



Minnesota Board of Water and Soil Resources.
Minutes.

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BOARD OF WATER AND SOIL RESOURCES
HOLIDAY INN-NORTH
2540 NORTH CLEVELAND AVENUE
ROSEVILLE, MINNEOSTA 55113
JULY 25, 1990

AGENDA

- | | |
|------------|---|
| 9:00 a.m. | 1. Call to Order |
| | 2. Adopt Agenda |
| | 3. Approval of Minutes of June 27, 1990 |
| | 4. Reports |
| | • Chairman's Report - Donald Ogaard |
| | • Executive Director's Report - Jim Birkholz |
| | • August BWSR Meeting and Tour |
| | • EQB/Water Resources Committee Report |
| | • Advisor Comments |
| | • East Central Region Report - Mark Nelson |
| 9:45 a.m. | 5. BWSR Draft Strategic Plan - continue discussion from June meeting - Mel Sinn |
| 11:00 a.m. | 6. Area II Flood Control Program Report |
| | • Status Report |
| | • Program Evaluation |
| | • Discussion |
| Noon | Lunch |
| 1:00 p.m. | 7. County Water Plan Implementation Report |
| | • Beltrami/Clearwater Activities - Dale Krystosek, Beltrami SWCD |
| | Clifford Tweedale, Headwaters Regional Development Commission |
| 1:30 p.m. | 8. Allocations |
| | • Well Sealing Cost-Share Program - Eric Mohring |
| | • RIM Services Grant Balance - Jim Birkholz |
| 2:00 p.m. | 9. Action on Approval of Steele 110B Plan - Chris Hughes |
| 2:20 p.m. | 10. (Tentative) Action on Approval of Rice Creek 509 Plan - Bruce Sandstrom |

(continued)

- 2:40 p.m. 11. Resolution to Proceed on Rules for 110B
Implementation Grants - Greg Larson
- 2:50 p.m. 12. (Tentative) Resolution to Proceed on Snake
River Watershed District Petition - Mel Sinn
- 3:00 p.m. 13. Preliminary discussion on 1991 BWSR
Legislative Initiatives and 1992-93 Biennial
Budget Request
 ● Revisions to Soil Loss Limits Law - Dave
 Behm
- 4:00 p.m. Adjourn



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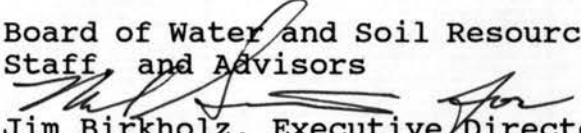
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DATE: July 16, 1990

TO: Board of Water and Soil Resources Members,
Staff, and Advisors

FROM:  Jim Birkholz, Executive Director

SUBJECT: July 25, 1990 BWSR Meeting

Attached is the preliminary agenda and support information for the June 27th BWSR meeting. The meeting will once again be held at the Holiday Inn, Roseville, 2540 North Cleveland Avenue, I-35W exit 24. Board members may make room reservations directly with the Holiday Inn-Roseville at 612-636-4567. Please note the following comments regarding agenda items:

- BWSR Draft Strategic Plan. The morning agenda again includes time for further discussion and refinement of the draft BWSR strategic plan contained in your packet. Agency members and advisors are encouraged to bring their comments to the meeting and participate in the discussion.
- Area II Flood Control Program. The nine-member Area II board of directors have been invited to meet with the BWSR from 11:00 a.m. to noon. Area II will give a brief overview of the Area II program, and Mel Sinn will report on the recently completed Area II program evaluation (evaluation letter in packet). Hopefully, Area II members and BWSR members can share ideas about the current Area II program and discuss future directions.
- Local Water Planning Implementation Reports. Following lunch, Dale Krystosek and Clifford Tweedale will provide examples of some exciting implementation activities occurring as a result of county comprehensive water planning. Your mailing packet contains a "Beltrami-Clearwater Lake Monitor" newsletter relating to this agenda item.

BWSR Members, Staff, and Advisors
July 16, 1990
Page Two

- Action Items. Between 1:30 and 3:00 p.m. staff will be asking for board resolutions on several action items, including approval of two water plans. Your packet contains supporting information on the well sealing and RIM services allocations, and 110B implementation grant rules.
- 1991 Legislative Initiatives and 1992-93 Biennial Budget. Although it seems like the legislative session just ended, its already time to begin planning for 1991. The BWSR needs to set direction for its priority 1991 legislative initiatives and biennial budget request. One legislative item already identified is the revision of the soil loss limits law to make it a better local implementation tool and also to make it better address water quality considerations. Dave Behm will report on this initiative. I will be prepared to discuss other potential legislative initiatives for 1991 and present information on the upcoming biennial budget process at the board meeting.

Please call if you need additional information prior to the Board meeting. See you on the 25th.

JB/MS:mja
Enc.

BOARD OF WATER AND SOIL RESOURCES
HOLIDAY INN-NORTH
2540 NORTH CLEVELAND AVENUE
ROSEVILLE, MINNEOSTA 55113
JULY 25, 1990

PRELIMINARY AGENDA

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River Watershed District Petition - Mel Sinn
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Legislative Initiatives and 1992-93 Biennial
Budget Request
 ● Revisions to Soil Loss Limits Law - Dave
 Behm
- 4:00 p.m. Adjourn



June 28, 1990

Board of Directors
Area II Minnesota River Basin Projects, Inc.
1400 East Lyon Street
P.O. Box 267
Marshall, MN 56258

Southbridge Office Building
155 South Wabasha St., Suite 104
St. Paul, Minnesota 55107

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Dear Directors:

On May 30 and 31, 1990 BWSR staff members Mel Sinn and Dave Peterson were in Marshall to conduct a program evaluation of Area II. They spent a day and a half with Area II engineer Darrell Apelgrain and secretary/bookkeeper JoAnne Downing discussing the policies and procedures of Area II operations.

The program evaluation was done following the basic procedure developed for evaluating soil and water conservation district and watershed district programs. However, several evaluation questions were modified to fit the unique characteristics of the Area II organization.

As a result of the evaluation we have put together a number of recommendations. The policy related items are discussed below. Further recommendations regarding specific operational procedures are contained in the attachment. The intent of these recommendations is to assist you in making your program as efficient and effective as possible, building upon your past successes.

Policy Recommendations:

1. Review of Original Purposes

It appears the original purposes of the Area II organization were to:

- a) establish a legal entity to facilitate implementation of the flood control recommendations in the Minnesota River Basin Report;
- b) serve as liaison between the individual local units of government in Area II and the federal government during preparation of the 87-639 Study; and
- c) obtain the local funds needed to match state and federal flood control grants.

Area II has been very successful to date in obtaining federal technical assistance and state funding assistance for implementing flood

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control reservoirs and road retention projects. Because of this success, we believe there is an excellent opportunity for Area II to assist its member counties in implementing portions of their comprehensive local water plans, including water quality protection. Performance of this expanded role would require Area II to broaden its purposes. One way for Area II to assist counties would be in correlating and expanding upon the information and analyses done under the 639 Study. Area II could work toward development of a basin-wide hydrologic model building upon the data obtained under the 639 Study. It could become the repository for regional hydrologic data and provide technical advice and services to local governments on water related issues. Area II could be instrumental in helping counties achieve many of the resource management objectives identified in local water plans.

We recommend that Area II review its purposes and consider the challenge and opportunity to broaden its resource management role in the region. Of course, this should be coordinated with other multi-county groups involved with water management.

2. Review of Relationship with BWSR

The Area II grant-in-aid program is administered through the BWSR. In addition to providing flood control project cost-share grants the program provides for the BWSR to employ a professional engineer to assist local governments in program implementation. To date there has been no formal agreement or memorandum of understanding developed to provide direction on the respective roles of Area II and the BWSR in carrying out the program, beyond the annual technical office agreement. Questions have been asked concerning the relationship between Area II and the BWSR. What is the BWSR's oversight responsibility? What flexibility does Area II have in its use of state grants? What expectations does Area II have of the BWSR, and the BWSR of Area II? Is there adequate communication between the two organizations? Are there areas where the two organizations could be working more closely together to accomplish mutual goals?

We recommend that Area II consider the potential benefits of the two organizations developing a memorandum of understanding.

3. Review of Relationships with other Local and State Agencies

The future success of Area II will be dependent upon maintaining and enhancing good working relationships with other local governments and state agencies. It is important for Area II to keep other organizations informed about its accomplishments and future plans. Maintaining effective communications with other organizations is a difficult and ongoing task.

We recommend that Area II consider the value of preparing an informational brochure and annual activity reports as a means of sharing information about the Area II program with other local governments and state agencies. We recommend that the Area II board periodically meet with other local boards, such as the Redwood Cottonwood Rivers

Control Association, to explore opportunities for cooperative efforts.

4. Development of Long Range Plan

Area II has been extremely successful in obtaining federal planning assistance under the original Minnesota River Basin Report and the 87-639 Study. Area II is in an excellent position to take advantage of these past planning efforts in developing a long range plan of its own. Is the technical information from the 639 Study in a format that is useful to Area II and other local governments in the region? Can Area II apply that information in setting future program direction? Can that information be used to help Area II refine its method of prioritizing projects and help justify future requests for state financial assistance? Can that information be used to assist counties in implementing local water plans? Should Area II be involved in enhancing that information base through its own data collection program?

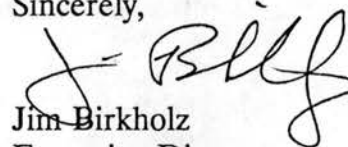
In addition to technical issues, a long range plan could address the organizational issues discussed above. What role does Area II envision for itself five or ten years from now? Will it broaden its original purposes? A long range plan would be useful in explaining the purposes and objectives of the organization to both new board members and outside parties. Annual work plans could also be written to set annual priorities and communicate them to constituent groups.

We recommend that Area II develop a long range plan that sets future direction for the organization, and that Area II solicit input from other local governments and state agencies in preparing a long range plan for the organization.

