PROCEEDINGS

Starting the Dialogue:

Watershed Planning in Winnipeg and the Surrounding Area

A public forum sponsored by:

Winnipeg's Civic Environment Committee
Manitoba Eco-Network
Manitoba Wildlands

Tuesday, May31st, 2005
Winnipeg, Manitoba, Canada

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A PUBLIC FORUM ON WATERSHED PLANNING

May 31, 2005
Manitoba Children's Museum, The Forks, Winnipeg, Manitoba, Canada

Sponsors

- Manitoba Eco-Network http://www.mbeconetwork.org
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Planning Committee

- Teri Willard - *Winnipeg's Civic Environmental Committee*
- Gaile Whelan Enns - *Manitoba Wildlands*
- Serge LaRochelle - *Save Our Seine River Environment Inc.*
- Glen Koroluk - *Manitoba Eco-Network*

Participants and Presenters

Note: PowerPoint presentations are available for download on the Manitoba Eco-Network web site, along with this proceedings document at:
http://www.mbeconetwork.org/projects_water.asp

- Janine Gibson - *Moderator and co-chair of the Manitoba Water Caucus*
- Patrick Watson - *Presenter, Seine/Rat River Conservation District*
- Serge LaRochelle - *Presenter, Save Our Seine*
- Cheryl Heming - *Presenter, City of Winnipeg*
- Lorimer Thompson - *Presenter, Manitoba Water Stewardship*
- Stewart Grubb - *Presenter, Emmons & Olivier Resources*

Attendance: 90

Opening Remarks and Introduction

Janine Gibson, Co-Chair, MEN Water Caucus and moderator of Forum

Janine Gibson, *when not living on her organic farm cooperative, works as an organic agriculture consultant, inspector and international trainer of inspectors. As a volunteer, she serves as the National President of Canadian Organic Growers (COG). One of COG's primary goals is to assist farmers and gardeners in developing sustainable practices of soil building and cultivation through education and demonstration. Janine also sits as the co-chair the Organic Food Council of Manitoba - the regional affiliate of COG and represents the Pansy Groundwater Committee at the Manitoba Eco-Network Water Caucus*.

Ms. Gibson welcomed all participants and attendees to the forum and gratefully acknowledged the sponsors for the event.

She introduced Mr. Glen Koroluk, the Coordinator of the Manitoba Eco-Network Water Caucus, and of this evening's Watershed Planning Forum, and thanked him for all of his work to make the event a reality.

Presentations

Patrick Watson, Seine/Rat River Conservation District

"Building a Sustainable Future with Local Knowledge and Innovation"

Patrick Watson *works as the Manager for the Seine-Rat River Conservation District. He has been with the Conservation District since September 2003 and has been largely involved with ensuring its successful growth and development. He grew up in Winnipeg but spent most of his spare time exploring the diverse countryside that Manitoba has to offer. He holds an Environmental Science degree from the University of Manitoba and participates regularly in continuing education courses in Geographical Information Systems, and watershed management.*

Mr. Patrick Watson, Seine River Conservation District:
Good evening everyone.

My name is Patrick Watson and I am going to make my presentation fairly short because I know we are probably going to have a really good discussion later on this evening. I'm the manager with the Seine/Rat River Conservation District (CD) based in La Broquerie.

I will go through just a general definition of what a conservation district is, talk a little bit about the history of the conservation district program in Manitoba, talk a little bit about what the Seine/Rat River Conservation District does, some of the programs that we do,

and then introduce some of the urban programming we can get involved with as we grow and expand and involve more municipal partners, such as Winnipeg.

At that point, Serge is going to talk a little about more about some of the discussions between myself and Save Our Seine (SOS) about our future.

So I will begin with a basic definition of what a conservation district (CD) is. It is a local, organization of local people working together.

Conservation Districts Program

To give you a short history of the CD program, in the early 1970s there was abundant flooding in certain areas around Manitoba. Soil loss and soil erosion were a big concern. A lot of uncoordinated drainage and land clearing spurred the concept of working together as a group of people within watersheds, managing within watersheds.

The first CD in Manitoba formed in 1972. The first four CDs - Whitemud Watershed, Turtle River, Cooks Creek Conservation District, and Alonsa Conservation District - were all formed with a drainage mandate.

After that there was a new Conservation District Act and 16 CDs were formed over time, with more of a conservation-based mandate. All CDs throughout Manitoba operate under the Conservation District Act.

By 2007, we are predicted to have approximately 20 CDs throughout Manitoba.

Those 16 current conservation districts represent 119 rural and urban municipalities throughout Manitoba. The basic principles of the conservation district program are the provincial/municipal partnership funding.

Municipalities contribute a levy, which is matched at a 3 to 1 level by the province; so the municipalities end up providing 25 per cent of the funding. All of the conservation districts are watershed based and focused, and now they are also required to have boundaries that are watershed-based. Some of the older conservation districts are still on municipal boundaries, and the province is trying to work with those CDs to change the boundaries to be more watershed aligned.

The great thing about the conservation district program is that it is also based on local ideas and decisions.

One thing, as a manager of a conservation district, and all of the other managers can attest to this, is that we do not dictate to the municipal representatives or the ratepayers what action should be taken. We try to focus on listening to ideas and concerns, and then try and set some priorities and put our resources towards those priorities.

Conservation districts are looked upon as a one-stop resource management shop. We do not have programs related to every aspect of watershed management, but we generally know the people to put in contact with other people so they can access other funding programs.

Incentives are locally derived and the programs that we offer at the conservation district are created by the local people. The people decide what the cost sharing arrangements are going to be.

As managers of conservation districts, we try to stress to people that they have to be patient, and that we can get a lot of important, big items addressed -- it is just going to take some time.

The basic mandate of the conservation district program is to promote the sustainable use and management of land, water, related resources in Manitoba. Our mandate at the Seine/Rat River CD essentially parallels the provincial mandate. The vision is that everyone who lives within a watershed will understand the fact that we all have an impact on the quantity and quality of water. The most important thing is managing the land and not just trying to manage within the municipal ditches or within the waterways.

Seine/Rat River Conservation District

The Seine/Rat River Conservation District was established January 2002 through a memorandum of understanding. They were given a direction from the province that within three years they had to involve more municipal members, and they were very successful in doing that. Since I have been with the CD, we have grown from including the RM of La Broquerie to involve the RM of St. Anne, the City of Steinbach, and now very recently, in April 2005, the RM of Hanover.

We are also currently in discussions, with seven potential new municipal partners in Southeast Manitoba. So this conservation district is really growing quite fast.

There are really good organizations throughout Manitoba that we try to work with, and we encourage them to approach us with project ideas. Public education is a smaller component of our activity, simply because of our limited staff; myself and an administrator are the only two staff members.

We also have some special projects; one we are quite proud of and have just recently finished, is the Seine River Survey and Restoration Planning Project. We wanted a really useful document as an end result, and what we have ended up with is a ‘to do’ list of 50 projects along the corridor of the Seine River. Each is prioritized as being low, medium, or high priority. This has become our list of things that we can just check off as we go down the line. We won’t likely undertake all of the projects, but we want to partner with other organizations, like SOS, to get them all done.

We did some water quality testing, we are quite involved with GIS, and we all realize it is an important part of watershed management. We have done some nature trail development areas and we just recently contracted North/South Consultants to do a Rat River watershed study that's funded by the Fisheries Enhancement Initiative (FEI). Both of the riparian studies were funded through FEI and through the Department of Fisheries and Oceans.

