Report - Standing Policy Committee on Public Works - May 13, 2003

Item No. 2 Priorities for the Secondary Diking Enhancements Program
File PD (Vol. 15)

On May 21, 2003, the Executive Policy Committee laid the matter over for 30 days.

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DECISION MAKING HISTORY:

EXECUTIVE POLICY COMMITTEE RECOMMENDATION:

On May 21, 2003, the Executive Policy Committee laid the matter over for 30 days.

STANDING COMMITTEE RECOMMENDATION:

On May 13, 2003, the Standing Policy Committee on Public Works concurred in the administrative recommendation and submitted its recommendation to Executive Policy Committee and Council.

RE: PRIORITIES FOR THE SECONDARY DIKING ENHANCEMENTS PROGRAM

FOR SUBMISSION TO: STANDING POLICY COMMITTEE ON PUBLIC WORKS

ORIGINAL REPORT SIGNED BY: Barry D. MacBride, P.Eng.
Director of Water and Waste

REPORT DATE: April 23, 2003

RECOMMENDATION(S):

It is recommended that:

1. The amended priority list of secondary diking enhancements projects as provided in Table 1 be approved.

2. The funds allocated to the Parkwood Place, Kildonan Drive Site No. 3 and Scotia Street Site No. 2 community ring dike projects, and five individual house flood proofing projects be re-distributed to other higher priority projects in accordance with the amended priority list in Table 1.

3. It is recommended that the City cover the 10% share of the costs of the special flood proofing cases without recovery from the benefiting property owners.

REPORT SUMMARY

KEY ISSUES: The Water and Waste Department has been administering the secondary diking enhancements program in accordance with the priority list adopted by Council on September 26, 2001. The termination date of the Canada - Manitoba - Winnipeg Agreement on Secondary Diking Enhancements has been extended two years to March 31, 2005. Amendments to the priority list are recommended because some projects are not proceeding, there are more detailed cost estimates for the projects that are in the design stage, and there are finalized costs for projects that have been completed. This adjustment in funding has allowed for three new projects to be added to the list.

IMPLICATIONS OF THE RECOMMENDATION(S):

General Implications

	None
	For the organization overall and/or for other departments
X	For the community and/or organizations external to the City of Winnipeg
	Involves a multi-year contract

Comment(s): The priority list amendments included herein will benefit a greater number of residents.

Policy Implications

X	No
	Yes – Comment(s):

Environmental Implications

	None
X	Yes – Comment(s): Some of the dike projects involve riverbank works which are deemed by the Federal Department of Fisheries and Oceans (DFO) as harmful alteration, disruption or destruction of fish habitat. However, DFO project authorizations are granted for these projects subject to appropriate compensation through enhancement of fish habitat, such as re-vegetation of riverbanks or installation of pool and riffle structures in waterways.

Human Resources Implications

X	No
	Yes – Comment(s):

Financial Implications

X	Within approved current and/or capital budget
	Current and/or capital budget adjustment required

Comment(s): Funding for this program is included in the Community Ring Dike Sites Feasibility Study and Permanent Secondary Dikes capital accounts.

REPORT

REASON FOR THE REPORT:

Council approval is required to amend the previously adopted priorities for secondary diking enhancement projects.

HISTORY:

During the spring, 1997, Winnipeg and Manitoba experienced the "Flood of the Century."

On June 23, 1999, Council adopted the Report of the Standing Policy Committee on Public Works dated May 31, 1999 titled “Secondary Diking Enhancements - Community Ring Dikes - Policy on Funding and Maintenance.” With this report, Council formally adopted a policy whereby the 10% of the total costs for a community ring dike not covered by the Federal and Provincial Governments, be recovered from the benefiting properties protected by the dike through a local improvement.

On August 10, 1999, the Canada - Manitoba - City of Winnipeg Agreement on Secondary Diking Enhancements was finalized. The Agreement provides $11.135 million to secondary diking enhancement projects, with cost sharing of $5.2 million each from the Provincial and Federal Governments, and $735,000 from the City.

On September 26, 2001, Council adopted the Report of the Standing Policy Committee on Public Works dated September 4, 2001 titled “Priorities for the Secondary Diking Enhancements Program.”

On October 31, 2002, Amendment #1 of the Canada - Manitoba - City of Winnipeg Agreement on Secondary Diking Enhancements was finalized. This amendment provides additional time to implement the Agreement by extending the termination date from March 31, 2003 to March 31, 2005.