We commend Area II for its accomplishments to date. We believe the organization can be even more effective in the future by broadening its resource management purposes. The BWSR values its continued working relationship with Area II and is available to assist in implementing these recommendations.

Thanks for your assistance in the program evaluation process. I look forward to seeing you at the July BWSR meeting.

Sincerely,

A handwritten signature in dark ink, appearing to read "Jim Birkholz", is written over the printed name.

Jim Birkholz
Executive Director

Specific Recommendations on Operational Procedures

1. That Area II prepare a list of the policies and operating procedures that have evolved over the organization's history to help assure continuity and consistency in the future operations of the organization as board members and staff change over time.
2. That Area II develop personnel policies for the hiring, discharge, grievance procedures, pay and benefits of its employees, both full and part time. That a position description be prepared for each employee. That annual employee work plans be prepared, including training needs. That an annual performance review be held for each employee.
3. That Area II designate a regular location to post meeting notices and agendas.
4. That Area II adopt by-laws for the Corporation.
5. That Area II establish written policies on: board member compensation and expenses, credit card use, conflict of interest, and Area II vehicle use by board members.
6. That Area II establish written policies on funding and operation of the project "sinking" fund, and selection of cooperative road retention projects.
7. That meeting minutes record individual votes of board members.
8. That agendas and background information be mailed with the meeting notices prior to meetings.
9. That receipt and claim forms be consecutively numbered to clearly relate these items to entries in the accounting journals.
10. That the Area II office be clearly identified by a sign both outside and inside the building.



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July 11, 1990

To : Board Members

From : Greg Larson

Re : Documents for Local Water Planning Rule

I have enclosed, for your consideration, two documents needed for the rulemaking process. The authorizing resolution will enable Jim, on behalf of the BWSR, to sign the Notice of Intent to Adopt A Rule. With this authorization, the Notice can be signed and it and the proposed rule can be published in the State Register.

I suggest the authorizing resolution be signed at the July board meeting. The Notice could then be signed when the Proposed Rule-in final form- has been returned from the Revisor of Statutes. I expect this to occur between the July and August Board meetings. To avoid delays, I suggest staff be authorized to proceed with the publication process.

Assuming publication in the State Register during August and public hearings are not needed, the Rule should be effective by the end of December, 1990. This coincides nicely with the deadline for counties to submit their certified levies to Revenue. Counties must certify their final levy (including the water planning levy) "On or before five working days after December 20th". **We cannot process base grants until those levies are certified.**

Contact me if you have questions.

CC: Jim Birkholz

**CERTIFICATE OF THE
BOARD OF WATER AND SOIL RESOURCES
AUTHORIZING RESOLUTION**

I, Donald Ogaard, do hereby certify that I am a member and the Chair, of the Board of Water and Soil Resources, a board duly authorized under the laws of the State of Minnesota, and that the following is a true, complete, and correct copy of a resolution adopted at a meeting of the Board of Water and Soil Resources duly and properly called and held on the 25th day of July 1990, that a quorum was present, and that a majority of those present voted for the resolution which has not been rescinded or modified.

"RESOLVED, that Jim Birkholz, Executive Director of the Board of Water and Soil Resources, is hereby granted the authority and directed to sign and to give the Notice of the Board's Intent to adopt a rule without a public hearing governing grants to counties for local water resources protection and management to all persons who have registered their names with the board for that purpose and publish the Notice and rule in the State Register, and to perform any and all acts incidental thereto."

IN WITNESS WHEREOF, I have hereunto subscribed my name this 25th day of July 1990.

Donald Ogaard, Chair
Board of Water and Soil Resources

Attest by one other Board Member

BOARD OF WATER AND SOIL RESOURCES

In the Matter of the Proposed Adoption
of the Rule of the State Board of Water
and Soil Resources Governing Grants to
Counties for Local Water Resources
Protection and Management.

NOTICE OF INTENT TO ADOPT A RULE WITHOUT A PUBLIC HEARING

Notice is hereby given that the State Board of Water and Soil Resources intends to adopt the above-entitled rule without a public hearing following the procedures set forth in the Administrative Procedure Act for adopting rules without a public hearing in Minnesota Statutes, sections 14.22 to 14.28. The statutory authority to adopt the rule is Minnesota Statutes, sections 103B.3361 to 103B.3369.

All persons have 30 days in which to submit comment in support of or in opposition to the proposed rule or any part or subpart of the rule. Comment is encouraged. Each comment should identify the portion of the proposed rule addressed, the reason for the comment, and any change proposed.

Any person may make a written request for a public hearing on the rule within the 30-day comment period. If 25 or more persons submit a written request for a public hearing within the 30-day comment period, a public hearing will be held unless a sufficient number withdraw their request in writing. Any person requesting a public hearing should state his or her name and address, and is encouraged to identify the portion of the proposed rule addressed, the reason for the request, and any change proposed. If a public hearing is required, the agency will proceed pursuant to Minnesota Statutes, sections 14.131 to 14.20.

Comments or written requests for a public hearing must be submitted to:

Greg Larson, Head, Water and Land Management Section
Board of Water and Soil Resources
155 S. Wabasha Street Suite 104
St. Paul, Mn. 55107
(612) 296-3767

The proposed rule may be modified if the modifications are supported by data and views submitted to the agency and do not result in a substantial change in the proposed rule as noticed.

A copy of the proposed rule is attached to this notice.

A Statement of Need and Reasonableness that describes the need for and reasonableness of each provision of the proposed rule and identifies the data and information relied upon to support the proposed rule has been prepared and is available from Greg Larson upon request.

The State of Need and Reasonableness also indicates that since this is a voluntary program involving grants to counties, this rule will not have a negative impact on small business.

If no hearing is required, upon adoption of the rule, the rule and the required supporting documents will be submitted to the Attorney General for review as to legality and form to the extent the form relates to legality. Any person may request notification of the date of submission to the Attorney General. Persons who wish to be advised of the submission of this material to the Attorney General, or who wish to receive a copy of the adopted rule, must submit the written request to Greg Larson.

Date

James R. Birkholz
Executive Director



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Date: July 16, 1990

To: Board Members

From: Eric Mohring *EM* (612) 297-7360

Subject: Funding options and recommendation for well sealing cost-share grant program

Attached are options for funding of the well sealing cost-share grant program. These options were developed using the evaluations and recommendations of the interagency advisory committee and BWSR staff. Dividing up the small pie among the many deserving applicants was a difficult task. The options represent different compromises among several competing goals:

- funding strong proposals at sufficient levels for successful implementation
- recognizing good efforts
- achieving some geographic distribution which affords the opportunity for programs in different hydrogeological settings
- reserving some funds for smaller ("wild card") grants for smaller demonstration projects

The available funds for the program are \$390,000.

On the attached table the counties are listed in descending order of how they scored on proposal strength and ability to successfully implement the program.

Option A:

Funding based only on strength of the proposals. All available grant funds are allocated to those counties with the strongest proposals. This option maximizes the funding to those counties with the strongest proposals without regard to geographic distribution or the possibility of smaller demonstration grants.

Option B:

Funding based on merit of proposals, but funding levels are reduced to set aside funds for smaller ("wild card") grants for demonstration projects. Counties not funded with the larger pilot grants would be eligible to apply for the smaller grants. Funding levels would be decided upon further discussions with counties.

Option C:

This is the option recommended by staff and by the interagency advisory committee. Funding is also based on merit of proposals, But funds are distributed to more counties to achieve better geographic distribution. This option also designates certain counties to receive "wild-card" funding for specific projects to demonstrate a particular thing, for example:

- Marshall - sealing of deeper unused wells near city of Grygla municipal well.
- Jackson- sealing of a deep augered (or bored) well.

The funding levels for the smaller grants are approximated on the table, but the actual funding amounts would be decided after discussions with the counties. This option also sets aside funds for general "wild-card" eligibility, which would be made available to other counties for funding of smaller demonstration-level projects. If this option is chosen, for expediency, staff requests the board to authorize us to negotiate the final funding levels for the smaller grants. I would report the final figures at a subsequent board meeting.

I will be presenting these options at the board meeting. Please feel free to contact me with questions or comments (especially before the meeting!)

cc: staff

Funding Options for Well-Sealing Cost-Share Grant Program

Funding Options
(1000's of \$)

COUNTY	A	B	C
Dakota	45	40	35
LeSueur/Waseca	80	60	55
Olmstead	40	35	30
Blue Earth	35	25	23
Martin	35	25	23
Goodhue	40	35	28
Mower	35	25	23
Rice	40	35	28
Winona	40	35	28
Washington			25
Hennepin			
Ramsey			
Wilkin			20
Marshall			W (~5)
Stearns			W (~7.5)
Benton			W (~7.5)
Houston			W (~7.5)
Steele			
Cottonwood			W (~5)
Sherburne			
Hubbard			
Norman			
Stevens			
Jackson			W (~2)
Cass			
Kandiyohi			
Big Stone			

PILOT TOTAL	390	315	318
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WC (COMMITTED)	0	0	34.5
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WC (REMAINING)	0	75	37.5
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FINAL
1991 SWCD GRANT ALLOCATIONS
JUNE 27, 1990

