

ECO-JOURNAL

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Who Has a Say in Approval of Intensive Livestock Operations? Planning for Pigs

By Liz Dykman

Amendments to the Planning Act, tabled in the Legislature on March 11, will alter the approval process for future intensive livestock operations (ILO's) in the province. One of the purposes of the amendments, according to Minister of Intergovernmental Affairs, MaryAnn Mihychuk, is to provide greater predictability to the livestock industry and the public.

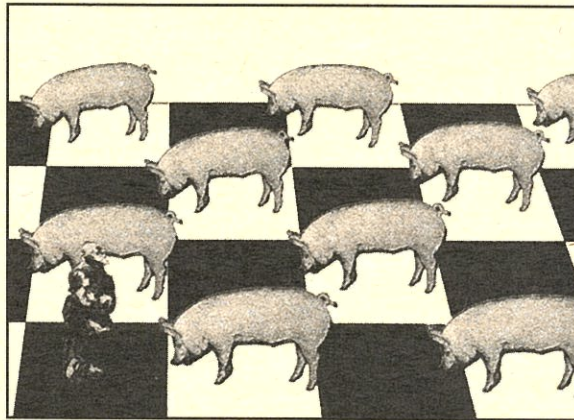
The amended Act would require that all jurisdictions have development plans by 2007, and that these plans include livestock operation policies. Municipal councils, or Planning District boards, would have to map out zones where ILO development/expansion will or will not be considered. If jurisdictions do not meet the deadline, the province will make a plan for them.

Open to legal challenges

Concerns arise due to the potential difficulty in creating a plan that takes into account all the possible site-specific local conditions that would determine whether an ILO is appropriate to an area. At a minimum, operations will have to meet provincial guidelines regarding setback (distance from waterways and residences) and compatibility with the community. Stricter conditions than the provincial guidelines can be included in the plan but they must be "reasonably consistent" with the provincial regulations. Furthermore, the requirement that they be "reasonable and relevant" opens them up to legal challenge by a proponent. Stuart Briese, of the Association of Manitoba Municipalities, considers the ability to impose stricter setback requirements an advantage of the proposed amendments. He said the livestock industry was lobbying for an upper limit on the setback distance that could be imposed.

Significantly, development plans cannot include provisions

relating to health, nuisance, property values and impacts to the general welfare of persons residing in the area. The types of conditions allowed include odour mitigation measures, such as covering lagoons with straw, or planting trees around the operation. The proposed amendments severely limit the conditions that may be imposed on livestock operations.



Greater predictability in approval of ILOs? Illus. by D. Henry

Reduced public involvement?

While much of the text of the amendments describe the conditions under which an operation can be approved, it is not clear under what conditions a proposal for an ILO might be rejected if it falls within a zone that allows them and it meets the conditions of the development plan. Furthermore, municipal by-laws dealing with nuisance odours and the storage and use of manure will not apply to livestock operations that are complying with provincial standards respecting the storage, application and use of manure.

If the proposed amendments are passed, the development plans may be the only tool a council or board can use to regulate where new barns are built. And the process of creating the plan is one of the few opportunities for public involvement. Until now, concerned citizens have been able to voice their opposition to ILO's being proposed in their backyards through conditional use hearings at the municipal level. The proposed amendments exempt ILO's from the conditional use hearing process.

Minister gets final say over ILOs

Currently, the Minister has final say over any development plans. Min. Mihychuk has given assurances that R.M.'s can choose to completely ban ILO's and that decision will be respected. Nevertheless, the proposed amendments seem to give the Minister more power to make changes to a plan, without necessarily going through the Municipal Board public hearing process.

Even under the existing regulations there have been concerns about provincial alteration of plans developed by regional planning districts or municipal councils. According to Ted Ross of the Roseisle Creek Watershed Association,

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Nominate Your Favourite Environmentalist

Who in your opinion has really made
a difference, environmentally speaking,
in Manitoba over the past year? Now is
your chance to nominate that individual
or group for the 2004 Manitoba Eco-Net-
work Environmental Award.

The award is given "in recognition of
significant contributions to the awareness
and protection of Manitoba's environ-
ment". Categories are individual; non-

governmental, not-for-profit group; and
"special". The awards will be presented
at our Annual General Meeting tenta-
tively scheduled for early June at the Eco-
Centre.

Please forward your nomination, with
supporting information about why this
person or group deserves recognition, to
the Awards Committee, Manitoba Eco-
Network, by May 10, 2004. **Eco**

News from the Eco-Centre

Minister Meeting

Manitoba's new Minister of Conser-
vation, Stan Struthers, met with about 15
representatives from Eco-Network Mem-
ber Groups at the Legislative Building on
February 3. Participants also had the op-
portunity to meet Don Potter, the new
Deputy Minister. Mr. Struthers shared his pleas-
ure at being appointed to
a portfolio which inter-
ests him greatly. As the
MLA for Dauphin/Swan
River, he has a keen
awareness of natural re-
sources and agricultural
issues and was Natural
Resources critic when the
NDP were the Opposi-
tion. A proud owner of a geothermal heat-
ing system for his own residence, Mr.
Struthers believes that the government has
many opportunities to provide leadership
in sustainability by changing its own
practices. The groups present expressed
support for this approach with many of
their own suggestions, which included
going pesticide-free on the Legislative
grounds and increasing the number of



*Min. Struthers, Paul from Mb. Wildlife
Rehabilitation Organization. Photo by
David Danyluk*

hybrid vehicles in the government fleet.

