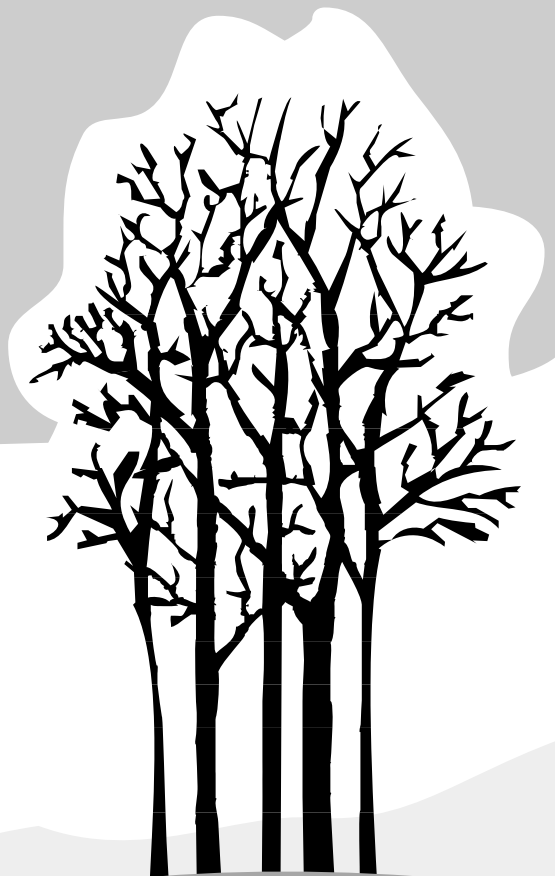


Land Drainage Review

FALL 1997 & WINTER 1998
OPEN HOUSES



**Summary and
Recommendations**

**Manitoba
Natural Resources**
Parks and Natural Areas
Hon. J. Glen Cummings
Minister





Dear Open House Participant:

This letter is to update you on the activities of the Land Drainage Review Task Force and to provide you with the results of the 11 Open Houses held across agro-Manitoba between November 6, 1997 and February 10, 1998.

Staff in the Water Resources Branch and other agencies participating in the Land Drainage Review have been examining and compiling the issues and suggestions which were discussed. The results of this work are enclosed for your review. A large number of these issues required follow up from regional staff, including site visits in many cases. The Regional Water Managers and their staff are continuing to address these problems.

Over 700 people attended the open houses and provided us with comments, concerns and suggestions. It is our intention to seek public review of the recommendations before they are finalized and presented to the Minister of Natural Resources. We hope that the final recommendations will set the course for the way land drainage is provided in Manitoba.

Your participation in the open house process was very much appreciated, and we are looking forward to your continued interest and participation as our program review progresses. If you have any questions or comments on the enclosed material or on the review process, please contact the coordinator of the review at (204) 945-2354 or myself at the above telephone number. Our fax number is (204) 945-7419.

Once again, thank you for your time and assistance.

Yours truly,

Steven D. Topping, P. Eng.
Director Water Resources
Chairman, Land Drainage Task Force

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Open House Summaries

Questionnaire Results

What do you see as the key issue in your area?

Overall, about forty percent of all respondents indicated that the key issue in their area was the need for some type of drainage work and about forty percent of all respondents indicated that the key issue was the impact of drainage works on downstream producers. In the Souris, Minnedosa, and Pilot Mound areas the impact of drainage represented over 50% of the issues raised. In the Swan River, Dauphin, Beausejour, Steinbach, Teulon, St. Jean and The Pas areas where drainage systems currently exist, over 50% of the issues concerned drainage needs.

What do you see as the solution?

In identifying solutions, regional differences are also displayed. In Minnedosa, enforcement was seen as the top solution while it ranked second in Souris and Pilot Mound. In the remaining communities, enforcement was rarely identified as a solution if at all. In the remaining communities, except for Winkler, some type of "drainage work" was identified most frequently as the solution.

Rating of the 16 issues identified by the Drainage Task Force

The identification of these 16 issues was based on the January 1997 stakeholder workshop. The average ratings for each of the 16 items was between 4.5 and 9 out of 10 (except The Pas) indicating that all of the issues identified by the Task Force were considered somewhat important.

The top five issues Provincially were:

- maintenance of the existing system
- defined responsibility
- downstream impacts
- local involvement and
- the watershed approach.

This was followed closely by:

- drainage system upgrading and
- drainage works that make good economic sense.

Across the Province there seems to be a consensus that a coordinated approach to drainage considering the entire system is required. Although local involvement is a high priority there was much dissatisfaction stated with local government attempts to manage water as it is seen as being piecemeal and the cause of many of the existing problems. As well there was little understanding at the workshops of the difference between municipal, provincial, highways, and in some cases conservation district responsibilities for drainage. The fact that natural waterways are a municipal responsibility, not provincial or conservation district responsibility, seemed difficult to accept by municipal officials.

Across the Province, drainage works are seen as having downstream impacts and the number of specific sketches submitted showing landowner conflicts was overwhelming.

On the other hand there was a much smaller but very concerned sector that felt that the existing system does not allow them to undertake the drainage works they require to produce efficiently and take advantage of the diversification opportunities open to the agricultural sector. These two concerns are directly related to the fact that no drainage, or an inadequate drainage system precludes upstream landowners from draining legally. Unauthorized drainage without a system in place, increases problems downstream.

Throughout the Province there was a feeling that municipalities and the Province are no longer maintaining their drainage works. Likely as the municipalities interface with more producers there was a more general feeling that municipalities are no longer interested in maintaining their works and in some cases producers are cleaning out or maintaining municipal drains.

In those areas with Provincial Waterways there was a feeling that the Province is not maintaining these works. In areas where Conservation Districts look after drainage the number of complaints was significantly lower. Many of the concerns of municipalities and the Province stem from the reduction in funds being used for drainage works. Solutions suggested, included having a dedicated revenue source for Provincial Waterways and municipal drains. Some producers even indicated that they would pay for maintenance and improvements to the system.

Manitoba Highways and Transportation not recognizing their works as part of the drainage system, caused much frustration.

Issues that were equally as important but were geographically specific included the following:

- In the Upper Assiniboine Basin and the Pembina Basin drainage works in Saskatchewan and North Dakota were seen as problems which were extremely damaging and unsolvable by existing jurisdictions.
- In the Swan River and Dauphin areas beavers and runoff originating in the National Park and Provincial Parks was a high priority.
- In the Capital Region, the impacts of land use changes to housing developments, and the reduction in storage, and increased runoff are seen as increasing the damage to agriculture.
- In the subescarpment areas of the Red River Valley and the Whitemud Watershed where high productivity crops are being grown, with or without irrigation, but where tile drainage is required, the existing drainage system cannot accommodate tile drainage.
- In the Interlake, water level control on lakes was a very important and controversial issue.
- Also the impacts of drainage from urban areas and forestry areas was identified as an issue currently not being considered in the licensing process.

Options

The drainage problems we are faced with today were brought to the attention of all by the last four wet years. However these problems did not develop overnight. The inability of the Province and the municipalities to maintain the existing system, changing cropping and land use, a dramatic increase in the capacity of producers to undertake on farm drainage, have combined to manifest a whole new set of problems associated with unauthorized drainage, land owner conflicts, increased crop damages, and jurisdictional disputes. In addition new opportunities and challenges face agriculture in Manitoba today necessitating an efficient and coordinated drainage system. As well a sustainable approach to drainage requires full cost accounting in addressing all of the benefits and costs of drainage. No single program or initiative is going to solve all of these problems quickly. What is required is a long term commitment to address these problems in a number of ways. Options have been identified to address the following areas:

1. Watershed Based Management
2. Drainage Maintenance and Reconstruction
3. Expansion of the Drainage System
4. Drainage Licensing
5. Enforcement
6. Awareness and Training
7. Wetland Protection
8. Inter-Provincial and International Watersheds
9. Fish and Fish Habitat Protection
10. Basin Boards
11. Interdepartmental Coordination
12. Beavers
13. Legislation
14. Water Storage and Retention

1. Watershed Based Management

The Conservation District process of water management addresses the greatest number of issues identified in the review:

- Lack of coordination by various jurisdictions and agencies,
- lack of drainage expertise,
- confusing jurisdictions,
- lack of funding ,
- lack of local involvement,
- lack of awareness and most of all,
- the inability to look at the entire system and all the impacts.

The Conservation District approach is the only tested approach to integrated water management in Manitoba and to varying degrees it has been shown to be successful.

Impediments to conservation district formation should be addressed. Also provincial and federal soil and water management programs as well as other resource management programs should be delivered through conservation districts.

As water must be managed on a watershed basis and as conservation districts are the only delivery groups in Manitoba based on the watershed, all existing and future conservation districts should have a role in water management including drainage. This holistic approach must address the function of natural waterways and roadway drains in the overall drainage system.

All existing and future conservation districts should be organized on a watershed basis. If they do not form on a watershed basis they should have to address how they will be able to manage water on a watershed basis, given their boundaries, and put in place procedures they will follow to ensure water management on a watershed basis.

All districts should deal with drainage planning priorities and come up with a plan within 2 years. Districts could assume the responsibility for drainage when they are ready. To undertake the required planning, seed money is required as well as provincial technical support and resources. The regional water manager would be responsible for coordinating the provincial support. Consideration should be given to two levels of Provincial funding. A standard level for all CD's and variable funding based on works which address Provincial goals and objectives.

Consideration should also be given to the use of Provincial design standards.

2. Drainage Maintenance and Reconstruction

In addition to the need for maintenance and reconstruction, drainage work that is being undertaken is not being done in a coordinated manner. We heard extensively about the lack of funding by the municipalities and province on drainage works. This problem has resulted in piecemeal solutions that in many cases result in more problems. It has also resulted in demands for enforcement and licensing. We heard many requests for dedicated funding for the provincial and the municipal drainage system. In some cases producers are maintaining portions of the municipal system.

Every review of drainage over the past 100 years has identified the following: The Province is not spending enough money on drainage; Municipalities are not spending enough money on drainage; there is a lack of coordination between landowners, municipalities, the province and between provincial agencies; drainage is not being done on a watershed basis; there is a perceived unfairness in who pays and who benefits.

These factors have led to every drainage legislation review. The 1880 legislation "The Drainage Act" was replaced by the Land Drainage Act of 1895 because of the need for the funding of collector drains. This Act was replaced by the Land Drainage Arrangement Act of 1935 because of the lack of funding to maintain drainage works

and the disagreement over who pays. This Act was in turn replaced by the Water Resources Administration Act because of the lack of funds to handle foreign water. It is not surprising that the current review identified a lack of funds to maintain the existing drainage infrastructure as a major issue.

In order to substantiate this need for funding, to determine what portion of the benefits accrue to; the producer, the municipality, the province or the federal government and to determine the differences across the province. It is proposed that a consultant be contracted to undertake such a study. The study would look at the benefits of drainage system expansion, upgrading requirements, the benefits of tile drainage as well as the full costs of drainage.

In addition, it is proposed that Provincial Maintenance and Reconstruction expenditures be prioritized to favour waterways where municipalities are coordinating their works on a watershed basis and have a plan in place. This will ensure that where provincial funds are expended that they will result in the greatest overall benefit.

3. Expansion of the Drainage System

With a shortage of funding to maintain the existing drainage system, and as maintenance is a higher priority than upgrading and upgrading is a higher priority than new construction it is not surprising that no programs exist to address drainage system expansion. Under the existing legislation there is no provision for landowner initiated and funded drainage projects (Petitioning). With the petitioning approach as it exists in Saskatchewan, North Dakota, and Ontario, if the project is approved the landowner(s) would have the project constructed with the costs assessed by the municipality to the landowner(s) taxes.

The opportunity for petitioning existed in this Province however this approach has not been used for more than 30 years. Prior to 1965 and the creation of the Provincial Waterway system Provincial Legislation allowed for the petitioning process in the formation of drainage maintenance districts. Prior to 1996 the Municipal Act provided for the petitioning by landowners for drainage works. The shortage of funds to maintain the existing Provincial Waterway system has precluded its expansion. The current Municipal Act does not contain a provision for petitioning, however, municipalities may address it through bylaws. Therefore in the absence of bylaws, landowners willing to pay for works do not have the opportunity to drain because there is no mechanism in place to provide for this option. This results in limited opportunities, and in some cases unauthorized drainage negatively impacting downstream producers. This also results in increased enforcement, investigation, and legal costs to the province.

Given the severe limitation that lack of drainage poses to special crops production and Manitoba's competitive advantage, it is suggested that Manitoba Agriculture initiate

discussions on a joint initiative with the federal government to target areas having the greatest potential to benefit from enhanced drainage infrastructure.

It is suggested that the Conservation District Act could be amended to allow for landowner initiated and financed drainage works. It is felt that this approach should only be permitted in the context of watershed management. Given the fact that the impact of drainage is seen as one of the two top issues, it was felt that drainage petitioning outside the context of overall watershed management would be setting the stage for more drainage conflicts before solving the existing backlog of conflicts. For example drainage expansion in a watershed that has its downstream system under capacity would add to the problems currently being experienced.

