Kootenai River Focus Watershed Coordination

Annual Report
2001 - 2002

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KOOTENAI RIVER FOCUS WATERSHED COORDINATION

ANNUAL REPORT

2001 - 2002

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July 2002

EXECUTIVE SUMMARY

The 2001-2002 Kootenai River Network Annual Report reflects the organization's defined set of goals and objectives, and how by accomplishing these goals, we continue to meet the needs of communities and landowners throughout the Kootenai River Basin by protecting the resource.

Our completed and ongoing projects throughout the watershed reflect the cooperation and support received and needed to accomplish the rehabilitation and restoration of critical habitat. They show that our mission of facilitation through collaboration with public and private interests can lead to improved resource management, the restoration of water quality and the preservation of pristine aquatic resources.

Our vision to empower local citizens and groups from two states, one province, two countries and affected tribal nations to collaborate in natural resource management within the basin is largely successful due to the engagement of the basin's residents – the landowners, town government, local interest groups, businesses and agency representatives who live and work here. We are proof that forging these types of cooperative relationships, such as those exhibited by the Kootenai River subbasin planning process, leads to a sense of entitlement – that the quality of the river and its resources enriches our quality of life.

Communication is essential in maintaining these relationships. Allowing ourselves to network and receive ideas and information, as well as to produce quality, accessible research data such as KRIS, shared with like organizations and individuals, is the hallmark of this facilitative organization. We are fortunate in the ability to contribute such information, and continue to strive to meet the standards and the needs of those who seek us out as a model for watershed rehabilitative planning and restoration.

Sharing includes maintaining active, ongoing lines of communication with the public we serve – through our web site, quarterly newsletter, public presentations and stream table education – at every opportunity. We continue to seek ideas to guide us as we grow. We want to enlarge that sense of ownership that the river does indeed run through it, and belongs to us all.

Through a continued and common effort, we hope to carry forward the good work and the momentum that underscores our intent. We are proud to report our accomplishments of this past year because they reflect our renewed sense of purpose. In alliance with diverse citizen groups, individuals, business, industry and tribal and government water resource management agencies, we strive to continue to protect and restore the beauty and integrity that is the Kootenai River watershed.

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INTRODUCTION

Resource uses in the Kootenai River Basin include hydroelectric power generation, mining and mineral processing, logging, lumber and pulp production, recreation, agriculture, urban development and transportation (Kootenai River Network 2000). Human-induced effects related to these resource uses are well documented (Marotz, Dalbey, Muhlfeld, Snelson, Hoffman, DosSantos and Ireland 1998; Kootenai River Network 2000; KRSS 2000). Libby Dam, constructed in 1972, exerts profound impacts on the entire Kootenai River Basin. The dam provides the outlet for Libby (Koocanusa) Reservoir, and although there are beneficial impacts of the dam (i.e. flood regulation, silt reduction and power generation) there are also a significant number of known negative impacts on fish and wildlife (Kootenai River Network 2000). These include nutrient stripping, fish habitat alteration and loss, altered downstream temperatures and dissolved gas levels, decreased flushing and dilution of contaminants, and erosion due to power peaking.

Presently, basin-wide efforts reduce or eliminate the negative impacts of these effects on fish and wildlife. For example, the Boundary County Resource Advisory Council, also referred to as an RAC group, formed in Boundary County, Idaho to deal directly with local issues surrounding losses to fish and wildlife resources. A similar group, formed in Lincoln County, Montana, approved funding assistance for the Kootenai River Network-sponsored Grave Creek restoration project (Phase II). Throughout the basin, losses and potential mitigation projects to enhance native populations were compiled and restoration efforts implemented. The Focus Watershed Program directly addresses the Northwest Power Planning Council's mandate to enhance hydropower-affected fish stocks in the Kootenai Basin through on-the-ground habitat improvement efforts that alleviate factors limiting native species restoration. Projects reclaiming critical spawning, rearing, and over-wintering habitats are complete, or are ongoing, as pilot mitigation projects. These projects use grassroots watershed workgroups comprised of landowners, agency, sportsmen's groups and local, state and federal government coalitions.

The Kootenai River Network (KRN) is a nonprofit organization created to foster communication and implement collaborative processes among private and public interests in the Kootenai River Watershed throughout Montana, Idaho and British Columbia. These cooperative programs lead to improved resource management practices and the restoration of water quality and aquatic resources in the Kootenai basin. The KRN enhances the effectiveness and efficiency of mitigation and habitat restoration efforts by providing resources for financial oversight of mitigation projects as well as education and outreach related to watershed management, conservation and restoration. The focus watershed coordinator facilitates cooperation and coordination among partnering agencies and groups. The KRN operates with donations, membership dues; private, state and federal grants, and through the Focus Watershed Coordinator position funded by the Bonneville Power Administration (BPA) (Appendix 1).

The Montana Department of Fish, Wildlife & Parks (MDFWP) employed a Focus Watershed Coordinator at the Libby Field Station since 1998. The program fostered several habitat enhancement projects in the Kootenai River Basin, primarily in Montana. Upon the recommendation of the BPA and the Columbia Basin Fish and Wildlife Authority (CBFWA), the Northwest Power Planning Council (NPPC) agreed to direct funding for this position through the KRN in order to better foster similar efforts in the Idaho and British Columbia portions of the basin. As a result, the Focus Watershed Program was transferred to KRN in October 2001, through a memorandum of understanding (MOU) between KRN and MDFWP (see Appendix 2). Prior to the transfer, MDFWP was responsible for carrying out the tasks related to the Focus Watershed Program. Montana Fish, Wildlife & Parks is an active participant in KRN and a representative from MDFWP serves on the KRN

Executive Board. Formal participation in the KRN helps MDFWP achieve its goals and objectives toward watershed restoration activities in the Kootenai Basin. Due to the active involvement of more localized community RAC groups, state agencies and tribal organizations, the original direction of the Focus Watershed Program (coordination of watershed rehabilitation programs in the basin; Appendix 3) changed somewhat in the past year. Presently, the primary focus of the Focus Watershed Program is facilitation and the fostering of education and outreach efforts in the Kootenai Basin. Transfer of the program to the KRN has also enabled stakeholders to become involved with conservation and watershed health in a more neutral and non-agency setting.

This report provides information about the Kootenai Watershed and its physical characteristics, and encapsulates the Focus Watershed Program. The report also provides a budget detailing KRN's expenditures under the MOU with the MDFWP (see Appendix 4).

DESCRIPTION OF STUDY AREA

Subbasin Location

The Kootenai River Subbasin is an international watershed that encompasses parts of British Columbia (B.C.), Montana, and Idaho (KRSS 2000, Figure 1). The headwaters of the Kootenai River originate in Kootenay National Park, B.C. The river flows south within the Rocky Mountain Trench into the reservoir created by Libby Dam, which is located near Libby, Montana. From the reservoir, the river turns west, passes through a gap between the Purcell and Cabinet Mountains, enters Idaho, and then loops north where it flows into Kootenay Lake, B.C. (Kootenai River Network 2000). The waters leave the lake's West Arm and flow south to join the Columbia River at Castlegar, B.C. In terms of runoff volume, the Kootenai is the second largest Columbia River tributary. In terms of watershed area (36,000 km2 or 8.96 million acres), it ranks third (Knudson 1994).

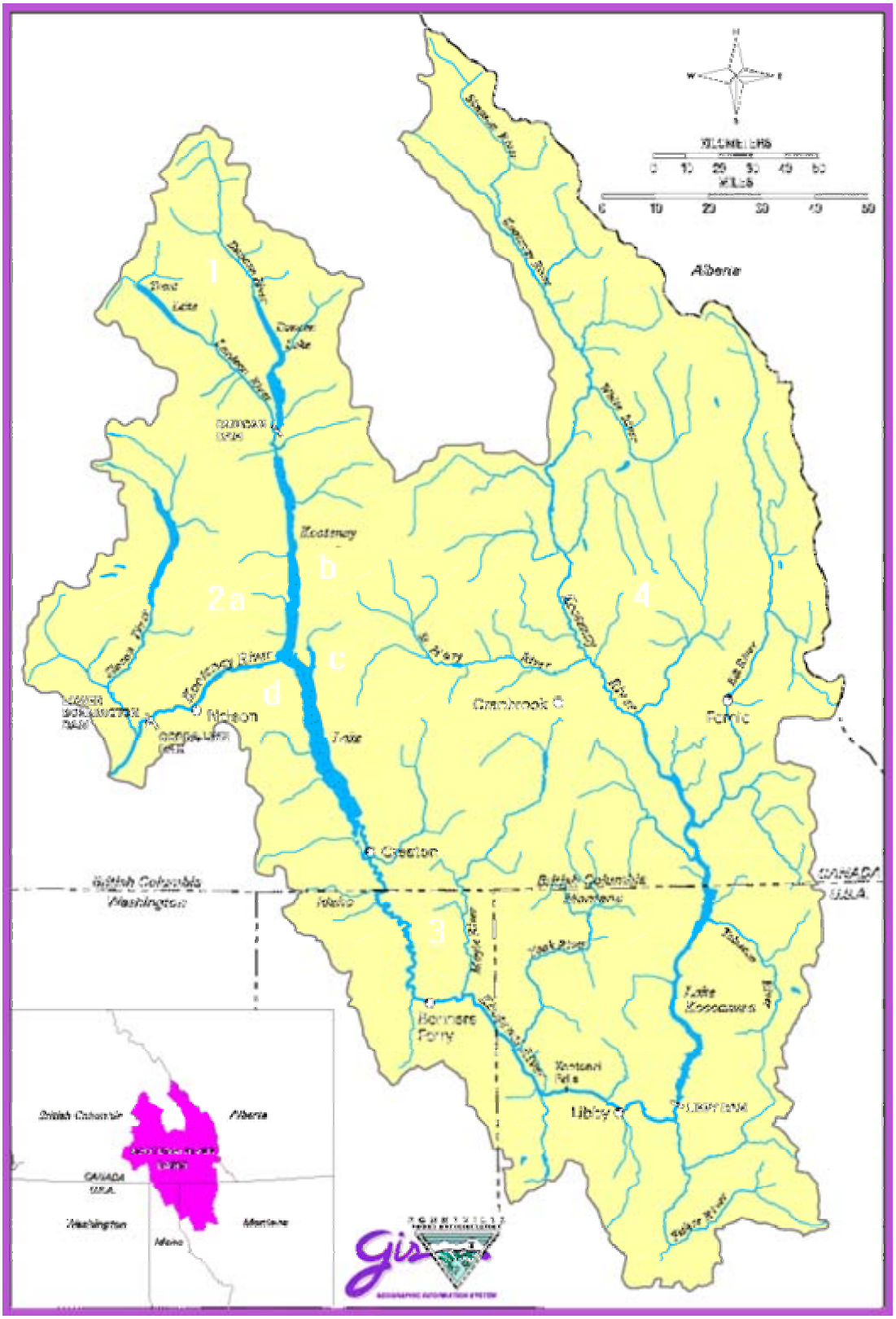


Figure 1. Kootenai River Basin map (Montana, Idaho and British Columbia, Canada)

Drainage Area

Nearly two-thirds of the river's 485-mile-long channel, and almost three-fourths of its watershed area, is located within the province of British Columbia (KRSS 2000). Roughly 21 percent of the watershed lies within the state of Montana, and 6 percent falls within Idaho (Knudson 1994). The Continental Divide forms much of the eastern boundary, the Selkirk Mountains the western boundary, and the Cabinet Range the southern. The Purcell Mountains fill the center of the river's J-shaped course to Kootenay Lake. Throughout, the subbasin is mountainous and heavily forested.

Climate

The subbasin's relatively moist climate, with annual precipitation even at low elevations, generally exceeds 20 inches (KRSS 2000). Warm, wet air masses from the Pacific bring abundant rain and 1,000 to 7,500 mm (40 to 300 inches) of snowfall each year. In winter, Pacific air masses dominate and produce inland mountain climates that are not extremely cold, although subzero continental polar air occasionally settles over the mountains of northern Idaho and vicinity.

Topography

The drainage basin, located within the Northern Rocky Mountain physiographic province, is characterized by north to northwest trending mountain ranges separated by straight valleys running parallel to the ranges (KRSS 2000).

The topography in the upper portion of the Kootenai River subbasin is dominated by steep, heavily forested mountain canyons and valleys. Consequently, nearly all of the major tributaries to the upper reaches of the river, including the Elk, Bull, White, Lussier and Vermillion Rivers maintain a very high channel gradient, particularly in their headwaters (KRSS 2000). In contrast to its upper tributaries, the main stem of the Kootenai maintains a fairly low channel gradient after entering the Rocky Mountain Trench near Canal Flats. The river drops less than 1,000 feet (305 meters) in elevation from Canal Flats to Kootenay Lake, a distance of over 300 miles (480 km). However, even along the river's slow meandering course, valley-bottom widths are generally less than two miles and are characterized by tree-covered rolling hills with few grassland openings. Slightly wider valley bottoms are in the Bonners Ferry-to-Creston area and in the Tobacco Plains, located between Eureka, Montana and Grasmere, British Columbia. However, these meandering sections through the Kootenai Valley are characterized by water depths of up to 12 meters in runs and up to 30 meters in pools (Snyder and Minshall 1996) and are extensively diked and channelized, with profound effects on ecosystem processes.

Geology

The river character changes dramatically from a bedrock-controlled regime in Montana to a silt/clay regime near the town of Bonners Ferry, Idaho (KRSS 2000). Tributary streams working through remnant deposits continue to be a source of fine sediments. An extensive network of marshes, tributary side channels and sloughs were formed by lowering of the lake level, flooding, and the river reworking its floodplain. Some of these wetlands continue their existence through groundwater recharge, springtime flooding and channel meandering. However, much of this riverine topography was eliminated by diking and agricultural development, especially in the reach downstream of Bonners Ferry, Idaho.

Hydrology

The headwaters of the Kootenay River in British Columbia consist primarily of the main fork of the Kootenay River and Elk River. High channel gradients are present throughout headwater reaches and tributaries (KRSS 2000). Fine materials, due to their instability during periods of high stream discharge, are continually abraded and redeposited as gravel bars, forming braided channels with alternating riffles and pools. Stream flow in unregulated tributaries generally peaks in May and June after the onset of snow melt, then declines to low flows from November through March. Flows also peak with rain-on-snow events.

Libby Reservoir (Lake Koocanusa) and its tributaries receive runoff from 47 percent of the Kootenai River drainage basin. The Tobacco River and numerous small tributaries flow into the reservoir south of the International Border.

Major tributaries to the Kootenai River below Libby Dam include the Fisher River, the Yaak River and the Moyie River. Kootenai Falls, a 200-foot-high waterfall and a natural fish-migration barrier, is located 11 miles downstream of Libby, Montana.

The river drops in elevation from 3618 m at the headwaters to 532 m at the confluence of Kootenay Lake. It leaves the Kootenay Lake through the western arm to a confluence with the Columbia River at Castlegar. Meeting another natural barrier at Bonnington Falls, it now contains a series of two waterfalls and two dams isolating fish from other populations in the Columbia River basin. Bonnington Falls isolated sturgeon for approximately 10,000 years (Northcote 1973).

Soils

Although soils within the mountainous regions vary widely in character, most mountain and foothill soils are on steep slopes and well drained, with large amounts of broken rock. Rock outcrops are common.

Soils deposited by glaciers or flowing water are, for the most part, deep, well-drained and productive soils. Most forest soils in the subbasin are somewhat resistant to erosion by water. In most of the valleys, soils are deep, relatively productive and gently sloping.

Land Use

The Kootenay Basin remains relatively remote and sparsely populated. Fewer than 100,000 people live within the basin upstream from Kootenay Lake, an area larger than the states of Maryland and Delaware combined. The largest municipal center is Cranbrook/Kimberley, with a population of about 25,000. A handful of other communities with populations larger than 2,000 include Libby, Montana; Bonners Ferry, Idaho, and Fernie, Sparwood, Elkford and Creston, British Columbia.

The forest products industry remains the most dominant employer and most extensive development activity in the subbasin. Facilities for processing forestry products also exist in the basin. These include Crestbrook Forest Industries located at the confluence of the Kootenai River and Skookumchuck Creek, and numerous sawmills located throughout the basin (Kootenai River Network 2000).

The two largest industrial operations and point-source discharges to the Kootenay River are the Crestbrook Forest Industries' pulp mill in Skookumchuck, B.C. and the Cominco mining, milling and fertilizer plant in Kimberley, B.C. (Daley, Karmach, Gray, Pharo, Jasper and Wiegand 1981). The mining and processing of vermiculite by the W.R. Grace Company northeast of Libby, Montana on Rainy Creek is now the location of a federal superfund site managed by the Environmental Protection Agency (EPA).

Agricultural development is confined primarily to narrow valley bottoms. Though it utilizes a relatively small area, it largely impacts habitats of the main stem river and tributary mouths because most of the activity occurs in the floodplain. The largest contiguous block of agricultural land is within the Purcell Trench, extending roughly from Bonners Ferry, Idaho to the river's entry into Kootenay Lake. Production of oats, wheat and barley accounts for 62 percent of the agricultural output in the Bonners Ferry/Creston area, with livestock production accounting for 20 percent. Hay and grass seed production and livestock grazing are the most common agricultural activities in the rest of the subbasin (KRSS 2000).

Fish Species

Eighteen species of game fish and eight species of nongame fish are present in Koocanusa Reservoir and the Kootenai River, including several sensitive species. Koocanusa Reservoir currently supports an important fishery for kokanee (*Oncorhynchus nerka*) and rainbow trout (*Oncorhynchus mykiss*), with annual fishing pressure over 500,000 hours (Chisholm and Hamlin 1987). Burbot (*Lota lota*) are also important game fish, providing a popular fishery during winter and spring. The Kootenai River below Libby Dam is a "blue ribbon" rainbow trout fishery, with the state record fish harvested there in 1997 (over 38 pounds). Bull trout (*Salvelinus confluentus*) are captured "incidentally," and provide a unique seasonal fishery. Downriver of the Montana state line, populations of kokanee, burbot, white sturgeon, redband rainbow, cutthroat and bull trout persist at questionable status, with sturgeon listed as endangered species and bull trout a threatened species. Redband trout and burbot are listed as a species of special concern.

Reservoir Operation

Completion of Libby Dam in 1972 created the 109-mile Libby Reservoir. Filling Libby Reservoir inundated and eliminated 109 miles of the main stem Kootenai River and 40 miles of critical, low-gradient tributary habitat. This conversion of a large segment of the Kootenai River from a lotic to lentic environment changed the aquatic community (Paragamian 1994) and altered temperature regimes. Replacement of the inundated habitat and the community of life it supported are not possible. However, mitigation efforts are underway to protect, reopen or reconstruct the remaining tributary habitat to offset the loss. Fortunately, in the highlands of the Kootenai Basin, tributary habitat quality is high. The headwaters are relatively undeveloped and retain a high percentage of their original wild attributes and native species complexes. Protection of these remaining pristine areas and reconnection of fragmented habitats are high priorities.

Between 1977 and 2000, reservoir drawdowns averaged 111 feet, but were as extreme as 154 feet. Drawdown affects all biological trophic levels and influences the probability of subsequent refill during spring runoff. Refill failures are especially harmful to biological production during warm months. Annual drawdowns impede revegetation of the reservoir varial zone and result in a littoral zone of nondescript cobble/mud/sand bottom with limited habitat structure.

Similar impacts are observed in the tailwater below Libby Dam. Daily and weekly differences in discharge from Libby Dam enormously impact the stability of the riverbanks. Water logged banks are heavy and unstable; when the flow drops in magnitude, banks slough off, causing serious erosional impacts and destabilizing the riparian zone. These impacts are common during winter but go unnoticed until spring. In addition, widely fluctuating flows can give false migration cues to burbot and white sturgeon spawners (Paragamian 2000; Paragamian and Kruse 2001).

Finally, during critical times of the year, when redband and cutthroat trout are out-migrating from nursery streams, the streams may flow subterranean because of the deltas created through the annual deposition of bedload materials (sand, gravel and boulders) (V.L. Paragamian, personal communication, 2000). As a result, many potential recruits are stranded. Prior to impoundment, the Kootenai River contained sufficient hydraulic energy to annually remove these deltas. During periods of low stream flow, the enlarged deltas and excessive deposition of bedload substrate in the low gradient reaches of tributaries impedes or blocks fall-spawning migrations.

FOCUS WATERSHED PROGRAM OBJECTIVES AND ACCOMPLISHMENTS

The Focus Watershed Coordinator of the Kootenai River Network is a full-time professional position responsible for coordination of watershed mitigation activities within the Kootenai drainage. The primary goal of this program is facilitation, education, outreach and communication for various activities throughout the Kootenai River basin. Under the agreement between the KRN and MDFWP, a list of duties and deliverables was produced. The following excerpt from that agreement outlines the objectives of the Focus Watershed Program and summarizes how objectives were met during the preceding year.

Objective A.

Design and implement the new Focus Watershed initiative in the Kootenai River Drainage. Involve affected parties using knowledge of public scoping, meeting facilitation, mediation, dispute resolution and consensus building.

Task 1a.

Identify entities and individuals involved in the management of, with interest in, watershed resources of the basin (e.g. Montana Fish, Wildlife & Parks, Kootenai White Sturgeon Recovery Team, Koocanusa International Coalition, B.C. Ministry of Environment, Idaho Fish and Game, Kootenai Tribe of Idaho, etc. [see Appendix 5, KRN Contact List]).

Task 2a.

Network with existing local conservation districts, county governments; local, state and federal agencies, and private landowners involved with resource management groups affected by mitigation and watershed planning to facilitate on-the-ground efforts.

In relation to Task 1a: The coordinator participated in resource advisory councils in the lower Kootenai in Bonners Ferry, in the Yaak Watershed, the Libby Area Conservancy District, and in the newly formed Lincoln County Resource Advisory Committee. The coordinator also established working relationships with Lincoln County commissioners and other officers, Trout Unlimited members and Montana Fish, Wildlife & Parks, Lincoln Conservation District, U.S. Army Corps of Engineers, U.S. Fish and Wildlife Service, Kootenai Tribe of Idaho, British Columbia Ministry of Land, Air, and Water Protection, U.S. Forest Service, Montana Department of Natural Resources and Conservation and Montana Department of Environmental Quality personnel.

Task 3a.
Attend or organize as needed, citizen/technical advisory committee meetings open to all interested parties to develop goals and objectives for improved watershed health.

This task was achieved to same extent through attendance and participation in programs listed under Task 2a.

Task 4a.
Identify the status of existing management plans, regulations, procedures, work plans, laws, traditions and mitigation efforts which may affect watershed management.

This task was achieved to same extent through attendance and participation in programs listed under Task 2a.

Task 5a.
Identify public complaints and rectify conflicts by negotiating short- and long-term solutions such as modifications to existing plans, programs, policies, laws, etc. that hinder comprehensive watershed management in the Kootenai watershed.
Due to changes is the scope of this program, under BPA direction, many of these responsibilities now lie in the hands of local RAC groups and management agencies KRN plays a peripheral role of facilitation only for this task.

Task 6a.
Compile and analyze human and fiscal resources that are available for protection and improvement of the watershed. Include federal, tribal, state, local government and other public sources as well as private sources such as local businesses and conservation groups that rely on natural resources within the Kootenai watershed. Coordinate this activity on a regional level.

This task was addressed through initiation of the Kootenai River Information System in the mid 1990s under a federal EPA grant and during the spring of 2002, following the convergence with the Klamath River Information System. The adoption of the computer-based KRIS program (developed as the Klamath River Information System) is a data management and distribution tool for basin-wide resources (see Appendix 6). KRN is responsible for coordination among management agencies to maintain and fully develop the program for the basin.

Task 7a.
Provide for the involvement of private landowners, volunteers, Montana Conservation Corps and educational institutions in the implementation of watershed improvement projects.

The mission of the KRN is to involve stakeholders in the protection and restoration of the chemical, physical and biological integrity of the water resources in the Kootenai River Basin. Specifically, KRN is instrumental in project facilitation for the Grave and Therriault Creek stream restoration projects. The projects are integral to a larger watershed recovery plan that includes a sediment reduction and channel stabilization program in the upper watershed on USFS property and private property in the lower reaches. KRN is working in partnership with MDFWP, USFWS, USFS, the landowners and community entities to see these projects to completion (see Appendix 7, Photos of 2001/02 KRN Sponsored Restoration Projects).

Task 8a.
Facilitate cooperative funding arrangements between agencies, tribes and conservation groups for habitat improvement projects.

Task 9a.
Coordinate procurement of funding for specific watershed or research needs. Initiate proposals for KRN efforts and assist with proposal writing for projects deemed most beneficial to the watershed. As part of this, databases established for funding sources, include the criteria needed for proposals and project selection.