DISCUSSION:

Approval of the report titled “Priorities for the Secondary Diking Enhancements Program” by Council on September 26, 2001 provided direction regarding priorities for specific secondary dike projects under the Canada - Manitoba - City of Winnipeg Agreement on Secondary Diking Enhancements. As well, the Secretary of Intergovernmental Affairs was authorized to communicate with the Federal and Provincial Governments to request that the termination date in the Agreement be extended two years to March 31, 2005. Since that time, the Agreement extension has been approved by the other levels of government and the Water and Waste Department has been administering the secondary diking enhancements program in accordance with the Council adopted priority list.

The purpose of this report is to recommend an amended priority list for secondary dike projects based on the status of the secondary diking enhancements program. Amendments to the priority list are recommended because some projects are not proceeding, there are more detailed cost estimates for the projects that are in the design stage, and there are finalized costs for projects that have been completed. This adjustment in funding has allowed for three new projects to be added to the list.

The September 26, 2001 Council adopted priority list and the amended priority list are shown in Table 1 attached. The amended priority list includes a re-distribution of funds from community ring dike projects and individual house flood proofing projects to multi-family flood proofing projects and engineering and administration. Following are the explanations for the significant project amendments or cost adjustments where they occur. Table 1 provides brief comments on the other projects.

Engineering and Administration

Engineering (Feasibility Study)

This item originally included a study of engineering and economic feasibility of community ring dikes and associated riverbank works for approximately 560 properties throughout Winnipeg. The study provided the basis for prioritizing community ring dike projects by benefit to cost ratio, and included public consultation sessions. The scope of work was expanded to analyze various dike heights. The study was completed in the fall 2001 at a total cost of $537,000, which was in excess of the original $480,000 budget.

Additional engineering activities that originated from the community ring dike feasibility study include the Anomaly Study ($26,000), the Secondary Dike Corridor Mapping Project ($38,000) and the Cloutier Drive Riverbank Study ($31,000).

Also being undertaken is a Sandbag Dike Research Project and Video. The University of Manitoba Department of Civil Engineering is to undertake a project to assess the reliability and understand the behaviour of temporary sandbag dikes, since sandbag dikes will continue to be an integral part of flood protection for many properties outside the primary diking system. The cost of the sandbag research project is estimated at $70,000. As part of this project, there is an interest by all funding partners, the Manitoba Emergency Measures Organization, and the City's Emergency Program Coordinator to produce a video that demonstrates how to construct a sandbag dike. The proposal is to hire a professional audio-visual company that can produce a quality product for wide distribution to government departments, municipalities, etc. The video will be produced after the sandbag research project is substantially complete. The cost of this work is estimated to be $20,000.

Another cost attributable to the program is the Provincial Administration Fees for Manitoba Conservation to assist the City with the administration of the City's Secondary Diking Enhancements Program. This primarily involves inspectors who have experience with the Individual Home and Business Flood Proofing program in the Red River Valley. These services are estimated at $10,000.

The costs of engineering of projects that are not proceeding are also included under the engineering category. The projects are: Parkwood Place, 323 Wellington Crescent, 156 Rue St. Pierre, 816 Cloutier Drive, 1216 Kildonan Drive, 124 Rue St. Pierre, 754 Cloutier Drive and 91 Kingston Row, at a total value of $94,000.

The overall total cost of engineering and administration is approximately $826,000 and is shared 45% federal, 45% provincial and 10% city.

Project Management

The cost of project management services as provided by consultants was underestimated in the Council adopted priority list. This is due to the complexities of the Kingston Crescent/Row community ring dike project and the multi-family flood proofing projects. Further, there will be additional costs of project management services as a result of the extension of the program from three to five years. The projected total cost of these services is $510,000 and is shared 45% federal, 45% provincial and 10% city.

DFO Compensation Allowance

The riverbank works associated with the dike projects are considered by the Federal Department of Fisheries and Oceans (DFO) as “harmful alteration, disruption or destruction of fish habitat” and in order to achieve DFO authorization for these projects, “compensation” must be provided. Examples of compensation are re-vegetation of riverbank, and construction of pool and rifle structures on streams such as the Seine River. These works and the associated costs are now included within the budgets of the specific dike projects.

