MINUTES

MONTANA HOUSE OF REPRESENTATIVES
52nd LEGISLATURE - REGULAR SESSION

SUBCOMMITTEE ON LONG-RANGE PLANNING

Call to Order: By CHAIR MARY ELLEN CONNELLY, on February 19, 1991, at 8 a.m.

ROLL CALL

Members Present:

Rep. Mary Ellen Connelly, Chair (D)
Sen. Bob Hockett, Vice Chairman (D)
Rep. Francis Bardanouve (D)
Sen. Ethel Harding (R)
Sen. J.D. Lynch (D)
Rep. Bob Thoft (D)

Staff Present: Jim Haubein, Principal Fiscal Analyst (LFA)
Jane Hamman, Senior Budget Analyst (OBPP)
Claudia Montagne, Secretary

Please Note: These are summary minutes. Testimony and discussion are paraphrased and condensed.

HEARING ON RECLAMATION AND DEVELOPMENT GRANTS PROGRAM

Tape 1:A;000

John Tubbs, DNRC, distributed a packet of information containing the original project summaries on the reauthorizations of loans, both small and large, as originally presented in DNRC reports. Additional information would follow on the nature of the subsidies for these loans. **EXHIBITS 1 & 2**

Montana State Library: NRIS, Emphasis on Natural Heritage Program and GIS

REP. BARDANOUVE said they had required a charge for NRIS and Heritage services in the last session and asked for a report.

Richard Miller, State Librarian, referred to the report on the fees and user charges distributed in a previous hearing. **EXHIBIT 17, 2/11/91** He briefly reviewed the report. In addition, on the last page of their program report, **EXHIBIT 16, 2/11/91,** there is a summary of their core funding based upon the competitive RIT grants, a total of $507,000. Last session, contingencies were put on the funding in addition to the user fees. It was suggested that they seek alternative funding to the RIT grants. They pursued RIT grants as well, in the event the alternative

funding did not materialize. OBPP proposed to fund the program as outlined at the top of page 8 of the exhibit, which indicates a total of $377,000 direct RIT appropriations, increasing the FWP License Fees from $50,000 from the biennium to $100,000, and keeping the Office of Surface Mining allocation at $30,000. He noted that their previous appropriation was $442,000, with this budget representing a $70,000 reduction. The $377,000 direct RIT appropriation has been approved by the subcommittee, and the $100,000 has been approved as well.

Montana Salinity Control Association: Soil and Water Nonpoint Source Pollution Control and Management

Jane Holzer, Program Director, Montana Salinity Control Association, testified on project, RDG 8. She presented slides and distributed her testimony. **EXHIBIT 3** A number of members of the organization spoke in support of the grant application.

Ellis Hagen, Director, Northeast Salinity Support Group, said this was a viable and useful program to the people of northeastern Montana, and encouraged support for the project.

REP. ROGER DEBRUYCKER, HD 13, Floweree, testified in support of the project.

Larry Johnson, farmer, Kremlin, and Board Member, Montana Salinity Control Association, testified in support of the project. He spoke of the value of the services to his operation, and said saline seep was not just the farmers' problem, but a water quality problem.

Dan Hybner, Hill County Conservation District, and farmer, Rudyard, testified in support of the grant application.

Tom Burns, Blaine County, Chair, Montana Salinity Control Association, spoke of his experience with the program.

SEN. BOB HOCKETT, SD 7, Havre, spoke in support of the project. Saline seep is a dispersed problem, and if put all together across the state, it is equal to the problem in Butte in terms of environmental and economic costs.

Marvin Miller, Montana Bureau of Mines and Geology, spoke in support of the project. He gave the example of the Highwood Bench area, where as a result of the research and application of the practices developed by the Montana Salinity Control Association, the acreage affected has been reduced from 20,000 acres to 5,000 acres. On some of the research sites, of which Havre is one, there is now 100% crop production after five years of alfalfa rotation. More importantly, the salts are not being put into the streams, but back into the ground where they were to start with which would stop the movement of the salts.

Michael Habets, Steering Committee Member, Bullhead Water Quality Association, said they were a group of farmers who knew the problem could not be handled individually. They have 43,000 acres, which they have assessed at $.25/acre/year to get a project started. He spoke in support of the salinity project and the nonpoint source pollution control project. **EXHIBIT 4**

Lee Lane, Southern District, Montana Salinity Control Association, Yellowstone County, said there are 11,000 acres of saline seep in their area identified. He urged support of the project.

SEN. BOB WILLIAMS, SD 15, Central Montana, spoke in support of the project.

Questions from Subcommittee Members:

SEN. HOCKETT asked Mr. Miller to comment on the movement of ground water, which is a challenge. **Mr. Miller** said the key is to have a cropping system that utilizes the water while it is fresh and not let it build up a ground water table. The summer fallow farm practices have allowed much of the moisture to move below the root zone, leach out the salts, build up the saline water table, and move out into the drainage. Alfalfa crops would provide the root zone to soak up the water.

REP. THOFT asked how the saline seep situation compared to five years ago and the area affected was still growing. **Ms. Holzer** said that was not well documented because there is not a completed inventory. The SCS is in the process of doing that. There are new seeps occurring as areas are reclaimed. It is status quo.

SEN. HOCKETT asked if they were working with urban areas, and if they were doing more work with oil and gas. **Ms. Holzer** said they spend of 25% of their time on other issues, such as the Bullhead project.

SEN. HOCKETT asked if they were working with Geraldine. **Ms. Holzer** said there had been an extensive study done with the Montana Bureau of Mines and Geology, and a reclamation plan has been drawn. However, it is not economically feasible for them to implement it on an individual basis. There are some opportunities for them through the new farm program to change from their strict crop fallow system. The salinity problem is beginning to show up in areas where it would not have been expected. Prevention is most important at this point in time.

DHES/Water Quality Bureau: Nonpoint Pollution Control in Montana

Jack Thomas, DHES, Water Quality Bureau, testified in support of project, RDG 11. **EXHIBIT 5** His testimony covered a summary of the program for the past two years, the status of the program at

present, and the proposed program for FY 91. He prefaced this testimony with a history of the legislation. In the late '60's and early '70's, there was considerable attention focused on water quality and water pollution control. In 1972, Congress passed the Federal Clean Water Act, which stipulated regulatory controls for point source discharges (industrial or municipal discharges). In 1977, the Clean Water Act was amended to include Section 208, addressing nonpoint sources are generated from land uses such as agriculture, forestry and mining. There was money for planning and assessment, not for implementation. In the '80's, the Conservation Districts and State Water Quality Agencies did this planning and assessment. In 1987, another amendment was passed to the Clean Water Act, Section 319, that included money for implementation. States were required to develop an assessment report of the nonpoint source impacted waters in the state and a nonpoint source management plan, which Montana did in August, 1988. Significant changes have occurred over the past two years and have been added to the report.

Michael Habets, Steering Committee Member, Bullhead Water Quality Association, said they were a group of farmers who knew the problem could not be handled individually. They have 43,000 acres, which they have assessed at $.25/acre/year to get a project started. He spoke in support of the salinity project and the nonpoint source pollution control project.

Lee Lane, Southern District, Montana Salinity Control Association, Yellowstone County, said there are 11,000 acres of saline seep in their area identified. He urged support of the project.

Questions from Subcommittee Members:

SEN. HOCKETT asked if this educational part of the program was new or an expansion. **Mr. Gordon** said it was an expanded program. They spent $93,000 last year on the major focus last year. This year they will spend more with demonstration projects, which would educate the public, land managers and landowners on the nonpoint source pollution, and successful ways of dealing with it. Videos of Best Management Practices (BMP) for example will be copied and made available. The Groundwater Chemical Program will be developing a video as well, to be sent out to commercial and private applicators, Conservation and Weed Districts, etc. There are brochures for agriculture BMP's and other publications within the education program.

SEN. HARDING asked the source of the Federal funding. **Mr. Thomas** said they ask EPA on an annual basis for funds, which is determined on a formula of land acreage in range, crop, forestry, and population. DHES feels this hurts large production states such as Montana. Last year DHES received $658,000, and will receive approximately that amount this year.

Sweetgrass County Conservation District: Accelerate Soil Survey for Montana

Chuck Gordon, Soil Scientist, SCS, testified in support of the project, RDG 37. He gave a status of the soil surveys in Montana, of which there are twelve actively going on. Approximately 1/2 the counties in the state have a published soil survey. 75% of the private land is surveyed. A soil survey is an acre by acre, on-the-ground inventory of the upper eight inches of the soil. Physical and chemical properties of the soil are catalogued at the same time. The information is useful in land use decision making and taxation issues.

1:B:000

The grant application submitted by the Conservation District is an example of a partnership in conservation, where decisions on priorities and mapping locations are made cooperatively with the Federal Government. He submitted and reviewed the most recent progress and financial report submitted by the SCS to DNRC on the soil survey. **EXHIBIT 6**

Questions from Subcommittee Members:

SEN. HARDING asked if their plan is to involve six counties in the biennium. **Mr. Gordon** said Sweetgrass County would invite other counties to contribute money or other resources. All of the cropland is mapped in the State. Since that time, their federal funding has decreased. They have to seek other sources of funding for soil surveys of rangeland, forest land, and rough land.

SEN. HOCKETT noted that the rangeland is not completed in counties such as Hill, Choteau, and Deer Lodge.

Montana Board of Oil and Gas Conservation: Abandoned Well Plugging Projects "A", "B", and "C"

Tom Richmond, Administrator and Petroleum Engineer, Board of Oil and Gas Conservation, introduced **Jim Halvorson, the Board's Petroleum Geologist, and Dee Rickman, Assistant Administrator and Executive Secretary.** He reviewed the three grant applications, which involve the plugging and abandonment of oil and gas test wells, most of which were drilled before the Board of Oil and Gas. There were records kept before that time, and no bonding requirement was in place. Project "C" represents more recently drilled wells and there is bond forfeiture money from those operators for the project in these cases. **EXHIBIT 7**

The greatest public benefit from the proper plugging of these wells is the elimination of potentially severe ground water contamination by non potable water. In addition, potentially commercial mineral or gas bearing zones may be protected from damage. Surface waters and surface land will also be protected.

Mr. Halvorson showed slides of the wells in question and discussed each well.

The three grants are conditioned so that grant money will not be received if other money is appropriated from other RIT sources (HB 199, proposing to fund an Oil and Gas Damage Mitigation Account). There is a clause in the grant application that would allow for follow-up on wells found that are worse than those found in the application.

Questions from Subcommittee Members:

SEN. HOCKETT asked if these wells are the worst cases. He gave examples of areas in Toole County, where there are exposed or leaking tanks and pipelines. **Mr. Richmond** said the wells in the application are those with the greatest surface evidence of a problem. A year ago, they researched their files and identified 2400 wells drilled before 1954. As a long term project, field inspectors are looking at those wells. Several of these wells in this application are a result of that search of suspicious wells. More wells needing attention may be found in this process.

SEN. HOCKETT asked about the possibility of finding a responsible party. **Mr. Richmond** said most of these wells were drilled early in the century, and there is no real way of finding them. The Mitigation Account would cover such wells where the responsible party could not be found, or the operator has no assets to attach.

SEN. HOCKETT asked about the location of the wells, and how they locate them. **Mr. Richmond** said the field inspectors typically live out in the areas they are inspecting.

2:A:000

REP. THOFT asked how many wells would be plugged. **Mr. Richmond** said they hoped to plug 13 wells. They normally vary in cost from $125,000 to $14,000. They get as firm a contract as they can considering the unknowns involved. There is a base bid with additional work on a day work basis.

REP. THOFT asked if there were competent contractors in this type of work. **Mr. Richmond** said there are oil field drilling and work over rig contractors who specialize in well work. They look for competent oil field contractors who are familiar with the unknowns and potential pressures.

SEN. HOCKETT asked what they were doing today to ensure this work would not have to be done on wells drilled or plugged now. **Mr. Richmond** said they make sure they have an operator that is bonded ($5,000 per well, $10,000 per multiple well). In addition, with new technology, hopefully the wells are being plugged substantially better than they were 50 years ago. The Production Damage Mitigation Account was established last session and carried with it the legislation that allowed an operator of a producing well to be released from his bond. There is a bonding

problem since it is nearly impossible to get a surety bond any longer because they are open-ended and cannot be canceled except by the Board.

SEN. HOCKETT compared the cost of plugging a well (averaging $57,000) to the cost of the bond ($5,000). **Mr. Richmond** said these were the worst wells, and they had plugged six wells in the last two years with bond forfeiture monies. **SEN. HOCKETT** mentioned they were pressurizing old wells, and now there are complaints from ranchers that there is oil coming up in their water systems. It appears that they are adding to the problem. **Mr. Richmond** said EPA operates the Injection Program. The Board is negotiating for primacy under that program, when they would regulate that activity.

REP. THOFT suggested talking about oil and gas for one half day.

Fort Peck Assiniboine and Sioux Tribes: Extent, Magnification and Movement of Contamination

Greg Mills said the tribes had received full funding from the Bureau of Indian Affairs and had withdrawn their application.

Sheridan County Conservation District: Extent of Oilfield Waste Contamination

REP. LINDA NELSON, HD 19, Medicine Lake, testified in support of the project, RDG 22, which addressed a water problem in her home county, Sheridan County. As recently as 1975, oil companies were dumping their salt brine into open pits. This damaged not only the soil but the shallow wells and now the deeper ground water and the aquifers in the area.

SEN. DENNIS NATHE, SD 10, Redstone, expressed the concern that the salt water plume they are tracking will wind up in the ancestral Missouri River channel where there are many irrigation wells. He encouraged funding for the project, since the area has contributed many dollars to the RIT Fund through the oil production.

REP. BARDANOUVE asked if the responsible parties could be held accountable. **SEN. NATHE** said he did not know, but believed the liability would fall with the individual or corporation who owns the well at present.

Ellis Hagen, Sheridan County Soil Conservation District, testified in support of the project. **EXHIBIT 8** He reminded the committee that a large percentage of the RIT Fund is generated by oil and gas revenue. Some of those profits enjoyed by the State have been generated at the expense of land due to lax or nonexistent disposal laws. Shallow ground water areas contaminated by salt water can be measured not in acres but in

sections of land. It might be wise not to dole out the RIT funds until the scope of the problems in the oil fields is known. The project is ranked at the funding cutoff, ranked 22. He asked consideration for the grant application.

John Reiten, Montana Bureau of Mines and Geology, who had completed a study on the area, was available for questions.

Doug Smith, Sheridan County Planner, was available for questions.

Questions from Subcommittee Members:

REP. BARDANOUVE asked what could be done with the situation. **Mr. Reiten** said collector wells could be installed in order to pull out the contaminated water to be reinjected into injection wells. Now, mitigation cannot be approached without more knowledge about the extent of the problem. **REP. BARDANOUVE** commented on the cost of a collector and injection well system to deal with a problem of such magnitude. **Mr. Reiten** said the disposal wells are already in existence, and admitted it would be a very expensive project. However, the costs are only going to rise with time.

Mr. Hagen challenged the committee to continue the line of questioning heard earlier regarding the bonding requirements of oil and gas producers. Smaller and smaller operators keep coming into the State.

CHAIR CONNELLY asked about the use of salt water in drilling. **Mr. Reiten** said they use salt water in drilling because they drill through salt beds to get to the oil producing horizons. This builds up salt based muds.

REP. BARDANOUVE asked if wells were being abandoned and not being plugged. **Mr. Reiten** said currently, in a field of 100 unplugged wells, as long as one is still pumping, the field is considered producing. They do not have to plug any wells until there is no production. Often at this point, they walk and lose the bond. He maintained that if a person had the dollar to plug and abandon the mine, it should be set aside in a fund for plugging that well when the production ended.

REP. THOFT suggested that not collecting the tax and insisting upon proper plugging and abandonment might be a better approach. Something was wrong with what we are doing now.

Mr. Tubbs said often more saline water is produced than oil on the magnitude of 2:1 in this region to exacerbate the problem. That is the source of the bulk of the water contaminating the ground water.

Chinook Division Irrigation Association: Rehabilitation of Betterment Element of Milk River

This application had been addressed earlier in the hearing schedule together with their grant application in the WD/RRD program.

Judith Basin Conservation District: Community-Led Rural Development in Montana

Pat Bodner, Judith Basin Conservation District, testified in support of their project RDG 3. **EXHIBIT 9**

An individual affiliated with the Resource Conservation and Development Areas (RC&D's) for 20 years testified in support of the project. This is a program to help rural Montana develop economically. It is volunteer, with support from the federal level for some federal RC&D's. The hope is to get RC&D's started in Montana and to get them into the federal arena.

2:B:000

REP. MARY LOU PETERSON, HD 1, Eureka, testified in support of the project, saying four counties had begun to cooperate on a community-based program in her area. The enthusiasm generated by the project has enabled them to tackle problems that apply to their communities, such as added value issues and other timber issues.

SEN. BOB WILLIAMS, SD 15, Central Montana, spoke in support of the project.

Testimony from **Alyce Kuehn, Chair, Eastern Plains RC&D,** was submitted into the record. **EXHIBIT 10** Also submitted was information from each of the 16 counties in the form of letters of support. **EXHIBIT 11 Ellis Hagen, representing Eastern Plains on the Statewide RC&D Association,** offered his support of the grant application.

Mike Carlson, Glendive Chamber of Commerce and Agriculture, praised the RC&D effort in Montana. Many of the counties are experiencing the same problems, such as loss of population, loss of tax revenue, loss of high school students and businesses. They hope to turn this trend around by diversifying the economy. Natural and human resources in eastern Montana could be brought together by the RC&D. Core groups, county and local organizations, are the foundation of the RC&D and have broad based support. The organization is largely voluntary, with 300 people working in eastern Montana. DNRC has been supportive of the organization with training sessions to help in economic recovery. Cooperatively, since the beginning of this organization one year ago, the sixteen counties are working on eleven joint projects and over 50 other projects at this time.

SEN. HARDING asked if these groups were already in operation, or if this grant would set them up.

Steve Schmitz, DNRC, Conservation District Bureau, said the operations at the Central Montana and Eastern Montana RC&D were now operating, but on shoestring level funding. The goal is to get the USDA to fund these projects from Washington. However, they look at local support and activity before providing that funding. In Central Montana, the people wanted to deal with their economic situation, but did not have the knowledge or understanding of the economic mechanisms that had impacted them. The first approach chosen was the presentation of community led workshops to provide an educational process at the local level so that people will treat problems at the local level.

DHES/Central Montana Health District: Arrro Refinery Sludge Cleanup

Carol Fox, DHES, testified in support of the project, RDG 4 and showed slides of the project site. **EXHIBIT 12**

Kenneth Smith, Health Officer, Central Montana Health District, testified in support of the project. **EXHIBIT 13**

REP. LARRY GRINDE, HD 30, Lewistown, testified in support of the project and the threat to Spring Creek, Big Spring and irrigation.

Gerald Brown, homeowner in the immediate area, said the problem was that small animals, such as cats, dogs and birds, were killed or injured by falling into the pit.

A letter in support of the project was submitted by Mr. and Mrs. Fred Gillett, Lewistown. **EXHIBIT 14**

SEN. BOB WILLIAMS, SD 15, Central Montana, spoke in support of the project.

Questions from Subcommittee Members:

REP. THOFT asked if responsible parties had been found for all other refineries in the State, and if they would be doing some work. **Ms. Fox** said that was correct, and most of them are in the investigation phase. One in Kalispell, the Reliance Refinery, is state owned, and is being considered as a Superfund site.

REP. BARDANOUVE asked about the Diamond Asphalt plant. What has been done? **Ms. Fox** said they have to force the companies to clean up there. The same companies are involved in Kevin, Intercity Gas and Flying J, and to date they have not been cooperative.

REP. BARDANOUVE asked what would happen to the sludge. **Ms. Fox** said it is refined.

SEN. HOCKETT asked if there was a responsible party. **Ms. Fox** said they had conducted a thorough search, and the company had dissolved completely. **Mr. Tubbs** said the corporate veil around stock holders protects them from liability. The liability falls on the corporation, and once it is dissolved, it cannot be passed on to the stock holders.

ADJOURNMENT

Adjournment: 11:40 a.m.

M. E. Connelly
MARY ELLEN CONNELLY, Chair

Claudia Montagne
CLAUDIA MONTAGNE, Secretary

MEC/cm

HOUSE OF REPRESENTATIVES

LONG-RANGE PLANNING SUBCOMMITTEE

ROLL CALL **DATE** 2-19-91

NAME	PRESENT	ABSENT	EXCUSED
REP. FRANCIS BARDANOUVE	✓		
SEN. ETHEL HARDING	✓		
SEN. BOB HOCKETT, VICE-CHAIRMAN	✓		
SEN. J.D. LYNCH	✓		
REP. BOB THOFT	✓		
REP. MARY ELLEN CONNELLY, CHAIR	✓		

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EXHIBIT 1
DATE 2-19-91
HB 7
Long Range Planni

APPLICANT NAME: City of Belgrade

PROJECT/ACTIVITY NAME: Belgrade Meter Installation and Water Main Replacement

AMOUNT REQUESTED: $51,015 Grant; $153,046 Loan

OTHER FUNDING SOURCES AND AMOUNTS: None

TOTAL PROJECT COST: $204,061

PROJECT DESCRIPTION:

The City of Belgrade is located in southwestern Montana along Interstate 90 about 9 miles west of Bozeman. The city is proposing to install water meters on services not presently metered and to replace 2,233 feet of old deteriorated 4-inch water main.

Installation of water meters on 813 services that are not presently metered is the first part of the proposed improvements. There are presently 200 metered services in the city. By metering the water use, the city should be able to reduce the water demand rather than increasing the water supply. During the summer, the fire protection from the storage reservoir is jeopardized by the high irrigation demand and installation of the water meters will help conserve the existing water supply.

The second part of this project would provide for the replacement of 2,233 feet of the existing 4-inch water main with a 6-inch water main. The existing 50 year old main does not have

adequate cover for freeze protection and is a maintenance problem because of the depth of bury and the deteriorating condition of the main. Fire flows are also restricted in this area of the city. Five new fire hydrants would also be installed in conjunction with this line.

TECHNICAL ASSESSMENT:

The City of Belgrade has spent several thousand dollars in the last five years to increase its water supply and still has to conserve water during the irrigation season. Instead of further increasing the supply, the city and its engineer propose to install water meters on the remaining 813 services in town. Installation of water meters is considered a conservation measure and has been estimated to conserve up to 50 gallons per capita daily. By doing so, the city should realize a decrease in the water demand thereby conserving the supply. Power and maintenance costs should also be reduced. This approach appears to be reasonable and should conserve water.

The city has indicated that the older lines located in town that have an inadequate depth of bury are first priority for replacement. The proposed lines for replacement fit within this category and appear to be reasonable improvements and should improve the city's distribution system.

The design of the proposed improvements will be reviewed and approved by the Water Quality Bureau (WQB) of the Department of Health and Environmental Sciences prior to beginning construction. Conceptually, the WQB agrees with the project proposal, and has ranked it in the middle on a list of its priority projects.

FINANCIAL ASSESSMENT:

The total cost of the project is estimated to be $204,061. Of this total, $150,628 is allocated for construction and contingencies, $36,264 for the labor and overhead to install the water meters, and the balance covers engineering, administration, and financing. The applicant requests a $51,015 grant and a $153,046 loan from DNRC. The city will provide labor to install the meters, but will not be contributing any direct funds to complete the project.

The cost estimates seem realistic and reasonable, and it appears that the most cost effective alternative to the problem was chosen. Based on a loan of $200,000 and an interest rate of 7.3 percent the city proposes to raise the water rates by 8.5 percent to provide funds for the meter installation and water line replacement. Current residential water user rates are $21.42 per month and are expected to increase to $23.23 per user per month.

ENVIRONMENTAL ASSESSMENT:

The only adverse impacts that will result from this project are those minor, short-term effects typically associated with construction projects. All construction will take place within existing right of ways. Positive impacts will be conservation of water and energy, elimination of potential contamination to the

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water supply, and increased fire protection.

