. Olson, J. Villepontoux, and P. Brucker. 2002. Salmon River Subbasin Restoration Strategy: Steps to Recovery and Conservation of Aquatic Resources. Report for Klamath River Basin Fisheries Restoration Task Force Interagency Agreement 14-48-11333-98-H019, US Fish and Wildlife Service, Yreka, CA.

Flosi, G., S. Downie, J. Hopelain, M. Bird, R. Coey, and B. Collins. 1998. California Salmonid Stream Habitat Restoration Manual. State of California, The Resources Agency, California Department of Fish and Game, Inland Fisheries Division, Sacramento, CA.

Gilbert, C. H. 1898. The fishes of the Klamath River. U.S. Commission of Fish and Fisheries, Washington D.C.

Leidy, R. A., and G. R. Leidy. 1984. Life stage periodicities of anadromous salmonids in the Klamath River basin, northwestern California. U.S. Fish and Wildlife Service, Division of Ecological Services, Sacramento, CA.

Moyle, P. B., R. M. Yoshiyama, J. E. Williams, and E. D. Wikramanayake. 1995. Fish Species of Special Concern in California. Final Report for Contract No, 2128IF California Department of Fish and Game, Inland Fisheries Division, Rancho Cordova.

Myers, J. M., R. G. Kope, G. J. Bryant, D. Teel, L. J. Lierheimer, T. C. Wainwright, W. S. Grant, F. W. Waknitz, K. Neely, S. T. Lindley, and R. S. Waples. 1998. Status review

## Appendix F – October 1 Bibliography and Rationale

of chinook salmon from Washington, Idaho, Oregon, and California. NOAA Technical Memorandum NMFS-NWFSC-35, U.S. Department of Commerce, Seattle, WA.

Olson, A., and L. Wold. 1992. Summer steelhead conservation strategy: Klamath National Forest and Mid-Klamath tributaries. USDA Forest Service, Klamath National Forest, Yreka, CA.

United States Forest Service Pacific Southwest Region. 2001. Six Rivers National forest fire management plan FY 2001. US Department of Agriculture, Vallejo, CA.

United States Forest Service, P. S. R. 1993. Land and Resource Management Plan : Klamath National Forest, 1993 (Draft). USDA Forest Service, Yreka, CA.

United States Forest Service, P. S. R. 1995. Six Rivers National Forest : land and resource management plan 1995. Environmental Impact Statement Department of Agriculture, Forest Service, Pacific Southwest Region, Eureka, CA.

US Bureau of Land Management. 1999. Selected noxious weeds of northern California : a field identification guide. US Bureau of Land Management, California State Office, Sacramento, CA.

US Forest Service, and Bureau of Land Management. 1994. Record of Decision for ammendments to Forest Service and Bureau of Land Management planning documents within the range of the northern spotted owl, and Standards and Guidelines for management of habitat for late-successional and old-growth forest related species within the range of the northern spotted owl. US Forest Service and Bureau of Land Management.

USDA Forest Service. 1994. South Fork of the Salmon River Ecosystem Analysis. Salmon River Ranger District, Klamath National Forest, Pacific Southwest Region, Yreka, CA.

USDA Forest Service. 1995. Main Salmon Ecosystem Analysis. Salmon River Ranger District, Klamath National Forest, Pacific Southwest Region, Yreka, CA.

USDA Forest Service. 1995. North Fork Watershed Analysis. Salmon River Ranger District, Klamath National Forest, Pacific Southwest Region, Yreka, CA.

USDA Forest Service. 1997. Lower South Fork of the Salmon River Ecosystem Analysis. Salmon River Ranger District, Klamath National Forest, Pacific Southwest Region.

USDA Forest Service. 1997. Upper South Fork Salmon River Watershed Ecosystem Analysis. Salmon River Ranger District, Klamath National Forest, Pacific Southwest Region, Yreka, CA.

Villeponteaux, J., and D. Elder. 2000. Road assessments using GPS and GIS. Salmon River Restoration Council, Klamath National Forest, Sawyers Bar, CA.

## Appendix F – October 1 Bibliography and Rationale

Weitcamp, T. C., G. J. Bryant, G. B. Milner, D. Teel, R. G. Kope, and R. S. Waples. 1995. Status review of coho salmon from Washington, Oregon, and California. U.S. Department of Commerce, National Marine Fisheries Service, Seattle, WA.

