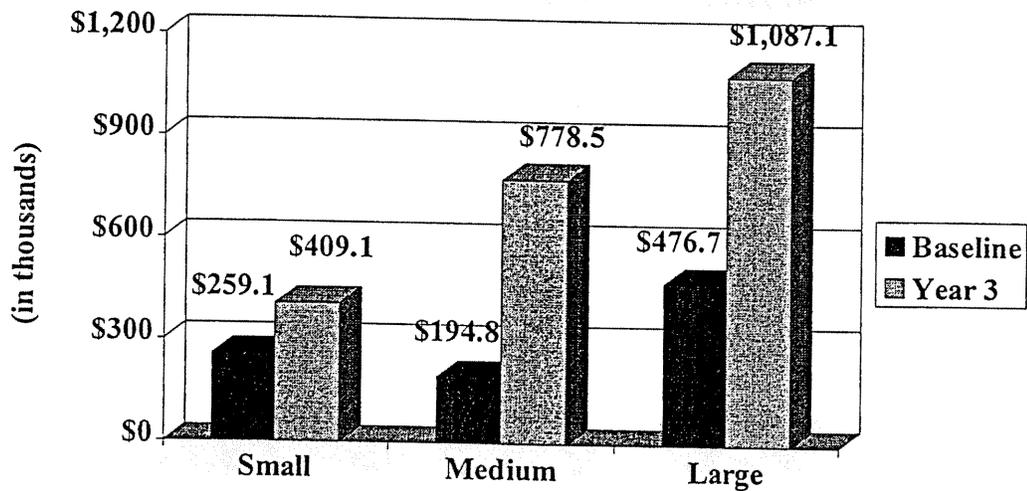


Total Debt

- Borrowed capital is important for modernization to occur.
- The <200 cow group increased debt 1.58x; 200-350 increased debt 4.01x; and the larger group (>350) increased debt 2.28x.
- The greatest debt management challenge appears to be the 200-350 cow group.

Farm Credit Services
 Business Consulting Completed Feasibility Profile
 Total Debt



For more information on Farm Credit Services' business consulting program, contact:

Gary Wagner
VP Business Consulting
Farm Credit Services
2396 State Hwy. 53, Suite 5
Chippewa Falls, WI 54729-5592
1-888-263-8895 (Chippewa Falls)
1-800-324-5751 (Wausau)

Gary Anderson
Certified Appraiser/Senior Business Analyst
Farm Credit Services
P.O. Box 1089
Wausau, WI 54402-1089
715/842-4631 or
1-800-324-5751

Jeff Peissig
Business Consultant
Farm Credit Services
398 Red Cedar Street
Menomonie, WI 54751
715/235-0607 or
1-800-967-2097

Steve Mergen
Dairy Specialist
Farm Credit Services
P.O. Box 466
Medford, WI 54451-0466
715/748-3270 or
1-800-324-5753

For information on this study or media inquiries, please contact:

Michael R. Krutza, President and CEO
Farm Credit Services of North Central Wisconsin
P.O. Box 1089
Wausau, WI 54402-1089
715/842-4631 or
1-800-324-5751



Agribusiness Guarantee

What is Agribusiness?

The Agribusiness Guarantee helps small businesses develop new products using Wisconsin's raw commodities.

Does my business qualify for Agribusiness?

It probably does if it is located in a community with a population under 50,000, purchases a substantial percentage of its raw agricultural commodities from Wisconsin suppliers, and;

- Start with a Wisconsin grown, raw agricultural commodity and then:
- Creates a product new to the business, or expands production of an existing product that will increase the use of a raw agricultural commodity; or
- Enhances the efficiency of the business

How much guarantee is available?

Your maximum guarantee is 80% on loans up to \$750,000.

How can I use an Agribusiness Guarantee?

Agribusiness can be used for equipment, land, buildings, permanent working capital, inventory and initial product marketing expenses.

Interested in growing your operation? Then pick up the phone!

Before beginning your project, contact your lender or call WHEDA at:

1-800-334-6873

TTY/TDD

Teletypewriter/ Telecommunication Device for the Deaf: 1-800-943-9430



Wisconsin Housing and Economic Development Authority

201 West Washington Avenue
Madison, Wisconsin
53703
(608) 266-7884

WHEDA Milwaukee

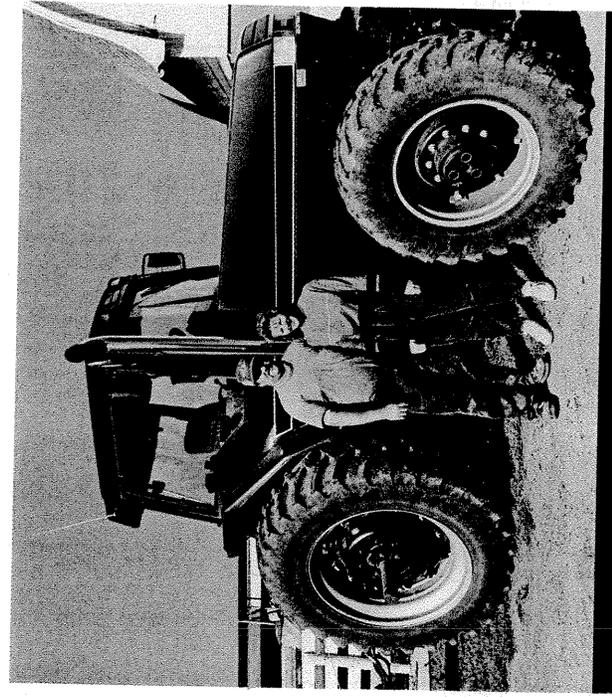
101 West Pleasant Street
Milwaukee, Wisconsin
53212-3962
(414) 227-4039

World Wide Web

www.wheda.com

Giving Farm Families Credit

PRESERVING A PROUD TRADITION



CROP: Your production financing resource.

What does CROP offer me?

CROP features 90% guarantees on loans of up to \$30,000 made by local lenders. Interest rates are competitive, and payment is not due until March 31 of the following year.

Do I qualify for CROP?

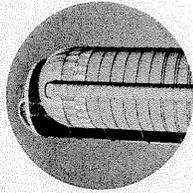
You probably do if you can answer "yes" to three questions:

- ① Are you unable to get conventional financing at the lender's standard interest rate?
- ② Is your debt-to-asset ratio 40% or greater?
- ③ Do you meet your lender's prudent underwriting standards?