RECOMMENDATION:

A grant of up to $50,000 and a loan for $150,000 is recommended contingent upon the City of Belgrade securing the remaining $4,061 to complete the project funding. If grant funding is not available for this project, the city may request a loan of up to $200,000. Any reduction in scope will result in a proportionately smaller grant and should not affect the priority improvements. DNRC must also approve the project scope of work and budget.

PPLICANT NAME: City of Bozeman

OJECT/ACTIVITY NAME: Lyman Creek Water System Improvements

MOUNT REQUESTED: $726,079

OTAL PROJECT COST: $807,566

AMOUNT RECOMMENDED: $726,079 Loan

PROJECT DESCRIPTION:

The City of Bozeman obtains its municipal water supply from surface water, flows in three local watersheds. Municipal water demands exceed the city's reliable water supply by more than 20 percent during dry years. In addition to a supply shortage, the city is concerned over potential Giardia lamblia contamination in Lyman Creek which is one of their three existing sources. Contamination of this source would increase current water supply problems.

The Lyman Creek system water source originates primarily from springs. Water is diverted from the creek some distance below the springs and stored in an open reservoir. The open creek channel and open storage facility pose a continued contamination threat. The city has requested funds to enclose all exposed portions of the system to eliminate the potential problem. An alternative treatment option was determined to be more costly.

TECHNICAL FEASIBILITY ASSESSMENT:

Water from the Lyman Creek system is considered good in quality and has required only flouride and chlorine treatment. Lyman Creek provides a gravity flow supply to all Bozeman customers north of Interstate 90. The North Side customers use less than five percent of the city's total supply. This indicates the Lyman Creek source is not a major contributor of regular consumer demand. However, the supply is used to supplement the remaining supplies and as an emergency source of water for the entire community.

The Water Quality Bureau has assessed the Giardia lamblia problem as a serious threat to the community water supply. The Bureau recommended total enclosure or treatment of the supply as soon as possible. The City has chosen the enclosure option under a phased construction plan. Phase I involves construction of a cover over the storage reservoir. Phase II will extend the pipe conveyance upstream to the springs. The final phase will construct an enclosed spring box. All three phases must be finished to completely eliminate the contamination threat.

FINANCIAL FEASIBILITY ASSESSMENT:

The total project cost is estimated at $807,566. The city has requested a grant of $726,079 and would contribute a total of $81,487. Phases I through III are expected to cost $255,116, $492,942, and $67,280 respectively.

Current water and sewer rates for an average residential user are estimated at $19 per month, including an anticipated water rate increase for existing improvements.

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ENVIRONMENTAL IMPACT ASSESSMENT:

Project construction impacts should be of short duration and limited to the boundaries of the water supply system. Long-term impacts will include preservation of a good quality water supply for the community and increased public access to 250 acres of city property. No significant adverse impacts are anticipated.

SUMMARY OF PUBLIC BENEFITS:

Prevention of potential water supply related health hazards for a portion of the Bozeman community is the primary public benefit. Prevention of the introduction of surface water contaminants including giardia will preclude costly treatment. Other contaminants such as aerial spraying and dust will also be avoided. In general the project would improve water quality and enhance the domestic water supply.

Indirect benefits will include the potential for the city to better utilize their existing supply and reduce water treatment costs.

RECOMMENDATION:

DNRC recommends a $726,079 loan from the sale of coal severance tax bonds to be repaid over a maximum of 20 years. The interest rate shall be two percentage points below the rate at which the state bond is sold for the first seven years, and the coal severance tax bond rate for the remaining 13 years. Any reduction in the loan request will result in recalculation of the loan interest rate. This rate will be based on the resulting deviation of the local utility fees from the state average. Any reduction in project scope should not affect priority improvements. Loan proceeds may be used for the initial phase of the proposed three-phase construction provided the city makes a commitment to complete the following phases in a reasonable amount of time.

APPLICANT NAME: Carbon County

PROJECT/ACTIVITY NAME: Roberts Water System Improvements

AMOUNT REQUESTED: $47,500 Grant; $142,500 Loan

OTHER FUNDING SOURCES AND AMOUNTS: None

TOTAL PROJECT COST: $190,000

PROJECT DESCRIPTION:

The Town of Roberts is a small unincorporated community of approximately 200 people located in Carbon County. The town's water supply consists of two wells. Water from the wells is pumped to a

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5,000-gallon storage pressure tank. The distribution system consists of 2,400 feet of 6-inch pipe and 4,310 feet of 4-inch pipe.

Roberts suffers from water shortage. The existing pumping system is inadequate to meet maximum water demands. Small line sizes in the distribution system complicates the water shortage problem, with pressure dropping below acceptable levels during high use demand situations. In addition to the water shortage problem, the chlorine feed system is dangerous and a hazard exists for those working near or in the pump station.

This project will provide an adequate water supply for the residents of Roberts, by improving the system's chlorine detention time, resolving safety hazards, and renovating deteriorated distribution conditions.

TECHNICAL ASSESSMENT:

The town hired a consulting engineering firm to complete a "Master Plan for Improvements to the Water System" which identified the water system deficiencies and recommended three alternatives for improvement. Final alternative selection will depend upon test results that will show the safe yield of the existing wells. It is anticipated that the existing wells will not yield more than 200 gallons per minute (gpm) and under this scenario, the alternative selected will be to drill a new well to bring the supply up to a 350 gpm production. The new well will be constructed in parallel with the existing system and the pumps will be sized down to accommodate the well capacity. The pumphouse piping will also be upgraded to eliminate a pipe restraint problem.

The chlorination system will be upgraded to remove the hazardous situation, and existing electrical controls will be upgraded. A new 5,000-gallon pressure tank will be added in parallel with the existing 5,000-gallon tank, which will be reconditioned. This will give the system the proper chlorine detention time. A new 6-inch water line will be installed to resolve low operating pressures, and to create a loop in the system, thus eliminating a dead end.

The proposed alternative is appropriate, technically feasible, and should produce the desired effects. A detailed cost estimate of the improvements has been developed. The design of all improvements will be reviewed and approved by the Water Quality Bureau (WQB) of the Department of Health and Environmental Sciences prior to starting construction. The WQB agrees that there is a need for the project but may not approve the alternative selected since the "Recommended Standards for Water Works" states that pressure tanks should not provide the only storage facility when serving more than 50 homes.

FINANCIAL ASSESSMENT:

The total cost of the project is estimated at $190,000 of which $143,019 are costs of construction and contingencies and the balance is engineering, legal, administration, and interest. The applicant requested a grant of $47,500 and a loan of $142,500. The estimated project costs appear to be realistic and reasonable and it appears as though the most cost-effective alternative was chosen.

There are 103 water users in Roberts now paying an average of $11.72 per user per month for operation and maintenance of the water and sewer systems, along with some debt retirement. The average user's rate will increase to $27.62 per month with the new improvements.

ENVIRONMENTAL ASSESSMENT:

The only adverse impacts that will result from this project are those minor, short-term effects typically associated with municipal utility construction projects.

RECOMMENDATIONS AND CONTINGENCIES:

A grant of 25% of the total project cost up to $47,500 and a loan for the remaining amount is recommended contingent upon DNRC approval of the project scope of work and budget and on Roberts completing the steps necessary for bond issuance. If grant funding is not available for this project, Carbon County may request a loan for the entire amount of the total project cost. Any reduction in the scope should result in a proportionately smaller grant and should not affect priority improvements. The Water Quality Bureau must approve the design of the selected alternative before DNRC funds will be disbursed.

APPLICANT NAME: Cascade County - (Sun Prairie) Village Water and Sewer Association, Inc.

PROJECT/ACTIVITY NAME: Sun Prairie Village Wastewater Treatment and Collection Improvements

AMOUNT REQUESTED: $100,000 Grant

OTHER FUNDING SOURCES AND AMOUNTS: $313,377 - CDBG or FmHA Funds
$684,038 - EPA Grant
$162,000 - DNRC Loan
(1986-87)

TOTAL PROJECT COST: $1,259,415

PROJECT DESCRIPTION:
Sun Prairie Village is a rural subdivision located along the

Sun River 6.3 miles west of Great Falls and has 590 lots of which 350 were occupied as of May 1988. The subdivision is serviced by a central water and sewer system constructed in 1976 by the developer. In March of 1977, Cascade County created RSID No. 26 and purchased the improvements from the developer. The wastewater facilities include a gravity collection system, two lift stations, and treatment facilities consisting of a two-cell lagoon with an adjacent 80 acre spray irrigation site.

On March 5, 1985, the south embankment of lagoon cell 2 collapsed and consequently the Department of Health and Environmental Sciences (DHES) brought action against the association to make permanent repairs. The dikes were originally constructed of poorly compacted expansive clays, and a lack of interior erosion protection resulted in serious sloughing of the embankment. In addition, the wastewater and the land upon which it is to be disposed are not suitable for irrigation. The wastewater flows are also greater than the design flows, and the collection and treatment systems were poorly designed and constructed.

Sun Prairie Village Water and Sewer Association has an outstanding complaint pending in District Court to affect improvements to the wastewater facilities to bring them into compliance with state law. A compliance schedule has been proposed by DHES and Sun Prairie Village will have no choice but to adhere to this schedule. This compliance schedule will reflect the Board of Health's decision on a discharge permit variance as well as information included in the yet to be completed facility plan. The alternatives to solve the problem will be addressed in the facility plan.

TECHNICAL ASSESSMENT:

The Sun Prairie Village Water and Sewer Association has hired an engineer to prepare a facility plan addressing the project, its problems, and a number of alternative solutions. The association has been issued a non-degradation permit to discharge the effluent to the Sun River. The association then filed and received an appeal for a variance from the Board of Health to modify their existing discharge permit to allow for a discharge of effluent to the Sun River meeting secondary treatment standards. This variance will allow for the association to select from two discharge alternatives identified in the preliminary facility plan. The facility plan will address the most appropriate and technically feasible alternative to solve the problem addressed. All of the alternatives that have been addressed in the preliminary facility plan are technically feasible and should achieve the desired results. The WQB will review and approve the final alternative selected in the final facility plan. The WQB agrees that the project is urgently needed and will review and approve the design prior to construction.

FINANCIAL ASSESSMENT:

The total project costs of $1,259,415 were based on the Board of Health issuing a variance to the discharge permit allowing a

discharge of effluent to the Sun River meeting secondary treatment standards. The alternate proposal will repair the lagoon dikes, line the lagoon, replace the aeration system, construct chlorination facilities, and pump the effluent south to the Sun River. The total project costs are estimated at $1,259,415 of which $1,007,532 is for construction and contingencies, and the balance is for engineering, inspection, legal, and administration costs.

The applicant has requested a $100,000 grant from DNRC which would be used in conjunction with a $162,000 DNRC loan authorized in the 1986-87 legislative session. The association is eligible to receive 55 percent grant funding through the EPA Construction Grants Program which amounts to $684,038. The remaining $313,377 of funds will be requested from the Community Development Block Grant Program or the Farmers Home Administration. The estimated project costs appear to be reasonable and the most cost-effective solution will be selected. Monthly user charges for sewer are estimated to be $6.73 presently and would increase to between $15.97 to $21.49 per month per user depending upon the funding scenario.

ENVIRONMENTAL ASSESSMENT:

Construction of the improvements will satisfy the Montana Department of Health and Environmental Sciences's order to affect corrective measures to prevent the uncontrolled discharge of untreated wastewater into state waters and bring the discharge into compliance with Sun Prairie's discharge permit. Most importantly, construction of the facilities will satisfy the court and terminate the court proceedings.

A piped discharge, either gravity-fed or pumped, of treated wastewater will theoretically degrade the Sun River but will not cause it to be degraded below legislated water quality standards. Nor will this discharge preclude the water in the Sun River from further beneficial use.

Short term impacts will result from construction techniques. However, these impacts are expected to be minimal and may be mitigable.

RECOMMENDATION:

A grant of 25 percent of the total project costs up to $50,000 and a loan of up to $150,000 is recommended contingent upon Sun Prairie Vilage forming a county water and sewer district and securing the remainder of project funding. The existing 1986-87 loan authorization of $162,000 will not be reauthorized to accommodate this grant. If grant funding is not available for this project, the district may request a loan of up to $200,000. Any reduction in the scope will result in a proportionately smaller grant and should not affect the priority improvements. DNRC must also approve the project scope of work and budget.

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APPLICANT NAME: Town of Cascade

PROJECT/ACTIVITY NAME: Water Distribution and Supply System Improvements

AMOUNT REQUESTED: $100,000 Grant; $200,000 Loan

OTHER FUNDING SOURCES AND AMOUNTS: Local Revenue Bond - $442,000; Community Development Block Grant (CDBG) - $350,000

TOTAL PROJECT COST: $1,092,000

PROJECT DESCRIPTION:

The Town of Cascade is a rural community of 773 people located along the Missouri River approximately 25 miles southwest of Great Falls. The town needs to replace a major portion of the water distribution system, which consists of cast iron water mains installed in 1915 that have deteriorated due to electrolysis. The water supply system also needs to be upgraded to provide a dependable quantity for domestic use and fire protection.

The water supply comes from a spring and a system of wells which combine and discharge into the town's twin 102,000-gallon concrete reservoirs. The discharge piping from some of the wells needs to be replaced. Chlorination facilities are present at the storage reservoirs, but the piping and valves are very old, and are deteriorating. Treated water from the reservoirs flows by gravity to the water distribution system in town. The 4-inch and 8-inch-diameter cast iron mains lose up to 62% of the total water supply through leakage. Four different types of fire hydrants are located throughout town; some are outdated and deteriorating.

The applicant proposes to replace the existing cast iron pipe mains with polyvinyl chloride (PVC) pipe to prevent electrolysis deterioration. The lines will be sized to provide adequate fire protection. New water valves will be installed at key locations. New fire hydrants will replace the outdated ones. Following the water distribution system improvements, the existing pavement or gravel street surfacing will be replaced. Deteriorated piping and valves at the storage reservoir and chlorine feed room will also be replaced. A second pump will be added to the spring box to increase supply, and one of the shallow wells will be redrilled.

TECHNICAL ASSESSMENT:

In 1985, Cascade hired a consulting engineering firm to evaluate the municipal water system, determine the areas of deficiencies, and develop cost estimates for the improvements needed to upgrade the system. The study was comprehensive and adequately addressed all areas of the water system. The need for improvements to the Town of Cascade's water distribution system is evident and the proposed project is appropriate, technically feasible, and will produce the desired effects.

The design of the proposed improvements will be reviewed and approved by the Water Quality Bureau (WQB) of the Department of Health and Environmental Sciences prior to beginning construction. Conceptually, the WQB agrees with the project proposal, and has ranked it high on a list of their priority projects.

FINANCIAL ASSESSMENT:

The total cost of the project is estimated to be $1,092,000 with $955,800 for construction and contingencies and the balance for engineering, administration, and financing. The applicant requests a $100,000 grant and $200,000 loan from DNRC. The town will provide $442,000 in local revenue bonds and will request a $350,000 Community Development Block Grant (CDBG) to complete the funding.

The cost estimates appear realistic and reasonable, and it appears as though this is the most cost-effective alternative available. The town proposes to raise water rates by 12% to provide funds for line replacement. Current residential users rates are $10.04 per user per month and are expected to increase to $28.57 per user per month with the loans and grants requested.

ENVIRONMENTAL ASSESSMENT:

The only adverse impacts that will result from this project are those minor, short-term effects typically associated with construction projects. Positive impacts will be associated with a more consistent water supply and a decreased fire hazard level.

RECOMMENDATION AND CONTINGENCIES:

A grant of up to $50,000 and a loan for $150,000 is recommended contingent upon Cascade securing the remainder of project funding and passing the necessary bond issue if the DNRC loan is used. If grant funding is not available for this project the Town may request a loan of up to $200,000. Any reduction in scope will result in a proportionately smaller grant and should not affect the priority improvements. If meters are cost-effective the town should look at installing them with this project. DNRC must also approve the project scope of work and budget.

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APPLICANT NAME: East Glacier Water and Sewer District

PROJECT/ACTIVITY NAME: Midvale Creek Diversion

AMOUNT REQUESTED: $91,761.50 Grant

OTHER FUNDING SOURCES AND AMOUNTS: $780 - East Glacier Water and Sewer District

TOTAL PROJECT COST: $92,541.50

PROJECT DESCRIPTION:

The East Glacier Water and Sewer District provides an adequate supply of quality water and fire protection for the community of East Glacier Park and Glacier Park Incorporated (GPI). The year-round population of the community is estimated at 400 residents with more than 1,000,000 tourists passing through and staying in town each year. The district's water source is provided by a dam on Midvale Creek which was inadvertently constructed on the Blackfeet Indian Reservation. The water is piped from the reservoir to the district where it is chlorinated and then distributed to the water users.

With no treatment other than chlorination, this surface water source is in violation of Water Quality Standards because of high turbidity levels and potential giardia contamination. The dam also collects large deposits of sediment each year and is cleaned each autumn when the water flows are low. The cleaning process creates turbidity problems downstream violating the Blackfeet Water Quality Management Plan.

East Glacier Park is in need of adequate water treatment facilities. Proper reservoir cleaning facilities and techniques are an essential part of the total water treatment system. The district has applied for a Community Development Block Grant (CDBG) for the water treatment facilities which would consist of the negotiated use and expansion of the existing Glacier Park Inc. clarification and filtration system constructed in 1987.

The purpose of the proposed project is to construct a stream diversion structure in the stream bed connected to a canal to divert the stream flow around the reservoir. Work would be done during the annual cleaning and thus prevent increased sediment downstream. This project coupled with the water treatment facility request to CDBG will give the community a total and complete water system that satisfies Water Quality Standards.

TECHNICAL ASSESSMENT:

Stream sediments and gravels accumulate behind the existing dam which is presently cleaned by opening the Midvale Dam flood gates to allow water to drain. A D-8 cat is then used to move the excess gravel and sediment from behind the dam. Sediment is stockpiled along the dam site banks away from the stream bed, and then disposed of at a later date. The grant application addresses three alternatives for solving the sediment problem associated with the cleaning process of the Midvale Dam.

The alternative selected will allow the stream to be diverted around the dam in a canal while the sediment and gravels are cleaned from behind the dam. This alternative appears to be the most logical and cost-effective alternative proposed. It will utilize the existing facilities, secure the water supply of East Glacier and Glacier Park Inc., and satisfy the Blackfeet Water Quality Management Plan.

The design of the proposed improvements will be reviewed by the Water Quality Bureau (WQB) of the Department of Health and Environmental Sciences prior to beginning construction. Conceptually, the WQB agrees with the project proposal and has ranked it toward the top of its project priority list.

FINANCIAL ASSESSMENT:

The total cost of the project is estimated to be $92,541.50 with $71,069.50 for construction and contingencies and the balance for engineering, administration, and inflation contingency. The applicant has requested a $91,761.50 grant from DNRC. The district will supply $780 of in-kind services.

The cost estimates appear realistic and reasonable, and it appears that this is the most cost-effective alternative available. However, the WQB suggested that it may be less costly to install concrete or PVC pipe instead of building a concrete canal.

ENVIRONMENTAL ASSESSMENT:

Sediment loads and construction-related impacts will have some short-term adverse effects on Midvale Creek. However, construction of this stream diversion structure will minimize the stream disturbances associated with the cleaning process and should satisfy the Blackfeet Water Quality Management Plan.

RECOMMENDATION:

A grant of 25 percent of the total project costs, which include the costs of the negotiated use of the Glacier Park, Inc. clarification and filtration water treatment plant, up to $50,000 is recommended contingent upon the district securing the remainder of the funds to tie into the existing Glacier Park, Inc. water treatment plant. The Midvale Creek diversion and the water treatment plant are to be considered as one project. The remaining costs for the Midvale Creek diversion may be requested as a general obligation loan. If the grant is received, the existing CSTB loan authority will be dropped. Any reduction in scope will result in a proportionately smaller grant and should not affect the priority improvements. DNRC must also approve the Project scope of work and budget.

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APPLICANT NAME: Town of Hysham

PROJECT/ACTIVITY NAME: Hysham Water System Improvement Project

AMOUNT REQUESTED: $50,000 Grant
$150,000 Loan

OTHER FUNDING SOURCES AND AMOUNTS: $375,000 - CDBG Grant
$156,500 - FmHA Low Interest Loan or Grant

TOTAL PROJECT COST: $731,500

PROJECT DESCRIPTION:

The Town of Hysham, located between the Yellowstone River and Interstate 94 about 75 miles east of Billings, has a population of 420 people. The town's water system was originally constructed in 1927 and upgraded in 1977 and 1980. The system consists of an infiltration collection gallery which conveys water to an 84-inch diameter vertical caisson; a 100,000 gallon concrete clearwell stroage tank; and gas chlorination facilities with two 50 horsepower, 600 gallon per minute vertical turbines pumping the treated water to a 100,000 gallon water tower. Water is distributed through 4-inch cast iron water mains.

Seventy percent of the town's residents are listed as low to moderate income and 64 percent are over 50 years of age, with limited re-payment capabilities. The town's infiltration gallery is ineffective in filtering out microbial contaminants and on June 9, 1986 the Water Quality Bureau (WQB) of the Department of Health and Environmentakl Sciences issued a "Health Advisory" for the water supply.

The town proposes to increase the water supply to meet present and future demands, improve the water quality, and eliminate the water contamination problems. Contamination would be eliminated by renovating and upgrading the existing water supply infiltration gallery, constructing an additional infiltration gallery and collection lines, installing continuous turbidity monitoring and recording equipment, constructing an additional 120,000 gallon clearwell storage for increased chlorine contact time, and constructing a slow sand filter for water treatment, along with other minor improvements. The project will add more storage capacity to the water system to allow for adequate water treatment, increase fire protection capacity, and bring the system into compliance with state and federal drinking water standards.

TECHNICAL ASSESSMENT:

The Town of Hysham had a preliminary engineering report conducted in March 1987 to determine what alternatives were available to bring the water system into compliance with the health advisory and to assure an adequate water supply for the town. The study was comprehensive and adequately addressed all areas of the water system. The need for improvements to Hysham's water supply is documented by the health advisory and the proposed project is appropriate, technically feasible, and should produce the desired results.

The design of the proposed improvements will be reviewed and approved by the WQB prior to beginning construction. Conceptually, the WQB agrees with the project proposal, and has ranked it number one on its list of priority projects.

FINANCIAL ASSESSMMENT:

The total cost of the project is estimated to be $731,500 of which $669,500 is for construction and contingencies, $79,000 is for professional/technical costs, with the balance for administration and financing. The applicant has requested a

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$50,000 grant and $150,000 loan from DNRC. The town has requested and received authorization for a $375,000 Community Development Block Grant and will complete the funding with a $156,500 low interest loan or grant from FmHA.

The cost estimates appear realistic and reasonable and the most cost-effective alternative presented was selected. The town is in the process of raising the monthly water user rate for the 208 users from an average of $9.31/month to $13.08/month. An additional increase of $3.20/month/user to $16.28/month/user will be required for the town to retire the DNRC loan debt.

ENVIRONMENTAL ASSESSMENT:

Construction of the infiltration gallery and collection lines will result in a short-term increase in the turbidity levels of the Yellowstone River and will require a stream access work permit from the Department of Fish, Wildlife and Parks. A construction permit allowing short-term exceedence of turbidity standards may be required by the WQB. Other adverse impacts that will result from the project will be those minor, short-term effects typically associated with construction projects.

Anticipated long-term effects of a better quality and quantity of drinking water for the Town of Hysham will be a positive impact. The WQB health advisory will also be dropped as a result of the project.

RECOMMENDATION:

A grant of up to $50,000 and a loan for $150,000 is recommended contingent upon the Town of Hysham securing the remaining funding to complete the project. If grant funding is not available for this project, the city may request a loan for up to $200,000. Any reduction in scope will result in a proportionately smaller grant and should not affect the priority improvements. DNRC must also approve the project scope of work and budget.