These are just some examples of potential urban projects and I am hoping to learn a lot today from some of the other speakers about how else we can become involved because we are fairly new to these initiatives.

Looking ahead, we are trying to work in parallel and think in parallel with the Manitoba Water Strategy. We are quite familiar with the Water Protection Act. We are trying to figure out urban participation and cost sharing, and how the urban centres will contribute. It is a lot different, because currently municipalities contribute based on a portion of land assessment.

Thank you again and thanks to all of our sponsors.

Serge LaRochelle, Save Our Seine

Serge LaRochelle *has worked for Resource Conservation Manitoba in a variety of capacities since 1999, most recently as coordinator of the Commuter Challenge, a program designed to make citizens reduce their greenhouse gas emissions when they commute to work. Serge has a Bachelor of Commerce degree from the University of Ottawa, and a Masters in Natural Resources Management from the University of Manitoba. As a volunteer, he is the current Treasurer of Save Our Seine River Environment Inc. and has been active with the group for a number of years.*

Mr. Serge LaRochelle, Save Our Seine:
Save Our Seine is a community group. A lot of the work at the board level is done by volunteers and by a dedicated coordinator, David Danyluk, who couldn't be here this evening and sends his regrets. Bev Sawchuk and David Watson, who are board members, are here today

I just want to give a quick overview of what Save Our Seine has been working on, focus in on the public education and outreach components of our work, and how an organization like Save Our Seine here in Winnipeg can potentially help with some of the objectives and some of the projects that the Seine/Rat River Conservation District has planned.

Of course, the Seine River is just one of several creeks and rivers throughout the city, and is obviously an important component of the numerous watersheds here in the City of Winnipeg.

There is an understanding from the residents along the Seine River - from the organization, from the volunteers, from those that have helped out around the river itself - that the perception of the river has changed over time. It has gone from a stagnant, algae choked, mosquito breeding, cesspool and lifeless ditch, to being what we believe is a beautiful area. The Bois des Esprits, which is an 80-acre 'A-quality' forest in the south of Winnipeg, is just one example of the beauty that exists along the Seine River and in the Seine River watershed. Through dedication of volunteers, and citizens, and folks like you and I, we have helped to create some awareness, and also have done some things on the ground to help the state of the river.

For 15 years now, Save Our Seine has been involved with annual greenings, which involve community members, school groups, and folks coming out and giving a hand, planting trees, and protecting trees all along the 26 kilometres of the Seine River here in Winnipeg.

We are also involved in annual cleanings, picking up garbage, and hauling old hot water tanks from the river. Save Our Seine has helped to improve the state of the river and this has occurred with the help of volunteers and through the assistance of the City of Winnipeg.

Save Our Seine Programming

We are holding our second annual river event. It is the first in a series of events that we like to look at in terms of creating education and creating outreach around the importance and the beauty of the Seine River, and the importance of its natural habitat here within an urban setting. We invite you all to come out; this year's event will be at the John Bruce Park, We are doing some planting, providing tours of the Bois des Esprits, and also providing paddling trips. We are not only helping to improve the environment of the Seine, but also creating awareness of the importance of the natural beauty that exists there, and some of the things that we can do to enjoy that river.

Throughout the year, we are engaged with a number of schools across the city to continue some of the work to protect habitat and enhance the natural environment.There is a good photo here of some Glenlawn Collegiate students who helped to rally support for the protection of the Bois des Esprits - the 80 acre forest in the south of the city.

Now we are examining an ‘adopt a park’ program in conjunction with the Bois des Esprits. Now that this area has been saved there is still work to be done in terms of education, and in terms of maintenance of the area. We are also looking to continue the engagement with schools to build a stewardship component around that natural area.

Seine River Greenway Map

I am also really excited because we will soon be launching our Seine River greenway map, which is the first time the 26 kilometres of the Seine will actually be on a map. It will show natural features and historical features. Denise Savoie, a local artist, has designed the watercolour and the work for it. There will be at least 12 different layers, so it will be a digitized map as well a paper version.

The map is designed to provide information to those who are interested in seeing and experiencing the Seine River, both citizens of Winnipeg and tourists and visitors to our city.

The larger objective for the map relates to some of the objectives of the conservation district, which are to build an educational product, provide opportunities for citizens, and provide opportunities for school children to go out on to the river to do some water quality testing. For instance, we want them to get a sense of where the nice spots are on the river, where the dangerous spots are, where the spots that they feel comfortable and safe, and where the spots are that they could identify for some potential improvement. This version of the map will be for the urban area. What we potentially see is extending that type of a project out to areas south of the Perimeter, and to working potentially with the conservation district to do that.

Save Our Seine Volunteers

Our volunteers work very hard and they have been recognized through a number of different awards from the Canadian Environmental Award to the Manitoba Naturalists Society's Prairie Crocus Award, the Manitoba Eco-Network's Group Award, and the

Mayor's Volunteer Service Award. Bev Sawchuk was busy last year shaking hands and accepting awards, and that's obviously thanks to the dedication of citizens and volunteers and folks who have come on board with us.

As a final note, I think there is an interesting opportunity for Save Our Seine to learn from the experiences that we have had here in the city to develop relationships with the conservation district, and to see what type of a role our relationship with the City of Winnipeg can have in expanding the work that we do with conservation districts outside of the city. Our mandate is to grow and our focus is to look at more watershed level pieces and work with groups outside of the city boundary. We are interested to see what the roles will be, not only for the City of Winnipeg, but also for other groups and other citizens.

Thank you all for your time, and I am looking forward to the discussion later.

Cheryl Heming, City Naturalist, City of Winnipeg

"Winnipeg and Watershed Planning"

Cheryl Heming *has a B.Sc. in Agriculture from the University of Manitoba and has been employed with the City of Winnipeg since the late 1970's. Since becoming City Naturalist in 1993, she has changed the focus of the branch towards the protection, enhancement and preservation of natural heritage and environmentally sensitive areas within Winnipeg. She is responsible for about a 1000 hectares of natural heritage areas in the city with respect to inventory, assessment, preservation, management and environmental education. New endeavors for the branch include projects involving technological solutions to habitat and heritage protection, a new sensitive lands plan for Winnipeg and support for stewardship organizations.*

Ms. Cheryl Heming, Naturalist, City of Winnipeg:
Usually I don't talk about watershed planning. In my job as city naturalist, I am responsible for grants for maintaining natural areas in the city -- about 1,000 hectares. We know this because we have created a digital inventory of all of the natural areas across the city, both on public and private land.

Based on the natural areas plan, which originally came out of Calgary in the 1990s, we organized the branch to focus on five target areas. Those were assessment, the inventory, the actual management (even though there are limited funds for that), enhancement, restoration, and environmental education.

When I was asked to speak tonight on watershed planning, I had to really pull a little bit back from what I particularly focus on in my work. But in focusing on natural areas in the City of Winnipeg, one ends up doing just about everything related to natural areas that can be imaginable.

I wanted to show you a map of the waterways in the City of Winnipeg, particularly what are known as the regulated waterways of the City of Winnipeg. That means they are large enough to fall under the Waterways Bylaw of the City of Winnipeg. This bylaw prohibits certain activities from occurring within 350 feet of the bank of the larger

regulated waterways and within 250 feet of the banks of these smaller regulated waterways.