How can I use CROP?

CROP can be used for feed, seed, fertilizer, pesticides, land rent, custom hire, animal feed, UCC filing fees, crop insurance, feeder animals, tillage services, equipment rental or repair, or utilities for commodity production.

You cannot use CROP for property taxes, farm house utilities, existing loans, capital improvements, CROP loan interest, accounting services, or revolving lines of credit.



FARM: Is your operation ready for the 21st Century?

Is FARM for me?

FARM is for the producer who wants to expand or modernize an existing operation. You qualify if your debt-to-asset ratio is 85% or less (including your FARM loan and newly acquired assets), and you meet your lender's underwriting standards.

What does FARM offer me?

FARM gives you access to credit by guaranteeing a loan made by your local lender. The maximum loan guarantee is the lesser of your net worth, 25% of the loan amount, or \$200,000.

Your loan term can be up to ten years for buildings/land acquisition, or up to five years for agricultural asset purchases or buildings/land improvements. FARM can be used with other loan programs.

How can I use FARM?

You can purchase agricultural assets including machinery, equipment, buildings, land, and livestock. You can also make improvements to farm buildings and land for agricultural purposes.

FARM cannot be used for a farm residence, existing loans, maintenance, or other working capital needs that are eligible under CROP.

Beginning Farmer Bonds: Isn't it time for your own operation?

How can I use a Beginning Farmer Bond?

Use a Beginning Farmer Bond to purchase your first farm including land, equipment, livestock, or buildings.

Do I qualify for a Beginning Farmer Bond?

You probably do if your net worth is less than \$250,000, the farm will be your primary livelihood, and you have adequate training and experience in the type of farming for which the loan will be used.

If you previously owned farmland, you may still qualify. Check with WHEDA or your lender for details.

What are the terms?

Your interest rate will be below prevailing market rates. Your maximum loan is \$250,000. Loan terms and credit decisions are negotiated between you and your lender, and approved by WHEDA. Beginner Farmer Bonds can be used with other loan programs.

Can I purchase assets from a family member?

Yes. The law has been changed to allow Beginning Farmer Bonds to be used for transactions between related persons.

Kalies, Beata

From: Fritz.Ruf@wheda.com
Sent: Friday, April 27, 2001 11:32 AM
To: Barbara.Gronemus@legis.state.wi.us; Barbara.Gronemus@legis.state.wi.us
Cc: Alvin.Ott@legis.state.wi.us; Alvin.Ott@legis.state.wi.us; Eugene.Hahn@legis.state.wi.us;
Eugene.Hahn@legis.state.wi.us; John.Ainsworth@legis.state.wi.us;
John.Ainsworth@legis.state.wi.us; Gary.Bies@legis.state.wi.us;
Gary.Bies@legis.state.wi.us; Steve.Kestell@legis.state.wi.us;
Steve.Kestell@legis.state.wi.us; Gabe.Loeffelholz@legis.state.wi.us;
Gabe.Loeffelholz@legis.state.wi.us; Jerry.Petrowski@legis.state.wi.us;
Jerry.Petrowski@legis.state.wi.us; Scott.Suder@legis.state.wi.us;
Scott.Suder@legis.state.wi.us; Joan.Wade@legis.state.wi.us; Joe.Plouff@legis.state.wi.us;
Joe.Plouff@legis.state.wi.us; Barbara.Gronemus@legis.state.wi.us;
Barbara.Gronemus@legis.state.wi.us; Marty.Reynolds@legis.state.wi.us;
Marty.Reynolds@legis.state.wi.us; John.Steinbrink@legis.state.wi.us;
John.Ainsworth@legis.state.wi.us; Julie.Lassa@legis.state.wi.us;
Julie.Lassa@legis.state.wi.us; Mary.Hubler@legis.state.wi.us; Mary.Hubler@legis.state.wi.us;
Marlin.Schneider@legis.state.wi.us; Marlin.Schneider@legis.state.wi.us
Subject: Requested Information on WHEDA's Ag Programs



Microsoft Word 4

The following information on WHEDA's Beginning Farmer Bond program and available agricultural guarantee authority is being sent to you at your request. If you have any other questions, please contact me at 266-2893. Thank you.

(See attached file: agstats.doc)

There were no Beginning Farmer Bond Applications received in 2000.
Two loans did close, but they were both received and approved in 1999.
We have received 1 Beginning Farmer Bond Application in 2001 that has been approved
but hasn't yet closed.

Agricultural Guarantee Authority Available

\$30,000,000 Amount on reserve
-17,512,503 CROP guarantees committed
- 4,425,729 FARM guarantees committed
\$ 8,061,768 Total Available

Kalies, Beata

From: Kalies, Beata
Sent: Friday, March 30, 2001 3:49 PM
To: Ruf, Fritz

Good Afternoon.

I was referred to you by James Langdon. My boss, Al Ott chairs the Assembly Committee on Agriculture. We would like to have someone from Wheda give the committee members a quick briefing on some of the loan programs that you provide to farmers. Especially the CROP, Beginning Farmer and other farm loan information would be most helpful. Please let me know if this is possible. The next dates for a committee hearing are April 26th and May 24th. Thank you in advance.

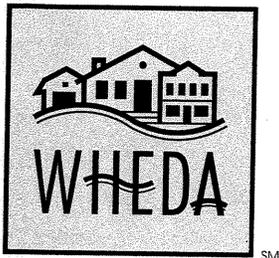
Beata Kalies
Agriculture Committee Clerk
Office of Representative Al Ott

yes 4/26/01

*\$17-18 million
for all programs
- CROP - most successful*

Agricultural Products Activity

Product	Year	Number of Loans Approved	Loan Amount	Guarantee Amount	Percentage of Default Ever-to-Date
CROP	1998	1158	17,353,948	15,618,553	1.65%
	1999	758	12,476,636	11,228,972	
	2000	697	13,478,458	12,130,612	
FARM	1998	11	1,803,000	356,250	0.8%
	1999	31	5,716,722	1,079,213	
	2000	39	7,874,658	1,766,300	
Beginning Farmer Bond	1998	5	768,468		
	1999	9	1,883,212		
	2000	0	0		



Credit Relief Outreach Program (CROP) Guarantee

Fact Sheet

WISCONSIN
HOUSING AND
ECONOMIC
DEVELOPMENT
AUTHORITY

Scott McCallum
Governor

Edwin J. Zagzebski
Chairman

Fritz Ruf
Executive Director

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608/266-7884
800/334-6873
fax 608/267-1099

101 West Pleasant Street
Suite 100
Milwaukee, WI 53212-3962
414/227-4039
800/628-4833
fax 414/227-4704

www.wheda.com
info@wheda.com

WHEDA supports equal
housing opportunities for
all persons



Purpose:

- Purchase services or consumable goods necessary to produce an agricultural commodity.
 - The agricultural commodity must be planted and harvested for consumption within the term of the loan.
 - Livestock is eligible if purchased, fed and sold within the term of the loan.

