

MINUTES OF THE MEETING
LONG-RANGE PLANNING SUBCOMMITTEE
MONTANA STATE
HOUSE OF REPRESENTATIVES

February 13, 1985

The meeting of the Long-Range Planning Subcommittee was called to order by Chairman Robert Thoft on February 13, 1985 at 8:05 a.m. in Room 420 of the State Capitol.

ROLL CALL: All members were present.

HOUSE BILLS 205, 220 AND 509: Chairman Thoft (51:A:004) announced that the subcommittee will be hearing House Bill 205, 220 and 509 on Friday, February 15, 1985.

DEPARTMENT OF NATURAL RESOURCES AND CONSERVATION, WATER DEVELOPMENT PROJECTS

Daniels County Conservation District, Poplar River Monitoring Program, Project 19:

Caralee Cheney (51:A:033), Chief, Water Development Bureau, Department of Natural Resources and Conservation (DNRC) introduced this project by reading from page 45 of the program book (See Exhibit 1, 2-12-85).

Proponents: Representative Dennis Nathe (51:A:049), District 19, said he feels this is an important project because of the mining, power plant and ash lagoon located just north of the Montana border in Canada. He said the Canadians are very good about supplying funds for the monitoring of the Poplar River and Montana also needs to commit funding for this ongoing project. Senator Ed Smith (51:A:072), District 10, said because the Canadian plant was not constructed better in the beginning the river will need to be monitored for a long time. He said if the river is not monitored serious problems could develop in the future. Boyd Tymofichuk (51:A:089) asked the committee for full support of the project. Bill Tande (51:A:094) said he feels groundwater monitoring is very important.

Senator Fuller (51:A:109) wondered what long-term funding sources have been considered for this project. Representative Nathe said he does not know what future funding sources are being considered since it is a binational project. The Canadians are able to get their portion of the funding much more easily than Montana because they are not locked into a 2 year funding mechanism. He said he thinks this will be an

ongoing legislative request because of the controversial location of the dam. Marvin Miller (41:A:143), Montana Bureau of Mines and Geology said getting funding for this project has been a long process. He said last session the International Joint Commission was able to get funds from the Coal Board for the project. However, the Coal Board suggested the group seek funding from the Water Development Program this session. In the future fewer funds should be needed to maintain the program than what is currently being requested.

Representative Bardanouve (51:A:168) asked how large the plant is in Canada. Representative Nathe said 600 megawatts, there are two 300 megawatt plants. Representative Bardanouve asked if monitoring efforts for water and air quality are coordinated. Mr. Miller said the air quality is monitored by the Montana Department of Health with Environmental Protection Agency (EPA) funds. The water monitoring was originally done by EPA but now is done separately.

Representative Bardanouve (51:A:197) asked how much money the group received from the Coal Board. Mr. Miller said it was about \$90,000, two-thirds of which was used to drill 12 test holes. Representative Bardanouve asked why the Coal Board does not want to fund the project anymore. Mr. Miller said the board feels that Water Development Program is more appropriate for an ongoing project of this kind. Representative Bardanouve said the Coal Board gives millions of dollars away to projects of a somewhat dubious nature and then they refuse to fund a legitimate one like this. Mr. Miller said they did support the concept of this project but felt other funding sources should be explored.

Senator Fuller asked if Daniels County contributes money for the water monitoring. Mr. Tande said no.

Montana Bureau of Mines and Geology, Statewide Groundwater Information Center, Project 1

Ms. Cheney (51:A:231) described this project which is on page 20 of the program book.

Proponents: Senator Dorothy Eck (51:A:260), District 40, said the Groundwater Information Center at Montana Tech is a budding program upon which the state really relies. The Governor's Groundwater Advisory Council recommended that the center be properly funded. Senator Eck said the center needs a computer and additional staffing. She said she is please to see the

project ranked number 1 because she feels it is a very important project. Representative Gay Holliday (51:A:305), District 31, said she chaired the Governor's Advisory Council for Groundwater Funding and is a proponent of the project. Representative Dennis Nathe (51:A:311), District 19, said he was a member of the Governor's Council and he feels the recommendation to fund the center is the most important recommendation the council made. Jo Brunner (51:A:318), Women Involved in Farm Economics, said the group is a proponent of the project. Ms. Brunner said Montana Water Development and the Montana Irrigators also support this project (EXHIBIT 1). Tom Patten (51:A:321), Hydrogeologist, Montana Bureau of Mines and Geology spoke as a proponent of the project and gave the committee information on the center (EXHIBIT 2).

Senator Fuller (51:A:339) asked what computer hardware is included for the price of \$87,600. Tom Patten said a central processing unit, disk drives, software, tape drives and 16 user ports are included for that amount. Senator Fuller asked if the center coordinates its efforts on water rights with DNRC. Mr. Patten said DNRC's computer does not communicate with the center's, but the two do supply each other with information by phone or paper.

Representative Bardanoue (51:A:372) asked if this request for the center will duplicate any services at MT Tech or elsewhere. Mr. Patten said the center currently uses 1 of MT Tech's 3 computers, which is not able to handle a very large data base. He also said the computer is supposed to be dedicated to student use. Representative Bardanoue asked how much money will be spent for software. Mr. Patten said \$13,000.