The KRN was integral to the management of cooperative funding for several projects in the Montana portion of the Kootenai River basin during the preceding year. These projects include the Grave, Therriault and Phillips Creek projects. The involvement of KRN in coordination of funding for specific watershed projects is seen in the 2001/02 FWC operating budget (see Appendix 4) and in the list of matching funds received for the 2001/02 fiscal year (see Appendix 1). Several grant proposals initiated by the KRN are outstanding at this time, as the application process is ongoing.

Task 10a.
Compile the results of field monitoring and public input to produce quarterly and annual reports and periodic newsletters. Inform concerned parties of activities and progress towards goals.

The watershed coordinator compiled several pieces of data applicable to work completed with MDFWP. Monthly reports for work completed after transfer of the position to KRN were produced and can be found in Appendix 8 of this document. Use of the KRIS program mentioned in Task 6a will continue in order to compile field data for public, private and agency use.

Task 11a.
Work with agencies to produce habitat goals and strategies used by the agencies themselves, conservation districts, Bull Trout Round Table, or other model watershed initiatives through the Pacific Northwest as a guide for watershed resource management.

Kootenai River Network's involvement in subbasin planning and TMDL is limited due to primary assignment of these responsibilities to state and tribal agencies throughout the basin. KRN intends to remain involved in upcoming activities related to these issues. At present, the KRN provides informational documents about subbasin planning and TMDL development (see Appendix 9) to the parties on our contact list (see Appendix 5). Some effort continues to coordinate with Montana DEQ and the Boundary County RAC to initiate and develop the TMDL process.

Objective B.

Work with agency staff to implement habitat enhancement projects for native fish species using knowledge of fluvial forms and processes, fish population dynamics and migrations, riparian botany and revegetation, land management practices (i.e. forestry, grazing, road-building and agriculture) and dam operation. Develop and implement an effective watershed monitoring and evaluation process.

Task 1b.

Coordinate with local, regional and national planning and funding agencies, e.g. the Northwest Power Planning Council, Bonneville Power Administration, Soil Conservation Service, USDA and others, to assure cooperative monitoring and efficient implementation of the model watershed planning process.

This objective is addressed through the natural information sharing and communication forum provided by the KRN. During the preceding year, the KRN sponsored several educational workshops and tours including: (1) PFC (Proper Function Condition) workshop to train interested parties in the process of assessing a stream based on its functionality and potential, (2) Grave Creek tour to educate and share information about restoration work occurring at Grave Creek, (3) American Tree Farm /National Forest Foundation tour at Grave Creek restoration site and potential Therriault Creek restoration site. In addition, members of the KRN made an effort to encourage sharing of protocols, processes and procedures in order to implement a cooperative and efficient model watershed planning process while understanding differences in political and physical processes and requirements of entities within the two states and one province that make up the Kootenai River basin. The KRN also wrote a letter to the EPA to coordinate restoration efforts on Rainy Creek, near Libby, Montana (see Appendix 10).

Task 2b.

Assist with writing and formalizing landowner agreements to protect project investments.
The KRN, in cooperation with the USFWS/ Partners in Fish and Wildlife Program in NW Montana, developed and is using a landowner agreement (see Appendix 11) that clearly spells out the funding sources and responsibilities of parties involved in restoration projects carried out on private land.

Task 3b.

Prepare reports and publications to advance the status of watershed rehabilitation efforts and techniques in the Kootenai River basin.

This task was partially addressed through development of a handout and slide show (see Appendix 12) to accompany presentations of the Rolling Rivers Stream Table which the KRN presents at local events for stream and riparian area educational programs. A poster (see Appendix 13) was developed early this spring to accompany KRN members to symposia and other events, as a means of introducing the public to the operations of the KRN. A great deal of the information related to KRN and (in the future) basin-wide activities is located on the KRN web page at the following address: http://www.kootenairivernetwork.org. Pending the availability of funding, this task will develop extensively in the following years.

Objective C.

Perform duties relating to the operation of the Kootenai River Network (note: these duties were fully developed over the course of a 7-month period in which the Focus Watershed Program resided with KRN. Many of the tasks are directly in line with those required by the BPA contract for the Focus Watershed Program).

The majority of these tasks were addressed in some fashion. However, many are ongoing and others will be addressed in greater detail during following years.

Task 1c.
Continue to update KRN mailing list (see Appendix 5) as necessary.

Task 2c.
Correspondence for membership applications and dues payments

KRN membership dues of $25 for individuals or $50 for organizations were required for the first time in 2002. However, the KRN retained non-dues paying stakeholders on the master membership list for the time being or until a greater base of dues paying members can be recruited.

Task 3c.
KRN web site maintenance and updates

The KRN fully developed its web page at http://www.kootenairivernetwork.org during the preceding year and will continue to update information and links as necessary.

Task 4c.
Publicity/press releases for education/outreach and other purposes

Handouts and a slide presentation (see Appendix 12) were partially developed for the Rolling Rivers Stream Table presentations. In addition, an informational poster (see Appendix 13) of KRN was developed for presentation.

Task 5c.
Develop strategies to raise profile of KRN.

Task 6c.
Personal contact with major stakeholders and potential new stakeholders (at least quarterly or as needed)

Regular contact was made with stakeholders throughout the year.

Task 7c.
KRIS update (contact agencies and gather information published since 1999)

The original KRIS (Kootenai River Information System) program was merged with the Klamath River Information System to develop a comprehensive data storage and management system available to stakeholders throughout the basin (see Appendix 6). A developing demonstration program will contain bits of information such as publications, photos, flow and temperature data as well as fish and habitat data for specific areas. This demo program distributed among stakeholders will serve for review and critique as well as funding support.

Task 10c.
Produce publications, papers and technical reports for KRN sponsored projects.

This Annual Report was the only report document published during the preceding year.

Task 11c.
Coordinate with Carolyn Stamy to plan and review potential grant proposals.

Grants applied for and awarded during the preceding year are viewed in Appendix 1 of this report.

Task 12c.
Facilitate committee efforts and oversee committees in the absence of a chair.

KRN primary committees include the following: (1) Restoration and Rehabilitation, (2) Education and Outreach, (3) Water and Ecosystem Monitoring, and (4) Communications. All of these committees were active to some degree during the preceding year. The restoration and rehabilitation committee developed a Contractor Selection Criteria list to ease selection of bidding contractors for restoration efforts. The Education and Outreach Committee attended the Transboundary Conference in Spokane, WA this spring where they presented KRN during the poster sessions. The Focus Watershed Coordinator also provided Rolling Rivers Stream Table presentations to various groups. The Water and Ecosystem Monitoring Committee in conjunction with the Focus Watershed Coordinator made an effort to coordinate TMDL and Subbasin planning. Members of this committee also worked on information sharing for monitoring programs. The Communications Committee in conjunction with the Focus Watershed Coordinator worked to maintain the web site for information sharing.

Task 13c.
Make a professional development training session wish list with costs.

This item was not addressed at the discretion of the Focus Watershed Coordinator/Executive Director.

Task 14c.
Attend training for assertiveness, management and graphic development of posters, web information, brochures etc. as necessary (this task was developed specific to the needs of the Focus Watershed Coordinator position holder).

This item was not addressed at the discretion of the Focus Watershed Coordinator/Executive Director.

Task 15c.
Monthly progress reports and bi-weekly time sheets (circulate to board)

Monthly and quarterly reports are found in Appendix 8. Quarterly Executive Director/Focus Watershed Coordinator reports were also presented at KRN quarterly meetings.

Task 16c.
Process workshop applications and/or facilitate application process.

Several workshops and tours were sponsored by KRN during the preceding year and are outlined in Objective B, Task 1b.

LITERATURE CITED

Chisholm, I.M., and P.D. Hamlin. 1987. 1985 Libby Reservoir angler census. Prepared for Bonneville Power Administration, Project No. 83-467 by Montana Department of Fish, Wildlife and Parks. Kalispell, MT.

Daley, R. J., E.C. Karmach, C.B.J. Gray, C.H. Pharo, S. Jasper, and R. C. Wiegand. 1981. The effects of upstream impoundments on the limnology of Kootenay Lake, B.C. Scientific Service No. 117. National Water Research Institute. Inland Waters Directorate. Vancouver, B.C.: 96 pp.

Knudson, K. 1994. Water quality status report: Kootenay (Kootenai) River Basin British Columbia, Montana and Idaho. Kootenai River Network. Libby, MT and Ecological Resource Consulting, Helena, MT: 57 pp.

Kootenai River Network. 2000. Comprehensive water quality monitoring plan for the Kootenai River basin: British Columbia, Montana and Idaho. Report of Century West Inc., Summit Environmental, Aqua-Tex Scientific Consulting, EcoAnalysts, Inter-Fluve, and GeoResearch Inc. to the Kootenai River Network, Libby, MT.

KRSS. 2000. Draft Kootenai River Subbasin Summary. Prepared for the Northwest Power Planning Council. Portland, OR.

Marotz, B.L., S.R. Dalbey, C. Muhlfeld, S. Snelson, G. Hoffman, J.DosSantos and S. Ireland. 1998. Fisheries mitigation and implementation plan for losses attributable to the construction and operation of Libby Dam. Montana Fish, Wildlife and Parks, Kalispell, MT, Confederated Salish and Kootenai Tribes, Pablo, MT, and Kootenai Tribe of Idaho, Bonners Ferry, ID.

Northcote, T.G. 1973. Some impacts of man on Kootenay Lake and its salmonids. Great Lakes Fishery Commission. Technical Report Number 25. Ann Arbor, MI.

Paragamian, V.L. 1994. Kootenai River fisheries inventory: stock status of burbot and rainbow trout and fisheries inventory. Idaho Department of Fish and Game, Bonneville Power Administration, Project 88-65. Boise, ID.

Paragamian, V.L. 2000. The effect of variable flows on burbot spawning migrations in the Kootenai River, Idaho, USA, and Kootenay Lake, British Columbia, Canada, after construction of the Libby Dam. Pages 111-123 in: V.L. Paragamian and D.W. Willis, (eds.), *Burbot: biology, ecology and management*. American Fisheries Society. Fisheries Management Section, Publication Number 1, Bethesda, MD.

Paragamian, V.L., and G. Kruse. 2001. Kootenai River white sturgeon spawning migration behavior and a predictive model. *North American Journal of Fisheries Management* 21:10-21.

Snyder, E.B., and G.W. Minshall. 1996. Ecosystem metabolism and nutrient dynamics in the

Kootenai River in relation to impoundment and flow enhancement for fisheries management. Final Report. Stream Ecology Center, Idaho State University, Pocatello, ID.

Appendix 1: KRN Matching Funds / Grants Applied for and Received for FY2001/2002

KRN List of Grants Received – July 1, 2001 to June 30, 2002:

National Fish & Wildlife Foundation	$75,000	6/21/01	
Montana Department of Environmental Quality	$110,000	6/25/01	
Steele-Reese Foundation	$15,000	8/30/01	
Cadeau Foundation	$1,000	11/25/01	
ESA Landowners Incentive	$13,500	3/30/02	
Cinnabar Foundation	$2,000	5/11/02	
Common Counsel	$5,000	5/31/02	Pending
Lincoln County RAC	$50,000	6/26/02	Pending
EPA Region VIII Consolidated Funding	$15,000	6/30/02	
Montana Community Foundation	$4,500	7/16/02	
MT Trout Foundation	$1,000	8/2/02	
TOTAL:	$237,000		

Grant applications not awarded:

Jerry Metcalf Foundation	$3,000
WCRP FWP Proposal for funding	$20,000

Appendix 2: MDFWP/KRN Memorandum of Understanding

State Prog.:
CFDA Fed. Prog.:
Fed. Catalog No.:
Fed. Dollar Amt.:
Fed. Dollar Amt.:
Amount Obligated: $61,000.00
Recipient: Nonprofit

COOPERATIVE AGREEMENT
BETWEEN
MONTANA FISH, WILDLIFE AND PARKS
AND
KOOTENAI RIVER NETWORK
FOR
FOCUS WATERSHED COORDINATION

I. AUTHORITY:

A Cooperative Agreement between the Montana Fish, Wildlife & Parks (hereinafter referred to as FWP) and the Kootenai River Network (hereinafter referred to as KRN). Funding transfer from FWP to KRN shall occur with a waiver of state overhead costs.

II. BACKGROUND:

Hydropower related effects on the Kootenai Watershed are well documented. The Libby Dam Fisheries Mitigation and Implementation Plan for Losses attributed to the Construction and Operation of Libby Dam details quantified fish losses above and below Libby Dam as called for by the Northwest Power Planning Council's (Council) Fish and Wildlife Program. Losses and potential mitigation projects to enhance native populations in the Kootenai Basin were compiled in the Libby Mitigation and Implementation Plan. This document was developed as a collaborative programmatic assessment with the Salish and Kootenai Tribes and the Kootenai Tribe of Idaho. This program directly addresses the Council's mandate to enhance hydropower-effected fish stocks in the Kootenai Basin through on-the-ground habitat enhancement efforts that alleviate factors limiting native species restoration. Projects reclaiming critical spawning, rearing, and over-wintering habitats have been completed, or are ongoing, as pilot mitigation projects. These projects are being completed using grassroots watershed workgroups comprised of landowners, agency, sportsmen's groups and local, state and federal government coalitions. FWP cooperates with KRN to enhance the effectiveness and efficiency of mitigation and habitat restoration efforts.

KRN is a nonprofit organization created to foster communication and implement collaborative processes among private and public interests in the Kootenai Watershed. These cooperative programs will lead to improved resource management practices and the restoration of water quality and aquatic resources in the Kootenai basin.

KRN is an alliance of diverse citizen's groups, individuals, business and industry and tribal and government water resource management agencies in Montana, Idaho and British Columbia. KRN enables local citizens to collaborate in natural resource management in the basin and involves local individuals and groups, as well as two states, one province, two countries and affected tribal nations. Montana Fish, Wildlife & Parks is an active participant in KRN and will serve on the KRN Executive Board. Formal participation in the KRN helps Montana Fish, Wildlife & Parks achieve its goals and objectives toward watershed restoration activities in the Kootenai Basin.

Montana Fish, Wildlife & Parks has employed a Focus Watershed Coordinator at the Libby Field Station since 1998. The program has fostered several habitat enhancement projects in the Kootenai River Basin, primarily in Montana. Upon the recommendation of Bonneville Power Administration and the Columbia Basin Fish and Wildlife Authority, the Northwest Power Planning Council agreed to direct funding for this position to the Kootenai River Network to better foster similar efforts in the Idaho and British Columbia portions of the basin. The following, excerpted directly from the Northwest Power Planning Act, justifies this action:

COOPERATIVE HABITAT PROTECTION AND IMPROVEMENT WITH PRIVATE LANDOWNERS

The Kootenai River Network will become responsible for implementing this measure of the NPPC Fish and Wildlife Program for the Kootenai River Basin, including Montana, Canada and Idaho. Currently, the Focus Watershed Coordinator for Montana Fish, Wildlife & Parks is responsible for implementing these measures. BPA recognizes the need for these measures, and believes that shifting the program to KRN will enhance these activities in the entire drainage, rather than Montana exclusively. The Watershed Coordinator for the KRN will carry out the measures listed below, and will place priority on measure 7.7B, which addresses local (watershed) initiatives. KRN has begun this process independently of NPPC, and will be empowered via BPA funding to more fully expand these measures throughout the basin.

Comprehensive watershed management should enhance and expedite implementation of actions by clearly identifying gaps in programs and knowledge, by striving over time to resolve conflicts, and by keying on activities that address priorities. A long-term commitment from all local, state and regional entities interested in each subbasin will be necessary. This effort cannot be viewed as something to be accomplished quickly or having an endpoint. It will need to evolve over time to become truly comprehensive. To succeed, it must become institutionalized in each subbasin.

The Council believes that protection and improvement of habitat on private lands is an essential component of comprehensive watershed management. A key to this approach is the voluntary action of the owners of these lands. Without explicit, direct involvement of private landowners in identification and implementation of habitat actions, protection and improvement of habitat on private lands has little chance of success.

<u>Local role</u>: A locally based, bottom-up, voluntary approach for protection and improvement of habitat on private lands is needed. The coordinated resource management approach is an example of the type of program that might provide the basis for such an approach. This process brings together local landowners and key interests in a facilitated forum to identify goals for improving and managing lands within a geographic area of common interest.
<u>State role</u>: Statewide lead entities, such as the state conservation commissions or other appropriate bodies, should be identified to facilitate coordinated habitat protection and improvement with private landowners.

Collaborate with local watershed committees in watershed planning and implementation, and provide funding, technical advice and assistance. In addition, the Council's model watersheds should complement these efforts.

Federal role: Coordination of watershed activities will include an important role for federal agencies, in collaboration with state, local and tribal authorities and local watershed committees. Activities on federal and private lands must be coordinated and consistent to achieve comprehensive watershed management. In addition, federal funding of activities on private and public lands must continue and at increased levels. The Council is committed to supporting efforts in this regard. Also, it is expected that coordination of activities on private lands will result in approaches that complement and comply with the requirements for habitat recovery plans under Section 10 of the Endangered Species Act. This will require coordination of watershed activities with the National Marine Fisheries Service.

Tribal role: In the last century, individual tribes ceded large tracts of traditional lands in the Columbia River Basin to the federal government. During this process, the tribes retained rights, among others, to harvest fish, wildlife and plants. Management of watersheds in a manner that continues to produce these resources is critical to tribal cultures and to obligations to comply with tribal rights. Therefore, the full involvement of tribes in developing and maintaining local and regional watershed approaches on reservation and ceded lands should occur. The experience of tribes as stewards of watersheds for thousands of years will also be important to the ultimate success of watershed approaches.

Council role: The Council expects that coordination of watershed activities will result in identification of projects to improve and protect habitat on private lands. These projects should be submitted directly to the Council to allow for the necessary subbasin and regional coordination. The Council will review these submissions to identify appropriate funding sources and to help ensure prompt, coordinated implementation of appropriate projects. The Council, in identifying funding sources for private-landowner projects, will take into consideration, to the extent possible, whether the private land is being managed in accordance with applicable federal and state laws such as the Endangered Species Act and state water quality standards.

7.7A Coordination of Watershed Activities

Idaho, Montana, Oregon and Washington

7.7A.1 Each state should select a lead entity, such as the state conservation commission or other appropriate entity, to support local subbasin efforts to coordinate watershed activities. This support should include providing technical or other resources, coordinating state agencies involvement and ensuring consistency with state law and policies. The local subbasin efforts should include all interested parties and work with appropriate model watershed groups. They should develop and implement approaches, such as the coordinated resource management approach, for coordinating watershed activities. These efforts should include consideration of … subbasin plans and other relevant documents. Report on these efforts to the Council, U.S. Fish and Wildlife Service and National Marine Fisheries Service for review.

Bonneville

7.7A.2 Provide initial funding for one or more coordinators in each of the states of Idaho, Montana, Oregon and Washington to initiate efforts to coordinate watershed activities. These coordinators may also coordinate development of model watersheds. Appropriate coordinating entities include tribes, conservation districts, county governments, as well as other entities.

7.7B.2 Each state should select a coordinating entity for each model watershed project, such as the state conservation commission, a tribe or other appropriate entity. The Council expects that the experience gained in the model watersheds will result in progress toward implementing a watershed approach for other subbasins. The Council understands that fully attaining a watershed approach will take decades, but incremental progress toward this end should be apparent every year. At the same time, the Council encourages experimenting with these approaches and recognizes that not all experiments will provide positive results. This is the essence of adaptive management, which is a basic premise of the program. The Council believes that accomplishment of certain elements in the first year of implementation of each model is critical to success. It expects the coordinating entity to ensure that each model accomplishes the following critical elements during the first year of implementation:

Identify all parties with an interest in each model watershed. Set up procedures to ensure that all these parties have the opportunity to participate fully in the development and implementation of the model watershed. Convene a watershed conference that includes all parties with an interest in the model watershed.

Compile all existing plans, programs, policies, laws and other appropriate authorities that relate to comprehensive watershed management in each model watershed.

Identify gaps and conflicts in the existing plans, programs, policies, laws and other appropriate authorities that hinder comprehensive watershed management in each model watershed.

Set out a path and procedures for filling gaps and addressing conflicts.
Identify priority on-the-ground actions to address key limiting factors.

Compile a list of all human and fiscal resources that are potentially available for protection and improvement of habitat for the model watershed. Include on the list all potential federal, state, local government and other public sources as well as private sources such as local businesses that rely on natural resources in those watersheds. Coordinate this activity on a regional and state level, as appropriate.

Provide for the involvement of volunteers and educational institutions in the implementation of projects.

We (Montana Fish, Wildlife & Parks) agree that the Kootenai River Network is an organization well suited to fully address these directives from the Northwest Power Planning Council. KRN represents individuals and agencies from throughout the basin, and is a natural vehicle for coordinating citizen and government stakeholders to implement actions together.

III. PURPOSE AND OBJECTIVES:
The purpose of this Cooperative Agreement is to:

Facilitate the transfer of funds committed to Fish, Wildlife & Parks directly to the Kootenai River Network to assume sponsorship and ownership of the Focus Watershed Coordination project (FWP 3100-3). This agreement is for FY2002, and shall take effect on 01 July 2001.

In performing its obligations herein, KRN shall not be obligated to incur costs or make expenditures in excess of the total award amount specified in Section VI.

IV. RESPONSIBILITIES OF THE PARTIES:

For the period set forth, FWP and KRN will provide the necessary personnel, materials, services, facilities, funds and otherwise perform all things necessary for, or incidental to, the performance of work set forth herein:

The Kootenai River Network will:

1) Provide reasonable and necessary contracting services (award and administration) in accordance with requirements of public funds. All contracts, contract notices and solicitations, shall contain provisions to inform potential contractors and subcontractors that the contractor shall be required to carry all casualty and liability insurance.

2) Serve as fiscal agent in payment of invoices for services provided under this agreement. Work with FWP to ensure that all work undertaken with funds provided under this agreement is satisfactorily completed.

3) Provide a summary report of accomplishments through the 2002 fiscal year by 31 July, 2002. This report should identify specific projects funded and an itemized list of project expenses and funding partners, if any.

4) The Kootenai River Network shall fulfill the contractual obligations of FWP to BPA, including quarterly and annual reports.

5) Hire and supervise the Watershed Coordinator, whose duties and responsibilities are listed in Appendix I of this contract.

FWP shall:

1) Serve on the Kootenai River Network Executive Board.

2) Assure that projects initiated under this agreement are consistent with the Libby Mitigation and implementation Plan and the Council's Fish and Wildlife Program.

3) Provide technical assistance pertinent to fisheries issues in the Kootenai Watershed and other equipment and supplies as requested and by mutual agreement for the duration of this agreement.

4) Provide guidance to the Kootenai River Network in the administration and management of this agreement.

5) Review the final accomplishment report.

PERIOD OF PERFORMANCE:

The period of performance of this Cooperative Agreement is from the effective date of signature by both parties until 30 June 2002. This agreement is not renewable.

VI. AWARD AMOUNT:

Montana FWP's total financial contribution is expected to be $61,000.

VII. PAYMENT PROVISIONS:

Upon acceptance of the terms and conditions of this Agreement, the recipient may submit requests for payment via invoice to the FWP's Grants Accountant identified in Article VIII of this Agreement.

The original lump sum payment request shall be submitted to the FWP Project Officer (Grants Accountant) identified in Article VIII of this Agreement. One copy of each payment request shall also be forwarded by the recipient to the Montana Fish, Wildlife & Parks Regional Supervisor and Fisheries Program Officer in Kalispell and to Bonneville Power Administration's COTR in Portland, OR.
PROJECT OFFICERS:

Tim Gallagher
Resource Program Manager
Montana Fish, Wildlife & Parks
R-HQ Admin & Finance
1420 East Sixth Avenue
P.O. Box 2000701
Helena, MT 59620-0701

Brian Marotz, Fisheries Program Officer
Montana Fish, Wildlife & Parks
490 N. Meridian Road
Kalispell, MT 59901
(406) 751-4546

Kootenai River Network
Ms. Gretchen Kruse, President
P.O. Box 491
Libby, Montana 59923
(406) 293-6211

IX. REPORTING AND/OR DELIVERY REQUIREMENTS:

Within 90 days after completion of the term of this Agreement KRN shall submit to FWP Project Officer a final Financial Status Report.

X. TERMS AND CONDITIONS (As per FWP Contract Procedure):
ACCOUNTING, AUDITING, RECORDS RETENTION, COST PRINCIPLES AND ACCESS TO RECORDS

KRN must keep on file and available for review, audit and evaluation complete, accurate, documented and current accounting of all funds received and expended pursuant to this agreement, maintained in accordance with generally accepted accounting principles. Those funds must not be combined with any other funds.