West, J. R. 1991. A proposed strategy to recover endemic spring-run chinook salmon populations and their habitats in the Klamath River basin. US Forest Service, Yreka, CA.

### *Theses and Dissertations*

Beachler, R. E. 2001. Hydrographic Geographic Information System database in support of anadromous fisheries restoration planning for the Klamath River Basin Fisheries Task Force. MS. Humboldt State University, Arcata, CA.

Bingham, P. B. 1993. Structure and dynamics of Brewer spruce enriched conifer forests of the Klamath Mountain Province, Northern California. MS. Humboldt State University, Arcata, CA.

Cashman, P. H. 1979. Geology of the Forks of Salmon area, Klamath Mountains, California. Doctor of Philosophy. University of Southern California.

Daniels, M. L. 2001. Fire and vegetation history since the late Pleistocene from the Trinity Mountains of California. Master's Degree. Northern Arizona University.

Deas, M. L. 2000. Application of numerical water quality models in ecological assessment. PhD. University of California, Davis, Davis, CA.

deRijke, E. A. 2001. Current status of the vegetation in historic Karuk cultural use sites. Master's Degree. Humboldt State University, Arcata, CA.

Elder, D. 1991. Tectonic control of lode gold deposits, Quartz Hill, Klamath Mountains, California. MS. Humboldt State University, Arcata, CA.

Ferneau, R. F. 2001. Methods for dynamic biogeography : Results from a long-term study in the Marble Mountain Wilderness. PhD. University of California, Davis, Davis, CA.

Frost, E. 1992. The effects of forest-clearcut edges on the structure and composition of old-growth mixed conifer stands in the western Klamath Mountains. MA. Humboldt State University, Arcata, CA.

Grifantini, M. C. 1990. Early-seral changes following wildfire, salvage-logging and reforestation, Klamath Mountains, CA. MS. Humboldt State University, Arcata, CA.

## Appendix F – October 1 Bibliography and Rationale

- Hass, M. D. 2000. A Klamath River fisheries restoration webGIS. MS. Humboldt State University, Arcata, CA.
- Jimerson, T. M. 1989. A vegetation / soil based ecological classification scheme for the Orleans Mountain / Salmon Mountain area northwest, CA. Masters Degree. Humboldt State University, Arcata, CA.
- Key, J. L. 2000. Effects of clearcuts and site preparation on fire severity, Dillon Creek Fire 1994. Master's Degree. Humboldt State University, Arcata, CA.
- Kraker, J. J. 1991. Utilization of the Klamath River estuary by juvenile chinook salmon (*Oncorhynchus tshawytscha*), 1986. MS. Humboldt State University, Arcata, CA.
- Maguire, C. C. 1983. First year responses of small mammal populations to clearcutting in the Klamath Mountains of northern California (*Peromyscus maniculatus*, *Sorex trowbridgii*, *Clethrionomys californicus*). PhD. Rutgers, the State University of New Jersey, New Brunswick, NJ.
- Mohr, J. A. 1997. Postglacial vegetation and fire history near Bluff, Lake, Klamath Mountains, CA. Master's Degree. University of Oregon.
- Murray, M. P. 1991. Meadow vegetation change in the subalpine zone of the Marble Mountain Wilderness. Masters of Science. Humboldt State University, Arcata, CA.
- Olson, A. 1996. Freshwater rearing strategies of spring Chinook salmon (*Oncorhynchus tshawytscha*) in Salmon River Tributaries, Klamath Basin, California. MS. Humboldt State University, Arcata, CA.
- Olson, B. J. 1997. Freshwater habitat utilization by juvenile fall chinook salmon *Oncorhynchus tshawytscha* in Camp Creek, Klamath Basin, California. MS. Humboldt State University, Arcata, CA.
- Rihs, J. R. 1991. Glacial geology of the northern Salmon Mountains, Marble Mountain Wilderness, northern California. Master of Science. Humboldt State University, Arcata, CA.
- Riley-Thron, K. L. 2001. Forest, fire, home : experiences with wildfire in the Klamath Mountains of northern California. Master's Degree. Humboldt State University, Arcata, CA.
- Rutherford, A. L. 1994. The role of a survey questionnaire in identifying policy options to conserve water for fisheries habitat : a case study of two tributary watersheds of the Klamath River, Siskiyou County, California. MA. Humboldt State University, Arcata, CA.

## Appendix F – October 1 Bibliography and Rationale

Seyfert Jr., C. K. 1965. Geology of the Sawyers Bar Area, Klamath Mountains, Northern California. PhD. Stanford University, Palo Alto, CA.