Groups described their current activi-
ties and raised several concerns and ques-
tions. Amongst these were how the pro-
posed Floodway expansion will affect the
flow of the Seine River (Save Our Seine),
and the importance of preserving the

Brokenhead Wetlands
(Native Orchid Conser-
vation, Inc).

A highlight of the
meeting was the intro-
duction of a Barred
Owl, an "ambassador"
from the Manitoba
Wildlife Rehabilitation
Centre. This owl, like
all the creatures at the
Centre, suffered injuries

and while he is now healthy again, he
lacks the full ability to fend for himself
in the wild. MWRO is seeking the sup-
port of Manitoba Conservation in the
form of core funding for the rehabilita-
tion centre, which is currently organiz-
ing a move to new, more adequate
premises.

see "EcoCentre News ..." on page 6 ►

Eco-Network Steering Committee, 2003-2004

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Lise Smith, Consumers Association of Canada, MB Chapter

Pete Walker, Manitoba Federation of Labour, Environment Committee

Spreading Word on Community Gardens

By Karen Lind and Shirley Thompson

Nestled in between houses, on vacant property, beside railway tracks and along hydro lines something magical is happening. Gardeners are transforming idle, barren land into vibrant gathering places where people and plants are growing and thriving. Commonly referred to as community gardens, these tracts of land are scattered throughout the city and accessing information on them is difficult, which implies that they are insignificant forms of public space. This article will highlight the significant contributions of community gardens to the health and welfare of the city and question why the City of Winnipeg is not enthusiastically publicizing these initiatives.

Currently, Winnipeg has over thirty community gardens, operating through various organizations including horticultural societies, neighborhood associations, schools, churches and the City. While Winnipeg's community gardens are relatively close in geographical proximity, like snowflakes, no two are exactly the same. Each reflects the diversity of the participants, providing different experiences and opportunities.

No two are the same

For example, the Millennium Gardens on Henderson Highway primarily cater to local seniors by providing a number of raised beds at varying heights. However, the additional murals, landscaped paths and greenery invite all members of the public to enjoy this diverse and unique green space. A different community gardening approach is the McGee garden, where gardeners communally work a larger plot. As acquiring large tracts of land in the downtown area is difficult, a communal plot enables many more people to actively garden on a smaller plot of land.

Regardless of where a garden is located or how it operates, many benefits result. By producing fresh fruits and vegetables with minimal financial investment community gardens contribute to personal, family, and community food security. Poverty is the dominant barrier to achieving food security and community gardens have the capacity to decrease the gardeners' grocery bill, especially if food preservation techniques are employed. Community gardens also encourage citizens to become active producers instead of passive consumers, so that they are

not at the whim of the marketplace prices and tastes but are actual food producers. Community gardeners estimate that their food budget is reduced up to 50% by their efforts.

Social interaction

The mere fact that community gardens bring people together encourages social interaction. The diversity and beauty of each plot provides a catalyst to start conversations among strangers, breaking down social barriers and bridging culture and education divides. By facilitating horticultural knowledge exchange, community gardens prevent the loss of invaluable experiential insight. Community gardening and development are mutually supportive as the positive outcomes experienced in the garden empower communities to address other issues.

A quick tour through any of Winnipeg's community gardens demonstrates their diversity, in terms of genetic species but also land use. Other significant ecological health benefits include decreasing soil erosion and water run-off, increasing air quality, recycling nutrients and producing food with minimal

chemical inputs. Community gardens increase recreational and outdoor opportunities, thus enabling urban residents to improve and maintain physical health and improve nutrition. Urban green space initiatives benefit the mental health and well-being of both participants and observers, as shown by numerous studies.

Acknowledging that community gardens are positively contributing to the social, ecological and economic health of Winnipeg may inspire you to seek out additional information on the city's community gardening scene. But where can you go for answers? This information is not readily available, as there is no one organized body specifically focusing on increasing public awareness and promoting community gardening in Winnipeg. Karen Lind's firsthand experience illustrates that even locating the various gardens within the city can be challenging. The City of Winnipeg provides a phone number offering rental information for their plots (phone: 986-2665), but not for the many other community gardens operating within the city. Currently there is no community garden network provid-

see "Community Gardens ..." on page 5 ►



A large, open area is available to the community at the Rougeau Garden. Photo by Corey Toews

Planning for Pigs

...continued from page 5

the South Central Planning District's 2003 plan, which designated around 70% of the land area as environmentally sensitive, was not approved by the province. The provincial version of the plan for the area designated only about 5% of the area as environmentally sensitive.

ILO's arguably should be subject to an environmental assessment process, which would ensure some level of public

involvement. Currently the environment act only has provisions for the handling of manure, and not for the barns themselves.

One would hope that changes to legislation in the contentious matter of ILO's would strengthen the regulations protecting health and the environment, and give citizens and councils the power to act in the best interests of the entire community. Conflicts and controversy over ILO's in Manitoba are not likely to be solved through these amendments.

ECO

What's Happening

Wednesday, April 7—Manitoba Naturalists Society presents "Eco-Tourism in Manitoba" with Lea Stogdale. A discussion of eco-tourism respecting minimal use of resources, the beneficial effect on local cultures, and transportation and accommodation options using Manitoba examples. 7:30 pm at Kelvin High School, Room 31. \$5 for members and \$10 for non-members. Call 943-9029 for more info.