Financial records, supporting documents, statistical records and all other records documenting the services provided by KRN under this agreement must be retained for a period of three years after department has made final payments and all other pending matters are closed. KRN agrees to make the records described herein available at all reasonable times at its general offices. If any litigation, claim or audit is started before the expiration of the three-year period, the records must be retained until all litigation, claims or audit findings involving the records have been resolved.

KRN agrees to allow access to the records of the activities covered by this agreement as may be necessary for legislative audit and analysis purposes in determining compliance with the terms of this agreement, as required by Section 5-13-304, Montana Code Annotated. This agreement may be terminated upon any refusal of KRN to allow access to records necessary to carry out the audit and analysis referred to above.

If KRN expends a total of $300,000 or more in federal funds from all sources of federal financial assistance during sub-recipient's fiscal year, it must provide the department with a copy of its annual or biennial audit report covering the year in question within 30 days after the report's issuance. Federal financial assistance includes all of the following, whether received directly from federal agencies or indirectly through units of state or local governments: grants, contracts, cooperative agreements, loans, loan guarantees, property, interest subsidies, insurance or direct appropriations, but not direct cash assistance to individuals.

KRN agrees to comply with the provisions of the most current version of OMB Circular A-87, "Cost Principles for State and Local Governments" concerning use of the funds provided under this agreement.

The State of Montana, department, the Montana Legislative Auditor, the department's federal grantor agencies and the Comptroller General of the United States, or any of their duly authorized representatives, have the right of access to any books, documents, papers and records of KRN which are pertinent to the services provided under this contract, for purposes of making an audit, excerpts or transcripts. Further, for purposes of verifying cost or pricing data submitted in conjunction with the negotiation of this contract or any amendments thereto, the State and department, until the completion date cited in Section V, have the right to examine those books, records, documents, papers and other supporting data which involve transactions related to this agreement, or which will permit adequate evaluation of the cost or pricing data submitted, along with the computations and projections used in them.

In the event that an audit shows that KRN has not complied with federal or state laws and rules concerning the handling and expenditure of the funds received under this agreement, including any grant-related income, department will issue a management decision on award findings; KRN agrees to correct the areas of noncompliance within six months after department receives the audit report.

2. TERMINATION AND DEFAULT

This contract may be terminated by notice in writing to the opposite party, at their address at the top of this document, at least 30 days prior to the effective date of termination. If either department or KRN defaults, the non-defaulting party may terminate this contract as set forth in this paragraph. If default is remedied prior to the

effective date of termination, the non-defaulting party may elect not to terminate this contract. Upon termination, department shall pay KRN for work performed up to and including the termination date, and KRN shall return all materials supplied by department except those used in performance of this contract as well as working papers, work products and end products resulting from this contract.

3. VENUE, INTERPRETATION AND ATTORNEY FEES

Venue for any court action arising under this contract must be in the First Judicial District in and for Lewis and Clark County, Montana. This contract must be interpreted according to the laws of Montana. In the event an action is filed to enforce, interpret or dispute this agreement, each party shall be responsible for its own attorney fees, whether or not it shall be the prevailing party.

4. ASSIGNMENT, TRANSFER AND SUBCONTRACTING

This contract may not be assigned or transferred, nor may a subcontract be let, unless both parties agree in writing in advance.

5. ENTIRE AGREEMENT AND MODIFICATION

This contract is the entire agreement between department and KRN on the subject matter of this contract. Statements, promises or inducements made by either party or agents of either party, which are not contained in this agreement are not valid. No modification, enlargement or alteration of this contract is valid except upon written agreement signed by the parties to this contract.

6. COMPLIANCE WITH LAWS

KRN must comply with all applicable state, federal and local laws including, but not limited to, the Montana Human Rights Act, the Civil Rights Act of 1964, the Age Discrimination Act of 1975, the Americans with Disabilities Act of 1990, and Section 504 of the Rehabilitation Act of 1973. All hiring of contractor's supplying goods or services purchased by this contract by KRN must be on the basis of merit and qualifications. There may not be discrimination on the basis of race, color, religion, creed, political ideas, sex, age, marital status, physical or mental disability, or national origin by the persons performing this contract.

7. FAIR LABOR STANDARDS

For public works contracts over $25,000, contractor shall comply with all federal and state wage and hour rules, statutes and regulations, and warrants that all applicable federal and state fair labor standards provisions will be obeyed, both by contractor and any subcontractor hired by contractor.

8. INABILITY TO FULFILL CONTRACT

KRN shall notify department liaison immediately upon the discovery of any occurrences which would effect the ability of KRN to fulfill the provisions of this contract.

XI. SPECIAL PROVISIONS:

Appropriate credits to the Montana Department of Fish, Wildlife & Parks and Bonneville Power Administration shall be included in any formally published article, provided that FWP does not otherwise deem it appropriate to issue a disclaimer. Authorship shall not imply any privileges of copyright or permit other restrictions on distribution.
Any research data collected under this Agreement shall be owned by the parties to this Agreement. Both parties shall have complete and unlimited access to all such data.

Any publicity shall give due credit to all parties to this Agreement and BPA.

No member of, or delegate to, Congress or resident commissioner shall be admitted to any share or part of this Agreement or to any benefit that may rise therefrom. This provision shall not be construed to extend to this Agreement if made with a corporation for its general benefit.
IN WITNESS WHEREOF, the parties hereto have caused this Grant /Cooperative Agreement to be executed as the date of last signature below.

MONTANA FISH, WILDLIFE & PARKS	KOOTENAI RIVER NETWORK
(Signature)	(Signature)
Dan Vincent	Gretchen Kruse
Regional Supervisor	President
Date	Date

FWP approved for legal content:

By

Date

FEDERAL AID ADDENDUM

Contractor agrees to comply with the following:

Compliance with Executive Order 11246 of September 24, 1965, entitled "Equal Employment Opportunity," as amended by Executive Order 11375 of October 13, 1967, and as supplemented in Department of Labor regulations (41 CFR chapter 60). (All construction contracts awarded in excess of $10,000 by grantees and their contractors or sub-grantees.)

Compliance with the Copeland "Anti-Kickback" Act (18 U.S.C. 874) as supplemented in Department of Labor regulations (29 CFR Part 3). (All contracts and sub-grants for construction or repair.)

Compliance with Sections 103 and 107 of the Contract Work Hours and Safety Standards Act (40 U.S.C. 327-330) as supplemented by Department of Labor regulations (29 CFR Part 5). (Construction contracts awarded by grantees and sub-grantees in excess of $2,000, and in excess of $2,500 for other contracts which involve the employment of mechanics or laborers.)

Compliance with notice of awarding federal agency requirements and regulations pertaining to reporting.

Compliance with notice of awarding federal agency requirements and regulations pertaining to patent rights with respect to any discovery or invention which arises or is developed in the course of or under such contract.

Compliance with awarding federal agency requirements and regulations pertaining to copyrights and rights in data.

CONTRACTOR DATE

Appendix 3: Focus Watershed Coordinator Position Description as Adopted by KRN for the 2001/2002 Fiscal Year

KOOTENAI RIVER NETWORK
WATERSHED COORDINATOR
POSITION DESCRIPTION

FUNCTIONAL DESCRIPTION OF THE WORK UNIT:

KRN is a nonprofit organization created to foster communication and implement collaborative processes among private and public interests in the watershed. These cooperative programs will lead to improved resource management practices and the restoration of water quality and aquatic resources in the Kootenai basin. KRN is an alliance of diverse citizen's groups, individuals, business and industry, and tribal and government water resource management agencies in Montana, Idaho and British Columbia. KRN enables local citizens to collaborate in natural resource management in the basin and involves local individuals and groups, as well as two states, one province, two countries and affected tribal nations.

DUTIES AND RESPONSIBILITIES OF POSITION:

The Focus Watershed Coordinator of the Kootenai River Network is a full-time professional position responsible for coordination of watershed mitigation activities within the Kootenai drainage. The incumbent will coordinate the activities of different interest groups in the Kootenai River drainage related to watershed improvement, and maintain a communication network among private and public groups in the Columbia River basin. The primary goal of this position is to facilitate coordination of watershed activities. The actual implementers are identified as "Personal Contacts" below.

A. Design and implement the new Focus Watershed initiative in the Kootenai River Drainage. Involve affected parties using knowledge of public scoping, meeting facilitation, mediation, dispute resolution and consensus building.

1. Identify entities and individuals involved in the management of and having interest in watershed resources of the basin (e.g. Montana Fish, Wildlife & Parks, Kootenai White Sturgeon Recovery Team, Koocanusa International Coalition, B.C. Ministry of Environment, Idaho Fish and Game, Kootenai Tribe of Idaho, etc.).

2. Network with existing local conservation districts, county governments, local, state, and federal agencies, and private landowners involved with resource management groups affected by mitigation and watershed planning to facilitate on-the-ground efforts.

3. Attend or organize as needed, citizen/technical advisory committee meetings open to all interested parties to develop goals and objectives for improved watershed health.

4. Identify the status of existing management plans, regulations, procedures, work plans, laws, traditions and mitigation efforts which may affect watershed management.

5. Identify public complaints and rectify conflicts by negotiating short- and long-term solutions such as modifications to existing plans, programs, policies, laws, etc. that hinder comprehensive watershed management in the Kootenai watershed.

6. Compile and analyze human and fiscal resources that are available for protection and improvement of the watershed. Include federal, tribal, state, local government and other public sources as well as private sources such as local businesses and conservation groups that rely on natural resources within the Kootenai watershed. Coordinate this activity on a regional level.

7. Provide for the involvement of private landowners, volunteers, Montana Conservation Corps and educational institutions in the implementation of watershed improvement projects.

8. Facilitate cooperative funding arrangements between agencies, tribes and conservation groups for habitat improvement projects.

9. Coordinate procurement of funding for specific watershed or research needs. Initiate proposals for KRN efforts and assist with proposal writing for projects deemed to be most beneficial to the watershed. As part of this, establish databases for funding sources including the criteria needed for proposals and project selection.

10. Compile the results of field monitoring and public input to produce quarterly and annual reports and periodic newsletters. Inform concerned parties of activities and progress towards goals.

11. Work with agencies to produce habitat goals and strategies used by the agencies themselves, conservation districts, Bull Trout Round Table or other model watershed initiatives through the Pacific Northwest as a guide for watershed resource management.

B. Work with agency staff to implement habitat enhancement projects for native fish species using a knowledge of fluvial forms and processes, fish population dynamics and migrations, riparian botany and revegetation, land management practices (i.e. forestry, grazing, road-building and agriculture), and dam operation. Develop and implement an effective watershed monitoring and evaluation process.

1. Coordinate with local, regional, and national planning and funding agencies, e.g. the Northwest Power Planning Council, Bonneville Power Administration, Soil Conservation Service, USDA and others, to assure cooperative monitoring and efficient implementation of the model watershed planning process.

2. Assist with writing and formalizing landowner agreements to protect project investments.

3. Prepare reports and publications to advance the status of watershed rehabilitation efforts and techniques in the Kootenai River basin.

C. Perform duties relating to the operation of the Kootenai River Network.

1. Participate fully in the development of KRN objectives, organization and purpose.

2. Participate fully in technical committees of KRN: Watershed Health, Stream Rehabilitation, Public Outreach and Education.

3. Maintain and update the KRN web site.

PERSONAL CONTACTS:

WHOM	WHY	FREQUENCY
Watershed Groups	Coordinate work schedules, exchange information, promote fisheries and watershed projects	weekly
KRN Staff	Coordinate work schedules, exchange information	daily
Public and Private organizations	Provide information and justify watershed projects, explain complex fisheries concepts to lay-groups, develop support for department programs, gather input for watershed projects.	daily
Montana Fish, Wildlife & Parks	Help promote and defend watershed group and department principles, policies and projects; identify potential cost-share opportunities; provide and receive research and management information, exchange interim results and attempt to solve mutual problems and questions; coordinate research, discuss policy issues.	weekly
USACOE	Similar to Montana Fish, Wildlife & Parks	weekly
USFS	Similar to Montana Fish, Wildlife & Parks	weekly
BPA	Similar to Montana Fish, Wildlife & Parks	weekly
CSKT	Similar to Montana Fish, Wildlife & Parks	weekly
Idaho Fish and Game	Similar to Montana Fish, Wildlife & Parks	weekly
BCMOE	Similar to Montana Fish, Wildlife & Parks	weekly
Bull Trout Round Table	Similar to Montana Fish, Wildlife & Parks	weekly
Media	Provide fisheries and watershed management information and promote department and watershed policies and programs	weekly
Canadian First Nations	Similar to Montana Fish, Wildlife & Parks	monthly

DECISIONS AND COMMITMENTS:

The purpose of this position is to establish and promote a working watershed group that leads to protection and enhancement of fisheries, wildlife and habitat in the Kootenai River Drainage. Decisions may cause long-term effects to aquatic habitat. Errors in decision making could lead to decrease or loss of public acceptance of future projects, activities or funding.

SUPERVISION RECEIVED:
The Watershed Coordinator functions under the direct supervision of KRN Board of Directors. Work priorities are established through preparation of an annual work plan by the incumbent in coordination with the board. Assignments are generally stated in terms of organizing work tasks associated with the implementation of the Northwest Power Planning Council's Model Watershed Program within the Kootenai River Drainage. The

employee is responsible for planning and organizing details of work. Overall performance will be evaluated annually by the Board of Directors.

KNOWLEDGE, SKILLS AND ABILITIES:

Considerable knowledge and skills to effectively communicate orally and in writing with general public, consultants and other agencies in potentially hostile situations. Must be skilled in organizing and facilitating meetings that accomplish substantial tasks which contribute to the group's goals. Must implement many short-term pilot projects and public scoping initiatives simultaneously to determine independently the most cost-effective course of direction to execute watershed habitat projects. Ability to establish educational and volunteer programs is necessary to promote a healthy watershed. Knowledge of fisheries and stream mechanics principles, lake ecology, and skills in relating these principles to others is necessary. Must have a working knowledge of stream hydrology, habitat improvement techniques, fencing and riparian vegetation. Must understand habitat requirements of fish, seasonal fish migrations and life cycles. Must have experience in project site plans, permits and contracting. Must possess a working knowledge of local, state and federal policies. Familiarity with silviculture, agriculture, grazing, road-building and irrigation practices is essential. Must be able to establish and maintain effective working relationships with others. Because this program will have only limited supervision, the incumbent must be able to prioritize daily activities and use funding efficiently to achieve the goals established in the work plan within specified budgets.

EDUCATION AND EXPERIENCE:

The knowledge, skills and abilities required to perform the duties of this position are generally acquired through a Masters Degree in environmental planning or closely related field and three years of relevant experience. The position also requires extensive training or experience in communicating with the public under various committee structures. Educational background or experience with facilitation, negotiation and conservation education is beneficial. The ability to communicate effectively both orally and in writing and public speaking skills are required.

To the best of my knowledge, the statements are accurate and complete:

Signature of KRN:	Signature of Incumbent:
Gretchen Kruse President	Greg Hoffman Watershed Coordinator

Appendix 4: KRN FY 2001/2002 FWC Operating Budget

SUMMARIZED ORGANIZATIONAL BUDGET
1/1/02-12/31/02
(Projected 2002)

Ending Balance	**12/31/01**		**$121,351.45**
Projected Income	USFWS Cooperative Agreement	$6,000.00	
	Grave Creek Demonstration Project Grants	$21,576.33	
	Grave Creek Phase I Restoration Project Grants	$196,000.00	
Total			**$223,576.33**
Projected Expenses			
	Watershed Restoration Projects	$280,000.33	
	Watershed Coordination Program	$50,444.13	
	Legal / Accounting	$1,500.00	
	Resource Development / Contracting	$6,000.00	
	Web Page Development / Maintenance	$500.00	
	KRN Administration	$3,000.00	
	Administrative Expenses	$500.00	
Total			**$341,944.46**

Appendix 4a: Focus Watershed Coordination Program Operating Budget

See Excel file insert: FocusWatershedCoordProgOperBudget 01_02

Appendix 5: KRN Contact List

First	Last	Organizaton
Lydia	Allen	USFS Bonners Ferry Ranger District
Kenton	Andreashuk	Habitat Conservation and Stewardship Program - Fisheries and Oceans Canada
Juliet	Barenti	USFWS - Upper Columbia River Field Office
Cori	Barraclough	Aqua-Tex Scientific Consulting Ltd.
Steve	Bauer	Pocket Water, Inc.
Dale	Becker	Confederated Salish and Kootenai Tribes
Teddye	Beebe	Northwest RC&D
Kerry	Berg	Northwest Power Planning Council
John	Bergenske	East Kootenay Environmental Society
Tony	Berget	City of Libby
Scott	Bettin	Bonneville Power Administration
Mark	Biddlecomb	Ducks Unlimited - Western Regional Office
Gaby	Binette	Sustainable Toronto
Dave	Blackburn	Kootenai River Flyfishers
Lee	Brundin	USFS Canoe Gulch Ranger Station
Bruce	Burns	Crestbrook Forest Industries
John	Chatel	USFS Sandpoint Ranger District
Wayne	Choquette	Ktunaxa/Kinbasket Council
Erica	Conrad	East Kootenay Environmental Society
Coral	Cummings	Libby Area Conservancy District
Gary	Curtis	BPA - F&W Div - PJW
Julie	DalSoglio	U.S. Environmental Protection Agency
Jill	Davies	
Yvonne	Decker	Libby Area Conservancy District
Scott	Deeds	US FWS N. ID Field Office
Dale	Deiter	Panhadle National Forest
Shandra	Dekome	USFS Sandpoint Ranger District
Jay	DeShazer	Montana Fish, Wildlife & Parks
Bill	Dodson	Kootenai Valley Trout Unlimited Chapter 683
Lyle	Dorey	
Lynn	DuCharne	Confederated Salish and Kootenai Tribes
Laura	Duncan	East Kootenay Environmental Society
Jim	Dunn	EPA Region 8
Jim	Dunnigan	Montana Fish, Wildlife & Parks
Barb	Edgmon	USFS Supervisor's Office - Libby

Wade	Fredenberg	USFWS
Jim	Fredericks	Idaho Department of Fish & Game
Bob	Gardiner	Cominco Metals
Paul	Gardner	Rexford Water & Sewer
Mike	Gondek	USDA - NRCS
Julie	Gott	USFS - Murphy Lakes Ranger District
Bob	Graham	North Water & Sewer District
William	Green	Inter-Tribal Fisheries Commission; c/o Ktnaxa/Kinbashet Tribal Council
KJ	Hackworthy	The Nature Conservancy
Lynn	Hagarty	USFS
Karen	Hamilton	EPA Region 8
Ryan	Hardy	Idaho Department of Fish & Game
Guenter	Heinz	USFS Murray Lake Ranger District
Mike	Hensler	Montana Fish, Wildlife & Parks
Greg	Hoffman	
Charlie	Holderman	Kootenai Tribe of Idaho
Susan	How	Flathead Land Trust
Mike	Hrysenko	
Ellen	Huber	USFS Sandpoint Ranger District
Russ	Hudson	Libby Area Conservancy District
Gary	Ingman	MT DEQ Planning, Prevention & Assistance
Sue	Ireland	Kootenai Tribe of Idaho
Bob	Jamieson	Bioquest International Consulting, Inc.
Kent	Johnson	KRN's webmaster
Steve	Johnson	Kootenai National Forest
Kirsten	Kaiser	USFS - Supervisor's Office
Bill	Kier	Institute for Fisheries Resources
Robyn	King	Yaak Headwaters Restoration
Tom	Kraft	City of Cranbrook
Gretchen	Kruse	Free Run Aquatic Research
Kevin	Kumagai	Institute for Fisheries Resources
Greg	Larson	Northwest RC&D
Jeff	Laufle	U.S. Army Corps. Of Engineers
Roxann	Lincoln	Roxann Lincoln Consulting Services
John	Lord	Murray Springs Fish Hatchery
Robert	Louie	Lower Kootenay Band
Patrick	Lucey	Aqua-Tex Scientific Consulting, Ltd.
Wayne	Maahs	Plum Creek Timber Co.
Hugh	MacPherson	East Kootenay Environmental Society
Ray	Mariner	East Kootenay Environmental Society
Brian	Marotz	Montana Fish, Wildlife & Parks
David	Martin	Montana DNRC
Jeff	McCreary	Ducks Unlimited - Western Regional Office
Paul	McDermott	Tobacco Valley EDC
Andrew	McDonald	The Nature Conservancy of Canada
Les	McDonald	Ministry of Water, Land and Air Protection

Vicki	McGuire	Lincoln Conservation District
Mike	McKenzie	Troy City Water Department
Ron	Morinaka	Bonneville Power Administration
Dave	Mosier	Idaho DEQ
Gary	Mott	Cranbrook City Hall
Gerald	Mueller	Consultant
Linda	Mycek	Bobtail Creek Watershed Council
Kris	Newgard	USFS - Three Rivers Ranger Distric
Kathryn	O'Siggins	Montana Conservaton Corps.
Tom	Ostrowski	Montana Fish, Wildlife & Parks
Peter	Paquet	Northwest Power Planning Council
Vaughn	Paragamian	Idaho Department of Fish & Game
Glenn	Pauley	Southern Alberta Land Trust Society
Dan	Pennington	Kootenai National Wildlife Refuge
Patty	Perry	Kootenai Tribe of Idaho
John	Peterson	Lincoln County Department of Environmental Health
Jim	Posewitz	Cinnabar Foundation
Kris	Reeder	Bobtail Creek Watershed Council
Mark	Reller	Bonneville Power Administration
Patricia	Robinson	U.S. Army Corps. Of Engineers
Paula	Rodriguez	East Kootenay Environmental Society
Rox	Rogers	Creston Fish & Wildlife Center
Mike	Rooney	Trout Unlimited
Rosie	Sada	Montana Department of Environmental Quality
Dennis	Scarnecchia	College of Forestry, Wildlife and Range
Pete	Schade	The Montana Watercourse
Mick	Shea	USACOE - Libby Dam
Kathleen	Sheppard	The Land Conservancy of British Columbia
Mary Lou	Soscia	Watershed Coordinator - CRITFC
Scott	Soults	Kootenai Tribe of Idaho
Colin	Spence	Ministry of Water, Land and Air Protection
Carolyn	Stamy	Consultant
Ron	Steg	Montana Department of Environmental Quality
Kirk	Sullivan	USDA - NRCS
LaVerne	Sultz	USGS Water Resources Division
Sue	Sunstrom	Elkford Chamber of Commerce
Dave	Toews	BC Ministry of Forests
Bill	Turner	Land Conservancy of British Columbia
Marian	Valentine	U.S. Army Corps of Engineers
Costanza	Von der Pahlen	Flathead Lakers
Jody	Walters	Idaho Department of Fish & Game
Michael	Ward	Institute for Fisheries Resources
Jen Rose	Warne	East Kootenay Environmental Society
Ruth	Watkins	Tri-State Council
Steve	Wegner	USFS
Bill	Westover	Ministry of Water, Land and Air Protection

Rita	Windom	Lincoln County Commissioner
Jerry	Wolcott	Plum Creek Timber Co.
Dean	Yashan	Montana Department of Environmental Quality
Dave	Young	Asarco, Inc.
Karen	Zelch	Kootenai Tribe of Idaho
Bob	Zimmermann	Kootenai Wildlife Alliance
Dale	Zinovich	

Elkford Chamber of Commerce
Creston Town Hall
Kimberly Chamber of Commerce
Elkford Dist Office
Creston Valley Rod & Gun Club
Fording Coal Ltd.
Fernie District Rod & Gun
Trout Unlimited
City of Fernie
Sparwood Municipal Offic
Kimberly W & W Association
Canal Flats Wildlife Association
Koocanusa International Coalition
Tobacco Plains Indian Band
Cranbrook Chamber of Commerce
Creston Chamber of Commerce
Coal Corp
Elkview Coal Corporation
Line Creek Resources
Troy Chamber of Commerce
Lincoln County Commissioners
Stimson Lumber Company
Libby Chamber of Commerce
Libby City Water
North Water and Sewer District
Boundary County Commissioners
Panhandle Health District 1
Eureka Chamber of Commerce
Boundary County Wheat Growers
City Manager
Eureka Water and Sewer
F & W Div - PJW
Bonners Ferry Chamber of Commerce