DISTRICT	COST SHARE		GENERAL SERVICES	SLR	RIM RESERVE		TOTAL RIM PAYMENT	TOTAL SERVICE GRANTS (1)
	REGULAR ALLOCATION	SPECIAL PROJECTS			BASE PAYMENT	BALANCE PAYMENT		
AITKIN	\$7,566		\$9,329		\$1,750	\$2,456	\$4,206	\$21,101
ANOKA	\$9,435		\$9,547		\$400	\$1,000	\$1,400	\$20,382
BECKER	\$32,077		\$9,118		\$3,250	\$14,031	\$17,281	\$58,476
BELTRAMI	\$13,350		\$9,193		\$4,400	\$1,844	\$6,244	\$28,787
BENTON	\$12,922		\$9,156		\$5,700	\$3,000	\$8,700	\$30,778
BIG STONE	\$18,830	\$29,000	\$9,096	\$15,000	\$3,650	\$3,063	\$6,713	\$78,639
BLUE EARTH	\$26,115		\$9,201		\$2,400	\$6,186	\$8,586	\$43,902
BROWN	\$16,757		\$9,118		\$7,500	\$3,800	\$11,300	\$37,175
CARLTON	\$7,393		\$9,193		\$300	\$2,456	\$2,756	\$19,342
CARVER	\$24,935	\$9,700	\$9,223	\$300	\$4,850	\$5,000	\$9,850	\$54,008
CASS	\$10,117	\$11,600	\$9,366		\$600	\$500	\$1,100	\$32,183
CHIPPEWA	\$14,180		\$9,096		\$3,250	\$3,570	\$6,820	\$30,096
CHISAGO	\$14,699		\$8,798		\$4,180	\$0	\$4,180	\$27,677
CLAY	\$24,417		\$9,156		\$6,150	\$6,347	\$12,497	\$46,070
CLEARWATER	\$11,647		\$9,133		\$2,600	\$1,844	\$4,444	\$25,224
COOK	\$4,928		\$9,111		\$400	\$0	\$400	\$14,439
COTTONWOOD	\$19,989		\$9,111		\$13,125	\$3,963	\$17,088	\$46,188
CROW WING	\$8,329		\$9,381		\$300	\$500	\$800	\$18,510
DAKOTA	\$29,517		\$9,321		\$2,800	\$3,000	\$5,800	\$44,638
DODGE	\$15,053		\$9,096		\$1,500	\$1,500	\$3,000	\$27,149
DOUGLAS	\$22,968		\$9,411		\$17,100	\$10,304	\$27,404	\$59,783
FARIBAULT	\$18,032		\$9,118		\$12,300	\$7,422	\$19,722	\$46,872
FILLMORE	\$31,390		\$9,133		\$3,400	\$3,500	\$6,900	\$47,423
FREEBORN	\$22,798		\$9,081		\$6,950	\$3,000	\$9,950	\$41,829
GOODHUE	\$33,347		\$9,148		\$11,200	\$6,000	\$17,200	\$59,695
GRANT	\$14,922		\$8,360		\$3,450	\$2,052	\$5,502	\$28,784
HENNEPIN	\$15,392		\$10,261		\$900	\$1,000	\$1,900	\$27,553
HUBBARD	\$9,012	\$7,000	\$9,118		\$700	\$1,845	\$2,545	\$27,675
ISANTI	\$10,371		\$9,126		\$10,300	\$0	\$10,300	\$29,797
ITASCA	\$7,991	\$9,000	\$9,359		\$1,000	\$2,456	\$3,456	\$29,806
JACKSON	\$21,438		\$9,126		\$5,650	\$4,301	\$9,951	\$40,515
KANABEC	\$0		\$9,156		\$950	\$0	\$950	\$10,106
KANDIYOHI	\$19,989		\$9,133	\$37,500	\$14,400	\$7,873	\$22,273	\$88,895
KITTSO	\$9,096		\$9,118		\$2,550	\$1,845	\$4,395	\$22,609
KOOCHICHING	\$5,097		\$9,171		\$600	\$2,456	\$3,056	\$17,324
LAC QUI PARLE	\$28,755		\$9,126		\$2,600	\$4,751	\$7,351	\$45,232
LAKE	\$7,140	\$14,268	\$9,178		\$300	\$0	\$300	\$30,886

FINAL
1991 SWCD GRANT ALLOCATIONS
JUNE 27, 1990

DISTRICT	COST SHARE		GENERAL SERVICES	SLR	RIM RESERVE		TOTAL RIM PAYMENT	TOTAL SERVICE GRANTS (1)
	REGULAR ALLOCATION	SPECIAL PROJECTS			BASE PAYMENT	BALANCE PAYMENT		
LAKE OF THE WOOD	\$6,035		\$9,201		\$800	\$1,845	\$2,645	\$17,881
LESUEUR	\$18,856		\$9,178		\$4,250	\$2,800	\$7,050	\$35,084
LINCOLN	\$16,926		\$9,088		\$4,225	\$3,288	\$7,513	\$33,527
LYON	\$20,926		\$9,193	\$61,800	\$4,550	\$4,413	\$8,963	\$100,882
MAHNOMEN	\$10,887		\$9,066		\$600	\$1,845	\$2,445	\$22,398
MARSHALL-BELTRAM	\$7,997		\$9,171		\$1,450	\$1,845	\$3,295	\$20,463
MARSHALL	\$12,921		\$9,096		\$2,200	\$1,844	\$4,044	\$26,061
MARTIN	\$28,670		\$9,118		\$7,300	\$7,372	\$14,672	\$52,460
MCLEOD	\$19,222		\$9,163		\$13,350	\$6,022	\$19,372	\$47,757
MEEKER	\$23,560		\$9,171		\$10,650	\$3,900	\$14,550	\$47,281
MILLE LACS	\$12,075		\$9,254		\$6,000	\$0	\$6,000	\$27,329
MORRISON	\$28,496	\$1,250	\$9,284		\$15,850	\$6,563	\$22,413	\$61,443
MOWER	\$12,756		\$9,081		\$3,750	\$6,000	\$9,750	\$31,587
MURRAY	\$17,349		\$9,171		\$6,400	\$4,301	\$10,701	\$37,221
NICOLLET	\$13,096		\$9,133		\$1,850	\$4,236	\$6,086	\$28,315
NOBLES	\$30,787		\$9,201		\$1,125	\$4,413	\$5,538	\$45,526
NORMAN	\$20,159	\$11,990	\$9,081		\$5,400	\$1,844	\$7,244	\$48,474
OLMSTED	\$40,998		\$9,156		\$2,500	\$1,500	\$4,000	\$54,154
EAST OTTER TAIL	\$26,628		\$9,246		\$3,000	\$3,203	\$6,203	\$42,077
WEST OTTER TAIL	\$25,363		\$9,246		\$3,950	\$3,203	\$7,153	\$41,762
PENNINGTON	\$12,338		\$9,081		\$1,300	\$1,844	\$3,144	\$24,563
PINE	\$13,350		\$9,208		\$400	\$0	\$400	\$22,958
PIPESTONE	\$18,455		\$9,118		\$2,750	\$2,895	\$5,645	\$33,218
EAST POLK	\$14,710		\$9,107		\$3,500	\$1,844	\$5,344	\$29,161
WEST POLK	\$22,031	\$4,190	\$9,107		\$700	\$1,845	\$2,545	\$37,873
POPE	\$27,649		\$9,111		\$22,550	\$2,376	\$24,926	\$61,686
RAMSEY	\$12,250		\$9,374		\$300	\$0	\$300	\$21,924
RED LAKE	\$9,096		\$9,081		\$3,150	\$1,845	\$4,995	\$23,172
REDWOOD	\$14,117		\$9,133		\$12,800	\$5,426	\$18,226	\$41,476
RENVILLE	\$13,858		\$9,081		\$26,350	\$9,122	\$35,472	\$58,411
RICE	\$21,000		\$9,118		\$5,650	\$3,000	\$8,650	\$38,768
ROCK	\$19,040		\$9,103		\$1,000	\$3,007	\$4,007	\$32,150
ROOT RIVER	\$25,602		\$9,066	\$29,400	\$3,400	\$3,000	\$6,400	\$70,468
ROSEAU	\$14,456		\$9,111		\$1,950	\$1,845	\$3,795	\$27,362
NORTH ST. LOUIS	\$6,206		\$9,366		\$400	\$2,456	\$2,856	\$18,428
SOUTH ST. LOUIS	\$9,943		\$9,517		\$400	\$0	\$400	\$19,860
SCOTT	\$23,391		\$9,757		\$8,500	\$5,000	\$13,500	\$46,648

FINAL
1991 SWCD GRANT ALLOCATIONS
JUNE 27, 1990

DISTRICT	COST SHARE		GENERAL SERVICES	SLR	RIM RESERVE		TOTAL RIM PAYMENT	TOTAL SERVICE GRANTS (1)
	REGULAR ALLOCATION	SPECIAL PROJECTS			BASE PAYMENT	BALANCE PAYMENT		
SHERBURNE	\$6,887		\$9,261	\$15,000	\$2,600	\$3,000	\$5,600	\$36,748
SIBLEY	\$15,855		\$9,269		\$18,900	\$5,186	\$24,086	\$49,210
STEARNS	\$49,943	\$2,900	\$9,426		\$4,600	\$8,000	\$12,600	\$74,869
STEELE	\$12,927		\$9,133		\$2,850	\$1,500	\$4,350	\$26,410
STEVENS	\$25,692		\$9,126		\$10,000	\$2,088	\$12,088	\$46,906
SWIFT	\$13,649		\$8,619		\$7,743	\$4,582	\$12,325	\$34,593
TODD	\$25,094		\$9,254		\$2,000	\$3,095	\$5,095	\$39,443
TRAVERSE	\$9,525	\$18,750	\$9,118		\$2,750	\$7,124	\$9,874	\$47,267
WABASHA	\$24,574		\$9,156		\$6,800	\$3,000	\$9,800	\$43,530
WADENA	\$8,415		\$9,096		\$4,300	\$2,016	\$6,316	\$23,827
WASECA	\$8,669		\$9,163		\$1,500	\$2,700	\$4,200	\$22,032
WASHINGTON	\$15,648		\$9,351		\$950	\$1,000	\$1,950	\$26,949
WATONWAN	\$11,394		\$9,163		\$1,600	\$4,186	\$5,786	\$26,343
WILKIN	\$13,948		\$9,081		\$1,700	\$2,592	\$4,292	\$27,321
WINONA	\$20,497		\$9,208		\$3,450	\$5,001	\$8,451	\$38,156
WRIGHT	\$21,424		\$9,494		\$9,950	\$8,131	\$18,081	\$48,999
YELLOW MEDICINE	\$19,905		\$9,178		\$3,850	\$4,694	\$8,544	\$37,627
SUB TOTAL	\$1,575,239	\$119,648					\$750,000	\$3,439,586
PROGRAM TOTAL	\$1,461,000		\$953,000	\$159,000				
ALLOCATED TOTAL	\$1,431,419		\$835,699	\$159,000	\$443,298			
ROLLOVER	\$282,713							
BALANCE	\$0		\$115,588	\$0		\$306,702		
BUDGET CUT	\$40,000		\$25,000					

1991 Grant Allocations Notes

The following items have altered the total allocations to each listed SWCD. Each SWCD's allocation has been reduced by the indicated amount for the indicated fiscal year, with the exception of the Kanabec district, whose allocation will be withheld until an audit is conducted and repayment terms are negotiated.