Anything smaller than these does not receive that level of protection. There are quite a few instances involving these smaller unregulated waterways and some very interesting initiatives that have happened in the past 40 years.

The boundary of the City of Winnipeg does not conform to any particular watershed so I end up working with stewardship groups such as the Save Our Seine and other stewardship groups across the region, based on our political jurisdiction of the city.

Winnipeg Since Settlement – Challenges

In this short time that I have to talk to you, I wanted to try to paint a picture in terms of what has happened here since settlement. The bottom line is that close to 100 per cent of wetlands across the city have been eliminated.

Old oxbows that used to exist off the Seine have been buried and covered with asphalt. We have smaller creeks that didn't fall within that legislated waterway requirement; so culverted, buried, Beaver Dam Creek ended up half underground in the Westdale area in the 1960s. We have Truro Creek - there actually used to be three smaller creeks in that entire area, and two of those areas were eliminated to make Truro. The other part of it has of course gone under the airport.

To be honest, this situation is very common in any city. There are a lot of highly impermeable areas, simply because of the way our cities are built. We use a lot of asphalt, a lot of concrete. That doesn't mean we are 'worse' than other cities, it is just the way a city is built.

Unlike a lot of different urban areas, Winnipeg does not take its drinking water from its waterways. Our drinking water comes from Shoal Lake, and this has been the situation for 100 years or so. All of that water, once used, also pours into all of the tributaries that we have.

We also have a lot of salt, fertilizer, and pesticides in our waterways that comes from the streets, and runs off from the lawns. In most cities, towns, a lot of people don't know that the used water from their bathroom and their kitchen sink ends up in one the tributaries around them. There can be a real disconnection between seeing what you flush and realizing that this ends up in the system.

This is not to say that people aren't trying to do better, that we don't have best management practices to control salt, or that people aren't out there trying to do something greener.

Winnipeg River Banks

In the assessment of what a watershed is like, one of the key things that the U.S. Army Corps of Engineers talks about is the condition of the river banks, as an indicator of the health of the system.

One of the things that I have always been taken aback by is the fact that we tend to take for granted as status quo is that we have a tremendous volume of collapsing river banks

all across the Winnipeg system. It is fairly obvious along the Red River, but even on the LaSalle River, where we do not have as many urban pressures, there are some very large tracts here and there of collapsed banks. This is an indication of the health of the system. If I look at this with my 'habitat hat' on, and I look at the volume of habitat, or the natural area river banks that are left within this jurisdiction, I would say that over 95 per cent are degraded, damaged, or destroyed as compared to the original historical conditions.

Even the areas that we recommend for preservation are not without some sort of damage. When we actually recommend an area for preservation, we are looking for something that mimics or is very close to an original river bottom forest that would have existed or a riverbank that would have existed pre-settlement.

Plan Winnipeg

To get to some information that is a little more optimistic, in the last 15 years some really good things have started to happen. In the '60's, '70's and '80's, things were done differently, but beginning in the early 1990s, there was a shift as we got Chapter Three of the First Plan Winnipeg. In that Chapter Three, under environmental stewardship, there was language that stated that natural areas shall be protected and river banks shall be protected, and we will have an inventory and we will do all of these good things for the environment. That allowed some of us to use this language as a rationale for change in the system and use the subsequent Plan Winnipeg and Vision 20/20, and even the CEC, our Civic Environment Committee and strategy for more green change. I think there are some very positive changes happening. Once you have that sort of concrete language, it allows those of us who are kind of in the green corner to point out that there is real rationale and mandate to do some greener things.

With the subsequent Plan Winnipeg, there has been a huge rise in environmental advocacy by stewardship groups. Of course, SOS is here today, but smaller groups will sometimes adopt a half mile of river bank on the Red River, or a little area, a patch of river bank. It is not necessarily always on a watershed scale, but there is a great deal of caring out there by the local community, and by local community groups. That itself has created huge pressure to reduce the stresses on habitat and the riverbanks.

Positive Changes

Some of us in the City of Winnipeg haven't always thought downsizing was a great thing in the last 15 years, but one of the things it did do was reduce mowing. This isn't unusual; when downsizing takes place, we begin to talk about green mandates, we pull mowers off of areas, and the next thing you know parks have a "we shall not mow on river banks, except where it is negotiated or we are forced to" policy. There is an area that was mowed right to the edge, south of Portage and Omand's Creek, which now looks like a reblooming forest. Sturgeon Creek just blossomed in the past decade with all sorts of native species. There are countless other examples where even the passive act of pulling a mower off of a creek bank is starting to recreate a quality in the watershed.

With all of these positive initiatives going on, we have also been able to preserve more river bottom forests. SOS mentioned the 80-acre Bois des Esprits that has been preserved on the Seine River in St. Vital, St. Boniface. I also wanted to show you a picture of another one that was saved in approximately 1995 - a 96-acre river bottom

forest on the LaSalle. Both of them are beautiful pieces of habitat, a small part of the sustainable system.

In some cases we have even been given creek banks by the province. Blue Stem Park on Omand's Creek was handed over to the City in the 1990s for a dollar. The City also just handed us an asphalt parking lot adjacent to this area about two weeks ago. I just have to figure out how to get the asphalt off and habitat on.

The rise of the enforcement of Fisheries legislation, which started in approximately 2001, has resulted in some changes. As a matter of fact, the grant that supports my work has actually gone into some fish sampling this spring, it is often a way to get funding to work with stewardship groups, not only to determine whether fish are present, but to collect data about certain species.

Lots of Jurisdictions

Just to summarize, I don't want to present the impression that anyone is 'bad'; we are a municipal land government district that is supposed to control the use of land. We were not created to look after water in the City of Winnipeg. However, I suppose that the primary negative issues that still exist are that there are a lot of jurisdictions, and every one of them has a specific goal. So even when I was negotiating with insect control they said, well, we are supposed to get rid of mosquitoes, and I said okay, but let's all make it work in a more holistic approach. So there are a lot of jurisdictions out there that are doing great jobs on what they are supposed to be doing, but it is not always holistic thinking in terms of what is best for the land as a whole. Even though the City of Winnipeg owns 65 miles of regulated river banks, there are actually four different departments that own the property.

As an example, sometimes one department might think the best way to handle their piece of river bank is a clear cut with turf grass. Obviously, that means that I didn't get a chance to talk to them first -- and we don't do things like that anymore.

The province controls the water levels on the Red and the Assiniboine Rivers, I have always felt that the acceptance of the summer water level in the City of Winnipeg, where the banks are exposed and eroded, is an acceptance that we have a degraded system.

Wildlife is also under provincial jurisdiction. One example of an issue that we did not see eye to eye upon was the response to the rise of the beaver population in the 1990s. With some provincial downsizing, all of a sudden the province said that they would no longer trap beaver on the city land.. The problem is that the beaver consume the habitat that I work so hard to restore and we were losing 100 to 200 trees or $300,000 worth of trees every year. As a result, we had to work out a deal, and so far things have gone pretty well.

One more example, using the Federal Government, was a situation where we wanted to put in a riffle structure to assist fish habitat. To do so, we needed to negotiate with Navigable Waters because they are not so sure they want the rocks there. So it is not that anybody doesn't want great things to happen, but, again, there are a lot of jurisdictions.