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APPLICANT NAME: Sage Creek County Water District

PROJECT/ACTIVITY NAME: Sage Creek County Water District Expansion

AMOUNT REQUESTED: $39,650 Grant; $118,950 Loan

OTHER FUNDING SOURCES AND AMOUNTS: None

TOTAL PROJECT COSTS: $158,600

PROJECT DESCRIPTION:

The Sage Creek County Water District (SCCWD) currently serves 55 users in northeastern Liberty County and northwestern Hill County. The facility was completed in 1985 and includes a water supply developed from a groundwater source using an interception gallery and collector. The groundwater is piped to a chlorinating unit for disinfection and then distributed throughout the system network by gravity flow.

The proposed project will expand the District to provide potable water to another ten rural users, all of which are located immediately south of the existing district. These potential users now haul drinking water from either Chester or Joplin, with an average round trip distance of 40 to 50 miles.

The project will add approximately 25 miles of service line with gasket joints to the district's 96.2 miles of distribution piping. The new lines will be connected to the district's gravity system and will be placed within 200 feet of the new user residences. Individual users will be responsible for connecting to the District's line and installing cisterns or other water storage facilities.

TECHNICAL ASSESSMENT:

Alternatives such as expanding the existing water supply from wells and surface sources were investigated and rejected due to the poor water quality and the high cost of drilling deep wells.

Because of the nature of the project in the Sage Creek County Water District the most cost-effective method of providing water service to these additional households is a simple expansion of the existing system. Adequate water supply, chlorination facilities, and pressure reducing facilities to supply and service the additional users are present in the existing water distribution system.

The design for the expansion of the District's water distribution system will be reviewed and approved by the Water Quality Bureau (WQB) prior to starting construction. The WQB agrees that the proposed water distribution expansion will adequately deliver potable water to the 10 additional users. The proposed project is technically feasible and will produce the desired effects.

FINANCIAL ASSESSMENT:

The total project cost is estimated at $158,600, of which $132,000 is for construction and contingencies and the balance is for engineering and administration. The estimated costs seem reasonable and realistic and it appears that the most cost-effective alternative was selected.

The only source of funding identified for this project is the DNRC Water Development Loan and Grant Program. The district's current indebtedness is $623,000 for its 1985 Water Development Loan to pay for the existing water supply and distribution system. The district requests that DNRC restructures the loan to ensure repayment ability. Current assessments average $80 per user per month and if the water district is expanded by ten users an increase to $97 per user per month would be required. Projected user rates of $105 per user per month are anticipated by 1990. The Sage Creek County Water District appears to have the capability to repay a loan, but the user rates are at the same time becoming quite costly.

ENVIRONMENTAL ASSESSMENT:

The proposed project will have a positive effect on water quality for the new users served by the expanded system. Only temporary impacts on vegetation, soils, and wildlife are anticipated during the construction phase.

RECOMMENDATION AND CONTINGENCIES:

A grant of 25% of the total project cost up to $39,650 and a loan for the remaining $118,950 is recommended contingent upon the district completing the public notice steps required to expand the district and incur the additional debt. If grant funding is not available for this project the district may request a loan for the entire amount of the total project cost. DNRC must also approve the project scope of work and budget.

APPLICANT NAME: City of Shelby

PROJECT/ACTIVITY NAME: Shelby Water Rehabilitation

AMOUNT REQUESTED: $100,000 Grant

OTHER FUNDING SOURCES AND AMOUNTS: Shelby - $9,246

TOTAL PROJECT COST: $109,246

PROJECT DESCRIPTION:

The purpose of this proposed project is to rehabilitate the City of Shelby's water wells to improve operational efficiency. The water well field that supplies all of the water for Shelby is located approximately six miles south of Shelby in the Marias River Valley. The field has ten producing wells - the first drilled in 1940 and the last in the summer of 1985. Well depths range from 31 feet to 50 feet while well yields vary from 125 gallons per minute (gpm) to 330 gpm.

The rehabilitation effort consists of pulling the pumps on five of the old wells, inspecting the pumps, and rebuilding the impellors, shafts, bearings, casings, or screens as needed. These wells will also be cleaned and back flushed. Two other wells, which were drilled in 1975, will be developed using air and

chemical processes to reduce clogging. These two wells have never produced as anticipated and have been used sparingly as a result. The obsolete well control systems will be replaced with new radio-controlled systems to provide either manual or automatic capabilities for a more efficient operation of the well field.

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TECHNICAL ASSESSMENT:

Drought conditions in the summer of 1983 caused very low water levels in the Marias River, resulting in the City of Shelby experiencing some difficulties in supplying the city's water demand. As a result the city hired an engineering firm in 1984 to conduct a "Water Supply Study for the City of Shelby, Montana" to identify alternatives for increasing water supply.

Upon review of the "Water Supply Study" the City decided to pull the pump on well #2 in 1985 and rehabilitate it, following the proposed plan. The production rate, according to the City, more than doubled. Similar results are expected with the proposed rehabilitation of the five wells identified.

With a reasonable river flow the rehabilitation effort will meet water demands of Shelby without having to provide a further expensive expansion of the well field. This pump rehabilitation effort seems to be a good approach to alleviate Shelby's water supply problems and appears to be technically feasible.

The improvements will be reviewed and approved by the Water Quality Bureau (WQB) prior to commencement of construction. The WQB agrees with the concept of the project and its need.

FINANCIAL ASSESSMENT:

The total cost of the project is estimated at $109,246, with a grant providing $100,000 and the City of Shelby contributing the remaining $9,246. Professional services will account for $63,596 of the costs, radio controls another $23,500, and construction costs will account for the balance. The costs appear to be reasonable.

ENVIRONMENTAL ASSESSMENT:

Only short-term impacts are expected with a pump rehabilitation effort as proposed. Short-term water shortage may result.

RECOMMENDATION AND CONTINGENCIES:

A grant of 25% of the project cost up to $25,000 and a loan for the remaining $75,000 is recommended, contingent on Shelby passing the necessary bond issue for the loan repayment or securing the remaining project funds from other sources. If grant funding is not available for this project the City may request a loan for the entire amount of the total project costs. Any reduction in scope will result in a proportionately smaller grant and should not affect priority improvements. DNRC must also approve the project scope of work and budget.

APPLICANT NAME: Anaconda Deer Lodge City-County

PROJECT/ACTIVITY NAME: Anaconda Wastewater Treatment Plant Effluent Disposal

EXHIBIT 2
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AMOUNT REQUESTED: $100,000 - Grant
$152,439 - Public Loan

OTHER FUNDING SOURCES AND AMOUNTS: $70,000 - 1985 RIT Grant
$967,316 - Construction Grants

TOTAL PROJECT COST: $1,289,755

PROJECT DESCRIPTION:

In 1983, a waste-water treatment plant was constructed for the City of Anaconda-Deer Lodge. The system was proposed to be an aerated lagoon system with the effluent to be discharged into rapid infiltration ponds. Because of the presence of arsenic in the soils, EPA would not allow the infiltration part of the treatment system to be built. The treated effluent is now being discharged into Anaconda Minerals Co. tailings ponds where it evaporates. Because this practice interferes with final reclamation activities, the Anaconda Minerals Co. has asked the town to stop this practice and look for another alternative.

The engineering firm of Thomas, Dean & Hoskins, Inc. has conducted a study of alternatives for the disposal of effluent. Seven alternatives have been investigated and the recommended alternative would use effluent for irrigation during the summer and discharge into the Warm Springs pond system in the winter. The Department of Health and Environmental Sciences (DHES) has reviewed this engineering study and has suggested the town investigate another, more environmentally sensitive alternative because of the complexity of the project due to its location (Clark Fork headwaters) and all the entities involved (EPA, DFWFP, DHES, Clark Fork Coalition, etc.). The alternative suggested by DHES includes rapid infiltration basins (outside of tailings area), storage, and/or irrigation. The town's engineering firm is working on this alternative and will not complete this work prior to DNRC project ranking.

TECHNICAL ASSESSMENT:

Clearly, the city must find an alternative to present wastewater disposal practices. However, the proposed project has been rejected by DHES since the time of application. Alternatives are being pursued by the city's consultant.

FINANCIAL ASSESSMENT:

No costs available.

ENVIRONMENTAL ASSESSMENT:

The proposed project has been rejected by DHES primarily for environmental reasons.

RECOMMENDATION:

Since the proposed project has been rejected by DHES, DNRC recommends no funding.

APPLICANT NAME: Town of Browning

PROJECT/ACTIVITY NAME: Water Treatment and Transmission Facilities

AMOUNT REQUESTED: $1,294,900 Loan

OTHER FUNDING SOURCES AND AMOUNTS: None

TOTAL PROJECT COST: $1,294,900

PROJECT DESCRIPTION:

The town of Browning, located in Glacier County, supplies water to 4,139 people. The water system provides service beyond the city limits. Groundwater is the sole source of supply. A series of infiltration galleries located at the upper reach of Flatiron Creek are interconnected, and a pump lifts the combined flow of 350 gallons per minute (gpm) into a transmission pipeline approximately five miles west of town. Located near the galleries are three shallow wells, which together provide a total of 240 gpm and are connected to the transmission pipeline. A 100,000-gallon water storage and chlorination station is located on the edge of town and provides adequate water treatment. Four additional wells are located within the town's water distribution grid. Total flow potential from all sources is estimated at 1,330,300 gallons per day and four reservoirs can store up to 1,200,000 gallons. The distribution system is adequate. During the summer of 1985, Browning experienced severe and prolonged shortage of water throughout the service area and studies predict that by the year 2010 Browning will have a water shortage in excess of 1,000,000 gallons per day.

To alleviate the shortage problem, Browning proposes to divert surface water from Cut Bank Creek and construct a 2.5-million-gallon per day water treatment facility. The treatment plant will include a raw water sedimentation and storage pond with gravity flow into a vacuum filter system, using diatomaceous earth. The filtered water will be chlorinated and stored in a clear well, and high service turbine pumps will convey the water to the existing distribution system.

TECHNICAL ASSESSMENT:

In 1986, an engineering firm was hired to prepare a "Water Supply Analysis for the Town of Browning". Water shortages prompted the town to look into additional or alternate supply for their needs. In this application not enough information was available to substantiate the claim that surface water from Cut Bank Creek is the only adequate source of supply available. Reviewers feel that surface water should only be used as a last resort as a supply source, and recommend that groundwater sources in the area be further investigated.

However, the water treatment alternative selected for the surface water supply proposal appears to be appropriate, technically feasible, and should produce the desired effects. The Water Quality Bureau (WQB) of the Department of Health and Environmental Sciences agrees with the concept of this surface water treatment alternative and recognizes that a source of water is needed. The design for all improvements must be reviewed and approved by the WQB before construction begins.

FINANCIAL ASSESSMENT:

The total cost of the project is estimated at $1,294,900, of which $1,019,700 are costs of construction and contingencies, and the balance is for engineering, legal review, financing, and administration. The requested DNRC loan is for the total project cost. Users' water rates will triple from $5.02/month to $15.06/month to repay the loan.

The estimated project costs appear to be realistic and reasonable for a surface water treatment alternative. However, the most cost-effective alternative may be to use existing water supply and develop groundwater supplies as a supplement if adequate sources are found to be available.

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ENVIRONMENTAL ASSESSMENT:

A preliminary assessment indicates that the only adverse impacts that will result from this project are those minor, short-term effects typically associated with construction projects. A more thorough analysis of the impact to Cut Bank Creek and its water quality and fishery resource must be conducted prior to selecting the final alternative.

RECOMMENDATION AND CONTINGENCIES:

DNRC recommends a loan of $1,294,900 to be repaid over a maximum of 20 years, contingent on further investigations conducted to determine if any reliable groundwater sources exist in the area. A hydrogeological assessment of any wells in the area should also be completed. The Bureau of Indian Affairs (BIA) should be approached and encouraged to help fund this investigation since housing developments for tribal members are supplied water from the Browning water system.

If reliable groundwater sources are found in the area, then an alternative should be developed to use these sources as a supplement to the existing water supply. If conclusive information proves that no adequate groundwater is available, then the surface water source should be used, and if possible the existing supply should be used as a supplement so that a smaller capacity surface water treatment plant alternative could be considered.

If the most cost-effective alternative appears to be the surface water treatment plant as proposed, then due to local adverse economic conditions and the high cost of the surface water treatment alternative, the town must hold an election to authorize any bonded indebtedness involving this loan. If the election authorizes the loan, then DNRC recommends an interest rate of one percentage point below the rate at which the state bond is sold for the first five years, and the coal severance tax bond rate for the remaining 15 years. Any reduction in the loan request will result in recalculation of the loan interest rate. This rate will be based on the annual water rates in relation to the median family income. Any reduction in the project scope must not affect priority improvements. All water rights issues for use of water from Cut Bank Creek must be settled before loan funds will be awarded.

Since the BIA has housing developments directly affected by this project, and since the developments affect demand for water from the Browning water supply, DNRC requires reasonable funding assistance for this project to be provided by the BIA before the DNRC loan will be authorized.

APPLICANT NAME: Town of Dutton

PROJECT/ACTIVITY NAME: New Water Supply Construction

AMOUNT REQUESTED: $326,000 Grant and $326,00 Loan

TOTAL PROJECT COST: $652,000

AMOUNT RECOMMENDED: $652,000 Loan

PROJECT DESCRIPTION:

Dutton proposes to replace its present groundwater supply by connecting to the existing Tiber County Water District system (Tiber System). The town's water is currently supplied by a well and pump facility located 105 feet from the Teton River bank. Dutton is concerned that progressive erosion of the embankment may destroy their water supply, leaving the residents without water. The water is also high in iron, manganese and sulfates which results in treatment expense and inconvenience to the town's residents.

Dutton has completed Phase I of a water supply study which indicated their present water source could be protected from erosion and treated to enhance the quality at a cost below that of developing a new supply. The community feels that erosion control and treatment are not long-term solutions to their water supply problem. In an effort to develop a new supply, test wells were drilled in an area determined to have the highest potential. The tests proved unsuccessful. Dutton now favors purchasing water from the existing Tiber rural water system.

The proposed project includes construction of 17 miles of 8-inch transmission line and installation of a new pump station and chlorination unit.

TECHNICAL FEASIBILITY ASSESSMENT:

Dutton's existing water source yields adequate quantities of water which meets primary safe drinking water standards. The pump station is in good condition and has excess capacity. Dutton's water supply study indicates the Teton River bank can be stabilized with riprap and the water quality can be enhanced at a cost below that of developing a new supply. These points indicate use of the existing water supply is a viable option.

There is some risk associated with continued use of the existing supply. A major flood event could destroy the well and pumphouse after riprap is installed. Treatment of the water to remove all undesirable contents such as sulfates is probably not cost effective. Also, the community has indicated there is a problem with obtaining additional right-of-way to improve their water source.

In general, the town can continue to use their water supply with some risk and inconvenience. Improvement of the present supply will decrease the risk and inconvenience, but will not eliminate the potential loss of the source to a major flood. Connection to the Tiber system is a good option for a new supply. However, it will result in high water rates to the town's residents.

Additional agreements with the Tiber group regarding capital improvement costs, operation, maintenance, replacement, expansion, etc., should be negotiated if the project is pursued.

FINANCIAL FEASIBILITY ASSESSMENT:

The total project cost is estimated to be $652,000, which includes: $17,000 administration; $22,300 financing; $60,000 professional/technical; $462,000 construction; and $90,700 contingencies. Dutton's current monthly water rate is $13.75 per month (up to 2,000 gallons) and $1.25 for each additional 1,000 gallons.

ENVIRONMENTAL IMPACT ASSESSMENT:

Short-term impacts will include loss of vegetation and erosion along the 17-mile pipeline route. The pipeline crosses the Teton River and several minor water courses. Final impacts in these areas should be determined in the design and permitting phases.

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SUMMARY OF PUBLIC BENEFITS:

The residents of Dutton and several rural water users located near the transmission line will receive benefits from this project. Primary benefits include improved domestic water supply and water quality.

RECOMMENDATION:

DNRC recommends a $652,000 loan from the sale of coal severance tax bonds to be repaid over a maximum of 0 years. The interest rate shall be four percentage points below the rate at which the state bond is sold or the first seven years, and the coal severance tax bond rate for the remaining 13 years. Any reduction in the loan request will result in recalculation of the loan interest rate. This rate will be based on the resulting deviation of the local utility user fees from the state average. Any reduction in project scope hould not affect priority improvements.

Use of loan funds is contingent on negotiation of a complete long-term water purchase agreement with the Tiber County Water District.

APPLICANT NAME: East Bench Irrigation District

PROJECT/ACTIVITY NAME: Gravity Sprinkler Irrigation System Number 3

AMOUNT REQUESTED: $65,000 Grant
$366,000 Coal Severence Tax Loan

OTHER FUNDING SOURCES AND AMOUNTS: $3,879,000 - Bureau of Reclamation (PL984 Loan)

TOTAL PROJECT COST: $4,310,000

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PROJECT DESCRIPTION:

A group of ranchers within the East Bench Irrigation District are interested in developing a gravity sprinkler irrigation system. The proposed system is located northeast of Dillon in Beaverhead County and would service 44 farm units and irrigate approximately 7,000 acres. Presently, this area is primarily pump sprinkler irrigated with a minor amount of flood irrigation. The crops produced are limited to small grains and alfalfa.

The proposed project would install three intake/screening structures on the East Bench Canal, bury 17.5 miles of pipe ranging in diameter from 6 inches to 54 inches, and install asscciated valves, meters, and drains. The applicant anticipates hiring a consultant to perform final design and project administration. The majority of the construction will be contracted but the district will perform some small lateral construction.

TECHNICAL ASSESSMENT:

The gravity sprinkler irrigation concept has been successfully applied at a variety of locations in Montana, including locations very near the project area. The preliminary analysis indicates that the topography will provide adequate working pressures with a small percent of working pressures less than 30 psi. Ranchers on these units will employ low pressure sprinklers or booster pumps or a combination of this equipment. Sufficient water is available from the East Bench Canal. System design flows, pipe sizing, appurtenances required, and system layout are based on preliminary analysis using SCS standards. This analysis establishes a reasonable probability of technical feasibility and is adequate to establish conservative cost estimates. Significant design and analysis is required prior to construction.

This project will conserve water by eliminating seepage losses associated with lateral ditches. The project is expected to reduce diversion requirements by 24 cfs.

FINANCIAL ASSESSMENT:

The total project cost is estimated to be $4,310,000 with the following distribution anticipated: construction $3,500,000; engineering $275,000; future price projections $350,000; contingencies $105,000; Bureau of Reclamation participation $50,000; and legal $30,000. Project costs are consistent with other gravity sprinkler projects recently installed near the project area. Annual project costs are anticipated to be $16.20 per acre based on a 3 percent state loan ($431,000) and a 0 percent Bureau of Reclamation Small Projects Loan ($3,879,000). Avoided engergy costs are estimated to be $17 per acre and are the only source of revenue for debt service.

ENVIRONMENTAL ASSESSMENT:

The East Bench Canal diverts water from the Beaverhead River, a blue ribbon fishery, and this project may reduce diversion requirements. Abandonment of some project laterals may result in

the loss of some upland game bird habitat.

RECOMMENDATION:

The Department of Natural Resources and Conservation recommends a Coal Severance Tax Loan of $431,000 at 3 percent for 30 years.

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APPLICANT NAME: Evergreen Water and Sewer District

PROJECT/ACTIVITY NAME: Evergreen Wastewater Collection, Treatment and Disposal Facilities

AMOUNT REQUESTED: $100,000 Grant, $3,126,900 Loan

TOTAL PROJECT COST: $10,666,600

AMOUNT RECOMMENDED: $3,226,900 Loan

PROJECT DESCRIPTION:

At present approximately 1,840 persons reside within the Evergreen Water and Sewer District located immediately north and east of the City of Kalispell. Although the district provides central water for its residents, no central sewer is provided and all residents utilize individual septic tank and drainfield systems for sewage disposal. Because of the porous nature of the soils and the large concentration of individual sewage disposal systems in the area, the area groundwaters are becoming contaminated by leachate from the individual sewage disposal systems. The contaminated groundwaters may affect area wells and may add additional nutrients to Flathead Lake.

In order to solve these problems, the district proposes to construct a complete sewage collection system, treatment and disposal facilities. The system will collect septic tank effluent in small diameter pipe and pump the collected effluent to an aerated lagoon/slow rate land application (irrigation) site located in a farming area north of Creston.

TECHNICAL FEASIBILITY ASSESSMENT:

Collection, treatment and disposal alternatives, special problems, costs, financing options and other issues are addressed in an EPA-funded facilities plan entitled "Supplemental Kalispell Vicinity 201 Facility Plan." The facilities plan is essentially a preliminary engineering study and it has been submitted to the Water Quality Bureau (WQB) for review and approval. The facilities plan, complete with selected alternative, costs, etc., will be reviewed in detail. It must be technically feasible, cost-effective and able to produce the desired effects. WQB approval of the facilities plan and the design is required before commencement of construction.

FINANCIAL FEASIBILITY ASSESSMENT:

The total cost of the project is estimated at $10,666,000. Of this total estimated project cost, approximately $9,289,600 is the cost of construction and contingencies, $178,000 is the cost of land aquisition, and the balance is for engineering and administration. The application is for a grant of $100,000 and a loan of $3,126,900. This amount of loan/grant request places the applicant into the category that will utilize coal severance tax bond proceeds. Evergreen Water and Sewer District is on the Fiscal Year 1985 funding priority list to receive approximately $7,439,700 in EPA construction grant funds. Receipt of the EPA funding is, however, contingent on the district having its local share of project costs in hand. The district will apply for CDBG program grant monies in addition to the requested DNRC grant monies in order to raise the local matching funds. The district can issue Revenue Bonds upon approval of the voters within the district.

This is a rather massive project and users will pay more than $20 per month for sewer service after the system is completed. The anticipated high user costs may make it difficult to obtain district voter approval.

ENVIRONMENTAL IMPACT ASSESSMENT:

The only adverse impacts that will result from this project are those minor, short-term effects typically associated with construction projects. The crossing of the Flathead River will be via an insulated force main attached to the existing Highway 35 bridge and will not cause any adverse environmental impacts. Elimination of the source(s) of contamination of groundwater in the area will be a definite positive impact of the project. The WQB will review the project for environmental impact as part of their normal facilities plan review procedure and the selected alternative will be approved only if no significant impact is found.

SUMMARY OF PUBLIC BENEFITS:

The residents of the Evergreen Water and Sewer District and area groundwater users will directly benefit from the project. The major benefits expected are prevention of disease and improvement of water quality.

RECOMMENDATION:

The Department of Natural Resources and Conservation recommends a loan of $3,226,900 at an interest rate four percentage points below the rate at which the state bond is sold for the first seven years, and at the coal severance tax bond rate for the remaining 13 years, contingent upon the district passing the necessary bond issue and securing the necessary EPA construction grant funding. Any reduction in the loan request will result in recalculation of the loan interest rate. This rate will be based on the resulting deviation of the local utility fees from the state average. Any reduction in scope should not affect priority improvements.

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APPLICANT NAME: City of Glendive

PROJECT/ACTIVITY NAME: Glendive Water Treatment Plant

AMOUNT REQUESTED: $4,075,000

OTHER FUNDING SOURCES AND AMOUNTS: None

TOTAL PROJECT COST: $4,075,000

PROJECT DESCRIPTION:

The City of Glendive is located in eastern Montana along Interstate 94 and the Yellowstone River about 35 miles from the North Dakota border. The 5,978 residents of Glendive receive water from the existing water treatment plant which performs pretreatment, softening, stabilization, filtration, and disinfection of raw water pumped from intakes on the Yellowstone River. Components of the existing facility are: (1) river intake and low service pumps, (2) presedimentation basins, (3) intermediate pumps, (4) solids contact unit, (5) recarbonation basin, (6) filtration, (7) clear well, (8) high service pumps, (9) backwash pump, and (10) chemical feed equipment. The Montana Department of Health and Environmental Sciences (DHES) has issued a mandate for the City of Glendive to discontinue discharge of sludge from its water treatment plant into the Yellowstone River. The existing water treatment plant is comprised of four basic units constructed at different times between 1929 and 1959 and needs upgrading.