- Big Stone's Cost-Share allocation will be reduced by \$53 as repayment for a Cost-Share Program violation.
- Chippewa's Cost-Share Program allocation will be reduced \$445 as repayment for a program violation.
- Chisago's total allocation will be reduced 5 per cent (\$1291) due to late submittal of Annual Plan and Report documents.
- Grant's Cost-Share allocation and General Services allocation will be reduced by \$724 and \$796 over each of the next two years (totalling \$1859 and \$1592 respectively) as repayment for prior violations in each program.
- Kanabec's Cost-Share allocation will be reduced following the July SWCD Board meeting, and the completion of a State audit. All FY91 funding will be withheld until these are done, and a repayment schedule (totalling \$9102) is established.
- LeSueur's Cost-Share allocation will be reduced (\$3942.00) as repayment for prior program violations.
- West Ottertail's Cost-Share allocation will be reduced \$2456 as repayment for prior program violations.
- Sibley's Cost-Share allocation will be reduced \$135.00 as repayment for program violations.
- Swift's total allocation will be reduced 5 per cent (\$1414) due to late submittal of Annual Plan and Report documents.
- Waseca's Cost-Share allocation will be reduced (\$4175.00) as repayment for prior program violations.

Beltrami-Clearwater Lake Monitor



Multi-County Lake Enhancement Project Begins

The HRDC has very high hopes for a project just getting underway called the Tri-County Lake Enhancement Project. Funded by the Northwest Minnesota Initiative Fund (NWMIF), the project's principal sponsor is the Beltrami Soil and Water Conservation District. In addition, the HRDC, Hubbard SWCD, Clearwater SWCD, and MN/PCA will also play a major role in the project.

The project has as its purposes: 1) To substantially increase local knowledge and information about the lakes in Beltrami, Clearwater, and Hubbard Counties; 2) To build strong grassroots support for lake protection in each of these counties; and, 3) To build local capability in the areas of lake quality monitoring and analysis. *To accomplish these objectives, the project team will:*

BUILD LOCAL CAPABILITY

- Develop an educational video
- Distribute a quarterly newsletter
- Help form five new individual lake associations per county
- Help form two new countywide lake associations and assist Hubbard County Coalition of Lake Associations (COLA) in their activities

INCREASE LAKE MONITORING

- Develop secchi disk monitoring on 15 lakes per county
- Collect basic water chemistry tests on five lakes per year per county

INCREASE KNOWLEDGE

- Complete three Lake Assessment Projects over 18 months.

Private citizens in Beltrami and Clearwater Counties hold the key to this project's success. Not only will individuals be an integral part of the lake monitoring program, but they will be called upon to help form individual lake associations and, after a year, to take over the publication of this newsletter.

Want to be part of an organization to protect your county's lakes? Want to find out how you can help? Contact one of the following individuals in your area: Milayne Lundmark, Clearwater SWCD, P.O. Box 327, Bagley, MN 56621, 776-3570; Dale Krystosek, Beltrami SWCD, Federal Building, Bemidji, MN 56601, 751-3036; or Cliff Tweedale, HRDC, P.O. Box 906, Bemidji, MN 56601, 751-3108.

Lake Monitor Newsletter -- Our First Issue

Welcome to what we hope is a long-standing public information forum for use by individuals and agencies in Beltrami and Clearwater Counties that are committed to the wise use and protection of our lakes. Lakes are truly one of our most unique and important natural endowments. They are the basis for a significant part of our economic activity, and are one of the main reasons people choose to live in northcentral Minnesota.

The rationale behind the newsletter is simple -- the protection and enhancement of our lakes will require strong grassroots support.

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Beltrami-Clearwater Lake Monitor

P.O. Box 906

Bemidji, MN 56601 218-751-3108

First Edition · May, 1990

Editor:

**Headwaters Regional
Development Commission**

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**Clearwater Soil and Water Conservation
District** 694-6845
P.O. 327, Bagley, MN 56621

*This newsletter is financially
supported by the*

**Northwest Minnesota
Initiative Fund**

**Care about your lakes?
Contact one of the agencies above
and see how you can make a
difference.**

**"Lakes --
Our Special Legacy"**

Pine Lake Improvement Study Underway

Public officials and Pine Lake residents have talked for years about ways to address a number of issues related to that lake. Seasonal flooding of residences, inadequate private septic systems, winter fish kills and excessive weed growth are only a few of the problems experienced by Pine Lake, located several miles south of Gonvick in Clearwater County.



The county and Pine Lake area residents have decided to do something about these issues. In March, the County Board appointed a Pine Lake Long Term Improvement Committee and charged them with implementing a four point lake improvement strategy:

Strategy 1: Set up long-term lake monitoring program for Pine Lake, including one year of water chemistry data, and yearly Secchi Disk readings;
Strategy 2: Implement program to bring all septic systems into compliance;
Strategy 3: Analyze relationship between water quality and lake watershed activities, develop and implement management practices in watershed; and,
Strategy 4: Investigate the effectiveness of three capital improvement projects (bottom-drain dam, river channelization, and upstream impoundment); select and implement those that are feasible and effective.

Strategies 1 and 2 are beginning this month; the remaining two strategies will be undertaken late this summer. For more information on this project, contact Dan Logelin, Clearwater County Environmental Services Officer, at 694-6183.

The Secchi Disk: A Tool to Monitor Lake Quality

The Soil and Water Conservation Districts of Beltrami and Clearwater Counties will be collecting water quality data on fifteen area lakes this summer. (This is part of the project described on the front page of this newsletter.) We will be taking secchi disk readings, field measurements of pH, dissolved oxygen and temperature, plus laboratory analysis of phosphorus and chlorophyll "a".

One of the simplest measures of a lake's condition is its clarity, and one of the easiest ways to measure this is by means of a secchi disk. This is a disk which is lowered into the water and the depth at which it disappears from view is noted. This gives an indirect indication of the presence of algae and other suspended materials which affect the water clarity.

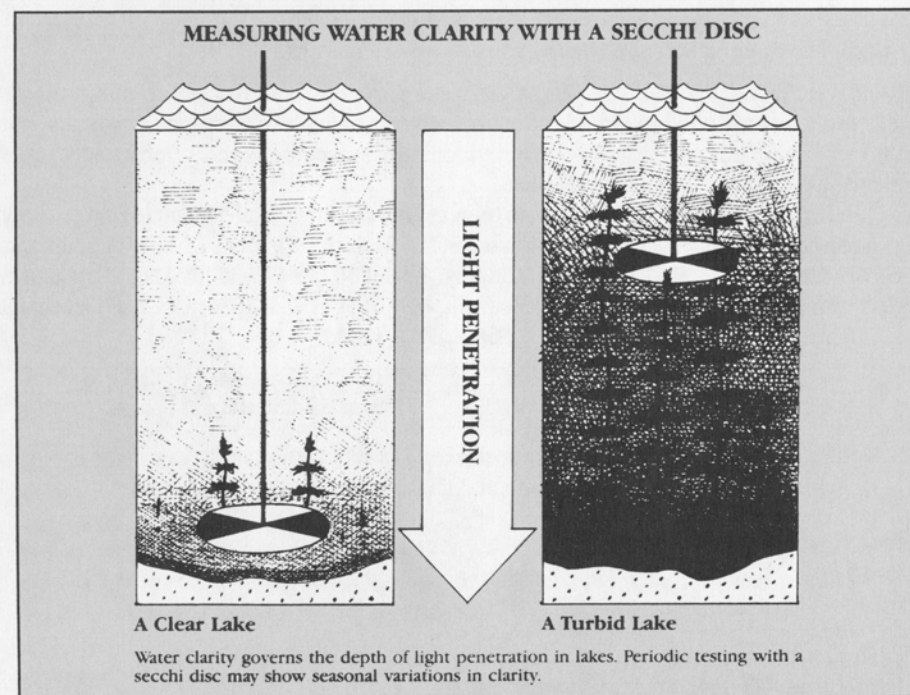
Taken by itself, a single secchi disk reading does not tell you very much. But taken over a period of time, changes in the depth of the reading can be noticed and any potential concerns corrected before they become major problems.

One of the things that can have a very definite effect on the secchi disk reading is the presence of large numbers of algae. While algae occur naturally,

provide oxygen and are an important link in the food chain, like anything else, too much of a good thing can be detrimental. This is an area where man can have a major impact on surface water quality. One of the nutrients essential for plant growth is phosphorus and this is true for aquatic plants, including algae, as well as for terrestrial plants. The addition of excess phosphorus through runoff from lawns, cropland or feedlots can cause the numbers of algae and aquatic plants in a body of water to increase dramatically.

We will be measuring the amount of phosphorus and chlorophyll "a" present in the lake, also. By coordinating the secchi disk, phosphorus level and chlorophyll "a" levels in various computer models, a particular lake can be compared to "average" lakes within a region. This will give an indication as to whether that lake merits additional, more comprehensive study.

As simple as it seems, therefore, the secchi disk reading is a very important tool in determining current lake quality and providing a basis for comparison with future lake quality.