Simpson, L. G. 1980. Forest types on ultramafic parent materials of the southern Siskiyou Mountains in the Klamath region of California. Master of Science. Humboldt State University, Arcata, CA.

Sniado, S. M. 1999. Bird habitat relationships in the Klamath Mountains of northwestern California. MS. Humboldt State University, Arcata, CA.

Stewman, C. J. 2001. Encroachment patterns of Douglas-fir into oak woodlands in the central Klamath region. MA. Humboldt State University, Arcata, CA.

Sullivan, C. M. 1989. Juvenile life history and age composition of mature fall chinook salmon returning to the Klamath River, 1984-1986. Master of Science. Humboldt State University, Arcata, CA.

Vance-Borland, K. W. 1999. Physical habitat classification for conservation planning in the Klamath Mountains region. MS. Oregon State University, Eugene, OR.

Whitehouse, P. P. 1990. Fisheries interpretation for the Klamath Restoration Program. MS. Humboldt State University, Arcata, CA.

Wills, R. D. 1991. Fire history and stand development of Douglas-fir / hardwood forests in Northern California. Master's Degree. Humboldt State University, Arcata, CA.

### *Serials*

BMC Ecology, Biomed Central. (free on the internet)

Conservation Ecology, Resilience Alliance. (free on the internet)

Fire Management Today, USDA Forest Service. (free on the internet)

Fishery Bulletin, US Department of Commerce, NOAA. (free on the internet)

Forest, Trees, and People Newsletter, Forest, Trees, and People Network. (free on the internet)

International Journal of Wildland Fire, CSIRO Publishing, quarterly.

Journal of Forestry, Society of American Foresters, twice quarterly.

Journal of Wildlife Management, Wildlife Society, quarterly.

Madrono, California Botanical Society.

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News from Native California, Heyday Books, quarterly.

North American Journal of Fisheries Management, American Fisheries Society, quarterly.

Northwest Science, Northwest Scientific Association, quarterly.

Restoration Newsletter, Sea Grant Oregon. (free on the internet)

Transactions of the American Fisheries Society, American Fisheries Society, bimonthly.

### *Monographs*

1999. A river never the same : a history of water in the Klamath Basin. Shaw Historical Society, Klamath Falls, OR.

Aalto, K. R., and G. D. Harper. 1989. Geologic evolution of the northernmost Coast Ranges and western Klamath Mountains, California. American Geophysical Union, Washington DC.

Agee, J. K. 1993. Fire Ecology of Pacific Northwest Forests. Island Press, Washington D.C.

Barbour, M. G., and J. Major, editors. 1988. Terrestrial Vegetation of California. California Native Plant Society, Grass Valley, CA.

Berkes, F. 1999. Sacred Ecology: Traditional ecological knowledge and resource management. Taylor and Francis.

Biswell, H., and J. K. Agee. 1999. Prescribed burning in California wildlands vegetation management. University of California Press, Berkeley, CA.

Blackburn, T. C., and K. Anderson. 1993. Before the wilderness : environmental management by native Californians. Ballena Press, Menlo Park, CA.

Blake, T. A., M. G. Blake, and W. Kittredge. 2000. Balancing Water : restoring the Klamath Basin. University of California Press, Berkeley.

Borror, D. J., and R. E. White. 1998. Field guide to insects: America north of Mexico (Peterson Field Guides). Houghton Mifflin Co.

Bossard, C. C., J. M. Randall, and M. C. Hoshovsky. 2000. Invasive Plants of California's Wildlands. University of California Press, Berkeley, CA.