This item also includes professional biologist services to investigate the “harmful alteration, disruption or destruction of fish habitat” caused by riverbank works associated with the dike projects, to determine and negotiate with DFO on appropriate “compensation”, and to undertake contract administration of the “compensation” works. The City Naturalist of the City of Winnipeg is undertaking these services with the assistance of contract staff. These services are beyond the scope of her staff’s duties and responsibilities and are being charged to the Secondary Diking Enhancements Program. As a City employee, the City Naturalist’s fees estimated at $7,500 are not an eligible cost under the Program. However, the estimated fees of $13,500 paid for the contract staff are an eligible cost under the Program and are shared 45% federal, 45% provincial and 10% city.

Community Ring Dike Projects

In accordance with the tri-partite Agreement, the costs of community ring dike projects are shared 45% federal, 45% provincial and 10% city. In accordance with Council adopted policy, the city portion will be recovered from the benefiting property owners through the successful local improvement district. To date, there have been successful local improvements for Kilkenny Drive North, Lord Avenue and Kingston Crescent/Row community ring dike projects. At the time of writing, Council had not yet given 2nd and 3rd reading of the local improvement district by-law for North Drive, however this project

is expected to proceed since there was no petition against the project. The Kilkenny Drive North and the Kingston Crescent/Row projects are substantially complete while the North Drive and Lord Avenue projects will be complete by the end of summer 2003. The total estimated cost of these four community ring dike projects is $5,146,000.

Parkwood Place

This project involved raising and widening the existing clay dike (built in 1997) approximately 1.5 metres to the Flood Protection Level but is not proceeding due to significant additional costs for tree restoration. The eight benefiting property owners indicated in a public meeting that they do not support the additional costs they will have to pay. In addition, this community recognizes that the existing dike provides a permanent protection to a level 0.9 metres below the 1997 flood peak water level. Therefore, it is recommended that the funds allocated to this project in the amount $265,000 be re-distributed to other higher priority projects in accordance with the amended priority list in Table 1.

Kildonan Drive Site No. 3

This project involved a community of seven houses and is not proceeding. The natural ground level at these houses means that they will only require temporary flood protection with sandbags for a 1997-magnitude flood. It is recommended that the funds allocated to this project in the amount $196,000 be re-distributed to other higher priority projects in accordance with the amended priority list in Table 1.

Scotia Street Site No. 2

This project involved a community of 22 houses and is not proceeding. The natural ground level at these houses means that they will only require temporary flood protection with sandbags for a 1997-magnitude flood. It is recommended that the funds allocated to this project in the amount $503,000 be re-distributed to other higher priority projects in accordance with the amended priority list in Table 1.

Multi-Family Flood Proofing Projects

The multi-family flood proofing projects are administered under the City's Secondary Diking Enhancements Program, and the City's share of the costs is only for administration. Design and construction costs are shared between the other levels of government and the benefiting property owner. The Canada - Manitoba - City of Winnipeg Agreement on Secondary Diking Enhancements provides funding assistance on approved design and construction costs based on the following formula: seventy-five percent (75%) of the first $40,000 and one hundred percent (100%) of the next $30,000 per individual claim. Each unit in a multiple-family residence is considered an individual claim. The individual claims are added up to the total value of the project costs. Only the sum of the federal and provincial portions is included in the list in Table 1 attached.

To date, the projects at 525 Wellington Crescent, 270 Roslyn Road and 29 Roslyn Road are complete. Detailed design is underway for the combined project at 99 and 141 Wellington Crescent and for 1660 Pembina Highway. The total cost to the Program for these five multi-family flood proofing projects is approximately $2,756,000.

1, 7, 11 Evergreen Place

This combined project is included in the amended priority list and is proposed to proceed pending approval of this report. The properties at 7 and 11 Evergreen Place are new to the list. Only funding for 1 Evergreen Place (214 residential units) was included in the September 26, 2001, Council adopted report due to a lack of funding and because the individual benefit to cost ratios for 7 and 11 Evergreen Place were 0.05 each while the benefit to cost ratio for 1 Evergreen Place was 0.15. The engineering consultant has evaluated a joint project for all three properties and the resulting benefit to cost ratio is 0.20. Re-allocated funding from other projects not proceeding is proposed for the additional costs of this joint project. All three properties together have 574 residential units and the cost of this project is estimated to be $828,000. Cost sharing will be $703,500 by the Program ($351,750 federal and $351,750 provincial) and $124,500 by the property owners. Should either the funding partners or the owners of all three buildings not approve the joint project, the owners of 1 Evergreen Place are willing to proceed alone.