Triangle Conservation District, Triange Saline Seep,
Project 2

Ms. Cheney (51:A:423) introduced this project which is on page 21 of the program book.

Proponents: Representative Harriet Hayne (51:A:459), District 10, said all the people in the saline seep area know that the Triangle Conservation District's work is very important in trying to find remedies to the saline seep plight. This problem is taking in thousands of acres of Montana farm land. Jane Holzer (51:A:476) and Senator Larry Tveit (51:A:500), District 11, gave a slide presentation to the committee. Senator Tveit showed slides and gave testimony about saline seep on his farm. He showed land which could not be used agriculturally because of the high amounts

of salt and acid in the ground. The Triangle Conservation District helped him redo his farming methods and after eight years the land is now productive. Senator Tveit said he highly endorses this project because he has lived through the experience of reclaiming land once lost to saline seep. Jane Holzer gave members information on the saline seep project (EXHIBIT 3).

Chairman Thoft left to present a bill before another committee and since Vice Chairman Van Valkenburg was not present, Representative Gene Ernst chaired the meeting.

Tom Burns said he supports this proposal because it is not just a farming program but a water quality program. He said he has personally lost his stock water reservoirs to saline seep. He said the Triangle program is so popular that 23 counties have asked to be included in the program. Henry Grossman (51:A:670) submitted written testimony (EXHIBIT 4). Pete Purvis (51:A:709) said the area covered by the program is increasing and he urged the committee's support of the program. J. T. Petrik (51:B:008), Director, Sidney Chamber of Commerce said this project will help save Montana land. David McMillen (51:B:015) spoke as a proponent. Bob Van Oosten (51:B:017), member, Stillwater Conservation District, said his district has contracted with the Triangle group to help them with their saline seep problems. He said the program is a very efficient and effective way to get results. Expansion of the project to other districts will help them to eliminate their saline seep problems. James Yedlicka (51:B:023), Carbon County Conservation District, said saline seep is eroding the tax base in Carbon County and would like the committee to support this project. Alvin Boxwell (51:B:028), Cut Bank, said people in his area have similar problems with saline seep. They also are experiencing problems with saline seep getting into water wells. Boyd Tymofichuk spoke as a proponent. Bob Lehnery said he has used the program since he discovered saline seep on his land and has really seen improvement in the condition of the land. Dan Deegan (51:B:052) asked for support of this project. Representative Bardanouve (51:B:055) said he is a proponent of this project because he has experienced the damage saline seep can do to livestock first hand. He has a reservoir which is contaminated by saline seep. He was unaware of this fact and fenced off the area around the reservoir and put his cattle there to graze. The salt water in the reservoir killed 33 cows, 2 bulls and left 40 orphaned calves. He said his ranch hand also lost a combine in a saline seep one time and the machine was almost torn apart in the process of trying to get it

out of the seep. Jim Bolstad (51:B:127) urged the committee's strong support of this project. Representative Loren Jenkins, District 13, submitted written testimony (EXHIBIT 5).

Carbon Conservation District, Willow Creek Stream
Corridor Management, Project 3

Caralee Cheney (51:B:136) described this project on page 23 of the program book.

Proponents: James Yedlicka (51:B:151), Chairman, Carbon Conservation District Board said a previous land owner channelized this portion of Willow Creek. This portion of the creek is up to 150' wide and it normally is 12' to 15' wide. The rancher is donating 22 acres of land in this area which will be fenced in order to allow the creek to return to a Riparian area. Bob Van Oosten (51:B:168) said if the problem is taken care of now, then a reservoir downstream will not be filled with silt.

Senator Fuller (51:B:176) asked if this group has received money previously. Ms. Cheney said no. Representative Bardanoue asked why this portion of the creek was channelized. Mr. Yedlicka said he did now know why, but it was done before enactment of the Streambed Preservation Act.

UM, Montana Forest and Experiment Station, Riparian
Vegetation System, Project 4

Caralee Cheney (51:B:200) explained this project which is on page 24 of the program book.

Proponents: Robert Pfister (51:B:217) submitted written testimony (EXHIBIT 6). Benjamin Stout requested to be listed as a proponent of this project at the February 12, 1985 meeting of the Long-Range Planning Subcommittee. Mr. Stout is the Director of the Montana Forest and Conservation Experiment Station.

Representative Bardanoue (51:B:251) asked if the information from the project will be put on a computer. Mr. Pfister said the experiment station will use the U of M computer system to store project data.

Senator Fuller (51:B:261) said this project basically funds 4 staff people at the experiment station and he asked if DNRC looked at the appropriateness of having four people work on the project. Ms. Cheney said, because there is a large amount of data, it will take four people to do the project work. She also said the

department is not recommending the funding of new staff, but partial funding of existing staff. Mr. Pfister said because of the team work approach to the project it is necessary to have partial support of the existing staff. Senator Fuller (51:B:306) asked Mr. Pfister for a specific budget on the project to be given to the committee. He wants the budget to include areas of expenditure and what kind of staff is need for the project.

Rosebud Conservation District, Vegetative Streambank
Stablization, Project 5

Ms. Cheney (51:B:315) explained this project to the committee using page 26 of the program book.