Eligibility Requirements:

- Farmer is unable to obtain conventional financing at reasonable terms;
- Farmer's debt-to-asset ratio is 40% or greater;
- Farm is located in Wisconsin;
- Farmer must reside in Wisconsin, or if a partnership or corporation the entity must be legally registered in Wisconsin;
- Farmer has sufficient collateral to cover the value of the CROP loan;
- Farmer is actively engaged in the operation and current in child support payments, if any; and
- Farmer has not defaulted on previous WHEDA loans (farmer would become eligible upon repayment).

Eligible Uses of Loan Proceeds:

- Fertilizer
- Seed
- Fuel
- Land rent
- Animal feed
- Feeder animals purchased and sold within the term of the loan
- Utility bills pertaining solely to the production of the agricultural commodity
- Labor costs directly related to planting and harvesting the agricultural commodity, excluding labor costs paid to the Farmer and spouse
- WHEDA CROP application fee can be financed as part of the CROP loan, but will not be guaranteed
- UCC filing charges
- Equipment rental
- Equipment repair
- Tillage service
- Custom hire
- Crop insurance
- Pesticides and herbicides

Terms and Conditions:

- Maximum guarantee is 90% on loan amounts up to \$30,000.
- Maximum interest rate is Prime +1%.
- Maturity date is no later than March 31 of the year following origination.

Application Process:

- Complete and submit CROP loan package including application fee within 30 days of Note date.
- WHEDA reviews and renders decision within 24 hours.
 - WHEDA's approval letter will be faxed to the lender.

Fees:

- \$150 nonrefundable application fee due with the loan package.
- May be financed and included in loan request but will not be guaranteed.

For More Information, Contact:

WHEDA
201 W. Washington Ave., Suite 700
P.O. Box 1747
Madison, WI 53701-1747
1-800-334-6873

e-mail address: info@wheda.com
Internet address: www.wheda.com



Farm Asset Reinvestment Management (FARM) Guarantee

Fact Sheet

WISCONSIN
HOUSING AND
ECONOMIC
DEVELOPMENT
AUTHORITY

Scott McCallum
Governor

Edwin J. Zagzebski
Chairman

Fritz Ruf
Executive Director

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fax 608/267-1099

101 West Pleasant Street
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Milwaukee, WI 53212-3962
414/227-4039
800/628-4833
fax 414/227-4704

www.wheda.com
info@wheda.com

WHEDA supports equal
housing opportunities for
all persons



Purpose:

- Expand or modernize an existing farming operation.

Eligibility Requirements:

- Farmer is unable to obtain conventional financing at reasonable terms;
- Farmer's debt-to-asset ratio is 85% or less;
- Farmer has sufficient collateral to cover the value of the FARM loan;
- Farm is located in Wisconsin;
- Farmer must reside in Wisconsin, or if a partnership or corporation the entity must be legally registered in Wisconsin;
- Farmer is actively engaged in the operation and current in child support payments, if any; and
- Farmer has not defaulted on previous WHEDA loans (farmer would become eligible upon repayment).

Eligible Uses of Loan Proceeds:

- Acquisition of agricultural assets which are defined as machinery, equipment, buildings, land or livestock to be kept for more than one year
- Improvements to buildings or land for agricultural purposes
- WHEDA application and closing fees

Terms and Conditions:

- Maximum guarantee is the lesser of:
 - 25% of the FARM loan; or
 - Farmer's net worth including the FARM loan; or
 - \$200,000 if no other state or federal credit assistance program is being utilized; or
 - \$100,000 when any other state or federal credit assistance program is tied to the same Note.
- Maximum term of the guarantee is 10 years for land and building acquisition.
- Maximum term of the guarantee is 5 years for land and building improvements, equipment, machinery and livestock.

NOTE: Separate Notes must be executed for five-year assets versus ten-year assets.

Application Process:

- Complete and submit FARM loan package including application fee.
- WHEDA reviews and renders decision within 24 hours.

Fees:

- \$150 nonrefundable application fee due with the loan package.
- Closing fee equal to 1% of the guaranteed amount due upon closing.
- May be financed and included in loan request.

For More Information, Contact:

WHEDA
201 W. Washington Ave., Suite 700
P.O. Box 1747
Madison, WI 53701-1747
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e-mail address: info@wheda.com
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all persons



Beginning Farmer Bond (BFB)

Fact Sheet

Purpose:

- Purchase of agricultural assets by a beginning farmer at a below market interest rate (including related-party transactions*).

Eligibility Requirements:

- Farmer must be a Wisconsin resident at least 18 years of age;
- Farmer's net worth is less than or equal to \$250,000;
- Farming will be borrower's primary occupation;
- Farmer must be an individual, not a partnership or corporation;
- Farmer must have adequate education, training and experience in the type of farming for which the loan will be used; and
- If the farmer previously owned land, they may still be eligible depending on the acreage owned and dollar value of the land
 - Land ownership prior to closing on this loan cannot have a fair market value of \$125,000 or greater; and
 - Land ownership prior to closing on this loan cannot be greater than 30% of county median farm size

Eligible Uses of Loan Proceeds:

- Land
- Building(s), excluding residence
- Machinery
- Equipment
- Livestock

Terms and Conditions:

- Maximum term is 30 years.
- Interest rate is set by the bank and subject to WHEDA approval.
 - Preferred rate not to exceed [(Prime +2%) x .7].