The proposed project will rehabilitate portions of the existing water treatment plant and integrate new construction to bring the water treatment facility up to federal and state requirements as well as meeting future demands. The existing basins, intermediate pumps, the existing solids contact unit, filters, and chemical feed equipment will be rehabilitated while the recarbonation basin, backwash pumps, and the electrical controls will be expanded. New construction includes the intake structure and pumps, the second solids contact unit, clearwell, high service pumps, solids handling facility, and yard piping. The old filter building will be demolished to complete the project.

TECHNICAL ASSESSMENT:

The City of Glendive has completed a master plan for improvements of its municipal water and wastewater systems. The Phase I Design Report for the water treatment plant was completed in October of 1987 and evaluated three alternatives for upgrading the existing Glendive water treatment plant. The plant deficiencies were evaluated, alternatives for upgrading proposed, and cost estimates developed. The preferred alternative proposed completing a combination of rehabilitation and new construction.

The report was comprehensive and adequately addresses all areas of the water system. The need for improvements to the city's water treatment system is well documented and the proposed project is appropriate, technically feasible, and will produce the desired results.

Phase II of the Design Report has begun and includes a pilot study, development of design criteria for the selected treatment process, preparation of detailed general arrangement drawings of the selected process, redefinition of the sequence of water plant improvements required, and preparation of detailed construction costs.

The design of the proposed improvements will be reviewed and approved by the Water Quality Bureau (WQB) of the DHES prior to beginning construction. Conceptually, the WQB agrees with the project proposal and has ranked it high on its list of priority projects.

The WQB is conducting a "Comprehensive Performance Evaluation" of the Glendive Water Treatment Plant on September 19-21, 1988 to assess and analyze the plant performance and make recommendations for upgrades. Additional information may be available when this report is completed which may result in a modification of the Glendive loan application.

FINANCIAL ASSESSMENT:

The total cost of the project is estimated to be $4,075,000 of which $3,399,000 is for construction and contingencies and the balance for engineering, administration, legal fees, and financing. The applicant has requested a $4,075,000 loan from DNRC. The applicant intends to pursue funding from the Department of Commerce Community Development Block Grant Program and the Economic Development Administration. Consequently, the amount needed from DNRC may eventually be reduced.

The cost estimates for the intake structures and pumps, new solids contact unit, and chemical feed equipment seem high to DHES reviewers. The most cost-effective alternative available was selected. The town proposes to raise the monthly water user rates from $13.08 to $32.08 to repay the DNRC loan. This is based on a 10 percent interest rate and a 20 year term. If a 3 percent interest rate subsidy is approved, the monthly water user rate would be $27.58 for the first 5 years of the loan.

ENVIRONMENTAL ASSESSMENT:

The only adverse impacts that will result from this project are those minor short-term effects typically associated with construction projects. Positive impacts will be an improved disposal of sludge generated in the treatment process that was previously discharged to the Yellowstone River. This will satisfy the DHES mandate.

RECOMMENDATION:

DNRC recommends a $4,075,000 loan from the sale of coal severance tax bonds to be repaid over a maximum of 20 years. The interest rate shall be 2 percentage points below the rate at which the state bond is sold for the first 5 years, and at the

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coal severance tax bond rate for the remaining 15 years. Any reduction in the loan request will result in recalculation of the loan interest rate. This rate will be based on the annual water rates in relation to the median household income. Any reduction in project scope should not affect priority improvements.

Funding shall be contingent upon: (1) if repayment of the DNRC loan requires the city to raise water rates above $25.00/user/month, then a town election to authorize any bonded indebtedness involving this loan must be held to assure citizen support; and (2) the town must investigate the private bond market to finance the project improvements.

APPLICANT NAME: Lake County/Big Arm Sewer District

PROJECT/ACTIVITY NAME: Big Arm Sewer

AMOUNT REQUESTED: $2,283,893

OTHER FUNDING SOURCES AND AMOUNTS: $2,234,991 - EPA

TOTAL PROJECT COST: $4,518,884

PROJECT DESCRIPTION:

The unincorporated town of Big Arm is located in Lake County along the south shore of Big Arm Bay of Flathead Lake. The present population of the Big Arm planning area fluctuates from 156 people in the winter to 793 in the summer months. There are also two state parks and a summer resort which have a combined space for 184 recreational vehicles. There is no central public water or sewer in this planning area.

Water is supplied by individual privately owned wells or withdraws from Flathead Lake. Presently, wastewater treatment in the Big Arm area is provided for by individually owned, on-site septic tank drainfields, cesspools, or seepage pits. It is believed that more than 75 percent of the septic tank systems are contributing untreated wastewater to Flathead Lake and should be replaced with a public facility. High groundwater, shallow bedrock conditions, steep slopes, and restrictive soil layers are prevalent in the area. Contamination of existing water supplies is also occurring.

The proposed project will construct a conventional sewage collection system for one part of the planning area that will gather each resident's wastes through a series of 8-inch diameter gravity flow collection mains with manholes every 400 feet. The sewage flows by gravity to a common collection point and is pumped by a lift station to the treatment site. A method for storing and pumping the wastewater during power outages must be provided. A pressure sewer system will collect the sewage from the residents in the remaining parts of the planning area using

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grinder pumps and small diameter pressure mains. Lift stations and force mains will be required to connect the collection system to the proposed treatment area.

Treatment of the collected wastewater will consist of constructing a two cell aerated lagoon located southwest of the Big Arm townsite. All of the wastewater will have to be pumped from the main lift station in Big Arm to the treatment site. The treatment facility would include a bar screen, a metering facility, two aerated lagoon cells, an 8 month retention storage pond for winter storage, and a land application area of 52 acres for sprinkler application (center pivot irrigation system) of the treated waste to the soil.

TECHNICAL ASSESSMENT:

The Lake County/Big Arm Sewer District has hired an engineer to complete a facility plan which will evaluate the methods of collection and treatment of sanitary sewage for the study area and provide recommendations for improvements that conform with state and federal laws and regulations. The draft facility plan, which is 90 percent complete, has been submitted to the Department of Health and Environmental Sciences (DHES), and a public hearing was held September 29, 1988 to discuss the alternatives proposed. The final facility plan to be completed in October 1988 will incorporate the comments from the public hearing and propose the selected alternative. The alternative proposed in the DNRC loan application was determined by the engineer to be the most cost-effective and appropriate and will most likely be the alternative selected in the final facility plan. However, there is the potential that the selected alternative presented in the final facility plan could be different than the one proposed in the DNRC loan application.

The draft facility plan is comprehensive and adequately addresses the complete planning area of the Big Arm Sewer District. All of the interim and final reports of Flathead Lake water quality spotlight sewage from on-site systems as a major problem. The need for an adequate sewage collection and treatment system for the Big Arm area is evident and well documented. The proposed sewage collection and treatment system for Big Arm is appropriate, technically feasible, and will produce the desired results.

The design of the proposed improvements will be reviewed and approved by the Water Quality Bureau (WQB) of the DHES prior to beginning construction. Conceptually, the WQB agrees with the project proposal, and has ranked it high on their priority list.

FINANCIAL ASSESSMENT:

The total cost of the project is estimated to be $4,518,884 of which $3,570,528 is for construction and contingencies and the balance is for engineering, financial, legal fees, and administrative costs. The applicant has requested a $2,283,893 loan from DNRC and will get the remaining $2,234,991 in an EPA grant to complete the funding.

The cost estimates appear to be realistic and reasonable, and it appears that the most cost-effective alternative available

will be selected. More thorough and complete cost estimates will be available during the design phase of the project. The district proposes to institute a monthly sewer users rate yet to be established to repay the DNRC loan debt.

ENVIRONMENTAL ASSESSMENT:

Adverse impacts resulting from this project will be those minor, short term effects typically associated with construction projects. Positive impacts will be the elimination of untreated effluent from failed septic systems entering Flathead Lake and an improved water quality will result.

RECOMMENDATION:

DNRC recommends a $2,283,893 loan from the sale of coal severance tax bonds to be repaid over a maximum of 20 years. The interest rate shall be 3 percentage points below the rate at which the state bond is sold for the first 5 years, and at the coal severance tax bond rate for the remaining 15 years. Any reduction in the loan request will result in recalculation of the loan interest rate. This rate will be based on the annual water rates in relation to the median household income. Any reduction in project scope should not affect priority improvements.

Funding shall be contingent upon the district holding an election to authorize any bonded indebtedness involving this loan to assure citizen support if the sewer rates from the project will be greater than $25.00/user/month.

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APPLICANT NAME: Pondera County Conservation District

PROJECT/ACTIVITY NAME: Lower Birch Creek Watershed Project Rehabilitation

AMOUNT REQUESTED: $ 750,000 Loan

TOTAL PROJECT COST: $1,864,000

AMOUNT RECOMMENDED: $ 750,000 Loan

PROJECT DESCRIPTION:

An overall Watershed Development Plan has been established by agreement between the Pondera County Conservation District, Pondera County Canal and Reservoir Company (Company), and the Soil Conservation Service (SCS). The master plan includes, but is not limited to, water management, education, ditch structures, measuring devices, canal rehabilitation and reservoir upgrading. To implement the project within the scope of time, the manpower available, etc., several phases of activity have been established. This application deals with the beginning of Phase II.

Phase II specifically addresses a 202,000-acre area of the watershed of which 37,900 acres are irrigated cropland, 134,000 acres is dry cropland, 28,750 acres is rangeland and 1,350 acres is other lands. Ninety-six percent of the area is privately owned by 348 farmers and ranchers.

Of consideration in this application will be water management plans on 5,000 acres, 23 canal structures, a system management structure, and 59 turnout measuring structures.

TECHNICAL FEASIBILITY ASSESSMENT:

The SCS has determined that overall irrigation efficiency is near 22 percent and in dry years much of the area becomes short of water. Serving such a large area, an overall plan will upgrade the efficiency and conserve water much more effectively than building piecemeal projects as given needs arise. In this project engineering design, technical standards and construction approval will be done by the SCS.

FINANCIAL FEASIBILITY ASSESSMENT:

The SCS has made in-depth studies of the available alternatives and benefits and has determination that the overall annual benefit will be $909,700 from the completed phase which is significant repayment capability.

The project will be implemented through a loan agreement between the Pondera Conservation District and the Pondera Canal and Reservoir Company. The district would utilize proceeds from a Department loan to make a loan to the Company. The Company will repay the district through assessments. The current assessments of the Company are relatively low and the Company has no history of problems in collecting the assessments as it has turn-off authority. Assessments are based on 75,727 shares and are sufficient to create a reserve. Small increases generate a lot of cash.

The additional $1,114,000 needed to complete the project will be acquired through PL 566 funding.

ENVIRONMENTAL IMPACT ASSESSMENT:

There will be only minor negative impacts created during the construction process. Positive impacts are expected in increased water quality as seepage and erosion will diminish with better water control. The efficient use of water will mean fewer stagnant water areas, thus fewer mosquito breeding areas.

SUMMARY OF PUBLIC BENEFITS:

This project will have direct benefits to 348 farms and ranches with indirect benfits from conserved water, increased recreation uses, greater crop and livestock production and larger spendable incomes in a community of 3,150 people and a county of 6,900 people.

RECOMMENDATION:

The DNRC recommends a loan of $750,000 at an interest rate of two percentage points below the rate at which the state bond is sold for the first seven years, and at the coal severance tax bond rate for the remaining 13 years. Any reduction in loan request will result in a recalculation of the loan interest rate. This rate will be based on the resulting deviation of the local assessments from the state average. Any reduction in project scope should not affect priority improvements.

The Department also recommends that the loan be conditioned on the Pondera County Conservation District and the Company providing loan security acceptable to the Department.

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APPLICANT NAME: Somers County Water and Sewer District

PROJECT/ACTIVITY NAME: Somers Sewer

AMOUNT REQUESTED: $3,151,960 Loan

OTHER FUNDING SOURCES AND AMOUNTS: $3,389,600 - EPA

TOTAL PROJECT COST: $6,541,560

PROJECT DESCRIPTION:

The unincorporated town of Somers is located in northwestern Montana along the north shore of Flathead Lake in Flathead County. The 333 homes in the planning area are without a public sewer system at present and dispose of wastewater through septic tanks and soil absorption systems. One out of every five of these privately owned, on-site disposal systems has failed since 1972.

The area within the proposed boundaries of the district poses many problems for installation of on-site, subsurface sewage treatment systems. The Somers townsite is built upon a hill with extensive areas of very shallow bedrock, and many areas are too steep to permit installation of on-site systems. In addition, some areas of the district have very shallow groundwater, are too close to surface water to meet the required setbacks, or have lots too small to accommodate this type of system.

The proposed project will construct a conventional sewage collection system taking each resident's waste through a series of 8-inch diameter gravity flow collection mains with manholes every 400 feet. The sewage flows by gravity to a common collection location and lift stations pump the sewage to the treatment site.

Treatment of the collected wastewater will consist of utilizing the existing Lakeside wastewater treatment plant with spray irrigation. This facility was completed in 1988 and consists of a two cell aerated lagoon followed by a storage cell for holding the treated wastes through the winter months. To accommodate Somer's wastewater flows, an additional winter storage basin and center pivot irrigation system will have to be constructed. In order to utilize this present facility for

disposal of treated wastes, the Somers County Water and Sewer Distict will have to reach an agreement with the Lakeside County Sewer District.

TECHNICAL ASSESSMENT:

The Somers County Water and Sewer District has hired an engineer to complete a facility plan which will evaluate the methods of collection and treatment of sanitary sewage for the study area and provide recommendations for improvements that conform with state and federal laws and regulations. The draft facility plan, which is 90 percent complete, has been submitted to the Department of Health and Environmental Sciences (DHES) and a public hearing will be held September 22, 1988 to discuss the alternatives proposed. The final facility plan to be completed by early November 1988 will incorporate the comments from the public hearing and propose the selected alternative.

The alternative proposed in the DNRC loan application was determined by the engineer to be the most cost effective and appropriate and will most likely be the alternative selected in the final facility plan. There is the potential that the selected alternative presented in the final facility plan could be different than the one presented in the DNRC loan application.

The draft facility plan is comprehensive and adequately addresses the complete planning area of the Somers County Water and Sewer District. All of the interim and final reports of Flathead Lake water quality spotlight sewage from on-site systems as a major problem. The need for an adequate sewage collection and treatment system for the Somers area is evident and well documented. The proposed sewage collection and treatment system for Somers is appropriate, technically feasible, and will produce the desired results.

The design of the proposed improvements will be reviewed and approved by the Water Quality Bureau (WQB) of the Department of Health and Environmental Sciences prior to beginning construction. Conceptually, the WQB agrees with the project proposal, and has ranked it high on its priority list.

FINANCIAL ASSESSMENT:

The total cost of the project is estimated to be $6,541,560 of which $5,427,010 is for construction and contingencies, and the balance is for engineering and financial costs. The applicant has requested a $3,151,960 loan from DNRC and will get the remaining $3,389,600 in an EPA grant to complete the funding.

The cost estimates appear to be realistic and reasonable, and it appears that the most cost-effective alternative available will be selected. More thorough and complete cost estimates will be available during the design phase of the project. The district proposed to institute a monthly sewer rate yet to be established to repay the DNRC loan debt.

ENVIRONMENTAL ASSESSMENT:

Adverse impacts resulting from this project will be those minor, short term effects typically associated with construction projects. Positive impacts will be the elimination of untreated

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effluent from failed septic systems entering Flathead Lake resulting in an improved water quality.

RECOMMENDATION:

DNRC recommends a $3,151,960 loan from the sale of coal severance tax bonds to be repaid over a maximum of 20 years. The interest rate shall be 3 percentage points below the rate at which the state bond is sold for the first 5 years, and at the coal severance tax bond rate for the remaining 15 years. Any reduction in the loan request will result in recalculation of the loan interest rate. This rate will be based on the annual water rates in relation to the median household income. Any reduction in project scope should not affect priority improvements.

Funding shall be contingent upon the district holding an election to authorize any bonded indebtedness involving this loan to assure citizen support, if the sewer rates from the project will be greater than $25.00/user/month.

APPLICANT NAME: City of Whitefish

PROJECT/ACTIVITY NAME: Whitefish Water Treatment and Distribution Project

AMOUNT REQUESTED: $6,035,800 Loan

OTHER FUNDING SOURCES AND AMOUNTS: $1,920,500 - City of Whitefish

TOTAL PROJECT COST: $7,956,300

PROJECT DESCRIPTION:

The City of Whitefish, with a population of about 4,500 people, is located in northwestern Montana, 15 miles north of Kalispell and just to the west of Glacier National Park. The existing water supply for the Whitefish water system consists of two surface water sources, Haskill Creek and Whitefish Lake.

Haskill Creek is the primary source of water and consists of three stream diversions and a raw water supply pipeline which terminates at an open and unlined 9 million gallon capacity reservoir. Water leaves the reservoir via a submerged, screened intake and flows under pressure to a chlorination facility. The water is chlorinated, delivered to the city through an 18-inch cast iron pipe, and distributed to the users through approximately 300,000 lineal feet of mains ranging in size from 4-inch to 18-inch.

Whitefish Lake is the secondary water source that is used to augment Haskill Creek water during maximum demand days or emergency situations. Two pump stations with a combined capacity of 1,800 gallons per minute pump water from the lake directly

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Re: Long Range Plan.

into the water distribution system. Chlorine is added to the water at the pump stations for disinfection but there are no chlorine contact time provisions. A 750,000 gallon steel tank stores this treated water.

The quality of the lake water can not meet federal and state safe drinking water requirements and also has some minor odor and taste problems. The Haskill Basin water is of good quality but has turbidity problems with spring runoff, and the raw water impounded in the 9 million gallon open reservoir is susceptible to contamination and excessive algae growth. Both sources also have the threat of giardia contamination. Some fire flow deficiencies also exist in certain areas of town.

The purpose of this project is to construct a water treatment facility and upgrade the distribution system to supply the City of Whitefish a good quality water supply in sufficient quantity to meet the needs of the community over the next 20 years. The project consists of construction of an additional supply line across the railroad tracks and the river linking the north and south parts of the city; construction of a second supply line from the existing 9 million gallon reservoir to the city; construction of a new intake and pump station on Whitefish Lake; construction of a new transmission pipeline between the new pump station and the existing 9 million gallon reservoir; construction of a new 4 million gallon water treatment facility and the construction of a new 1 million gallon storage reservoir.

TECHNICAL ASSESSMENT:

The City of Whitefish has hired a consulting engineer who has completed the following reports on the Whitefish water system: (1) Investigation of Giardia Disinfection Processes, (2) Water Distribution System Analysis, and (3) Whitefish Water Master Plan. The Water Master Plan, completed in 1987, discussed the existing water system and its deficiencies; future service area, population, and water needs; a place for upgrading the water system to meet federal and state safe drinking water requirements; and costs for upgrading alternatives along with funding options.

A water treatment plant facility is needed because both water supply sources are subject to giardia, bacteria and viruses, minor tastes and odors. Proposed new federal and state standards will require some form of treatment other than disinfection for both supply sources. The northern portion of the city has experienced giardia problems since the spring of 1985 requiring a boil advisory to be issued.

The Water Master Plan thoroughly discussed the city's problems and the selected alternative appears to be technically feasible, appropriate, and should achieve the desired results. The design of the proposed improvements will be reviewed and approved by the Water Quality Bureau (WQB) of the Department of Health and Environmental Sciences prior to beginning construction. Conceptually, the WQB agrees with the project proposal, and has ranked it very high on a list of its priority projects.

FINANCIAL ASSESSMENT:

The total cost of the project is estimated to be $7,956,300 of which $7,210,500 is for construction and contingencies, and the balance is for engineering, administration, and financing. The applicant has requested a $6,035,800 loan from DNRC and will supply the remaining $1,920,500 of project funds from raised water rates and reserve accounts already established.

The cost estimates appear realistic and reasonable for what is proposed and it appears as though the most cost-effective alternative available was selected. Current residential water rates are $8.00 per user per month and will increase to $31.00 per user per month to retire the indebtedness from the loan.

ENVIRONMENTAL ASSESSMENT:

The only adverse impacts that will result from this project are those minor short-term effects typically associated with construction projects. Positive impacts that will result are an improved water quality that will meet the future federal and state Safe Drinking Water Act and prevent the threat of contamination from giardia. The boil advisory in the northern part of the city will also be dropped.

RECOMMENDATION:

DNRC recommends a $6,035,800 loan from the sale of coal severance tax bonds to be repaid over a maximum of 20 years. The interest rate shall be 2 percentage points below the rate at which the state bond is sold for the first 5 years, and at the coal severance tax bond rate for the remaining 15 years. Any reduction in the loan request will result in recalculation of the loan interest rate. This rate will be based on the annual water rates in relation to the median household income. Any reduction in project scope should not affect priority improvements.

Funding shall be contingent upon: (1) a city election to authorize any bonded indebtedness involving this loan to assure citizen support, if the water user rates will increase to above $25.00/month/user; and (2) an investigation of the potential for bonding the requested amount through a private bonding company.

2
2-19-91
7 Long Range Plan.

APPLICANT NAME: Town of Wibaux

PROJECT/ACTIVITY NAME: Water Storage Reservoir and Transmission Line

AMOUNT REQUESTED: $50,000 Grant
$200,000 Loan

2
2-19-91
Long Range Plan.

OTHER FUNDING SOURCES AND AMOUNTS: None

TOTAL PROJECT COST: $250,000

PROJECT DESCRIPTION:

The Town of Wibaux is located on the eastern edge of Montana approximately eight miles from the North Dakota border along Interstate 94. The town's water works system consists of a 100,000-gallon elevated storage tank and a water distribution system with 4-inch, 6-inch, and 8-inch cast iron mains. Water is supplied by two wells pumping a total of 330 gallons per minute (gpm). The supply is adequate, although a high sodium content occasionally occurs. Parts of the water works system, including the elevated storage tank, are over 60 years old. Tank inspections have found many holes and leaks in need of repair.

The project improvements that would be funded include the construction of a new, on-ground 100,000 gallon water storage reservoir and a new 8-inch transmission line from the existing water wells to the new tank site.

TECHNICAL ASSESSMENT:

The Town of Wibaux had a detailed water system analysis done in 1982 which evaluated the water works system, the deficiencies, and priorities for improving the deficiencies. In April 1988, the town hired a consulting engineering firm to prepare a preliminary engineering report that evaluated previous studies and outlined the scope of the necessary improvements. The town has a definite need to replace the storage reservoir because it is proving to be a big maintenance problem and becoming cost prohibitive to annually patch the leaks. The proposed project appears to be technically feasible and should solve some of Wibaux's immediate problems.

The design will be reviewed and approved by the Water Quality Bureau (WQB) of the Department of Health and Environmental Sciences before construction begins. The WQB agrees with the general concept of the proposed project and has ranked it in the top half of its list of priority projects.

FINANCIAL ASSESSMENT:

The total cost of the project is estimated at $250,000. Of this total, $215,900 is earmarked for construction and contingencies with the balance for legal and administrative costs. The applicant has requested a $50,000 grant and a $200,000 loan from DNRC. The estimated project costs appear to be reasonable and realistic, and the most cost-effective solution has been selected. The present average water user rates are $8.17/user/month and are expected to raise to $18.72/user/month to repay a $250,000 loan with 10 percent interest and a 20 year term for the total project costs.

ENVIRONMENTAL ASSESSMENT:

Other than the short-term impacts typically associated with municipal construction projects, no adverse impacts are anticipated with this project.

RECOMMENDATION:

DNRC recommends a $250,000 loan from the sale of coal severance tax bonds to be repaid over a maximum of 20 years. The interest rate shall be 2 percentage points below the rate at which the state bond is sold for the first 5 years, and at the coal severance tax bond rate for the remaining 15 years. Any reduction in the loan request will result in recalculation of the loan interest rate. This rate will be based on the annual water rates in relation to the median family income. Any reduction in project scope should not affect priority improvements. The town must also provide DNRC with proof of the deteriorated condition of the water storage reservoir.