Thursday evenings, April 8, 22, May 6—"Backyard & Beyond" Make this the year you tackle the yard. Let Fort Whyte help you bring biodiversity home with fun and simple habitat naturalization tips. Topics will include: Heritage seeds and their importance, planting native prairie grasses and wildflowers, and building a backyard pond. 7 pm at Fort Whyte Centre. Call 989-8364.

Wednesday, April 14th—Native Orchids Conservation Inc. Annual General Meeting 7:30 pm, at Dakota Lawn Bowls Club, 1212 Dakota Street. Lorne Heshka will present a slide show "Orchids, Whales and a Polar Bear". For more info, contact Doris Ames at 231-1160 or e-mail adames@mts.net

Sunday April 18—Manitoba Earth Day "Celebrating Biodiversity" at Assiniboine Park Conservatory. 11am-3pm Free, fun events for the whole family. For more info contact Lise Smith at 467-3305 or lises@mts.net

Wednesday, April 21—Manitoba Naturalists Society Workshop Series: "Wildflowers and Trees of the Canadian Shield" with Morris Sorenson. 7:30 pm at Kelvin High School. \$5 for members, \$10 for non-members. Call 943-9029 to register.

Friday, April 23—"The Care & Pruning of Evergreens" by Mike Allen, 7 pm at the Assiniboine Park Conservatory. \$20 for members of Friends of the Assiniboine Park Conservatory, \$28 for non-members. Tickets are limited, call 837-4324 for more info.

Saturday, April 24—Faith and the Common Good-Manitoba, is hosting an Earth Day Celebration at the Forks. Beginning with a Multi-faith Sun Rise Ceremony at 6:40 followed by Bannock and Beverages and then from 10:00—3:00 we will have displays of groups and organizations with environmental/social justice goods.

Saturday, April 24—Project Peacemakers Annual Eco-friendly Dinner. 6 pm at Sturgeon Creek United Church, 207 Thompson Drive. Guest speaker Hon. Steve Ashton, Min. of Water Stewardship, entertainment by Three Day Band. Tickets \$10, Children 12 & under \$5. Vegetarian dinner. Please reserve tickets in advance. Call Derrick Martens at 775-8178.

Sunday April 25—5th Annual Eco-Adventure at Fort Whyte Centre. The Fort Whyte Centre has created it's very own Eco-Adventure, a 44 km race through the City of Winnipeg, including canoeing, running, rollerblading, and cycling, starting and finishing at Fort Whyte. Events for teams, relay teams and individuals. Call 989-8359 to receive a registration form.

Sunday, April 25—Celebrate Earth Day at Oak Hammock Marsh in a fun-filled day for the whole family! Join the Centre's interpreters for guided tours of the marsh to learn just how important wetlands are for the health of the planet. Call 467-3300.

Thursday, April 29—"The Care & Pruning of Fruit Trees" by Mike Allen, 7 pm at the Assiniboine Park Conservatory. \$20 for members of Friends of the Assiniboine Park Conservatory, \$28 for non-members. Tickets are limited, call 837-4324 for more info.

Friday May 7th—Mosquito Café, a socially conscious, social event (proceeds towards Green Thumb/Green Planet Presentation)

starts 6:30 pm at Charisma Restaurant, 83 Sherbrook Street for more info contact CROW, Inc. at (204) 229-9613, or CROWinc@mts.net. Please be scent-free

Saturday, May 8—Manitoba Naturalists Society Spring Garage Sale. 9:30 am to noon at Westminster United Church (Westminster & Maryland). Items for donation can be dropped off between 6 and 9 pm on Friday, May 7. For more info contact 943-9029.

Saturday, May 8—"Green Thumb/Green Planet" with Carole Rubin, author of How to Get Your Lawn & Garden Off Drugs and How to Get Your Lawn Off Grass. A presentation with how-to tips and slideshow. 2 pm at St. Boniface Library, 231 Provencher Blvd. This is a free event. Contact Manitoba Eco-Network at 947-6511 for more info or see www.mbeconetwork.org/GreenThumb.pdf.

Tuesday, May 11—"Birds of Assiniboine Park" with George Holland of the Manitoba Naturalists Society. At the Assiniboine Park Conservatory. Doors open 7 pm, program starts at 7:30. Free for members of the Friends of the Assiniboine Park Conservatory, \$5 for non-members. Call 837-4324.

Sunday May 16—PaddleFest! Fort Whyte and Paddle Manitoba bring you a celebration of Manitoba's canoe and kayaking community. Enjoy the Best of the Waterwalker Canoe and Kayak Film Festival. Displays and boat demos, a wood and canvas canoe building demonstration, the Manitoba Whitewater Club will display their kayaking talents and Paddle Manitoba's instructors will be on hand to help you perfect your strokes. Families can enjoy Voyageur canoe rides throughout the day. Tickets are \$8 dollars for Paddle Manitoba and Fort Whyte Members and \$10 for the general public. 10 am—5 pm at Fort Whyte Centre. Call 989-8364

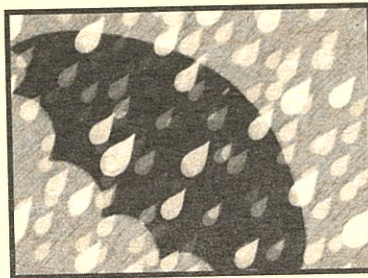
Tuesday, May 25—Consumers' Association Manitoba Annual General Meeting. The business meeting will begin at 6:30 pm. At 7:30 pm speakers will discuss the consumer impacts of BSE or "mad cow disease". Call 452-2572 for info.