Another option could be to amend the Municipal Act or create bylaws to allow for petitioning within the context of watershed management.

This petitioning approach could also be used for maintenance and upgrading and as these activities would not be adding to the contributing area of the watershed the implications to wetland loss and downstream flooding would be much less of a concern with maintenance and upgrading than they would with new construction.

4. Drainage Licensing

There is an increased call for drainage licensing, under the Water Rights Act, which is seen as a solution to drainage conflicts and as a solution for municipalities to unwanted drainage works in their municipalities. This demand is being responded to by the Department of Natural Resources by the dedication of increased staff and funding levels to licensing and by the regionalization of this activity, and should continue to be enhanced to cleanup the backlog of drainage complaints and license applications. However this should be viewed as part of the solution and not the whole solution. Expectations on licensing are that it will be done fast, that it will consider cumulative impacts of drainage, that it will protect potholes and wildlife, and that it is just a matter of explaining what types of drainage require a license and what types do not. The reality is that, if the licensing process is to involve municipalities and other affected interests and if it is to protect those downstream, it has to be more than a rubber stamp and it will take time.

The licensing process does not address cumulative impacts. The intent of the Water Rights Act is not to dictate what people can do on their own land, but to protect downstream property and resources from the impacts of drainage. The Act addresses the impacts of drainage works. As the same works constructed in the pothole region, the escarpment, or the Red River Valley would have different impacts it is not possible to categorize drainage works on a provincial basis based on number of acres drained.

However, if licensing was done in conjunction with Conservation Districts or watershed planning groups, it could accomplish what it was intended to accomplish. For example if Conservation Districts and Watershed planning groups prepared a drainage plan for their watershed, the Department of Natural Resources or an

interdepartmental committee could approve the plan in advance. All drainage works consistent with the plan could be automatically approved. Only those projects outside the plan would have to be scrutinized. In addition, clear guidelines on licensing requirements could be prepared for each watershed. Those in Conservation Districts or watershed planning areas could receive fast track responses to licensing requests as they could be assessed and approved in the regions.

The Provincial role in drainage licensing should be maintained. Municipalities and other departments should be consulted on how it can be streamlined. The Province must also set the stage for the planning process. The back log in drainage license applications and conflicts should be addressed by Manitoba Natural Resources.

5. Enforcement

Without doubt, if Drainage Licensing is to be taken seriously, enforcement delays have to be reduced and there has to be a real threat of action. However the intent of enforcement is the deterrent and not the action resulting from the charge or fine. After a charge is laid, the number of complaints usually increases and the dissatisfaction with the enforcement becomes a greater issue. Therefore priority should be placed on a proactive preventative approach. However, where this approach is not successful, enforcement must be used.

Manitoba Natural Resources should continue to have responsibility for enforcing the Water Rights Act. The Natural Resource Officers (NRO's) should continue to be used for enforcement.

6. Awareness and Training

As the number of local organizations dealing with drainage increases and as the involvement of other resource sectors such as Natural Resource Officers increases, there becomes a need to provide these groups with appropriate information on drainage standards and procedures and to provide appropriate training to all those involved. It is suggested that a drainage manual be prepared for conservation districts, watershed planning groups, Ag Reps and regional water managers and producers and NRO's. This could be one part of a larger resource management guide. The Department of Agriculture would be responsible for organizing a certification course for subsurface drainage contractors.

It is also suggested that training sessions on drainage and water management in general be held for water managers, drainage officers, NRO's and Ag Reps.

7. Wetland Protection

The contradictory responses over being told what you can do on your own land vs the expectations that wetlands on private lands have value and should be conserved would indicate that neither the status quo nor legislation that dictates the retention of wetlands is workable at present.

Drainage Policy 6.6 "The protection of wetlands shall be a consideration in planning and developing drainage projects" would require drainage plans to incorporate this policy up front in the planning process.

Wildlife and Fisheries strategies are currently in preparation. A wetland classification system would definitely be of assistance. A more encompassing water act or a wetland act could be used to implement the wildlife strategy in terms of wetland protection.

Taxation options should be reviewed such as reverse taxation for wetlands. Recent tax increases on wetlands, although they are nominal send the wrong signal to landowners and are counter productive.

Currently the most effective approach is through Conservation Districts. Districts can get the most for their funds by prioritizing works on a watershed basis while working with the community priorities.

If drainage petitioning is in place, some type of wetland classification system and legislation will be essential as currently one of the main factors protecting wetlands is the refusal of downstream landowners to accept this water.

It is recommended that wetland and fish habitat protection be addressed in the planning process. Existing wildlife and fisheries resources should be provided early in the planning process as opposed to focusing on the licensing.

8. Inter-Provincial and International Watersheds

The trans boundary issues facing those municipalities along the U.S. and Saskatchewan borders will not be solved by anything we do solely in this province. For watersheds shared with the U.S. it is recommended that permanent watershed boards be established. These boards would provide a much improved mechanism for avoiding and resolving transboundary disputes by building a capacity at the watershed level to anticipate and respond to the range of water-related and other environmental challenges that can be foreseen for the 21st century. For watersheds shared with Saskatchewan a similar Canadian model should be pursued.

9. Fish and Fish Habitat Protection

The open houses did not bring forth a strong reaction concerning the impacts of drainage on fish and fish habitat. This was likely because the attendance was mainly producers and municipal representatives and also because of the reduction in drainage work being undertaken by municipalities and the province. Any increased attention to drainage works and maintenance will however lead to an increase in concerns over fish habitat. As well an integrated sustainable approach to drainage would require that we consider fish habitat up front in the planning and design of these works as opposed to addressing them as impacts of drainage. It is proposed that fisheries biologists, one in the western region, and one in the central region would be seconded to work with the conservation districts and water management organizations to assist in incorporating fish habitat protection and enhancement into the design, construction and maintenance of drainage works.

10. Basin Boards

To ensure that the cumulative affects of drainage and the implications to other parts of the basin are considered, it is proposed that the Conservation Districts and Watershed boards along with the responsible provincial water management agencies come together as basin boards to coordinate activities at the basin level. The role of the province will be to provide terms of reference and support to bring the watershed groups together.

11. Interdepartmental Coordination

It is imperative that provincial agencies coordinate their programs and activities. It is recommended that an interdepartmental committee represented by Highways and Transportation, Natural Resources, Agriculture, Environment, and Rural Development be formed to coordinate the provincial role in drainage.

12. Beavers

There was much concern over the beaver problem and much concern over the beaver program operated by the Department of Natural Resources. It is recommended that the Department of Natural Resources work with municipalities and Conservation Districts to make the program more effective.

13. Legislation

The Water Rights Act

Legislative changes could involve changes to the existing Act, Regulations, or replacement with specific drainage legislation. These legislative changes must accommodate Drainage Plans or Water Management Plans which will be prepared by Conservation Districts, watershed groups or groups of municipalities, Provincial approval will be necessary for these plans. Individual license applications will be submitted to these organizations for forwarding to the Water Resources Branch with recommendations. Many municipalities are currently looking at a backlog of drainage permits or approvals. As a dual system of licensing would make the process even more complex and lengthy the municipal and the provincial approval process must be harmonized.

Municipal Act

It is recommended that the Municipal Act be revised to include municipal responsibility and authority for drainage.

14. Water Storage and Retention

Water storage and retention is one way of counteracting the changes to runoff caused by drainage. The Conservation Districts, Habitat Heritage Corporation and Ducks Unlimited and PFRA have been the main agencies responsible for developing water storage and retention projects. Although the Province and municipalities have programs dealing with drainage, there are no water retention programs. In addition, taxation and regulatory agencies do not always provide supportive or consistent signals regarding storage and retention. It is recommended that support be provided to conservation districts, other watershed management groups and others undertaking water storage and retention projects which reflect not only the wildlife benefits but the downstream drainage and flood control benefits as well. In addition all provincial agencies should review their legislation, programming and regulations to ensure that impediments to water storage and retention are removed.

Individual Community Responses

(based on questionnaires completed by Open House participants)*

- Overview
- Issues and Solutions Identified
- Range of Comments
- Rating of Provincial Issues

** Sample participant questionnaire form is found on the fold-out section of the back cover.*

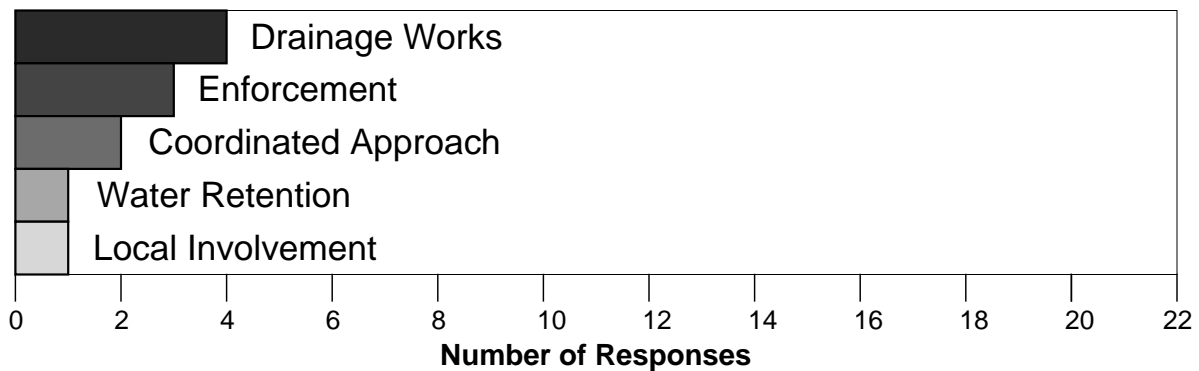
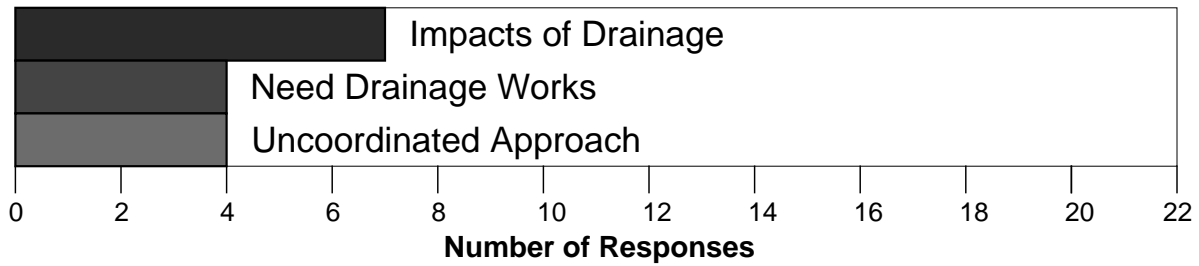
Souris

November 6, 1997

Attendance - 150

Overview

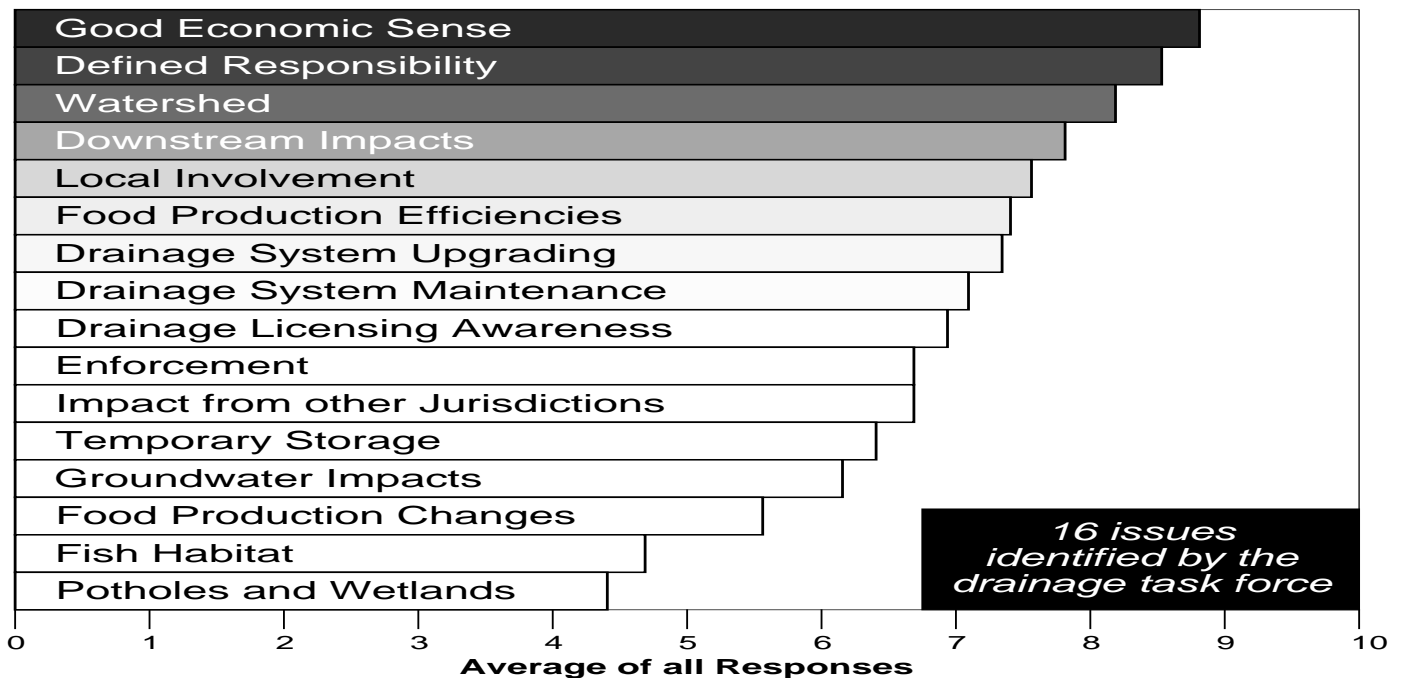
The Souris meeting had the highest attendance. A large number of participants had local and on-farm issues. Many of the concerns raised involved the difficulty or length of time required in obtaining a drainage permit, and the lack of enforcement of current drainage regulations on upstream landowners.