The Water Development Loan and Grant Program limits grants for projects of this type to 25 percent of the total project costs up to $50,000 with a total grant and loan combination of $200,000. The town proposes to use $250,000 of Department funds from two separate programs, which is contrary to Department policy. Because a Coal Severance Tax Bond is the appropriate funding mechanism for a project of this size, DNRC does not recommend a grant.

2

2-19-91

7 Long Range Plan.

APPLICANT NAME: Mill Creek Water and Sewer District

PROJECT/ACTIVITY NAME: Mill Creek Gravity Sprinkler Irrigation Project

AMOUNT REQUESTED: $999,223

OTHER FUNDING SOURCES AND AMOUNTS: Soil Conservation Service (SCS) - $1,527,100; Mill Creek Water and Sewer District - $418,000

TOTAL PROJECT COST: $2,944,323

PROJECT DESCRIPTION:

The proposed project is located in Park County, about 20 miles south of Livingston, Montana. The area is composed of 3,300 acres of irrigated hay and pasture adjacent to Mill Creek. In order to flood irrigate 2,160 acres of hay and pasture, and to pump sprinkler irrigate 1,140 acres of hay and pasture, 26,000 acre-feet are annually diverted out of Mill Creek. Water shortages then occur late in the year, with shortages beginning on July 15 in dry years, and always by August 15th. In addition, the significant dewatering of Mill Creek has not allowed the creek to serve as a spawning tributary for Yellowstone River cutthroat trout.

Under the proposed project, the Mill Creek Water and Sewer District will install a new diversion structure, a pipe flume, 4.2 miles of canal, 11.6 miles of pressurized delivery pipelines, a wasteway structure, and other appurtenant structures. This system will replace three parallel canals. Overall, the

project efficiency will improve from 8% to 44%, reducing the total irrigation requirement from 26,000 acre-feet per year, to 10,000 acre-feet per year. This conservation will revive Mill Creek as a spawning tributary for Yellowstone River cutthroat trout by significantly increasing the instream flow. Crop yields will increase from 39% to 90% of potential, and electrical use will be reduced by 83%.

TECHNICAL ASSESSMENT:

The SCS made a preliminary design of the system, and found the project to be technically feasible. The analysis performed is consistent with current standards and appears to be technically sound. Some reviewers have expressed concern that the estimated yield of 4.5 tons/acre is too optimistic.

The SCS will complete the final project design, and will provide on-farm management assistance for two years following the construction of the project.

FINANCIAL ASSESSMENT:

The total cost of the project, including inflation and contingencies, is $2,944,323. Construction of the gravity sprinkler delivery system is estimated to cost $1,792,400. The purchase and installation of the sprinkler systems will cost $917,900, and $234,023 is included to cover inflation and contingencies. The District will own the delivery system and will assess a fee to cover construction, operation, and maintenance costs. The SCS will provide 50% cost share for both the construction of the delivery system and the on-farm treatment. The total federal share will be $1,527,100 and the non-federal share will be $1,417,223. Of the non-federal share $999,223 will be for delivery system construction and $418,000 will be for on-farm system construction. The Mill Creek Water and Sewer District requests a loan of $999,223 to cover delivery system construction costs.

ENVIRONMENTAL ASSESSMENT:

An evaluation team consisting of representatives of the U.S. Fish and Wildlife Service, Montana Department of Fish, Wildlife and Parks, and the SCS investigated impacts of this project on threatened and endangered species, historic and archaeological sites, wildlife and fishery resources, wetlands, visual resources, water quality, and other environmentally unique or sensitive areas. It was determined that there will be no significant environmental problems, conflicts, or disagreements among groups or agencies. Based on this, there are no significant impacts which will require an environmental impact statement. In addition, there is the positive effect of providing an additional spawning tributary for Yellowstone River cutthroat trout.

RECOMMENDATION AND CONTINGENCIES:

The Department recommends a loan of $999,223 at three percent for a term of 30 years.

MONTANA SALINITY CONTROL ASSOCIATION

EXHIBIT 3
DATE 2-19-91
HB 8, RDG 8
Long Range Plan.

SOIL AND WATER NONPOINT SOURCE
POLLUTION CONTROL AND MANAGEMENT

Overview: Agriculture is one of the main contributors of Nonpoint Source Pollution (NPSP) in Montana due to sedimentation and salinity. Ground and surface water quality and soil productivity have been severely impacted in the entire Western United States, Northern Great Plains and prairie provinces. Drinking, irrigation and recreational uses of water have been degraded and several million acres of cropland are no longer productive.

Saline seeps are recently developed saline springs resulting from an interaction of geologic, land use and climatic factors. Seep areas range widely in size from less than an acre to entire watershed drainages. Management problems occur when land ownership changes between the recharge and discharge areas. Property rights and liabilities are not well defined when dealing with ground water related NPSP. Economical incentives are often absent for cropping systems or other land use changes that will prevent or reclaim salinity.

Ground water contaminated by saline seep is rarely useable for agricultural or domestic use and total dissolved solids concentrations range from 4,000-70,000 mg/l. High nitrate, selenium, boron and heavy metal concentrations have been documented. All these contaminants represent a threat to public health, agriculture, petroleum and recreation industries, fish and wildlife and other beneficial uses of ground and surface water.

On-Land Project Description: Montana Salinity Control Association (MSCA) is a conservation district based program and is dedicated to the prevention, reclamation and education of NPSP problems. Conserving and improving soil and water quality are principle goals. MSCA is working to implement proven reclamation techniques on a farm by farm basis to address dryland and irrigated salinity problems. The organization represents conservation districts in 33 eastern counties where salinity is a recognized problem. MSCA has been active since 1980, with over 365 projects completed or in progress. Currently, 25 new applications for assistance are on file. MSCA has documented and/or mitigated NPSP from oil and gas exploration and extraction activities as well.

Non-Land Project Description: MSCA conducts hydrogeologic site characterizations, recharge area identification, and soil and water sampling and monitoring. Emphasis is placed on intensive and alternative cropping systems, and improved water management to prevent and reclaim NPSP, and promote soil and water quality conservation. MSCA works cooperatively with local, state, federal and private entities.

Hydrogeologic investigations, including analyses and monitoring, and site-specific recommendations will be completed on approximately 20 individual salinity projects. The number will vary according to project size. Five salinity projects associated with suspected contamination from oil and gas exploration or production are also planned.

MSCA will work with cooperators to develop and implement recommendations that will jointly benefit wildlife habitat and salinity control. The Upland Gamebird

PROJECTS COMPLETED PLUS APPLICATIONS ON FILE - SEPTEMBER, 1978

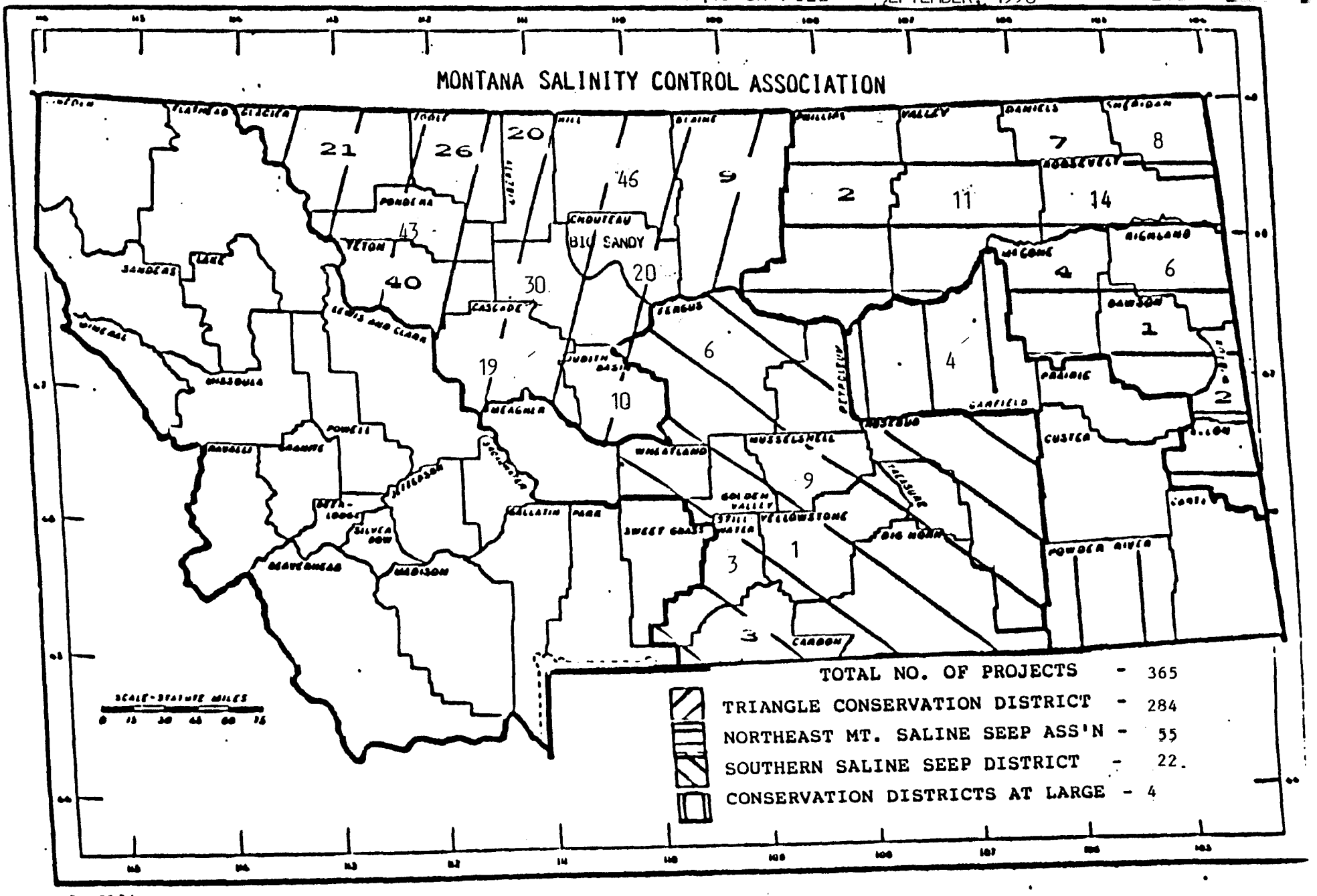

EXHIBIT 4
DATE 2-19-91
HB 8, RDG 8
Long Range Planning

February 19, 1991 Long Range Planning Committee

I am Mike Habets, representing the Bullhead Water Quality Association in Pondera County. Our organization was formed in Nov. 1989 and is made up of landowners in 68 sq mi area, or 43,520 acres. The organization was formed to address nonpoint point source pollution problems on a watershed scale and develop new Best Management Practices that are both technically and economically achievable.

A steering committee was formed, comprising of 6 landowners, to find funding sources and provide direction to the technical organizations and agencies that are involved. The Montana Salinity Control Association has been instrumental in collecting baseline data to document the extent of the problem and helping to keep all landowners informed. The Water Quality Bureau has made available small grants from EPA pass-through funds to partially pay for the initial work.

The major resource problem is over 1800 acres of salinized land. The causes are leaking canals, and inefficient water use from both irrigation and dryland cropping systems. The landowners have agreed to assess themselves $.25/ac for total land within the boundaries. The funds will be used for fieldwork and as potential match for grant programs.

The Bullhead Water Quality Association supports MSCA's program, and as a group we ask you to fund their grant request.

EXHIBIT 5
DATE 2-19-91
HB 8 RDGP 11
Long Range Plan.

NONPOINT SOURCE POLLUTION CONTROL
WATER QUALITY BUREAU - DHES

Program Summary

Nonpoint Source Pollution is water pollution originating from diffuse sources such as agriculture, forest practices, or mining. Approximately 95 percent of the water pollution in Montana is attributed to nonpoint sources. The federal Clean Water Act was amended in 1987 to include Section 319 that required each state to complete an assessment of waters impaired by nonpoint source (NPS) pollution and to develop a comprehensive NPS management program. **The Water Quality Bureau, the designated NPS pollution control and water quality agency in Montana**, completed that task and leads all NPS activities in the state. Montana was one of only two states to submit the required NPS Assessment Report and NPS Management Plan by the August 4, 1988 deadline and subsequently receive full program approval . Section 319 authorized up to $400 million to be provided to states with approved management plans over the next four fiscal years.

The NPS management program developed by the **Water Quality Bureau** consists of the implementation of watershed improvement projects to demonstrate the use of **best management practices (BMPs)** adopted in the management plan for each of the primary source categories of NPS pollution - agriculture, forest practices, and mining - and a monitoring program to track the results of each project. To promote the use of the voluntary BMPs being demonstrated, a statewide educational program was also initiated to inform land owners and managers of the water quality improvements being achieved through the use of various pollution control techniques.

Program Status

The NPS program administered by the Water Quality Bureau has been supported wholly by federal funding provided through the Clean Water Act. In FY 90, the first year program implementation funds were available from EPA to those states with approved NPS programs, the Bureau was able to fully or partially fund 12 projects, and the education and monitoring programs. The state was able to secure from EPA three grants totaling $948,477 and began spending the funds in FY 91. To meet the requirement of a **60% federal and 40% state match,** we selected four grants provided by DNRC to other entities as the state match in the amount of $946,700. **The amount of federal funding the state is able to secure for the program is highly dependent on the availability of state funds (RDGP funds) to meet the match requirements.**

Projects are typically sponsored by conservation districts with technical and financial assistance provided by the Soil Conservation Service, Agricultural Stabilization and Conservation Service, the Department of Fish, Wildlife and Parks, Extension Service and others. A coordinated, interagency approach for program implementation is required under Section 319 and crucial to the success of the program. The following table illustrates those projects funded during fiscal year 1990 along with the educational and monitoring programs.

FY 1990

	Project
Otter Creek	$ 60,000
East Spring Creek	$ 75,000
Musselshell River	$125,000
Alt. Irrig. Diversions	$ 30,000
Godfrey Creek	$215,055
Ninemile Creek	$ 99,600
Threemile Creek	$ 94,560
Silviculture Demo.	$ 17,960
Groundwater	$ 68,900
Monitoring	$ 41,320
Education Program	$ 93,052
Blackfoot River	$422,000
Bullhead Salinity Control	$ 52,700
Elkhorn Creek	$300,000
MSCA Salinity Control	$200,000
TOTAL	$1,895,147

Source :

Section 319 - EPA	$948,447
RDGP - DSL	$707,000
RDGP - MT Salinity Control Assn	$239,700

Total Federal Funding	$948,447 (50.1%)
Total State Funding	$947,700 (49.9%)

Proposed FY 1991 Program

Base Program

The funding source for the base level budget which includes salaries and operating expenses has been funded jointly from Sections 205(j)(5) and 319 of the federal Clean Water Act. Funding from the Section 205 is no longer available to the state. Therefore, the base program budget will now be funded wholly from Section 319 grant funds secured by the state from EPA for NPS program implementation.

The remaining budget items will be funded from Section 319 grant funds and from state reclamation development grant program (RDGP) funds. Based on the projected funding levels authorized in Section 319 and the available state grant funds, the Bureau anticipates that we will be able to secure from to $1.2 to 1.5 million in each of the next two fiscal years, most of which will be provided to sponsors for project and program implementation.

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2-19-91
Long Range Plan.

The EPA annually sets a target grant for each state which represents the funding level the state may receive from the total regional (six state) NPS allocation. In addition, each state is eligible to compete for funds on a regional basis for project and program implementation. Montana has been very successful in the past receiving a relatively high target grant in federal fiscal year 1990 as compared to other states in the western region. In addition, we received a supplemental allocation of over $105,000 after EPA deemed the state's NPS program **exemplary**. Shown below is the proposed FY 1991 program budget.

FY 1991

Base Program - Staff & Operating Expenses	$391,023	(1)
Bullhead Salinity Control Project	$200,000	(1)
Big Spring Creek	$ 50,000	(1)
NPS Education		
-WQB Newsletter	$ 9,000	(1)
-MT Outdoors	$ 35,000	(1)
-Forestry		
BMP Brochure	$ 2,000	(1)
BMP Booklet	$ 5,000	(1)
BMP Workshops	$ 4,650	(1)
BMP Video	$ 18,000	(1)
BMP Education Assessment	$ 4,500	(1)
-Mining Publication	$ 10,000	(1)
-Riparian Management		
Fact Sheets	**$ 6,000**	(2)
Urban Development Brochure	**$ 5,000**	(2)
Stream Protection Handbook	**$ 5,000**	(2)
Groundwater/Chemical BMP Education	**$ 22,500**	(2)
Monitoring & Equipment	**$ 48,120**	(2)
Wetland/Riparian Grazing BMPs	**$ 30,000**	(2)
Blackfoot GIS/NPS Model	**$ 30,000**	(2)
Salinity Control - MT Salinity Control Assn.	$137,500	(3)
Butcher Creek	$ 77,573	(4)
Big Otter Creek	$ 45,000	(4)
Godfrey Creek	$100,000	(4)
Contracts with Nonprofits for NPS Assessment	$ 20,000	(4)
Water Quality Conference	$ 20,000	(4)
TOTAL	$1,275,866	

Source:	Section 319 - EPA	$ 729,173	(1)
	RDGP - Water Quality Bureau	**$ 146,620**	(2)
	RDGP - MT Salinity Control	$ 137,500	(3)
	RDGP - DNRC (1989)	$ 262,753	(4)

Total Federal Funding	$729,173	(57%)
Total State Funds	$546,693	(43%)

EXHIBIT 6
DATE 2-19-91
HB 8 RD637
long Range Plan.

United States Department of Agriculture
Soil Conservation Service
Federal Building, Room 443
10 East Babcock Street
Bozeman, MT 59715

January 15, 1991

Laurie Zeller
Administrative Assistant
Conservation Districts Division
Department of Natural Resources & Conservation
1520 East Sixth Street
Helena, MT 59620

Dear Laurie,

SUBJECT: SOI--Progress Report--Agreement CDG-89-2523

We have enclosed the progress reports that were due January 15, 1991, under our soil survey agreement.

We have earned $42,500 for the period between October 1, 1990 and December 31, 1990 based on the progress in the enclosed reports. We have transferred two soil scientists to Sanders County to keep progress on track. Attached is bill #913000031 in the amount of $27,500 for the January 1, 1991 to March 30, 1991 quarter.

This, according to our records, will be the last bill expending the $290,000 in the agreement. A final report will be prepared in April.

Please contact Gordon L. Decker, State Soil Scientist, (406-587-6818) if you have any questions.

Sincerely,

Robert J. Graham
ACTING

RICHARD J. GOOBY
State Conservationist

cc:
Robert G. O'Driscoll, SAO, SCS, Bozeman, MT (w/o enclosure)
Susan K. Tharp, Budget Officer, SCS, Bozeman, MT
Kim A. Kidney, Contract Specialist, SCS, Bozeman, MT
Gordon L. Decker, State Soil Scientist, SCS, Bozeman, MT

Enclosure

Progress Report for Agreement CDG-89-2523 (January 15, 1991)

This is in reference to Soil Survey progress required by the agreement (CDG-89-2523) between the Montana Department of Natural Resources and Conservation and the Soil Conservation Service, signed in March, 1989.

Progress summary of work accomplished for the period between October 1 and December 31, 1990 is as follows:

1. SCS soil scientists have been retained in the Chouteau, Custer, and Musselshell County area soil surveys to accelerate the soil survey program as outlined in this agreement. The soil scientist that resigned in Deer Lodge has not been replaced, as the survey in Powell county is nearing completion and the remaining soil scientists will be working in Deer Lodge and Granite counties. Two soil scientists were transferred to Sanders County Area in October, so we have earned the $5,000 we were short the previous period.

2. There were no acres mapped during this period as shown in Table 1. The soil survey legends have been updated with soil and mapping unit descriptions, and maps edited for the acres mapped. The soil information is available for users. Soil scientists assigned to this project collected field soil and vegetative data to support soil interpretations. Acres mapped exceed the 300,000 acres expected in the agreement.

3. Table two summarizes the funds expended for agreement soil scientists.

4. We have expended $42,500 during the period October 1, 1990 through December 31, 1991.

mmx

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2-19-91
8, RDG 37
Long Range Plan.

TABLE 1: ACRES MAPPED BY QUARTER AND CUMULATIVE BY COUNTY

COUNTY	APR-JUN,89	JUL-SEP,89	OCT-DEC,89	JAN-MAR,90	APR-JUN,90	JUL-SEP,90	OCT-DEC,90	JAN-MAR,91
			ACRES	MAPPED				
CARTER	8560	1120	8196	0	6400	0	0	
CHOUTEAU	30185	44870	15305	0	20890	56955	0	
CUSTER	38789	23972	13382	0	32486	39984	0	
MUSSELSHELL	9348	7822	1504	0	7887	46287	0	
DEER LODGE	10400	7700	0	0	0	0	0	
SANDERS	11808	10307	3775	0	4555	0	0	
QTR. TOTAL	109090	95791	42162	0	72218	143226	0	0
CUMULATIVE TOTAL	462487							

mmx

EXHIBIT 6
DATE 2.19.91
HB 8 BDG 37
Long Range Plan.

TABLE 2: EXPENDITURES BY COUNTY OCT 1, 1990 - DEC 31, 1990

COUNTY	NO. OF SOIL SCIENTISTS	DNRC FUNDS EXPENDED: SALARY	BENEFITS	TRAVEL	EQUIPMENT	SCS FUNDS EXPENDED: SALARY & BENEFITS	RENT, ETC.	TRAINING	ADM. COST
CARTER	1	$4,632	$703	$125	$700	$223	$1,100	$750	$748
CHOUTEAU	2	$9,363	$1,405	$250	$1,400	$445	$2,200	$1,500	$1,495
CUSTER	1	$4,632	$703	$125	$700	$223	$1,100	$750	$748
MUSSELSHELL	2	$9,363	$1,405	$250	$1,400	$445	$2,200	$1,500	$1,495
DEER LODGE	0	$0	$0	$0	$0	$0	$0	$0	$0
SANDERS	2	$9,363	$1,405	$250	$1,400	$445	$2,200	$1,500	$1,495
QTR. TOTAL	8	$37,452	$5,620	$1,000	$5,600	$1,780	$8,800	$6,000	$5,980

DNRC TOTAL $49,672 SCS TOTAL 22560
(THESE TOTALS ARE HIGH BECAUSE ORIGINAL COSTS WERE BASED ON 6 SOIL SCIENTISTS WHERE THE AGREEMANT CALLS FOR 7)

ADJ QTR TOT $43,072
(THIS TOTAL IS SALARY AND BENEFITS FOR DNRC AND SCS WILL PICK UP THE TRAVEL AND EQUIPMENT)

ASSUMPTIONS BASED ON DATA FROM PROJECT PROPOSAL PLUS INFLATION SALARY INCREASES

ANNUAL/SOIL SCIENTIST

DNRC	
SALARY	$18,726
BENEFITS	$2,810
TRAVEL	$500
EQUIPMENT	$2,800
TOTAL-2 YRS	$298,032

SCS	
SALARY & BENEFIT INFLATION	$890
RENT, UTIL, COMMUNIC., EQUIPMENT, & SUPPLIES	$4,400
TRAINING	$3,000
ADM. COSTS	$2,243
TOTAL-2 YRS	$126,391

UNITED STATES DEPARTMENT OF AGRICULTURE
SOIL CONSERVATION SERVICE

BILL

SCS-FNM-15
10-85

Payment due by money order, check, or bank draft. Payable to: SOIL CONSERVATION SERVICE

INTEREST WILL BE ASSESSED AT THE RATE OF _____ OF THE UNPAID BALANCE FOR EACH 30-DAY PERIOD OR PORTION THEREOF AFTER _____.

THIS BILL IS SUBJECT TO INTEREST PAYMENTS OF →	1ST 30-DAY PERIOD	2ND 30-DAY PERIOD
	$	$

PAY THIS AMOUNT

$ 27,500.00

TO: MONTANA DEPARTMENT OF NATURAL RESOURSE
1520 EAST SIXTH STREET
HELENA, MT 59620

DESCRIPTION	
240-17-91 OC 021142	TO REIMBURSE THE SOIL CONSERVATION SERVICE FOR SURVEYS AGREEMENT CDG-89-2523.