Appendix 6: KRIS Information

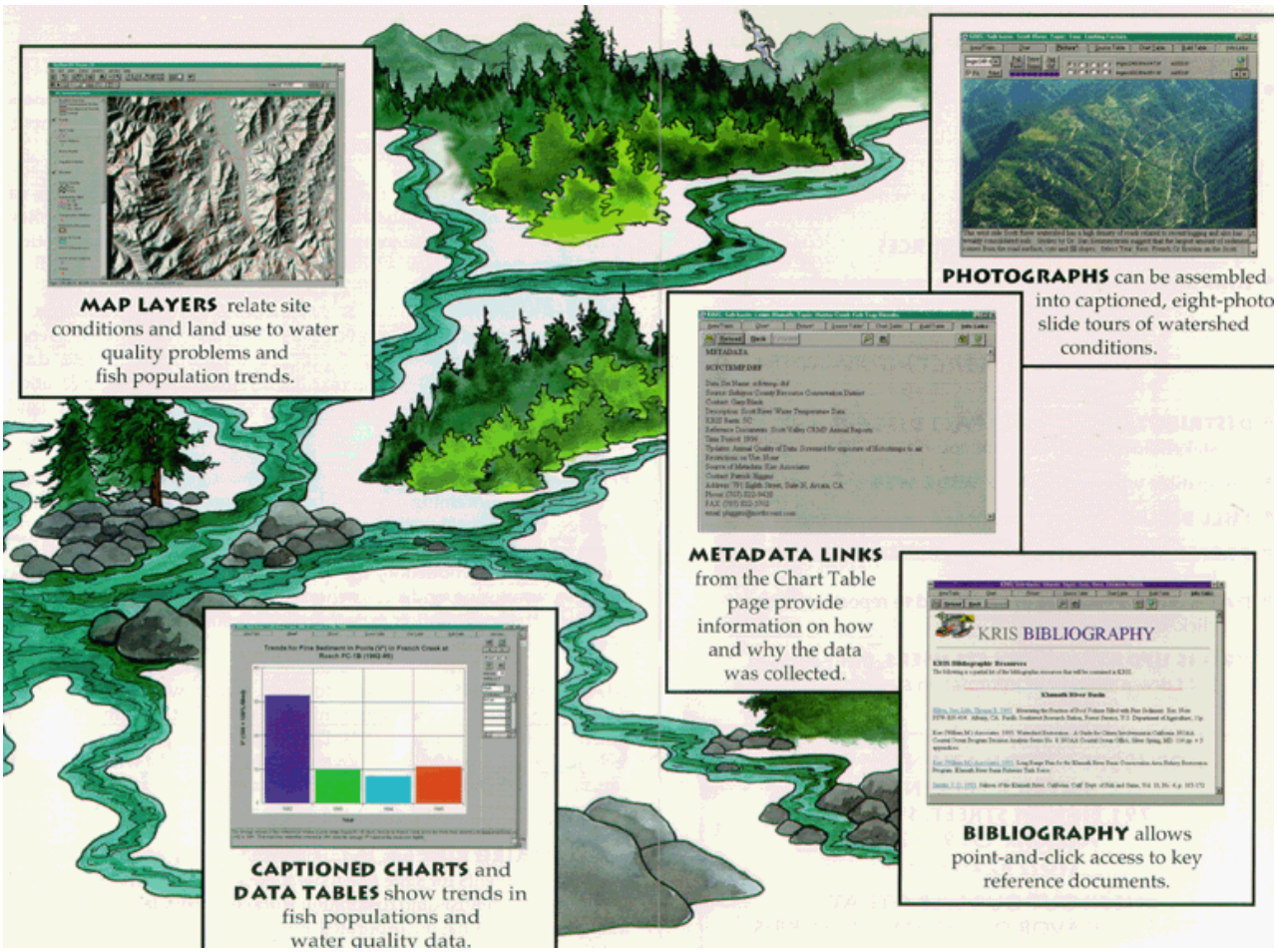
Kootenai River Information System

(KRIS)

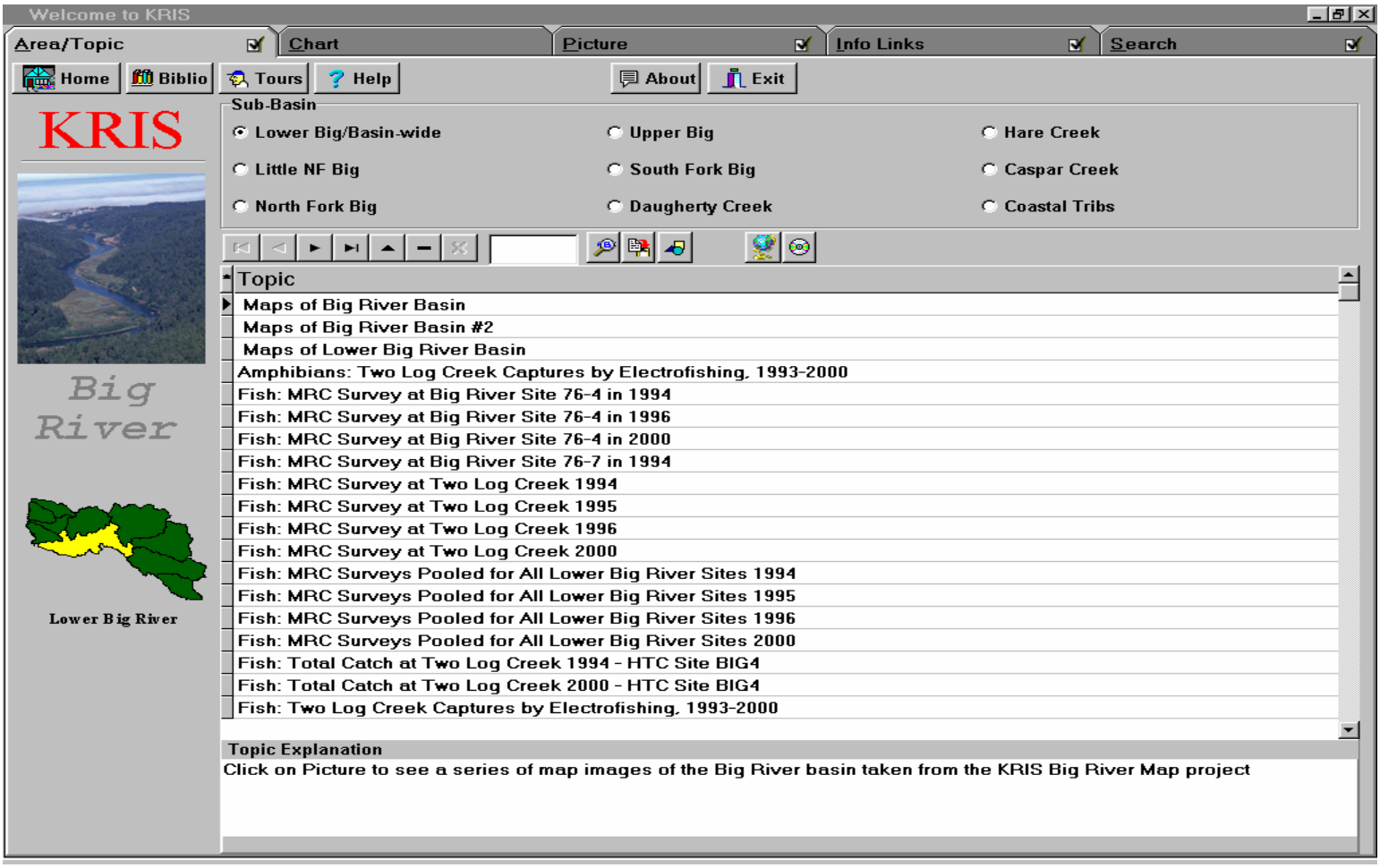
Introductory Material

(As follows)

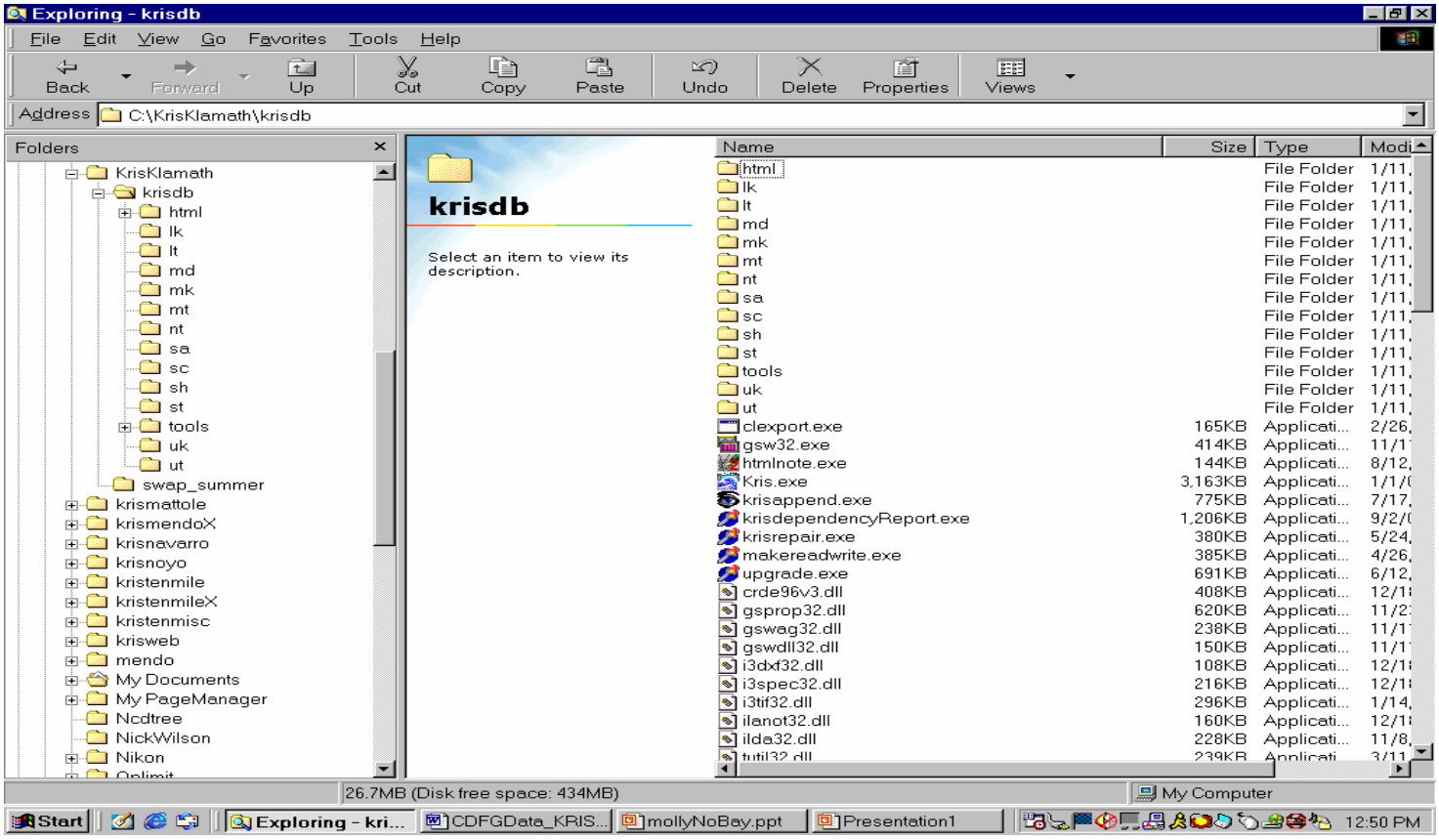
The Kootenai Resource Information System (KRIS) pulls information together:



KRIS is a tab-driven database, which organizes information by Subbasin and can be adapted to any geographic area:



All data, text files and images are stored in appropriate geographic-specific subbasin folders:



Charts in KRIS are driven by Dbase IV or Paradox Chart Tables which can be viewed also:

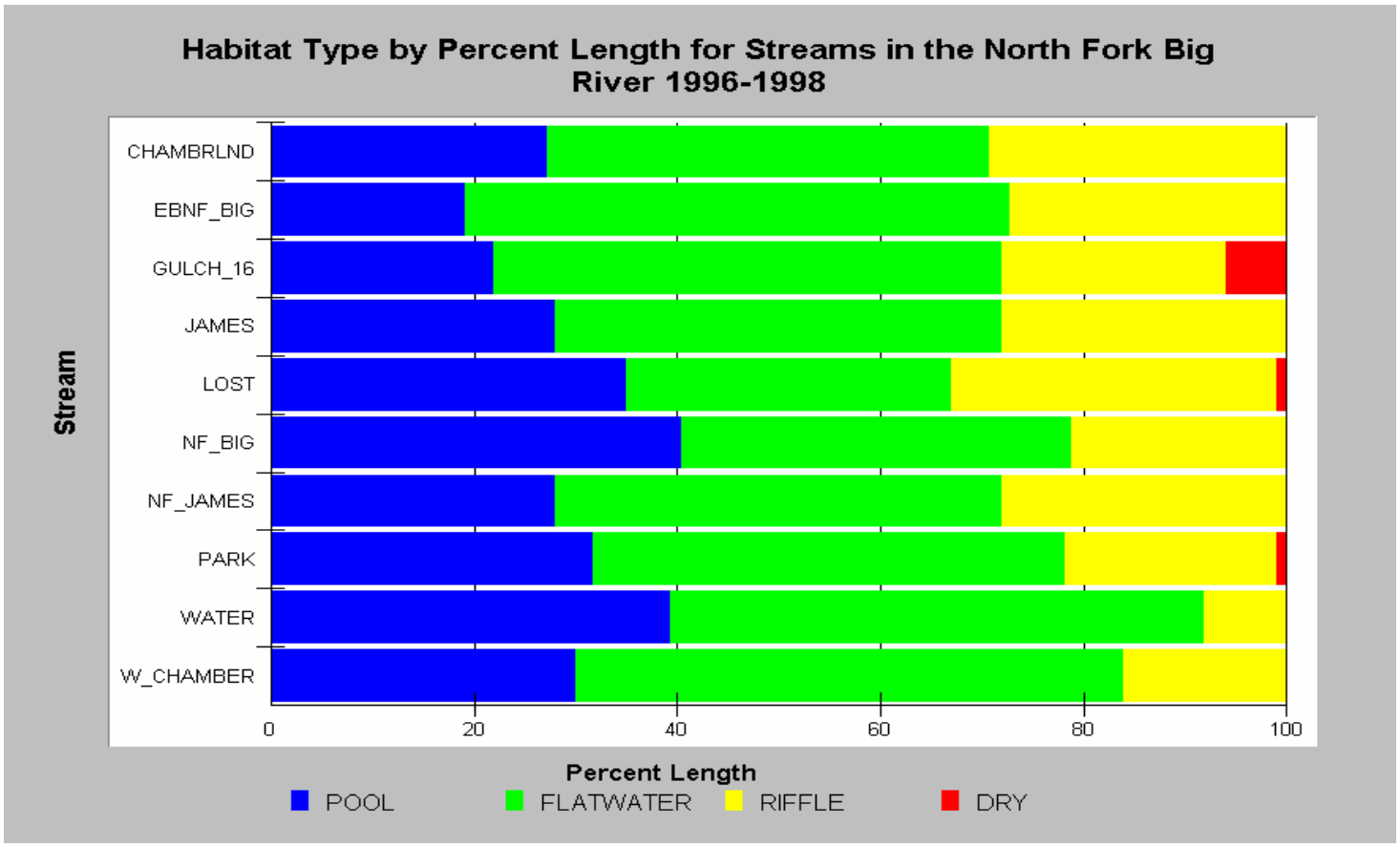


Chart Tables always have full captions, including explanations of column headers and source of data:

KRIS; Sub-basin: North Fork Big; Topic: Habitat: Habitat Types by Percent Length for All NF Streams.

Area/Topic | Chart | Picture | Info Links | Search

DFG_NF_HAB.DBF

STREAM	SUBBASIN	DATE	DISTANCE	DOM_CNTYP	SEC_CNTYP	PHBLRIF	PHBLFLWTR	PHBLPOOL	PHBLDRY	EMBDD1	EMBDD2	EMB
CHAMBRLND	NF	797	25656	F4		29	43	27	0	23	40	
EBNF_BIG	NF	698	39034	B4	A4	27	53	19	0	12	102	
GULCH_16	NF	797	4653	F4	A3	22	50	22	6	6.5	43.5	
JAMES	NF	1096	23326	F3		28	44	28	0	18	23	
LOST	NF	797	4898	G4		32	32	35	1	15	25	
NF_BIG	NF	897	63250	F4		21	38	40	0	15	49	
NF_JAMES	NF	797	1304	F4		28	44	28	0	18	23	
PARK	NF	697	5502	F4		21	47	32	1	6.4	47.7	
WATER	NF	797	9713	B4	E4	8	52	39	0	10.3	32.5	
W_CHAMBER	NF	797	18363	F4	A4	16	54	30	0	14.7	2.9	

The Chart Table DFG_NF_HAB.dbf contains summary data from stream surveys in the North Fork Big River from 1996 to 1998. The date of survey is listed under DATE, in mmyy format. Not all selected habitat attributes were available for inclusion due to inconsistent reporting and unavailable records. Where biological inventory results were reported, the column EFISH_SAMPL = number of samples, and the species columns to follow contain pooled catch. For full details on methods,

c:\krisbigriver\krisdb\nf\dfg_nf_hab.dbf; Row No: 1 of 10

Chart | Chart Table | Source Table | Meta Table

Source Tables are often available to show the full database from which Chart Tables were summarized or extracted:

KRIS; Sub-basin: North Fork Big; Topic: Habitat: Habitat Types by Percent Length for All NF Streams.

Area/Topic | Chart | Picture | Info Links | Search

HABRAW_BIG.DBF

CDFG Raw Habitat Data for Streams in the Big River Area.

STREAM	LEGAL	LATD	LATM	LATS	LOND	LONM	LONS	QUAD	RF3RCHID	PNMCD
Bunker Gulch	T18NR17WS2	39	23	16	123	43	52	Noyo Hill		830239090
Bunker Gulch	T18NR17WS2	39	23	16	123	43	52	Noyo Hill		830239090
Bunker Gulch	T18NR17WS2	39	23	16	123	43	52	Noyo Hill		830239090
Bunker Gulch	T18NR17WS2	39	23	16	123	43	52	Noyo Hill		830239090
Bunker Gulch	T18NR17WS2	39	23	16	123	43	52	Noyo Hill		830239090
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Bunker Gulch	T18NR17WS2	39	23	16	123	43	52	Noyo Hill		830239090
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Bunker Gulch	T18NR17WS2	39	23	16	123	43	52	Noyo Hill		830239090
Bunker Gulch	T18NR17WS2	39	23	16	123	43	52	Noyo Hill		830239090
Bunker Gulch	T18NR17WS2	39	23	16	123	43	52	Noyo Hill		830239090
Bunker Gulch	T18NR17WS2	39	23	16	123	43	52	Noyo Hill		830239090
Bunker Gulch	T18NR17WS2	39	23	16	123	43	52	Noyo Hill		830239090
Bunker Gulch	T18NR17WS2	39	23	16	123	43	52	Noyo Hill		830239090
Bunker Gulch	T18NR17WS2	39	23	16	123	43	52	Noyo Hill		830239090
Bunker Gulch	T18NR17WS2	39	23	16	123	43	52	Noyo Hill		830239090
Bunker Gulch	T18NR17WS2	39	23	16	123	43	52	Noyo Hill		830239090
Bunker Gulch	T18NR17WS2	39	23	16	123	43	52	Noyo Hill		830239090
Bunker Gulch	T18NR17WS2	39	23	16	123	43	52	Noyo Hill		830239090

The Source Table HABRAW_BIG.DBF contains data from stream inventories in the Big River which was provided to the KRIS project by California Department of Fish and Game, Sacramento. Data were collected following methods described in CDFG Manual (1998). The table does not include data for Berry Gulch, lower Two Log Creek and other surveys for which data was obtained later or from a different source. Click on Info Links for more information.

c:\krisbigriver\krisdb\nf\habraw_big.dbf (12530 rows)

Chart | Chart Table | Source Table | Meta Table

KRIS assimilates data on factors which limit fisheries and water quality from agencies, private companies and watershed groups:

California Department of Forestry and Fire Protection http://www.fire.ca.gov/

The California Department of Forestry (CDF), the primary sponsor of the KRIS Mendocino project, contributed the major portion of the funding. The Fire and Resource Assessment Program (FRAP) within the CDF provided oversight and a great deal of useful information that is included in the KRIS Noyo database (DB) and Map projects.

California Department of Fish and Game http://www.dfg.ca.gov/

The California Department of Fish and Game (CDFG) provided data for the KRIS Big River project. Region 3 CDFG was particularly instrumental in the KRIS Big River project success because it supplied valuable historical documents.

North Coast Regional Water Quality Control Board http://www.swrcb.ca.gov/

The North Coast Regional Water Quality Control Board (NCRWQCB) provided data for KRIS Big River.

Hawthorne Timber Company http://www.timberwatch.org/Companies%20and%20Organizations/Hawthorne%20Timber%20Company%20LLC.htm

Hawthorne Timber Company, which purchased land in the Big River basin in 1999, generously shared their data from stream and fish surveys.

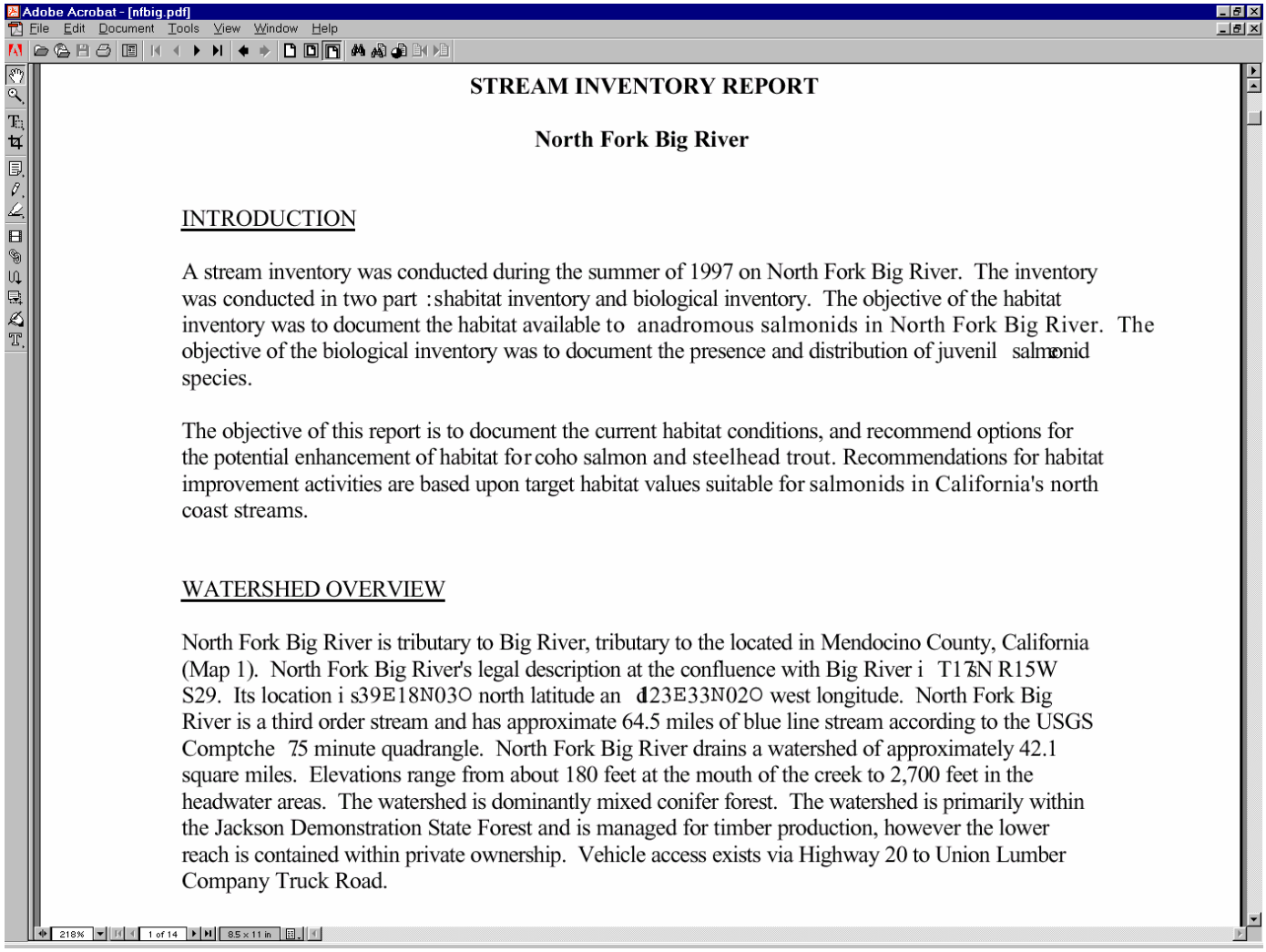
USFS Spatial Analysis Lab, Sacramento, CA http://www.fs.fed.us/database/gps/sacto.htm

The USFS Spatial Analysis Lab in Sacramento provided forest stand and vegetation coverages for the KRIS Map and database projects. The USFS works cooperatively with CDF FRAP on many projects.

