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MINUTES
BOARD OF AGRICULTURE, TRADE AND CONSUMER PROTECTION
February 12, 2002

Prior to the Business meeting, the board members had an informal discussion with State Representative Al Ott, Representative John Ainsworth and a Legislative Aide from Senator Hansen's Office. No action was taken during this information discussion. Representative Ott's Challenge-Stop using excuses, when there is a problem, address it. The Board needs to provide the leadership and get people behind them to move the agriculture industry forward and to fight for the future of agriculture and the dairy industry in Wisconsin.

Call to Order: Chair Mike Dummer called the meeting to order at approximately 9:15 a.m. at the Department of Agriculture, Trade and Consumer Protection, Madison, Wisconsin.

Members Present: Mike Dummer, Pete Knigge, Cindy Jarvis, Jeff Pickerign, Bev Anderson, Bill Geary, John Malchine, and Jim Holte.

Minutes: Pete Knigge moved to approve the minutes from the January 10, 2002 Board meeting. Bill Geary second. **Board approved motion unanimously.**

Board Member Matters:

Anderson: Consumer Protection-the top issues dealing with consumer protection are changing with technology being a leader in complaints; land use issues; Secretary's speech in Juda, Wisconsin on his version of leadership was very good.

Pickerign: Congratulations to the Secretary on his confirmation; land-use value assessment-farmers in his area are relieved, however wish that woodland areas would be put into the formula; in response to Representative Ott's challenge, Pickerign would like to see the Board become more economical; FFA students have been marketing ice cream at his high school every Friday.

Malchine: Congratulations to the Secretary for his confirmation; received wonderful feedback on the Secretary's speech in Juda; weather-nice warm dry winter; initiative of Governor for shared revenues is being misconveyed to public, feels it is a move in the right direction to make people more accountable for their budgets.

Holte: Attended conference in Denver on the National Cattlemen's Beef Association which is the least impacted by government programs in country. President shows this organization to be the only agriculture organization he addressed in the last number of years. President Bush was also in attendance.

Jarvis: Weather; attended Agriculture Day at the Capitol last week in January. It was a good day to meet with legislators and discuss issues and encouraged them not to lose

sight of non-point issues. Governor's speech was well received by the people in attendance; use-value assessment-education needs to be done in both areas so farmers understand the advantage but also for the non-farm agriculture community; forest products are something that should be looked at. Would like to see that pursued. Has been asked to be a meat moderator for FFA next month and is excited.

Geary: Congratulations to Secretary Harsdorf on his confirmation; attended the Wisconsin Pork Producers annual meeting, the Wisconsin Cattlemen's annual meeting and the Wisconsin Agri-Business Council annual meeting all conducted together in Wisconsin. The attitude was very positive. Spoke to a "farmers night" put on by the local area Lion's Club. 92 farmers were present in the Markisan area. As they talked about various issues, and rules in lights in the farming community, non-point was without question, perceived with a very positive attitude. Most farmers at the function were under the age of 40; Casino's and their compacts.

Knigge: Has been an excellent winter to work with livestock because of weather; there has been a 15 cent drop in cheese prices and milk prices are softening, but there should be respectable prices through the summer. Had a meeting last week at the Department of Commerce with the Auther Anderson consulting firm. They are specifically trying to develop a message for the governor to work with, and looking for what the Department of Commerce, the Department of Agriculture and the dairy industry can do for the Wisconsin dairy industry. They are trying to develop a unified voice and had some excellent input from a wide cross section of Wisconsin's dairy industry. At another meeting last week with Tri-County Land Conservation Committee, representing Winnebago, Calumet, and Outagamie counties, each county has declined to enroll in CREP program at this point. Keith Voye was there and represented the Department very well. Next month will have the opportunity to be guest lecturer at the University of Wisconsin-Oshkosh relating to agriculture and the environment. The course title is the "eco system in crisis."