Eutrophication: The Weeds Take Over

Eutrophication is the process by which lakes are fertilized with nutrients (chemicals absorbed by plants and used for growth). It is a natural aging process, but human activities can speed it up, with more algae and weeds the result.

As nutrients such as nitrogen, phosphorus and potassium wash into lakes in runoff water or by soil erosion, they fertilize the lake, allowing algae and weeds to grow. As plants die and decompose, they accumulate on the lake bottom as muck. After hundreds or thousands of years of plant growth and decomposition, the character of a lake may more closely resemble a marsh or a bog. This aging is called **natural eutrophication**.

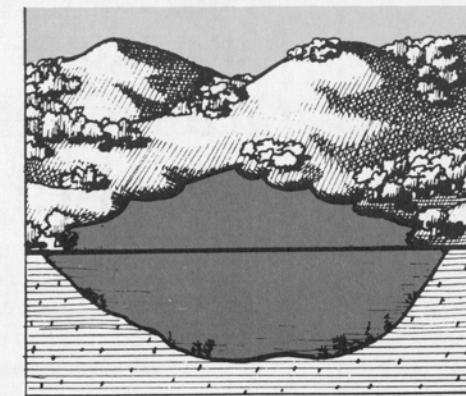
Lakes also can obtain nutrients from various human activities, which can literally make a lake "old" before its time. This accelerated aging is called **cultural eutrophication**. Nutrients washed from agricultural areas, storm water runoff from urban areas, municipal and industrial wastewater, runoff from construction projects and even recreational activities contribute to cultural eutrophication. When human activities increase the rate of nutrient and sediment enrichment of a lake, **pollution** is taking place.

Nutrient and pollution sources discharged to a lake from specific locations, like municipal and industrial wastewater outlets, urban stormwater outlets or other **point sources** are easy to identify, relatively easy to control through treatment projects, and have been the focus of much of the water pollution control work to date.

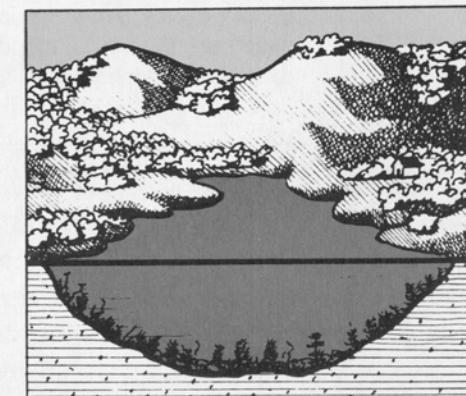
Nutrients and pollution sources that are not discharged from a pipe, but instead are washed off the land or seep into groundwater, are known as **nonpoint sources** of pollution or **polluted runoff**. These include runoff from agricultural fields and feedlots, leakage from septic tanks, nutrients from wetland drainage and storm water runoff, and others. Polluted runoff is best controlled through wise land use practices.

*(This article is reproduced from the booklet **A Citizen's Guide to Lake Protection**, published by the Freshwater Foundation.)*

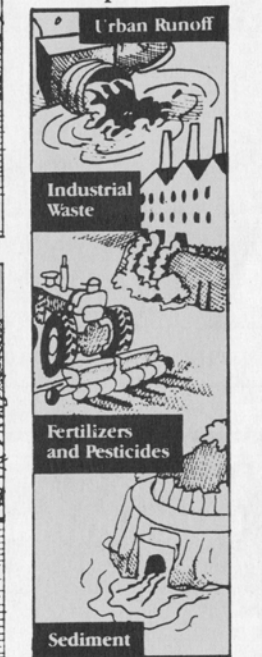
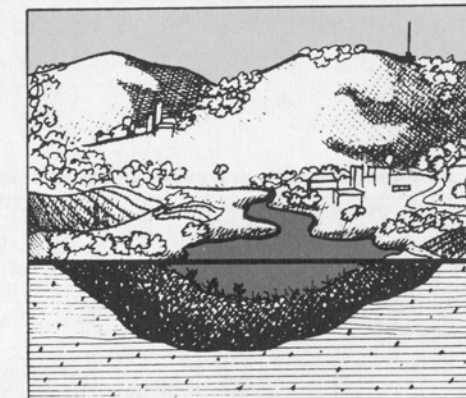
LAKE EUTROPHICATION



Natural Eutrophication



Cultural Eutrophication



The natural process by which lakes form, evolve and disappear takes thousands of years. Human activities, however, can change these lakes — for better or worse — in less than a single generation.

Hubbard County COLA to Sponsor Lake Conference

The Hubbard County Coalition of Lake Associations (COLA) is planning a lake conference to be held in the Park Rapids area in early August. The COLA lake conference, co-sponsored by the Mississippi Headwaters Board, will provide an opportunity for area residents to learn more about managing local lake resources.

For more information on the lake conference, contact COLA President, Pat Alberg, at (218) 732-3034.

Volunteers Needed to Take Secchi Disk Readings

Can you help us monitor your favorite lake? All that is required is a boat and a secchi disk. The latter can be obtained from your Soil and Water Conservation District. Readings are normally taken weekly throughout the summer.

If you can help monitor your lake, please call the following person in your respective county:

Milayne Lundmark, Clearwater SWCD, (218) 694-6845; or

Dale Krystosek, Beltrami SWCD, (218) 751-3036.

County Shoreland Management Ordinances to be Revised

Beltrami and Clearwater counties have contracted with the Headwaters Regional Development Commission to revise their local shoreland management ordinances. Their existing ordinances were developed almost twenty years ago and have not undergone substantial modification since their initial adoption.

The state rules governing the shoreland management program have been modified giving local governments the opportunity to enhance shoreland protection within their jurisdictions. The Department of Natural Resources has recently notified both counties that they have two years in which to bring their ordinances into substantial compliance with the statewide standards. The DNR has provided funding to both counties to assist them with the ordinance revision.

HRDC staff will work closely with the planning staff in both Beltrami and Clearwater counties, and will develop the proposed ordinance revisions in cooperation with each of the county's planning commissions. Public participation in the development of the revised ordinances will be sought this summer when seasonal residents are available to comment. The ordinances will be adopted by the end of March, 1990 after the formal public hearings are conducted as required by law.

Any persons having questions or comments on the new shoreland regulations are encouraged to contact HRDC staff at (218) 751-3108, or by contacting county planning officials. The Planning and Zoning Director in Beltrami County is Bill Patnaude (218) 759-4158. In Clearwater County the Environmental Services Officer is Dan Logelin (218) 694-6183.

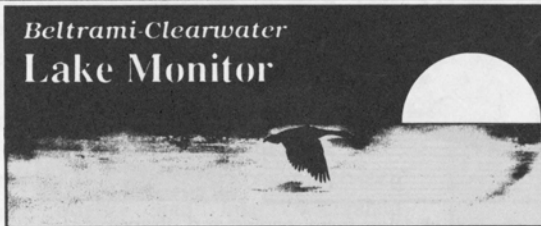
We Need Your Help!

Our goal is to distribute over 1,000 newsletters in Beltrami and Clearwater Counties, mainly to lakeshore residents, but also to other individuals that are vitally concerned about your county's lakes.

If you know of individuals that would benefit from this newsletter, please forward us their names.

We also need help in newsletter distribution. If you are willing to distribute a number of newsletters for us, it would allow us to put resources into activities other than mailing.

Beltrami Clearwater Lake Monitor



722 15th Street NW
P.O. Box 906
Bemidji, Minnesota 56601
Phone: (218) 751-3108

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STRATEGIC PLAN

BOARD OF WATER AND SOIL RESOURCES

July 1990 Review Draft

ABOUT THE BOARD

The Board of Water and Soil Resources is a Minnesota state agency. The BWSR membership comprises twelve voting and five nonvoting members. The voting members include three county commissioners, three soil and water conservation district supervisors, three watershed district representatives, and three ~~citizens~~ unaffiliated public members. Voting members are appointed by the Governor to staggered four-year terms. The Governor designates the Chair from among the voting members. The five nonvoting members ~~are~~ represent the Department of Natural Resources, Pollution Control Agency, Department of Health, Department of Agriculture, and University of Minnesota.

The BWSR staff is headed by an Executive Director who serves at the pleasure of the Board. The central staff is located in St. Paul, and field staff are located in regional offices in Bemidji, Brainerd, Duluth, Marshall, New Ulm, and Rochester.

[simplified organization chart]

MISSION STATEMENT:

~~It is The BWSR's mission of the Board of Water and Soil Resources~~ is to provide leadership in developing policies and implementing programs that enabling local governments to properly manage water and soil resources and to help all citizens to be stewards of our irreplaceable water and soil natural resources.

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I. INTRODUCTION: MINNESOTA'S WATER AND SOIL RESOURCES

Minnesota is endowed with an abundance of natural resources. The "land of 10,000 lakes" and "sky blue waters" contains ~~over 15,000~~ nearly 12,000 lake basins; ~~25,000~~ about 95,000 miles of ~~streams~~ watercourses; major ground water resources; more than 16 million acres of forest lands; and over 23 million acres of fertile soils supporting agricultural uses. Although our endowment is rich, we have learned that it is not limitless. ~~Over~~ Only a small fraction of the ~~— % of the surface~~ area of Minnesota has not been directly altered by man's activities. ~~Over~~ Millions of acres of our original prairie lands, woodlands, wetlands, and shallow lake basins have been converted to agricultural, commercial, industrial, residential, and other intensive land uses. This ~~dramatic~~ land use conversion has had major impacts on our water and soil resources.