Application Process:

- Complete and submit Beginning Farmer Bond Application including application fee.
- Farmer must obtain WHEDA approval within 60 days of the commencement of the project.
- WHEDA reviews and renders decision based on the following:
 - Loan presented to loan committee for initial approval
 - WHEDA conducts a public hearing
 - Loan presented to loan committee for final approval
 - WHEDA prepares the bond documents and submits them to lender for review
 - Governor approves bond issue
- WHEDA's outside counsel reviews file, prepares bond opinion and IRS forms to obtain tax exempt status
- Loan closes.

Fees:

- \$100 nonrefundable application fee.
- 1.5% of the loan amount due upon closing.

*If farm is purchased from related party, the BFB may be used to finance the project if:

- Price of farm reflects the fair market value of the property (appraisal required); and
- Seller retains 10% or less financial interest in the property after the sale.

For More Information, Contact:

WHEDA
201 W. Washington Ave., Suite 700
P.O. Box 1747
Madison, WI 53701-1747
1-800-334-6873

e-mail address: info@wheda.com
Internet address: www.wheda.com

END



END

COLLEGE OF
AGRICULTURAL
& LIFE SCIENCES
UNIVERSITY OF WISCONSIN-MADISON

Office of the Dean

May 15, 2002

MAY 16 2002

Representative Alvin Ott
318 North, State Capitol
P.O. Box 8953
Madison, WI 53708-8953

Dear Representative Alvin Ott:

Recently, I asked a group of our faculty members to review questions relating to use buffer strips along streams and rivers, and to offer some suggestions interested parties might consider in moving implementation forward. Prof. Pete Nowak chaired the group, and involved faculty from our College as well as from other campus environmental and natural resource programs.

We also had representatives from Wisconsin's Department of Natural Resources and Department of Agriculture, Trade and Consumer Protection on the committee, and federal representatives from USDA Natural Resources and Conservation Service. The committee invited environmental and agricultural groups to participate in discussions, and review and recommend changes in the report. The final committee report is enclosed. The 79-page Appendix A, referenced in the report, is available if you would like it, but it is not included with this mailing.

The study team considered the substantial amount of research already done on buffer strips, but did not try to duplicate the extensive review of literature that is now underway in DNR. Instead, the study committee spotlighted some of the specific issues where they felt we have inadequate knowledge about buffer strip use in Wisconsin, and offered an approach -- the adaptive management approach -- to gain new knowledge as we deploy buffer strips on some of Wisconsin's most vulnerable streams and rivers. This approach involves stakeholders in the implementation process and allows us to learn as we implement practices. While allowing implementation to move forward immediately, it hopefully prevents us from making large mistakes and large expenditures of public funds on ineffective practices or on practices in locations where they are not likely to work.

We hope you find the suggestions in this report useful and welcome your comments on it. We also look forward to working with you and others as Wisconsin takes steps to protect its valuable water resources.

Sincerely,



Elton Aberle
Dean and Director

Filter Strips and Buffers on Wisconsin's Private Lands: An Opportunity for Adaptive Management

Ad Hoc Committee Members

- Elena Bennett, Post Doctorate Associate, UW Center for Limnology
Gary Bubenzer, Emeritus Professor, UW-CALS Biological Systems Engineering
Larry Bundy, Professor, UW-CALS Soil Science
Terry K. Donovan, Water Resources Engineer, Wisconsin Department of Natural Resources
Gene Hausner, Area Resource Conservationist, USDA Natural Resources Conservation Service
Wes Jarrell, Senior Scientist, UW-CALS Soil Science
Bruce M. Kahn, Graduate Student, UW Institute for Environmental Studies
K.G. Karthikeyan, Assistant Professor, UW-CALS Biological Systems Engineering
Kevin McSweeney, Director, UW-CALS School of Natural Resources
Pete Nowak, Professor, UW-CALS Rural Sociology
Bill Provencher, Associate Professor, UW-CALS Agricultural and Applied Economics
Christine Ribic, Associate Professor, UW-CALS Wildlife Ecology
Robin Shepard, Assistant Professor, UW-CALS Life Sciences Communication
Scott Sturgul, Senior Outreach Specialist, UW-CALS Horticulture
Kimberly Suffield, Graduate Student, UW-CALS Soil Science
Tom Thrall, State Biologist, USDA Natural Resources Conservation Service
Dan Undersander, Professor, UW-CALS Agronomy
Richard Wolkowski, Associate Scientist, UW-CALS Soil Science

Filter Strips and Buffers on Wisconsin's Private Lands: An Opportunity for Adaptive Management

Well-designed and situated buffers¹ have a number of potential environmental benefits ranging from water quality, wildlife habitat, to carbon sequestration. Conservation buffers can also enhance the resiliency of a larger landscape to episodic events such as extreme weather or to a short, but intense period of land use change that occurs with suburban development. Poorly designed buffers, however, or buffers that are placed across the landscape in a perfunctory fashion to meet program requirements, achieve few environmental benefits, waste limited public resources, and erode the trust of the private landowner relative to future participation in resource management programs.

The challenge we face in Wisconsin is to determine how to design, locate, and maintain buffers so that desired and specified environmental and possibly economic benefits can be gained while still protecting the interests of private landowners and public revenues. This challenge is very different from the current situation. While it may be somewhat a caricature, it seems we are being told that the choice is to select one end of a continuum or the other; either require the installation of publicly-funded buffers on all 31,148 miles of perennial streams plus the 23,776 miles of intermittent streams in Wisconsin, or continue to cost-share the voluntary adoption of a few buffers only when a landowner is persuaded they are beneficial regardless of levels of environmental degradation.

Text Box 1

Buffers — What Are They?

Contour buffer strips – narrow bands of vegetation established across the slope of a crop field and alternated down the slope with strips of crops.

Field border – strips of vegetation planted at the edge of fields, that can be used for turn areas or travel lanes for machinery.

Filter strips – strips of grass or other vegetation used to slow water runoff from a field. These intercept or trap sediment, nutrients, pesticides and other pollutants before they reach a river, lake or stream.

Grassed waterways – strips of grass on areas where water is concentrated as it runs off a field. Used primarily to prevent and control gully erosion, waterways also act as a filter, trapping sediment and other pollutants.

Living snow fence – Trees and/or shrubs designed to control drifting snow to protect buildings, roads and other property. They can be installed to help protect nearby areas for livestock, provide wildlife cover and enhance soil moisture.