Dummer: Congratulations to the Secretary on his confirmation. Thank to Dave Jelinski for coming to La Crosse County to talk about CREP. Did a half-hour radio show with La Crosse County Farming Family Living agent and spoke predominantly on trade and consumer protection. In regards to Representative Ott's challenge: we have to recognize agriculture will look different, and we have to recognize some of the outcry from out in the country is simply those who resist change. Then you have to see the people who struggle to adjust to the change. They deserve some help and we need to help open the road to those who openly grasp the opportunity for change and make sure we remove the obstacles out of their way so they can move ahead.

Secretary's Report: The secretary updated the board on the following items:

- Budget: the Governor's message is clear. There is a \$1.1 billion shortfall and we are not going to fix that problem by raising taxes. There has so far been a 11 percent cut in the budget in the Department. This cut has not been done unilaterally. The Marketing Division is now the Division of Economic Development. We have saved

\$260,000 by doing this. The division of Food Safety and Animal Health will be working more closely together. Consumer Protection will be moving to the ground floor of the building, eliminating the regional office. Overall, this has effected 30 people with 10 layoffs in the department, down from the original 38 planned.

- His appointment as Secretary was confirmed by the Senate. Appreciates support.
- La Crosse Farm Show. Good opportunity to see where the industry sees itself.
- Attended a dairy forum in Pheonix, AZ for a day. Incredible to talk to people from the west coast and throughout the country who have a deep concern for where the dairy industry is going. Seventy permits have been stopped because the environmental regulations in California and there is deep concerns that while they have built additional cheese plant capacity, they may not have the milk to fill it.
- Attended the Wisconsin Pork Producers Winter Expo in the Dells and spoke to both them and the Wisconsin Cattlemen
- Went to the Wisconsin Independent Livestock Dealers and Auction Market Association where they have raised a lot of concern over the Animal ID issue and how it will impact them.
- Value-Added Conference in Eau Claire with over 250 people looking to try new innovative ideas and have been successful in doing that.
- Attended the Graziers Conference in Stevens Point with about 300 people in attendance that was very well received. It was the first time the Secretary has participated in the Graziers Conference.
- Joe Chrenlich, CEO of the State Fair, was at the agency to meet with the all the state fair superintendents from the livestock sector. Joe being the new CEO, thought it was important to establish a good working relationship between them. Good things are happening at State Fair Park
- Trying to establish a monthly program in Eau Claire on Consumer Protection issues.
- Chris Wallace from 20/20 came over to do a story on a very successful effort that our consumer protection had last summer that the court order taking on the door to door sales from the Kirby Vacuum Company using misrepresentation in terms of entering person's home trying to make sales.
- Thank you to Secretary Darrell Bazzell and Al Shea for their efforts in a cooperative step to develop non-point rules.

Public Appearances: Representative DuWayne Johnsrud and Representative Al Ott testified to the Board they support ATCP 50 and discussed the process for reviewing the rule in the legislature. They also thanked the Board, Secretary Harsdorf and the staff for their hard work with the rule.

Darrell Bazzell, Secretary of the Department of Natural Resources, and Al Shea spoke to the Board regarding their strong support of ATCP 50. A few weeks ago, the Board of Natural Resources passed their side of the package. Special thanks to former Chair, John Malchine, current Chair, Mike Dummer, Secretary Harsdorf, Nick Neher, Dave Jelinski and staff who worked tirelessly on this package.

Ron Statz, representing the National Farmers Organization, spoke to the Board regarding their support for ATCP 50. Statz stressed ATCP 50 is just one piece of the package and

it is important to realize that we need to have the partnership with government and citizens. Allowing a funding partnership is a key source in the package.

Bill Pielsticker, representing Wisconsin Trout Unlimited and The Clean Water Coalition, spoke to the Board regarding their support for ATCP 50. The group has concerns regarding vegetative buffer strips to protect rivers, streams and lakes and requirements for cost sharing for county ordinances. They believe that counties should retain local control and the flexibility to determine more site-specific solutions to challenging issues.