Individual House Flood Proofing Projects

The individual house flood proofing projects are administered under the City's Secondary Diking Enhancements Program, and the City's share of the costs is only for administration. Design and construction costs are shared between the other levels of government and the benefiting property owner. Only the sum of the federal and provincial portions is included in the list in Table 1 attached. The Canada - Manitoba - City of Winnipeg Agreement on Secondary Diking Enhancements provides funding assistance on approved design and construction costs based on the following formula: seventy-five percent (75%) of the first $40,000, and one hundred percent (100%) of the next $30,000 per individual claim. The property owner is 100% responsible for all project costs exceeding $70,000.

All the projects below were included in the priority list in the September 26, 2001, Council adopted report, except those noted.

The following individual house flood proofing projects listed in Table 1 are complete: 271 Bonner Avenue; 220 Fernwood Avenue; 3 Sandee Bay; 762 South Drive; 148 Rue St. Pierre; 1070 Rue des Trappistes; 1074 Rue des Trappistes; 1148 Rue des Trappistes; 4 Seier Bay; 1054 Rue des Trappistes.

The following individual house flood proofing project listed in Table 1 is in the detailed design stage: 730 Cloutier Drive.

The following individual house flood proofing project listed in Table 1 is in the planning/ conceptual design stage: 703 Wellington Crescent.

The following individual house flood proofing projects listed in Table 1 have not made any progress with their projects since applying to the Program and they will not be allowed to proceed, so that other interested properties may be given a chance to undertake a flood proofing project: 170 Christie; and, 310 Christie Road. Therefore, it is recommended that the funds allocated to these projects in the amount $120,000 be re-distributed to other higher priority projects in accordance with the amended priority list in Table 1.

The original owners of the following individual house flood proofing projects listed in Table 1 have decided not to proceed: 87 Delbrook Crescent; 152 Rue St. Pierre; and, 156 Rue St. Pierre. Therefore, it is recommended that the funds allocated to these projects in the amount $170,000 be re-distributed to other higher priority projects in accordance with the amended priority list in Table 1.

The following individual house flood proofing project listed in Table 1 is new to the list: 770 Crescent Drive. The owner had applied to the Program but was omitted from the priority list in the September 26, 2001, Council adopted report due to insufficient funding and due to the uncertainty of the owner's zoning variance application at the time the report was written.

Special Flood Proofing Cases

There are several properties in the City that require flood protection, are eligible under the Agreement to receive funding assistance, but the Program funding formula under the Individual Flood Proofing component or the Community Ring Dike component is inappropriate. The special cases include: 70 Blackmore Avenue, 991 Ducharme Avenue, 45 Egerton Road, 408 Glasgow Avenue, 10 MacBell Road and 265/271/275 Scotia Street. A new location is 240 Christie Road, which was originally listed as an Individual House Flood Proofing project.

In all cases except Scotia Street, the house and/or the land are being purchased to remove the structure from the floodplain. Since the owner is losing his/her residence, it is deemed unfair to require the owner to pay a share of the cost. The Scotia Street properties are identified as anomalies (cost of a dike to the Flood Protection Level exceeds the value of the structures) but have a high risk of flooding and they receive sandbags very frequently. Their joint solution is to construct a permanent low level earth dike that doesn't impact the riverbank nor exceed the value of the structure.

The total estimated value of these special cases is $420,000 and is to be shared 45% federal, 45% provincial and 10% city. It is recommended that the City cover the 10% share of the costs without recovery from the benefiting property owners.

Summary

The expenditures to March 31, 2003 under the Secondary Diking Enhancements Program total approximately $6.5 million. As a result of the extension of the termination date of the Canada - Manitoba - Winnipeg Agreement on Secondary Diking Enhancements for two years to March 31, 2005, the City will be able complete the

$11.135 million program as proposed in the amended priority list for secondary dike projects.

FINANCIAL IMPACT:

The following financial impact statement for this project has been prepared in accordance with the recommendation adopted by Council on December 13, 2000.

Financial Impact Statement **Date:** April 23, 2003

Project Name:

Priorities for the Secondary Diking Enhancements Program

COMMENTS:

This report is to amend the priorities for the Secondary Diking Enhancements Program. The financial impact of the Program was included in the Report of the Standing Policy Commitee on Public Works dated May 31, 1999 and titled "Canada - Manitoba - City of Winnipeg Agreement on Secondary Diking Enhancements (Revised)", which was adopted by Council on June 23, 1999.