Range of Comments

- Individuals do not consider all aspects of drainage before proceeding, especially aspects involving downstream effects. Specific guidelines are needed.
- Considerable unlicensed drainage is taking place. A comprehensive watershed project is needed to address this.
- Cooperation is lacking between those responsible for drainage — landowners, municipalities, the province and the conservation district. Better enforcement of the Water Rights Act is needed.
- Additional drainage is overloading culverts in municipal roads. Culvert upgrading and restrictions on additional drainage are needed.
- Red tape and time delays are problems — landowners are best qualified to make management decisions.
- Rapid spring runoff overloads the drainage network — headwater dams and reservoirs would reduce the problem.
- Other parts of the province should receive the same level of drainage service as the Red River valley.
- The Province should have jurisdiction for all drainage matters. The same rules should apply to everyone and they should be enforced. Drainage improvements should immediately be reported to the Municipal Assessment Branch.
- Aquifer protection and preservation should be considered in drainage planning. More local involvement and discussion is needed.

Please **rate the importance** of the following in your area: Low (0) - High (10)



See back inside cover for a copy of the questionnaire form.

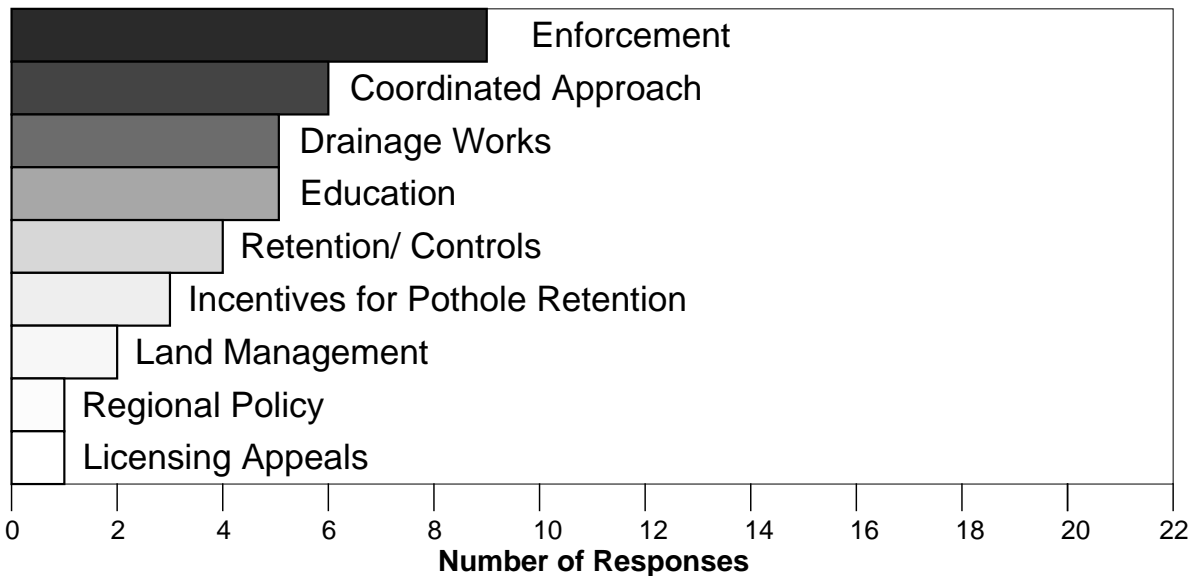
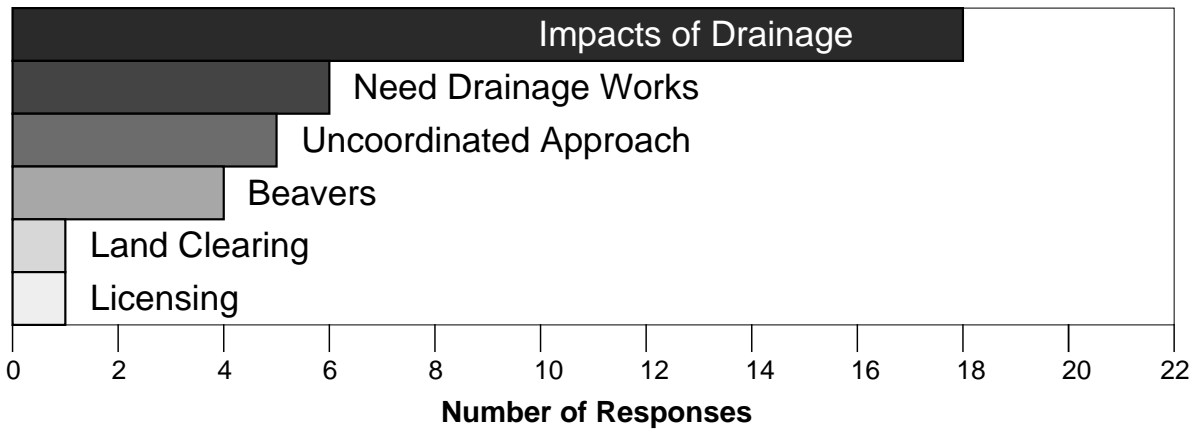
Minnedosa

November 10, 1997

Attendance - 45

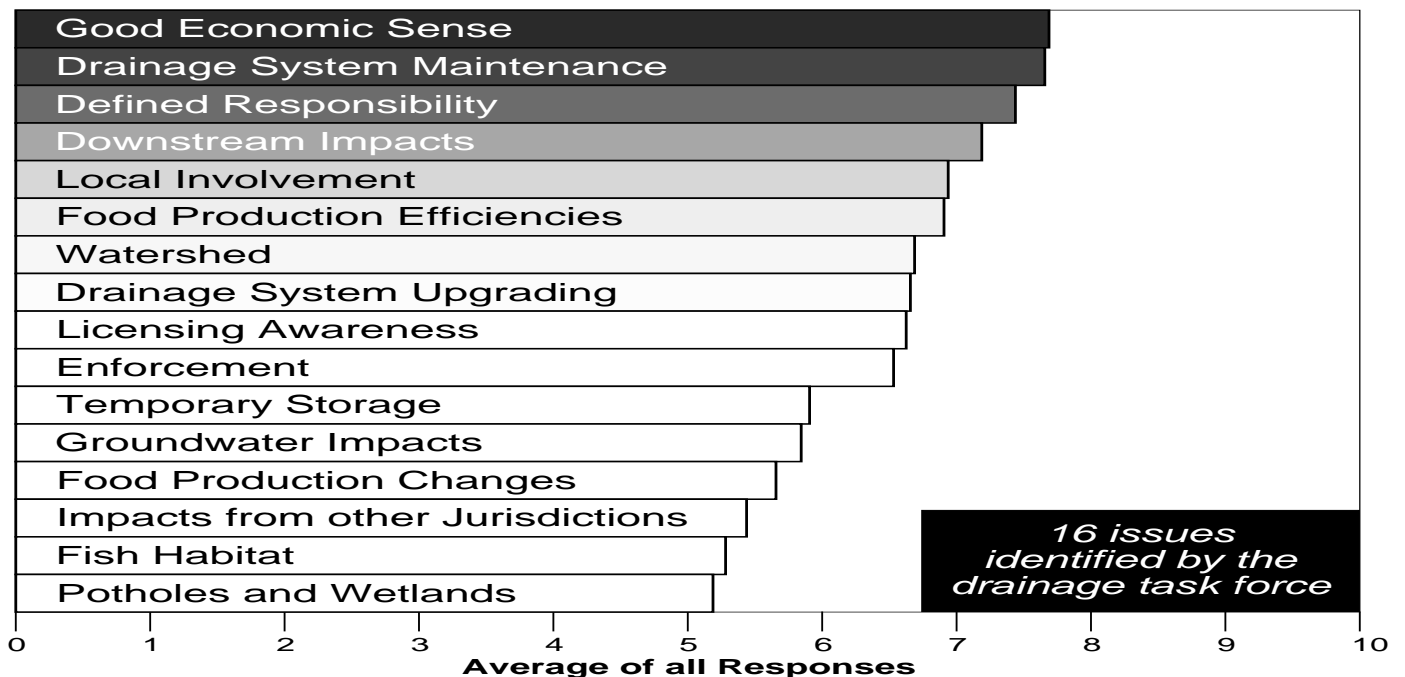
Overview

Participants at the Minnedosa open house provided the widest array of issues and solutions. The impact of drainage was the number 1 issue with enforcement identified as the number 1 solution.



- Wetland drainage — often done on marginal or unsuitable land, often to make field operations more efficient. Wetlands are lost, and nearby shallow wells may be affected. Some of these wetlands should be restored. Education and perhaps financial assistance is needed to improve recognition of the value of water. Guidelines should be available for controlling the drainage of permanent waterbodies.
- Pothole consolidation or drainage to manage downstream wetlands leads to habitat loss in the donor areas.
- Uncontrolled drainage by landowners and municipalities is a serious problem. Better enforcement is needed to shut down some operations and set examples.
- Enhancing habitat on wetlands leads to increased waterfowl depredation — present compensation is inadequate.
- Beavers interfere with orderly drainage by flooding drains and waterways.
- Unimproved land values will remain low if potential buyers fear that improved drainage on the land will not be licensed. Licences should be issued if all affected people are in agreement. Local committees could screen applications with final approval from DNR.
- More water storage dams should be built in headwaters and on escarpments.
- A local tax levy is needed to fund drainage works. Maintenance by municipalities and provincial departments including Highways is currently inadequate. Better planning is also needed.
- Landowners do not understand regulatory requirements and enforcement responsibilities - better information is needed.
- The province should exercise more control over drainage through more enforcement activity. Turnaround times for licence applications also need to be improved.
- Zero tillage should be encouraged — runoff is less of a problem than on cultivated land.
- Spring runoff should be slowed to reduce sedimentation in waterways and lakes.
- Landowners should be able to drain potholes on their property to improve efficiency.
- Water levels need to be controlled in some areas to control salinity.
- Decisions must include input from younger, active farmers.
- Natural Resources lacks a water management policy — a regional policy should be developed.

Please **rate the importance** of the following in your area: Low (0) - High (10)



See back inside cover for a copy of the questionnaire form.