Caryl Terrell, representing the Sierra Club-John Muir Chapter, spoke to the Board regarding their support for ATCP 50. Terrell was pleased that the rule now includes requirement for the NRCS 590 standard based on phosphorus. The club appreciates the modifications made to the economic hardship formula and believes that the new formula will best ensure that we spend our limited funds on projects that have the greatest chance of success and farmer commitment. We also appreciate the rules recognition of the importance of vegetative buffers. We agree that it is important to require an extensive maintenance period on installation of these buffers, similar to the requirements of the CREP program.

Greg Gliechert, representing the Jennie-O Turkey Store, spoke to the Board regarding their support for ATCP 50. They do have a concern on implementation and the competitiveness of farming in today's economy in Wisconsin. Specifically with statute 50.60 and the review of county and local ordinances as it relates to water quality. Gliechert thought that the provision was too weak and did not follow statutory direction under 92.15.

David Crass, representing the Dairy Business Association of Wisconsin, spoke to the Board regarding their support for ATCP 50. Overall, they support the rule. However, they feel that provision 50.60 is too weak and did not follow the statutory direction under 92.15. Crass went on to provide the board with his legal arguments as to why ATCP 50 was legally inconsistent with the statutory requirements that dealt with local ordinances.

Bob Denman, representing the Wisconsin Farmers Union, spoke to the Board regarding their support for ATCP 50. Denman has followed this process since the beginning of the Outreach Advisory Committee and could not believe the number of issues that were on the table and the different positions that were taken by the interest groups. He never thought a draft would come together between farmers and environmentalists, however is pleased that this has happened.

Paul Zimmerman, representing Wisconsin Farm Bureau, spoke to the Board regarding their support for ATCP 50. Zimmerman feels this is a fair rule as it relates to agriculture. Farmers are willing to change things that improve water quality and believes that cost sharing is an effective part of this rule that will assist farmers in the cost associated with implementing these new rules.

ATCP 50-Land and Water Resource Management (Final Draft) – Nick Neher, Administrator for the Division of Agricultural Resource Management, and David Jelinski

spoke to the Board on approving the final draft of ATCP 50. Moved by Jim Holte and seconded by Cindy Jarvis, to amend proposed s. ATCP 50.08(3)(d) as follows:

(d) The landowner's cost to take or keep land out of agricultural production, if the landowner must take or keep more than ½ acre out of agricultural production in order to install or maintain the conservation practice. The landowner's cost, determined on the date of the cost-share contract, equals the sum of the ~~present values of the~~ annual costs that the landowner will incur over the maintenance period specified in the cost-share contract. The landowner's annual cost, for each year of the maintenance period, equals the number of affected acres multiplied by the per-acre weighted average soil rental rate in the county on the date of the cost-share contract. ~~The present value of each year's cost is that cost discounted at 3% per year, from the year of the cost share contract to that year.~~

Approved Unanimously.

Moved by Bev Anderson, seconded by Jeff Pickerign, to amend proposed s. ATCP 50.16(5) as follows:

(5) MONITORING COMPLIANCE. (a) A county land conservation committee may inspect a landowner's compliance with the conservation standards under sub. (1) and any farm conservation plan under sub. (4). A county land conservation committee shall inspect each landowner's compliance with the conservation standards under sub (1) at least once every 6 years, or on another basis that the secretary approves in writing after consulting the LWCB.

Approved Unanimously.