Moira L. Geer C.A.
Manager of Finance & Administration

TABLE 1: SECONDARY DIKING ENHANCEMENTS			
Project	**Sept.26/01 Council Adopted Priority List**	**Amended Priority List**	**Comments**
Engineering and Administration			
Engineering (Feasibility Study)	$480,000	$826,000	See write-up in report
Risk Analysis	$50,000	$0	Included in budget for Kingston Crescent/Row Community Ring Dike
Surveys, plans, option id	$70,000	$0	Included in budget for Kingston Crescent/Row Community Ring Dike
Project Management	$50,000	$510,000	See write-up in report
Habitat Mapping	$35,000	$44,000	Complete
DFO Compensation Allowance	$300,000	$21,000	See write-up in report
Subtotal	**$985,000**	**$1,401,000**	
Community Ring Dike Projects			
Parkwood Place	$265,000	$0	Not proceeding; funds reallocated to other projects
Kilkenny Drive North	$275,000	$370,000	Substantially complete
Lord Avenue	$1,393,000	$1,200,000	Riverbank works complete; dike works in summer 2003
North Drive	$275,000	$476,000	Riverbank works complete; dike works in summer 2003
Kingston Crescent/Row	$3,000,000	$3,100,000	Substantially complete
Kildonan Drive Site No. 3	$196,000	$0	Low priority and not proceeding; funds reallocated to other projects
Scotia Street Site No. 2	$503,000	$0	Low priority and not proceeding; funds reallocated to other projects
Subtotal	**$5,907,000**	**$5,146,000**	
Multi-Family Flood Proofing Projects			
525 Wellington Crescent	$215,000	$242,250	Complete
270 Roslyn Road	$600,000	$533,000	Complete
99 & 141 Wellington Crescent	$1,030,000	$1,276,500	Revised cost estimate
1660 Pembina Highway	$430,000	$625,000	Revised cost estimate
1, 7 & 11 Evergreen Place	$360,000	$703,500	See write-up in report
29 Roslyn Road	$130,000	$79,500	Complete
Subtotal	**$2,765,000**	**$3,459,750**	
Individual House Flood Proofing Projects			
271 Bonner Avenue	$60,000	$40,958	Complete
170 Christie Road	$60,000	$0	No progress; removed from list
240 Christie Road	$60,000	$0	Re-listed as a Special Flood Proofing Case
310 Christie Road	$60,000	$0	No progress; removed from list
730 Cloutier Drive	$60,000	$60,000	Design underway
87 Delbrook Crescent	$50,000	$0	Not proceeding
220 Fernwood Avenue	$60,000	$56,125	Complete
3 Sandee Bay	$60,000	$58,580	Complete
762 South Drive	$60,000	$46,415	Complete
148 Rue St Pierre	$60,000	$59,207	Complete
152 Rue St. Pierre	$60,000	$0	Not proceeding
156 Rue St. Pierre	$60,000	$0	Not proceeding
1070 Rue Des Trappistes	$60,000	$58,859	Complete
1074 Rue Des Trappistes	$60,000	$59,947	Complete
1148 Rue Des Trappistes	$60,000	$56,038	Complete
703 Wellington Crescent	$60,000	$60,000	Planning/conceptual design stage
4 Seier Bay	$60,000	$60,000	Complete
1054 Rue Des Trappistes	$40,000	$31,416	Complete
770 Crescent Drive	$0	$60,000	New addition to list
Subtotal	**$1,050,000**	**$707,545**	
Special Flood Proofing Cases			
70 Blackmore Avenue	$70,000	$40,000	Buy-out and removal of structure; Owner to retain land
991 Ducharme Avenue	$70,000	$70,000	Buy-out and removal of structure; City to retain land for park
45 Egerton Road	$70,000	$70,000	Buy-out and removal of structure; City to sell land for development
408 Glasgow Avenue	$70,000	$60,000	Buy-out and removal of structure; City to retain land for park
10 MacBell Road	$70,000	$60,000	Buy-out and removal of structure; Owner to retain land
265, 271 & 275 Scotia Street	$60,000	$60,000	Construction of low level dike
240 Christie Road	$0	$60,000	Buy-out and removal of structure; Owner to retain land
Subtotal	**$410,000**	**$420,000**	
TOTALS	**$11,117,000**	**$11,134,295**	

IN PREPARING THIS REPORT THERE WAS CONSULTATION WITH AND CONCURRENCE BY:

Consultation with another department was not required for this report.

THIS REPORT SUBMITTED BY:

Department: Water and Waste
Division: Engineering
Prepared by: Doug McNeil, P.Eng., Program Manager,
Secondary Diking Enhancements Program
File No.: 020-08-09-02-00

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