Agenda – Executive Policy Committee - November 15, 2006

REPORTS

Item No. 7 **Grant to the University of Manitoba Department of Engineering for 2007 and 2008**
File FG

ADMINISTATIVE RECOMMENDATION:

1. That a grant in the total amount of $25,000.00 be approved to the University of Manitoba's Department of Civil Engineering for research on the behaviour of temporary sandbag dikes utilized to protect against high river levels.

2. It is recommended that the grant be funded from the Floodplain Management Project Account No. 003 181000 200652 2070000402.

RE: GRANT TO THE UNIVERSITY OF MANITOBA DEPARTMENT OF ENGINEERING FOR 2007 AND 2008

FOR SUBMISSION TO: EXECUTIVE POLICY COMMITTEE

ORIGINAL REPORT SIGNED BY: The Director of the Water and Waste Department

REPORT DATE: November 3, 2006

RECOMMENDATION(S):

1. That a grant in the total amount of $25,000.00 be approved to the University of Manitoba's Department of Civil Engineering for research on the behaviour of temporary sandbag dikes utilized to protect against high river levels.

2. It is recommended that the grant be funded from the Floodplain Management Project Account No. 003 181000 200652 2070000402.

REPORT SUMMARY

KEY ISSUES: Grants to outside organizations require Council approval.

IMPLICATIONS OF THE RECOMMENDATION(S):

General Implications

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

Comment(s): By providing financial support to the University of Manitoba's Department of Civil Engineering, the City will benefit from the knowledge gained from the research on the behaviour of temporary sandbag dikes. The Federal and Provincial governments are also providing grants to cost-share this research.

Policy Implications

x	No
	Yes - Comment(s) :

Regulatory Implications

x	None
	Eliminates or reduces regulatory impact
	Proposes regulatory impact

Comment(s):

Environmental Implications

x	None
	Yes - Comment(s):

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 is available in the approved Capital Budget.

REPORT

REASON FOR THE REPORT:

Grants to outside organizations require Council approval.

HISTORY:

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

- Following the 1997 Flood, the City of Winnipeg entered into an agreement with the Federal and Provincial governments to enhance the City of Winnipeg's secondary diking. The Canada - Manitoba – City of Winnipeg Agreement on Secondary Diking Enhancements was signed August 10, 1999. This agreement provided $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. This agreement ended on March 31, 2005.

- Under the Canada - Manitoba – City of Winnipeg Agreement on Secondary Diking Enhancement, all three levels of government agreed to tri-partite funding of a Sandbag Research Project by the University of Manitoba, Department of Civil Engineering to assess sandbag dike performance.

- In February, 2006 a proposal for Phase 2 of the Sandbag Research Project was submitted for consideration to the Water and Waste Department.

- On October 18, 2006 the Water and Waste Department was advised that the Federal and Provincial governments had agreed to support Phase 2 of the Sandbag Research Project contingent upon tri-partite agreement on cost-sharing.

- Funds in the amount of $300,000 have been approved in the 1999 to 2003 Capital Budget for the Floodplain Management Project.

DISCUSSION:

Sandbag dikes are an integral component of flood protection for many Winnipeg properties outside of the primary diking system. The first phase of the Sandbag Research Project which has been completed:

- Assessed the stability of sandbag structures of varying heights constructed in accordance with the sandbag design used by the City of Winnipeg.

- Identified height limits based on acceptable probabilities of failure.

- Evaluated new design cross-sections and/or methods of construction.

The second phase of the Sandbag Research Project will:

- Identify the effects of wave action on the stability of the sand bag dike.
- Evaluate the benefit of using internal stabilizing plates within the sand bag dike cross-section on height and overall stability and performance under varying conditions.
- Evaluate the effects of sand bag dike erection on snow or frozen ground and identify construction precautions under those conditions.

The principal researchers responsible for the overall scope and supervision of the Sandbag Research Project are from the University of Manitoba Geotechnical Group, the University of Manitoba Hydraulics Research and Testing Facility and the GeoEngineering Centre at Queens-Royal Military College. One graduate student from the Civil Engineering Masters program at the University of Manitoba will be dedicated to the work over a period of two years. The total cost of the second phase of the Sandbag Research Project is estimated at $75,000, cost shared equally with the Federal and Provincial governments. The amount requested from the City is therefore $25,000.00 to be paid to the University of Manitoba's Department of Civil Engineering in two equal installments of $12,500.00 in each of 2007 and 2008.

The financial status of the Floodplain Management Project is as follows:

Authorized Capital		$300,000.00
Amount of Previous Awards Or Expenditures	$209,200.00	
Estimated Cost of Grant	$ 25,000.00	
	$234,200.00	$234,200.00
Funds Remaining		$ 65,800.00

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: November 2, 2006

Project Name:

First Year of Program **2007**

GRANT TO THE UNIVERSITY OF MANITOBA DEPARTMENT OF ENGINEERING FOR 2007 AND 2008

	2007	2008	2009	2010	2011
Capital					
Capital Expenditures Required	$ 12,500	$ 12,500	$ -	$ -	$ -
Less: Existing Budgeted Costs	12,500	12,500	-	-	-
Additional Capital Budget Required	$ -	$ -	$ -	$ -	$ -
Funding Sources:					
Debt - Internal	$ -	$ -	$ -	$ -	$ -
Debt - External	-	-	-	-	-
Grants (Enter Description Here)	-	-	-	-	-
Reserves, Equity, Surplus	-	-	-	-	-
Other - Enter Description Here	-	-	-	-	-
Total Funding	$ -	$ -	$ -	$ -	$ -
Total Additional Capital Budget Required	$ -				
Total Additional Debt Required	$ -				
Current Expenditures/Revenues					
Direct Costs	$ -	$ 1,250	$ 2,500	$ 2,500	$ 2,500
Less: Incremental Revenue/Recovery	-	-	-	-	-
Net Cost/(Benefit)	$ -	$ 1,250	$ 2,500	$ 2,500	$ 2,500
Less: Existing Budget Amounts	-	1,250	2,500	2,500	2,500
Net Budget Adjustment Required	$ -	$ -	$ -	$ -	$ -

Additional Comments: Funds for this project are included in the approved Capital Budget and are funded by the Equity in Capital Assets Fund.

"Original signed by M. L. Geer, C.A."

je

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

IN PREPARING THIS REPORT THERE WAS:

Internal Consultation With and Concurrence By:

N/A

External Consultation With:

N/A

THIS REPORT SUBMITTED BY:

Water and Waste Department
Engineering Division
Prepared by: Chris Trupish
File No. 020-08-00-00-00