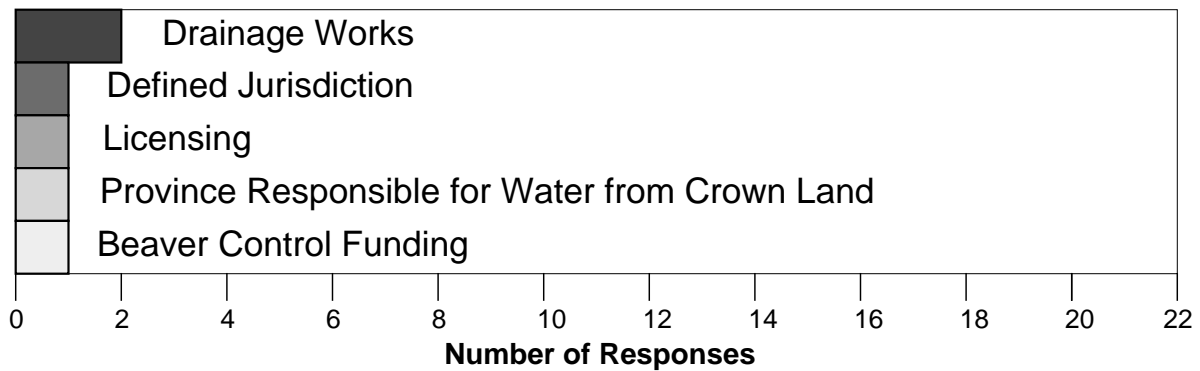
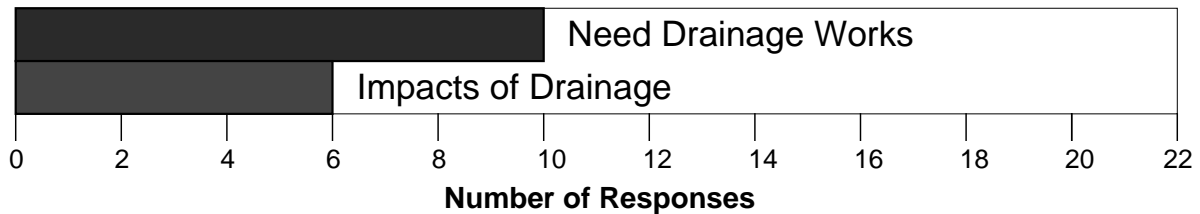
Swan River

November 12, 1997

Attendance - 25

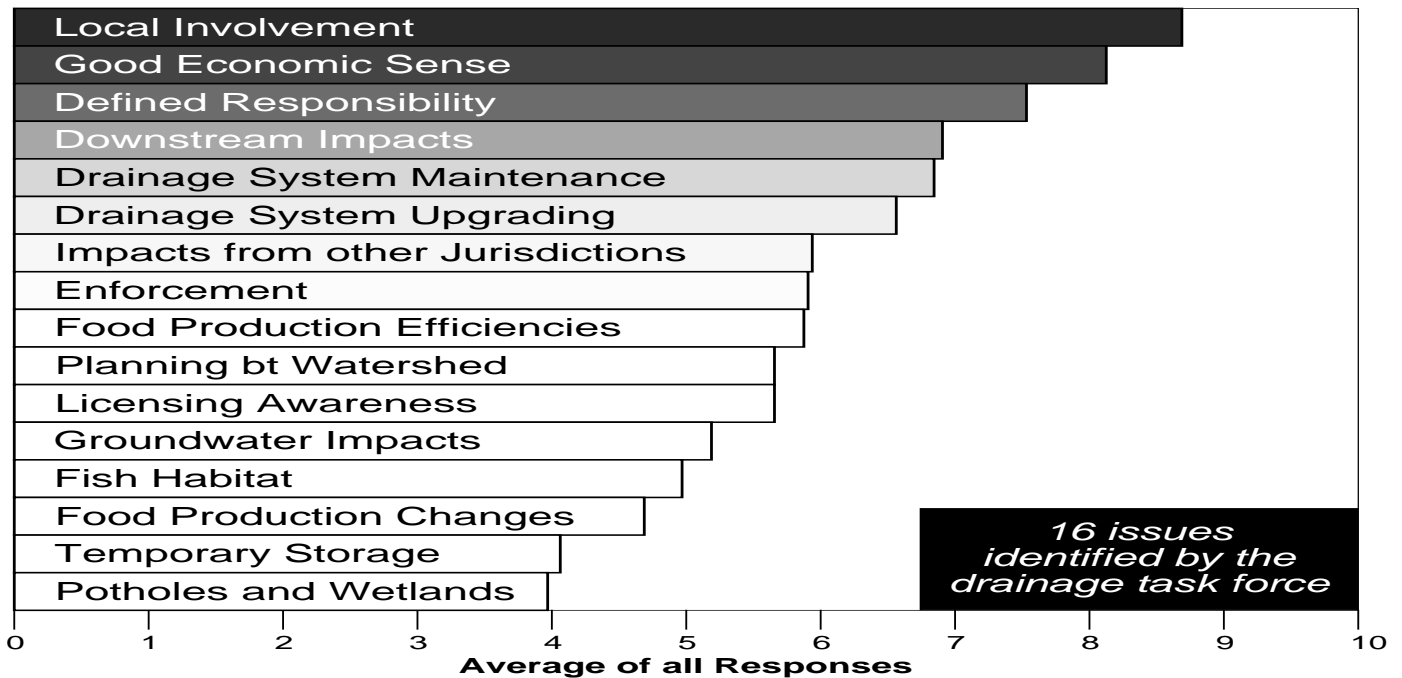
Overview

Escarpment issues were prominent at the Swan River meeting. Flash flooding, erosion and siltation concerns were discussed, as well as the management of related resources - crown land and beavers. Local involvement followed by drainage that makes good economic sense and defined responsibility rated the highest of the 10 drainage committee issues.



- High velocity flows on steep waterways produce serious erosion problems.
- A system approach to design, construction and maintenance is needed, with responsibilities clarified between provincial agencies and municipalities.
- More money must be made available for maintenance (including beaver control) and for restoration after flood events.
- Runoff from crown land including parks should be managed better.
- Drainage licensing and enforcement needs to be done in a timely way.
- A conservation district is needed to improve drainage management — increased local involvement is desirable, but municipalities sometimes do not respond effectively.
- Guidelines for drainage and beaver control should be provided.
- Maintenance work is needed on natural waterways — removal of debris, repair of erosion areas, etc.
- Better watershed control would reduce downstream flooding during heavy rainfalls and in the spring melt period. Indiscriminant upstream drainage aggravates flooding.
- The public needs better information on available programs and regulations.

Please **rate the importance** of the following in your area: Low (0) - High (10)



See back inside cover for a copy of the questionnaire form.

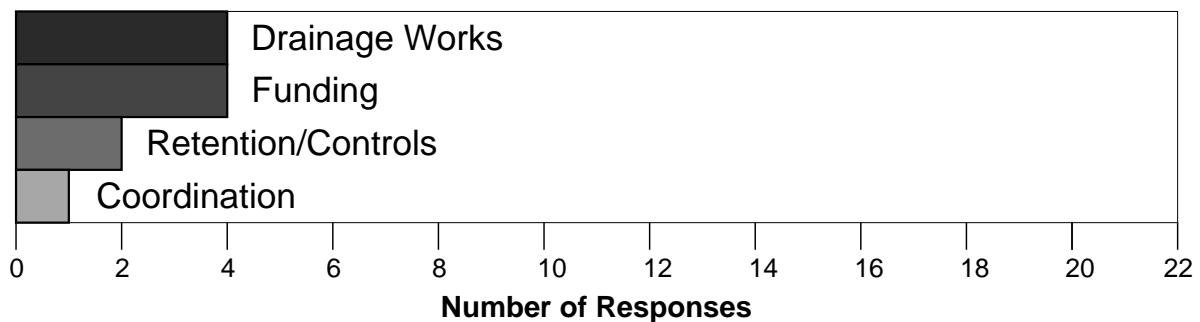
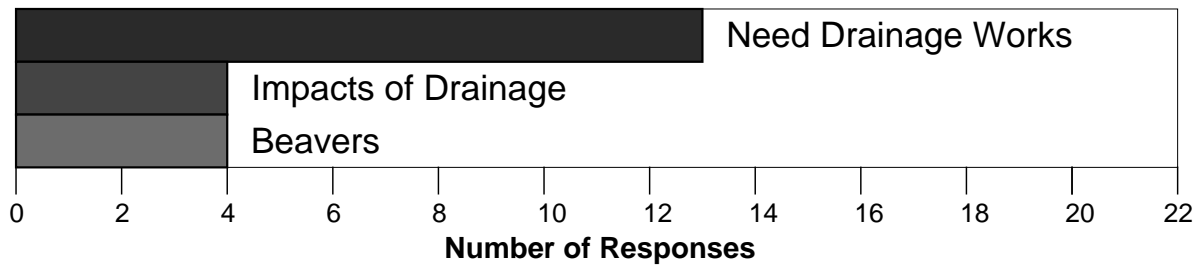
Dauphin

November 13, 1997

Attendance - 35

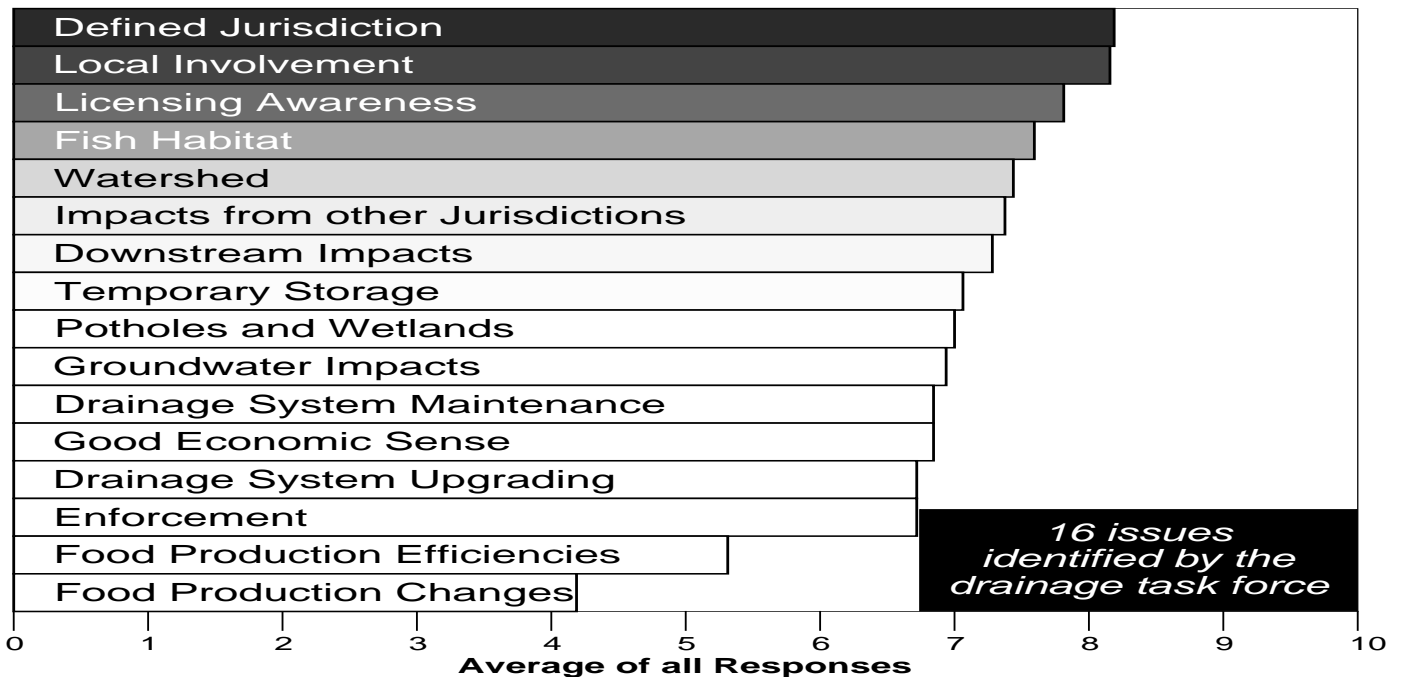
Overview

The majority of those attending the Dauphin meeting were not from an area with a Conservation District. Number one issue identified was the need for drainage works. While in rating the 16 issues identified by the drainage committee defined jurisdiction, local involvement, licensing awareness and fish habitat were the most highly rated. However the rating of the first 14 issues only ranged for an average of 6.8 to 8.2.



- Illegal drainage by individuals and municipalities is a serious problem.
- The time required to obtain a licence is too long, and the public does not understand licensing requirements — faster service and public information is needed.
- Beavers reduce the effectiveness of the drainage system — more effort is needed to control them, including efforts in Riding Mountain National Park.
- Very supportive of Intermountain Conservation District, Turtle River Conservation District and the Dauphin Lake Basin Advisory Board - conservation districts can provide technical advice and facilitate the resolution of problems.
- Drainage outlets into Lake Manitoba are inadequate - increased drainage in the southern part of the R. M. of Lawrence has prolonged flooding along downstream waterways near the lake. This is also a problem along waterways entering the Mossey River.
- Cost - benefit studies are needed for drainage and fisheries related works. Large scale drainage is not necessarily appropriate for land used for forage production.
- Sediment deposition in the lower reaches of waterways such as Edwards Creek is a problem.
- Maintenance is a concern now and will likely be a larger concern in the future.
- Watershed planning is needed to coordinate upstream and downstream drainage work.
- Federal agencies which have approval roles should be more locally responsive - eg. shoreline stabilization on Dauphin Lake.
- Some of the present system was built in the 1950s and has not been upgraded — a higher drainage standard is required now.
- Riparian zones should be protected.

Please **rate the importance** of the following in your area: Low (0) - High (10)



See back inside cover for a copy of the questionnaire form.