I will summarize by saying that a lot of improvements have taken place in the last 15 years. I still believe that real watershed planning is not possible right now for the City because there is no overriding authority. If you look at case studies from other areas, such as the restoration of the Don Valley in Toronto, the creation of some kind of overriding authority is essential in order to ensure that the focus is on the health of the river or watershed.

Lorimer Thompson, Manitoba Water Stewardship

Lorimer Thompson *has an undergraduate degree in Environmental Studies from the University of Winnipeg and did his graduate work at the Natural Resources Institute – University of Manitoba. Lorimer has worked within government in the area of natural resources management in a variety of capacities over the past thirty years. In the past three years, Lorimer has been instrumental in the development and implementation of the Manitoba Water Strategy and the soon to be proclaimed Manitoba Water Protection Act. He is currently Acting Director of the Planning and Coordination Branch of Manitoba's newly formed Ministry of Water Stewardship.*

Mr. Lorimer Thompson, Manitoba Water Stewardship:
Thank you. I would point out that we have some other Water Stewardship staff in attendance, and they can probably answer questions later too, if people have them. Wendy Ralley is in the Water Quality, Water Science section of our department, and Roger Schroeder works in the Planning and Coordination section.

Cheryl made an interesting point about the number of agencies that have an interest in water, not only within the city, but within the province. We took on a task a little while ago of trying to inventory the number of agencies, and Roger was the person who put it together. We have approximately 104 pages of agencies, organizations (private and public), NGOs, and various levels of governments, that all have an interest in Manitoba water in one way or another. There are certainly a lot of people out there with an interest in water.

The theme of this workshop is watershed planning. It is an interesting area because it is the only area that I have worked in, during my over 30 years of experience in government, where we have a galloping agreement. In this agreement, everybody acknowledges – whether they are an NGO, or a Federal Government department, or a Provincial Government department, or the city - that we have to take the systems approach, a watershed approach. The fact that this 'coming together of the minds' has occurred is really making things a lot easier..

The Manitoba Government has introduced the Water Protection Act into the legislature. It is currently in the report stage, and undergoing a number of amendments. Once it gets through that stage, it gets third reading and passage. (Note: The Water Protection Act was passed by the legislature in mid June 2005, and moves to the regulation stage before proclamation.)

I will be talking about one section of the Water Protection Act, which is about watershed planning.

Integrated Watershed Planning

One of the situations that we face is the need to recognize that watershed planning is about integrated watershed planning. So the Water Protection Act talks about integrated land, water, and related resource planning and management, to meet specific goals of eco-system, social and environmental health and sustainability. Historically resource management separated ecosystem elements - wildlife is separate, parks is separate, land is separate, water is separate, fish is separate from that. We now want to recognize that all of those elements are part of a system, and they are inextricable within that system. You can not deal with one part of the system without having an impact on another. Nevertheless, there are challenges to making this work.

Clearly, I think there is a need, an understanding, and a willingness to sit down and try and figure out how we make watershed planning work with the city and the watersheds that flow into it or through it. However, we don't have the answer; we don't have a magic bullet to tell us that this is the model. I think that we have to work together to agree on best model for the city.

Due to technical difficulties, the remaining transcript of Mr. Thompson's presentation was lost. The following is an excert from his powerpoint presentation:

Watershed Management Plans: Part 3 – Water Protection Act

- Provides for the designation of watersheds
- Establishes Watershed Planning Authority
- Presecribes matters that must be taken into account in preparing plan
- Clarifies how approved Watershed Plans are to wrk with Municipal and Planning District Development Plans
- Public consultation mandatory

What the Proposal Covers

- Defines a Planning Model and Template
- Establishes targets
- Identify a plan implementation strategy
- Define duties and responsibilities of Dept of Water Stewardship
- Integrate existing water plan processes

Fundamental Elements

- Water Protection Planning
- Protect Drinking Water
- Partner with Existing Local Authorities – CD, PD, RM
- Watershed based
- Stakeholder consultation
- Integrate water and land planning

Provincial Priorities (Flexible and Adaptive)

CONTENT

- State of the Watershed Report
- Source Water Protection Plan
- Nutrient reduction
- Drainage Plan
- Flood Control Plan
- Water Supply

PROCESS

- Stakeholder led
- Implementation, Monitor and Evaluate

What are we looking for in a Water Planning Authority?

- Representative of watershed area
- Incorporated entity
- Has capacity to engage all stakeholders
- Has land and water interests
- Administrative capability
- Implementation capability
- Longevity – monitor, evaluate, adjust

Targets

- Prepare Integrated Watershed Management Plans for 25 to 35 Watersheds in Manitoba
- 75% of Agro Manitoba to have IWMP's in progress by 2010
- 90% of Agro Manitoba with completed plans by 2015

Stewart Grubb, Emmons and Olivier Resources (EOR*)*

"Water Management: The Minnesota Experience"

Stuart Grubb *is a principal partner with Emmons & Olivier Resources (EOR). He has a M.S. in Water Resources Science from the University of Michigan and as a hydrogeologist, has over 15 years of experience in environmental consulting. As well as specializing in hydrogeology and groundwater modeling, he has significant watershed management and planning experience, which includes environmental assessment. Mr. Grubb leads EOR's team of engineers and planners specializing in permitting, storm water management, grading plans, and utility plans. EOR Inc. is a leading firm in Minnesota specializing in Watershed Engineering, Hydrogeologic Services, Natural Resource Management and Watershed Planning and Management.*

Note: Despite differences between the regulatory regimes for public lands and waters in Manitoba and Minnesota, the Water Forum sponsors felt that information about the Minnesota experience would be valuable to Manitobans. As a knowledgable practitioner, Mr. Grubb was a welcomed choice as a keynote presenter.

Mr. Stewart Grubb, Emmons & Olivier Resources (EOR):
Thank you so much for inviting me up here.

Manitoba & Minnesota – Similarities

I wanted to start by talking a little bit about why I came up here to talk to this group. I think the reason is that there are a lot of similarities between water resources in Manitoba and water resources in Minnesota. We have similar climate, we have similar topography, and we have similar water resources and water resource issues. There are abundant water resources and really good quality water resources, and it really kind of makes us the envy of the rest of the country in a lot of ways, as this cartoon kind of indicates. I have sprinkled some of these cartoons throughout my talk; they are from the New Yorker Magazine.

If there are any fans of The New Yorker here, it is just a great source of short stories and literature and poetry. I find them to be very profound sometimes, but I just usually look at the cartoons

First of all, in talking to you tonight I would like to provide a little bit of information about my background and my company; talk about the Minnesota watershed management history, how we got to where we are today; talk about the watershed district organizations; and talk a lot about money, because I find that to be a very important part of watershed management. Then I also want to talk a bit about the kinds of things that you can accomplish. If we have time, I will cover a few example projects.

By way of background, my company, Emmons and Olivier Resources, was started eight years ago. We primarily serve watershed districts. We are consultants to watershed districts. Watershed districts in Minnesota hire engineers very much the way that the city would hire a municipal engineer.

As for my personal background, I am a hydrogeologist by training, and I work a lot in water resource science. I also recently finished a MBA. In an MBA, you spend a lot of time looking at different organizations and how they are structured and how they work effectively. I think I probably learned more about watersheds from my MBA than I ever did from my technical training.