Combined wind and water erosion on our 23 million acres of cultivated cropland generates an estimated 150 million tons of eroded soil per year. ~~In addition, each year an estimated ? million tons of soil erodes~~ Significant erosion also results from development activities and improper forest harvesting practices. This eroded soil carries nutrients and pollutants that degrade our water quality and productivity of our soils. Eroded soil also settles out in our lakes, waterways, and wetlands destroying habitat and reducing flow capacities. Loss of natural water retention basins due to drainage and filling has degraded water quality, diminished wildlife habitat, and exacerbated flooding problems. Construction of buildings, roads, parking lots and other impervious surfaces in urban areas has caused erosion and has increased stormwater runoff and flood damages to ~~both~~ stream channels and adjoining properties. We have begun to detect chemical pesticides and nutrients in our ground water.

To understand the importance of managing and protecting our limited water and soil resources, we need to appreciate our reliance on them and how our actions affect their integrity.

A. WATER RESOURCES

Minnesota's rivers, lakes, and wetlands cover nearly 5% of the state's area (over 9% if Minnesota's portion of Lake Superior is included). Alaska is the only state with more lakes than Minnesota. This abundance of surface water features has significantly influenced our economic development, "outdoors" heritage, and quality of life.

Minnesota's major rivers are the Mississippi, Minnesota, Red River of the North, Rainy, and St. Croix. Many of our cities developed along these and other rivers in our state because of river transportation and water supply. Our most predominant lake is Superior, which has the largest area of any freshwater lake in the world - 31,800 square miles.

Surface water resources ~~also~~ play a big part in Minnesotans' love of the outdoors. Our lakes are dotted with seasonal cabins, resorts, and year-round residences. Our rivers and lakes are heavily used for recreation and relaxation. In some counties, shoreland property is the largest component of the local property tax base. Water-related recreation and tourism is an important part of Minnesota's economy.

Sound management of our water resources is vital to our quality of life. We are drawn to our rivers and lakes for fishing, swimming, boating, and other outdoor activities. Our wetlands provide valuable habitat for both game and non-game wildlife species. We place a high value on being able to spend leisure time near surface water amenities.

Minnesota is also fortunate in having a major groundwater resource. The United States Geological Survey has defined 14 major aquifer types in the state. They all fall into the two broad categories of "glacial drift" and "bedrock". Southeastern Minnesota is underlain by major sandstone and limestone bedrock formations that contain the largest quantities of groundwater found in the state. The highest yielding glacial drift aquifers are located in central Minnesota and along the Mississippi and Minnesota Rivers where there

are major sand and gravel deposits. In western Minnesota the glacial drift is predominantly composed of tight clay soils that yield little water, although significant supplies can be found in scattered buried drift aquifers.

Groundwater resources provide water supply for domestic, agricultural, commercial, and industrial uses. The quality of these resources is critical because two out of three Minnesotans rely on wells for their drinking water.

The importance of wisely managing our water resources is heightened by the fact that less than 1% of the water on earth is freshwater. This small freshwater fraction is distributed in the atmosphere; in our lakes, rivers, and wetlands; and in the ground. Ground water represents over 90% of our limited freshwater supply.

B. SOIL RESOURCES

Soil is one of Minnesota's most valuable resources. Our fertile topsoil and favorable climate make Minnesota one of the outstanding ~~crop~~ food and forest products producing regions in the world. About one-half (more than 20 million acres) of Minnesota is covered by soils capable of supporting agricultural uses. This large base of productive soils has made it possible for Minnesota to develop the sixth largest agricultural industry in the nation. Minnesota's agricultural production of corn, soybeans, many small grains, sunflowers, hay, potatoes, sugarbeets, processed sweet corn and peas, and livestock and poultry and their products consistently rank in the top ten nationally. Minnesota's forest products industry is roughly one-fourth the size of agriculture and generates about \$5 billion annually.

Because our population and standard of living are increasing, ~~there is an expanding~~ demand for ~~these~~ agricultural and forest products is expanding. It is important that this demand be translated into careful conservation and management of soil and not into exploitation. Soil, because of its extremely slow development process, is essentially non-renewable. Minnesota's soil must be maintained as a permanent, useful resource because

future needs for productive soil will be even greater than those of the present. Soil is, and is likely to remain, the major source of human sustenance far into the future.

Soil is formed by the complex interaction of several natural elements. These elements include the parent geologic material, climatic conditions, the plants and animals living on or in the material, and time. Soil scientists estimate that it takes ~~between 100 and 250 years~~ 30 or more years for one inch of topsoil to be formed from subsoil by natural processes. Conversion of parent geologic material to one inch of topsoil, however, may take between 100 and 250 years. Consequently, our soil resources are largely non-renewable and, without proper management, the amount of subsoil could actually decrease over time. Over 600 different soil types have been identified in Minnesota, each having unique characteristics and management requirements for various land uses.

II. THE BWSR's MISSION STATEMENT

~~It is The BWSR's mission of the Board of Water and Soil Resources is to provide leadership in developing policies and implementing programs that enabling local governments to properly manage water and soil resources and to help all citizens to be stewards of our irreplaceable water and soil~~ It is the mission of the Board of Water and Soil Resources to provide leadership in developing policies and implementing programs that enable local governments to properly manage water and soil resources and to help all citizens to be stewards of our irreplaceable water and soil natural resources.

The BWSR's activities are focused on encouraging proper water and soil resource management. The planned management of these precious natural resources is ~~necessary~~ required to ensure their wise use and prevent their degradation.

The BWSR has a unique role in water and soil resource management because of its direct ties to local government. The board members include representatives of soil and water conservation districts, watershed districts, and counties. Virtually all of the BWSR's statutory responsibilities relate to local water and soil management planning and implementation. The BWSR's primary ~~duty~~ role is to guide and support the water and soil management activities carried out by local governments.

The BWSR's mission is accomplished in several ways:

Policy Development: The BWSR seeks, through legislative initiative, policies supportive of water and soil resources management. The BWSR also serves as a forum for policy development relating to water and soil resources management and encourages implementation through local units of government. The BWSR also serves as a forum for resolution of inconsistencies in statutory water policy.

Service to Local Units of Government: The BWSR provides local governments with guidelines, training, and technical assistance in developing, implementing, and administering water and soil resource management plans. It offers leadership training to local officials and provides local government with educational materials on resource management issues.

Coordination: The BWSR uses its members, local planning guidelines, rules, and staff assistance to ~~ensure effective management of natural resources and to~~ foster communication, understanding, exchange of information and ideas, and working partnerships among Minnesota counties, soil and water conservation districts, watershed districts, other units of local government, regional development commissions, the Metropolitan Council, state and federal agencies involved in water and soil resources management, and also with neighboring states and Canada.

Education: The BWSR develops information and education material designed to increase awareness and knowledge of local water and soil resources problems and provides training opportunities in skills necessary for citizen action and local government involvement in solutions and prevention. The BWSR's information and education program emphasizes and supports ~~proven current~~ effective educational practice and creative problem solving.

Funding: The BWSR advocates funding for water and soil resources management activities carried out by local government. It administers state grants and incentive programs to local governments to help them accomplish their resource management goals.

Conflict Resolution: The BWSR can act as both mediator and adjudicator in resolving resource management conflicts between people, local governments, and agencies; and recommends procedures to avoid future conflict.

III. RESOURCE MANAGEMENT ISSUES

The BWSR's conservation mission will be accomplished primarily by enabling local governments to effectively address four key resource management issues: land use conversion, nonpoint source pollution, soil ~~erosion~~ conservation, and water quantity management.

A. LAND USE CONVERSION

~~When~~ Land use changes, regardless of whether ~~it is~~ they occur in a rural or an urban area, ~~there are~~ impacts on water and soil resources. Although each situation is unique, conversion of land to a more intensive use generally has negative effects on water and soil resources. This type of conversion can result in: increased runoff, erosion, and sedimentation; higher downstream flood flows due to loss of natural storage or changes in the timing of subwatershed discharges; reduced rates of groundwater recharge due to creation of impervious surfaces; increased generation of water pollutants due to loss of natural filtering mechanisms; and decreases in wildlife populations due to destruction of habitat. On the other hand, land conversion to a less intensive use, such as restoration of drained wetlands or conversion of marginal agricultural land to permanent vegetation, generally will have positive water, soil, and wildlife impacts. Conversion of wetlands, marginal agricultural lands and sensitive lands, and forest lands are of primary concern.

1. Wetlands

Wetlands are lands where water is the dominant factor determining the nature of soil development and the types of plant and animal communities living in the soil and on its surface. Wetlands can provide significant public benefits by storing water, controlling

erosion, purifying runoff by nutrient uptake, recharging groundwater, and by providing open space, landscape diversity, wildlife habitat, and recreational opportunities. Wetlands protection, restoration and management are critical because there is continued pressure to fill wetlands for land development purposes and to drain wetlands for conversion to agricultural and other uses. Various local, state and federal regulatory programs discourage wetland degradation, but they are fragmented. ~~No~~ comprehensive wetland management program is in place.

It is the BWSR's position believes that:

1. A "net gain" wetland management ~~policy goal~~ should be adopted in law Minnesota.
2. Wetland regulation must be accompanied by strong education, ~~and incentive, and~~ compensation programs.
3. Wetlands that are restored, enhanced or created for mitigation purposes should be located in the same watershed as the impacted wetland and as near to the impacted wetland as feasible practical.
4. Wetlands restored, enhanced or created under state and federal programs designed to increase our wetland base should not be used for mitigation purposes.

The BWSR will serve a major role in furthering wetland management efforts by: fostering strong local wetland protection and restoration programs through such activities as local water planning; providing financial incentives; encouraging and supporting research; creating opportunities for education, including forums for local-state-federal communication on wetland issues; and seeking progressive changes in wetland management laws, programs, and policies.

2. Marginal ~~Agricultural~~ Lands and Sensitive Lands

Marginal ~~agricultural~~ lands are either highly erodible, inherently unproductive, or highly susceptible to drought or flooding problems. Sensitive lands are areas where ground water is at significant risk of contamination from activities conducted at or near the land surface. An area of land can be both marginal ~~agricultural~~ land and sensitive land.