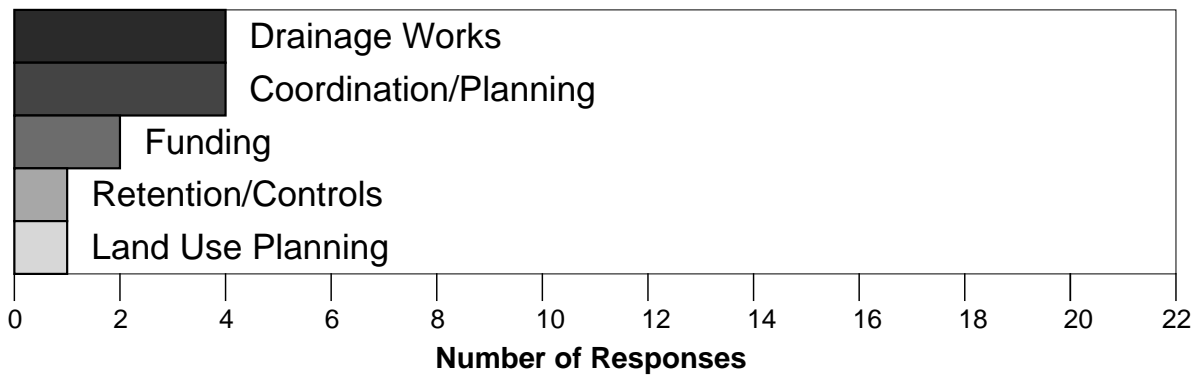
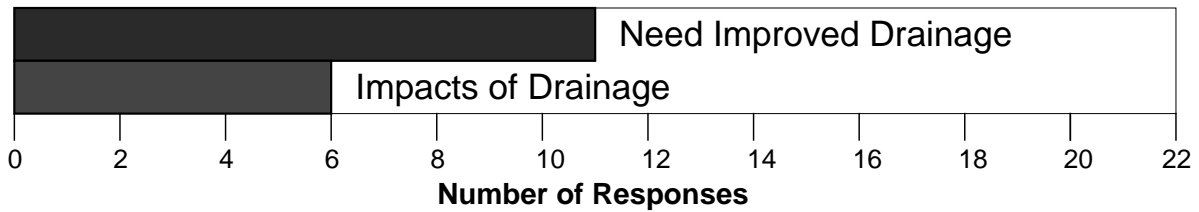
Beausejour

November 24, 1997

Attendance - 35

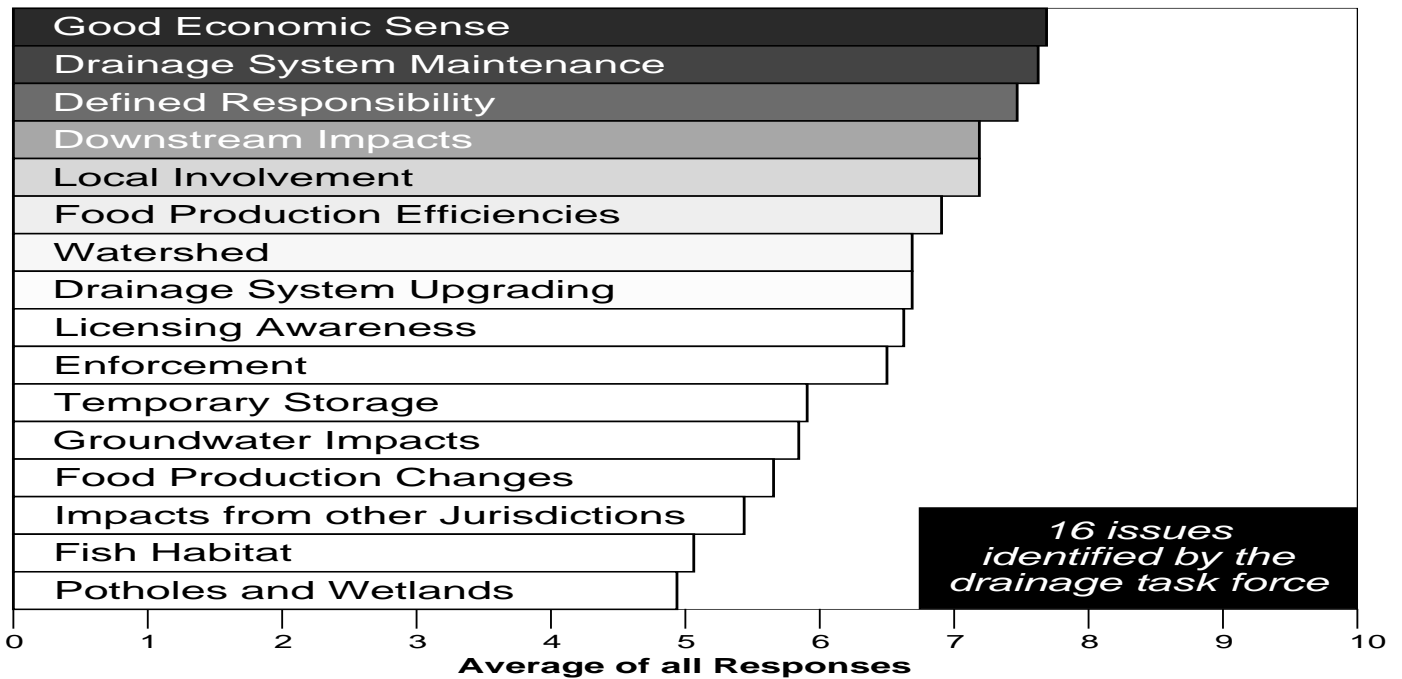
Overview

Differing needs between urban and rural residents were highlighted in this meeting, which involved residents and councillors from some of the fastest growing areas of rural Manitoba.



- Much drainage occurs without a proper plan — construction and maintenance should be planned on a watershed basis.
- Clearing and drainage of crown land for agriculture adds drainage area to existing drains and speeds runoff. This increases development pressure in unserviced areas and adds to costs for both municipalities and the province.
- Headwater storage should be developed on Cooks Creek - the land there is suitable for water retention. Incentives such as tax relief should be provided to encourage upstream water retention.
- Water quality is a concern on drains which carry runoff from fields where manure spreading has occurred. Livestock operations need to have a sufficient land base for manure spreading.
- Excessive drainage of wetlands is occurring. A provincial wetlands policy is needed to address this.
- Better maintenance on drains is needed, including crossings — this would involve more money and better planning.
- Urban development on marginal headwater land increases flows in the downstream system.
- Natural waterways should be maintained without changes, and enhanced by additional tree planting.
- Beavers create problems on numerous drains and waterways.
- A drainage licence should not be necessary for a landowner living adjacent to a drain.
- Coordination of drainage is necessary between municipalities. Starting at the bottom of a drainage system, all channels and culverts should be sized appropriately.
- Drainage also occurs on non-agricultural land - in forest cutting areas, drainage occurs to allow summer road access. Drainage may also facilitate wild rice production.
- Drainage upgrading is needed to protect newer higher value crops.
- Conservation districts or alternatively advisory boards should be responsible for drainage on a watershed basis.

Please **rate the importance** of the following in your area: Low (0) - High (10)



See back inside cover for a copy of the questionnaire form.

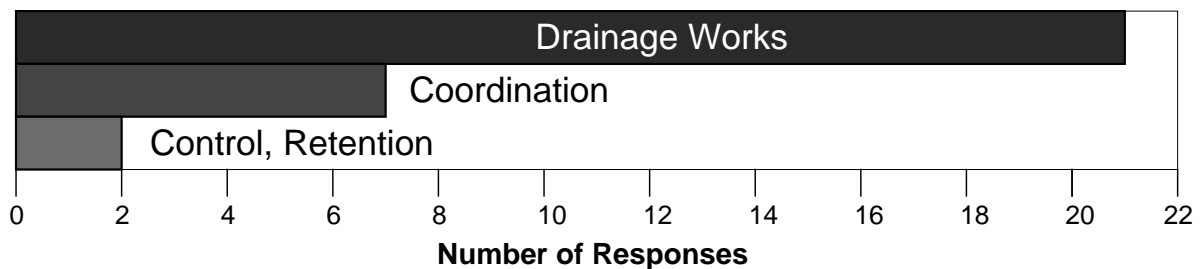
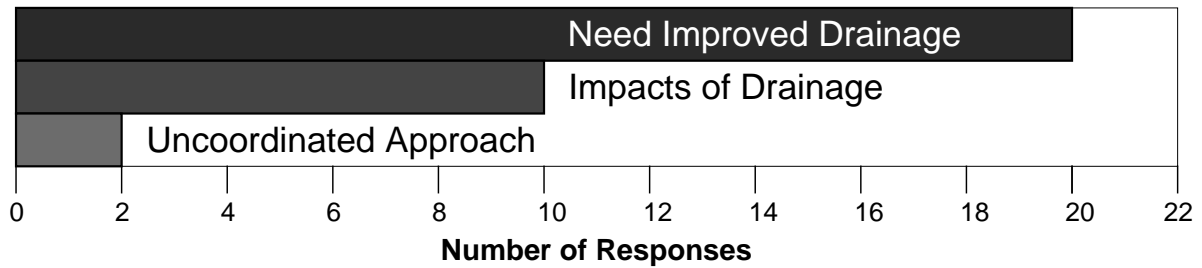
Teulon

November 26, 1997

Attendance - 100

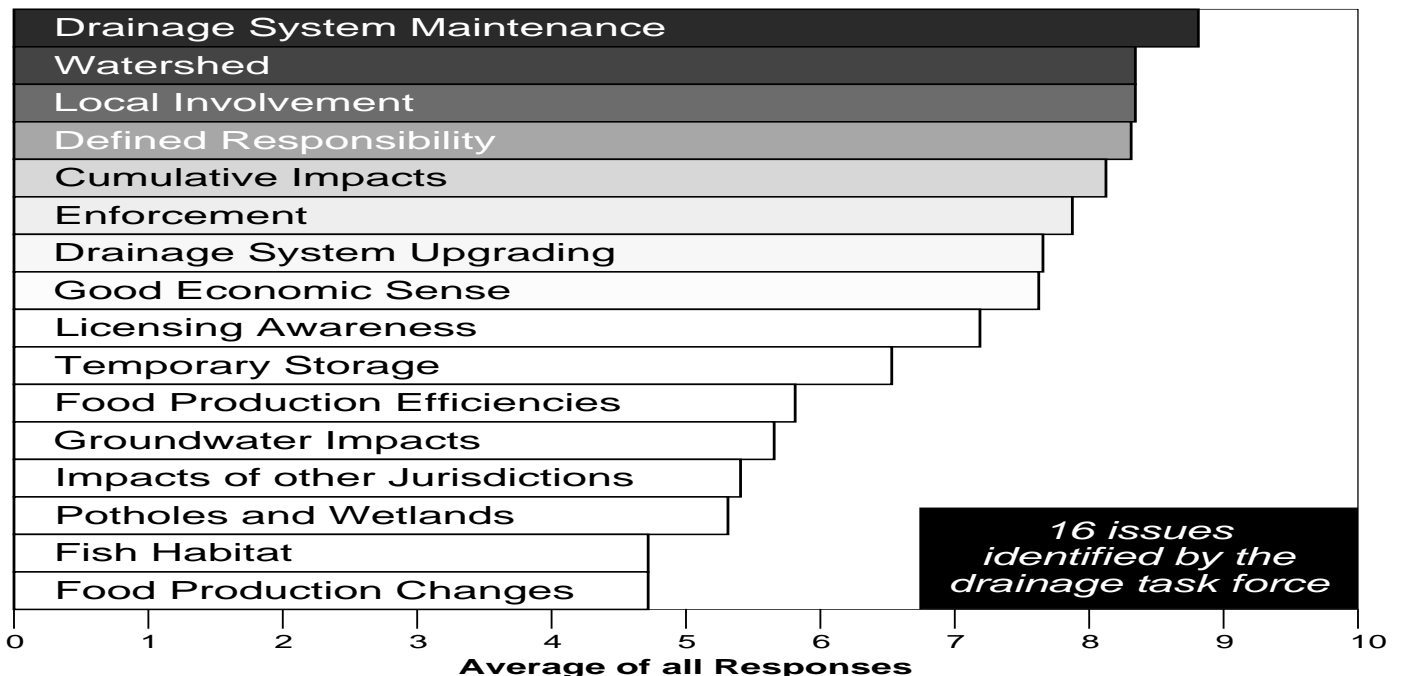
Overview

The need for improved drainage and maintenance dominated all aspects of the questionnaire. This was followed by drainage impacts, coordination and local involvement and a watershed approach. Much of the discussion focused on debating the appropriate uses for and levels of specific water bodies and wetlands. Residential development impacts on crop damages was also an major issue.



- More drainage construction and maintenance is needed. Maintenance concerns include beaver dams, overgrown drains and siltation caused by upstream erosion. More funding is needed. Some of this could be provided through a drainage assessment.
- Reconstruction is needed on some downstream drains to accommodate additional drainage which has already occurred upstream. Upstream drainage should not be increased until the downstream system can handle it.
- Control of water levels by the province on lakes such as Dennis Lake and Norris Lake is needed to limit damages to surrounding agricultural land.
- Upstream water retention would reduce demands on the downstream drainage system. Riffles in downstream reaches would decrease erosion caused by high velocity flows.
- A drainage plan is needed which reaches from the bottom of the system to the top and includes each municipality.
- Additional drainage is needed. Compensation is needed for lost production. Unusable land should be purchased.
- Residential development has a higher drainage standard, which causes downstream problems due to flow breakouts. Development should be restricted until the drainage system is able to support it.
- Increased cooperation is needed between municipalities to resolve drainage disputes and solve common problems.
- Groundwater pollution through the drainage system from livestock operations is a concern. Manure storage facilities should be carefully designed and monitoring wells should be used to verify that no leakage is occurring.
- Too much drainage is occurring from low land and marsh areas.
- Too much unregulated drainage is occurring, often on land that should not be drained. Drainage should only be provided if it benefits all of society, and not just a few individuals.
- Some waterways trap large amounts of snow in the winter which should be cleaned out before spring runoff.
- Highways and their associated ditches should be part of an overall area drainage strategy.
- Better coordination is needed between government departments so that drainage is planned to avoid impacts to natural resources. Gradients, soils and flooding concerns also must be considered in the planning.