Monday, May 31—Fundraising Workshop for ENGO's with Ken Wyman. This event is part of our Capacity Building Project. Location TBA. Pre-registration necessary. Contact Manitoba Eco-Network for more info or visit www.mbeconetwork.org

June 3-5—"Exposed for Life" a Conference on Children's Health and the Environment. The conference will discuss issues such as everyday exposure to toxic substances, impacts of climate change and air quality, differential impacts on Aboriginal and low income communities and the importance of urban greening. Keynote speaker will be Dr. Sandra Steingraber. At the Portuguese Centre, 659 Young St. See www.spcw.mb.ca or call 943-2561 for more info.

Sunday, June 6—CPAWS Run & Walk for Wilderness at Assiniboine Park (Duck Pond Shelter). The goal of this fundraiser is to promote awareness of the importance of wilderness and habitat protection in Manitoba while having some fun! The 2004 event will include the following: 10K (Timex Run #8), 5K Fun Run, 3K Walk. Contact volunteer@cpawsemb.org for further info.

Community Workshops on Climate Change—April 14, Russell & Area; April 27, Gimli & Area; May 4, Winkler & Area. Participants learn about climate change, energy efficiency incentives, greenhouse gas reduction opportunities for municipal operations and more. Action Planning for creating climate-friendlier communities also occurs. For more info or to request an invitation package contact Climate Change Connection at (204) 943-4836 or climate.connection@mts.net



Community Gardens

...continued from page 5

ing support to potential or existing gardens and gardeners. In contrast, in Toronto, Vancouver and Montreal the city is actively involved with community garden promotion and network building.

Tools to facilitate communication

This lack of information inspired Karen's decision to focus her current master's research on the experiences, motivations and values of female community gardeners. Seeing the great need for community garden promotion, Karen is planning on incorporating tools to facilitate communication amongst the gardeners, the general public and government. Facilitating communication requires raising garden visibility with a directory of some sort. Karen decided on a community garden map including contact information and brief garden descriptions. The map is intended to encourage interested citizens to visit or participate in local gardens and will be available to local neighborhood associations, other interested organizations and the general public by July 2004.

The public is invited on one of several tours to visit various

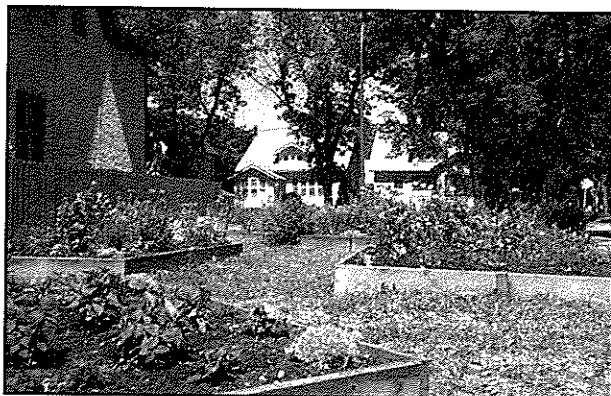
community gardens throughout the month of July 2004. In addition, Karen is creating a participatory video to show how Winnipeg's community gardens factor into personal and community development. This free video will be distributed in 2005 to local gardens, environmental and educational organizations. It will provide an effective tool for highlighting and promoting the current community gardening scene.

Together the community garden map, tour and video will provide the basic ingredients for a renewed community garden network, capable of empowering existing and future gardens and reinforcing their contribution to the urban experience. Hopefully, this will lead to future civic promotion and support for community garden initiatives.

Community gardens provide much more than a space to grow plants; they provide an opportunity to share knowledge, experience, friendships, food and vision. Much like the campaigns to save the wetlands or the rainforest the most important step is educating the public about their contributions.

If you have any feedback or questions regarding this community garden project, please contact Karen Lind at 474-7949 or umlindkm@cc.umanitoba.ca.

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The William-Whyte Garden is carefully set into a single lot in the core area. Photo by Corey Toews



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EcoCentre News

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Projects

We are pleased that Climate Change Connection (CCC) will be continuing its work of education and outreach about Climate Change for another year, with funding support from Natural Resources Canada, Energy, Science and Technology Manitoba, and Manitoba Hydro. Major highlights from the past year have been the community workshops held all over the province, and the Anti-Idling sign campaign.

This initiative has seen hundreds of signs posted in rural and northern communities encouraging Manitobans to improve air quality by turning off their cars when stopped or parked. Look for these signs on municipal buildings in Winnipeg over the next few months as the City gets on board, as well as at day-cares, clinics, religious institutions and schools. CCC will be working with other partners, including Resource Conservation Manitoba, to spread the word.

The Winnipeg Foundation and Environment Canada's Eco-Action have provided funding assistance for these city-based initiatives. Check out the CCC website at www.climatechangeconnection.org for write-ups on the municipal workshops, and much more information on climate change. The website is updated regularly.

Our GIS Mapping Centre (featured in the December issue) is keeping busy with a number of mapping projects, a workshop for environmental groups at our Annual Member Forum, developing its own web page, and a student project. (see related article on page 11).

We are hopeful that the Organic Lawn Care workshops will once again be offered in Winnipeg neighbourhoods this summer. The City of Winnipeg has provided some funding towards this effort already, and we are applying for summer positions through Urban Green Team and HRDC's Summer Career Placement. MEN is pleased to be co-sponsoring a book tour and talk

by Carole Rubin, the author of *How to Get Your Lawn and Garden Off Drugs*, on May 8th at 2 pm at the St. Boniface Public Library.