## Appendix F – October 1 Bibliography and Rationale

- Boyd, R. 1999. Indians, Fire, and the land in the Pacific Northwest. Oregon State University Press, Corvallis, OR.
- Committee on Endangered and Threatened Fishes in the Klamath River Basin, N. R. C. 2002. Scientific Evaluation of Biological Opinions on Endangered and Threatened Fishes in the Klamath River Basin : Interim Report. National Academy Press, Washington D.C.
- Debano, L. F., D. G. Neary, and P. F. Folliott. 1998. Fire's Effects on Ecosystems. John Wiley & Sons.
- Groot, C., and L. Margolis. 1991. Pacific salmon life histories. University of British Columbia Press, Vancouver.
- Harden, D. R. 1998. California Geology. Prentice Hall, Upper Saddle River, NJ.
- Harrington, J. P. 1932. Karuk Indian myths. U.S. Govt. print. off., Washington,.
- Hauer, R. F., and G. A. Lamberti. 1996. Methods in Stream Ecology. Academic Press, San Diego, CA.
- Hyndman, D. W., and D. D. Alt. 2000. Roadside Geology of Northern and Central California. Mountain Press Publishing Company.
- Jepson, W. L., and J. C. Hickman. 1993. The Jepson Manual : higher plants of California. University of California Press, Berkeley.
- Johnson, E. A., and K. Miyanishi, editors. 2001. Forest Fires : Behavior and Ecological Effects. Academic Press.
- Kays, R. W., and D. B. Wilson. 2002. Mammals of North America. Princeton University Press.
- Kramer, J. C., and N. Lindsley-Griffin. 1977. Guidebook to the Geology of the Klamath Mountains, northern California. Geological Society of America, Sacramento, CA.
- Kroeber, A. L., and S. A. Barrett. 1960. Fishing among the Indians of northwestern California. University of California Press, Berkeley.
- Kroeber, A. L., and E. W. Gifford. 1949. World renewal, a cult system of native northwest California. University of California Press, Berkeley.
- Kroeber, A. L., E. W. Gifford, and G. Buzaljko. 1980. Karok myths. University of California Press, Berkeley.
- Krukeberg, A. R. 1984. California serpentines : flora, vegetation, geology, soils, and management problems. University of California Press, Berkeley, CA.

## Appendix F – October 1 Bibliography and Rationale

- Lang, J. 1994. Ararapâikva : creation stories of the people : traditional Karuk Indian literature from northwestern California. Heyday Books, Berkeley, Calif.
- McBeth, F. T. 1950. Lower Klamath country. Anchor Press, Berkeley.
- MeEvoy, A. F. 1986. The Fisherman's Problem : Ecology and Law in the California Fisheries 1850 - 1980. Cambridge University Press, Cambridge.
- Mohr, J. A. 1995. Annotated Bibliography : paleoenvironment and fire history, Klamath province.
- Moyle, P. 2002. Inland Fishes of California. University of California Press, Berkeley.
- National Research Council. 1996. Upstream : Salmon and Society in the Pacific Northwest. National Academy Press, Washington D.C.
- Opler, P. A., J. W. Tilden, and A. B. Wright. 1999. Field guide to western butterflies (Peterson Field Guides). Houghton Mifflin Co.
- Petrides, G. A., and R. T. Peterson. 1998. Field guide to western trees (Peterson Field Guides: 44). Houghton Mifflin Co.
- Powers, S. 1975. The Northern California Indians: a reprinting of 19 articles on California Indians originally published 1872-1877. University of California Press, Berkeley.
- Powers, S. 1976. Tribes of California. University of California Press, Berkeley.
- Schenck, S. M., and E. W. Gifford. 1952. Karok ethnobotany. University of California Press, Berkeley,.
- Sibley, D. A. 2000. The Sibley Guide to Birds. Knopf.
- Spellenberg, R., editor. 2001. National Audubon Society Field Guide to North American Wildflowers : Western Region. Knopf.
- Stebbins, R. C. 1998. A Field Guide to Western Reptiles and Amphibians : Field Marks of all species in Western North America, including Baja California, 2nd edition. Houghton Mifflin Co.
- Stellquist, R., and Adopt-a-Stream Foundation. 1992. Field Guide to the Pacific Salmon. Sasquatch Books.
- Stuart, J. D., and J. O. Sawyer. 2001. Trees and Shrubs of California. University of California Press, Berkeley, CA.

## Appendix F – October 1 Bibliography and Rationale

Thorp, J. H., and A. P. Covich, editors. 2001. Ecology and classification of North American Freshwater Invertebrates, 2nd edition. Academic Press.

US Bureau of Land Management. 1999. Selected noxious weeds of northern California : a field identification guide. US Bureau of Land Management, California State Office, Sacramento, CA.

Vale, T. R. 2002. Fire, native peoples, and the natural landscape. Island Press, Washington D.C.

Van Kirk, R. 1977. Klamath River Fishery : an introductory study. Robert Van Kirk, Arcata, CA.

Whelan, R. J. 1995. The Ecology of Fire. Cambridge University Press.

Williams, B. K., J. D. Nichols, and M. J. Conroy. 2002. Analysis and Management of Animal Populations. Academic Press.