Please **rate the importance** of the following in your area: Low (0) - High (10)



See back inside cover for a copy of the questionnaire form.

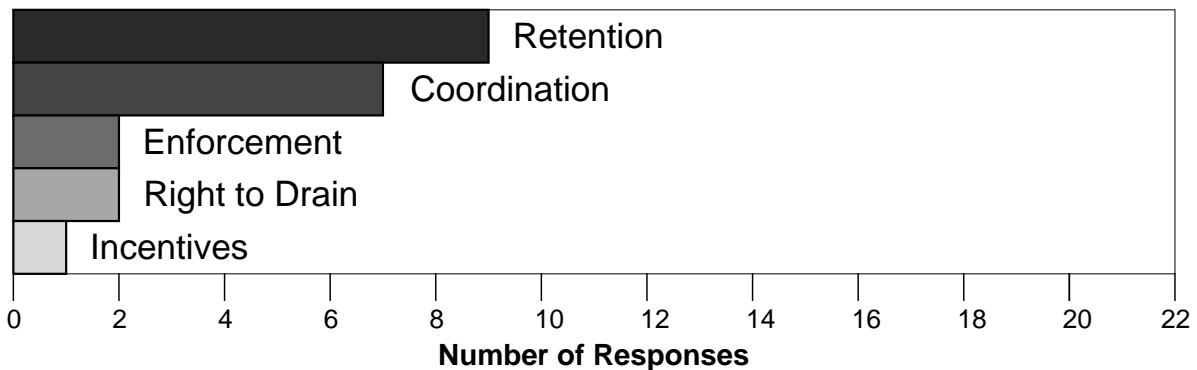
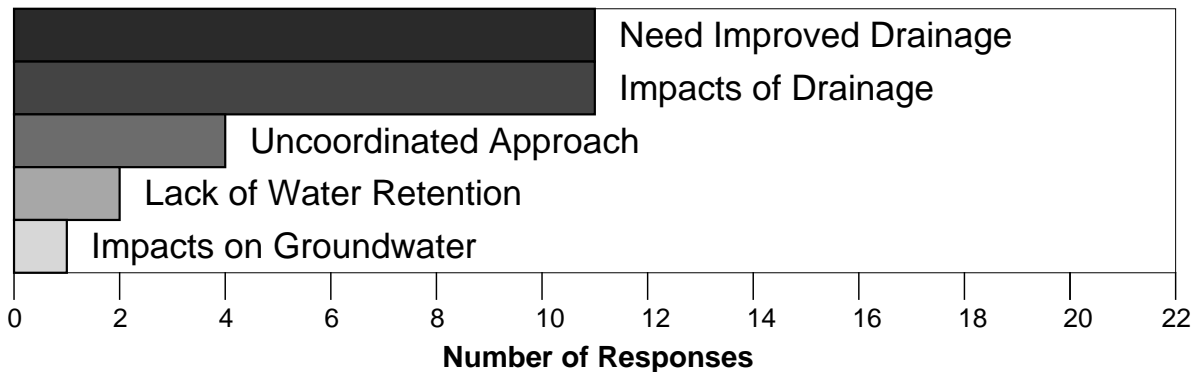
Winkler

November 27, 1997

Attendance - 70

Overview

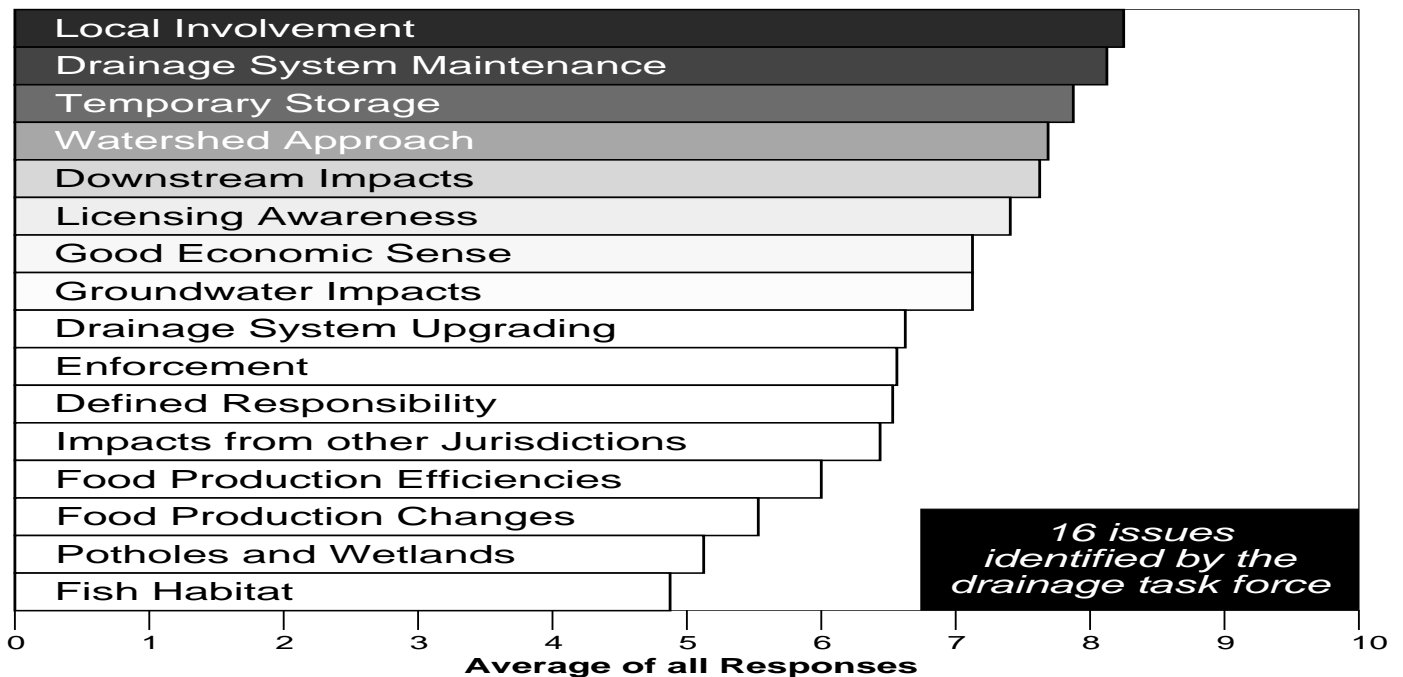
This open house was unique in that the need for improved drainage and the impacts of drainage were equally identified as the most important issue and also unique in that retention followed by coordination was identified most frequently as the solution. Ratings of the 16 items identified by the drainage task force were more in line with the other open houses with local involvement, maintenance, the watershed and downstream impacts in the top five . However temporary storage was also included in the top five issues.



See back inside cover for a copy of the questionnaire form.

- Rules for drainage licensing are unclear - one drainage application was rejected and an existing private drain was ordered to be filled in, with no explanations given. Over-regulation diminishes understanding of the problems and leads to indecision.
- The length of time needed to process a drainage licence is a concern.
- Landowners are uncomfortable with the powers of regional water managers/drainage officers over development on private land. "Right to drain" legislation is needed.
- Escarpmental landowners should not be asked to store water to protect landowners in the Red River Valley when valley residents do not store water themselves.
- Drainage application forms should be available in municipal offices — municipalities could forward completed forms to DNR. Although municipalities do not want to be directly involved with licensing or enforcement of drainage matters, they would appreciate the opportunity to comment on applications before a licence is issued.
- More conservation districts should be formed.
- Water should be managed on a watershed basis. A comprehensive drainage plan would involve all affected municipalities and would consider channels, dams and drop structures.
- Proper outlets are needed for drains and drainage improvements, particularly for municipal projects, which tend to be of larger scale than the projects of individual landowners.
- Unplanned (illegal?) upstream drainage creates problems for downstream landowners. Local authorities seem reluctant to improve the drainage system.
- More planning for drainage is needed with more local input.
- Considerable area has been drained in the last 50 years — runoff is faster and causes flooding and erosion problems. Upstream runoff should be slowed and stored until downstream peaks are passed.
- Some municipalities do not understand the larger picture of the watershed, and cater to individual concerns. Better education on regulatory requirements is needed, and rules must be enforced on and by municipalities.
- More provincial involvement and support is needed for new drainage construction and the maintenance of existing works. Infrastructure is needed for tile drainage.
- Salinity problems are developing due to a lack of drainage and seepage from irrigation dugouts.
- Works along the U. S. border interfere with natural drainage patterns.
- Incentives should be provided for short term water retention and wetland preservation.
- Drainage disputes could be adjudicated by an advisory board or an ombudsman.
- The drainage program should be back in the Department of Agriculture.

Please **rate the importance** of the following in your area: Low (0) - High (10)



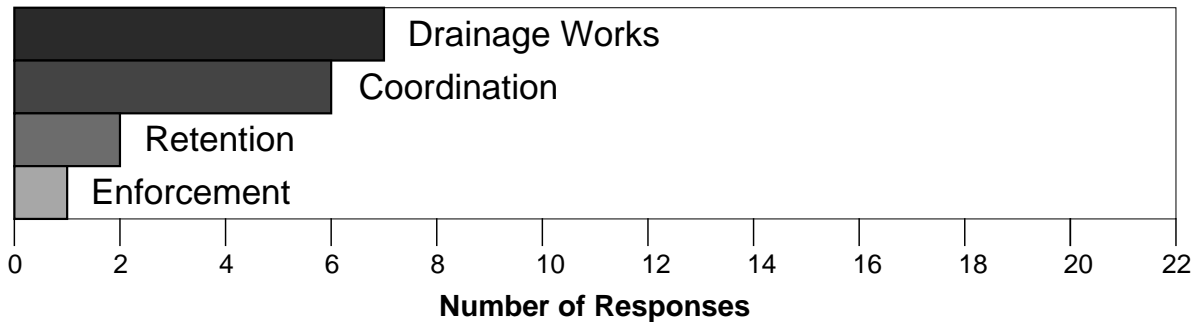
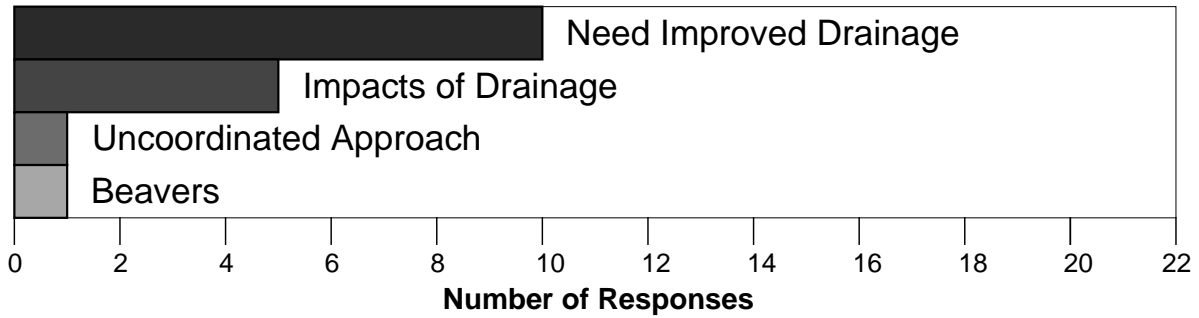
Steinbach