Our Capacity Building Project (in conjunction with the Sustainability Network) offered a media training workshop to environmental non-profits in January—a highlight of the day was "on camera" interview training. Our next workshop in this series is fundraising for environmental non-profits with noted funding specialist, Ken Wyman.

Check out the Project area on our newly-updated website for more information on any of the ongoing Eco-Network projects. (www.mbeconetwork.org)

Thanks to All Our Donors!

The Annual Appeal for 2004/05 was successful in raising more than \$4,000 for the core programs of the Manitoba Eco-Network. We are very grateful to all of the donors who responded for showing their continued support. The winners of the David Krindle pottery draw are Bill Reid and Margaret Scott. We thank Dave for generously donating one of the beautiful pots for this draw. His distinctive wood-fired work can be seen at the Stoneware Gallery on Corydon Avenue, and look for his booth at the Winnipeg Folk Festival.

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Manitoba's Lands & Waters

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Karst and Groundwater Pollution Issues in the Southern Interlake

by Andrzej Kobylecki

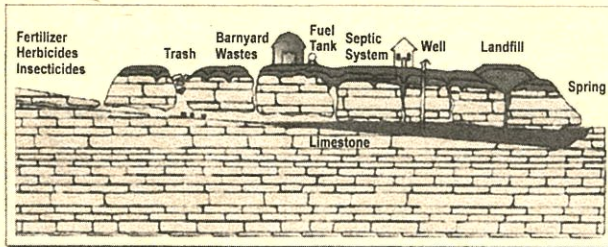
The Southern Interlake area of Manitoba is experiencing a growing number of large hog farm developments, brush clearing, and increased fertilizer and pesticide use. With increasing development, there is concern about potential ground water pollution. That this problem is especially significant in karst (limestone) areas has not generally been recognized as important. Vulnerability to ground water pollution in karst aquifers, such as in Southern Manitoba, is much higher than in non-karst aquifers. The following is a short presentation of the importance of this problem worldwide and in the Southern Interlake.

Karst is defined as a landscape formed by solutions of carbonate, creating limestone and dolomite bedrock. Common features of such landscapes are caves, sinkholes, and underground streams. A large proportion of the rainfall sinks immediately into the rocks and runs in channels underground. The higher land is dry; few streams flow upon its surface and even these may suddenly sink into the ground and disappear. It is estimated that about 10% of the earth's surface is composed of karst; however approximately 25 % of the world's population lives on these areas.

It is well recognized that karst areas are very sensitive to natural and human-made changes, because sinkholes and other related features (caves, shafts, trenches, etc) intimately connect these areas to local and regional hydrological systems. Improper land use in these areas can cause the bacterial and/or chemical contamination of sinkholes and related karst features and if unmitigated, can have a negative impact on water supplies and water quality. Especially dangerous situations occur if: sinkholes are used as a dumping ground, waste repositories and landfills are located nearby, oil and gas leaks from hydrocarbon development, there is a toxic or corrosive chemical spill, natural or chemical fertilizers, pesticides and herbicides are over-applied, or if animal farms, feed lots and septic systems are located in karst landscapes.

In such cases, after each snow melt and rain, water flushes all these sources of contamination through sinkholes directly into the groundwater. Streams and surface run-off entering

sinkholes or caves bypass natural filtration through the soil and provide direct conduits for contamination in karst terrain. Groundwater in these areas can travel quite rapidly through these underground networks—up to several kilometres per day, and contamination can be transmitted quickly to wells and springs in the vicinity. This process is shown in Figure 1. This has a devastating and long-term impact on the water quality of karst aquifers. The clean-up process can cost millions of dollars and take several years.



Management of karst landscape

In several countries, karst areas are widely recognized as an environmental hazard. Because the filling in of surface karst features is not a viable option for protecting ground water against pollution,

some countries are beginning to establish regulations, zoning ordinances, and other legal devices for controlling construction, storm water management, sewage disposal, agricultural and other land use on karst. These activities are also supported by growing movements to clean-up sinkholes used as a dumping ground. There is no legislation in Canada specifically protecting caves or karst and there have been no adequate land management practices developed. British Columbia is the only province known to be actively managing karst landscapes.

Karst in the Southern Interlake

The Southern Interlake is underlain by carbonate bedrock (limestone, dolomitized limestone and dolostone) which has been modified by recent glaciation. Glaciation shielded or sealed bedrock from erosion by depositing thick layers of glacial debris. In some cases, glaciation left open bedrock or thin layers of debris permitting the development of karst both on the surface and underground.

During the glacial recession, melt waters are deeply injected into the karst aquifers. This resulted in shaft and sinkhole formation, and the redirection of subsurface water flow. One of the chief factors or conditions that can increase the risk of water contamination is "groundwater sources that may be open to the surface because of shallowness and/or being covered by water permeable surface materials such as gravel. These include sources covered by less than six metres of glacial till, clay, clayey shale or other non-water tight materials." (Manitoba Health, Water Well Fact Sheet, 2001).

