



To: Public Works and Transportation Committee **Date:** January 6, 2005
From: Robert Gonzalez, P.Eng.
Director, Engineering **File:** 10-6045-15-01/2005-Vol
01
Re: East Richmond Irrigation and Drainage Study

Staff Recommendation

That the "East Richmond Irrigation and Drainage Study" report dated January 6, 2005 from the Director, Engineering be received for information.

Robert Gonzalez, P.Eng.
Director, Engineering
(4150)

FOR ORIGINATING DIVISION USE ONLY		
CONCURRENCE OF GENERAL MANAGER		
REVIEWED BY TAG	YES <input checked="" type="checkbox"/>	NO <input type="checkbox"/>
REVIEWED BY CAO	YES <input checked="" type="checkbox"/>	NO <input type="checkbox"/>

Staff Report

Origin

East Richmond's agricultural lands serve several purposes including blueberry farms, cranberry farms, vegetable farms and golf courses. The irrigation and drainage needs for these various uses change and compete throughout the year as the seasons change and as a result, staff receive calls from the various property and business owners requesting the provision of more or less drainage and irrigation as needed. Typically, altering drainage and irrigation patterns serve some property owners well and hinder others.

The topic of irrigation and drainage needs in east Richmond was raised during a discussion at the November 18, 2004 Agricultural Advisory Committee meeting. Consequently, the committee passed the following resolution:

"That the City and applicable government agencies undertake a broader drainage study for East Richmond in 2005".

The purpose of this report is to advise Council of the work program intended by staff to address the Agricultural Advisory Committee's referral and also to address east Richmond's irrigation needs.

Analysis

The City's drainage system has traditionally provided an adequate level of service in east Richmond. However, drainage needs are changing, given the adjacent land uses which occasionally have conflicting drainage needs.

With the exception of a dedicated irrigation system for cranberry farming, there is limited irrigation provided by the City. The drainage system, which is of primary concern to the City does not easily allow water in for irrigation purposes. A lack of control structures for irrigation water entering through our drainage system has in the past caused a variety of problems.

Due to increasing and competing needs for irrigation and drainage, staff propose to undertake an irrigation and drainage system study for east Richmond and, with community input, devise a long term plan to address these needs. Recognizing the relatively large size of the study area, respective study and resultant capital improvement costs, staff developed a work program to identify areas of concern, and possible solutions. Furthermore, the staff have already consulted with Richmond's Farmers Institute and the Ministry of Agriculture, Food, and Fisheries in establishing a partnership on the irrigation component of this initiative in order to pursue a Water Supply Expansion program grant from the Federal Government.

Should the City not receive the necessary funding, staff will report back to Council accordingly to advise that this work program would be delayed due to a lack of funding.

Workprogram

1. Meet with Agricultural Advisory Committee and Consult with Richmond's Farmers Institute	Nov 18/04	Done
2. Complete and Submit Grant Funding Application	Dec 31/04	Done
3. Confirm Funding – City, Partners, Grants	Feb – Mar /05	Pending
4. Consult with Farmers, Businesses, Residents to identify needs	Mar – Jun /05	
5. Build Drainage and Irrigation Computer Models	Mar – Oct /05	
6. Identify Capital Improvements for 5 year Capital Program	Aug – Nov /05	
7. Consult with Farmers, Businesses, Residents to discuss proposed work program	Aug – Nov /05	
8. Report to Council and Prepare Final Report	Nov – Dec /05	

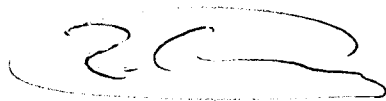
It should be noted that the intent of this study will be to identify those capital improvements, which can be made in future years to improve drainage and irrigation for east Richmond. This study will not resolve all farming, and business concerns raised during consultation due to competing needs of adjacent land uses. Capital improvements will be identified in the annual capital program for Council's consideration in conjunction with all other capital project submissions.

Financial Impact

The total cost for the work program as identified is estimated to be \$200,000. A portion of the cost to undertake the study is anticipated to be grant funding. As noted previously staff have been working with the Ministry of Agriculture, Food, and Fisheries and Richmond's Farmers Institute, and have submitted the necessary grant funding applications and await response in March, 2005. The remaining funding has been included in the list of consulting projects for consideration in 2005.

Conclusion

The current systems for irrigation and drainage in east Richmond have traditionally been adequate. With the evolving and competing adjacent types of farming and golf course land uses, both irrigation and drainage needs are changing. The study of these systems and resultant work program will provide solutions and increase the long term viability of east Richmond as the variety of uses evolve and change.



Robert Gonzalez, P.Eng.
 Director, Engineering
 (4150)

Appendix A

Funding Source Summary

Irrigation	
National Water Supply Expansion Program Grant Request	\$100,000
BC Ministry of Agriculture, Food, and Fisheries	\$ 5,000
Richmond Farmers Institute	\$ 5,000
City of Richmond	\$ 10,000
Total for Irrigation Study	\$120,000
Drainage	
City of Richmond	\$ 80,000*
Total for Drainage Study	\$ 80,000

*Under consideration for consulting funding in 2005