Riparian buffers – streamside planting of trees, shrubs and grasses that can intercept pollutants from both surface and ground water before they reach a river or stream. Provides habitat for wildlife and also enhances fish habitat.

Shelterbelts/windbreaks – a row or rows of trees and/or shrubs used to reduce wind erosion, protect field crops and shelter from blowing snow.

Shelterbelts also provide protection from the elements for houses, farm buildings, livestock and wildlife.

Wetlands – areas of shallow water within or near cropland that have water loving grasses, shrubs and/or trees growing in and around the area. These act as a filter and provide wildlife habitat.

Source: Conservation Technology Information Center, Purdue University

¹ The term buffer is being used as a form of stylistic shorthand to represent a generic description of a wide range of actual practices defined in text box 1.

We do not believe this is an either-or situation. The committee was unanimous in positing that there are a number of viable compromises between these ends of a continuum based on the existing, emerging and future science in this area.

Buffers Are Good, But ...

There is no question that buffers have a number of environmental benefits. While the science of buffers may be a "young and inconclusive science," their broad appeal cannot be denied. Buffers are viewed by some as a solution to many of our current environmental problems. However, the application of buffer technology to achieve specific environmental benefits across the diversity of Wisconsin's landscapes and management practices has not been established. Buffers are usually designed as a permanent vegetative cover of grass, shrubs and /or trees that are strategically located along or within fields in order to "buffer" or minimize the adverse impacts of various land uses. We know they can reduce degradation of surface water by either filtering sediments or removing nutrients from runoff. They can also play a role in reducing pesticide runoff, stabilizing stream banks, promoting biological diversity, and regulating in-stream water temperatures. Buffers have also been used to promote native plant restoration, and serve as wildlife corridors for both aquatic and terrestrial organisms.

In general, we know that the idea of using different types of buffers to pursue different environmental functions is conceptually sound. However, many of the technical details on how this can and should be translated into practice are lacking. That is, there are conditions where buffers are not effective such as with channelized flow across the width of the buffer, where the lack of infiltration limits soluble nutrient removal, and when suspended solids are nutrient rich, but buffers do not achieve substantial removal. When does a buffer program assist in maintaining the viability of a farm operation versus when does it force farms out of business? While we know quite a bit about buffers as the attached literature review (*see Appendix A*) indicates, a number of other questions remain unanswered.

The above statements capture many of the arguments that have been used to both support and oppose buffers in Wisconsin. Yet the classic role of science is to be skeptical of any conclusion based on popular arguments or an intuitive appeal. The scientist's role is to subject this argument or intuitive phenomena to rigorous scrutiny and testing. For example, if buffers are "good," then do we know where this "good" is needed across the diverse landscapes and land uses found in Wisconsin? This example asks the question of whether we know what environmental functions (i.e., trap sediments, provide an infiltration area, enhance wildlife habitat, remove nitrate from groundwater, or stabilize stream banks) need to be accomplished in different portions of different landscapes across Wisconsin? Questions such as this move us from relying on an intuitive appeal of buffers into generating the scientific questions associated with the location, design, functioning and assessment of buffers. The committee believes additional information is needed relative to the following questions:

- Do we have sufficient knowledge of the causes of water quality degradation to allow us to specify the type, location and design of conservation buffers?

- Do we have sufficient knowledge, land classification systems, or biophysical assessments of the Wisconsin landscape to allow us to calculate where the different environmental functions of buffers need to be achieved?
- How will we assess the effectiveness (*i.e., extent goals are achieved*) and efficiency (*i.e., ratio of costs to achievements*) of these buffers in achieving the specified environmental functions?
- What amount of public resources is required for buffers to achieve specified environmental functions in different portions of the state?
- What criteria will be used to calculate the compensation to the landowner, and what criteria will be used to distribute limited public dollars to local units of government for implementation of buffer programs?
- What is the extent and frequency of maintenance functions with different types of buffers?
- Can buffers become pollution sources themselves through episodic or extreme events, conditions that release dissolved nutrients, or if they function as reservoirs of disease, insect pests, and weed seed.

These are some of the scientific questions raised by the committee that remain either completely or partially unresolved. These questions do not discredit the concept of a buffer strip or the notion that they can be useful. The list serves to remind us that there are many unanswered scientific questions about buffer strips. The existence of the questions about buffer strips is an opportunity to practice adaptive management.

Adaptive Management

Adaptive management is a way of going forward with natural resource management when one does not have all the answers. In a way, one could argue that is what Wisconsin farmers have been doing for several generations; learning by doing based on careful observation and experimentation. Perhaps the most important concept in the previous statements is that of **opportunity**. Adaptive management is an opportunity to move beyond the polarizing positions of: *"Intuitively we know buffers are good, and*

Adaptive management deals with the unpredictable interactions between people and ecosystems as they evolve together. It takes the view that resource management policies can be treated as experiments from which managers can learn. The problem of decision-making with imperfect knowledge becomes an opportunity to apply the best current knowledge, and then through careful observation, the planning decision becomes an experiment in itself.

Holling, C.S. 1978. *Adaptive Environmental Assessment and Management*. John Wiley and Sons, New York.

therefore they should be required everywhere;” versus *“There are still too many unanswered questions regarding buffers, and until we have those answers, we should do nothing.”* Under an adaptive management framework, neither of these positions are tenable.