California Department of Conservation, Division of of Mines and Geology http://www.consrv.ca.gov/dmg/

The California Division of Mines and Geology (CDMG), a part of the Department of Conservation, provided in-depth geological information for the KRIS Big River Map project.

KRIS captures bibliographic resources that provide a full explanation about how data was collected and its interpretation:



Adobe Acrobat - [nfbig.pdf]

File Edit Document Tools View Window Help

STREAM INVENTORY REPORT

North Fork Big River

INTRODUCTION

A stream inventory was conducted during the summer of 1997 on North Fork Big River. The inventory was conducted in two part :shabitat inventory and biological inventory. The objective of the habitat inventory was to document the habitat available to anadromous salmonids in North Fork Big River. The objective of the biological inventory was to document the presence and distribution of juvenil salmonid species.

The objective of this report is to document the current habitat conditions, and recommend options for the potential enhancement of habitat for coho salmon and steelhead trout. Recommendations for habitat improvement activities are based upon target habitat values suitable for salmonids in California's north coast streams.

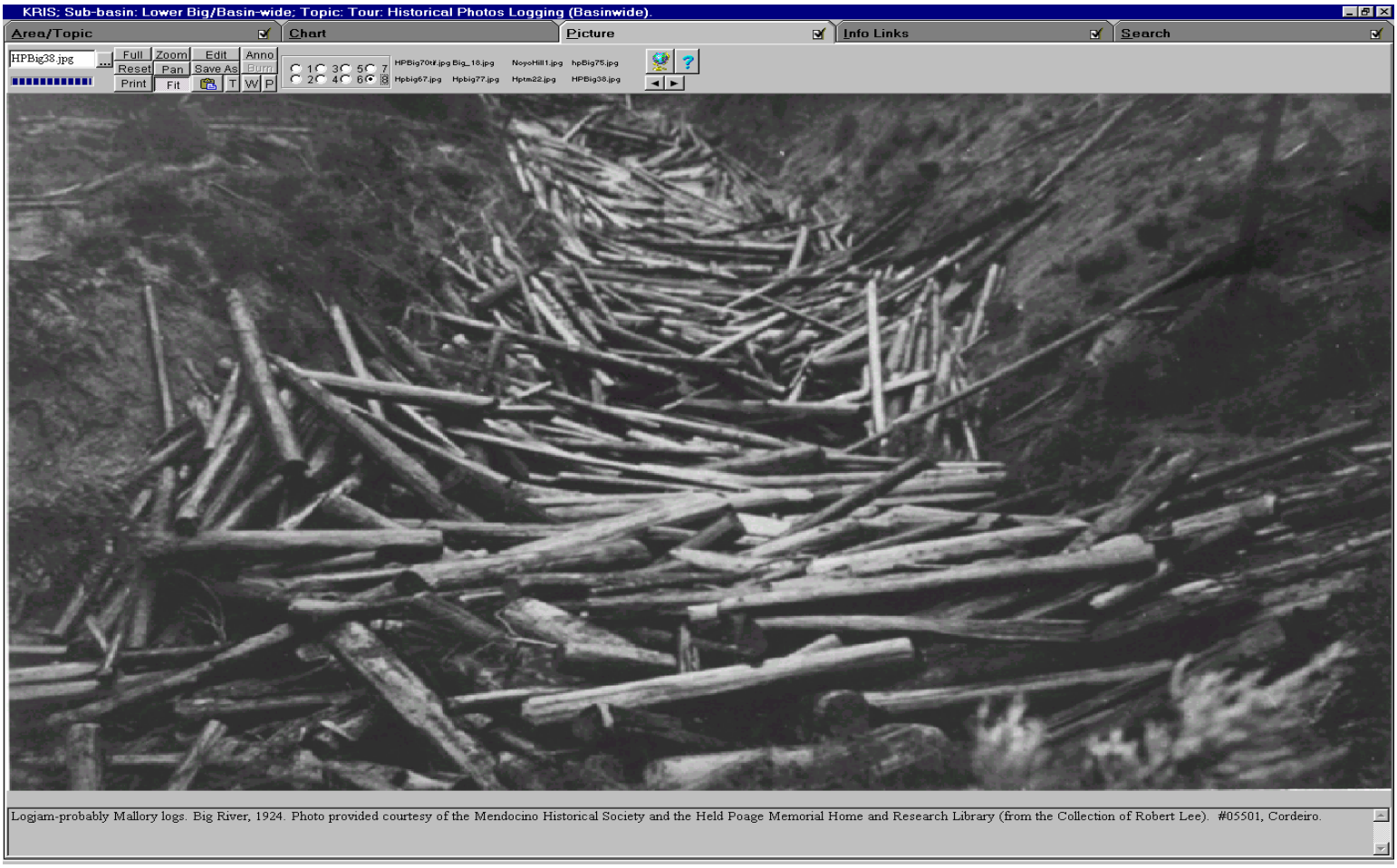
WATERSHED OVERVIEW

North Fork Big River is tributary to Big River, tributary to the located in Mendocino County, California (Map 1). North Fork Big River's legal description at the confluence with Big River i T17N R15W S29. Its location i s39E18N03O north latitude an d123E33N02O west longitude. North Fork Big River is a third order stream and has approximate 64.5 miles of blue line stream according to the USGS Comptche 7.5 minute quadrangle. North Fork Big River drains a watershed of approximately 42.1 square miles. Elevations range from about 180 feet at the mouth of the creek to 2,700 feet in the headwater areas. The watershed is dominantly mixed conifer forest. The watershed is primarily within the Jackson Demonstration State Forest and is managed for timber production, however the lower reach is contained within private ownership. Vehicle access exists via Highway 20 to Union Lumber Company Truck Road.

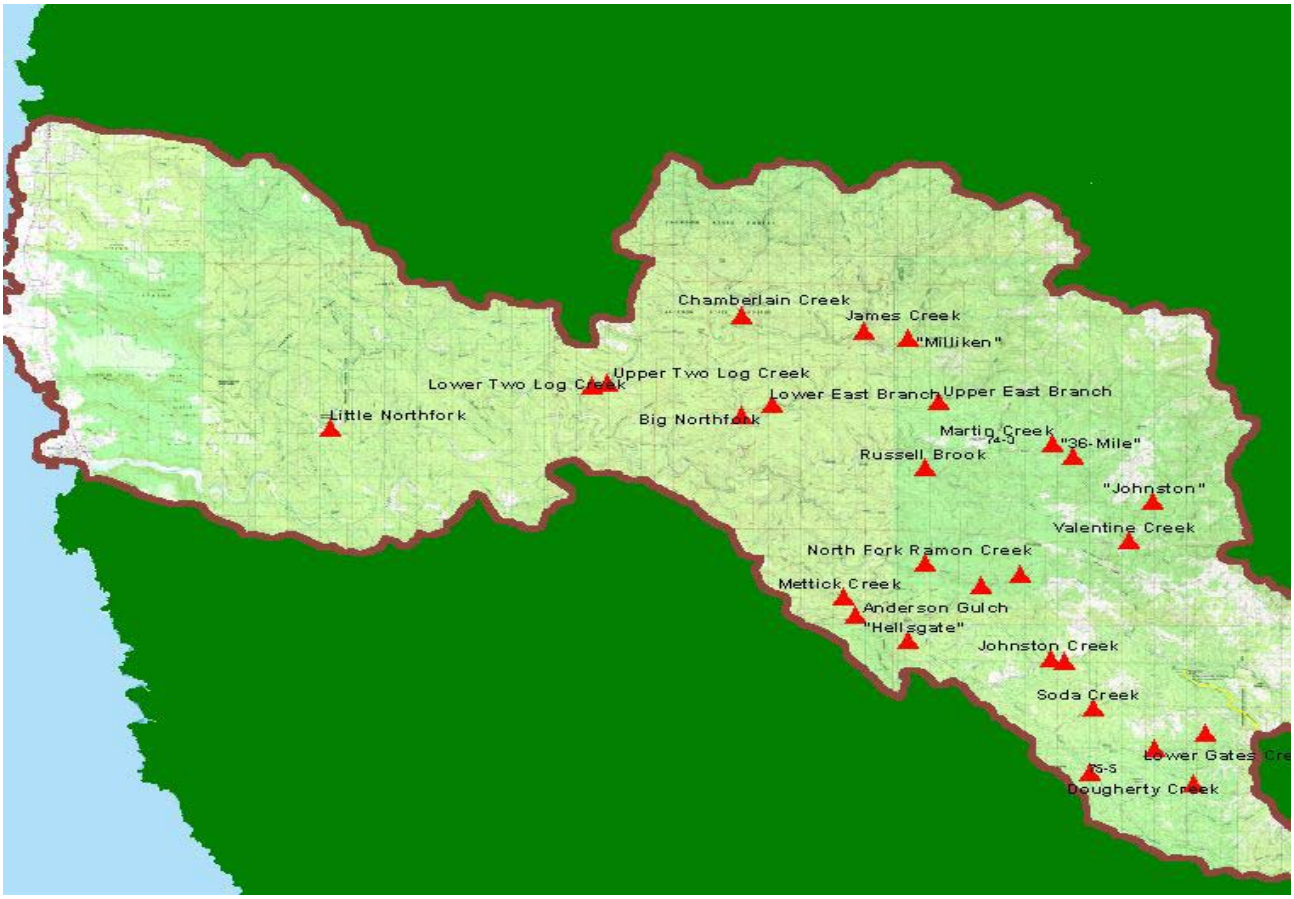
218% 1 of 14 8.5 x 11 in

KRIS captures before and after photos of restoration sites and can also be used to store monitoring location images:

KRIS can capture historic photos which provide information covering eras prior to scientific studies:



KRIS projects always have companion ArcView KRIS Map projects with spatial data from many sources:



KRIS Can Produce Useful Products in a Reasonable Time Frame.
KRIS is Updateable by Users and/or Government Agencies for Adaptive Management:

Appendix 7: Photos of 2001/2002 KRN Sponsored Restoration Projects

(As follows)

Grave Creek Restoration Project

Headgate Installation

Fish weir on diversion

Grazing management

Riprap and rock weir installation

Erosion Control

GLID Restoration Project

Before installation of fish weir and headgate

Before fish barrier removal

After fish barrier removal and installation of rock revetments

After installation of weir and headgate

Appendix 8: KRN Monthly and Quarterly Reports

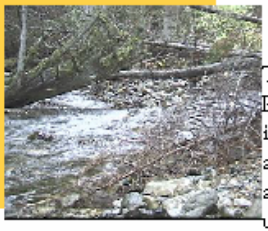
Monthly and quarterly reports were produced by the watershed coordinator for the Kootenai River Network. These reports were distributed to the KRN mailing list via the Internet, and also posted on the Kootenai River Network web page. A report was completed for each month of the contract period (November 2001through June 2002).

Kootenai River Network

Greg Hoffman
Watershed Coordinator

November, 2001

MOU Completed



The MOU between the Kootenai River Network and Montana Fish, Wildlife and Parks was finally approved by BPA, CBFWA, FWP and KRN. The agreement went into effect the 1st of October, and the watershed coordinator / executive director was appointed full time on the 29th of October. The first month was filled with meetings and purchasing office equipment. There is still much to be discussed and agreed upon, and the first months or longer will be filled with trials and tribulations. This newletter is a way to keep the board of directors infomred of activities of the watershed coordinator on a monthly basis. I will plan on producing this update at the end of each month.

Meetings and Activities

In addition to getting an office set up for KRN, I participated in several meetings during the month of November. Probably the most significant of these was the interview to find my replacement. Brian Marotz, Rox Rogers, and I interviewed 2 applicants. Both were very strong on paper, and both gave excellent interviews. However, upon contacting references, we decided that the candidate that would best fit the Libby Mitigation Project was Jim Dunnigan, a biologist currently employed in Yakima, WA, with the tribal fisheries program there. Jim will begin his new duties in January.

I participated in meetings held my the Columbia Basin Fish and Wildlife Authority that addressed start up of the subbasin planning effort in the Kootenai Basin. I will be acting as Montana liaison for the project, and working with Patty Perry, who will serve a similar role in Idaho through the Kootenai Tribe of Idaho. This project will envelop much of my time over the course of the next year or more. Bonneville Power Administration is funding KRN to sponsor this role, in part, because of our presence drainage-wide.

Rox Rogers, Jay DeShazer and I met with the "Friends of Grave Creek" to review the "Demo Project" and discuss the future course of rehabilitation work on lower Grave Creek. There is good participation among landowners along the stream corridor, and there is concensus for the need for stabilization. KRN will continue to be the administrative presence for these projects, though I would like to become more involved as watershed coordinator in project direction.

Rox and Jay and I also met with Schwartz Engineering in Kalispell to discuss the Therriault Creek diversion project. There are some difficulties in the design, and what is required by the funding agency. It appears as if GLID would like to cut corners. KRN needs to make sure that a complete water rights study is performed by Schwartz, which is part of the orinal grant requirements. If this project makes it easier for GLID to take water and leaves little if any in Therriault Creek proper, there is no sense in being involved from a fisheries perspective.

I met with the Yaak Headwaters group to discuss their activities during November. I have invited them to our next quarterly meeting. There is potential for them to become members of KRN. However, my association with them will not be limited by their membership, I must be involved no matter what they decide to do with KRN.

Work on the new web site with Kent Johnson continues, and we will soon be online with a new, highly improved design. Kent has a wide variety of experience with web design, and we will be well-served working with him.

We have submitted a TMDL grant application for monitoring lower Grave Creek sedimentation. Jay DeShazer is planning on setting up permanent cross sections in the demo reach, and we will be able to use these data if we secure the grant. The funding is for a 2 year period, and we've asked for enough money to purchase equipment and do the first 2 years of field work and reporting. We would like to secure long-term funding for this project, and have indicated that we have in-kind support from FWP, KRN, and USFWS, among others. DEQ is required to complete TMDL's, and our position as the watershed coordination entity will/should allow us to become involved in completing these plans in a number of drainages in the Kootenai, including those in Idaho.

Next Month....

- Kootenai River Network Quarterly Membership meeting @ Plum Creek offices, Libby.
- On-site interview with Western News @ Libby Creek
- Christmas break
- EIS comments from watershed coordinator to ACOE
- Work on Project Impact alternatives (Parmenter Creek)
- Subbasin planning
- Complete final reports for FWP (IFIM, Annual, Personnel evaluations.... wrap up stuff)

Kootenai River Network

Greg Hoffman
Watershed Coordinator

December, 2001

Meetings and Activities

The 4th quarterly meeting for the Kootenai River Network was held in Libby on the 5th of December. The attendees discussed having the executive director prepare a membership brochure, complete with an application form and photos. We also discussed developing a stream table manual (this will be accomplished through my participation with the education and outreach committe). Talk about updating the web site continued. The attendees discussed the "Cows and Fish" program , preparation of a letter to EPA to request a meeting on the site of the Rainy Creek and Kootenai River clean-up, and the TMDL grant application for lower Grave Creek. We discussed the web site update, and assigned tasks to individuals for completion.

I organized a site visit to the Libby Creek - Elliott Creek high bank project that Montana Fish, Wildlife & Parks recently completed. In attendance were Mike Hensler and Tom Ostrowki of FWP, Steve Jack of Plum Creek Timber Company, John McBride of the Libby Area Conservancy District, Bill Dodson of Trout Unlimited, Brent Shrum of the Western News, and myself, representing KRN. We discussed the success of the project and how we'd like to use it as a demonstration site for education and support of future projects. Brent prepared an article for the Western News, and though the article was published, it did not do a good job of explaining what stream rehabilitation is about. We will need to attempt more such site visits, most likely on our projects on Grave Creek.

I spent time working on gathering photos and information for the KRN web site, and preparing the membership brochure.

I took personal leave from the 13th of December through the 27th (2 weeks of leave).

Kootenai River Network, Inc.

International Alliance for Water Quality and Aquatic Resources

Greg Hoffman, Watershed Coordinator January, 2002

Meetings

January 3: KRN Communications Technical Committee Meeting in Libby
January 8: Sub-basin planning meeting in Bonners Ferry
January 14: Jim Dunnigan (FWP)
January 22: FWP/USFS/ACOE Section 206 Conference Call in Libby
January 22: KRN Board of Directors Meeting in Libby (@ FWP)
January 23: KRN Rehabilitation Technical Committee Meeting in Whitefish
January 24: USFS/FWP/Yaak Headwaters Restoration group meeting in Troy
January 25: Jim Dunnigan (FWP)
January 28: KRN Rehabilitation Technical Committee Meeting in Libby (@ FWP)

Executive Director/Coordinator's Note

The board of directors for the Kootenai River Network met on January 22nd in Libby to discuss watershed coordination and executive directorship, how these functions should relate to one another, what level of authority this position had, what had been accomplished and not accomplished to date and why and expectations of both parties. This meeting was very helpful, and should be repeated as often as necessary to keep everyone informed and satisfied. Since this meeting, BPA has expressed what they want to fund through KRN, which brought about need for additional meetings and correspondence, which will be discussed in this forum next month.

Activities

Work continued on the KRN web site updates, and we met to assign tasks to complete and submit to Kent Johnson, who will be preparing the site for us.

Sub-basin planning is currently awaiting funding approval by Columbia Basin Fish and Wildlife Authority (CBFWA). Idaho has begun the process through the Resource Advisory Committee (RAC), sponsored and chaired by the Kootenai Tribe of Idaho (Patty Perry). Montana has prepared a contract for a web designer, technical writer, and facilitator to begin the process once funding is approved. Since Idaho's Office of Species Conservation (OSC) was created by the governor last fall, they will be completing their portion of the sub-basin plan separately from Montana, though in close coordination. What remains to be seen is how this will be accomplished, and what role the focus watershed coordinator, through KRN, will play, and what role KRN itself will play. It is also still unclear what kind of participation we can expect from British Columbia, in light of recent governmental cutbacks.

I spent some time with Jim Dunnigan, the new special project fisheries biologist with the Libby Mitigation program (my successor). We discussed personnel issues, report wrap-up, and general program/job duties and nuances. I will be available to him for further help as necessary, and will be working closely with him to coordinate future projects through KRN.

I participated in a conference call with USFS/ACOE/FWP to discuss potential mitigation projects on Libby Creek through the Section 206 authority of the ACOE. Patricia Robinson of the ACOE is the lead in Seattle, and is interested in funding and implementing stream work on upper Libby Creek in conjunction with a local sponsor, which could be a conglomeration of agencies and groups locally (perhaps coordinated through KRN). I will continue to be a part of this process.

I finally was able to get together with KRN's habitat rehabilitation committee to assist with selecting a design consultant to complete the final implementation plan for the Grave Creek - Phase I project. This is the first time we've gone through a Request for Proposal (RFP) process, and the committee learned much, and through the process we were able to refine the criteria for future use. We felt good about our selection (Water Consulting, Inc.), and also felt good about other consultants in the final pool, some of which we hope to do business with in the future.

I continued participation with the Yaak Headwaters Restoration group. Their primary focus at this time is to identify sediment problems in the upper Yaak drainage and facilitate elimination of them. They are a small group, with most of the involvement coming through local citizens and agency personnel, including USFS and FWP, among others. To date, their projects include primarily culvert replacement. They have yet to discuss anything more involved. I have presented the opportunity for them to become involved with KRN, but until their projects get larger, they are happy to operate as they have been. I see opportunity for KRN involvement if they choose to work with private landowners in correcting sediment problems, in addition to working with USFS on road issues.

Kootenai River Network, Inc.

International Alliance for Water Quality and Aquatic Resources

Greg Hoffman, Watershed Coordinator February, 2002

Meetings

February 4 : Libby Area Conservancy District meeting
February 11 : KRN Communications Web meeting
February 13 : Kootenai River Network quarterly meeting @ Bonners Ferry, Idaho
February 14 : KRN Rehabilitation Committee contract meeting with Water, Inc.
February 25 : Lower Kootenai Resource Advisory Committee meeting in Bonners Ferry, Idaho
February 28 : KRN Board of Director's meeting in Libby

Executive Director's Notes

The Libby Area Conservancy District (LACD) is considering taking action to mitigate for flood damage caused by Big Cherry / Granite Creeks. In 2000, the LACD, in conjunction with Montana Fish, Wildlife & Parks, commissioned a conceptual design to be developed by Water, Inc., though the Kootenai River Network. The design was developed to provide a stream channel with the proper dimension, pattern and profile, while restoring an active floodplain and reducing the threats of flooding for adjacent landowners. At this time, the group is assessing support for such a project. The watershed coordinator will continue to assist the group in their efforts to stabilize this section of stream through networking with other groups that have previously carried out such projects (e.g. Friends of Grave Creek), and will also assist with landowner education efforts.

Activities

Work continued on the KRN web site updates, and we met to assign tasks to complete and submit to Kent Johnson, who is nearly finished with the site. At present, the site needs information concerning the education and outreach aspects of KRN, as well as a map of the entire Kootenai basin, including Canada, in .pdf format. I will work with the education committee chair (Patty Perry), to assemble the needed information. I contacted BPA regarding available maps (none that are satisfactory), and will contact Scott Soults to secure GIS layers through Paul Sarocki.

I have developed an "application for membership" form that will be used as an insert for a mailing that will solicit membership dues for the Kootenai River Network. We will also have this form available online. I am currently updating the mailing list, and upon completion, will make the bulk mailing. We intend to allow members until 01 May to submit dues to remain in good standing; after that date, notifications and mailings will not be made available and voting privileges at general meetings will be rescinded.

KRN's Rehabilitation Technical Committee, along with Carolyn Stamy and Jim Dunnigan and Mike Hensler (FWP), met with Gary Decker of Water, Inc. to discuss contract terms for the upcoming Grave Creek - Phase I

stream stabilization project. It was proposed that Water have a proposed final design ready for review by 31 May, and following review by the committee, a final design by 15 July. The proposed start date is 23 September, with a finish deadline of 15 November. The group discussed moving the start date up into August,, and will continue that discussion pending approval of USFWS, and scheduling with Water's contractor. The committee agreed that all pertinent permitting would be completed by KRN members, and that Water would not be required to secure any permits except those associated with construction and mobilization.

I have been working on a statement of work for Bonneville Power Administration for the next contract period (beginning 01 July 2002). BPA will fund watershed coordination through KRN, but will not fund any type of on-the-ground activities directly associated with mitigation activities; those funds go directly to Montana FWP, the Kootenai Tribe of Idaho, and Idaho Fish and Game in the U.S., and to various entities in Canada. The current S.O.W. reflects what the position entailed during the time it was sponsored by Montana FWP, and I am currently editing it to meet the needs and visions of all of the involved parties in KRN, as well as satisfying BPA.

I spent time during February completing edits of an annual report for FWP, as well as the Instream Flow Incremental Methodology (IFIM) report. I will continue to assist where I am needed in the completion of the IFIM; finalizing that report has implications on all BPA-funded activities in the Kootenai in Montana, including watershed coordination.

I accompanied FWP personnel on a tour of Libby Creek to discuss the project's success, etc., with officials from ACOE.

I wrote memos to each committee member availing myself to involvement with each technical committee of KRN. I will be making further contact this month to arrange meetings/conference calls to get/keep these committees active.

I attended a Lower Kootenai R.A.C. meeting, and will continue to do so, and become active if needed.

Kootenai River Network, Inc.

International Alliance for Water Quality and Aquatic Resources

Greg Hoffman, Watershed Coordinator March, 2002

Meetings

March 1 : Army Corps of Engineers conference call at FWP regarding spill test at Libby Dam
March 14 : Army Corps of Engineers conference call at FWP regarding spill test at Libby Dam
March 18 : Lower Kootenai Resource Advisory Committee meeting in Bonners Ferry, Idaho

Executive Director's Notes and Activities

The U.S. Army Corps of Engineers is planning a "spill test" at Libby Dam this summer to assess the potential for voluntary spill to increase flows for sturgeon recovery during spawning periods. There have been several conference calls between the Corps, U.S. Fish and Wildlife Service, Bonneville Power Administration, Montana Fish, Wildlife & Parks, Montana Department of Environmental Quality, and others. The agencies have been discussing monitoring of the test, duration, and timing. As watershed coordinator I have been participating in the calls, since they were initiated during my tenure as project biologist for FWP and I have some insight. I will continue to report on the development of the tests in this format.

The KRN mailing list has been updated, and is ready for distribution to anyone interested. If you are reading this and are not sure if you are on the mailing list or not, contact me via email at ghoffman@libby.org, or phone me at 406-293-7264.

We have completed the statement of work (S.O.W.) for Bonneville Power Administration for the next contract period (beginning 01 July 2002). BPA will fund watershed coordination through KRN, but will not fund any type of on-the-ground activities directly associated with mitigation activities; those funds go directly to Montana FWP, the Kootenai Tribe of Idaho, and Idaho Fish and Game in the U.S., and to various entities in Canada. The current S.O.W. reflects what the position entailed during the time it was sponsored by Montana FWP. The budget has incorporated several educational opportunities for the group, and we look forward to becoming more active with those tasks.