I do have some Manitoba experience; I was here about two years ago or so to talk to a Clean Environment Commission panel that was considering the effect of the change of the Assiniboine River Valley to a more potato-based agriculture, in conjunction with the establishment of the potato plant, Simplot. I put together a report about ground water pollution potential and some of the changes that might occur with the shift to potato-based agriculture. When I addressed the panel, they asked me one or two questions about that, but the rest of the time was spent talking about watershed management and the kinds of activity in Minnesota.

I would also like to note that I was not invited to come up here and agree with you, so, I may say some things tonight that will describe different ways of approaching watershed management, and in the process I might offend a few people too. However, I hope you will appreciate the presentation of other points of view.

Watershed management in Minnesota has many parallels to Manitoba, as I have been learning while listening to the other speakers. We have the same collection of national, state, regional, and local agencies that all have their fingers in the water management

pie. I tried at one point to put together a single sheet of paper that indicated all of the relationships between the different organizations; eventually I determined that it was a mathematical impossibility to actually show that all in one page.

Minnesota Jurisdictions and Water Agencies

In Minnesota we also have issue-related agencies; for example, the Department of Agriculture deals with agriculture based water problems, the Pollution Control Agency deals with polluted water, and the Metropolitan Council is the one that deals with wastewater treatment. Those types of agencies have their place and can be effective. However, the ones that I personally think has been most effective are the watershed - based organizations. This is, of course, what we have been talking about tonight.

This is a map of Minnesota showing the watershed districts that are currently organized in this State. I believe there are 33 of them, and they cover approximately a third of the State. Some of them are very large, particularly up in the Red River Valley, up in the northwest - the Red Lake watershed district, and Wild Rice.

There is also another cluster of watershed districts down in the Minneapolis-St. Paul area that is somewhat smaller. The ones up in the northwest tend to be more focused on drainage issues. The ones down closer to the Twin Cities are a little more involved with land use planning and water quality issues; although they also have a function for flood prevention and drainage to a certain extent.

Minnesota was settled in 1800s, and by the early 1900s there was increasing demand for agricultural land, and ditching and drainage became a priority. Within these areas, a ditch authority was established, and this was one of the early forms of watershed management, as everyone who had property that drained towards this ditch became part of this ditch authority.

The ditch authority appointed a board, a group of people to make decisions about how the ditch would be managed. There were a whole set of ditch laws and ditch regulations that were associated with the authority. For example, if a certain percent of the people who are going to benefit from a ditch state their intention to construct the ditch or improve the ditch, then that project goes ahead. If you happen to be in the minority, you still have to contribute, so it is also a form of taxation. The amount that an individual contributes is determined by the benefit that they will receive from the drainage. This was an early model of how watershed organizations operate.

Other organizations, like associations and conservation districts, are a little more focused on a particular body of water. For example, all of the homeowners or property owners that are adjacent to a lake may get together and contribute money to address a particular problem such as the water quality, or shoreline restoration, or weed removal, etc. from the lake. This is another type of primitive model of the workings of a watershed organization, though not a full-fledged watershed organization.

Finally, we have the formal watershed organizations we talked about, and these include watershed management organizations and watershed districts. There are some key differences between these two types of organizations that I will highlight. For more information about how these are organized in Minnesota, I would encourage you to visit the following two web sites: http://www.mnwatershed.org/, http://www.bwsr.state.mn.us.

Watershed district organizations in Minnesota are governed by the Board of Water and Soil Resources, or BWSR, as it is affectionately known. These statutes define the watershed organizations. The Board of Water and Soil Resources then tells the counties, which are the small regional governments, to designate the watersheds and define watersheds and how they are going to be laid out. The county then also appoints the managers, appoints a board of managers from people who live within the watershed district, and who are more or less evenly distributed through the watershed district, to serve as the board of managers. The county can also delegate this responsibility to the cities within the watershed, and the city usually appoints one person to join that board of managers.

Watershed Districts/Watershed Management

The two types of organizations, again, are the watershed management organization and the watershed district. Then there is another important part of each watershed district - the citizens' advisory committee. This is a good way of keeping a lot of public involvement in the process and to really have ongoing input from citizens who are not managers on the board.

The 'typical' watershed organization is one that has arisen in the different watershed districts over and over again. I think there is almost a universal applicability of this organizational structure to the watershed organization and I would not be surprised if this type of organization develops over time in Manitoba.

As mentioned, the Minnesota BWSR directs the county to establish the watershed district and they can also delegate that to the city. The commissioners are then able to appoint managers.

The case that we are discussing here is a typical example where three counties are involved in the watershed district. Of course, the watershed districts don't follow the same straight lines that are usually established for counties and cities, so there can be an overlap of the watershed district in the city, and that's the real strength of the whole setup.

So, the managers are the people that are charged with making decisions. Because they are appointed and have to answer to the county or the city, there are a certain amount of checks and balances.

The citizens' advisory committee is really just an advisory board; the committtee does not actually have any real decision-making authority. The citizens advisory committee is mandated in the law, and is usually a group of six to 20 persons that have the enthusiasm for a particular watershed issue, or for all watershed issues. We often consider them to be managers-in-training, so that we have a group of people who are familiar with how the watershed works and can fill in as other managers leave the organization.

A key person in the organization is the administrator. The administrator needs to be a very experienced person and also somewhat politically astute because he/she must manage all activities in the watershed district. This administrator is typically a senior

level person who has some experience working in government, and also has some technical background in water resource issues.
Below the administrator in our watershed organization, we have the watershed district staff. Depending on the size of the watershed and how active the watershed district is, there can be any number of staff. Typical staff would include people who do nothing but monitoring; they go out and collect data and maintain the monitoring equipment. There is also usually a clerical assistant or administrative assistant to handle all of the miscellaneous administrative tasks.

There can also be project managers to handle some of the larger types of projects, and the project managers specialize in some particular function of the watershed. There are also legal staff, which are very important. Usually when you go to a watershed district meeting, you will see a table at the front with the managers lined up there and next to them is their legal representation.

The watershed engineer is also involved, and this is where I fit in. The watershed engineer is someone who is typically hired from an outside consulting firm. I don't know of any watershed districts in Minnesota that have either their own legal staff or their own engineering staff. The engineer will typically have a couple of people who are more or less dedicated to that watershed district and their staff; these are people who are very familiar with all aspects of the watershed.

There are also various other consultants - like accountants and people with other specialized technical expertise.

Last, but not least, there are volunteers, interested citizens, and other stakeholders, which would include the NGOs - like the Sierra Club, or Ducks Unlimited, or Trout Unlimited, or government agencies - that all want to accomplish something, and want to do so within the structure of this watershed organization. The volunteers are an important part of the whole process.

Professional Staff

One the key things that I want to note is that in Minnesota it is very important to have professional staff that make a career out of watershed management. It is usually not effective to have volunteers in these positions and expect to effectively administer a watershed district, for example. Occasionally, a volunteer can pull off a particular project, but the scope of these organizations can be large enough that it is necessary to have someone who is dedicated on a full–time basis and who is a professional.

I guess one thing I also heard from other speakers this evening that is very typical in Minnesota (so it sounds like it is also done here in Manitoba) is that originally a lot of the staff comes from other agencies. Someone who has an interest, or is actually employed by another agency is seconded to serve as a watershed administrator, or perform some other function within the watershed organization for a period of time. That is usually a good way of getting started, and it means that there is a ready pool of people who understand what is going on, but typically these staff need to be replaced before too long with someone that has been hired directly by the watershed district.

Now I want to talk a little bit about funding and the kinds of resources it takes to run an organization like this.