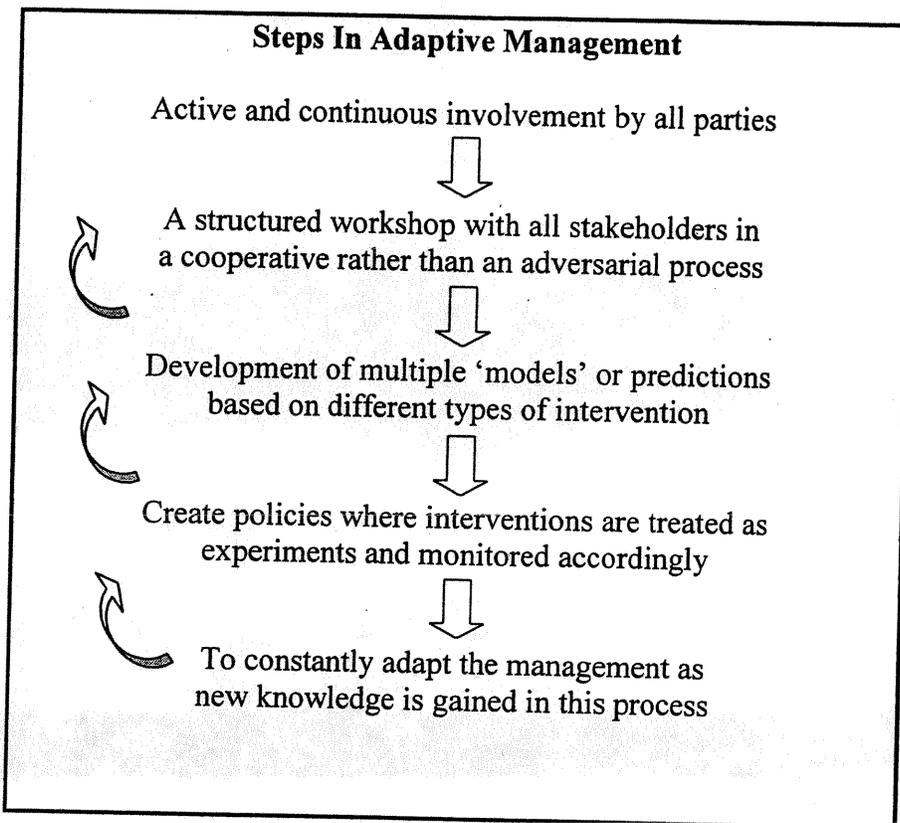
Rather than proscribing a specific policy position, the adaptive management approach states that “Policies should properly be viewed as questions rather than answers” according to Gerry Peterson at the UW Center for Limnology. He continues that “the most important thing is not selecting the ‘correct’ policy and imposing it, but managing in a way that allows people to learn from managing.” We — the land owners, citizens, scientists, agency staff and policy makers — have much to learn about buffers. The real question is how we can learn while still enhancing water quality, protecting the interests of the state’s land owners, and doing this in a fiscally responsible manner. For that, the committee is recommending an adaptive management approach. For the UW scientists this means following a process that includes:

- developing models and other tools to predict the functioning of different types of buffers in different setting to achieve different environmental functions;
- using an experimental design (i.e., treatment versus control) approach to test the efficacy of different types of buffers in different types of setting, and also to test the effectiveness of different government (i.e., local, state, federal) arrangements in promoting these practices;
- exploring different methods to insure that landowners and other stakeholders are an integral part of this process, from design, maintenance and to evaluation; and
- developing a cost/benefit analysis framework that can be used to account for and guide optimal use of program resources
- evaluating the functioning of buffers across both spatial scales and biological systems (e.g., aquatic versus riparian habitats) using standardized methods.

All of the above may generate information that can be useful in the policy formation process.

Adaptive Management in Action

Adaptive management is not some new or “trendy” approach to resource management. It has been in use since at least 1978, and has been applied in the Everglades, Columbia River Basin, Baltic Sea, Chesapeake Bay, Great Lakes, and the boreal forests of eastern Canada. Frustration with trying to use a traditional “command and control” approach relative to complex and dynamic environmental systems is often cited as the reason for using adaptive management.



Future Steps

We view the current discussions on the future roles of buffers for Wisconsin as an opportunity. An opportunity to use an adaptive management approach to this issue, an opportunity to involve the many stakeholders and audiences of UW scientist in addressing this issue, and an opportunity to use approaches that have proven successful on other issues in the past.

To encourage the use of an adaptive management approach, we encourage all parties to discuss the feasibility of participating and supporting the following activities.

□ Exploring the functioning, benefits and costs of buffer strips is an issue that needs to go beyond the experimental plots of academics, the hallways of the Wisconsin capital building, and colorful environmental brochures. Decisions reached on this issue will have implications across diverse socioeconomic and geographical boundaries in Wisconsin. Yet the interested and involved parties have had remarkably little input on this issue. An effort needs to be made to reach out to, listen, and bring these interests into the process.

□ The next step is to convene and participate in a structured workshop on this issue. The process of seeking common ground on the buffer strip question has been explored and tested by the Soil and Water Conservation Society. This private, not-for-profit organization convened a National Buffer Strip Workshop (see Appendix B) at the Arbor Day Foundation last year to explore research, policy and communication dimensions of buffers.

□ A National Conservation Buffer Council was established in 1997, and is sponsored by major agribusiness firms and farm groups. This Council works closely with natural resource agencies and environmental groups in promoting the use of conservation buffers. A Wisconsin Conservation Buffer Council was also organized to parallel the national activities on the state level. The Wisconsin Conservation Buffer Council should be charged with exploring methods to incorporate an adaptive management approach into their activities and responsibilities.

□ Appendix A lists over 700 scientific publications on buffers. Yet knowing how many of these findings are applicable in Wisconsin, or more importantly, where the knowledge gaps are for Wisconsin, is lacking. Identifying what is known and is not known about buffers is an appropriate responsibility for the UW-CALS. The outcome of this exercise could be used in the structured workshop referenced above.

□ Wisconsin has been cited as a national leader for innovative resource management efforts in the past. Policy makers and agency leaders need to participate in the structured workshop to seek out opportunities where policy implementation can become a learning experiment. The question of, "what types of program structures work best in what parts of the state?" does not have one, static answer.

**TO: Natural Resource Board Members
DNR Secretary Darrell Bazzell**

APR 08 2002

**FROM: Paul Zimmerman, Wisconsin Farm Bureau Federation (608-828-5708)
Bob Denman, Wisconsin Farmers Union (715-723-5561)
Ron Statz, Wisconsin National Farmers Organization (608-643-3341)
Dick Hauser, Wisconsin Cattleman's Association (608-585-4808)
Bob Oleson, Wisconsin Corn Growers Association (262-495-2232)
Mike Carter, Wisconsin Potato and Vegetable Growers Association
(715-623-7683)
Keri Retallick, Wisconsin Pork Producers Association, (608-723-7551)
Bob Karls, Wisconsin Soybean Growers Association (608-274-7522)
Tom Lochner, Wisconsin State Cranberry Growers Association
(715-423-2070)
John Manske, Wisconsin Federation of Cooperatives (608-258-4400)
Bestsy Ahner, Wisconsin Fertilizer and Chemical Association
(608-249-4070)
Gregg Gleichert, Jennie-O The Turkey Store, (651-690-2546)
Dave Wantland, Growmark, Inc. (309-557-6359)**

DATE: April 4, 2002

RE: Nonpoint Redesign - Opposition to Mandatory Buffers

On behalf of the members of the above listed agricultural organizations, we respectfully request that there are no substantive changes to the nonpoint redesign administrative rules. Specifically, we oppose mandating buffers across the state, even with a delayed implementation date.