Patty Perry of the Kootenai Tribe of Idaho (KTOI) has informed us of her decision to resign the chair of the "Outreach and Education Committee". Scott Soults, also of KTOI, has expressed interest in replacing her in that role.

There is interest within the basin to attempt some shoreline revegetation along the margins of Koocanusa Reservoir and the upper Kootenay River in Canada to provide some stability and dust abatement in those areas. The problems become severe each spring as the substrates dry and the spring winds pick up. These areas, once re-submerged by rising reservoir elevations, are essentially freshwater deserts, lacking the necessary vegetation to support invertebrate life. Establishing rooted vegetation is clearly a worthwhile endeavor. There has been

success in such efforts in Arrow Reservoir in Canada, and there will be a tour in Revelstoke in April to review the project.

KRN's web site is now fully available at www.kootenairivernetwork.org. Please feel free to visit the site and send comments to the links provided there on the "contact us" page.

A membership brochure was sent to everyone on our current mailing list. We are requiring a membership fee to be an active, voting member in KRN as of 01 May 2002. The membership application will be available online, and was also inserted into the brochures. We will be putting together a more informative, up to date brochure during the next 4-6 months.

The Lower Kootenai Resource Advisory Committee continues to establish themselves in an effort to help guide resource issues in the Kootenai Basin in Idaho. They will be considering and acting upon a wide variety of issues, including forest plan revisions, burbot recovery strategies, dam operation E.I.S., CBFWA sub-basin planning, and water quality. KRN is associated with this group through some of it's members, primarily the Kootenai Tribe of Idaho. I will attend meetings and participate where and when appropriate.

Sub-basin planning in Montana is beginning to take shape. I have taken the initial step of preparing an introductory mailing for all stakeholders in the Montana portion of the basin, and will be mailing it out next month.

Kootenai River Network, Inc.

International Alliance for Water Quality and Aquatic Resources

Greg Hoffman, Watershed Coordinator April, 2002

Executive Director's Notes and Activities

The U.S. Army Corps of Engineers is planning a "spill test" at Libby Dam this summer to assess the potential for voluntary spill to increase flows for sturgeon recovery during spawning periods. There have been several conference calls between the Corps, U.S. Fish and Wildlife Service, Bonneville Power Administration, Montana Fish, Wildlife & Parks, Montana Department of Environmental Quality, and others. The agencies have been discussing monitoring of the test, duration, and timing. As watershed coordinator I have been participating in the calls, since they were initiated during my tenure as project biologist for FWP and I have some insight. I will continue to report on the development of the tests in this format.

The KRN mailing list has been updated, and is ready for distribution to anyone interested. If you are reading this and are not sure if you are on the mailing list or not, contact me via email at ghoffman@libby.org, or phone me at 406-293-7264.

B.P.A. has approved the watershed coordination funding for another fiscal year. The Statement of Work is being edited to fit their needs and visions of what the position will entail. Gretchen Kruse and I have been working with Ron Morinaka, our C.O.T.R. (Contracting Officer's Technical Representative), to complete the S.O.W.

The Lower Kootenai Resource Advisory Committee continues to meet and develop as a group that will / is providing guidance to a number of actions in the lower Kootenai River in Idaho. I have been attending the general R.A.C. meetings, as well as the special sub-committee meetings regarding burbot recovery strategies and operational changes of Libby Dam.

Sub-basin planning in Montana is beginning to take shape. I have taken the initial step of preparing an introductory mailing for all stakeholders in the Montana portion of the basin, and mailed it out this month. If you'd like to see a copy of what I've prepared, please contact me at ghoffman@libby.org, or at (406) 293-7264. NPPC is close to providing funding to get the process started, and we look forward to working in the Kootenai Basin in Montana and meshing with the Kootenai Basin in Idaho and British Columbia. I will provide more information on the process as it becomes available. The plans are to be based on the sub-basin summaries, which were completed in 2001. The summary for the Kootenai can be found at:

http://www.cbfwa.org/files/province/mtncol/031601SubSum/Kootenai/kootenai.htm

The Nature Conservancy is hosting an open house at the Ball Creek Ranch Preserve near Bonners Ferry on Tuesday, June 18, from 9:00 a.m. to 5:00 p.m. For more information, contact K.J. Hackworthy at (208) 676-8176.

There is potential to work with Montana Fish, Wildlife & Parks and USFS to rehabilitate the lower section of Pipe Creek, a bull trout spawning stream. The idea is being developed at this point.

Montana Fish, Wildlife & Parks has completed Kids Fishing Ponds in both Troy and Eureka. These BPA-funded projects have been in the works for 2 years, and finally are finished. Contact Jim Dunnigan or Mike Hensler at FWP for further information (406) 293-4161.

Several KRN members attended the recent "Towards Ecosystem Management: Breaking Down the Barriers in the Columbia River Basin and Beyond" conference in Spokane from April 26 through May 1. There were numerous papers presented regarding resources issues in the basin, some of which were of particular interest to KRN personnel. Gretchen Kruse and Greg Hoffman also presented a poster about KRN at the conference.

Perhaps the most valuable contact that we made at the conference was with a group the has done work in the Klamath River basin to pool virtually all available data in portions of that watershed and made it available in a very user-friendly format, which is compatible with GIS, and has the capability for data manipulation, text retrieval, and photo documentation. KRN will be pursuing possible funding for such a project in the Kootenai, and will be contacting key agencies to garner support. More information about this program can be found at: www.krisweb.com

April Meetings

April 15 – Bonners Ferry, Idaho – RAC – Burbot sub-committee meeting

The meeting was held at the Kootenai River Inn.

Susan Martin, USFWS, spoke of the agencies response to the petition by the Idaho Conservation League, basically stating that the response wasn't prepared, and that she was going to meet with the ICL to discuss actions. ICL sued USFWS over listing because of USFWS's failure to complete a status review in a timely manner, which can be accounted for due to lack of funds and an extreme backlog in status reviews.

Vaughn Paragamian spoke of the existing burbot conservation plan. There was discussion of how this document could fit in with a P.E.C.E. policy of USFWS.

Vaughn gave an overview of burbot biology and what he's discovered in studying burbot in the Kootenai the past several years.

The group discussed "ideal" burbot recovery conditions:
4-7 Kcfs from mid-November through mid-February for spawning, attained 3 of 4 years, with a bail out provision for operational emergencies such as power, flood control, etc. This framework was met with considerable skepticism, particularly the low flows during the period when ACOE is drafting the reservoir for flood control. There was also concern for other species that may be affected by these flows and the result of the

flows, particularly the ability to provide water in the fall for bull trout, the late spring for white sturgeon, and the late summer for salmon. ACOE will try to model the requested operations to assess feasibility.

April 17 – Job Performance Evaluation – KRN

April 20 - Rolling Rivers Trailer Demonstration – Conservation Fair in Kalispell

I set up the stream table in the parking lot of the Center Mall at the request of Gael Bissell of FWP as part of a conservation celebration at the Gold Coast hotel.

The location was not advantageous, and I was only able to demonstrate for approximately 20 people throughout the day.

I was, however, able to speak with several individuals who are interested in having the stream table demonstration at their schools, meetings, etc. We will need to construct background poster boards for the trailer to promote KRN while also providing information on stream function and dynamics. This is something I will work on during the next several weeks to try to be prepared for summer fairs.

April 25 - Yaak Headwaters Meeting – Troy

Robyn King, the group's president, spoke of grants that the group has secured. The group discussed how these funds would be used.

The group is focused on correcting sedimentation sources in the upper headwaters area of the Yaak River drainage, primarily Basin and Porcupine Creeks at the present. Their efforts to date have been to complete sediment source surveys in these drainages, and to replace culverts at road crossings in cooperation with the Forest Service. This work will continue this summer.

I addressed the group about involvement in TMDL activities in partnership with KRN. The only listed stream in the Yaak is the West Fork Yaak River. This is listed due to sedimentation, and the bulk of the loading occurs in Canada, where the riparian forest has been clear-cut. I will talk to E.K.E.S. and see if perhaps they would be interested in a partnership to address this problem (Hugh McPherson, most likely). The Yaak Headwaters group would like to focus on action, and are doing so. They were not opposed to TMDL involvement, and I left the door open for them to become involved in our efforts.

I offered the "Rolling Rivers" trailer demo to them, and they are interested in scheduling this year.

April 25 - Spill Test conference call

I have been involved in coordinating the planned spill test at Libby Dam since I was employed at FWP, and continue to track and monitor the development of the plan.

The purpose of the spill is to assess the possibility of spilling water over Libby Dam. The operations Biological Opinion calls for the test, since implementing VARQ would have Libby full more frequently, and the likelihood of a forced spill is increased due to that fact. The BIOP also calls for increasing flow for sturgeon, and the only

options for doing so are additional turbines, which is apparently not economically feasible at this time, and spill.

The spill test is controversial for a number of reasons. There is local fear of a large fish kill and other effects on aquatic life due to Total Dissolved Gas supersaturation. There are beliefs that this is just a step in increasing flows for sturgeon to levels that are unacceptable to the general public.

There are precautions in place to avoid these negative consequences as much as possible, and I have been involved in the planning process, and will participate in the test itself.

Bonneville Power Administration
P.O. Box 3621
Portland, Oregon 97208-3621

ENVIRONMENT, FISH AND WILDLIFE

April 15, 2002

In reply refer to: KEW-4

Ms. Gretchen Kruse
President
Kootenai River Network
21 E. Hayden Ave.
Hayden, ID 885

Dear Ms. Kruse:

Your Project No. 199608702, Focus Watershed Coordination in the Kootenai River Watershed, has been selected for Bonneville Power Administration (Bonneville) funding during Fiscal Year 2002. Bonneville has made a decision to continue with implementation of your project as part of its responsibilities under the Northwest Power Act and/or the Endangered Species Act (ESA).

Depending on the status of your project relative to its annual funding cycle, your Project Manager, Ron Morinaka, may be contacting you shortly to discuss this year's contract amendment process. This process includes the submittal by you, the project sponsor, of a well-written statement of work and associated budget. Bonneville's contracting office will work with our Project Manager to include the appropriate terms and conditions into the contract amendment in accordance with the Bonneville Purchasing Instructions. In addition, prior to issuing a contract amendment, Bonneville must ensure on-going compliance with the National Environment Policy Act (NEPA) and the Endangered Species Act.

If you have any questions, you may reach Ron Morinaka at (503) 230-5365. Sincerely,
~ ~

Sarah R. McNary —
Director for Fish and Wildlife

Kootenai River Network, Inc.

International Alliance for Water Quality and Aquatic Resources

Greg Hoffman, Watershed Coordinator May, 2002

Executive Director's Notes and Activities

The U.S. Army Corps of Engineers is planning a "spill test" at Libby Dam this summer to assess the potential for voluntary spill to increase flows for sturgeon recovery during spawning periods. The spill is scheduled to occur during the week of June 24th, and will last 3 days. There have been several conference calls between the Corps, U.S. Fish and Wildlife Service, Bonneville Power Administration, Montana Fish, Wildlife & Parks, Montana Department of Environmental Quality, and others. The agencies have been discussing monitoring of the test, duration, and timing. As watershed coordinator I have been participating in the calls, since they were initiated during my tenure as project biologist for FWP and I have some insight. I will continue to report on the development of the tests in this format.

The Kootenai Valley Resource Initiative continues to meet and develop as a group that will / is providing guidance to a number of actions in the lower Kootenai River in Idaho. I have been attending the general meetings, as well as the special sub-committee meetings regarding burbot recovery strategies and operational changes of Libby Dam.

Sub-basin planning in Montana is continuing to take shape. I will provide more information on the process as it becomes available. The plans are to be based on the sub-basin summaries, which were completed in 2001. The summary for the Kootenai can be found at:

http://www.cbfwa.org/files/province/mtncol/031601SubSum/Kootenai/kootenai.htm

The Nature Conservancy is hosting an open house at the Ball Creek Ranch Preserve near Bonners Ferry on Tuesday, June 18, from 9:00 a.m. to 5:00 p.m. For more information, contact K.J. Hackworthy at (208) 676-8176.

The East Kootenay Environmental Society (E.K.E.S.) is involved in trying to preserve a motor restriction on the headwaters wetlands of the Columbia River. KRN wrote a letter of support for this effort to the Canadian federal government, citing similar decisions that were made elsewhere in the Columbia and the resultant effects on aquatic and riparian ecosystems. For more information, contact Eileen Fletcher of E.K.E.S.

The Kootenai River Network has decided to purchase its own "Rolling Rivers" trailer this summer. We have been using the one owned by the Lincoln Conservation District, and in anticipation of the growing popularity of the demonstration, and the need to be able to use it in Idaho and British Columbia, we thought it wise to purchase one that we have access to at all times. I have been preparing educational material to accompany the presentations, including poster boards and handouts.

Rolling Rivers Stream Table on Trailer

The Kootenai River Network is proposing to develop a data centralization system for the Kootenai River drainage similar to one developed in the Klamath River Basin in northern California. We will be developing a prototype model to help market the concept and the project this summer. This project has tremendous potential, and could help in TMDL development and subbasin planning efforts, just to name a few. For more information about K.R.I.S., please visit:

http://www.krisweb.com/

Kootenai River Days will be held in Bonners Ferry June 21-23. KRN will have the Rolling Rivers stream display for one or two afternoons during the event.

KRN will be sponsoring a Proper Functioning Condition workshop in the Trout Creek drainage during early September. We invite anyone interested in stream assessment to attend this workshop, and will post details as they become available.

The Libby Area Conservancy District is considering implementation of a rehabilitation project for portions of Lower Cherry Creek (Granite/Big Cherry vicinity). The stream has been degraded for several years, and in it's current condition, causes flood damage on an annual basis, occasionally even more frequently. Water Consulting, Inc. developed a conceptual plan for stream rehabilitation in 2000 through KRN, with a cooperative funding from Montana FWP and LACD. Development of the proposal has been initiated, with the group contacting all affected landowners to garner full support for rehabilitation efforts. Upon 100% support, the group would begin a search for grant money, followed by design in cooperation with the landowners, and construction ensuing shortly thereafter. For more information, contact Greg Hoffman, KRN Watershed Coordinator, at 406-293-7264.

May Meetings

May 6th – Libby Area Conservancy District – Libby

The primary purpose of the meeting was to elect a replacement for president Steve Jack, who is stepping down from that position; he will continue to serve on the board of directors, and has been the most active of the group in terms of working on projects, etc. John Mackay volunteered to serve as part time president, and John Beebe said he would fill in while Mr. Mackay is wintering in warmer climates.

The second purpose of the meeting was to schedule contacts and meetings for the proposed Granite / Big Cherry Creeks Rehabilitation Project. The group agreed previously that the project would not go forward without 100% consent from the affected landowners. They have a conceptual design in-hand with which to work, provided to them via partnership with FWP through KRN sponsorship in 2001. At this time, they are not seeking KRN funding assistance.

I volunteered to assist with contacting landowners, and to help draft a letter to the landowners explaining the project and announcing the open house meeting with Water Consulting, the drafters of the conceptual design. This will occur on the 29th of May at the Forest Service S.O. in Libby.

May 9th – Libby Area Conservancy District – Libby

I met with Steve Jack, John McKay, and Tom Ostrowski to draft a letter to landowners along Big Cherry and Granite Creeks explaining the need for rehabilitation, what is involved, and to invite them to an open house meeting to discuss the potential for a project.

May 13th – U.S. Army Corps of Engineers Libby Dam Spill Test Coordination Conference Call – (from office)

This meeting was a continuation of conference calls that have been occurring since February. The discussion centered on TDG monitoring sites, and preparation for the upcoming public meeting in Libby (June 21st at City Hall). There is much concern from local citizenry, including the Lincoln County Commissioners and the Lincoln County Board of Health regarding well contamination. A letter was drafted to ACOE and other parties describing their concern. The group decided that a 25Kcfs test would be sufficient for their scientific needs, and would also appease the public in Libby, who are concerned primarily with those flows affecting wells and septic systems along the river. The other concern voiced by the public regards a "first step" procedure perceived by them that the test is just the beginning for eventual flows reaching 35Kcfs for sturgeon recovery efforts, a flow that was included in the Biological Opinion by USFWS. These matters will be discussed at the upcoming public meeting.

May 20 – Kootenai Valley Resource Initiative

The regular meeting of the group was attended by a large contingent of ACOE folks that were in the area for the public meeting regarding Libby Dam operation. Topics of discussion included an update on burbot listing by Susan Martin of USFWS and an update on VARQ by Jeff Laufle of the Corps. Nothing new to report on either end.

May 21 – Rolling Rivers Demonstration

I attempted to assist LCD personnel, including Wayne Maahs, with a stream table demonstration, but we were rained out.

May 21 – USACOE Libby Dam Operations annual public meeting

Topics of discussion included an update on VARQ by Jeff Laufle of the USACOE, an update on sturgeon recovery by Bob Hallock of the USFWS, an update on the spill test by Evan Lewis of the USACOE, and an update on reservoir operation by Cindy Hendricksen of the ACOE. Carolyn Stamy facilitated the meeting.

May 29 – Grave Creek Phase I Project Meeting – Kalispell

Members of KRN's habitat technical committee, along with Carolyn Stamy and Jim Dunnigan, met with John Muhlfeld of Water Consulting, Inc., in Kalispell to discuss Water's proposed final design of the Phase I project on Grave Creek near Eureka.

There was some discussion regarding the length of stream that was to be designed for the cost. Water will complete Phase I design for that cost, and will require additional funding to complete final designs for the remaining phases of the project. An estimate given in the conceptual plan for designing Phases 1 through 3 was approximately the same amount; the attendees generally agreed that Water estimated that cost in the conceptual

plan assuming that they would be awarded a construction contract for all 3 reaches, which would greatly reduce design costs since it could have been done all at once.

The attendees also agreed to stay with the September start date. It was generally felt that moving it up would not serve any real purpose biologically (bull trout), but may be pushing the window on a snowpack that is approximately 120% of normal. Water prefers this timetable as well, which will allow extra time for DNRC to review the EA that Jim Dunnigan has prepared. The group also agreed that posting the EA on KRN's web site would be beneficial and an appropriate use of the site (I will poll the board regarding their thoughts on this matter).

May 29 – Libby Area Conservation District (LACD) - Libby

LACD hosted an open house meeting at the USFS S.O. in Libby for landowners and others interested in a proposed channel rehabilitation project on Granite and Big Cherry Creeks. Clint Brown of Water Consulting was there to discuss the conceptual design that his company prepared in 2000 for FWP & LACD through KRN. Everyone in attendance was generally in support of a project, some more than others.

LACD is seeking 100% approval by affected landowners before going forward with securing funding for the project. All landowners have been personally contacted, and will be informed of developments in the progress of the proposed project. I will continue to be involved with coordination, and if the group decides to pursue funding, will be involved with that, as well, with the assistance of Carolyn Stamy.

May 31 – Living on the Edge: Grassroots Watershed Planning in the Pacific Northwest – Spokane, WA

This workshop was held in Spokane at the WSU Extension Office. Approximately 10 people were there to view a satellite broadcast of video with a live watershed panel discussion. There were 3 different panels that we heard from, including groups from the Grande Ronde (Patty Perry of KTOI was a panelist), the Dungeness River in Oregon, and from the Henry's Fork in Idaho.

The participants in the room with me all agreed that they thought the purpose of the conference was to discuss nuts and bolts of forming watershed groups and formulating watershed plans. These things were not addressed during the conference; instead, the panels discussed what they were currently doing on the ground and how well their groups were working presently. It was interesting, but not why we'd attended the video conference.

The only valuable information to come out of this workshop was a list of funders and a list of web sites concerning watershed planning. I will scan these documents and distribute them to the board.

Kootenai River Network, Inc.

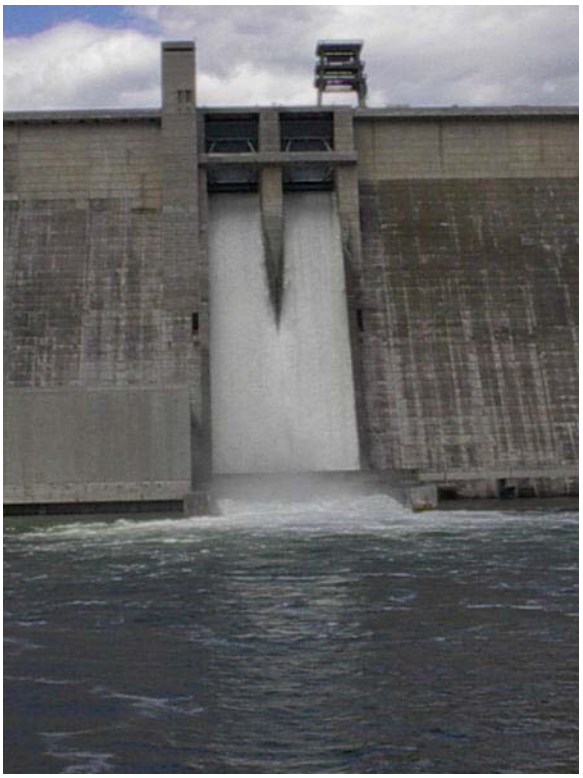
International Alliance for Water Quality and Aquatic Resources

Greg Hoffman, Watershed Coordinator June, 2002

Executive Director's Notes and Activities

The U.S. Army Corps of Engineers conducted a "spill test" at Libby Dam on June 25th through the 28th. The original intent was to spill up to 5 Kcfs over the spillway and not exceed 25Kcfs down the river during this time. The test quickly escalated to 29Kcfs as a result of unusually high inflow to the reservoir. Throughout the remainder of the week and weekend, the inflow into the reservoir remained high (~ 55-65Kcfs), and the Corps opted to spill as a response to these inflows in an effort to avoid a more catastrophic spill if the pool were to fill during the ascending limb of the hydrograph, and inflows remained greater than turbine capacity. Flows ranged from 30-40Kcfs during the latter part of the week, and will remain high until at least July 6th.

Montana FWP, along with fish health experts from ACOE, has been monitoring fish throughout the test and the spill to observe signs of gas bubble disease. Evidence of the disease was observed after the first day of testing in fish held in cages within 2 miles downstream from the dam.



Sub-basin planning in Montana is continuing to take shape. I will provide more information on the process as it becomes available. The plans are to be based on the sub-basin summaries, which were completed in 2001. The summary for the Kootenai can be found at:

http://www.cbfwa.org/files/province/mtncol/031601SubSum/Kootenai/kootenai.htm

The Kootenai River Network has decided to purchase it's own "Rolling Rivers" trailer this summer. We have been using the one owned by the Lincoln Conservation District, and in anticipation of the growing popularity of the demonstration, and the need to be able to use it in Idaho and British Columbia, we thought it wise to purchase one that we have access to at all times. I have been preparing educational material to accompany the presentations, including poster boards and handouts.

The Kootenai River Network is proposing to develop a data centralization system for the Kootenai River drainage similar to one developed in the Klamath River Basin in northern California. We will be developing a prototype model to help market the concept and the project this summer. This project has tremendous potential, and could help in TMDL development and sub-basin planning efforts, just to name a few. For more information about K.R.I.S., please visit:

http://www.krisweb.com/

We will be meeting with the folks from the Institute for Fisheries Resources on Friday, July 12, in Libby at the Forest Service Supervisor's Office at 2:00. We will discuss development of the prototype, contract terms, and data sources and needs. If you are interested in attending this meeting, please call Greg Hoffman @ 406-293-7264.

KRN will be sponsoring a "Proper Functioning Condition" workshop in the Trout Creek drainage during early September (see attached announcement). We invite anyone interested in stream assessment to attend this workshop; participation is limited to the first 50 registrants.

KRN, in conjunction with FWP, will facilitate initial coordination of landowner interest and participation in a potential stream rehabilitation project on lower Pipe Creek, a tributary to the Kootenai River, and a core bull trout recovery stream in the middle Kootenai. KRN may or may not be involved in implementation of on-the-ground activities, but under the BPA watershed coordination program it sponsors, will be active in organization and facilitation throughout.

A project was completed on the property of Dennis Dumont by FWP during 1998, and since that time there have been several events that have reshaped that particular project, and have led biologists and hydrologists, as well as landowners, to believe that there is need for a more complete treatment of that particular reach of stream. The stream has been degraded for several years, and in it's current condition, causes flood damage on an annual basis, occasionally even more frequently.