No one was present to give testimony on this project.

Teton County Conservation District, Upper Teton Aquifer
Study, Project 6

Ms. Cheney (51:B:361) described this project which is on page 27 of the program book.

Proponents: Ruth Makin (51:B:385) submitted written testimony (EXHIBIT 7). Ray Anderson (51:B:411) submitted written testimony (EXHIBIT 8). Mr. Anderson said Representative Rex Manuel, District 11, would like to go on recorder as a proponent of this project also. Tom Osborn (51:B:438), Hydrogeologist, Montana Bureau of Mines and Geology said the bureau will be providing the technical support for the water investigation. Mr. Osborn said the groundwater investigation is the first step in trying to determine the overall water budget for the area. A water management plan is the ultimate goal of the project.

MSU, Hydrological Assessment of Pony and Cow Creek,
Project 7

Caralee Cheney (51:B:488) introduced this project which is on page 29 of the program book.

No one was present to offer testimony on this project.

Senator Fuller (51:B:521) asked if DNRC considered the number of Environmental Impact Statements which have been done in this area and the multitude of data available. Ms. Cheney said this proposal will supply new data for the Facility Siting Bureau of DNRC. Senator Fuller requested the specific budget of this project.

Town of Ekalaka, Water and Sewer Facilities Plan,
Project 8

Ms. Cheney (51:B:547) introduced the project on page 30 of the program book.

Proponents: Dayton Alsaker (51:B:571), said he is the consulting engineer on the water and sewage problems at Ekalaka. He said the water and sewage systems in Ekalaka are in dire need of being updated. He gave some examples.

Lewis and Clark/Jefferson Valley Conservation District,
Prickly Pear Stream Stabilization, Project 9

Ms. Cheney (51:B:621) explained this project which is on page 31 of the program book.

Proponents: Mervyn Haub (51:B:656) said this project is very important because of the large number of people living along the creek and the various effects of different industries along the creek. Mable Bompert (52:A:004) said the flood in 1981 did alot of erosion damage to Warm Springs Creek and Prickly Pear Creek where they join. She said the road was almost lost at this intersection of the creeks and it still is not in stable condition. She feels there is a need for planning on the erosion and channel problems which exist along Prickly Pear Creek. Don Burnham (52:A:034) owns 3 miles of Prickly Pear Creek and has lived on his ranch for 26 years. He said since the interstate was built there has been a terrific amount of sediment in the water downstream. The highway construction removed several beaver ponds upstream from his ranch and ever since the stream has been full of sediment. The creek is much wider now than it used to be because of erosion. He said other items effecting the creek are the Kaiser Cement Plant and the East Helena Smelter.

Mr. Paul Kleffner (52:A:104) said he owns 1 mile of the creek and he does not have many of the problems other land owners on the creek are experiencing. He said he did have trouble with the 1981 flooding, but he believes there is no way to control a 100 year flood. Mr. Haub said the purpose of the project is not to stop erosion from a 100 year flood. The project will help slope the creek banks and plant vegetation which will prevent erosion along the creek. The project is not proposing to riprap the creek because it is too expensive.

Opponents: Bill Wall (52:A:150) said he opposes the project because not all land owners on the creek are

experiencing the same problems. He said the ranchers who have specific problems with the creek should receive priority over others who are not. He said the project will cost many land owners money they cannot afford to pay and some do not need assistance from the project.

Senator Fuller (52:A:191) asked if there are specific plans for the use of the \$100,000 project request. Ms. Cheney said the project has a specific plan for the funds in the Clancy area, which will be used for fish and aquatic habitat. Selection of other portions of the creek to be used for the project depends on the prioritization in the stream corridor management plan. Representative Bardanouve asked if the Highway Department violated the Streambed Preservation Act when they built the highway. Mr. Yedlicka said the state government does not come under the jurisdiction of the Streambed Preservation Act.

Chairman Thoft returned to chair the remainder of the meeting.

Cut Bank North Glacier Water and Sewer District, North
Cut Bank Sewer, Project 10

Ms. Cheney (52:A:230) described this project on page 33 of the program book.

Proponents: Alvin Boxwell (52:A:257) said he is aware of the problems in Cut Bank and said the stream is full of soap foam.

Chairman Thoft asked if the loan for this project is included in the Coal Tax Bonding Program. Ms. Cheney said no, these loans are funded from the proceeds of general obligation bonds.

Seeley Lake Missoula County Water District, Plan for
Water and Sewer System, Project 11

Caralee Cheney (52:A:283) introduced this project which is on page 34 of the program book.

No representative of the project was present to offer testimony.

UM, Missoula Aquifer Study, Project 12

Ms. Cheney (52:A:306) described the project on page 35 of the program book.

Proponents: Senator Van Valkenburg (52:A:319) said this project is extremely important to the Missoula area. Senator Van Valkenburg said a year ago the Rattlesnake Creek water source for Missoula became infested with giardia. The city is now solely dependent on a groundwater source. The present aquifer is capable of supplying Missoula's water needs, but long-term use of this source could jeopardize the aquifer. Senator Van Valkenburg said he is eager to see this study done.