Bill Geary moved to approve the final draft of ATCP 50 with the amended proposals. Jim Holte second. **Motion approved unanimously.**

ATCP 30 – Atrazine for 2003 (Scope Statement) – Nick Neher asked the board to approve a scope statement for ATCP 30 for the department's annual atrazine rule update. Bev Anderson moved to approve the scope statement. Pete Knigge second. **Motion approved unanimously.**

ATCP 16 – Kennel Regulations (Scope Statement) – Dr. Clarence Siroky, State Veterinarian and Administrator for the Division of Animal Health, and Dr. Yvonne Bellay asked the Board to approve a scope statement for ATCP 16 which deals with kennels and pet facilities regulation. Pete Knigge moved to approve the scope statement. Bev Anderson second. **Motion approved unanimously.**

State Budget Adjustment Bill – Secretary Harsdorf and Barb Knapp updated the Board on the State Budget Adjustment Bill. There have been 10 layoffs in the Department. Georgia Pedracine, Human Resources Director, has been assisting those effected by the cuts with finding job and assisting with resumes and applications. The Secretary spoke to

each individual division explaining the cuts. ACT 16, the Biennial Budget, took a 5% cut. There was a 1.47 percent GPR lapse and a 3.5 percent lapse with the budget reform act.

Gypsy Moth Report – Nick Neher and Steve Millet updated the Board on the Gypsy Moth Program. In 2001, there were 30,000 traps set in Wisconsin and 378,939 catches. For 2002 there are 108 sites in 24 counties that are going to be used as spray blocks for a total of 365,000 acres. Wisconsin currently sprays with Pheromone Flakes and Bacillus Thuringiensis subsp. kurstaki (Btk.) which is applied between May 7 and May 31 with two treatments one week apart. The Pheromone Flakes are applied in late June with just one treatment. Btk is not harmful to humans, wildlife, pets, birds or fish. Pheromone Flakes prevents males from finding females and is used in low populations. Pheromone Flakes only affects gypsy moths.

Consumer Protection Report – Fran Tryon, Acting Administrator for the Division of Trade and Consumer Protection, and Jim Rabbit updated the Board on Consumer Protection issues. The Division has a core budget of \$3.5 million, however, the Consumer Protection division has returned over \$8.8 million to Wisconsin consumers. Other issues are as follows: gas price gauging-gas companies that raised prices during the September 11 attacks have returned \$500,000 to the consumers or donated to charities; Do not call list-draft rule will be presented to the Board at the March 12 meeting. There are scheduled hearings taking place in April and May; Internet charges-there have been many complaints regarding internet charges that the consumer was not made aware of prior to signing up for their particular carrier. Internet Service providers were part of the top ten list of consumer complaints. Other products of the Top 10 consumer complaints in order of ranking were as follows: (1) Telecommunications (2) Landlord/Tenant (3) Home Improvements (4) Gifting Pyramid Scheme (5) Mail Order Sales (6) Investments (7) Motor Vehicle Repairs (8) Telemarketing (9) Internet Service Providers (10) Magazines.

Rural Energy Management Advisory Council Report – Stan Shaw, Administrator for the Division of Marketing, asked the board for their consideration for appointments of John Bahnbub, Chuck Cloninger, Ken Dixon, John Farrow, Jeff Opitz, and Stan Shaw to the Rural Energy Management Advisory Council. Shaw reported that a report on the REMC council will be provided to the Board at a later date. Jim Holte moved to approve the members of the council as presented. Jeff Pickering second. **Motion approved unanimously.**

Board Schedule: The Board of Agriculture, Trade and Consumer Protection will meet on Tuesday, March 12, in Green Bay at the Trade and Consumer Protection Regional Offices; Thursday, April 11 in Madison; Tuesday, May 14 in Madison and Thursday and Friday, June 6-7 in Wisconsin Rapids in conjunction with the Alice in Dairyland Finals.

Adjournment: By unanimous consent, the meeting was adjourned at 3:45 p.m.

Jim Holte, Secretary

Mike Dummer, Chair



State of Wisconsin \ DEPARTMENT OF NATURAL RESOURCES

Scott McCallum, Governor
Darrell Bazzell, Secretary

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April 3, 2002

Honorable Alvin Ott, Chairman
Assembly Agriculture Committee
Room 318 North, State Capitol
Madison, WI 53708

Honorable James Baumgart, Chair
Senate Environment Committee
Room 306 South, State Capitol
Madison, WI 53707

Subject: ATCP 50 Rule

Dear Representative *al* Ott and Senator *Jim* Baumgart:

I am writing to express my support of ATCP 50, the rule being brought before you on April 4, 2002 at your joint information meeting.