There is no available data as to what percent of limestone in the Southern Interlake is covered by less than six metres of non-water tight materials. Bedrock covered by less than 3 metres of surface deposit consists of about 10% of land, and less than 60 cm of deposit, about 5% of land (estimated from maps in McRitchie and Monson, Caves and Karst in the Southern Interlake, 2000). Most of these areas are located in ridges in the central part of Southern Interlake, along Highway 17.

see "Erosion Control ..." on page 8 ►

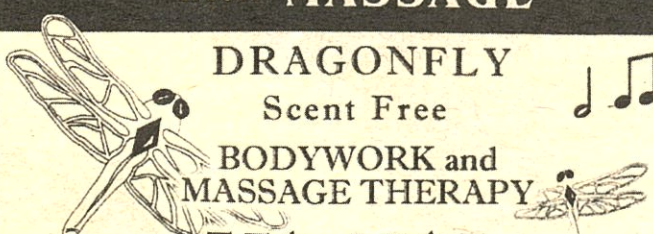
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Pollution Issues

...continued from page 5

The occurrence of karst features in the Southern Interlake was first reported in geological reports, government files, and agricultural records of early Manitoba settlements. The first (and last) attempt of compiling the available evidence of sinkholes in this region was conducted in 1977 by Sandy Margo (unpublished University of Winnipeg thesis). Later, karst features were recorded in field trip records of the Speleological Society of Manitoba (SSM), Manitoba Geological Service Reports, and a few other unpublished governmental reports and university theses.

In total, a few hundred sinkholes were reported, but only a few were completely documented with exact locations and other characteristics. Taking into account that only a small portion of potential karst areas were explored, the total number of sinkholes in the Southern Interlake could be estimated as up to few thousand. According to the available reports, a lot of caves and sinkholes were used as dumping grounds for farm equipment and homestead garbage. One of these sinkholes (about 70 metres wide), near Chatfield, was used as a sewer for buttermilk from the local creamery.

As stated by local geologist M. Rutulis, "Exposures of limestone in this area show that it contains fractures, solution cavities, and bedding planes which allow the passage of water flow directly to Lakes Manitoba, Winnipeg and Winnipegosis" (in

'Groundwater in Manitoba' from the book "The Natural History of Manitoba, Heritage of the Ice Age", ed. J. Teller, Museum of Man and Nature publication.) It can be assumed, that buttermilk and other pollutants coming through these sinkholes goes directly into the groundwater and surrounding lakes.

Management of karst and related legislation

Treatment of water pollution in karst areas in Manitoba, as well as in the Southern Interlake is unprogressive, so there is no adequate legislation or recommendations about respective land use and land management. Only a few references related to sinkholes can be found in agricultural or conservation regulations. Manitoba Environment water policies outline a number of pollution control initiatives that will be undertaken by the Government of Manitoba. Several of them can be easily adjusted for karst areas. The special significance of karst areas and their vulnerability to groundwater contamination should be recognized.

The first priority is to conduct a full inventory of karst areas and karst surface features and develop an adequate data base which should consist of exact locations of these features, their parameters (width, depth, etc.) discharge areas, pollution hazard classification, and so on. Any new policies should be conducted to protect ground water first, along with permitting sustainable development in the Southern Interlake.

For more information visit the Speleological Society of Manitoba website at www.cancaver.ca/prov/man.

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New Organic Café Honours Earth

By Anne Lindsey

There's a new organic cafe in town. The Five Seasons (formerly Cheryl's Cafe) is in a modest space on Ellice Avenue, west of Arlington. Its proprietors, Signe and Kyle Fehr, are not only committed to delicious, healthy and attractively served food, they have a mission to make the restaurant environmentally sustainable.

Both Signe and Kyle worked in conventional restaurants before starting their own business. Says Signe "we just couldn't feel proud of the food we were preparing. It wasn't food that we ourselves would want to eat." Their Five Seasons menu features a wide variety of fare, catering to meat-eaters and vegetarians alike. Many of their dishes are vegan, and they are happy to adjust particular dishes to suit a vegan diet. They are also willing to make adjustments for people with dietary restrictions, such as allergies. They choose not to use refined sugars in their cuisine; instead, desserts are made with natural sweeteners. Where else can you get real maple syrup on your pancakes?



*Kyle, Signe and daughter Lavender.
Photo by David Lindsey-Rauh*

Fresh, organic ingredients

Moreover, Kyle and Signe try their best to use organic ingredients whenever possible, and particularly locally available products, which means that they are supporting local farmers.

Their main supplier is Fresh Option Organic Delivery, a Winnipeg-based organic grocery business which specializes in locally produced organic products (see *Eco-Journal* v. 13 No. 4). For some ingredients, they also patronize nearby inner city entrepreneurs and ethnic stores, although these may not be organic, because they see the value of a strong local economy.

Items such as pasta, breads and desserts are made by hand and meals are carefully made from "scratch" from the freshest ingredients possible, which means that they are both flavourful and nutritious. It also

means that diners should plan to take their time when visiting Five Seasons—Kyle stresses that one shouldn't be expecting fast food! But you can expect very reasonable prices—one of their goals is to make organic cuisine affordable.

Environmental ethic

These two people have a keen wish to minimize their environmental footprint. Signe describes living in British Columbia's Slocan Valley before coming to Winnipeg, and standing with other community members to blockade destructive logging roads in the watershed. She has also lived on a farm, and knows the value and reward of growing one's own food. This ethic has transferred itself to their business.

With their home within walking distance of the cafe, Kyle and Signe choose not to own a car. They are conscientious recyclers, and all food scraps from the restaurant are composted. They hope to develop a rooftop garden area to raise their own salad greens and herbs. Pottery and artwork from local artists is on display and available for purchase in the restaurant.

The name Five Seasons comes from the Chinese tradition of honouring the time of Harvest as a season, says Signe. This is a small business in Winnipeg that honours the Harvest, food producers, the community and the Earth.