Stillwater Conservation District and Beartooth, Saline Seep Reclamation and Plowout, Project 13

Caralee Cheney (52:A:363) explained this project to the committee by using page 37 of the program book.

Proponents: Bob Van Oosten (52:A:374), member, Stillwater Conservation District spoke as a proponent of the project and gave members information concerning the saline seep project (EXHIBIT 9). The Triangle Conservation District also submitted written testimony (EXHIBIT 10). Ted Duaine (52:A:418), Hydrogeologist, Montana Bureau of Mines and Geology said there is a need to determine the impacts of saline seep on ground and surface water. James Yedlicka (52:A:442) said the Carbon Conservation District is in support of this project.

Representative Ernst (52:A:469) asked if the Graytack Farming Corporation has land involved in the demonstration project. Mr. Van Oosten said they do have a considerable amount of land in the area.

Greenfields Irrigation District, Bifurcation Structure, Project 14 (new); Greenfields Irrigation District, Bifurcation Structure, Project 15 (old)

Ms. Cheney (52:A:481) discussed these projects together. The projects are on pages 38 and 39 of the program book.

Proponents: Jerry Nypen (52:A:508), Manger, Greenfield Irrigation District said the project involves over 500 miles of canals used to irrigate 83,000 acres. He said the project will help coordinate water management in the area and make it more effective.

Representative Ernst (52:A:554) asked what are key bifurcation works. Mr. Nypen said basically this means the main canal of the system will be split into two other major canals.

Carbon Conservation District, Cottonwood Creek Stream
Corridor Management, Project 16

Ms. Cheney (52:A:583) described this project using page 41 of the program book.

Proponents: James Yedlicka (52:A:600), Carbon County Conservation District, said the land owner is going to leave this area as a permanent wildlife area once the project is complete.

MSU, Impacts of Small Hydropower on Trout, Project 17

Caralee Cheney (52:A:622) introduced the proposal which is on page 42 of the program book.

Proponents: Peter Gross (52:A:652), Montana Small Hydro Association said the association backs this project because of the lack of information about hydropower systems in the winter. Bob White (52:A:665) said there is alot of information available on the effects of water reduction during summer months, but very little is known about it in winter months.

Representative Ernst (52:A:685) asked for a budget breakdown on this project because of the high cost of salaries. Chairman Thoft (52:A:698) asked if streams are actually dried up from the point of intake to the point of discharge. Peter Gross said they do not. The Department of Fish, Wildlife and Parks requires that a certain amount of water be left in the steam. This study will determine exactly how much water should be left in the stream during winter months.

Antelope Water/Sewer District, Water/Sewer System
Construction, Project 18

Ms. Cheney (52:B:003) explained this project which is on page 43 of the program book.

Proponents: Doug Smith (52:B:017), Planner, Sheridan County said this project is a reapplication. Since the 1983 Session 2 wells have been drilled, a water/sewer district has been created and \$100,000 in bond indebtedness has been authorized for the project. He said the district plans to go to bid this Spring for the water/sewer systems. Representative Dennis Nathe, District 19, wished to be recorded as a proponent of this project.

Town of Cascade, Landfill Rehab and Park Development,
Project 19

Long-Range Planning Subcommittee
February 13, 1985
Page 11

Caralee Cheney (52:B:034) introduced this project on page 46 of the program book.

No one was present to give testimony on this project.

Representative Ernst (52:B:049) asked if the applicants are aware of the Fish, Wildlife and Parks funding source for boat ramps. Ms. Cheney said there is a Fish, Wildlife and Parks ramp in the area but the applicants wanted to build an even larger ramp and DNRC did not recommend funding for this portion of the project.

There being no further business before the subcommittee the meeting adjourned at 10:37 a.m.



ROBERT THOFT, Chairman

DAILY ROLL CALL
LONG RANGE PLANNING SUB COMMITTEE

49th LEGISLATIVE SESSION -- 1985

Date February 13, 1985

[illegible]

2-13-85

See long range bldg.

(Would you please add
the names of

Montana Water Development
and the
Montana Irrigators

to my testimony you suggestion
the Groundwater Info Center

Thank you

J. Brunner

Women Involved in
Farm Economics.

(

2-13-85

FACT SHEET
GROUND-WATER INFORMATION CENTER

DESCRIPTION:

The Ground-Water Information Center (GWIC) as established at the Montana Bureau of Mines and Geology consists of 4 service units loosely incorporated into 2 large program areas: the Office Program and the Field Program. The four service areas are: 1) Library - consisting of a collection of MBMG-USGS-and EPA-published and unpublished data as well as numerous environmental impact statements and other reports on Montana's ground water; 2) Basic data - consisting of 4 electronic data bases 3 of which are partially established and 1 planned. The established data bases are derived from water-well logs and water-quality analyses in the MBMG files; 3) Interpretive - including water-well siting, water-quality interpretation, water availability, hydrogeologic analysis of drill-hole data and; 4) Field - a technical-assistance and field-data-gathering program intended to provide state agencies and other decision makers in ground-water management with pertinent and accurate ground-water resource information. Library and Basic Data services comprise the Office Program--Field services comprise the Field Program; and both programs overlap in the area of Interpretive services.