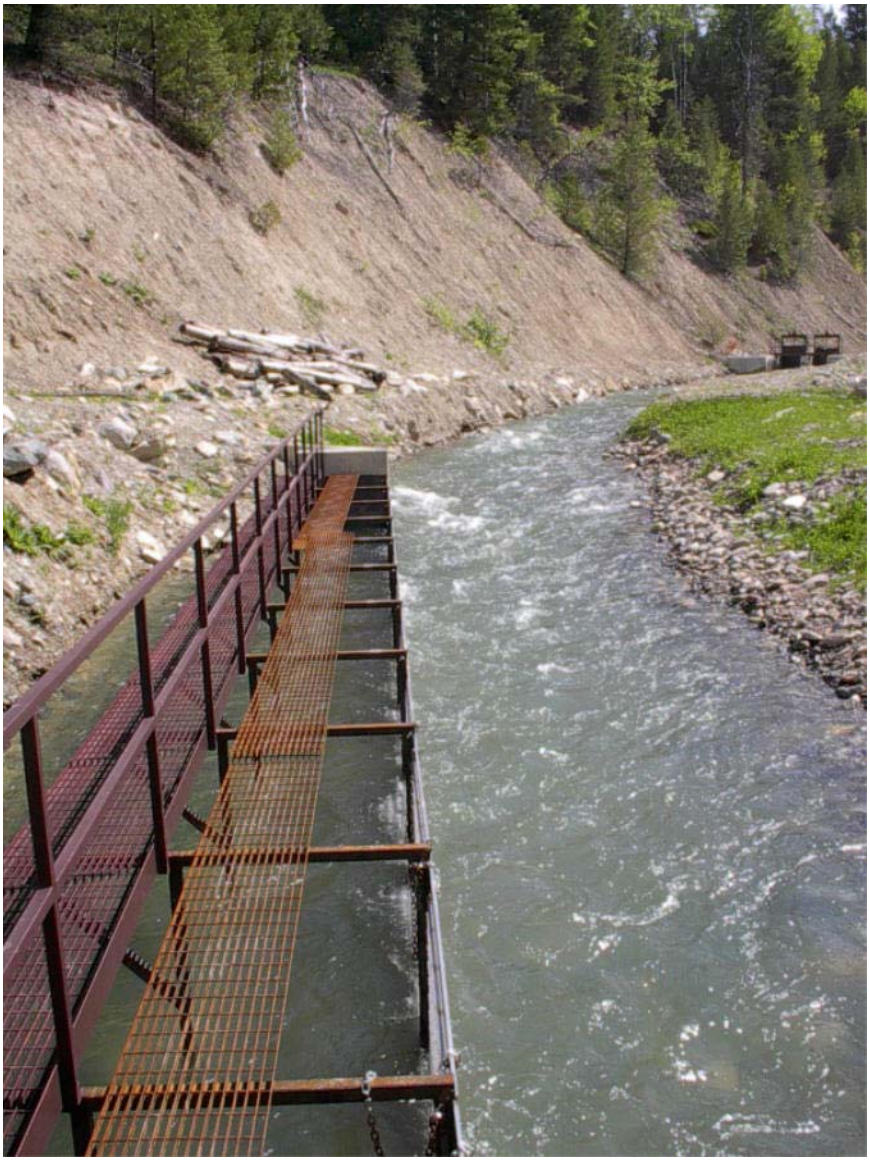
The USFS has completed a "total station" type survey of the affected area, and that information is available to help complete a conceptual plan for a project. KRN's watershed coordinator will begin contacting all affected landowners to explain the need for the project and what could be involved, which will entail on-the-ground visits with local biologists and hydrologists, potential demonstrations with our stream table, and perhaps visits to other similar projects in the drainage that have been successful (FWP's Libby Creek project, for example). We envision a process that would potentially be completed in late fall, 2003. For more information, contact Greg Hoffman, KRN Watershed Coordinator, at 406-293-7264.

KRN has purchased information from the Miistakis Institute that will allow us to finally have a complete set of G.I.S. maps for the basin, including Canada. U.S. Forest Service is working on putting the project together for us. More information about the Miistakis Institute can be found at:

http://www.rockies.ca/the_institute.htm

The KRN-sponsored Glen Lake Irrigation District water diversion project on Grave Creek has been retrofitted to make the system function more properly and to make it easier to maintain. The screens were relocated to sit flush with the concrete abutments, making flow more laminar along them, allowing for better passage along the

screens of small debris and decreasing fish entrainment through the screens. We also plan to retrofit the check-dam structure to allow for more efficient upstream passage of migrating adult bull trout.



June Meetings

June 3 - Web site update work session with Kent Johnson

June 4 - Grave Creek meeting with Rox Rogers, KRN Vice President - Eureka

Rox and I met in Eureka to discuss some monitoring possibilities on Grave Creek in association with the work that KRN has sponsored there. We discussed an in-depth bull trout radio tracking study, as well as a study of sediment sources in several key drainages in the Tobacco basin. We agreed that trying to fund a graduate student to take on these tasks would be our best option. We also discussed TMDL issues in the Tobacco in preparation for my meeting with Dean Yashan of DEQ on the 5th.

Note: Communication with Bill Westover after this meeting indicated that Canadian involvement in a bull trout tracking study would be doubtful, and that his data to date indicate that there is very little movement of bull trout from Canadian sub-systems of the upper Kootenay and Montana sub-systems of the upper Kootenai.

June 5 - Summary of Informal Coordination Meeting between Montana Department of Environmental Quality and the Kootenai River Network - Helena

The personnel listed below met informally in Helena to discuss coordination between MDEQ and the KRN regarding the development of water quality restoration plans (and associated Total Maximum Daily Loads or TMDLs) for the Kootenai River Basin in Montana:

Greg Hoffman (KRN Executive Director)
Robert Ray (MDEQ Watershed Management Supervisor)
Rosie Sada (MDEQ Monitoring and Data Management Supervisor)
Dean Yashan (MDEQ Watershed Planning Coordinator for the Kootenai River Basin).

The Kootenai River basin in Montana is currently divided into four major planning areas. These are the Tobacco, the Yaak, the Fisher, and the Kootenai. The Kootenai includes the main stem of the Kootenai River, Lake Koocanusa, and the remaining tributaries not included in the above drainages. Below is a short summary of discussion items and proposed strategies:

Tobacco River TMDL Planning Area

The updated TMDL schedule currently shows Grave and Therriault Creeks, two of several impaired water bodies in the Tobacco drainage, accelerated from 2005 to 2004 for completion. The rest of the Tobacco Planning Area is still scheduled for completion in 2005. Everyone agreed to a continued active role of KRN in this area, particularly concerning efforts associated with private lands and overall administration of ongoing and future 319 and other non-point source grants via MDEQ and/or the Environmental Protection Agency. The KRN can provide an important coordination role and forum for most or all key stakeholders.

KRN and MDEQ will work closely with the Kootenai National Forest Service toward development of comprehensive water quality plans for all of the water bodies in this watershed. It was decided that there was a need for an informal meeting between the KRN, the Forest Service, and MDEQ to identify and/or review all pertinent data in the watershed with initial focus on Grave and Therriault Creeks. A date of July 11 or 12 was

proposed to review all relevant data for Grave and Therriault Creeks, with a later meeting to be held in the late September or October time frame to address the whole Tobacco drainage. Greg Hoffman will contact Forest Service staff and help coordinate the time and location of these meetings, which can hopefully be held at the local Forest Service office (either in Eureka or in Libby).

MDEQ is providing funds for water quality monitoring on Grave and Therriault Creeks to support a project proposal that KRN had prepared to help support ongoing water quality restoration work in these streams. Rosie Sada will be the MDEQ project officer and will try to contact Rox Rogers (US Fish and Wildlife Service representative and KRN vice president working on Grave Creek) to discuss additional details as needed.

MDEQ encouraged KRN to submit a 319 grant proposal to help complete a plan that addresses all impairment issues and results in completion of all necessary TMDLs for Grave and Therriault Creeks (Goal 1), and to complete most or all stream and source assessment needs for the whole Tobacco Watershed (Goal 2). The KRN, MDEQ, and Forest Service meetings will help finalize the scope of this 319 proposal, including identification of any outstanding Forest Service resource needs. The funding would then be available early in 2003. Dean Yashan would be the MDEQ project officer on this 319 contract.

Yaak TMDL Planning Area

The Yaak Planning Area is scheduled for completion of all necessary TMDLs by 2004. This area, which is mostly Forest Service lands, is currently identified as one of the planning areas where EPA is taking a lead coordination role due to limited resources within MDEQ. There will still be significant MDEQ involvement, particularly regarding beneficial use support determinations, the setting of restoration targets, and interpretations of State Water Quality Standards. KRN involvement is anticipated, although specific details will need to be worked out with involvement of EPA (Ron Steg) and the Forest Service representatives in the Yaak watershed.

Kootenai TMDL Planning Area

There will likely be significant involvement by the KRN in this planning area, particularly concerning the main stem of the Kootenai River, Lake Kakemonos, and coordination with Idaho and British Columbia. The Forest Service is currently pursuing and planning TMDL development in some of the tributary streams in this planning area, including Bobtail Creek. In fact, the updated TMDL schedule shows that Bobtail Creek is accelerated from 2007 to 2004, although current efforts suggest that the Bobtail Creek water quality restoration plan and associated TMDLs could be completed by 2003. The MDEQ and EPA are currently providing 319 funds to help accomplish this Bobtail Creek work. The KRN, MDEQ, and Forest Service should meet to discuss specific strategies for future tributary stream work in this planning area.

Fisher River TMDL Planning Area

The Fisher River Planning Area is scheduled for 2006. It is assumed that KRN will be involved and that significant coordination with Plum Creek Timber Company will be necessary, with most efforts starting in 2003 or 2004.

General

Brian Marotz, from Montana Fish, Wildlife & Parks, is leading a committee composed of several agency personnel for sub-basin planning for the Kootenai and Flathead sub-basins as defined by the Northwest Power Planning Council. The KRN is partially responsible for this sub-basin planning and is positioned to play a significant role toward coordinating this basin-wide planning document with the specific water quality restoration plans and associated TMDLs that will be developed over the next several years. This effort will affect the time Greg has available for TMDL work.

The next KRN meeting is scheduled for September 11 in the Eureka area. The agenda will include a tour of Grave Creek stream restoration and related work.

June 12 – Coordination call for ACOE spill test

This was the 2nd to last coordination conference call for the spill test at Libby Dam. Conversation focused on safety plans and team leaders (e.g. fish monitoring lead Jim Dunnigan, etc.)

June 24 - Stream Table Demonstration – @ FWP in Libby

I assisted FWP with a stream table demonstration for 1st through 5th grade students attending a summer education session.

June 17 and 18th – BPA Watershed Coordinator's Conference – Eugene, Oregon

The purpose of this conference was to bring together BPA-sponsored watershed coordinators from throughout the Columbia Basin to discuss watershed activities and to allow BPA to pass along information and gather opinion on programs and process.

The first day was primarily presentations by other coordinators about what is going on in their watersheds. Speakers included Katherine Skinner from the Wind River in Washington, John Folsom from the Upper Salmon watershed in Idaho, Karma Bragg from the Custer SWCD in Idaho, Brad Johnson from the Asotin Creek watershed in Washington, and Scott Nicola from the Yakima watershed. The speakers all discussed on-the-ground activities in their watersheds, including habitat restoration, monitoring activities, acquisitions, and easements.

The meeting was hosted by the McKenzie Watershed Council, and involved a tour of a portion of that watershed on the 2nd day of the conference. It is interesting to note the differences in watershed issues from here to there, most notably population pressures. The large issues in that basin centered around human encroachment on water quality and land ownership. Common topics of discussion during the conference were land acquisition to prevent habitat destruction, easement development, water quality monitoring, and water quantity assurances. Another common topic among coordinators was water diversion and quantity, especially among the coordinators in the more arid regions of the basin.

Mark Shaw and Steve Waste of BPA discussed new policies and procedures for the Fish and Wildlife program. One of the things they are working on is a standardized budget preparation system that includes a line item for carry over funding, which is applicable to KRN. Other topics included funding projects on federal lands; BPA at this point will not fund new projects on federal land, so that may limit what Montana FWP et al. can be involved with in the future. A real interesting topic was land acquisition. This is a very common practice

elsewhere in the region, whereby BPA funding pays for the land, and a land trust holds an easement, for example.

Another topic of interest was instream habitat enhancement. The ISRP has been extremely critical of instream work, and it is going to be very difficult to secure funding for projects in the future without a very well laid-out monitoring plan and justification for the projects. I have seen some instream work in other areas, and can agree with ISRP in those circumstances, since at times those projects are not correctly implemented, and many times similar results could have been achieved by inactive restoration (e.g. proper grazing management, etc.).

June 20 – ACOE Libby Dam Spill Test Conference Call

Last minute details were mapped out and discussed for the spill test on June 25th through June 27th.

Appendix 9: Northwest Power Planning Council Subbasin Planning Introductory Document

Northwest Power Planning Council Subbasin Planning

Introductory Document

Distributed to

KRN Membership

AND

Lincoln County Resource Advisory Committee

Subbasin Planning

Introduction

The Northwest Power Planning Council was created in 1980 by Congress to give the states of Idaho, Montana, Oregon and Washington a voice in how the region plans for its energy needs, while at the same time mitigating the effects of the hydropower system on fish and wildlife in the Columbia River Basin. Each year the Council reviews proposals for on-the-ground projects and research to implement the program. Proposals meeting the highest standards are then recommended to the Bonneville Power Administration for funding. Bonneville will spend about $186 million annually on fish and wildlife projects in the basin for the next four years. The Council's 2000 Columbia Basin Fish and Wildlife Program outlines a new review and selection process, one that emphasizes the development of local sub-basin plans to guide project funding. These sub-basin plans are intended to be a blueprint for recovery efforts in those areas, and to guide the review, selection and funding of projects to carry out the Council's program. The plans will be based on subbasin summaries, which were completed in 2000. The summary for the Kootenai can be seen at:
http://www.cbfwa.org/files/province/mtncol/031601SubSum/Kootenai/kootenai.htm

Section 7.7B1 of the Northwest Power Planning Council's Fish and Wildlife Program calls for the establishment of at least one model watershed coordinator selected by each representative state. The Montana Watershed Project (MWP) established a Kootenai basin coordinator in 1997 to facilitate local, state, tribal, federal and private prioritization and implementation of projects for enhancement and restoration of native fish habitat and overall watershed health. This approach provides for a locally-based, grass-roots approach for future protection and improvement of watershed health on both private and public lands. The program was sponsored by Montana Fish, Wildlife & Parks (MFWP).

Sponsorship of the MWP program was shifted from Montana Fish Wildlife & Parks to the Kootenai River Network (KRN) in November, 2001. The Kootenai River Network is an alliance of diverse citizen's groups, individuals, business and industry, and tribal and government water resources management agencies in Montana, Idaho and British Columbia. The group formed late in 1991 in response to citizen's concerns of threatened or deteriorating water quality and aquatic resources in the Kootenai River basin. The primary purpose of the Kootenai River Network is to foster communication and implement collaborative processes among varying private and public interests in the watershed. These cooperative programs will lead to improved resource management practices and to the restoration of water quality and aquatic resources in the basin. KRN seeks to empower local citizens to collaborate in natural resource management in the basin and to involve local individuals and groups, as well as two states, one province, two countries and affected tribal nations. The Kootenai River Network is a non-profit corporation supported by its membership and resource grants.

One of the initial responsibilities of the watershed coordination program under the Kootenai River Network will be to serve as the Montana liaison for development of the sub-basin plan in the Kootenai River drainage. This document is intended to serve as an introduction of the process to local stakeholders, and to initiate involvement from a "grassroots" perspective. More information about KRN can be found at http://www.kootenairivernetwork.org.

What is a subbasin plan?

A subbasin plan will:

- Identify the goals for fish, wildlife and habitat;

- Define the objectives that measure progress toward those goals;
- Establish the strategies to meet those objectives; and
- Incorporate much of the existing information related to fish and wildlife activities in a sub-basin in a single document.

In addition to becoming the source of specific actions and projects recommended for Bonneville funding and implementation, sub-basin plans have a role in recovery planning for the National Marine Fisheries Service (NMFS), and the U.S. Fish and Wildlife Service and well as a coordination function at the local and state levels.

The three main parts of a subbasin plan are:

1. Inventory - The inventory includes information on fish and wildlife protection, restoration and artificial production activities and management plans within the subbasin.
2. Assessment - A subbasin assessment is a technical analysis to determine the biological potential of each subbasin and the opportunities for restoration. It describes the existing and historic resources, conditions and characteristics within the subbasin.
3. Management plan - The management plan is the heart of the subbasin plan-- it includes a vision for the subbasin, biological objectives, and strategies. The management plan should take on a 10-15 year planning horizon.

How many subbasin plans?

The Council's fish and wildlife program organizes the Columbia River Basin into 11 ecological provinces. Within these provinces there are groups of adjacent sub-basins with similar climates and geology; in all there are 62 tributary subbasins. By developing subbasin plans at the local level, the Council hopes to achieve the kind of grassroots planning that will direct funding to the projects that will do the most good. The limited focus allows for a more in-depth scientific review of proposed projects, and will instill the confidence and accountability for the Council to recommend multi-year funding for projects.

Expectations

The Council expects subbasin plans to achieve a comprehensive, integrated and scientifically sound fish and wildlife program for the Columbia River Basin through:

- Locally developed plans - By working with local stakeholders, fish and wildlife managers, tribes, government agencies and citizens we will identify projects that address the needs of the sub-basin.
- Broad participation -The Council hopes to involve a wide range of constituents to review the information and reach consensus on the elements of sub-basin plans.
- Connecting to other efforts - The program addresses the requirements of the Endangered Species Act and the Clean Water Act, the broader requirements of the Northwest Power Act and the policies of the states and Indian tribes of the Columbia River Basin. It is also designed to link to, and accommodate, the needs of other local and state watershed planning and recovery efforts that affect fish and wildlife. In this way, people can develop projects that fit with broader goals and do not duplicate or contradict one another.
- Adoption into the Council's Program - Future implementation and funding will be directly linked to subbasin plans because the plans will become part of the Council's fish and wildlife program. The plans

will gain credibility through the Council's review and adoption process, which includes independent science review, public review and Program review.

Collaborative approach

The Council has spent more than a year consulting with the state, tribal and federal entities about coordinated subbasin planning. The Council knows that there are many ongoing efforts aimed at fish and wildlife, as well as many interests within the boundaries of each state that need to be considered in the planning process. In order to integrate the Council's comprehensive planning process with these other activities, the Council is looking to the individual states and tribes to take the leadership role in determining the best approach for developing sub-basin plans for the Council's Fish and Wildlife Program within each state.

Getting there from here

The Council plans to launch the subbasin planning process early in 2002. An initial budget of $15.2 million has been established with Bonneville basin-wide over two-years. One-half of that figure will be available in fiscal year 2002, and the other half in 2003, to assist local entities with plan development. In addition to other criteria, subbasin planning funding will be made available to groups that have been designated by a state or province coordinating group and who have demonstrated support by state and tribal fish and wildlife managers and local entities within the given sub-basin.

Background

Subbasin plans are to be developed in an open public process that includes the participation of a wide range of state, federal and tribal governments, local managers, landowners, local governments, and other stakeholders. The final sub-basin plan adopted by the Council should enjoy a wide range of support from all interested parties. The plans must be consistent with provisions contained in the Northwest Power Act, and the Northwest Power Planning Council's Fish and Wildlife Program. These plans contain the measures that drive program implementation at the sub-basin level. The Council's subbasin plans will not duplicate the plans developed or soon to be developed by others, including states, tribes, or the federal government. Wherever possible and scientifically warranted, the Council will adopt existing plans into the subbasin plans. Planning in any sub-basin will stem from the information contained in subbasin summaries and existing plans and documents.
http://www.cbfwa.org/files/province/mtncol/031601SubSum/Kootenai/kootenai.htm
Below are the key elements of a subbasin plan followed by a description of each.

Key elements of a Subbasin Plan
1. Assessment (including limiting factors and factors for decline)
2. Vision
3. Biological Objectives
4. Strategies
5. Research, Monitoring, and Evaluation
6. Supporting Documentation (Appendices)

1. Assessment

An assessment forms the foundation for developing the sub-basin vision, biological objectives and strategies. The initial assessment is based on existing information about the environmental conditions and fish and wildlife populations in the sub-basin. A key element of the assessment will be information on the current and potential conditions in each subbasin. From this assessment, the subbasin plan will identify limiting factors and factors for decline for key fish and wildlife populations in the subbasin, including ESA-listed populations. Where the assessment identifies significant data gaps, the subbasin plan should identify the data need and measures necessary to meet those needs. The assessment should address the question, "What are the problems that keep fish and wildlife populations within the sub-basin from reaching full potential?"

Examples of limiting factors and factors for decline
Water quality problems in the lower river (temperature and sedimentation)
Passage barriers at culverts and falls (late summer)
Lack of adequate screening
Overwinter habitat is insufficient
Lack of juvenile rearing habitat
Low fish or wildlife abundance
Reduced biological function of habitat above blockages

2. Vision

The intention of the Council's subbasin planning effort is to define the environmental and biological goals specific to fish and wildlife within the Columbia River Basin. The Council anticipates a 10-15 year timeframe as the planning window. A vision statement is qualitative, and should reflect the policies, legal requirements and local needs, given the ecological realities within a subbasin. The vision will provide the guidance and priority for implementing actions in the future. The vision for the subbasin should address the question, "What are you trying to achieve overall?" -- a collective desire to accomplish certain things.

Examples of collective goals forming the vision
Restore fish runs
Maintain genetic integrity
Protect and restore wildlife habitat
Increase harvestable populations of fish
Increase escapement to the spawning grounds
Rebuild fish runs to achieve ESA delisting

3. Biological Objectives

Biological objectives have two components: (1) biological performance, describing responses of populations to habitat conditions, described in terms of capacity, abundance, productivity and life history diversity, and (2) environmental characteristics, which describe the environmental conditions or changes sought to achieve the desired population characteristics. Objectives should be specific, measurable and quantifiable. The initial assessments along with the vision will guide the focus of the biological objectives. For each major limiting factor, there should be a biological objective that describes the extent of improvement that the plan will call for. In addition, for each key population, specific biological objectives should describe the improvements planned for that population. These objectives will serve as a benchmark to evaluate progress toward the sub-basin

vision, and should have measurable outcomes. The questions that should be addressed through the biological objectives are "What target species need to be addressed?" "What number is achievable, and in what time frame?" Immediate, interim, and long-term biological objectives should be considered.

Examples of biological objectives
2,700 summer steelhead return to spawn by 2006;
5,000 spring Chinook return to harvestable levels by 2008.
Increase winter rearing habitat by 10%.

4. Strategies

Strategies describe the actions needed to address the limiting factors and therefore achieve the biological objectives. The strategies identified in the subbasin plans form the basis for Council funding recommendations to Bonneville. Implementation strategies will vary depending on the current condition of the populations and habitat, and the biological objectives identified for the species and life stages of interest. Strategies should be formulated to address the question, "What are the generic or overarching actions needed to address the limiting factors?"

Examples of strategies
Improve water quality in the lower river
Restore passage through a particular barrier
Restore riparian habitat in a particular stream reach

Strategies will be implemented through specific projects and/or actions. Projects proposed for funding will not be identified within the subbasin plan. When a plan is approved, it will form the basis for project selection within the subbasin. Projects will be developed through the regional project funding process. Projects proposed for funding will undergo independent scientific review as to how they fulfill the strategies and biological objectives in the subbasin plan.