Considerable public benefits can be gained by taking these marginal and sensitive agricultural lands out of crop production. These benefits include erosion and sediment control, improving surface and ground water quality protection, and enhanced wildlife habitat restoration, and enhanced recreational opportunities. As of July 1990, Minnesota the BWSR had ~~purchased~~ acquired conservation easements on about 34,000 acres of marginal and sensitive agricultural land under the Reinvest in Minnesota Conservation Reserve Program (~~RIM Reserve~~). About one-half of these lands are permanently retired under perpetual easements. Under the ~~same~~ wetlands restoration portion of the Reinvest in Minnesota Reserve Program a applications have been received to permanantly restore 196 wetland basins comprising 1,900 acres of wetlands and 3,400 acres of adjacent upland cover. total of ____ wetland basins have been permanently restored. Sensitive lands, which are lands particularly susceptible to ground water contamination, are also eligible for retirement under the ~~Reinvest in Minnesota Conservation Reserve Program~~.

The federal government has temporarily retired over 1.8 million acres in Minnesota under the Conservation Reserve Program at a cost of roughly one billion dollars. The federal Conservation Reserve Program contracts ~~will expire at the end of their~~ are for a ten-year duration. The earliest enrolled lands will be due to come out of retirement starting in 1997. Most of the lands protected under the federal "soil bank" programs of the sixties came back into production.

It is the BWSR's position believes that:

1. Marginal agricultural lands now under temporary retirement should not be brought back into production, unless they are effectively ~~managed~~ protected under a comprehensive water and soil conservation plan.
2. Programs should be available to protect or retire all existing marginal agricultural lands and highly sensitive lands.
3. Local governments should be encouraged to use their planning and regulatory authorities to encourage proper management of ~~prevent~~ marginal and highly sensitive lands from being used as cropland.

4. Retirement of marginal agricultural lands and highly sensitive lands will permit land managers to focus their stewardship efforts on more productive lands.

The BWSR will actively support local, state, and federal programs designed to keep protect marginal agricultural lands and highly sensitive lands out of annual crop production on a long-term basis.

3. Urbanizing Lands

The conversion of undeveloped lands or agricultural lands to residential, commercial, or industrial uses is called urbanization. This process takes place around all expanding urban centers. Most Urbanization is occurring rapidly in the Rochester- Twin Cities Metropolitan Area, Rochester, and St. Cloud corridor. Poorly planned or managed urbanization can create serious water and soil resource problems, including erosion, water quality degradation, and flooding. Urbanization of prime agricultural land also raises the vital issue of adequate future food supply. Currently the Metropolitan Area and many other urban centers in Minnesota are involved in local water planning. Sound local planning and adoption of effective regulations can prevent many of the harmful water and soil resource impacts of urbanization.

In the Twin Cities Metropolitan Area the Metropolitan Council administers the comprehensive land use planning act, which requires adoption of local comprehensive land use plans. Also in the Metropolitan Area the BWSR administers the metropolitan water management act, which requires local governments to prepare watershed plans and local water plans. Metropolitan watershed plans can dictate amendments to local comprehensive land use plans. Because of the close interrelationships between local land use planning and local water planning, it is important for the BWSR and the Metropolitan Council to closely coordinate their planning guidelines and policies.

It is the BWSR's position believes that:

1. ~~Local~~ Governments units with planning and zoning authority should develop and adopt long term comprehensive land use plans and official controls based on sound scientific principles to ensure proper land use and ~~sound~~ land use management practices to effectively protect soil and water resources and promote a healthy, sustainable, and ~~aesthetically pleasing~~ economically viable environment.
2. Policies adopted by state and regional agencies that impact local land use planning should be consistent and coordinated.

The BWSR will serve to minimize the potential water and soil resources problems associated with urbanization by assisting local governments in developing and implementing effective local water management plans and coordinating with other state agencies and the Metropolitan Council in establishing water planning and management policies.

4. Forest Lands

The proper management of forest lands is imperative to maintain and improve water quality, the forest economy, and the tourism industry. Forty-three percent of Minnesota's forest resources are found on small tracts or private lands. The DNR's Division of Forestry is the state's expert in forest management. Most small private forest landowners are not receiving technical assistance from the state. Soil and water conservation districts have an effective communication network with these private forest landowners, but they lack technical expertise in forestry.

It is the BWSR's position believes that:

1. ~~State~~ Expertise in forestry management techniques needs to be delivered to private owners of small forest tracts.
2. Incentive programs should be available to private owners of small forest tracts to encourage sound forest management practices.

The BWSR will serve an important role in forest land management by coordinating DNR and SWCD activities so that Minnesota forest landowners receive sound guidance on managing for multiple uses and environmental protection.

B. NONPOINT SOURCE POLLUTION

Nonpoint sources of pollution are defined as land management or land use activities that contribute to water pollution as a result of runoff into surface waters or seepage into groundwater. Nonpoint sources are distinguished from point sources in that they can be generated by a variety of land use practices over broad areas of land. Examples of potential sources of nonpoint pollutants include agricultural runoff, wind erosion, feedlot runoff, urban runoff, runoff from forestry and mining activities, and leachate from septic systems. The primary pollutants contained in the runoff from these sources are soil particles, nutrients, and pesticides. Despite significant efforts and expenditures to address point sources, Minnesota's surface water quality still has not attained the federal Clean Water Act's "fishable and swimmable" goal. Nonpoint sources are the most significant sources of water pollution and the major contributors to eutrophication and degradation of water quality in our lakes and streams.

The Minnesota Pollution Control Agency is the state agency responsible for developing Minnesota's nonpoint source pollution management program in accordance with requirements of the federal Environmental Protection Agency. The Minnesota Pollution Control Agency has developed handbooks describing various land management practices that can help reduce nonpoint source pollution in urban, agricultural, and forested areas. These practices are called "best management practices" or "BMPs". The Minnesota Department of Agriculture has specific responsibilities under state and federal law for regulating agricultural pesticides and nutrients. Local units of government are authorized to foster proper land use management through information and education, cost-sharing and other incentives, and land use controls.

It is the BWSR's position believes that:

1. Best management practices should be used on all Minnesota lands.
2. Pesticide and ~~nutrient~~ fertilizer use should be ~~minimized~~ optimized.
3. Concepts such as "sustainable agriculture" and "watershed-based management" should be promoted and supported through incentive programs.
4. Local government development and delivery of educational programs on nonpoint source pollution and adoption and enforcement of land use controls to prevent nonpoint source pollution should be encouraged and supported.

The BWSR will work to ~~empower~~ provide local governments with the tools to carry out effective nonpoint source pollution control programs.

C. SOIL CONSERVATION

Close to one-half of Minnesota's total land area is used for growing crops. Agricultural use dominates the western and southern portions of the state, comprising over 90% of the land area in some counties. Cultivation makes the land surface more susceptible to erosion from the forces of water and wind. Total soil erosion in Minnesota is estimated to be in excess of 150 million tons per year with over 96 percent attributed to cropland. Although the effect of this soil loss on crop production varies, it usually increases costs and makes the soils less productive. ~~In addition,~~ Soil disturbing activities also take place on the over 14 million acres of public and private commercial forests in Minnesota, and In addition, intensive land development and rapid urbanization is occurring in the Twin Cities Metropolitan Area, Rochester and St. Cloud, and in the areas between these cities. The way ~~this these~~ these agricultural, forested, and urbanizing lands ~~is are~~ managed has significant effects on both water quality and quantity.

The erosion rate at which a particular soil can sustain its productivity is called the ~~tolerable soil erosion rate~~ soil loss tolerance or "T". Values of T range from 1 to 5 tons per acre per year ~~to 5 tons~~, depending on the soil type. In 1982 the USDA Soil Conservation

Service (~~SCS~~) estimated that over one-half of Minnesota's cropland was eroding at a rate in excess of the tolerable level. In 1987 ~~t~~The SCS Soil Conservation Service estimated that ~~on average each of our cultivated acres~~ lands had an average annual soil loss of ~~lost over 7 tons per acre of soil in 1987,~~ or over twice the soil loss tolerance rate ~~at which the soil is being replenished.~~ Excessive soil losses not only reduce or destroy the productivity of the land as well as unprotected crops, but cause several other harmful "off-site" environmental effects. These off-site impacts include siltation of streams, drainageways, lakes, and reservoirs; impairment of fish and wildlife habitat; air pollution from wind eroded soil particles; and degradation of water quality. Although governmental programs to control excessive soil loss have been in place since the 1930's, ~~we continue to lose excessive amounts of soil~~ erosion continues. Conservation farming practices such as conservation tillage, crop rotation, contour farming, strip cropping, terracing, ~~crop rotation, conservation tillage,~~ and the use of field windbreaks can reduce erosion and its associated harmful off-site impacts.

Controlling soil erosion rates below that which can, over the long term, indefinitely sustain the productive capacity of agricultural soils does not necessarily ~~ensure~~ elimination of water ~~pollution~~ quality problems caused by sediment. Water ~~pollution~~ quality problems, due to in the form of sedimentation, ~~pollution~~ can still occur; even when soil losses are controlled to rates less than ~~erosion~~ soil loss tolerance levels for maintenance of long-term soil productivity. Thus, the single greatest threat to ~~conservation~~ of the state's soil resource surface water quality is soil erosion. Sediment ~~pollution~~ is, by volume, the greatest water pollutant of our surface water. Recent estimates indicate that the off-site damages from erosion and sedimentation ~~may~~ actually exceed soil productivity losses by a large margin. Soil erosion by water and wind are naturally occurring events. However, increasing demands from agricultural, forestry, mining, and urban development have accelerated the erosion process. Effective soil conservation practices have ~~also~~ been developed for these both agricultural and non-agricultural land uses.

Local governmental units with planning and zoning authority can adopt ordinances requiring landowners to control soil erosion. Special "soil loss limits" legislation was enacted

in 1984 establishing procedures for implementing local soil loss ordinances and specifying a technical role for soil and water conservation districts. To date, only two counties have enacted soil loss ordinances.