EXHIBIT 4
2-19-91
8, RD6 37
Long Range Pl.

Soil Conservation Service, 10 East Babcock Street, Federal Building, Room 443, Bozeman, MT 597
CONTACT: Financial Mgmt. 406-587-6859 FTS 585-4859
CK REC._____ TO LOCKBOX_____ 238_____

FOR SCS USE ONLY

CHECK NUMBER	CHECK DATE	REMITTER

DEBTOR NUMBER	SYS	BILL NUMBER	RRR	RRR MOD	DR CR	A/C	AMOUNT DUE	BILL AGING DATE	GOV	AGEN	ACCT STA
933000035	92	9130000[illegible]	A		1	01	27,500.00	011691		16	0030

MAIL PAYMENT WITH COPY OF THIS BILL TO:

EXHIBIT 7
DATE 2-19-91
HB 8 BDG 5, 6, 13
Long Range Plan.

PLUGGING AND RECLAMATION

PROJECT A

I) Tri-City Oil Company #1 Van Dusen $85,000.00

Woman's Pocket Area

Golden Valley County Sec. 29, T. 8 N., R. 21 E.

Drilled - 1920 Depth - 2400'

Casing reported, not visible at surface

Flowing water and gas to surface - pasture land

II) Musselshell Oil Co. Mitchell #5 $85,000.00

Cat Creek - Mosby Dome

Petroleum County Sec. 21, T. 15 N., R. 30 E.

Drilled - 1966 Depth - 1313'

Location diked by Board in 1986. Located on Musselshell River Flood Plain.

Seasonal Flow of oil and water to the surface.

2 3/8 tubing reported to be cemented in hole

III) Van Dusen Oil Co. Van Dusen #2 $70,000.00

Woman's Pocket

Golden Valley County Sec. 26, T. 8 N., R. 21 E.

Drilled - 1920 Depth - 1600'

Casing visible at surface, flow of gas and water

Water enters natural drainage

IV) Montana Yellowstone **Haskell #1** **$60,000.00**

Glendive Area

Dawson County Sec. 4, T. 14 N., R. 55 E.

Drilled - 1918 Depth - 4104'

Flow of salt water has damaged adjacent pasture land

Leak reported by surface owner in February, 1990

No casing record

PROJECT A -- 4 WELLS -- TOTAL GRANT REQUEST -- $300,000.00

EXHIBIT 7
DATE 2-19-91
HB 8 Long Range Plan.

PLUGGING AND RECLAMATION

PROJECT B

I) American Indian Oil Co. Well #2 $85,000.00

Laurel Area

Yellowstone County Sec. 6, T. 2 S., R. 24 E.

Drilled - 1926 Depth - 2490'

Flows gas and some muddy water which enters a natural drainage

Located near a cultivated field close to Laurel Golf Course

Unreliable well and casing records

II) Tri-City Oil Co. Well #3 $125,000.00

Woman's Pocket

Golden Valley County Sec. 21, T. 8 N., R. 21 E.

Drilled - 1920 Depth - 2180'

Flows gas and water to surface and has formed large pond

Gravel rig base must be constructed before plugging

No casing record, surrounded by pasture land

III) Musselshell Oil Co. Unknown $85,000.00

Cat Creek - Mosby Dome

Petroleum County Sec. 20, T. 15 N., R. 30 E.

Drilled - ? 1960's Depth - Unknown

Leaking oil, water, and gas; diked by board in 1986

Rumors of wellbore obstructions that may hinder plugging

PROJECT B -- 3 WELLS -- TOTAL GRANT REQUEST -- $295,000.00

PLUGGING AND RECLAMATION

PROJECT C

I) Century Oil and Gas **Mason 20-7** **$35,000.00**

Poplar Area

Roosevelt County Sec. 20, T. 29 N., R. 50 E.

Drilled - 1983 Depth - 7569'

NO SLIDE

Reported as plugged and abandoned; well head still in place,

Pressure indicated in well annulus

Presence of reported bridge plug and cement plug must be confirmed. Perforate and squeeze to eliminate annulus pressure, restore surface.

II) Century Oil and Gas **Clark 20-9** **$25,000.00**

Poplar Area

Roosevelt County Sec. 20, T. 29 N., R. 50 E.

NO SLIDE

Drilled - 1983 Depth - 7659'

Unplugged well; requires plugging and surface restoration. Recovered tubing will be used in operations at Mason 20-7.

III) Ray Harrison **McCall #2** **$25,000.00**

Keg Coulee

Musselshell County Sec. 24, T. 11 N., R. 30 E.

Drilled - 1976 Depth - 4625'

Unplugged well; requires plugging and surface restoration

9
2-19-91
8 Long Range Pl

IV) Ray Harrison **Graves #1** **$20,000.00**

Devils Basin

Musselshell County Sec. 24, T. 11 N., R. 24 E.

Drilled - 1978 Depth - 1200'

Must be confirmed that down-hole zone is properly plugged

If necessary additional plugs will be set and surface location restored.

V) Century Oil and Gas **N.P. #1** **$25,000.00**

Pole Creek

Musselshell County Sec. 21, T. 9 N., R. 23 E.

Drilled - 1979 Depth - 3579'

This well is an unplugged abandoned oil well which must be properly plugged and the surface location restored.

VI) B. F. Hoyt **Well #1** **$14,000.00**

Laurel Area

Yellowstone County Sec. 7, T. 2 S., R. 24 E.

Drilled - 1918 Depth - 2151'

Well flows gas and a small amount of water to surface.

Currently used as a domestic gas source.

Will be re-entered, plugged, and surface restored.

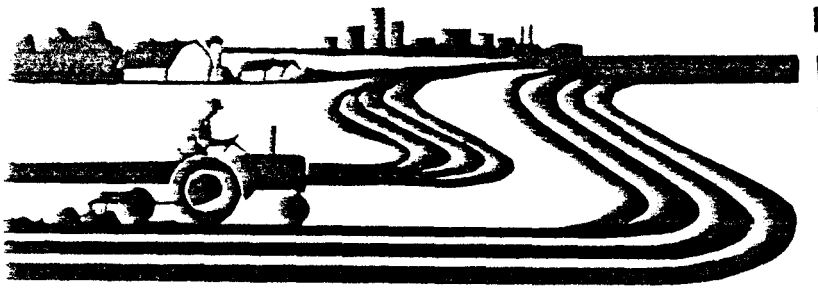
PROJECT C -- 6 WELLS -- TOTAL GRANT REQUEST -- $130,000.00

PROJECT SUMMARY

PROJECT	# OF WELLS	GRANT REQUEST	PROPOSER	TOTAL
A	4	$300,000.00	$6000.00	$306,000.00
B	3	$295,000.00	$6000.00	$301,000.00
C	6	$130,000.00	$20,000.00	$150,000.00

SHERIDAN COUNTY CONSERVATION DISTRICT

EXHIBIT 8
DATE 2-19-91
HB 8 Long Range Planning



Phone 765-1801 or 765-2252

119 N. Jackson Plentywood, Montana 59254

EXTENT OF OIL FIELD WASTE CONTAMINATION IN LAKES AND AQUIFERS IN EASTERN SHERIDAN COUNTY

PROPOSAL TO RECLAMATION AND DEVELOPMENT GRANTS PROGRAM

Oil development and production in the Goose Lake field has resulted in extensive ground water contamination near Goose Lake in eastern Sheridan County. The contamination was discovered during an assessment of the extent of ground water contamination in areas of Sheridan County with concentrated oil field activity. The main sources of contamination are several buried reserve pits located in T. 36 N., R. 58 E., sections 22, 27, and 28.

The most extensive contamination identified in the Sheridan County Brine Assessment is in outwash gravels near Goose Lake. Chloride concentrations at a well about 2000 feet downgradient of former evaporation pits were measured at 36,500 mg/L (milligrams per liter). Preliminary results of trace metal analyses show lead concentrations above drinking water standards in 7 out of 9 samples near the test site. The contaminant plume was mapped to the east boundary of section 27. Water samples from within the contaminant plume indicate increasing contamination from the water table down to the base of the aquifer.

Although groundwater contamination was not traced past the original study site, field water samples indicated brine contamination in several downslope lakes. Chloride concentrations in lake water generally declined with distance from the probable contaminant source. A pond adjacent to the disposal site contains water with an average chloride concentration of about 15,000 mg/L. The unnamed lake that is a northwest extension of Goose Lake contains water with a chloride concentration of 4,500 mg/L. Goose Lake contains water with a chloride concentration of 3,400 mg/L. The previously observed density contrasts probably result in higher chloride concentrations in deeper portions of the outwash aquifer below and adjacent to the lakes in the Goose Lake chain.

The southern part of Goose Lake overlies the Clear Lake aquifer (Donovan, 1988). The Clear Lake aquifer is tapped by high yield irrigation wells both north and south of Goose Lake. Flow

in the Clear Lake aquifer is south and west towards Medicine Lake. The interconnection between shallow tributary aquifers and the deeper Clear Lake aquifer is poorly defined. Consequently, impacts of salt loading from the shallow portions of the outwash aquifers cannot be predicted.

The primary objective of this project is to define the extent of contamination. The extent of the contamination will be defined by measuring water levels and water quality in monitor wells within vertically separated sand and gravel zones within the outwash deposit. This data will be interpreted to document the degree of hydraulic interconnections between the various sand and gravel zones. Once the extent of contamination is established, recommendations for mitigating the problem can be developed.

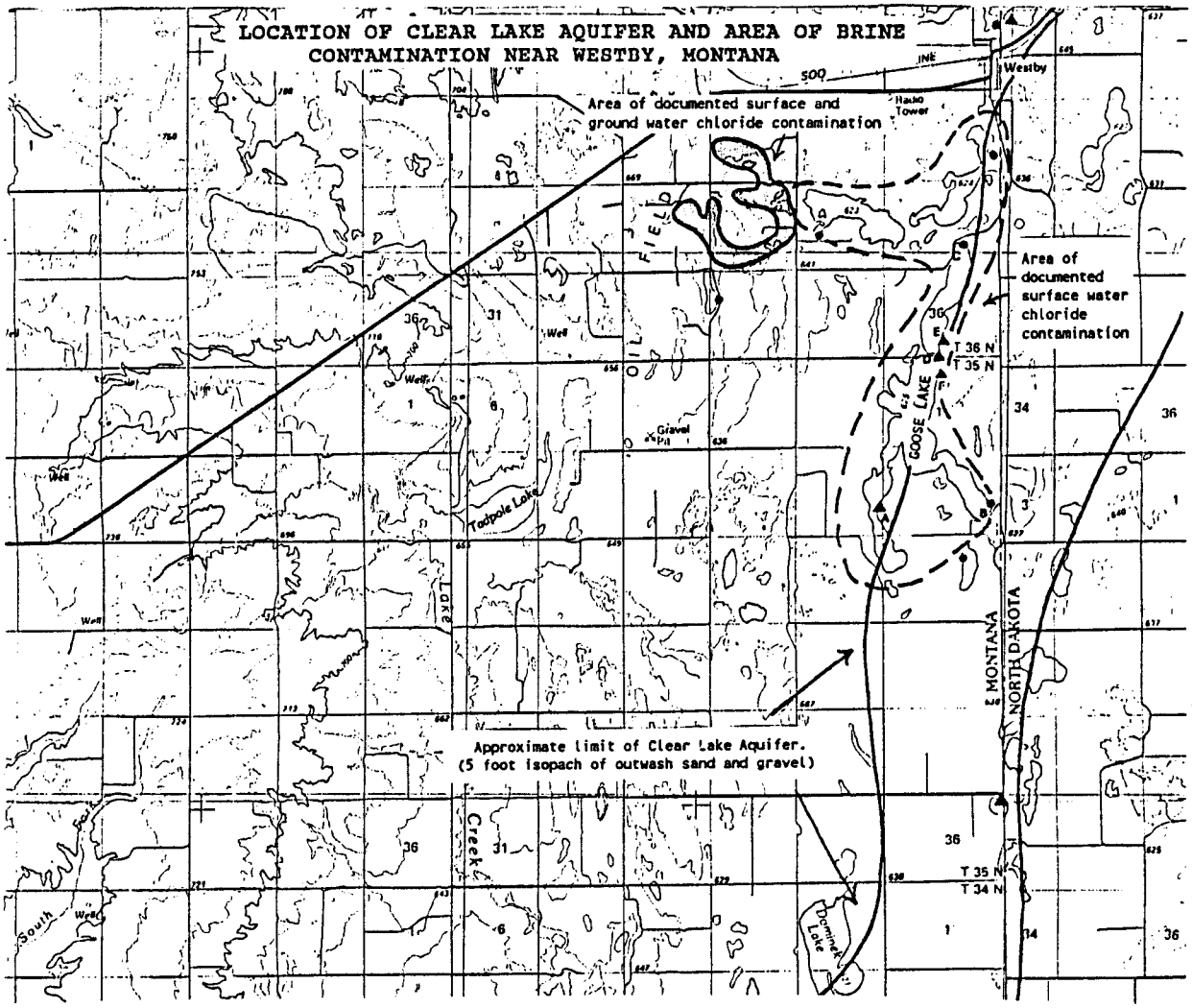


EXHIBIT 9
DATE 2-19-91
HB 8 RDG 3
Long Range Plan.

Madam Chairman, Members of the Committee:

My name is Pat Bodner, representing the Judith Basin Conservation District.

Judith Basin Conservation District is the sponsor of the Reclamation and Development Grant application for Community-Led Rural Development in Montana. The grant funds would help create a statewide effort, through Resource Conservation and Development Areas (RC&Ds), to help people conserve, develop, and utilize natural resources.

RC&D is concerned about both economic benefits and social well-being of all people in their area. RC&D works because it is a grass roots effort coming from the people for the people of Montana.

The requested amount is $291,950, which is considered a significant amount, I agree that it is, on the other hand because I have been involved in the Central Montana's RC&D from the beginning I am aware of the number of people that traveled quite a few miles and donated time and effort toward this program. If there were some way to compile that information and put a monetary figure on it, then the requested amount would be insignificant, compared to the travel, time and effort donated. This not only happened in the Central Montana region, but throughout the state. When you have that many dedicated people working for the benefit of the state then you are looking at SUCCESS!

The Central Montana RC&D Council is an example of community-led participation. The council is made up of representatives from all five conservation districts, fourteen incorporated cities and towns and six counties of our area. Additional council members chair our resource committees, i.e. economic development, transportation, noxious weeds, and forestry. The Committees and Council meet periodically to design and direct the scope of work for the RC&D. Our Coordinator and part-time clerk provide daily work, research, communication, and facilitation of measures adopted by the Council.

This community-led approach working with issues that are of common interest regionally, provide the opportunity for our area to collectively work toward solutions to some of our own problems. The need for paid staff to help facilitate this process cannot be overestimated. They provide the necessary base for research, information, and contacts that will help people in achieving their social and economic goals.

I urge you to approve this funding to allow the proven process to continue in Central Montana and proceed in other areas of the State.

Thank you for your time.

Pat Bodner

EXHIBIT 10
DATE 2-19-91
HB Long Range Plan.

TO: Long Range Planning Committee Room 317
Representative Connelly, Chairperson

FROM: Eastern Plains RC&D
Alyce Kuehn, Chairperson

RE: Reclamation and Development Grants Program
Judith Basin Conservation District's

COMMUNITY-LED RURAL ECONOMIC DEVELOPMENT IN MONTANA

Through the efforts of the funds requested through this DNRC, grant, local conservation districts, MACD, the Soil Conservation Service and the established RC&D's in the state, communities will be learning how to organize and how to address economic development on a regional basis. At this time, four counties in the Northwest, several counties in the North Central part of the state are requesting assistance and training to begin the regional approach to community wellness in their areas.

The underlying premise of the Community-led Economic Development program is inherent in the title, itself. It will be community lead. Most communities cannot afford a professional economic development coordinator and even when they can, the distances between individual low-density communities make the task of getting adequate resources and people together extremely difficult and, finally, when resources and people are sufficiently established, the lack of understanding of economic development makes it difficult for the coordinator to be able to sustain momentum across such a wide area.

The distance, lack of resources and lack of understanding regarding economic development work in concert with other barriers such as a history of not working beyond town or county lines. In effect, economic development cannot be "community-led" if the leaders in the community do not understand effective response to structural economic change.

Essentially, the RC&D program is developed for intense, hand-on instruction. It is not a course for the training of economic development officers. Nor is the RC&D Training Course meant for academics. The RC&D course, with its Attendant Manual and Field Guide will, along with the three weekends of in-class instruction, try to establish an awareness of economic development to the extent that is entirely instrumental, i.e., the participants will have the tools to activate others to respond to the negative economic changes affecting their communities.

The RC&D Course seeks three levels of interaction:

First, the development on the small town level of active

economic development committees working on projects, developing long-term plans and establishing an economic development office.

Second, for the many towns that are close together, the opportunity to develop mutual projects and also to work with others on a county-wide basis.

Third, the greatest challenge: pulling rural regions of counties together to promote the development of human resources, community wellness and economic growth.

While most economic development program emphasize such strategies as business retention, import substitution and industry attraction, Community-led Economic Development goes beyond these nationally accepted methods to an emphasis on organization and development of the whole community..

Getting people together for the annual fair is not difficult in rural America. Getting them out to deal with something as confusing to them as "economic development" requires real organizational talent and training.

Thus, This RC&D Course is targeted to fit the most basic needs of rural America: A need to know enough about what to do to respond to economic change and a need to know how to get all one's neighbors working together to confront these changes.

In following the examples of the established RC&D's in the State, we are convinced that a full-time coordinator must be hired. Without an individual in place to assist the locally organized groups, we believe the effort will fail for be substantially less effective. The majority of the local people interested in this effort have full-time jobs or businesses. A coordinator would be responsible to organize meetings between groups, seek out technical help, maintain relationships with all other agencies, groups and individuals, work on funding resources, follow up on individuals projects and etc.

The need in Montana for the RC&D programs funded by this application are critical to maintaining people in our state, maintaining tax base for our communities and maintaining counties and cities with resources and facilities to provide services to their residents.

Please help us to see that more RC&D Areas are established in our state to benefit our people, our communities and our state by recommending funding for the Reclamation and Development Grants Program as presented to your committee.

Thank you for allowing me to present my views on this most worthy and needed program to you today.

EXHIBIT 11.
DATE 2-19-91
HB Long Range Pl.

EASTERN PLAINS RC&D

1990 Report

1990 saw the beginning of the EASTERN PLAINS RC&D. Approximately 70 to 100 people attended 4 weekend seminars conducted by a consultant under the guidance of DNRC. In May of 1990, a structure committee was formed with one representative from each county, and work was began on by-laws, articles of incorporation and etc.

The Eastern Plains RC&D encompasses 16 Eastern Montana counties and has authorization for representation from: 16 county governments, 16 conservation districts, 30 incorporated cities and Towns and 2 Indian Reservations.

ACCOMPLISHMENTS

The most noteworthy accomplishment of 1990, is the human resources that have been developed and the communication lines that have been opened. Individuals in The Eastern Plains RC&D have discovered each community's strong and weak points, the result has been the evolvement of working relationships that will be a substantial stabilizing factor to Montana's economic environment.

Many projects and issues have been discussed since establishment of The Eastern Plains RC&D. The volunteers of Eastern Plains RC&D believe that efforts to improve their communities, the state and the region will be long term contributions.

Full Time Coordinator and Office staff would provide
- Reference Library
- Technical Assistance
- Central Communication

Activities and projects:

Transportation issues, their importance to rural Montana
- Montana's highway system
- Air Transportation
- Railroads

Technical Assistance available in Eastern Montana
- Marketing for locally produced products
- Grant writing seminar
- Product Trade Expansion
- Information Exchange

Rural Health, maintaining basic health services & facilities
- Medical Assistance Facilities
- Dental Clinic
- Nursing Home

Solid Waste Management
- mega-landfill issue
- Environmental protection issues
- recycling
- Incineration

Educational opportunities, available in Eastern Montana
- Adult credited and non-accredited classes
  - Telecommunications
- Youth educational opportunities
  - Ag in Montana Schools
  - Telecommunications

Economic Development, projects that will stimulate growth
- Tourism and Recreation
  - visitor's center in Wibaux
  - Video for promotion of communities
  - Museums
  - County Maps
  - RV Camping Center
  - Gambling
  - Highway Rest Areas
  - Hunting and availability of wild game
  - Wagon Trains/Cattle Drives
- Agriculture
  - Dried flowers
  - Increasing Animal units, by increasing forage production

Community Facilities, projects that promote community wellness and resident contentment
- Soft ball complex
- Mini park
- Tennis Court

Community Manufacturing, development of product and marketing
- Caviar from Paddle fish
- Indian Bead Factory
- Montana Beef
  - feed lot
  - packing plant
- Waxy Barley Plant
- Ethanol

Community Development Financing
- 1 mill levy for economic development
- Venture Capital Programs
- Tax Increment Districts

Community Development, expansion of trade areas
- Sale of former military base
- Expanding Port-of-Entry hours
- Diversification of Community's Tax Base

EXHIBIT 11
DATE 2-19-91
HB 8 Long Range Plan.

January 20, 1991

Natural Resource Appropriation Sub-Committee

I am writing this letter to address the urgent need for a full time coordinator for Eastern Plains RC&D. The area includes 16 counties so to meet with local development groups takes up a lot of time. In the organizational period of any RC&D it is very important to get out to all areas and help with start up and education of just what a RC&D can do for a community. Grant searches and grant writing are very essential parts of getting something going in a local development group, thus a full time coordinator with office staff would be a good resource person for groups to contact.

As young couples move away from Sheridan County and Montana I feel we are really missing out by not staffing a full time coordinator for Eastern Plains RC&D. Any help that Montana can get in starting up new industry or business means more people employed here. Why should we watch our quality people move out of state for jobs?

I thank the Natural Resource Committee for giving us this opportunity to express our needs in Eastern Montana and hope you will look favorable upon our request for a full time coordinator for Eastern Plains RC&D.

Ellis Hagen

Director from Sheridan County for the Eastern Plains RC&D

Garfield County Core Group

Garfield County economic development core group has held its organizational meeting. Progress is fairly slow due to a lack of direction. We are very aware that many past economic development efforts have fizzled and are very ~~g~~ repeating the mistakes that caused the fizzle.

It would make a big difference if Eastern Plains RC&D had a full-time director and/or other staff regularly available for technical assistance to the local core groups.

Several community development projects are in progress in Garfield County sponsored by several different agencies and entities but there is no coordination or prioritzing. For example the V.F.W. is building a new community hall with a kitchen, the Senior Center is planning ~~and~~ an expansion & has a kitchen, and the Senior Citizens are planning an addition to the Senior Center which also has a kitchen. A County with a total taxable valuation of $5.2 million and only 1,600 people

EXHIBIT 11
DATE 2-19-91
HB 8 RDG 3
Long Range Plan.

with one town (population 586) certainly cannot support 3 new service kitchens especially when there are several existing service kitchens!

Coordination is vital but cannot be done without technical advice and time is of the essence.

The human resource is there and also the ability and very likely some financial support we need help organizing it to blossom.

WIBAUX RC & I CORE GROUP

The main activity at the present time is the funding for a tourist visitor center. With tourism being an increasing industry in the state, visitor centers are important ways to inform tourists of the sights and activities available to them throughout the state.

Other activities we are involved with include looking into further ways to utilize Lake Steer Wildlife Reserve, the need to add value to our products, and to inform people of new business opportunities.

The Eastern Plains RC&I needs a full time coordinator to keep this a functional RC&I. We need a full time coordinator to work with each county on their individual activities.

The Wibaux RC&I core group supports the grant request from DTHC.

EXHIBIT 11 (GRCEDC)
DATE 2-19-91
HB 8 RD63
Long Range Planning

1990 in Review

Air Transportation:

An air transportation committee was formed early in the year to address air fare discrepancies. The committee became very involved in the selection process of a new air carrier for Eastern Montana Essential Air Service communities. GRCEDC hosted a well-attended public meeting during which a public vote was taken and the results forwarded to the Dept. of Transportation. Committee members attended EAS task force hearings in Billings and Helena; and the committee continued to monitor fares to make sure Sidney fares are equitable so that we can maintain our number of boardings here.