As you know, ATCP 50 is the companion rule to the Department of Natural Resources (DNR) nonpoint source performance standards rule package. It establishes the critical technical standards needed by farmers to implement DNR rules and has evolved in parallel with the DNR rules. I know the Department of Agriculture, Trade and Consumer Protection has worked diligently over the past four years with a wide variety of affected parties to develop the soundest rule package possible. As did the DNR in its rule-making effort, DATCP had to grapple with many difficult issues in completing its work on ATCP 50. I am confident that DATCP staff, Secretary Harsdorf and the Agriculture Board have forwarded a rule that both protects the environment and is workable for agriculture in Wisconsin.

Thank you for the opportunity to express my position on the proposed ATCP 50 rule.

Sincerely,

Darrell
Darrell Bazzell
Secretary

Cc: Secretary James Harsdorf
Representative DuWayne Johnsrud

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.

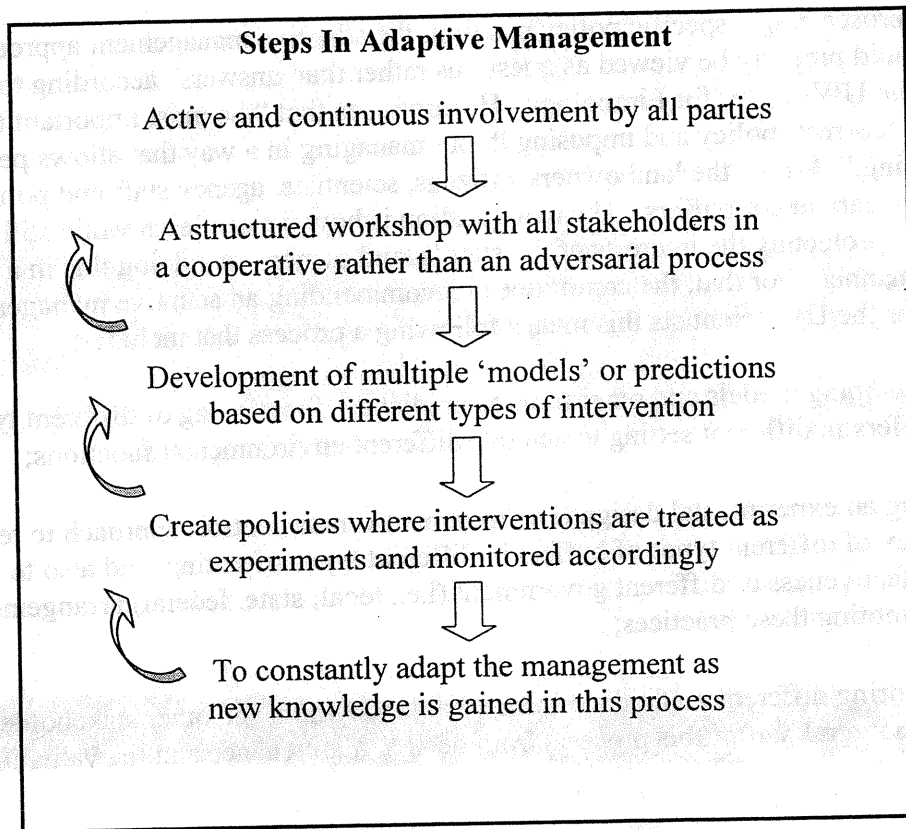
Rather than proscribing a specific policy position, the adaptive management approach states that “Policies should properly be viewed as questions rather than answers” according to Gerry Peterson at the UW Center for Limnology. He continues that “the most important thing is not selecting the ‘correct’ 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 settings 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 settings, 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.