Five Seasons Café is located at 841 Ellice Ave. Phone (204) 783-7920.

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A moral dilemma **In Love with My Car**

By Kimberly Francey

I am the proud owner of a fully restored 1967 Mustang coupe. It has a 351 Cleveland engine and more horsepower and torque than I should discuss publicly. It has won countless awards at car shows, and is quite famous among car enthusiasts in Winnipeg. Its exhaust is so loud that it has shattered storefront windows and set off car alarms. I've actually been asked not to drive it in the Wolseley area.

I love this car and I have invested hours of my time and all of my spare change into improving it in one way or another. It truly is a magnificent machine and an important symbol of the post-industrial American lifestyle and history.

Unfortunately, that car pumps out so many exhaust fumes, you can get a headache from driving it too long if you aren't already used to them. This leads me to question how safe it must be if you are used to the fumes. To tell you the truth, I don't want to know. What I do know is that the life span of human lungs is sixty years, and I'm certain mine have already been eroded by the Mustang's output. I've never smoked a day in my life, but it won't surprise me if I'm told one day that my lungs have submitted their resignation.

Fuel efficiency of a space shuttle

This car has the fuel efficiency of a space shuttle and I'm not sure I could risk the embarrassment of an emissions test. A cruise from south Pembina to the middle of Portage Avenue will typically cost a full tank of premium gasoline.

The car is so finely tuned that it requires intensive daily maintenance. I have another car for daily driving, and obviously, this Mustang of mine is not a sensible car for anyone to have. It's a danger to personal health, ecological interests, the noise pollution is unspeakable and you can only drive it when it feels like it should be driven. No one needs two cars either.

As my environmental "awakening" dawned, I began to question the Mustang's contribution to environmental disaster and thought about what I could do about it.

There were a few options. I could replace the motor with a Honda motor (yeah, right). I could sell it, but someone else would drive it and be contributing its emissions so there was no real solution there. I could send the car to a scrap yard for it to be dismantled, then recycled to become someone's garbage can. That was the only real environmentally friendly solution I could imagine.

Given the time and significant investment I have put into that car as a passion and hobby, I just can't bring myself to recycle it. However, the whole act of doing such a thing would be very noble, and the sadistic act of terminating it Arnold-

style is definitely something I would love to put on my resume as an environmental warrior. Wouldn't that look good?

I would save on the insurance, the gas, the parts (I forgot to mention it breaks down biweekly), my lungs and thousands of emission violations that have yet to be determined. It is very obvious that this would be the best thing for everyone involved.

I just can't do it though. My losses would be immense. The only way to recover some of that is to sell it, which as I mentioned before isn't much of a solution. It is too bad the government hasn't implemented a program that will buy back these cars in the name of saving the Earth. I'm not sure the government is so interested in the environmental movement that it would even consider doing such a thing.

The Mustang has sat quietly in my garage for a year, never having been started. It's not hurting anyone now, and I have almost resolved to sell it to a teen-ager who will likely drive it into a lamp post and dispose of it quickly in a humane manner.

Thousands just like it

It isn't my Mustang alone, there are thousands just like it with the same or worse problems. I still have guilt. Add those cars to the fuel efficient ones, the industries around the world, and everything else causing pollution and climate change, and we certainly have ourselves a difficult situation.

This situation clearly has me frustrated with the what-to-dos but I cannot seem to resolve a decent answer. I'm just one person. If just one person has such conflict about the cost-effect versus the moral, ecological thing to do, what is going on in major corporations worldwide? What they would have to put up financially to become more environmentally friendly (generally speaking) would be a far greater sum than what I have to, so I can see why there has been such a sloppy attempt at cleaning up the environmental behaviour of the world. There needs to be more incentive at every level.

Scary thoughts. My psyche and my little car are just a micro-sample of the rest of the world. Many of us mean well and are searching for cost-effective answers, but in the end, will we find them? If we do, will these answers come in time? Perhaps better incentives and harsher penalties are in order. For now, we need to focus on changing one person at a time.

I still love my car, but for me, it's more of a museum piece than a mode of transportation. I think that many of our customs should go the same way — to be viewed behind the glass of a museum as a part of our history.

Kimberley Francey is an Environmental Studies student at the University of Manitoba.

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News from the GIS/Mapping Centre

On April 5th, 2004, the Manitoba Eco-Network's GIS/Mapping Centre officially launched its new web page, online at www.mbeconetwork.org/projects_gis.asp. The website's aim is to focus on environmental issues within Manitoba through the use of GIS (Geographic Information Systems software) and mapping techniques. In order to highlight the available techniques of data gathering, integration, analysis and visualization, the GIS/Mapping Centre has created a map showing the remaining mature forest stands in the Province's Forest Management Licence Area 01 (FML01), currently managed by the Canadian forest products company, Tembec.

Why FML01?