Dennis Winters workshops:

Thirty people attended the GRCEDC sponsored workshops during April and May during which marketing specialist Dennis Winters of Butte explained how a self-led community development process can become effective. New committees in five key areas were formed out of that workshop, and the result was more active involvement.

Video:

The county video was completed and a premiere showing was held in October. "The Riches of Richland County" will be a useful tool for business recruitment and general promotion of the area. MDU Resources filmed the video, and GRCEDC did all the legwork in organizing shoots, etc.

Trade Center:

Nearly 50 volunteers manned the telephones during November as the trade center's marketing survey on shopping trends and consumer preferences got underway. Results of that effort are now being tabulated and should be soon ready for release. The trade center committee hopes to gain valuable insight about why people do or don't shop in Sidney.

Legislative Affairs:

The GRCEDC Legislative Affairs committee has been circulating Community Action Agreements in preparation for the 1991 Legislative Session. People sign their name in agreement to write letters, make phone calls and go to Helena if need be on key bills affecting Richland County. The committee will be monitoring legislation during the session.

Grantwriting:

GRCEDC has organized a first-class grantwriting school to be conducted in Sidney Jan. 28-31. About 15 local people will be attended that school, which will greatly increase the chances of various groups getting grant money in the future. GRCEDC Exec. Director Lynnette Hintze was involved in critiquing successful grants which were funded for the Sidney School System and adult literacy program. She also helped write the grant to the Montana Coal Board for a new fire truck for Richland County. The county obtained about $75,000 towards a new truck.

And also...

* Conducted a letter writing campaign to assure federal funding for the Ag Research Station at Sidney.
* Hosted two meetings for the Western States Public Lands Coalition and helped organize a Mon-Dak Chapter of the Coalition to work to keep public lands open for grazing, mining and recreation.
* Became involved in the Eastern Plains Resource, Conservation and Development Area which formed in 1990.
* Were involved in the downtown development program instigated by Great Plains Supply and the local banks who are providing low-interest money and materials at cost for businesses wanting to refurbish their store fronts or remodel. A committee was formed to monitor the project and decide on a theme for the downtown business district.
* Agreed to assist the County Commissioners in pursuing the women's correctional facility. GRCEDC will be assisting the County in writing a proposal to have the prison located at Sidney.

1/22/91

The purpose of this report is to address the need for a full-time co-ordinator for the Eastern Plains R C & D.

It is particularly important becuase our R C & D District covers such a large area. A full-time co-ordinator would be able to keep all counties informed and working together. It would be easier to co-ordinate efforts and avoid costly and time consuming duplication of efforts. Without a co-ordinator it may be difficult to prevent control by those with the loudest voices or clost proximity to meeting locations.

Valley County has a newly formed Development Group, Two Rivers Growth, Inc. of which I am a member. This group would like to work with and assist Eastern Plains RC & D in promoting development in Eastern Montana. The main focus of the Valley County group has been facilitating the sale of the former Glasgow Air Force Base to Boeing Company. A lot of progess has been made toward this and we feel that the sale will be finalized in the near future.

Two Rivers Growth has identified the following as priorities: 1. Boeing Sale, 2. Promotion of St. Maries, a military retirement community, 3. General Economic Development for Northeast Motnana including developing a marketing plan, 4. Agriculture, 5. Funding for Two Rivers and for economic development, and 6. Tourism.

There is no local R C & D group that meets in Valley County and I believe a full-time co-ordinator would be able to assist in organizing a local group to work with the Two Rivers Growth, Inc. and to provide more input to the Eastern Plains R C & D.

Betty Stone
Glasgow, Montana

EXHIBIT 11
DATE 2-19-91
HB 8 RDG 3
Long Range Planning

To: The Legislative Committee on DNRC Funding

Subject: Daniels County core group activities relative to establishing an RC&D

The core group has attended all RC&D meetings of 1989 and 1990, the last one on Dec. 20, 1990. During this time the Daniels County core group became signatories to the Eastern Plains RC&D and also the Montana RC&D; adopting the by-laws of both organizations. This is a good time to point out the absolute necessity of appointing and financing a RC&D coordinator. Above all else this becomes essential.

The Daniels County core group has held numerous public meetings to get organized. In the process we have appointed Mr. Dave Billehus as our Local Coordinator and as our representative to the Eastern Plains RC&D Board. Under his guidance, and that of the rest of the core group, investigations have been made into the liabilities and assets of the county. Polls were taken to discover what the people felt were the most essential steps to be taken to improve the economy of the area. Such steps as sttempting to increase the hours open at our Canadian border station; also what would be necessary to help finance expansion of two local manufacturing concerns. We are also looking into the building of a RV camping center, a standard sized gymnasium possibly combined with a civic center, and also improving our Pioneer Museum and increasing its advertising. These and several other pertinent projects are in the hands of volunteer committees and are in various stages of action.

All of this points up to our desperate need of a RC&D coordinator. I strongly urge the legislative committee to please give every consideration to the DNRC Funding Bill.

Thank you for your consideration,

Joe H. Metzger
Scobey, Montana

JHM/mjm

Buffalo Commons
Economic Development
Core Group

January 2?, 1991

Alyce Kuehn, Chairperson
Eastern Plains RC&D
P.O. Box 338
Ekalaka, MT. 59324

Alyce:

Our C.O.R.E. Group would like to offer our support for a State wide co-ordinator and an Eastern Plains RC&D co-ordinator.

Joyce Almy, our local group leader, listed a few of the groups activities. They are:

1. Plan and locate funding for a Heritage Center;

2. Sponsor and schedule marketing workshops;

3. Pursue telemarketing possibilities;

4. Support and assist the Ekalaka Highway No.323 project;

5. Teach and develop grant writting skills;

6. Co-ordinate a trade show;

7. Co-ordinate County wide projects;

8. Bring college and continuing education courses to our community via fiber optics (interactive television).

9. Assist in developing the general economy of Eastern Montana by supporting other communities in their projects and through organizations like the Eastern Plains RC&D.

Our C.O.R.E. Group is entirely volunteers who sacrifice their own time and expenses to help the community and region. We need a person(s) who can assist us and guide us in our efforts. We hope that the Eastern Plains RC&D co-ordinator will be that person. Good luck in your efforts.

Sincerely,

Mike Madler

EXHIBIT 11
DATE 2-19-91
HB 8 RDG 3
Long Range Plan.

ROSEBUD CONSERVATION DISTRICT

FORSYTH, MONTANA 59327

January 24, 1991

Steve Schmitz
Conservation Districts Bureau
1520 East Sixth
Helena, MT 59620

Dear Steve:

The Rosebud Conservation District Board of Supervisors, on behalf of Rosebud County and its communities, are working with the Eastern Plains RC&D to obtain a full time coordinator.

There are eight communities within Rosebud County and most of them have stated their needs and project ideas to our local RC&D group. The following is a list of those projects:

Landfill
Oil recycling
Indian Bead Factory
Tourist County Map
Museum
Soft ball complex
Mini Park
Waxy Barley Plant

The landfill is of utmost importance to all communities as time is fast running out on the existing landfill. Oil recycling is also a top priority.

We feel a full time coordinator, for the Eastern Plains RC&D, is necessary. Although many individuals have committed their time and finances to the various projects, someone is needed to seek out the technical and financial assistance to carry them through. A coordinator is also needed to organize meetings between groups so they can benefit each other, and follow through on individual project needs.

Sincerely,

Jeanne LaBree

Jeanne LaBree
Administrative Assistant

January 10, 1991

President Alyce Kuehn
Eastern Plains RC&D

Dear Alyce:

The necessity for a full time coordinator to serve the counties and development units across the geographic expanse of our RC&D is becoming increasingly more clear. Without a full time office staff our varied activities and interests seem isolated and disjointed. The quarterly and monthly meetings, despite efforts by the elected leadership, are time consuming because of decision making which could be handled efficiently by the coordinator.

Custer County is involved in a variety of projects and interests which could use the assistance and support of a coordinator. Our region is particularly concerned about the detrimental aspects of increasing coal severance taxes. Those increased taxes may well thwart the construction of the Tongue River Railroad as well as future mining of resources and related added value consideration. A full time coordinator could be of valued assistance in promoting the regional economic value of coal production for the entire Eastern Montana region.

We need coordinated efforts in such varied areas of environmental research, coordinated medical services, recreational facility development, and new uses for agricultural land.

We have a great economic development future if we can just get our interests, imaginations, talents and energies coordinated.

Sincerely,

Don Ingels

Don Ingels
Custer County

EXHIBIT 11
DATE 2-19-91
HB 8 ROG 3
Long Range Plan.

1/25/91
Glendive.Mt.

To: Alyce Kuenn, President
Eastern Plains RC and D

ANNUAL REPORT - DAWSON COUNTY DEVELOPMENT COUNCIL
A COUNTY CORE GROUP AFFILIATED WITH THE
EASTERN PLAINS RC&D

The Dawson County Development Council meets on the 2nd Monday of each montn at the Action Office here in Glendive. Membership at each meeting is about 12. Most members have had the Community-led economic development training session put on by Dr. Winters which was sponsored by DNRC.

Projects of DCDC are as follows:

1. Support for the Paddlefish Caviar Project of the Chamber of Commerce and Agriculture.
2. Support for the Eastern Montana Veterans Home which was a project of Glendive Forward and veterans groups.
3. Support of an aqua-culture project of one of our group. A $30,000 Grant Application was turned in but not funded by DNRC.
4. Support for a 1 Mill Levy for economic development in Dawson County. This appeared on the November ballot but was voted down by county voters. DCDC sponsored this project jointly with the Chamber of Commerce and Glendive Forward and provided some funds. DCDC also did a lot of public relations on this issue and mailed letters and made posters.

5. Supported a preliminary plan to raise capital and found information on Tax Increment Districts and Venture Capital programs.

6. Discussed many other ideas for improvement in our local and state economy. Members attended various seminars on community and economic development.

The largest need of our group and other eastern montana core groups is better communications and more information. We strongly feel that a full-time coordinator is needed for the Eastern Plains RC&D. In order for our organization to grow more assistance is needed.

We also support the idea of a State-wide RC&D coordinator This would be so valuable to tie all the RC&Ds together and to cooperate with the state and federal programs.

Candice Eide
Preident,DCDC

EXHIBIT 11
DATE 2-19-91
HB 8, RDG 3
Long Range Plan.

REPORT FROM TREASURE COUNTY

Treasure County has held one County meeting of R C&D in Hysham. I have attended meetings in Forsyth, Terry and Glendive. The Soil Conservation has endorsed me as their delegate and I have been appointed as the county representative.

We were slow to get organized at all and are still slow. There has been very little information coming in to the county. We need to educate these other organizations so they will see the value in selecting a representative as we should have more people going to the meetings. I need to get funding from some source so I can afford to get to more meetings. If there was a coordinator in this area, the County Commissioners and the City Council would probably understand that the R C &D is something they should support. We need a full-time coordinator to give the project direction and impetus.

Clarbel Bonine

CARTER COUNTY RC&D

The Carter County RC&D has been very active in the following projects:

HUMAN RESOURCES

We are building the human resources within our county. Training individuals, groups and organizations on how to focus on our community's attributes and how to best minimize the disadvantages of our community.

RECLASSIFICATION OF MT SECONDARY HIGHWAY #323

An effort to reclassify the Ekalaka - Alzada Road #323 from a Secondary to a Primary Highway. We have written letters to our Federal and State congressional delegations requesting their assistance. We have requested and been granted a hearing before the Montana Highway Commission, where our request was denied. We have gone to the press with this project and have had letters printed in the Billing Gazette and in the local paper. Work on this project is continuing with letters applying pressure to congressional delegates and checking into other sources of revenue for maintenance and construction.

MARKETING LOCALLY MADE PRODUCTS

We are holding and attending marketing sessions locally in an effort to build expertise in marketing the products produced locally. We applied for and were granted funds from a local corporation to assist a key group of resource people to attend an international marketing seminar in Denver. We anticipate these individuals will be holding marketing training sessions throughout the county following their return from Denver.

RECYCLING

We have been instrumental in distributing information regarding the new solid waste management regulations. We have been active in implementing a recycling program in Ekalaka. We have held training sessions and distributed information.

FORAGE COMMITTEE

A forage committee has been formed with producers from Fallon and Carter Counties. A proposal is being sent to LISA requesting funding to conduct a study in Fallon and Carter Counties. This area has been recognized as forage deficient. Information obtained by the committee indicates the following: In Carter and Fallon Counties there are

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Long Range Planning

107,664 animals, and the counties raise 92,352 tons of feed, each animal requires 1.65 tons of forage leaving a deficient of 85,294 tons. The average cost of obtaining this feed is $90.00 per ton, this means that $7,676,460 in feed dollars are annually leaving these two counties.

YOUTH EDUCATION

We actively promote "Ag in Montana Schools". Since agriculture is Montana's #1 industry we believe this is a vital role that must be assumed by RC&D groups throughout our State.

ADULT EDUCATION

Carter County RC&D has been frustrated with the lack of information and training sessions that are held in Eastern Montana. We need more technical assistance in our area in all aspects of our projects. State agency employees and MSU have all been very heedful when requested for information or assistance, our problem is we don't always know what to ask for and certainly not where to ask.

NEED FOR A FULL TIME COORDINATOR

For The Carter County RC&D, a full time coordinator would have the ability to assist us with our projects. Adding considerable more expertise into the project information that is distributed training individuals to make the most of their time and efforts that are dedicated toward a project.

Projects have had to wait, sometimes even missing deadlines, due to the fact we just don't have the time and expertise to follow through. For example the highway issue is very complicated and working through the maze of who has authority and responsibility to help us; where funding can be found and what criteria is required for our road to qualify for funding and etc.

Our Carter County Core Group is comprised of volunteers only, volunteers who sacrifice time with their families to promote economic development and betterment. We definitely need a coordinator to assist and guide us in our efforts.

We thank the Natural Resources Committee for giving us this opportunity to express the needs of Eastern Montana and hope you will look favorable upon our request for a full time coordinator for Eastern Plains RC&D.

Alyce Kuehn, Chairman

Alyce Kuehn

Carter County RC&D Core Group

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McCone R, C+D

McCone Cty R,C+D committee began as a group of people interested in a holistic approach to community development including economic growth and stability, resource enhancement, improving working relationships between people, individual growth, and to enjoy ourselves in the process. To accompolish these, we initiated several processes:

1. Facilitating community meetings to find the needs and concerns of the people
2. Facilitating meetings with representatives from various factions to establish a Community mission Statement, brainstorming, and goal setting.
3. Set goals and terms of working relationship of the local R,C+D committee.

Projects now in progress include:

a. Reopening of Circle Theatre as a community project showing movies and live productions. This has helped the community believe it can help itself and look positively at the future

b. Craft + quilt manufacturing and marketing services. Six individuals are enrolled in the business and marketing seminars given by Gary Marigold of Dept. of Commerce and Dawson College.

c. Certified cities program. The city of Circle and Chamber of Commerce have joined together on this project.

d. Solid waste incinerator power ethanol plant, feedlot complex. Representatives of city, county government, Mid Rivers

Elevator, rancher-farmer people, and local business are beginning a feasibility study.

To accomplish some of these projects and more, we need support staff and help from others in surrounding areas. A full-time co-ordinator for Eastern Plains R,C&D of which Miles City people have been active in would certainly be a big step in that direction. Our region is vast (⅛ of the state) But we have few people and long distances to travel. We do indeed need each other for political clout, moral support and group support of grants, etc.

A co-ordinator would:

1. link like ideas and interests in this vast region together. Ex. several town beautification projects to attract tourists.
2. Comprehensive regional planning. Since monies are scarce, we must make sure there is no duplicating and overlapping unnecessarily. We must plan projects that do not compete among ourselves for shrinking dollars. A co-ordinator would watch & direct us.
3. One resource person for individuals and organizations to contact. Local people have many great ideas, but have no idea who to contact or how to contact to obtain information, action, or funding. A co-ordinator would be known to the populace and would be able to initiate and co-ordinate projects to bring information to the grass roots level, the great people of the great state of Montana.

We the forgotten people of far Eastern Montana, need this

Glendive, Montana
59330

CITY OF GLENDIVE MONTANA

Phone (406) 365-3318
300 South Merrill

January 18, 1991

Monty Sealey, Coordinator
Central Montana RC&D
P O Box 656
Roundup, MT 59072

Dear Monty,

On behalf of the City Council and myself, I wish to add our support for the RIT grant to the DNRC for start-up funds for the RC&D program. Start up funds are needed for the Eastern Montana RC&D.

These funds will make it possible to organize and promote an Economic Development program for the vast area that makes up the Eastern Montana RC&D.

Because of the poor economic conditions in our area of the State, budgets are a problem for local governments and the City does not have the funds to assist in this program. Outside money is needed. We would ask the DNRC to give this need favorable consideration.

Sincerely,

Lester Ollerman

Lester Ollerman
Mayor

ROSEBUD CONSERVATION DISTRICT

FORSYTH, MONTANA 59327

January 10, 1990

EXHIBIT 11
DATE 2-19-91
HB 8 RDG 3
Long Range Plan.

Monty Sealey
Central Montana RC&D
34 3rd AVe. West
P.O. Box 656
Roundup, MT 59072

Dear Mr. Sealey:

The Rosebud Conservation District Board of Supervisors support Judith Basin Conservation District's and Central Montana RC&D's request for a $170,000 grant for start-up funding for RC&D's.

As a member of the Eastern Plains RC&D, we recognize the need for this funding and have written letters to our legislators urging their support.

We thank you for your initiative, and offer our help in any way it is needed.

Sincerely,

Dennis E. Kenney

Dennis E. Kenney
Chairman

Board of

County Commissioners

Carter County, Montana

Ekalaka, Montana

59324

January 7, 1991

Monty Sealey, Coordinator
Central Montana RC&D
34 3rd Avenue
P. O. BOX 656
Roundup, MT 59072

Dear Monty,

The Carter County Board of Commissioners wish to go on record as supportive of the RIT application submitted to DNRC for start-up funds for RC&D areas in the State.

Our Board of Commissioners have been involved with and do endorse projects that involve both the Carter County RC&D and the Eastern Plains RC&D - a 16 county area across the Eastern third of the State.

Some projects that we are coordinating very closely with the Carter County RC&D Gore Group and the Eastern Plains RC&D are:

1) An effort to reclassify Highway 323 from Ekalaka to Alzada from a secondary road to a primary highway. This road is gravel and maintained by our county, even tho it is the major access road into the State from Wyoming and South Dakota and on further south and east. Major improvements to this road are necessary to stimulate interest in Eastern Montana as a potential site for any type of economic development. For example, development of additional tourism opportunities are at present tied to improvements on the Ekalaka - Alzada road.

2) The majority of the counties in the Eastern Plains RC&D are dependant upon agriculture for a large portion of their tax base and certainly Carter County is, maybe more so then any other. Development of a more diversified economy is important to us. Acquiring more knowledge on how better to market the goods and services produced in this area are also projects of which we are supportive.

The start-up funds in the RIT application are vital to the continued progress of the Eastern Plains RC&D, and the Eastern Plains RC&D is important to Montana.

Sincerely yours,

Milton K. Markuson

Milton Markuson, Chairman

COUNCIL CHAMBERS

Town of Ekalaka

MONTANA

59324

EXHIBIT 11
DATE 2-19-91
HB 8 RD63
Long Range Plan.

January 6, 1991

Monty Sealey, Coordinator
Central Montana RC&D
P. O. Box 656
Roundup, Montana 59072

Dear Monty,

The Town Council for the Town of Ekalaka is supportive and appreciative to the Central Montana RC&D and the Judith Basin Conservation District for their sponsorship of the RIT application to DNRC for start-up funds for The RC&D movement throughout the state.

The Carter County RC&D Core Group and the Eastern Plains RC&D are key factors to any additional economic development in this area. The Eastern Plains RC&D is a fledgling organization and considerable guidance and financial assistant are vital to its establishment as a viable entity.

The Town Council endorses and lends what support is possible to many projects that the RC&D movement is involved.

Transportation is always an important factor when considering expansion and development of an area's resources. The RC&D groups are working toward improvements being completed to Montana Secondary Highway 323, between Ekalaka and Alzada. This road represents access into our state from major tourism attractions, The Black Hills in South Dakota and Devils Tower in Wyoming. Additionally north/south roads are important to all travel, be it recreational or industrial, this road is a major link between Canada and Denver.

The RC&D movement is promotive of an attitude adjustment that is like none other. With the RC&D training we have learned we can become a unified community - area - state, promoting our advantages, understanding and minimizing our disadvantages.

Sincerely yours,

George S. Askin

George S. Askin, Mayor

Glendive Area Chamber of Commerce and Agriculture

200 N. Merrill • P.O. Box 930
Glendive, Montana 59330
Phone (406) 365-5601

Montana Superhost!

January 23, 1991

Central Montana RC & D
34 Third Avenue West
P.O. Box 656
Roundup, Montana 59072

Dear Sirs:

A growing number of conservation districts, communities, county governments, local development agencies, and citizens are concerned about the deteriorating rural economic climate in Montana. Through a community-led approach, many of these groups are beginning to address their problems by forming community core-groups and by organizing Resource Conservation and Development (RC & D) areas.

RC & Ds are regional organizations made up of representatives of private individuals, local governments and conservation districts. Their primary goal is to help people conserve, develop, and utilize natural resources. RC & D is concerned about both economic benefits and social well-being of all people in their area.

In order to be successful, each RC & D area must have a full-time coordinator and support facilities. The majority of the local people involved in this effort have full-time jobs or businesses which limit their time. A coordinator would be responsible to organize meetings between groups, seek out technical help, maintain relationships with all other entities, work on funding sources, and follow up on individual projects.

We would like to express our support for the grant request of $170,000 made by the Judith Basin Conservation District for the start up funding of new RC & D areas.

Sincerely,

Jim Culver

Jim Culver
President

JM;las

Roosevelt County Soil Conservation District
Box 517
Culbertson, Montana 59218
787-5232

EXHIBIT 11
DATE 2-19-91
HB 8, RD63
Long Range Plan.

January 28, 1991

Monty Sealy
34 3rd Ave. West
P.O. Box 656
Roundup, MT 59072

Dear Monty:

Eastern Montana rural economy is in a current down trend and RC&D's are an organization for community development. The Roosevelt County Conservation District urges the approval of the grant for a statewide RC&D organization.

Sincerely,

Pete Purvis, Chairman
Roosevelt County CD

WIBAUX CONSERVATION DISTRICT
P.O. BOX 179
WIBAUX, MONTANA 59353

PHONE: 795-2211

The Wibaux Conservation District supports the Resource Conservation and Development efforts throughout the state. We are allied with the Eastern Plains R, C, and D.

We support the request for start-up funding that was initiated through the Judith Basin Conservation District.

Karen Obrigewitch

Karen Obrigewitch
District Clerk

DAWSON COUNTY DEVELOPMENT COUNCIL

111 W. Bell
Glendive, MT 59330

EXHIBIT 11
DATE 2-19-91
HB 8 RD6 3
Long Range Plan

January 15, 1991

Monty Sealey, Coordinator
Central Montana RC&D
34 3rd Ave.
P.O. Box 656
Roundup, MT 59072

Dear Monty,

The Dawson County Development Council supports the grant application the Central Montana RC&D and the Judith Basin Conservation District has submitted to the DNRC's RIT program. This request for funding to assist RC&D's with start-up funds is an important step forward to building a stronger Montana.

RC&Ds are made up of representatives from the city, county and conservation districts. These individuals are aware of the issues important to their area and are dedicated to strengthening the economy. It is also an organized effort of neighbor helping neighbor. However, without a coordinator and support facilities to bring together these individuals, this grass roots effort of economic development will be in vain. A full time coordinator would be responsible for organizing meetings, seeking technical assistance, maintaining relationships, working on funding sources and following up on individual projects. All important elements critical to the success of the RC&D.