Funding/ Planning Resources

First of all, there are personnel costs. In our case, the board members are volunteers and are paid only a per diem. That means that the board members tend to be older people, often retired, who have a little bit more time on their hands, and who are able to devote the kind of time that it takes to really be a board member and be an actual part of the watershed district.

Secondly there is the administrator. As I mentioned, this person must be a senior professional person. In the US we typically pay an administrator about US$85,000 per year, which I believe is in the range of CDN$110,000, plus benefits. Otherwise you are just not going to get the kind of person that can really function in that role.

For staff positions, you can expect to pay $38,000 to $95,000, again depending on experience and types of expertise, and of course benefits. Legal services generally cost between $190 and $315 per hour; engineering, $82 to $190 per hour. Often it is tempting to leave some of these people out of the organization with the idea that we will do things right and scale back on the legal department. However, this is not the case; you need to have legal people, even if you are doing the right thing. If you are effective, if you are not just 'going through the motions', you are still going to end up stepping on some toes, there are going to be conflicts, and you are going to need legal staff to keep you out of trouble.

Public Education & Events

What kinds of things can you accomplish? First of all, I will mention education. Usually for the watershed district, education is not a big part of the mission or the mandate. There are plenty of other organizations that do this well, such as Save Our Seine, which Serge talked about. However, schools often have a big part in this. One example of an interesting education initiative in Minnesota is at the science museum in St. Paul where they have set out a whole nine-hole golf course dedicated to watersheds in their big back yard. You start at the top of the watershed, and you putt down through the badlands towards the hole. It is a lot of fun.

Another project that the watershed districts participate in quite a bit is the children's water festival, where we pull together hundreds of fifth graders to the state fair grounds, and they go around to different stations and learn about watersheds. People are dressed up in water costumes, and there is a lot of participation, not only by the watershed districts, but also the other different agencies and a lot of private companies too. It is really a lot of fun.

Integrated Focus for Watershed

The other part of this I want to talk about are resource issues and how you really want to be focused on integrated management of all of the different things in the watershed, not only focusing on water quantity and water quality, but also taking in natural resources, wetlands, forests, and groundwater. From what I have heard from the different speakers already tonight, Manitoba seems to have gotten to that point – there is an understanding that you are really missing an opportunity if you don't take in all of those different aspects, including land development and land use, and the current status of the watershed. Manitoba doesn't want to end up in a situation where some poor duck finds itself saying, "Gosh, I am sorry, I could have sworn this was wetlands last year."

One very effective tool that I would encourage Manitoba to adopt in your watershed districts is rules and permitting. The way this works is to start with a watershed district plan, which Lori talked about. The process has to be public, it has to be (in Minnesota's case) approved by the county, and also approved by the State Board of Water and Soil Resources. There are some checks on it; not just anything can be included in the watershed district plan, but as long as it is reasonable and in keeping with identified goals and objectives and also with what the people who put it together want to accomplish, it is usually accepted.

The next step is to establish rules. I have provided a couple of websites from Rice Creek Watershed District, and also Minnehaha Creek Watershed District that are examples of what I consider to be good rules. Developing these rules is a very long and detailed process, but the types of rules that a watershed district typically develops are for erosion control, flood plain alteration, wetland protection, dredging, shore line and stream bank improvements, water body crossings and structures, and storm water management for land development projects.

Any time a project exceeds a certain threshold, for example, of more than one acre of land disturbed, the developer must apply to the watershed district for a permit in order to proceed. We have also recently started to develop groundwater-related rules that are enforced by the watershed districts as well.

The permit program is usually as follows: The permit applicant submits his/her plans (this is usually somebody like a land developer) to the watershed district, and a review process begins. The permit review is usually done by the engineering staff. The permit fees correspond to the amount of time that it takes to really review the permit. For example, if the plan is fairly simple that will require an engineer to spend four hours reviewing it at a cost of $75/hour, then the corresponding permit review fee would be $300.

This means that the program is a self-perpetuating one; it doesn't need to be allocated a portion of the tax levy to keep it running. There is usually some back and forth between the engineer who recommends certain changes to the plan, and the developer makes those changes and submits them again to the watershed district. Then a permit is issued.

Then there is the issue of enforcement. Unfortunately, in my experience, enforcement doesn't really take place all that often. Usually there is voluntary compliance; and no one tries to circumvent the permit process too often, and it is unusual for anyone to refuse to comply with the recommendations of the watershed district.

Financing the Watershed Plan

I want to talk about different ways of financing. A couple of examples - the first one is a midsized watershed district known as the Capital Region Watershed District. Coincidentally, I understand Manitoba also uses the term ‘capital region’ when referring to some of its watershed plans. The Capital Region Watershed District is moderately active and has a budget of about $1.5 million per year. Another watershed district, the Ramsey-Washington, is much more active and has a lot more issues that need attention. Its budget is over $4 million a year.

We also have a tax levy in addition to the permit review fee that is usually based on property values. In a small watershed district that is not very active, the tax levy can often be less than $10 per year for a property valued at $100,000, or it can be as high as $50 per property valued at $100,000. That means that if someone owns a $200,000 house, they might be assessed less than $20 a year, which most people do not really find to be a burden. For others, for the tax levy may be over $100 a year, which tends to get people's attention a little bit more.

The variables in determining what that tax levy includes population density, the property values within the watershed district, and also the watershed district activity. The organizational costs of the Capital Region Watershed District, an urban watershed district located in St. Paul are about 11% of the total annual budget, which is $1.5 million. The staff and technical support is about 18% of that budget. Education, as I said, is usually a third minor component, only 2% of the budget being spent there. Finally, our capital improvement projects and other big projects take 69-70% of the watershed district budget, and that includes engineering fees and designing fees. It takes a fair amount of money to keep a program like this operating.

Financing in Minnesota is through the state and the county, and this is typically established at the beginning when the watershed is established. The state will provide a certain amount of money to get the first plan written, and for set-up. There may also be a certain amount of city financing available for this stage. Particularly when the organization is for watershed management, the cities are obligated to contribute to their own watershed. Grants are important and there are many different types of grants. One popular method is matching grants where the state or provincial government will commit to a certain amount of money on the condition that some other group has to match that grant. This ensures a level of cooperation.

Tax increment financing is another funding option that we employed for a while. It was very effective, and actually a little bit too effective. Under this method, there is an analysis of the increase in the tax rolls that result from a particular project. For example, if a flood control project is going to reduce flooding therefore, increase the value of a particular piece of property, there will be increased taxes associated with that increased value, and those future taxes can be used to pay off the capital cost of the project now. This method of funding was very successful for a while, and eventually the counties decided that they ought to receive some of that money as well and started to claw back a portion.

Storm Water Utility

Another interesting funding plan that has been recently implemented in a couple of places is storm water utility. The website for the City of Minneapolis is a good source for information about this (http://www.ci.minneapolis.mn.us/stormwater/what-we-do/StormwaterRate.asp). They are not a watershed organization, but the watershed districts use this same mechanism. In this case, the city issues a storm water utility bill that pays for the infrastructure that goes along with the storm water, which includes storm sewers, and different water quality initiatives. Customers can get a break on the storm water utility if certain things are done to reduce the amount of storm water that runs off the property. There are different rates for commercial properties, different rates for residential properties, and often different rates for different amounts of impervious surfaces.