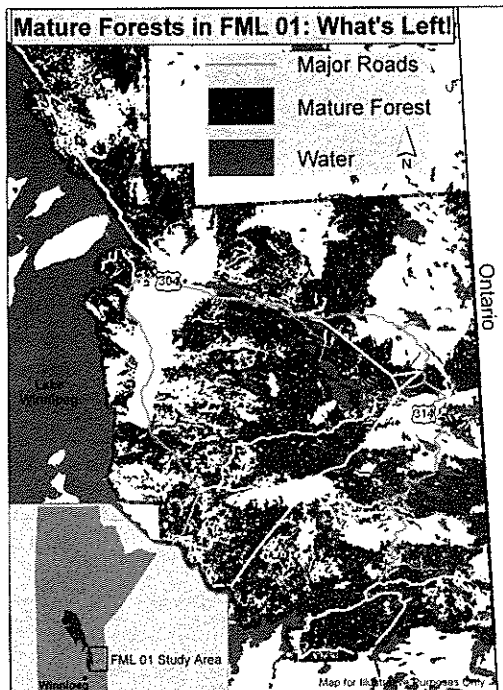
The geographic region that comprises FML01 has been and continues to be studied by government, industry and academia. It is the southern gateway of the current East side of Lake Winnipeg Planning Initiative. Furthermore, the FML01 area is arguably the most studied landscape in the province, with a wide range of publicly available data sets including aerial photography and satellite imagery, elevation data, trap line locations, individual mining claims, and forest harvest and fire history. There is also a plethora of information available through the Manitoba Land Initiative (MLI), including details on parks and protected areas, soils, lakes, rivers, watersheds, roads and a very detailed set of layered maps from the 1:20,000 topographic data set.

Finally, the FML01 region serves as a good case study by highlighting the multitude of issues and stakeholders involved in the politics of Canada's Boreal Forest regions. As such, the maps and images added to the GIS/Mapping Centre website should be understood as one way of representing the issues involved in the FML01 area.

Mapping Mature Forests in FML01: What's Left?

Using the 1986 Forest Resource Inventory (FRI) available through the MLI, all forest areas approximately 60 years or older, as determined by their "cut class" number, were matched

up against harvest (logging) data and first history data. By integrating these three data layers, all forested areas, logged or burned, since 1986, were eliminated in order to visualize, for illustrative purposes only, what mature forest stands remain in the FML01 area. Finally, linear features, including major roads, logging roads and transmission lines were overlaid to further highlight the fragmented nature of these mature forest stands.



Future Website Maps:

The mission of the GIS/Mapping Centre's website is not only to display images highlighting various environmental themes within Manitoba, but also to document the procedures and techniques involved in producing maps. It involves bringing together various data sets in a GIS software environment, and through careful analysis, a final map or visualization is produced. Through these processes, it is hoped that this spatial land use information will assist environmental non-profits in Manitoba.

Other News:

Online Maps: Recently the Manitoba Eco-Network GIS/Mapping Centre produced three Hydro related reference maps for the Canadian Nature Federation. The maps include Manitoba Hydro generating stations (developed and potential), potential Hydro sites outlined as part of the 1997 Treaty Land Entitlement Agreement, and a map showing existing and proposed Manitoba Hydro transmission lines. See: http://manitobawildlands.org/develop_hydro.htm#stations_map.

New GIS Data: The Manitoba Eco-Network GIS/Mapping Centre has recently acquired the following data sets: Tembec's harvest and renewal data, 1986-2003; Fire History data for the Province: 1976-2003; Enduring Features data; First Nations Trap line data, and Woodland Caribou location data for the East side of Lake Winnipeg.

Funding: The Manitoba Eco-Network GIS Mapping Centre has received CCHREI Internship funding for the GIS/Mapping Centre Technician position. With this in place, Adam Melnyk will be starting full-time on April 1, 2004.

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Sunday April 18 from 11:00 a.m. to 3:00 p.m.

Assiniboine Park Conservatory

- Discover the beauty and importance of biodiversity
- Try your luck at the Biojeopardy Challenge
- Let the kids make nature crafts or play a life size board game
- Meet the innovator that found a use for muskox poop
- Browse displays tables about everything from the conscientious consumer to Manitoba's majestic forests
- Enter to win some great door prizes
- And more!!

The event is free, and everyone is invited to attend!

Sponsored by a number of environmental organizations in Manitoba including: Oak Hammock Marsh, University of Manitoba—Faculty of Environment, Canadian Parks and Wilderness Society, Mountain Equipment Co-op, Winnipeg Students' Coalition, Friends of the Conservatory, Manitoba Eco-Network and Living Prairie Museum.

For more info, please contact Lise Smith
at 467-3305 or lises@mts.net.

Green Thumb, Green Planet Book Tour

Carole Rubin, environmentalist and author of *How to Get Your Lawn and Garden Off Drugs* and *How to Get Your Lawn Off Grass*, will be speaking and signing books at the St. Boniface Public Library, 131 Provencher Blvd., Saturday, May 8 at 2 pm. Admission is free. Sponsored by Manitoba Eco-Network, CROW, Chemical Sensitivities Manitoba, Winnipeg Public Library and Harbour Publishing.

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- Dr. Sandra Steingraber, biologist and Author.

Other out-of-town speakers include:

- Dr. Warren Bell, President Canadian Physicians for the Environment
- Kathy Cooper, Canadian Environmental Law Association
- Katsi Cook, Midwife, Six Nations
- Bill Limerick, Environmental Health Unit, Northwestern Ontario
- Judy daSilva, Grassy Narrows First Nation

Local resource people and speakers include:

- Barb Haffner, Evergreen Foundation
- Janine Gibson, Canadian Organic Growers
- Serge LaRochelle, Resource Conservation Manitoba
- Karen Kidd, Freshwater Institute

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Group members are entitled to nominate representatives for a position on the Eco-Network Steering Committee. Group membership is open to any non-governmental, non-profit group which has as one of its objectives the enhancing or furthering of environmental quality, protecting the environment or environmental education.

A supporting membership includes a subscription to **Eco-Journal** as well as notice of events and regular updates on issues and is open to any individual.