NEED:

The Governor's Council on Ground-Water has recommended that the GWIC be established to provide better service to Montana's citizens and to prevent loss of important ground-water data. The center has been endorsed by the Department of Natural Resources (DNRC), Department of State Lands (DSL), Department of Health and Environmental Sciences (DHES), U.S. Geological Survey (USGS), Environmental Protection Agency (EPA), Governor's Office and others. The need for ground-water data by Montana's citizenry is statewide. More than 3,000 requests for these data were received from all areas of the state during the years 1983 and 1984.

PURPOSE:

The purposes of the GWIC are to:

Collect ground-water data in areas of critical need

Organize ground-water data

Disseminate ground-water data to the public

Interpret ground-water data for the public

PRODUCTS:

Products (other than direct service) include interpretive maps of the data (for example depth of well vs. yield); water-quality data presented in user-defined formats and basic-data reports for different areas of the state.

PREVIOUS
FUNDING:

The GWIC has not been previously funded. Work accomplished to date has been funded by services rendered primarily to Federal grants and contracts. The foremost of these have been the USGS Northern Great Plains Resource Evaluation Program and the EPA Underground Injection Program. State matching funds to these programs have provided as much as a 3:1 (federal to state) dollars funding mix to pay for portions of the program. The federal funding sources are no longer available.

PROPOSED
FUNDING:

The GWIC is an ongoing program that needs a stable funding base. Because of the shortage of General Fund dollars this biennium, the Water Development and Legacy programs have been approached and have given high rankings to the GWIC and its program. Additionally, a small portion of funding is being sought through the budget modification process. The funding level proposed to the Legacy Program was \$555,141 to provide 5.25 temporary FTE's to the Office and Field Programs and for expenses to operate the Field Program at a viable level. The Water Development Program has recommended \$100,000 for the GWIC for the purchase of computer hardware. Full details of the GWIC funding package are shown on the attached table.

ECONOMIC
BENEFIT TO
THE STATE:

The GWIC will provide for research, demonstration and technical assistance to promote the wise use of Montana's ground-water resources. Also provided will be the availability of information needed to protect the state's renewable resources and assess past or potential environmental damage from natural resource development. All users of Montana's ground-water resources as well as Montana's ground-water managers will benefit from this project.

FOR FURTHER
INFORMATION:

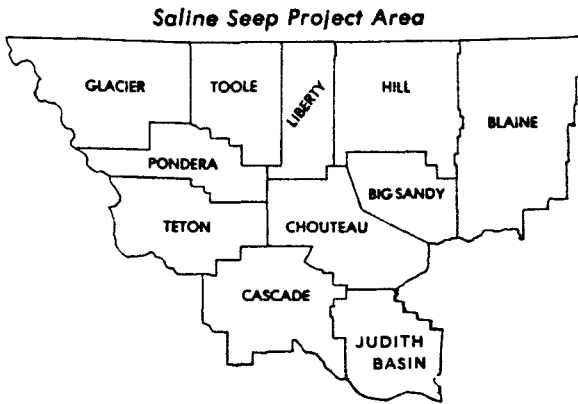
Marvin Miller
Tom Patton
Bob Bergantino
Montana Bureau of Mines and Geology
Montana College of Mineral Science and Technology
Butte, MT 59701
(406) 496-4156
496-4153

GROUND-WATER INFORMATION CENTER (GWIC)

FUNDING PACKAGE - FEBRUARY 2, 1985

	BUDGET MODIFICATION (1)	WATER DEVELOPMENT	LEGACY	MBMG MATCH	PROGRAM TOTAL WITHOUT MATCH
<u>OFFICE PROGRAM</u>	\$ 39,300	\$ 22,500	\$205,392	\$ 62,730	\$267,192
<u>COMPUTER</u>	77,000	109,300 ⁽²⁾	-0-	9,590 ⁽⁴⁾	186,300
<u>FIELD PROGRAM</u>	-0-	-0-	349,749	159,139	349,749
<u>COAL HYDRO. DATA PROGRAM</u>	-0-	-0-	66,680	14,380	66,680
TOTAL REQUESTED	\$116,300	\$131,800	\$621,821	\$245,839	\$869,921
TOTAL RECOMMENDED	\$116,300	\$100,000	\$257,300 ⁽³⁾	\$231,459	\$473,600
% OF REQUEST RECOMMENDED (100%)		(76%)	(37%)GWIC (75%)COAL HYDRO. DATA	(94%)	(54%)

- 1) INCLUDES 50% OF SALARIES (\$39,300), 50% OF OPERATIONS (\$5,000) AND 100% OF CAPITAL (\$72,000) APPROVED BY EDUCATION SUBCOMMITTEE.
- 2) INCLUDES MAINTENANCE \$8,700; ROOM PREPARATION \$4,500; 6% INFLATION FACTOR \$7,500; PLOTTER ≈ \$12,000; COMPUTER \$75,600; AND MISCELLANEOUS EXPENSES \$1,000.
- 3) INCLUDES \$50,000 FOR COAL DATA LEGACY APPLICATION AND \$207,300 FOR GWIC OFFICE PROGRAM.
- 4) INCLUDES MATCH FOR WATER DEVELOPMENT APPLICATION OF \$5,500 AND 6% CONTINGENCY OF \$4,090.