As you are aware, the Senate Environmental Resources Committee recommended modifications to the nonpoint rules to include mandatory buffer provisions. Per the committee's request, representatives of the agricultural community met with representatives from the environmental community to see if an agreement could be reached. However, after a couple of meetings, no agreement could be reached.

By in large, the agricultural community has supported the nonpoint redesign. Is it 100% satisfactory to Wisconsin farm families? No. However, the agricultural community believes that the nonpoint rules as passed by the DNR Board are workable. After many years of discussions, it is time to move forward with the rules without modifications.

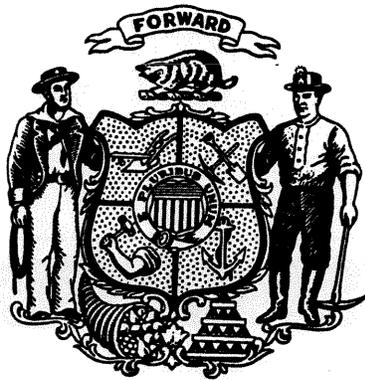
We also want to emphasize that buffers are just one of many best management practices (BMP) in the conservation toolbox that may be used by farmers to meet water quality goals and objectives. It is not necessary to mandate them statewide. But rather, they will be used where needed to meet the current five agricultural performance standards. Specifically, buffers may be a BMP used by farmers to meet a soil erosion rate of "T" or less. Buffers also may be used in areas where clean water diversions are required. Furthermore, buffers are likely to be used in many areas as part of farmers' nutrient management plans.

Having said this, we believe that the current agricultural performance standards are appropriate. However, if after time it is documented that water quality goals and objectives are not being met, the current nonpoint package contains language authorizing the DNR to develop state targeted performance standards to improve water quality. Obviously, buffers could be part of these targeted standards, if needed. We believe that this is the process that should be used.

Again, we respectfully request that you do not modify the nonpoint rules you passed earlier this year. Thank you for considering our views. If you have any questions or comments, please feel free to contact anyone of us to discuss this further.

Cc: Wisconsin State Legislature
DATCP Board
DATCP Secretary Jim Harsdorf

END



END

Kalies, Beata

From: Kalies, Beata
Sent: Tuesday, April 09, 2002 12:19 PM
To: Ott, Alvin; Loeffelholz, Gabe; Mueller, Virginia (Legislature); Ainsworth, John; Redell, Carol; Boardman, Kristina; Schneider, Marlin; Kieper, Cynthia L.; Reynolds, Marty; Reineking, Carol; Lassa, Julie; Kursevski, Dan; Hubler, Mary; Engelbert, Steve; Gronemus, Barbara; Cross, William; Suder, Scott; Emerson, Anne; Steinbrink, John; Gaston, Geoff; Plouff, Joe; Mielke, Jon; Williamson, Holly; Bies, Garey; Voight, Eric; Kestell, Steve; Matzen, David; Hahn, Eugene; Schubert, Heather; Merline, Paul; Hines, Jake; Hughes, Carolyn; Petrowski, Jerry; Marschman, Kathy; Patrosky, Mark
Subject: explanation for Reg. & Lic. Letter you received...

Dear Agriculture Committee Members and Staff:

I just wanted to clarify some mail that was delivered to the members from Department of Regulation and Licensing. The envelopes are addressed to committee members but the eight letters enclosed are just copies of those sent out to various professionals. All the letters are from Stephen V. Donohue, Vice Chair of the Examining Board of Professional Geologists, Hydrologists, and Soil Scientists.

I have been told that the reason the committee members were copied on these letters is to show members how the Examining Board of Professional Geologists, Hydrologists, and Soil Scientists is willing to work with other state agencies and other professionals in the field. Historically, they have been accused of not doing so.

Hope this helps. Please let me know if there are any additional comments or questions. Thank you.

Beata Kalies
Office of State Representative Al Ott

WISCONSIN DEPARTMENT OF
REGULATION & LICENSING

Scott McCallum
Governor
Oscar Herrera
Secretary



1400 East Washington Avenue
PO Box 8935
Madison WI 53708-8935
Email: dorl@drl.state.wi.us
Voice: 608-266-2112
FAX: 608-267-0644
TTY: 608-267-2416

April 4, 2002

American Institute of Professional Geologists
P.O. Box 957
Arvada, CO 80003

Dear Professionals:

The Wisconsin Examining Board of Professional Geologists, Hydrologists, and Soil Scientists would like to express our willingness to meet with other professionals regarding the Board's administration of rules promulgated under Wisconsin Administrative Code GHSS 1 through 4.

In the past, the Board has provided information to other environmental professionals regarding licensure requirements, regulation of practice, and related issues. The Board welcomes the opportunity to work with members of other professions to further the understanding of our regulatory responsibilities and how we administer the Board's Administrative Rules.

Please contact Mary Forseth, Director, Bureau of Business and License Professions, Wisconsin Department of Regulation and Licensing, at 608-266-3423, if you would like to attend one of the Board's regularly scheduled meetings.

Sincerely,

Stephen V. Donohue

Vice Chair, Examining Board of Professional Geologists, Hydrologists, and Soil Scientists

cc: Members of Senate Environmental Committee
Members of Assembly Committee on Agriculture ✓

**WISCONSIN DEPARTMENT OF
REGULATION & LICENSING**

Scott McCallum
Governor
Oscar Herrera
Secretary



1400 East Washington Avenue
PO Box 8935
Madison WI 53708-8935
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Voice: 608-266-2112
FAX: 608-267-0644
TTY: 608-267-2416

April 4, 2002

Don Reed
Southeastern Wisconsin Regional Planning Commission
P. O. Box 1607
Waukesha, WI 53187-1607

Dear Mr. Reed:

The Wisconsin Examining Board of Professional Geologists, Hydrologists, and Soil Scientists would like to express our willingness to meet with other professionals regarding the Board's administration of rules promulgated under Wisconsin Administrative Code GHSS 1 through 4.