December 1, 1997

Attendance - 45

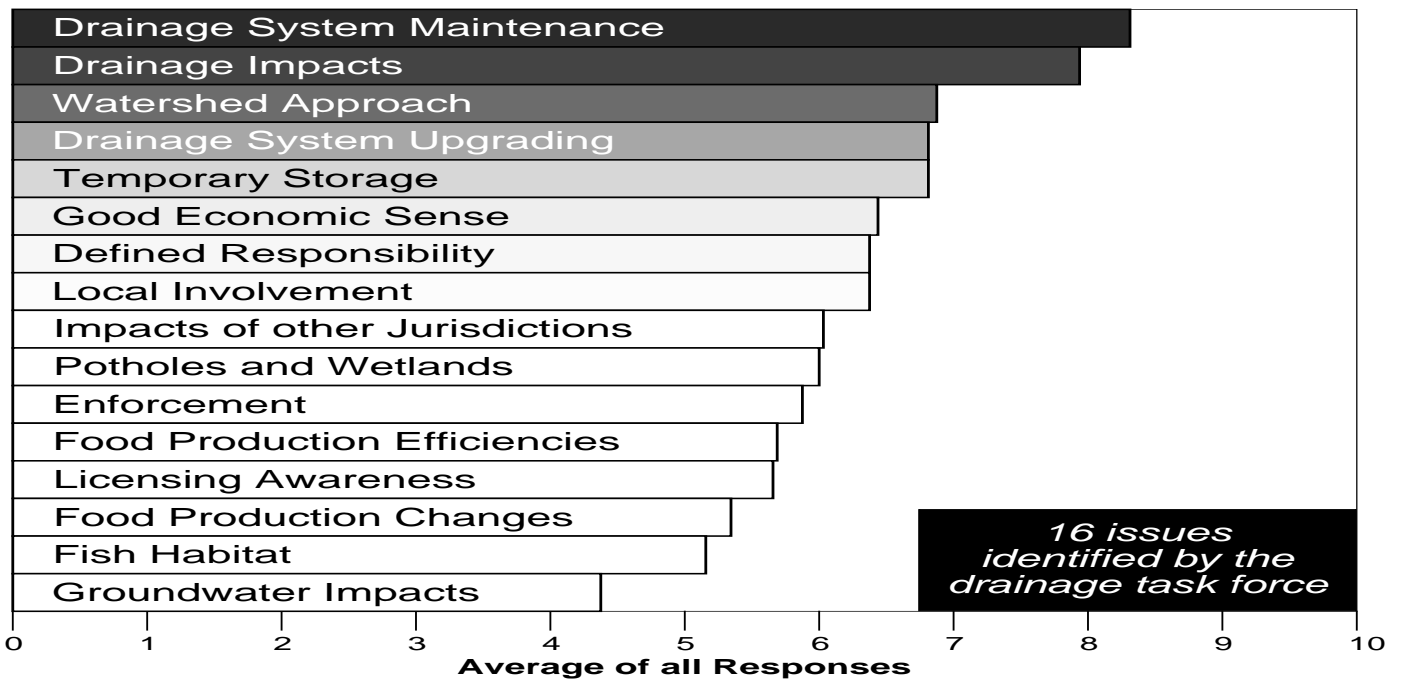
Overview

The need for drainage works and drainage system maintenance topped the issues identified. Coordination, the watershed approach and temporary storage also were prominent in the responses.



- Better drainage is needed (upgrading), and better maintenance of the existing system.
- Water in drains may be contaminated by manure through ponding of water on fields or by leakage of manure holding ponds into creeks. Monitoring and followup is needed.
- Farmers feel they have a right to drain their own land.
- Beaver dams are a serious problem — financial assistance is needed for dam removal.
- Flowing wells create icing problems in drains.
- Conservation districts are desirable — municipalities have difficulty working together, and drainage works are currently not planned on a priority basis.
- The province has been cutting back on funding for drainage for about 25 years. This must be reversed. Third order drains need more maintenance and upgrading in some cases.
- Poor land in upstream areas is being drained, which is causing spring flooding on higher value land downstream. Better planning and enforcement is needed to prevent drainage which is done to increase the value of marginal land.
- Cumulative and downstream impacts should be examined in drainage planning. Water should be managed on a watershed basis with as much local control as possible.
- Illegal drainage is a concern — a comprehensive plan is needed for drainage works and rules must be policed.
- Drainage should not be a political issue - there should be a level playing field for all producers. Municipalities should have less responsibility for drainage.

Please **rate the importance** of the following in your area: Low (0) - High (10)



See back inside cover for a copy of the questionnaire form.

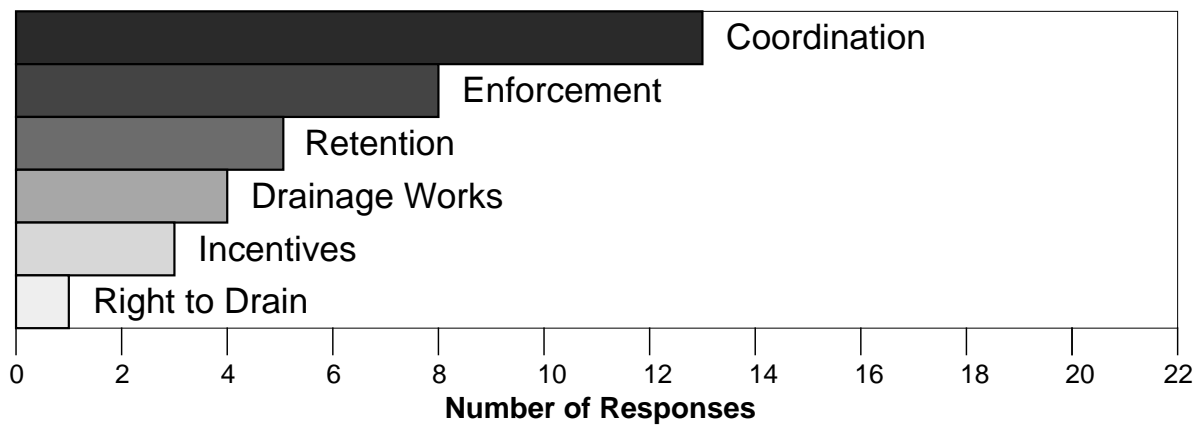
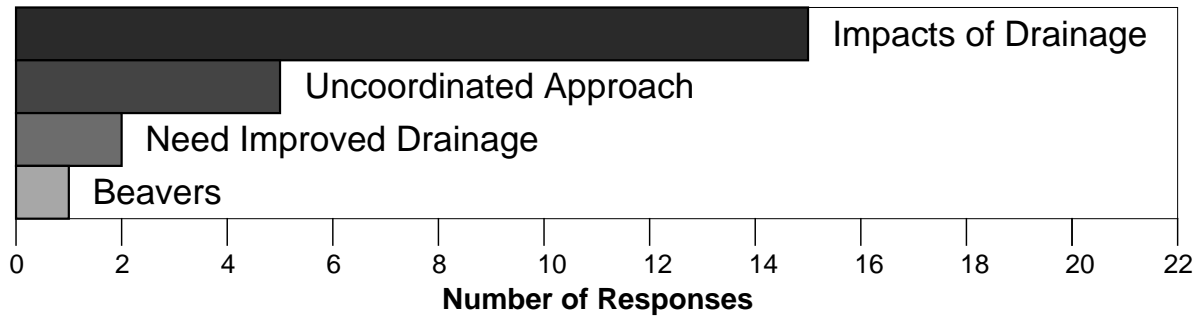
Pilot Mound

December 8, 1997

Attendance - 85

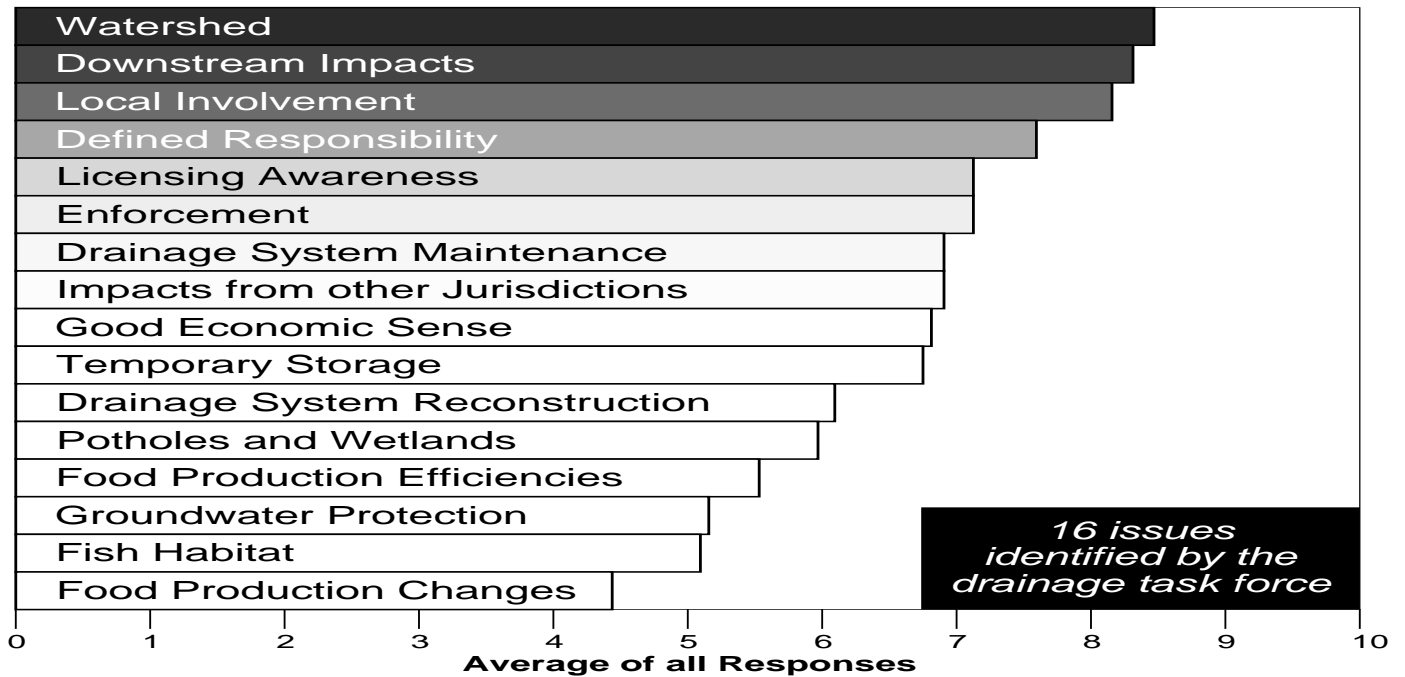
Overview

Respondents overwhelmingly identified the impacts of drainage as their key issue, with coordination followed by enforcement as the solution.



- Water retention is desirable — spring runoff should not be drained away immediately.
- Better monitoring and enforcement is needed to prevent manure contamination in waterways.
- The cumulative impact of many small on-farm drains is significant - flooding and erosion problems result. Further drainage should be examined in terms of need, cost and problems created.
- Conservation districts allow local input in planning and the setting of priorities. This is the best chance to achieve consensus on issues. Municipalities should not control drainage.
- Province wide rules are not desirable — rules should reflect local topography, soils and crops.
- Money spent on drainage works should be controlled locally, not by urban dominated interests.
- Ducks Unlimited has too much influence — Canadian farmers subsidize American hunters.
- Drainage development and maintenance could be done on a user-pay basis.
- Drainage standards should reflect agricultural capability and crop suitability.
- Better enforcement of the existing regulations is needed. Enforcement should be done by the province.
- Time frame for obtaining a drainage licence should be improved.
- Tax incentives should be provided to retain unimproved land and to retain water.
- Drainage should be managed on a watershed basis.
- Beaver control is needed to prevent inappropriate flooding.
- The difference between drainage maintenance and reconstruction needs to be better understood.
- Drainage projects in North Dakota affect Manitoba, and little or no warning is provided. Better coordination with American interests is needed to avoid these problems.
- Education on water retention and controlled drainage is needed.
- Better maintenance on natural waterways is needed - debris removal, channel cleanouts, and bridge replacements.
- Uncoordinated drainage in upstream areas leads to downstream flooding and road washouts — better planning is needed so that downstream channels can accommodate increased flows before upstream works are constructed.

Please **rate the importance** of the following in your area: Low (0) - High (10)



See back inside cover for a copy of the questionnaire form.