TRIANGLE Conservation District

P.O. Box 1411

PHONE (406) 278-3071

CONRAD, MT 59425

EXPANDED SALINITY PROGRAM FACT SHEET

PROBLEM: Saline seeps are recently developed low-volume springs caused by a change in land-use, predominantly from native perennial vegetation to the alternate crop-fallow dryland cropping system. The saline seep or discharge area, is actually the symptom to the problem of inefficient use of annual precipitation in the up-slope or recharge area. Saline seeps, water quality degradation, erosion and soil organic matter decline, are only symptoms of the problem.

NEED AND URGENCY: Saline seep is among the top 4 resource problems in MT. with over 280,000 ac. of cropland estimated out of production, and the rate grows at 10% per year. Using an average of \$40/ac net return in a crop-fallow system, \$5,600,000.00 is lost in annual production. The taxes on the salinized land can be reassessed at a lower value (from a \$2.30/ac avg. for cropland to \$0.34/ac avg.) for a potential yearly loss in tax revenue of \$548,000.00. The degradation to surface and groundwater is not easily quantified but is perhaps the most severe consequence. Degraded water quality goes beyond the individual landowner to affect both the rural and urban population. Wells and reservoirs are abandoned and irrigation is reduced or eliminated. Numerous rural water lines have been needed because of poor water quality. It has cost the state over \$2.5 million in grants and loans to help finance these, not to mention the increased maintenance costs to the users. The water quality in most seeps exceeds the recommended limits for any domestic use and has been documented as high as 78,000 mg/l TDS or twice that of sea water. At present levels, saline seep is costing MT in excess of \$11,352,000.00 per year. If allowed to go unchecked, this figure could grow in the next 20 yrs. to \$76,370,000.00 for 1.8 million ac (assuming 10% growth rate). Therefore the prevention of saline seeps is just as important as reclamation to existing ones.

TECHNIQUE: The Triangle Conservation District technical field team has developed a proven technique to work on a farm-by-farm basis to achieve saline seep prevention and reclamation using the state-of-the-art of recharge area identification, intensive cropping, and reclamation techniques. In the 5 years the TCD has been working on the problem, 216 individual reclamation plans have been developed to work on 6,810 acres of seep. The implementation rate has been 84%, a very impressive rate considering the increased costs and management necessary for the cooperators.

RECOGNITION

NATIONAL: TCD has written and presented technical papers on vegetation management for the control of groundwater contamination and dryland salinity.

- International Symposium on State-of-the-Art Control of Salinity, July 1983, Salt Lake City, UT.
- 7th National Ground Water Quality Symposium, September 1984, Las Vegas, NV.
- Rocky Mountain Ground Water Conference, April 1984, Great Falls, MT.

INTER-

NATIONAL: A Memorandum of Understanding between MT and Alberta provides an avenue for technical exchange. Alberta's original approach to salinity was drainage, which was not acceptable economically or ecologically, nor was it effective. The Dryland Salinity Control Assoc. pays the expenses for the TCD team to travel yearly to Alberta to review and provide technical expertise on projects. After a similar trip to Saskatchewan in August 1984, TCD is also pursuing a memorandum with their farm organization, Wheatland Conservation Area Assoc. Both provinces are patterning their salinity control programs after the TCD; using their team approach and field technique.

Australia is suffering from a severe salinity problem also brought on by inefficient water-use by their current farming practices. The Australian government has invited and paid for MT researchers to come to their country to observe and provide assistance. Numerous Australians have visited MT and spent time with TCD to observe techniques that may be applicable to them.

RECOGNITION STATE: TCD is widely recognized for its work with cropping systems and the economics of implementing them. Since conservation practices must pay to be widely adopted, TCD recommends intensive cropping practices that maximize water use efficiency as well as profits. TCD has developed Economic Yield Strategies to compare variable costs and yields, that are being used by the SCS and Extension Service. TCD staff has participated in numerous tillage and agriculture conferences across the state.

NEW STATE GROUPS: Northeast Montana Saline Seep Project (NMSSP) - The conservation districts from 7 NE counties Valley, Daniels, Sheridan, Roosevelt, McCone, Richland and Wibaux organized in 1982 to work on salinity control. Through a 223 grant from DNRC in 1983, the TCD technical team has worked on a pilot basis in the area. 17 reclamation plans have been prepared concerning 233 acres of saline seep. Merton "Pete" Purvis, Froid, MT. (Roosevelt) is the chairman of the board.

Southern Saline Seep District (SSSD) - 10 conservation districts are in the organizational process and will also have a cooperative working agreement with TCD for future projects. The main emphasis will remain with dryland saline seep but several districts are very concerned with their irrigated salinity problems. The board chairman is John Zinne, Rapelje, MT. (Stillwater).

LONG RANGE PLANS: There is currently no other agency in the state working on saline seep reclamation plans and implementation as extensively as the TCD program. The TCD is limited to the 10-county area by budget, staff, time and distance constraints. When surveyed, 23 other counties expressed a concern for their growing salinity problems or the potential for saline seeps based on the ongoing sod-busting of marginal land, and would like access to a technical field team. It is being proposed to increase the field teams from 1 to 3 to service the 33-county area or roughly the eastern 2/3's of MT. The placement of the 2 new teams will be associated with the new state organizations, NMSSP AND SSSD. The proposed continuation and expansion of the present program will increase the technical assistance to the agricultural cropping community to more easily adopt an intensive cropping system for resource conservation.