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Sincerely,

Stephen V. Donohue

Vice Chair, Examining Board of Professional Geologists, Hydrologists, and Soil Scientists

cc: Members of Senate Environmental Committee
Members of Assembly Committee on Agriculture

WISCONSIN DEPARTMENT OF
REGULATION & LICENSING

Scott McCallum
Governor
Oscar Herrera
Secretary



1400 East Washington Avenue
PO Box 8935
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TTY: 608-267-2416

April 4, 2002

Helen Close
American Institute of Hydrology
2499 Rice Street, Ste. 135
St. Paul, MN 55113-3724

Dear Ms. Close:

The Wisconsin Examining Board of Professional Geologists, Hydrologists, and Soil Scientists would like to express our willingness to meet with other professionals regarding the Board's administration of rules promulgated under Wisconsin Administrative Code GHSS 1 through 4.

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Sincerely,

Stephen V. Donohue
Vice Chair, Examining Board of Professional Geologists, Hydrologists, and Soil Scientists

cc: Members of Senate Environmental Committee
Members of Assembly Committee on Agriculture

WISCONSIN DEPARTMENT OF
REGULATION & LICENSING

Scott McCallum
Governor
Oscar Herrera
Secretary



1400 East Washington Avenue
PO Box 8935
Madison WI 53708-8935
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Voice: 608-266-2112
FAX: 608-267-0644
TTY: 608-267-2416

April 4, 2002

Charlie Luthin
Wisconsin Wetlands Association
222 S. Hamilton St. Suite 1
Madison, WI 53703

Dear Mr. Luthin:

The Wisconsin Examining Board of Professional Geologists, Hydrologists, and Soil Scientists would like to express our willingness to meet with other professionals regarding the Board's administration of rules promulgated under Wisconsin Administrative Code GHSS 1 through 4.

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Sincerely,

Stephen V. Donohue
Vice Chair, Examining Board of Professional Geologists, Hydrologists, and Soil Scientists

cc: Members of Senate Environmental Committee
Members of Assembly Committee on Agriculture

**WISCONSIN DEPARTMENT OF
REGULATION & LICENSING**

Scott McCallum
Governor
Oscar Herrera
Secretary



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TTY: 608-267-2416

April 4, 2002

Dale Simon
Wisconsin Department of Natural Resources
Bureau of Fisheries, Management, and Habitat Preservation
101 S. Webster Street
Madison, WI 53707

Dear Mr. Simon:

The Wisconsin Examining Board of Professional Geologists, Hydrologists, and Soil Scientists would like to express our willingness to meet with other professionals regarding the Board's administration of rules promulgated under Wisconsin Administrative Code GHSS 1 through 4.

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Sincerely,

Stephen V. Donohue
Vice Chair, Examining Board of Professional Geologists, Hydrologists, and Soil Scientists

cc: Members of Senate Environmental Committee
Members of Assembly Committee on Agriculture

**WISCONSIN DEPARTMENT OF
REGULATION & LICENSING**

Scott McCallum
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1400 East Washington Avenue
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April 4, 2002

Dave Siebert
Bureau of Integrated Science Services
Wisconsin Department of Natural Resources
101 S. Webster Street
Madison, WI 53707

Dear Mr. Siebert:

The Wisconsin Examining Board of Professional Geologists, Hydrologists, and Soil Scientists would like to express our willingness to meet with other professionals regarding the Board's administration of rules promulgated under Wisconsin Administrative Code GHSS 1 through 4.

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Sincerely,

A handwritten signature in black ink, appearing to read 'Steve Donohue', written over a horizontal line.

Stephen V. Donohue
Vice Chair, Examining Board of Professional Geologists, Hydrologists, and Soil Scientists

cc: Members of Senate Environmental Committee
Members of Assembly Committee on Agriculture

**WISCONSIN DEPARTMENT OF
REGULATION & LICENSING**

Scott McCallum
Governor
Oscar Herrera
Secretary



1400 East Washington Avenue
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FAX: 608-267-0644
TTY: 608-267-2416

April 4, 2002

Alice Thompson
Thompson Associates Wetland Services
1320 Manitowoc Avenue
South Milwaukee, WI 53172

Dear Ms. Thompson:

The Wisconsin Examining Board of Professional Geologists, Hydrologists, and Soil Scientists would like to express our willingness to meet with other professionals regarding the Board's administration of rules promulgated under Wisconsin Administrative Code GHSS 1 through 4.

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Sincerely,

Stephen V. Donohue
Vice Chair, Examining Board of Professional Geologists, Hydrologists, and Soil Scientists

cc: Members of Senate Environmental Committee
Members of Assembly Committee on Agriculture

WISCONSIN DEPARTMENT OF
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April 4, 2002

Scott Storlid
Natural Resources Consulting, Inc.
120 W. Windsor Avenue
Cottage Grove, WI 53527

Dear Mr. Storlid:

The Wisconsin Examining Board of Professional Geologists, Hydrologists, and Soil Scientists would like to express our willingness to meet with other professionals regarding the Board's administration of rules promulgated under Wisconsin Administrative Code GHSS 1 through 4.

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Vice Chair, Examining Board of Professional Geologists, Hydrologists, and Soil Scientists

cc: Members of Senate Environmental Committee
Members of Assembly Committee on Agriculture

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April 4, 2002

Michael Collentine, AIPG
MWH
1 Science Court
Madison, WI 53711

APR 11 2002

Dear Mr. Collentine:

The Wisconsin Examining Board of Professional Geologists, Hydrologists, and Soil Scientists would like to express our willingness to meet with other professionals regarding the Board's administration of rules promulgated under Wisconsin Administrative Code GHSS 1 through 4.

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Stephen V. Donohue
Vice Chair, Examining Board of Professional Geologists, Hydrologists, and Soil Scientists

cc: Members of Senate Environmental Committee
Members of Assembly Committee on Agriculture ✓

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April 4, 2002

Andrew Graham, AIPG
Leggette, Brashears, and Graham
6525 Grand Teton Plaza
Madison, WI 53719

Dear Mr. Graham:

The Wisconsin Examining Board of Professional Geologists, Hydrologists, and Soil Scientists would like to express our willingness to meet with other professionals regarding the Board's administration of rules promulgated under Wisconsin Administrative Code GHSS 1 through 4.

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cc: Members of Senate Environmental Committee
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