The 1985 federal farm bill included a provision called "conservation compliance" that requires persons farming certain highly erodible lands to fully implement a conservation farm plan by January 1, 1995 to remain eligible for federal farm program benefits including price and income supports. Because most farmers participate in the farm program, conservation compliance should have significant agricultural soil erosion control benefits.

It is the BWSR's position believes that:

1. The most Land retirement programs should be targeted to the highest priority marginal agricultural lands and sensitive lands.
2. Land treatment cost-share programs should be targeted to productive lands that are erosion-prone.
3. Retired marginal agricultural lands with severe erosion potential that cannot be effectively managed to prevent excessive soil loss should not be brought back into agricultural production unless they are effectively managed to prevent excessive soil loss.
4. Soil loss on all lands should be controlled or reduced to levels at or below soil loss tolerances by the year 2000.
53. Local adoption of erosion and sediment control ordinances should be promoted and supported in both rural and urban areas, and local units of government that take the initiative to adopt erosion and sediment control ordinances should be rewarded.

D. WATER QUANTITY MANAGEMENT

Water quantity management deals with actions that affect water runoff, detention, retention, diversion, appropriation, and use. Issues involving water quantity management are most apparent when precipitation varies greatly from normal. In times when precipitation

greatly exceeds normal we experience flooding; in times when precipitation is greatly below normal we experience drought. The economic impacts of both flooding and drought can be great. Flood damages alone are estimated at \$130 million annually in Minnesota. Water supply problems in times of drought can have even greater economic impacts ~~due primarily to~~ because of lost agricultural income. Water supply problems can also be caused by contamination of surface or ground water. The true costs of finding adequate supplies of good quality drinking water or trying to clean up contaminated supplies are significant and are an incentive to promote the wise use and conservation of ~~our precious~~ water resources.

The water quantity management issue is particularly significant for the BWSR because local government plays a major role in regulating activities directly affecting water quantity. Both state and federal floodplain management and flood control programs rely upon local implementation. Land use regulations that control runoff rates and volumes, and urban water use restrictions are implemented primarily by local government. Water supply, through municipal systems, is also a local responsibility; both federal and state regulations require the local water supplier to develop water conservation plans.

It is the BWSR's position believes that:

1. State water policy should establish that every owner of land is responsible for properly managing the runoff from their property.
2. Runoff should be managed to minimize property loss and environmental damage by moderating high flows and maintaining low flows of streams.
3. Natural retention systems should be preserved and properly used to the maximum practical extent in managing surface water runoff and ground water recharge.
4. Water conservation policies and programs should be strengthened and drought planning should be undertaken at both local and state levels.

IV. RESOURCE MANAGEMENT STRATEGIES

~~The BWSR is not a regulatory agency.~~ The BWSR can achieve its resource management goals ~~only~~ primarily through the actions of local governments. The basic strategy of the BWSR is to empower local governments to be effective resource managers.

Successful implementation of comprehensive local programs for the protection and management of water and soil resources will require the use of several management strategies with emphasis on a local/state partnership and interlocal governmental cooperation. The strategies the BWSR intends to use to accomplish its resource management mission can be broadly categorized as education, incentives, and regulation.

A. EDUCATION

Education should be the principal component of any program which attempts to change human activities. Sound management and protection of water and soil resources will require that some land use activities be changed, and some prohibited. Therefore, education will play a key role in serving as a change agent in the modification of ~~societal values and attitudes toward~~ land use management activities. This Modification of a number of existing land use activities must occur before any significant progress can be achieved in addressing our priority resource management issues. Education initiatives must encompass holistic as well as targeted approaches, innovative concepts as well as dissemination of existing information, and advocacy of intergovernmental communication and cooperation. Education must also meet the needs of children as well as adults, urban as well as rural residents, and advocate regulatory compliance as well as voluntary adoption of best management practices.

It is the BWSR's position ~~believes that its educational activities must should~~ include:

1. Disseminating resource management information in the most effective ways possible, including K-12 curriculum and the use of print, radio, television, and video.
2. Developing and maintaining local technical assistance and educational services capabilities.

3. Directly communicating with targeted audiences, including cooperating agencies and land occupiers affected by water and soil resources policies and programs.
4. Advocating proper management of our resources and strengthened cooperation and coordination among units of government and resource management agencies.
5. Instilling a sense of personal responsibility for stewardship of our natural resources.

BWSR education-related management strategies include:

*Providing local governments with the capabilities to develop and implement information and education programs through technical and financial assistance.

*Facilitating communication and cooperation among local governments, state, and federal resource agencies, and private resource organizations through informational mailings, sharing of information on successful local programs and projects, local tours, special meetings, local planning guidance, and related methods.

*Providing the public and local governments with educational, and informational, ~~and~~ ~~research~~ materials on water and soil resources management issues.

*Providing local government officials and staff with special training opportunities regarding water and soil resources management, program administration and operation, personnel management, governmental accounting and reporting, leadership, and related topics.

*Developing and making available planning guidelines, model ordinances, conservation easements and trusts, technical guidelines and policies, and other guidance materials to assist local governments in designing and implementing effective and coordinated water and soil management programs.

*Utilizing BWSR monthly meetings to provide a forum at the state level for presentation and discussion of important local resource management issues.

*Publicizing and promoting the use of effective local, state, federal, and private programs designed to manage and protect water and soil resources.

*Supporting legislative initiatives for broad-based public education and information programs, as well as innovative approaches to reaching specific target groups.

*Supporting legislative initiatives to create stable and adequate funding sources for both local and state water and soil management programs, including education.

*Supporting legislative initiatives for the collection, analysis, and management of technical data on a regular and predictable basis.

B. INCENTIVES

Incentives can be successfully used to accelerate acceptance of desired values and attitudes. Incentives include those which reward compliance with desired values and attitudes as well as those which attempt to discourage undesirable values and attitudes. Proper management and protection of water and soil resources will require that desirable activities be rewarded and that undesirable activities be actively discouraged. Incentives must encompass urban as well as rural values, loans as well as grants, and reward desired behavior as well as discourage undesirable behavior.

All citizens who benefit from the goods and commodities produced from the natural wealth of our lands and waters should share the cost of maintaining their integrity. Incentive programs must recognize that all land occupiers should practice good stewardship, and that the marketplace may not always totally compensate them for conserving our water and soil resources.

It is the BWSR's position believes that incentives ~~must~~ should:

1. Be a tool available to local government to enhance local program delivery.

2. Be offered to potentially affected land occupiers to create positive attitudes about proper land management practices.
3. Provide opportunities to dissuade harmful and encourage beneficial land and water use activities.
4. Reward landowners who practice good stewardship, and penalize those who refuse.

BWSR incentive-related management strategies include:

*Providing direct guidance and financial assistance to counties and other local governments involved in the preparation or implementation of comprehensive local water plans.

*Providing direct guidance and assistance to soil and water conservation districts and watershed districts in the preparation and implementation of annual and comprehensive plans.

*Providing general technical guidance and assistance to local governments regarding water and soil management issues.

*Identifying and communicating local governments' needs for surface and groundwater monitoring, geologic atlases, regional groundwater studies, and development and coordination of computerized data bases.

*Advocating expanded state grants for implementing elements of approved comprehensive local water management plans, compliance plans, and other vital water and soil protection programs.

*Advocating new positive incentives such as tax breaks for landowners who practice good stewardship, and negative incentives such as ineligibility for cost-share programs for landowners who abuse the land.

*Advocating a role for the BWSR in serving as a clearinghouse for all state grants to local governments in the area of water and soil resources management.

*Making available awards programs to ensure public recognition of individuals and local units of government practicing exceptional water and soil stewardship.

C. REGULATION

Regulation is often viewed as a "last resort" for dealing with resource management problems, rather than an important element of a comprehensive approach to resource management. To be effective, the need for a regulation must be understood by the public, the regulation itself must be known, and the regulation must be enforceable. Many resource management issues are not yet well understood by the general public. However, it appears that the public is beginning to recognize the connections between land use activities and nonpoint source pollution and other resources management problems. For example, in some areas the public is beginning to demand adoption of local land use regulations to address nonpoint pollution. To be equitable, regulations must encompass urban as well as rural activities, the sources as well as the effects of resource problems, and a philosophy of progressive as well as ultimate penalties.

It is the BWSR's position believes that local governments with regulatory authorities must should:

1. Be provided the governmental powers necessary to address water and soil management issues proactively and be encouraged to use these authorities.
2. Be able to obtain the resources needed to properly administer and enforce local rules and official controls.
3. Couple local regulations with active efforts to educate residents and provide incentives to land occupiers to properly manage water and soil resources.
4. Be encouraged to go beyond minimum state standards for delegated programs and adopt local regulations to meet their unique needs.

BWSR's regulation-related management strategies will include:

- *Providing general guidance and assistance to local governments seeking to adopt official controls or rules addressing surface water runoff, erosion and sediment control, water quality, and other aspects of water and soil resources management.

- *Developing and making available model ordinances and rules for water and soil resources management, and supporting needed improvements in the statutory powers of local governments to regulate activities impacting water and soil resources.

- *Encouraging local governments to make use of their regulatory authorities in addressing water and soil resources management issues, and to maximize their roles in achieving compliance with state and federal laws and rules.

- *Making use of the BWSR's local plan approval authorities to ensure communication and cooperation among local governments and state agencies regarding local water and soil resources management programs and projects.

V. THE BWSR'S FUTURE

The BWSR believes that its unique structure and role provide an unprecedented opportunity for local governments to greatly expand their roles in water and soil resources management and state policy development.

The BWSR envisions its future to include:

- *Creating a more unified voice for local government at the state and federal levels on water and soil resources management issues.

*Acting as a catalyst for creation of coalitions among local government associations, state and federal resource agencies, and private resource organizations on emerging water and soil resources management issues.

*Serving as an effective participant in state and federal water and soil resources policy development and implementation in partnership with other resource management agencies.