CURRENT PROGRAM: Conservation districts from the 10-county Triangle Area sponsor the saline seep reclamation and prevention program. Each district is a legal entity of state gov't. and an elected supervisor from each board is represented. The Board chairman is Herb Pasha, Highwood, MT (Chouteau). The technical field team consists of an agronomist, soil scientist, hydrogeologist and reclamation specialist.

[illegible]

SCALE-STATUTE MILES

Exhibit #4
2-13-85

Mr. Chairman and members of the
(
committee

I am Henry Grossman, a County Commissioner
and grain farmer from Chautauq County. I came
here today to give my support to the ^{Triangle} saline ^{leak} research

I believe that it is important to continue
the study and research into the alkali
problem that we have in the state of Mont.

It puts more land back in to production
if we can control the spread of our alkali
problem which means a larger tax base
for our County government, more bushels
of grain in the grain bins which mean
more money for the farmer and also
more revenue for the state.

I live in a area that ~~was~~^{was} included the first
(Alkali ^{study} district in the state. So I know
first hand what the studies and research
has done for me and the other farmers that
lived in the district. A large percent of
our land was being taken over by alkali
and as a result of the experiment, studies
and recommendation of the research people,
a large portion of this once useless land
is now producing hay, grass & grain.*
(Insert back page)

So I would strongly urge you to
support ^{the funding of this program} this bill and recommend to the

legislature that ~~the~~ they do pass the funding
for further saline sup research.

(Thank you

Henry Grossman
Chautauque County Commissioner
& Grain Farmer.

Much work has been done in this area
(research) but I believe that much more is needed.

I hope you will look favorably on Truagh Conn. Request.

Rep. Loren Jenkins
Dist 13

Exhibit #6
2-13-85

WATER DEVELOPMENT
PROGRAM

GRANTS & LOANS
UNDER \$200,000

WITNESS STATEMENT

NAME Robert D. Pfister BILL NO. _____
ADDRESS University of Montana DATE 13 FEB 1985
WHOM DO YOU REPRESENT? MONTANA FOREST & CONSERVATION EXPERIMENT STATION
SUPPORT X OPPOSE _____ AMEND _____

PLEASE LEAVE PREPARED STATEMENT WITH SECRETARY.

Comments: Project No. 4 - Montana Riparian Vegetation
Classification and Information System p. 24-25

The need for a riparian classification system was formally stated by the Montana Rural Areas Development Committee in 1982. In 1981, an interagency committee developed a proposed system, recommended that a cooperative be formed, and that leadership be provided by a research organization. Management of riparian areas is of vital concern to many agencies and private landowners. Many problems are not clearly understood because of lack of information and difficulty in communicating the knowledge that exists - knowledge gained from both experience and research.

The classification system is a basic tool to organize existing information and identify priority problem areas. It will be developed cooperatively.

The cooperative will ensure interagency cooperation during and after the grant period for data sharing, workshops and financial participation.

Letters of support have been received from:

Forest Service, Northern Region
Forest Service, Intermountain Experiment Station
Soil Conservation Service
MT Fish & Parks
US Fish & Wildlife Service

are on file with the project.

Full funding was not provided. However, we feel the basic support and leadership role provided through this grant will challenge the potential cooperators to take an active part in the program.

WITNESS STATEMENT

NAME Ruth Makin Proposal # 6
BILL NO. _____
ADDRESS RR #2, Box 160, Choteau, Mt. DATE 2/13/85
WHOM DO YOU REPRESENT? Teton County Conservation District
SUPPORT ☒ OPPOSE _____ AMEND _____

PLEASE LEAVE PREPARED STATEMENT WITH SECRETARY.

Comments:

This ground water study is needed in order to satisfy the arguments on the availability & effects of water use within this area. From the results of this study, it is hoped the water users within this area will be able to come to some agreements & work cooperatively to manage this precious resource.

WITNESS STATEMENT

NAME Ray Anderson Prop. #6
ADDRESS Box #844, Choteau, Mt. BILL NO. 5
WHOM DO YOU REPRESENT? John SCS DATE 2/13/85
SUPPORT ✓ OPPOSE _____ AMEND _____

PLEASE LEAVE PREPARED STATEMENT WITH SECRETARY.

Comments: This study is very important to determine the water formation as to water availability. Having been a Montana lin. well driller #189, for the ~~the~~ past 15 yrs., and drilled 180 wells and test holes in the area. The DNR has issued many permits, not knowing exact source of water, effects on prior rights, and future circumstances. Strongly support this study

2-13-85

IMPACTS ON WATER QUALITY FROM PLOW OUT
AND SALINE-SEEP RECLAMATION PRACTICES,
STILLWATER COUNTY, MONTANA

Severity:

- o Acreage estimates compiled by the Montana Department of State Lands ranked Stillwater County as having the most saline-affected dryland acres (23,000 or 22% of its dryland farm acreage) of any county in Montana.
- o Nitrate values change from 1.0 ppm before cultivation to greater than 800.0 ppm after cultivation.
- o Area of concern is an internally drained basin in northern Stillwater County, that contains roughly 600 square miles.
- o Area contains two National Wildlife Refuges, which are part of the Central Flyway.
- o Documented water-level changes in excess of 15 feet within a three month period.
- o Several counties within the state, i.e., Petroleum and Stillwater, have had large areas of native sod land broken for cultivation the past several years; this has led to increased concerns about soil erosion and water quality.