So for instance, if a great deal of the surface area of your property is comprised of impervious surfaces such as a large church parking lot, you might have a relatively high storm water utility. If you put in a rain garden in front of this church, an infiltration area, or you put in pervious pavement, your storm water utility can be reduced. It has been very popular. Homeowners have been just flocking to different seminars on ways to learn about and construct rain gardens in their front yards. In a few years, we will see what the cumulative effects of all of those little efforts are. Homeowners receive approximately a $12 per year decrease in taxes and they seem to think that that this is a great program.

One final comment - I would very much encourage watershed districts to obtain taxing authority - the power to levy taxes. There are two ways that this happens in Minnesota.

As an example, let's envision a watershed of four different cities and a small stream running into a big river. The objective is to overlay a watershed district, or watershed organization on to this area. The first way to do this is to ask the different cities in the watershed district to determine how much they will contribute to the watershed district budget (based on population, area, or based on a formula). The problem with this process is that it generally does not provide a stable source of funding.

What happens is that over time one of the cities will likely decide that it is not getting its value out of the watershed district, and will pull or reduce its funding.

The other thing that can happen is that the people who live outside of the watershed begin to feel that they are not getting value. The watershed organization typically draws its funds out of a general fund of the city, so people who live outside of the watershed are paying taxes to the city, which are then being allocated to the watershed organization. But because they live outside of the watershed boundaries, they don't receive any benefit from it, and they become disgruntled. The result is that over time this type of funding arrangement tends to break down to varying extents.

A better and much more stable type of funding mechanism is the watershed district model, where the watershed managers, who are representatives from around the watershed, can decide what projects are going to be undertaken, make the decisions, and then also levy the taxes through the individual property taxes within the watershed.

Within this map of the Minneapolis, St. Paul area there are three different colours. The blue areas represent the first type of organization, the watershed management organization, where the funding is derived from the individual cities that make up the watershed management organization. Slowly, one by one, they are becoming green areas which are a watershed district model where they are able to levy their own taxes.

A third model that I really didn't mention is that sometimes the counties retain control over everything and they provide the funding for that watershed district. Quite frankly, this funding model has not been so successful either. This third model is represented by the tallow areas on the map and those have also been converting to the blue and green areas. I expect that over time this map will get progressively more to the green colour and less to the blue colour because once the watershed management organization switches from the city funding to levying its own taxes, I am not aware of any instance where it has ever returned to the other models.

Scale of Planning & Administration

The other factor in this equation is the constant pull between what is too small and what is too large. Typically, the watershed district will start out small because of the desire for local control; they want to have their managers coming from within, being their next door neighbors, and have very tight control. However, often this doesn't yield enough of a tax base needed in order to create a situation where there exists a critical mass to support the salaries of all of those people that you need to have in the watershed organization. As a result, they are being consolidated so that they have a little bit more of a tax base. In my experience, watershed districts have often combined, but the opposite doen't seem to happen. I don't know of any that have been so large that they have split apart. They tend to always consolidate, which isn't to say necessarily that bigger is always better.

The watershed district that I live in is very small, they have a lot of local control, and it works well. But we also have very high tax levy - in the $50/year range. The people in the district seem to have decided that that is an acceptable price to pay for watershed district management.

An Example Watershed

When I was invited to speak here, I was told that it would be useful to see an example of a project that is done in the early stages of a watershed district. I have seen several of these watershed districts start up and I want to talk about hydrology and hydraulic study, and the example that I am going to use one from the Minnehaha Creek Watershed District.

Minnehaha Creek Watershed District begins in the western part of the Twins Cities area, an area that is rural and not very densely developed. It has large lakes, such as Lake Minnetonka. The outlet is shown here in the upper left, a place called Gray's Bay and Gray's Bay Dam (a very important hydrologic structure). Then Minnehaha Creek winds its way through 27 different cities, and eventually discharges spectacularly over Minnehaha Falls. It also goes through some of the lakes in the Minneapolis area. It is really one of the crown jewels of the City of Minneapolis.

As it happens, the tax base of the watershed district is in very high priced properties along Lake Minnetonka, and also along the different lakes in the City of Minneapolis. Before the watershed district was established, there were a number of water quality issues and the people knew various projects and various actions in the upper part of the watershed where things are very rural were needed. People in the lower part of the area were certainly willing to provide money to do those kinds of projects. However, prior to the establishment of the watershed district, no mechanism existed that could make changes up there. The Minnehaha Creek Watershed District was a good vehicle to facilitate that.

One of the early projects was a hydraulic study, and some of the components of that were detailed land mapping, land cover classification, and using geographic information systems very similar to what Cheryl has been talking about in working with the City of Winnipeg.

We also did extensive water quality monitoring and reporting. This is something that has to go on year after year for decades, so it means an initial and significant commitment, as well as a lot of time before a meaningful database can be created.

Another nice feature of this project was that we developed a report card for Lake Nokomis, which is one of the lakes in the area. We gave Lake Nokomis a grade of 'C' for water quality.

Groundwater mapping and modeling was also part of this project, and there was also extensive public involvement to identify some of the key issues that the watershed district wanted to address with this large study.

We undertook detailed hydrology and hydraulics modeling, so every culvert, every structure within that whole watershed district area, which is a very large area, was put into a hydrologic model known as XP SWMM. It generated information about each structure and about how it behaved hydrologically, and what could be expected from the 100 year rainfall, or 100 year flood occurrence, above and below that.

All of that information was then put together in a detailed GIS system. The outcome of that is that the watershed district has a tool at its disposal and one can simply point and click on any point in the watershed district and get all sorts of information. Information about the lots, about the topography, about the drainage and where it goes to, about the groundwater, the elevation of the groundwater below that point is all contained in the GIS. The outcome of this is ultimately a better design of hydraulic structures, better resource management of wetlands, better land use, planning and permitting, and better surface water and groundwater quality.

This was a very big project, it was about a $750,000 project, and it took over three years to complete. We also have completed ones on smaller scales for smaller watersheds, something that I would recommend doing early in the watershed planning process.

Thank you.

Appendix 1

A brief guide to get more involved in watershed issues in Winnipeg and the surrounding area

Environmental Organizations and Watershed Organizations

Assiniboine Watershed Network – Consisting of Friends of Omands Creek, Friends of Bruce Park & Sturgeon Creek Association, we enhance and protect the watershed and waterway for fish, wildlife and people. (204) 986-7235

Bunns Creek Environmental Association – undertakes educational and project activities directed at achieving a common vision for a healthy and sustainable Bunns Creek. (204) 322-5731

Cooks Creek Conservation District – emphasis is on the maintenance and upgrading of agricultural drainage channels; other initiatives include sealing abandoned wells, crossing replacements and repairs, and public education. (204) 444-3652 cookcd@mts.net

Ducks Unlimited Canada – DU conserves, restore and manages wetland and associated habitats for North America's waterfowl. 1-866-384-3825 http://www.ducks.ca

International Institute for Sustainable Development – Our vision is better living for all and our mission is to champion innovation by enabling societies to live sustainably. (204) 958-7700 http://www.iisd.ca

La Salle/Redboine Conservation District – Offers integrated watershed programs in areas such as water storage, nutrient reduction, well capping and education. (204) 526-2578 http://www.lasallereboine.com

Manitoba Eco-Network – An umbrella organization for environmental groups in Manitoba. Activities include referrals, education, networking, resource library and skill building. (204) 947-6511 http://www.mbeconetwork.org