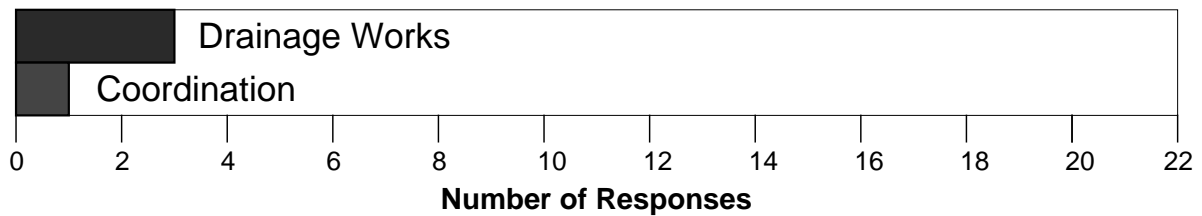
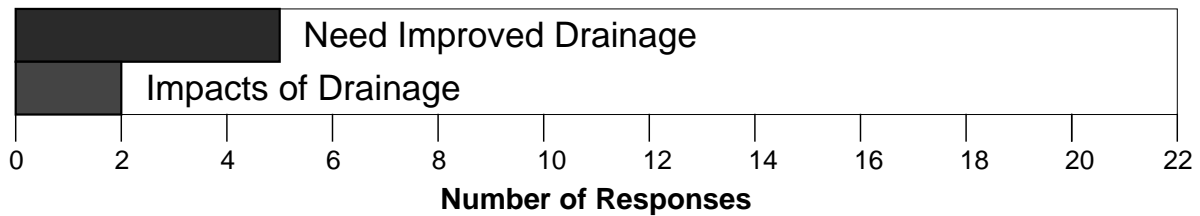
St. Jean Baptiste

December 16, 1997

Attendance - 15

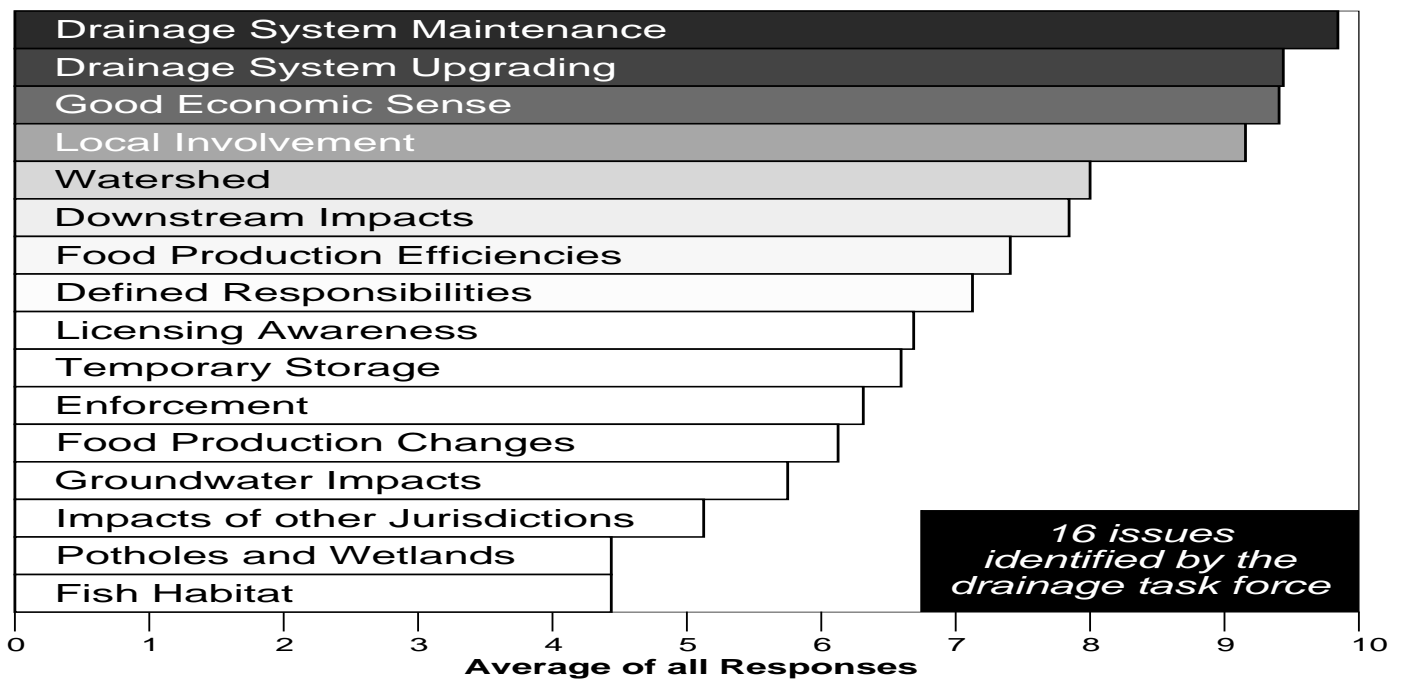
Overview

Drainage system improvements, maintenance, and upgrading dominated the issues identified. This was followed by the need for local involvement and drainage on a watershed basis.



- Maintenance is needed on natural waterways — debris removal and beaver dam removal in particular.
- New works are needed to address spring flooding problems in some areas which result from breakouts.
- Better maintenance is needed on existing drains — erosion is a problem.
- Fall drawdowns on irrigation reservoirs discharge water into the drainage system late in the fall. This can cause icing problems and lead to localized flooding the following spring. Earlier drawdowns would limit this problem.
- Spring pumping to fill off channel irrigation reservoirs should not be done directly from drains, and adequate setback distances should be provided between the reservoirs and the drains to minimize seepage problems and allow for maintenance activities on the drains.

Please **rate the importance** of the following in your area: Low (0) - High (10)



See back inside cover for a copy of the questionnaire form.

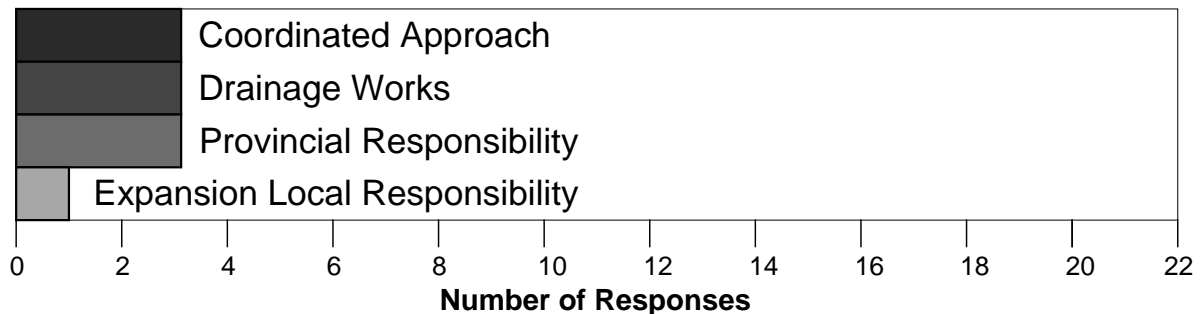
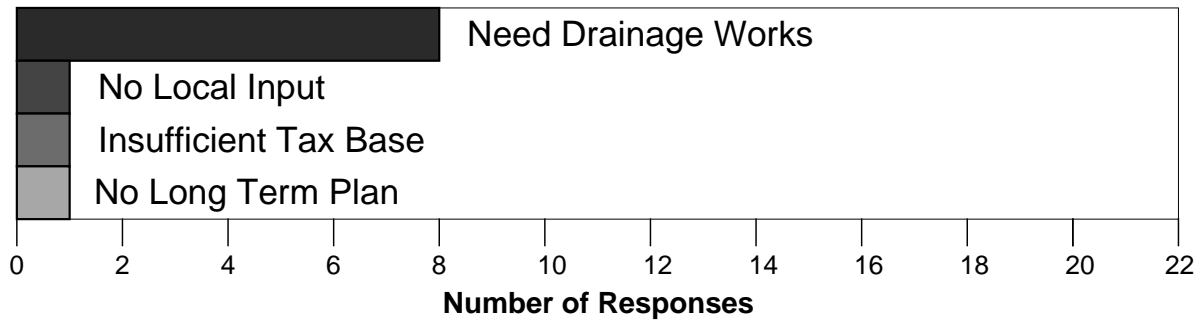
The Pas

February 10, 1998

Attendance - 25

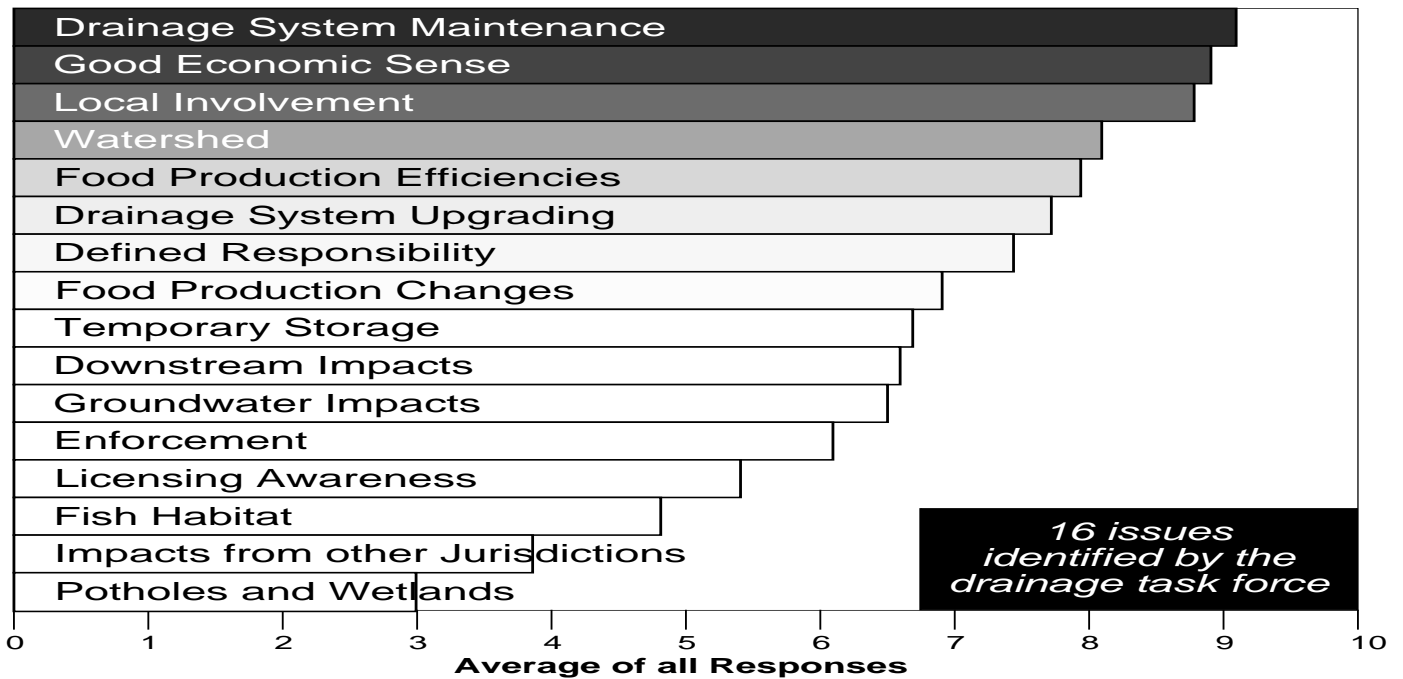
Overview

The completion of the Pasquia Drainage Project, initiated in the 50's, was the focus of the open house. Of the drainage task force 16 issues, drainage system maintenance, drainage that makes good economic sense and local involvement received the highest ratings.



- Water Resources and Manitoba Hydro responsible.
- A design of a program based on stakeholder and various agencies input in regards to structure and financial responsibility. A plan put in place that would be adhered to.
- Adequate drain maintenances, completion of Polder III and new pump plant at Knapp Dam that will provide a satisfactory level of service to Polder II and Polder III.
- Main drains and pumps stay as provincial responsibility.
- Maintenance of pumps and main ditches; speed up pumping in the spring. Clean ditches in the fall.

Please **rate the importance** of the following in your area: Low (0) - High (10)



See back inside cover for a copy of the questionnaire form.



**Fold out
to view
Questionnaire
provided to
Open House Participants**

Municipality: _____

Date: _____

**LAND DRAINAGE REVIEW
FALL 1997 OPEN HOUSES**

To consult with Manitobans and identify the issues and options regarding land drainage in the Province

Participant Questionnaire

What do you see as the key issue(s) in your area?	What do you see as the solution(s)?
---------------------------------------------------	-------------------------------------

*Questionnaire
provided to
Open House Participants*

Would you like to be on our mailing list for updates and more information as it becomes available?

Yes No

Occupation: _____

(Optional, unless you want to be contacted)

Name: _____

Organization (if applicable): _____

Mailing Address: _____

Fax and/or E-Mail (if applicable): _____

Telephone: _____

If you would like additional information or want to submit a presentation contact:

Land Drainage Review
Water Resources Branch
1577 Dublin Avenue
Winnipeg MB R3E 3J5
(204) 945-2354 or FAX (204) 945-7419 (OVER)

Please rate the importance of the following in your area: Low (0) - High (10)

a) maintenance of the existing drainage system <i>Comments:</i>	
b) drainage system upgrading to reflect changing land use <i>Comments:</i>	
c) defined jurisdictional responsibility between provincial agencies, municipalities, conservation districts, other authorities and land owners as to Land Drainage Regulations <i>Comments:</i>	
d) overall water management planning by watershed <i>Comments:</i>	
e) cumulative and downstream drainage impacts <i>Comments:</i>	
f) awareness of drainage licensing requirements <i>Comments:</i>	
g) enforcement of drainage regulations <i>Comments:</i>	
h) more local involvement in water management decision making <i>Comments:</i>	
i) protection of potholes and wetlands <i>Comments:</i>	
j) protection of fish habitat <i>Comments:</i>	
k) impact in Manitoba of drainage activities in other jurisdictions (municipalities, states, provinces) <i>Comments:</i>	
l) temporary storage of spring runoff or headwater storage <i>Comments:</i>	
m) linkage between surface drainage and groundwater <i>Comments:</i>	
n) allow food production to change rapidly <i>Comments:</i>	
o) allow food production to gain efficiencies <i>Comments:</i>	
p) drainage activities that make good economic sense <i>Comments:</i>	
q) other	
r) other	
s) other	

Questionnaire
provided to
Open House Participants