An example of a strategy with related projects
Strategy
Projects (submitted through province review)
Restore fish
Build a fishway at Sunny Creek
Passage
Increase instream flows - upgrade Sunny Farm diversion

5. Research, Monitoring, and Evaluation

Each subbasin plan will contain a monitoring and evaluation plan that will show whether the actions taken to implement the subbasin plan are achieving their objectives. Each monitoring and evaluation plan should answer

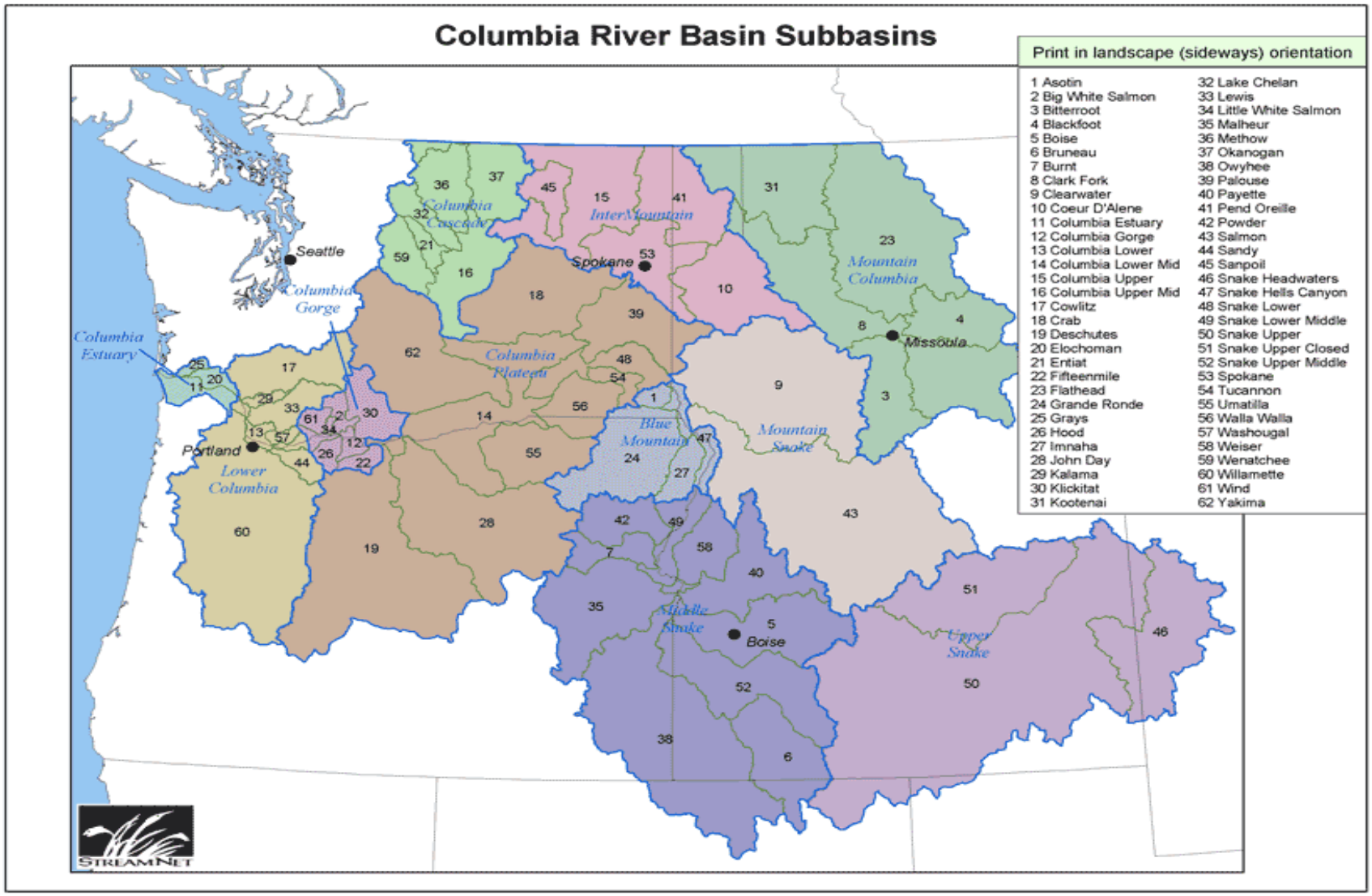
the questions "How will we evaluate progress toward the biological objectives?" "How will it be measured?" "Who will conduct the monitoring and evaluation work?" and what is the timeframe for such work?" The information gained through monitoring and evaluation allows for the examination of the effectiveness of actions taken so that actions may be refined over time.

In addition, each subbasin plan will contain a set of research questions (agenda) that will address critical uncertainties related to stated goals, biological objectives, and strategies that will become part of a larger research plan for the basin. The research agenda recognizes conditions and situations identified within a subbasin that will require specific research in order to help resolve specific management uncertainties.

6. Appendices

The background information and supporting documentation used in sub-basin plan development can be included as technical appendices to the plan. Components of the technical appendices should include:

- Assessment and limiting factors data and information
- Project listings and summaries -- inventory of existing projects, program and past accomplishments
- Subbasin summaries developed for the Council
- Maps, excerpts, and other relevant documents.


Columbia River Basin Subbasins
Print in landscape (sideways) orientation
1 Asotin
2 Big White Salmon
3 Bitterroot
4 Blackfoot
5 Boise
6 Bruneau
7 Burnt
8 Clark Fork
9 Clearwater
10 Coeur D'Alene
11 Columbia Estuary
12 Columbia Gorge
13 Columbia Lower
14 Columbia Lower Mid
15 Columbia Upper
16 Columbia Upper Mid
17 Cowlitz
18 Crab
19 Deschutes
20 Elochoman
21 Entiat
22 Fifteenmile
23 Flathead
24 Grande Ronde
25 Grays
26 Hood
27 Imnaha
28 John Day
29 Kalama
30 Klickitat
31 Kootenai
32 Lake Chelan
33 Lewis
34 Little White Salmon
35 Malheur
36 Methow
37 Okanogan
38 Owyhee
39 Palouse
40 Payette
41 Pend Oreille
42 Powder
43 Salmon
44 Sandy
45 Sanpoil
46 Snake Headwaters
47 Snake Hells Canyon
48 Snake Lower
49 Snake Lower Middle
50 Snake Upper
51 Snake Upper Closed
52 Snake Upper Middle
53 Spokane
54 Tucannon
55 Umatilla
56 Walla Walla
57 Washougal
58 Weiser
59 Wenatchee
60 Willamette
61 Wind
62 Yakima
Columbia Cascade
InterMountain
Mountain Columbia
Columbia Gorge
Columbia Estuary
Columbia Plateau
Blue Mountain
Mountain Snake
Lower Columbia
Middle Snake
Upper Snake
Seattle
Spokane
Missoula
Portland
Boise
STREAMNET

Appendix 10: KRN Letter to EPA for Potential Coordination of Rainy Creek Cleanup

17 January 2002

Paul Peronard
U.S. Environmental Protection Agency
Region 8
999 – 18th Street, Suite 300
Denver, CO 80202-2466

Dear Mr. Peronard;

I am writing to you regarding the actions you agency has taken during the stabilization projects on Rainy Creek and the Kootenai River near Libby, Montana. I represent the Kootenai River Network, a non-profit organization in the Kootenai River Basin concerned with water quality issues and fish and wildlife habitat conservation and rehabilitation. Our group is composed of employees of the U.S. Forest Service, Plum Creek Timber Company, Montana Fish, Wildlife and Parks, the U.S. Fish and Wildlife Service, Trout Unlimited, the Kootenai Tribe of Idaho, the Natural Resources Conservation Service, and concerned citizens.

We are writing to express our desire to arrange a meeting on site with you to discuss mitigation for the activities that have been completed both on Rainy Creek and on the Kootenai River. We believe that it is possible to restore habitat value to both sites for fisheries and wildlife, and still maintain the original intent of the work that you've completed there. As the project now stands, there is very little value to fisheries or wildlife, and the vertical stability of Rainy Creek near the mouth is very questionable.

We concur with the comments forwarded to you by the Lincoln Conservation District Board of Supervisors in November, 2001. We would appreciate having you out on site to discuss possible remedies. I look forward to hearing from you.

Sincerely,

Greg Hoffman
Watershed Coordinator / Executive Director
Kootenai River Network
P.O. Box 491
Libby, MT 59923

Phone/FAX : 406.293.7264
ghoffman@libby.org

Appendix 11: KRN Landowner Agreement Form

KOOTENAI RIVER NETWORK
COOPERATIVE AGREEMENT

This agreement dated _____ between _____ (Cooperator), and the Kootenai River Network (KRN) agree that:

1) The Cooperator and KRN will jointly participate in conducting certain habitat management practices to benefit fish and wildlife and their associated habitats ("projects") on the following lands:
_____ .

2) The terms of this agreement will be for _____ years beginning _____, and ending _____.

3) Both parties will work towards timely completion of the project as outlined on page two of this agreement, and that there will be no modification of the project without prior written consent of both parties. In exchange for providing funding to the project, the Cooperator shall maintain the habitat developments for the length of this agreement.

4) The Kootenai River Network, its Agents or Assignees may enter the land at reasonable times for fish and wildlife habitat development and management purposes, to inspect completed work, and to monitor maintenance of the habitat developments. KRN, its Agents or Assignees will contact the landowner prior to entering the land.

5) The Cooperator has received technical and financial assistance in the development of this project and may continue to receive such assistance.

6) In exchange for the cooperator's participation in the project and his maintenance of the habitat developments, KRN shall provide funding for the completion of the project.

7) The Cooperator acknowledges that the funding is dependant upon grant availability from federal and nonfederal funds. KRN shall not be liable for failure to provide funds which have been committed to the project for reasons beyond the control of KRN. The parties agree that the loss of available funds which have been committed to the project shall not obligate KRN to the Cooperator. If KRN is unable to provide funding committed to this project, the cooperator is released from any obligation to complete the project.

8) This agreement may be modified at any time by mutual written consent. It may also be terminated in writing by either party thirty (30) days in advance. If terminated by the Cooperator, the Cooperator will reimburse the KRN for the cost of the habitat developments.

9) The KRN is not liable for damage or injury other than that caused by its own negligence, on the above acreage.

10) The Cooperator guarantees ownership of the above-described land and warrants that there are no outstanding rights which interfere with this Cooperative Agreement.

11) Any statements, promises or inducements by either party not contained in this two-page agreement are invalid and nonbinding.

SPECIAL PROVISIONS

Planned Work:

Itemized costs of payments, materials & supplies: (These funds will be paid directly from KRN to the material suppliers and/or contractors. Project materials will be delivered to the work site by the KRN representative.)

Both parties agree with the terms of this agreement and acknowledge having read this agreement in whole and agree to its terms as designated by the approval below:

_____

Cooperator **Date**

_____

Kootenai River Network **Date**

Appendix 12: Rolling Rivers Program Handout

(As follows)

Kootenai River Network, Inc.

International Alliance for Water Quality and Aquatic Resources

Rolling Rivers Trailers

Rolling Rivers Trailers are stream tables on wheels that can demonstrate not only stream dynamics but watershed principles as well. The trailer (right photo) is being used at an indoor presentation in New Mexico.

Loaded with several hundred pounds of sand and a self-contained tank for pumping and re-circulating water, bright blue utility trailers are ready to provide water education to Montanans. The Rolling River is a five by ten foot utility trailer with a six-inch deep trailer bed that is filled with sand (actually recycled plastic granules). A meandering river or two is scooped out running from one end to the other. Trees, foliage and a few rocks line the riverbank. When water is turned on at the top of the watershed, it flows through the river and can be used to demonstrate a variety of water lessons including:

- River energy: Sprinkle a handful of alluvium at the top of the "watershed" and watch it be carried along in the water.

Riparian areas: With the vegetation in place along the riverbank, the banks remain stable. Remove some of the foliage, and erosion occurs as water cuts into the banks. Turn the water on full force as in a flood situation and the riverbank begins to break down and collapses even faster. This demonstrates the principles of healthy versus unhealthy riparian areas.

-Bank Stability: Straightening and widening a channel is often thought to be the best way of rapidly reducing the threat of flooding. Doing so causes many problems, including loss of valuable fisheries habitat, a loss of essential stream energy to move sediments, and an increase in bank erosion.

-Stream Rehabilitation: Streams that have been altered by human activities can often be rehabilitated to return stream stability and habitat. It is usually a very costly procedure, and it is preferable to manage land in a manner that will not adversely affect stream function and stability, which entails plenty of riparian habitat, stability in the upper areas of the watershed, and avoiding excessive road activity.

The concepts and issues can be customized to meet the needs of the local watershed in which the presentation is being made. These versatile education tools can be used either indoors or outdoors. The lessons provided by this miniature watershed are limited only by the imagination of the teachers using it.

The Kootenai River Network has access to a Rolling River Trailer, and is available for demonstrations. Contact Gretchen Kruse, President, (208) 762-9800, email: FRAQR@aol.com

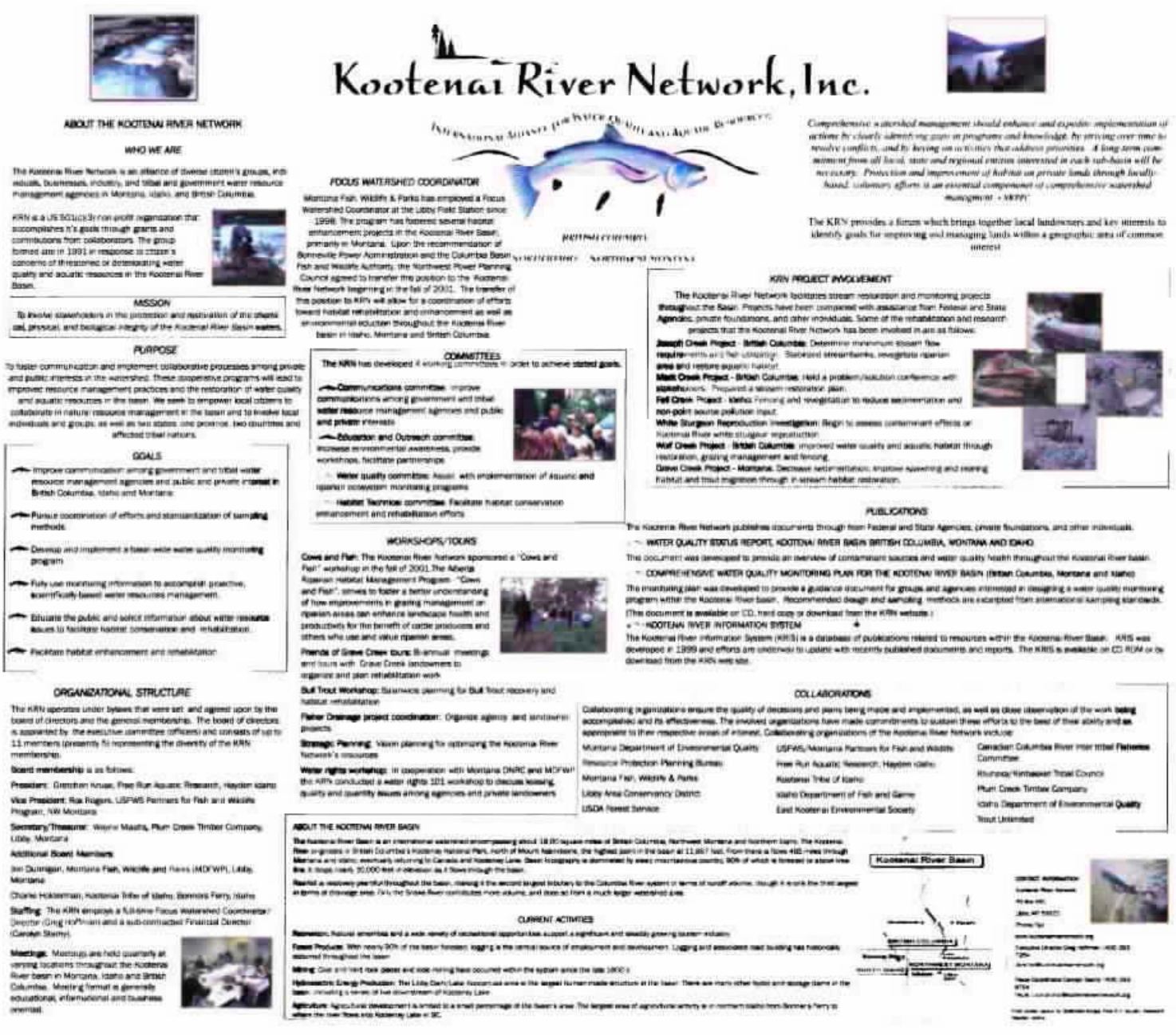
Kootenai River Network, Inc.

International Alliance for Water Quality and Aquatic Resources

BRITISH COLUMBIA

NORTH IDAHO NORTHWEST MONTANA

Appendix 13: KRN Informational Poster



Kootenai River Network, Inc.

ABOUT THE KOOTENAI RIVER NETWORK

WHO WE ARE

The Kootenai River Network is an alliance of diverse citizen's groups, individuals, businesses, industry, and tribal and government water resource management agencies in Montana, Idaho, and British Columbia.

KRN is a US 501(c)(3) non-profit organization that accomplishes it's goals through grants and contributions from collaborators. The group formed also in 1991 in response to citizen's concerns of threatened or deteriorating water quality and aquatic resources in the Kootenai River Basin.

MISSION

To involve stakeholders in the protection and restoration of the chemical, physical, and biological integrity of the Kootenai River Basin waters.

PURPOSE

To foster communication and implement collaborative processes among private and public interests in the watershed. These cooperative programs will lead to improved resource management practices and the restoration of water quality and aquatic resources in the basin. We seek to empower local citizens to collaborate in natural resource management in the basin and to involve local individuals and groups, as well as two states, one province, two countries and affected tribal nations.

GOALS

- Improve communication among government and tribal water resource management agencies and public and private interest in British Columbia, Idaho and Montana
- Pursue coordination of efforts and standardization of sampling methods
- Develop and implement a basin wide water quality monitoring program
- Fully use monitoring information to accomplish proactive, scientifically-based water resources management.
- Educate the public and solicit information about water resource issues to facilitate habitat conservation and rehabilitation.
- Facilitate habitat enhancement and rehabilitation

ORGANIZATIONAL STRUCTURE

The KRN operates under bylaws that were set and agreed upon by the board of directors and the general membership. The board of directors is appointed by the executive committee (officers) and consists of up to 11 members (presently 9) representing the diversity of the KRN membership.

Board membership is as follows:

President: Gretchen Kruse, Free Run Aquatic Research, Hayden Idaho

Vice President: Rob Rogers, USFWS Partners for Fish and Wildlife Program, NW Montana

Secretary/Treasurer: Wayne Maeda, Plum Creek Timber Company, Libby, Montana

Additional Board Members:

Jim Dunnigan, Montana Fish, Wildlife and Parks (MDFWP), Libby, Montana

Charles Holderman, Kootenai Tribe of Idaho, Bonners Ferry, Idaho

Staffing: The KRN employs a full-time Focus Watershed Coordinator/Director (Greg Hoffman) and a sub-contracted Financial Director (Carolyn Storey).

Meetings: Meetings are held quarterly at varying locations throughout the Kootenai River basin in Montana, Idaho and British Columbia. Meeting format is generally educational, informational and business oriented.

FOCUS WATERSHED COORDINATOR

Montana Fish, Wildlife & Parks has employed a Focus Watershed Coordinator at the Libby Field Station since 1998. The program has fostered several habitat enhancement projects in the Kootenai River Basin, primarily in Montana. Upon the recommendation of Bonneville Power Administration and the Columbia Basin Fish and Wildlife Authority, the Northwest Power Planning Council agreed to transfer the position to the Kootenai River Network beginning in the fall of 2001. The transfer of this position to KRN will allow for a coordination of efforts toward habitat rehabilitation and enhancement as well as environmental education throughout the Kootenai River basin in Idaho, Montana and British Columbia.

COMMITTEES

The KRN has developed 4 working committees in order to achieve stated goals.

- **Communications committee**: Improve communications among government and tribal water resource management agencies and public and private interests
- **Education and Outreach committee**: Increase environmental awareness, provide workshops, facilitate partnerships
- **Water quality committee**: Assist with implementation of aquatic and riparian ecosystem monitoring programs
- **Habitat Technical committee**: Facilitate habitat conservation enhancement and rehabilitation efforts

WORKSHOPS/TOURS

Cows and Fish: The Kootenai River Network sponsored a "Cows and Fish" workshop in the fall of 2001. The Alberta Riparian Habitat Management Program "Cows and Fish", serves to foster a better understanding of how improvements in grazing management on riparian areas can enhance landscape health and productivity for the benefit of cattle producers and others who use and value riparian areas.

Friends of Grave Creek tours: Bi-annual meetings and tours with Grave Creek landowners to organize and plan rehabilitation work

Bull Trout Workshop: Statewide planning for Bull Trout recovery and habitat rehabilitation

Fisher Drainage project coordination: Organize agency and landowner projects

Strategic Planning: Vision planning for optimizing the Kootenai River Network's resources

Water rights workshop: In cooperation with Montana DNRC and MDFWP the KRN conducted a water rights 101 workshop to discuss leasing, quality and quantity issues among agencies and private landowners

ABOUT THE KOOTENAI RIVER BASIN

The Kootenai River Basin is an international watershed encompassing about 18,000 square miles of British Columbia, Northwest Montana and Northern Idaho. The Kootenai River originates in British Columbia's Kootenai National Park, north of Mount Nainimo, the highest point in the basin at 11,867 feet. From there a flows 485 miles through Montana and Idaho, eventually returning to Canada and Kootenay Lake. Basin topography is dominated by steep mountainous country, 90% of which is forested or above tree line. It drops nearly 10,000 feet in elevation as it flows through the basin.

Rainfall is relatively plentiful throughout the basin, making it the second largest tributary to the Columbia River system in terms of runoff volume, though it is not the third largest in terms of drainage area. As is the Snake River contributes more volume, and does so from a much larger watershed area.

CURRENT ACTIVITIES

Recreation: Natural amenities and a wide variety of recreational opportunities support a significant and steadily growing tourism industry.

Forest Products: With nearly 90% of the basin forested, logging is the central source of employment and development. Logging and associated road building has historically occurred throughout the basin.

Mining: Coal and hard rock placer and lode mining have occurred within the system since the late 1800's.

Hydroelectric Energy Production: The Libby Dam/Lake Koocanusa area is the largest human made structure in the basin. There are many other hydro and storage dams in the basin, including a series of five downstream of Kootenay Lake.

Agriculture: Agricultural development is limited to a small percentage of the basin's area. The largest area of agricultural activity is in northern Idaho from Bonners Ferry to where the river flows into Kootenay Lake in BC.

Kootenai River Basin

Comprehensive watershed management should enhance and expedite implementation of actions by clearly identifying gaps in programs and knowledge, by striving over time to resolve conflicts, and by focusing on activities that address priorities. A long term commitment from all local, state and regional entities interested in each sub-basin will be necessary. Protection and improvement of habitat on private lands through locally-based, voluntary efforts is an essential component of comprehensive watershed management. - MFWP

The KRN provides a forum which brings together local landowners and key interests to identify goals for improving and managing lands within a geographic area of common interest

KRN PROJECT INVOLVEMENT

The Kootenai River Network facilitates stream restoration and monitoring projects throughout the Basin. Projects have been completed with assistance from Federal and State Agencies, private foundations, and other individuals. Some of the rehabilitation and research projects that the Kootenai River Network has been involved in are as follows:

Joseph Creek Project - British Columbia: Determine minimum stream flow requirements and fish utilizing. Stabilized streambanks, revegetate riparian area and restore aquatic habitat.

Mark Creek Project - British Columbia: Hold a problem/solution conference with stakeholders. Prepared a stream restoration plan.

Fell Creek Project - Idaho: Fencing and revegetation to reduce sedimentation and non-point source pollution input.

White Sturgeon Reproduction Investigation: Begin to assess contaminant effects on Kootenai River white sturgeon reproduction.

Wolf Creek Project - British Columbia: Improved water quality and aquatic habitat through restoration, grazing management and fencing.

Grave Creek Project - Montana: Decrease sedimentation, improve spawning and rearing habitat and trout migration through in-stream habitat restoration.

PUBLICATIONS

The Kootenai River Network publishes documents through from Federal and State Agencies, private foundations, and other individuals.

- WATER QUALITY STATUS REPORT, KOOTENAI RIVER BASIN BRITISH COLUMBIA, MONTANA AND IDAHO

This document was developed to provide an overview of contaminant sources and water quality health throughout the Kootenai River basin.

- COMPREHENSIVE WATER QUALITY MONITORING PLAN FOR THE KOOTENAI RIVER BASIN (British Columbia, Montana and Idaho)

The monitoring plan was developed to provide a guidance document for groups and agencies interested in designing a water quality monitoring program within the Kootenai River basin. Recommended design and sampling methods are excerpted from international sampling standards. (This document is available on CD, hard copy or download from the KRN website.)

- KOOTENAI RIVER INFORMATION SYSTEM

The Kootenai River Information System (KRIS) is a database of publications related to resources within the Kootenai River Basin. KRIS was developed in 1999 and efforts are underway to update with recently published documents and reports. The KRIS is available on CD ROM or download from the KRN web site.

COLLABORATIONS

Collaborating organizations ensure the quality of decisions and plans being made and implemented, as well as close observation of the work being accomplished and its effectiveness. The involved organizations have made commitments to sustain these efforts to the best of their ability and as appropriate to their respective areas of interest. Collaborating organizations of the Kootenai River Network include:

Montana Department of Environmental Quality
Resource Protection Planning Bureau
Montana Fish, Wildlife & Parks
Libby Area Conservancy District
USDA Forest Service
USFWS/Montana Partners for Fish and Wildlife
Free Run Aquatic Research, Hayden Idaho
Kootenai Tribe of Idaho
Idaho Department of Fish and Game
East Kootenai Environmental Society
Canadian Columbia River Inter-tribal Fisheries Committee
Ktunaxa/Kinbasket Tribal Council
Plum Creek Timber Company
Idaho Department of Environmental Quality
Trout Unlimited