Accessibility of the coordinator and location of the support facility is important also. Dawson County would like to submit Glendive as a central location site for the Eastern Plains RC&D. The Glendive Chamber of Commerce and Mid-Rivers have both offered office space to house the full time coordinator.

The RC&D movement is critical to rural economic development and the start-up funds in the RIT application are vital to the continued progress and success of the RC&D. We reiterate our endorsement of this grant application.

Sincerely,

Candace D. Eide

Candace D. Eide, Chairman
Dawson County Development Council

CARTER COUNTY CONSERVATION DISTRICT
P. O. BOX 313
EKALAKA, MT 59324-0313
PHONE (406) 775-6355

January 8, 1990

Betty Bruski
Capitol Station
Helena, MT 59601

Dear Betty,

It has come to our attention that Judith Basin Conservation District is proposing a request for start-up funds for up to four new Resource Conservation and Development (RC&D) areas. The areas mentioned include Central Montana, Eastern Montana, Northwest Montana and Northern Montana. This request was made through the Reclamation and Development Grants Program administered by the Dept. of Natural Resource and Conservation (DNRC). DNRC has recommended legislative approval of a $170,000 grant under the grant program "crucial state need" category. The Carter County Conservation District is strongly in support of this request.

We feel in order to be successful, each RC&D area must have a full-time coordinator and support facilities. A coordinator would be responsible to organize meetings between groups, seek out technical help, maintain relationships with all other entities, work on funding sources, and follow up on individual projects.

RC&Ds are regional organizations made up of representatives of private individuals, local governments and conservation districts. Their primary goal is to help people conserve, develop, and utilize natural resources. RC&Ds are concerned about economic benefits and social well being of all people in their area.

RC&Ds require interim funding, during organization and start-up, until stable long term funding can be secured. We urge you to support Judith Basin Conservation District's request for start-up funding for up to four new RC&D areas.

Sincerely,

Luther Waterland

Luther Waterland, Chairman
Carter County Conservation District

xc: Governor Stephens; Monty Sealey, Central Montana RC&D

McCone Conservation District
P.O. Box 276
Circle, MT 59215
(406)485-2660

January 15, 1991

EXHIBIT 11
DATE 2-19-91
HB 8 RDG 3
Long Range Plan.

Central Montana RC&D
34 3rd Avenue West
P.O. Box 656
Roundup, MT 59072

Dear Monty:

We received a copy of the Fact Sheet on RC&D Area Funding through the Reclamation & Development Grants Program. Our district strongly supports your effort in securing money as start-up funding for four new RC&D areas.

Our district is located in the newly formed "Eastern Plains RC&D". Participants in our area have completed a series of workshops on "Community-led Rural Economic Development" with Dr. Dennis Winters, Montana Market Development Company, of Butte. We concluded these workshops last summer and have since been working on projects and have established a core-group and appointed a district representative to the main RC&D council. The area here, like most of Montana, is depressed both economically and socially. One of the main objectives in our county plan is to work on the attitude of the general public.

Another goal of our county core-group plan was to re-open our community theatre. Already renovation on the projectors and screen are taking place, with plans of opening by spring! Work has been done strictly by volunteers, which is enlightening to see. The theater committee has scheduled several events with which to generate funds, starting with a concert on Janaury 18, 1991. Through other fundraising events, over $3,000 has been donated to the theatre. The public is anxious for the grand opening, which certainly helps their attitude.

Our district believes in grass root efforts. We are committed to the RC&D efforts in this area, and have been attending local and regional meetings. We will continue to assist the local RC&D group with clerical assistance and technical support.

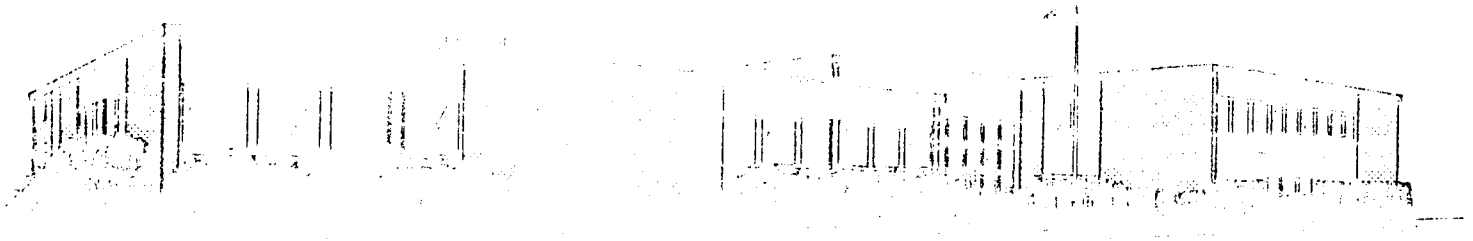
RC&Ds help to revitalize a sagging community, both socially and economically. We support your funding request, and encourage you to utilize this letter for any reference you may need.

Thank you for caring about Montana and its communities.

Sincerely,

Leonard Schock
McCone CD Supervisor and
Eastern Plains RC&D Council Member

xc: Judith Basin Conservation District
Dr. Dennis Winters, Montana Market Development Company
State Representative Betty Lou Kasten
State Senator Cecil Weeding
Mike Carlson, Eastern Plains RC&D Coordinator, part-time



Office of:
County Commissioners
Phone 365-3562
Judy Reddig
Richard Shoopman
Robert Ziegler

County of Dawson

207 W. Bell
Glendive, MT 59330

January 24, 1991

Office of:
Clerk and Recorder
Phone 365-3058
Patricia Peterson Boje

Office of:
County Treasurer
Phone 365-3026
Cindi Hansen

Monty Sealey, Coordinator
Central Montana RC&D
34 3rd Avenue
P.O. Box 656
Roundup, MT 59072

Dear Mr. Sealey:

The Dawson County Commissioners support the grant request that the Central Montana RC&D and the Judith Basin Conservation District is applying for from the Department of Natural Resources. These funds will provide for a full-time coordinator and operating expenses for the newly formed RC&D groups throughout the state. As a member of the 16 County Eastern Plains RC&D, we feel this should be priority funding for continued success in economic development for rural Montana.

RC&D boards consist of representatives of county, city and SCS Boards. These people are aware of the issues important to their area and work with other groups on these concerns. A coordinator is essential to provide the technical assistance needed to complete these projects.

This effort of dedicated Montana citizens to help their communities and neighbors must be continued. RC&D's help strengthen and improve Montana's tax base.

Sincerely,

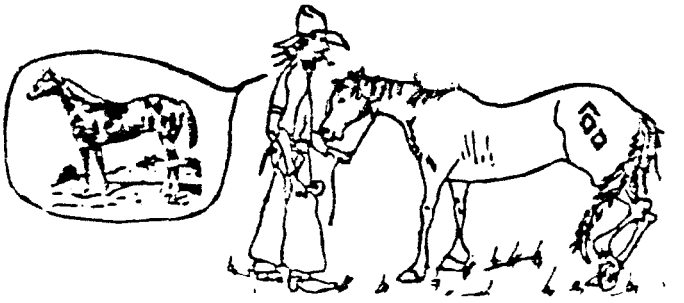
BOARD OF COUNTY COMMISSIONERS

Robert Ziegler
ROBERT ZIEGLER, CHAIRMAN

Judy Reddig
JUDY REDDIG, MEMBER

Richard Shoopman
RICHARD SHOOPMAN, MEMBER

CARTER COUNTY/EKALAKA, MONTANA - - A DIAMOND IN THE ROUGH



Polishing our Diamonds

Alyce Kuehn
Carter County RC&D
P. O. Box 338
Ekalaka, MT 59324
Ph (406) 775-8731
Fax (406) 775-8750

EXHIBIT 11
DATE 2-19-91
SB 8, RDG 3
Long Range Plan.

January 8, 1991

Representative Ralph Tunby
Capitol Station
Helena, Montana 59601

Dear Ralph, Re: RC&D

Please find enclosed letters of support for a grant application that has been submitted requesting funding from DNRC's RIT program in cooperation by the Central Montana RC&D and the Judith Basin Conservation District.

These funds represent vital start-up funds to assist with rural economic development in Montana. The RC&D program is an excellent vehicle to promote economic development and promotion of the opportunities to be found in Montana.

These funds are requested to provide technical assistance to the new RC&D's in Montana via a full time coordinator. The coordinator provides the necessary technical assistance and coordination for the board and committee members that are all volunteers. Through these volunteers the RC&D process provides the most basic grass roots approach so necessary for any successful rural economic development activity.

We are enclosing these letters and reiterating our endorsement of this application so you will know the RC&D approach to rural economic development has our overwhelming support, and we request you lend your support also.

Sincerely yours,

Alyce Kuehn, Chairman Group
Carter County RC&D Core Group

2 enclosures

1st NATIONAL BANK
P.O. BOX 326 • (406) 296-2521 • EUREKA, MONTANA 59917

Memo

Date: 1/30/91

To: Montana Legislators

From: First National Bank of Eureka
Erin Goosey, President

Re: R.C. & D. funding legislation

It has come to my attention that there is legislation pending that will determine the amount of funding that will become available for rural economic development. In order for your committee to have the benefit of our experience I ask that you consider the results of a pilot rural economic development project that was initiated in our area approximately two years ago as follows:

1. A group of individuals from diverse backgrounds and interests from our community were galvanized into an action committee that has faithfully pursued economic development opportunities.

2. We now have the border station at Roosville open 24 hours per day as a direct result of the lobbying effort initiated and pursued by the Economic Development Council(EDC). This has had a significant impact on local trade with the Canadians.

3. A block grant in the amount of $230,000 was awarded to the Town of Eureka as a result of applications prepared by the members of the EDC. This was utilized to provide start up funds for the Eureka Pellet Mills, Inc. Project and we now have over 30 people employed locally who would have left the area in search of jobs without the presence of the mill.

4. Through the efforts of the EDC the highway projects scheduled for the completion of 93 North to the Canadian border will be completed far ahead of the original schedule including the renovation of the main street of Eureka. These projects are extremely important to our community as Highway 93 is a main artery from British Columbia through Eureka to major vacation and recreation areas of the state.

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Long Range Plan.

5. Because of the work that the EDC has completed our area was able to spearhead an effort to obtain a grant from the U.S. Forest Service for the purpose of determining those areas of commonality between our community and those surrounding us. The grant in the amount of $47,000 was awarded to our area and this process is now in progress. Our area was in competition with others from across the U.S. which indicates the quality of work that resulted from the EDC's preparatory efforts.

6. The EDC has been instrumental in creating a strong coalition within our community through which groups are now working toward common goals.

I sincerely encourage your committee's support of funding for rural economic development. As you can see it has had a significant impact on the future of our community.

Sincerely,

Erin Goosey

Erin Goosey

Buffalo Commons Economic Development Core Group

January 22, 1991

Judith Basin Conservation District
Roundup, MT. 59072

Gentlemen:

We would like to take this opportunity to offer our support for your request of RIT (Reclaimation Idemnity Trust) Funds to establish a co-ordinator position for a State wide RC&D. We feel that this is an excellent proposal that would benefit our area and the State of Montana.

We will encourage our legislators to vote for House Bill No. 8 (Reclaimation Development Grants Program).

If we can be of further help, please contact us. Thank you.

Sincerely,

Joyce Almy
Baker, MT. 59313

Copy to: Rep. Rolph Tunby
Sen. Betty Bruski

Glendive Area Chamber of Commerce and Agriculture

200 N. Merrill • P.O. Box 930
Glendive, Montana 59330
Phone (406) 365-5601

Montana Superhost!

EXHIBIT RDG-3
DATE 2-19-91
HB EXH. 11
Long Range Planning

January 23, 1991

Judith Basin Conservation District
121 Central Avenue
P.O. Box 386
Stanford, MT 59479-0386

Dear Sirs:

A growing number of conservation districts, communities, county governments, local development agencies, and citizens are concerned about the deteriorating rural economic climate in Montana. Through a community-led approach, many of these groups are beginning to address their problems by forming community core-groups and by organizing Resource Conservation and Development (RC & D) areas.

RC & Ds are regional organizations made up of representatives of private individuals, local governments and conservation districts. Their primary goal is to help people conserve, develop, and utilize natural resources. RC & D is concerned about both economic benefits and social well-being of all people in their area.

In order to be successful, each RC & D area must have a full-time coordinator and support facilities. The majority of the local people involved in this effort have full-time jobs or businesses which limit their time. A coordinator would be responsible to organize meetings between groups, seek out technical help, maintain relationships with all other entities, work on funding sources, and follow up on individual projects.

We would like to express our support for the grant request of $170,000 made by the Judith Basin Conservation District for the start-up funding of new RC & D areas.

Sincerely,

Jim Culver

Jim Culver
President

JM;las

McCone Conservation District
P.O. Box 276
Circle, MT 59215
(406)485-2660

January 15, 1991

Central Montana RC&D
34 3rd Avenue West
P.O. Box 656
Roundup, MT 59072

Dear Monty:

We received a copy of the Fact Sheet on RC&D Area Funding through the Reclamation & Development Grants Program. Our district strongly supports your effort in securing money as start-up funding for four new RC&D areas.

Our district is located in the newly formed "Eastern Plains RC&D". Participants in our area have completed a series of workshops on "Community-led Rural Economic Development" with Dr. Dennis Winters, Montana Market Development Company, of Butte. We concluded these workshops last summer and have since been working on projects and have established a core-group and appointed a district representative to the main RC&D council. The area here, like most of Montana, is depressed both economically and socially. One of the main objectives in our county plan is to work on the attitude of the general public.

Another goal of our county core-group plan was to re-open our community theatre. Already renovation on the projectors and screen are taking place, with plans of opening by spring! Work has been done strictly by volunteers, which is enlightening to see. The theater committee has scheduled several events with which to generate funds, starting with a concert on Janaury 18, 1991. Through other fundraising events, over $3,000 has been donated to the theatre. The public is anxious for the grand opening, which certainly helps their attitude.

Our district believes in grass root efforts. We are committed to the RC&D efforts in this area, and have been attending local and regional meetings. We will continue to assist the local RC&D group with clerical assistance and technical support.

RC&Ds help to revitalize a sagging community, both socially and economically. We support your funding request, and encourage you to utilize this letter for any reference you may need.

Thank you for caring about Montana and its communities.

Sincerely,

Leonard Schock

Leonard Schock
McCone CD Supervisor and
Eastern Plains RC&D Council Member

xc: Judith Basin Conservation District
Dr. Dennis Winters, Montana Market Development Company
State Representative Betty Lou Kasten
State Senator Cecil Weeding
Mike Carlson, Eastern Plains RC&D Coordinator, part-time

EXHIBIT 12
DATE 2-19-91
HB 8, RDG 4
Long Range Plan.

DEPARTMENT OF
HEALTH AND ENVIRONMENTAL SCIENCES

STAN STEPHENS, GOVERNOR

COGSWELL BUILDING

STATE OF MONTANA

FAX # (406) 444-2606

HELENA, MONTANA 59620

Arro Sludge Cleanup

Testimony Provided to the Long Range Planning Subcommittee
February 19, 1991

Site Description and History

- The Arro Refinery located near Lewistown is an abandoned oil refinery that operated from the 1920s to the 1940s. It was the Montana's first refinery. Over its period of operation, the refinery shifted from production of leaded gasoline to unleaded gasoline. The company that operated the refinery, Arro Oil, dissolved in the 1940's.

- The only visible remains of the refinery are several brick buildings used as storage sheds, several cement foundations, and two waste pits containing sludge. Six residences currently occupy the 40 acre former refinery site and obtain their drinking water from on-site wells. The site is used for pasture for sheep and horses.

Past Investigations and Cleanup

- Using 1987 Reclamation and Development Grant (RDG) funds, the Montana Department of Health and Environmental Sciences (MDHES) conducted remedial investigations at the site, which indicated that surface and subsurface soils were contaminated with lead and petroleum hydrocarbons; that the shallow groundwater was contaminated with petroleum hydrocarbons; and that approximately 1,000 cy^3 of sludge containing hazardous substances were located in two waste pits on-site.

- MDHES used 1987 RDG funds to clean up the lead-contaminated soils. Not enough funding was available to address other contamination problems.

1991 Grant Project Purpose

- The purpose of the 1991 RDG grant project is to clean up two sludge pits at the Arro site and thereby eliminate the potential health and environmental risks associated with the sludge.

- The sludge presents a health hazard to humans who may accidentally come into direct contact with and/or who inhale hazardous vapors volatilized from the sludge. Small children and animals can become trapped in the pits; there are carcasses of dead birds and domestic animals in the large pit. Vapors are prevalent at the site in the warm months.

- The sludge presents an environmental risk because it is a potential source of contamination for an adjacent stream and deep aquifer. The underlying aquifer is already contaminated with the same hazardous substances found in the sludge.

1991 Grant Project Scope

- 1991 RDG funds will be used strictly for sludge cleanup as the investigation phase of the project is already completed. MDHES has determined the contaminants in and volume of the sludge. In addition, MDHES has conducted a preliminary evaluation of the various cleanup alternatives.

- The grant project will be accomplished in three phases: 1) determining the best cleanup technology (feasibility study phase); 2) preparing bid specifications and construction plans for the selected technology (remedial design phase); and 3) executing the cleanup according to the design (remedial action phase).

- All grant funds would be strictly for contracted services. Administrative costs will be donated as an in-kind match.

- Based on the most promising alternative identified to date, rerefining, all $300,000 will be necessary for sludge cleanup.

Appropriate Use of RDG Grant Funds

- This grant project meets three of the criteria categories for Reclamation and Development Grants (90-2-1111 MCA): 1) mitigation of damage to public resources caused by mineral development; 2) reclamation of land, water, or other resources adversely impacted by impact development; and 3) investigation and remediation of sites where hazardous wastes or regulated substances threaten public health or the environment.

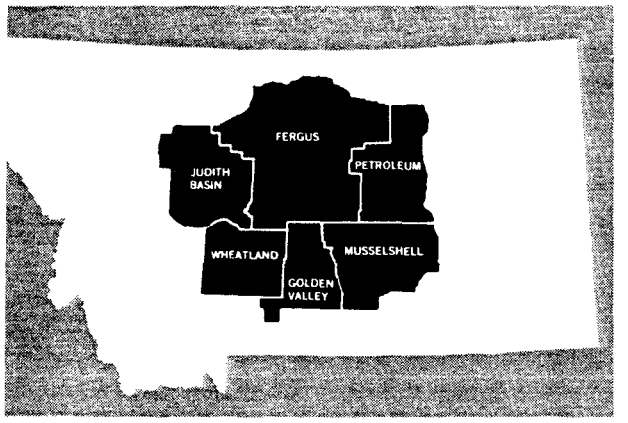
- Since no viable responsible party exists and the site is not eligible for EPA Superfund money, RDG represents the only option for funding cleanup.

Summary of Benefits

- This project will eliminate public health and environmental impacts associated with sludge pits at Arro Oil Refinery. Without the grant funds, the sludge will remain a continuing source of environmental contamination and a public health threat.

- Cleanup procedures developed for this project will assist with cleanup of the many other abandoned refineries in Montana that have sludge contamination.

This project ranked high (4th out of 39 applications) because of its appropriateness for RDG funding, because of its well researched technical assessment, and because of its many benefits. We hope that you will fund the project. Thank you for your consideration.



Central Montana Health District

Sanitarian's Office

404 Fourth Avenue South ~~P.O. Box 1150~~ Lewistown, Montana 59457

Telephone 406/538-7466

- Fergus
- Golden Valley
- Wheatland
- Musselshell
- Petroleum
- Judith Basin

February 15, 1991

EXHIBIT 13
DATE 2-19-91
HB 8 RD64
Long Range Plan.

The Honorable Mary Ellen Connelly
Chairman, Long Range Planning Subcommittee
Capitol Station
Helena, Montana 59620

Dear Committee Members:

The Arro Refinery Sludge Cleanup is very important to Fergus County and Lewistown. The cleanup will eliminate contamination from entering Big Spring Creek one-half mile away during periods of heavy rain and runoff. Cleanup will stop the reduction of property values in the area of the site. The cleanup will reduce the hazard to pets, livestock, wildlife, and children in the area from the refinery residue and sludge vapors. The cleanup will reduce ground contamination. The cleanup will stop the continued contamination of the twenty foot deep aquifer by the sludge pit.

This site deserves your continued attention and every consideration because there is no way that local people or agencies can finance the cleanup now or in the foreseeable future. Without the cleanup the health problems will extend far into the future.

The Central Montana Health District will provide all the time, support, and assistance that we can.

Sincerely,

Kenneth F. Smith

Kenneth F. Smith, R.S.
Health Officer

KFS:jp

EXHIBIT 14
DATE 2-19-91
HB 8 RDG 4

January 18, 1991

RECEIVED
JAN 21 1991
MONTANA DEPARTMENT OF HEALTH
AND ENVIRONMENTAL SCIENCES
SOLID & HAZARDOUS WASTE BUREAU

Representative Mary Ellen Connelly Long Range Plan.
Chairwoman
Long Range Planning Subcommittee

RE:Arro Refinery Sludge Cleanup

Dear Mrs. Connelly:

We are writing in regard to the Aerro site clean-up, which is a big concern of ours. We live close to the site and we are afraid that our well and spring creek will be contaminated by this pit. We have already had one well contaminated, but can not say this pit was the cause, but can not say that it was not!

This site is right along a highway which is used by many peoble for running and biking, which could be very hazordous.

This is not just a problem for us who live in this area, but could become wide spread. For spring creek flows into the Judith river, which then flows into the Missiouri river, then on to the Mississippi. This may seem impossible, but anything can happen.

We are very concerned and would like your support on this clean-up project. Thank you.

Sincerely,

Mr & Mrs Fred Gillett

Mr. & Mrs. Fred Gillett
Rt. 2 Box 2200
Lewistown, Mt. 59457

HOUSE OF REPRESENTATIVES
VISITOR REGISTER

Long Range Planning SUBCOMMITTEE DATE 2-19-91

DEPARTMENT(S) DNRC RDO Grant Program DIVISION ____

PLEASE PRINT **PLEASE PRINT**

NAME	REPRESENTING	
Dan Hybner	Hill County Conservation District	
Loyd Berry	Upper Musselshell dist	Harlowton
Alvin D Boswell	Glacier Co	C-T Bank
Michael Habets	Bullhead Water Quality Assoc	Pondera
Robert Orcutt	MSSA	
Lee Lane	MSCA	
Jane Holzer	MT Salinity Control Assn (MSCA)	
Jack Thomas	Water Quality Bureau/DHES	
Larry Johnson	Hill County Farmer	
Richard Miller	MT State Library Comm.	
Jon Reiten	MT Bureau of Mines	
Marvin Miller	MBMG - MT Tech	
Jon Sesso	MT STATE LIBRARY	
Allan Cox	MT State Library	
Tom Brass	MSCA	
Ellis Hagen	MSCA & Sheridan Conservation	
Bill Cromwell	MSCA + Daniels Con. Dist.	

PLEASE LEAVE PREPARED TESTIMONY WITH SECRETARY. WITNESS STATEMENT FORMS ARE AVAILABLE IF YOU CARE TO SUBMIT WRITTEN TESTIMONY.

HOUSE OF REPRESENTATIVES
VISITOR REGISTER

Ag Range Planning SUBCOMMITTEE DATE 2-19-91

DEPARTMENT(S) DNRC, RDG Grants DIVISION

PLEASE PRINT PLEASE PRINT

NAME	REPRESENTING	
Max Maddox	Upper Milk River Water Users	
Julie Lethert	DHES	
Kenneth Smith	Central MT Health Dist	
Carol Fox	DHES	
Roberta Brown	LANDOWNER	
Gerald Abson	LANDOWNER	
Bob Huber	Landowner	
Mike Carlson	Glendive Chamber of Commerce	
Monty Seeley	CENTRAL MT. RC&D, INC	
Kathy Wedeyus	Glendive Chamber of Commerce	
M L Peterson	HD# 1	

PLEASE LEAVE PREPARED TESTIMONY WITH SECRETARY. WITNESS STATEMENT FORMS ARE AVAILABLE IF YOU CARE TO SUBMIT WRITTEN TESTIMONY.