Manitoba Wildlands – Supports the establishment of protected areas (lands and waters) in Manitoba. We focus on public processes that affect Manitoba land and waters. (204) 947-3400 http://www.ManitobaWildlands.org

Red River Basin Commission – An international organization with goal to develop and implement an integrated natural resources framework plan and work toward a unified voice for the Red River Basin. (204) 982-7254 http://www.redriverbasincommission.org

Save Our Seine River Environment Inc. – SOS preserves, protects and enhances the natural environment and heritage resource of the Seine River. (204) 470-9247 http://www.saveourseine.com

Seine/Rat River Conservation District – The SRRCD works with landowners and producers to enhance natural resources within the District, and to ensure the sustainability of farm operations. (204) 424-5845 http://www.srrcd.ca

Government and Government Agencies

Assembly of Manitoba Chiefs – AMC is structured and mandated to provide a forum for discussion and consensus building by coordinating political action and technical work for First Nations in Manitoba. (204) 956-0610 http://www.manitobachiefs.com

Association of Manitoba Municipalities – AMM identifies and addresses the needs of its members in order to achieve strong and effective municipal government. (204) 857-8666 http://www.amm.mb.ca

City of Winnipeg Naturalist Services Branch - From flowers, birds and butterflies to rivers, creeks and streams, Naturalist Services is working to protect and manage ecologically significant natural areas within the City of Winnipeg. (204) 986-7233 http://www.winnipeg.ca/publicworks/Naturalist/ns/

Environment Canada - has two main goals for Canada's water resource: to protect and enhance the resource and to promote the wise and efficient management of it. (204) 983-3032 http://www.agr.gc.ca

Fisheries and Oceans Canada – To work toward safe, healthy, productive waters and aquatic ecosystems for the benefit of present and future generations by maintaining the highest possible standards of service to Canadians. (204) 983-5163 http://www.dfo-mpo.gc.ca

Manitoba Water Stewardship – Our vision is to protect and enhance all of our vital aquatic resources. (204) 945-6398 http://www.gov.mb.ca/waterstewardship

Manitoba Habitat Heritage Program – MHHC conserves habitat by working in partnership with private landowners, farm organizations, corporations, conservation groups and government agencies. (204) 784-4350 http://www.mhhc.mb.ca

Prairie Farm Rehabilitation Administration – Working with Prairie people to build a viable agricultural industry, and to support a sound rural economy, healthy environment and a high quality of life. (204) 983-2243 http://www.agr.gc.ca

Rivers West – Facilitates and develops year-round recreational, tourism, economic and conservation opportunities along the Red River from Emerson to Lake Winnipeg (204) 943-7915 http://www.riverswest.ca

Southern Chiefs Organization – independent political forum to "protect, preserve, promote, and enhance First Nations peoples' inherent rights, languages, customs, and traditions through the application and implementation of the spirit and intent of the Treaty-making process" (204) 946-1869 http://www.scoinc.mb.ca

Winnipeg Civic Environmental Committee - an advisory committee created by the Mayor to provide advice on environmental and urban sustainability issues http://www.winnipegcec.org/main/

Appendix 2 Survey

Thank-you for coming out to tonight's public forum, we hope you enjoyed the presentations. As part of the dialogue, we would appreciate getting some feedback from you tonight. Please fill out this survey over the duration of the evening and place it in the box at the back of the room as you exit. Your response will be treated as confidential.

1) Which watershed do you live in? (Please see the map) _____
2) Do you live inside the city boundary or outside the city boundary _____
3) Are you involved with any organization that helps protect the water or environment? ____ If yes, which organization? _____ What sort of watershed activities have you participated in with this organization?

   _____
4) Do you think watershed planning will help correct some of the environmental damages that have occurred in the region? ____ yes ____ no
   If no, why not?

   _____
   If yes, what sort of activities will help?

   _____
5) Who do you think should be responsible for watershed planning?

   _____
6) Do you think your local government (city, town or municipality) is doing a good job of protecting the water resource? ____ yes ____ no ____ not sure
7) Do you think the government of Manitoba is doing a good job of protecting the water resource? ____ yes ____ no ____ not sure
8) What do you think are the three biggest environmental priorities facing your city, town or municipality?

   _____
9) What do you think are the three biggest overall priorities facing your city, town, or municipality?_____
10) Do you have any other suggestions that would help make watershed planning an effective tool for improving our environment?

Appendix 3 Survey Results

Approximately 90 citizens attended the public forum. Twenty-four (24) citizens completed surveys giving a response rate of 27%.

1) Which watershed do you live in? (24 responses)

   25% - La Salle River
   21% - Lower Assiniboine River
   17% - Seine River
    8% - Netley/Grassmere Creek
    8% - Other
   21% - Don't know

2) Do you live inside the city boundary or outside the city boundary? (24 responses)

   75% - lived in Winnipeg
   25% - lived outside of Winnipeg

3) Are you involved with any organization that helps protect the water or environment? (24 responses)

   86% - yes
   14% - no

   If yes, which organization?

   81% - non-governmental organization
   19% - government

4) Do you think watershed planning will help correct some of the environmental damages that have occurred in the region? (24 responses)

   96% - yes
    4% - no

   If yes, what sort of activities will help?

   Do you have any other suggestions that would help make watershed planning an effective tool for improving our environment? (Please note: Responses from Question 10 were combined with question 4)

Sixty-nine (69) activities and suggestions were offered and broadly categorized as follows:

Percentage based on 69 multiple responses

Public engagement/awareness/education/empowerment	23%
Greater penalties/more enforcement/tougher laws	15%
Increase government capacity/resources	13%
Restoration/renaturalization/protection of riparian zone	12%
Change farming practices/control run-off & erosion	7%
Nutrient reduction	7%
Small scale water retention/wetland protection	7%
Better planning/limit development on riparian zone	6%
Financial incentives for ecological services	4%
Lobby government/more political pressure	3%
Partnerships/working together	3%

5) Who do you think should be responsible for watershed planning? (24 responses)

Everyone/all citizens and all governments	58%
Everyone/Manitoba gov't setting the framework	17%
Manitoba Government	17%
Conservation Districts	4%
Don't know	8%

6) Do you think your local government (city, town or municipality) is doing a good job of protecting the water resource? (24 responses)

No	75%
Not sure	17%
Yes	8%

7) Do you think the government of Manitoba is doing a good job of protecting the water resource? (24 responses)

No	71%
Not sure	21%
Yes	8%

8) What do you think are the three biggest environmental priorities facing your city, town or municipality?

Sixty-four (64) priorities were offered by respondents and are broadly categorized as follows:

Percentage based on 64 multiple responses

Water quality - pesticide/chemical/nutrient reduction/sewage/CSO	44%
Habitat/wetland/ riparian zone preservation and protection	23%
Greenhouse gas reduction/sustainable transportation/green energy	22%
The need for better land use and planning/urban sprawl	11%

9) What do you think are the three biggest overall priorities facing your city, town, or municipality?

Forty-five (45) priorities were offered by respondents and are broadly categorized as follows:

Percentage based on 45 multiple responses

Erosion of democracy	22%
Environmental degradation	22%
Urban sprawl/lack of planning	18%
Poverty	11%
Aboriginal exclusion	7%
Money/infrastructure	7%
Quality of Life	4%
Transportation	4%
Safety/security	4%