Proposed Solutions:

- o Stillwater Conservation District and the Soil Conservation Service (SCS), with assistance from the Triangle Conservation District, Montana Water Quality Bureau and the Montana Bureau of Mines and Geology are currently involved in a saline-seep demonstration project in northern Stillwater County.
- o Agronomic practices, i.e., annual or flexible cropping, selection of salt-tolerant crops, will be applied at the demonstration site.
- o Water-quality sampling will be undertaken in an effort to document water-quality changes at the demonstration site.
- o Water-quality sampling will also be conducted at a previous saline-seep reclaimed farm site in an attempt to document water-quality improvement after reclamation practices are applied.
- o Water-quality sampling will be implemented at a native sod to be plowed out site, that will have saline-seep control practices applied, to document the affects of cultivation under such circumstances on the natural water-quality system.
- o Apply collected data in future cropping and farm plan recommendations, in areas of existing and proposed cultivation.

The Triangle Conservation District strongly supports the Stillwater Co. Conservation District and Beartooth Resource ~~and~~ Conservation and Development proposal to monitor the water quality and quantity changes as a result of saline ssp reclamation and range land plowout.

Alvin D. Boydell

Glavin Co. J. J. Burns
Kings J. J. Burns

19 Caro B.

Daniel Heenan Judith Bean Co.

*J. C. Franklin & Co.,
Box Technology, Telam Co.*

Exhibit #10
2-13-85

VISITORS' REGISTER

LONG-RANGE PLANNING SUBCOMMITTEE

WATER DEVELOPMENT PROJECTS

BILL NO. LESS THAN \$200,000DATE FEBRUARY 13, 1985

SPONSOR _____

NAME (please print)	RESIDENCE	SUPPORT	OPPOSE
Don Deigan	Hebron T. Basin	X	
John Holy	Stanford, Mont.	X	
Bill Taylor	Scobey, Mont	X	
Gen Ed Smith	Dogmar, MT	X	
James G. Dittka	Zumburg, MT	X	
W. S. Stevens	Laurel, Mont	+	
Jane Holzer	Triangle Conservation Dist.	✓	
William W. Wall	Clancy, Mont		?
Thomas F. Dartman	East Helena	X	
Donally E. Eger ^{Water Center}	Bozeman	X	
REP. GAY HOLLIDAY	ROUNDUP	X	
J. PETER GRASS	POM MT.	X	
L.T. Petrix	Sidney		
John Shontz	Richland CTY	X	
Daniel M. Millen	Richland Co.	X	
Don Burnham	Helena, MT	X	
Bob Lehner	Power		
Ray Kinsale	Bx 663 Helena MT	X	
Rep. Kenneth Hayne	Superior	X	

IF YOU CARE TO WRITE COMMENTS, ASK SECRETARY FOR WITNESS STATEMENT FORM.

PLEASE LEAVE PREPARED STATEMENT WITH SECRETARY.

VISITORS' REGISTER

LONG-RANGE PLANNING SUB COMMITTEE

WATER DEVELOPMENT PROJECTS

BILL NO. LESS THAN \$200,000DATE FEBRUARY 13, 1985

SPONSOR _____

NAME (please print)	RESIDENCE	SUPPORT	OPPOSE
Robert D. Pfister	Missoula, MT	X	
Bill Kewelt	Helena, MT	X	
Tom Patten	Butte, MT	X	
Fred Schmidt	Butte, MT	X	
Tom Duran	Clarks Fork, MT	X	
Dayton Alsaker	Miles City, MT	X	
Marrin Miller	Butte, MT	X	
KATHY GAUGHAN	Bozeman, MT	X	
Ted Engime	Butte, MT	X	
ALVIN D. BOXWELL (Co. Southern Sales Corp. D. St.)	COT BANK	X	
Bob Van Gosten	Reedmont, MT	X	
Al Hecker (for staff work. Cons. D. St.)	Helena, MT (AERO)	X	
Bob Van Gosten	Reedmont, MT	X	
Marybeth Hawk	Helena, MT	X	
Deane Christofferson	Trail, MT	X	
Dan Schledewitz	Culbertson, MT	X	
Judith Schledewitz	" "	X	
Jim Boletoff	Homestead, Mont.	X	
Boyd Timmichuk	Libby, Mont.	X	

IF YOU CARE TO WRITE COMMENTS, ASK SECRETARY FOR WITNESS STATEMENT FORM.

PLEASE LEAVE PREPARED STATEMENT WITH SECRETARY.

LONG-RANGE PLANNING SUB COMMITTEE

BILL NO. LESS THAN \$200,000

DATE FEBRUARY 13, 1985

SPONSOR

Saloni Seep funduq

[illegible]

PLEASE LEAVE PREPARED STATEMENT WITH SECRETARY.