



CITY COUNCIL AGENDA ITEMS

To: Mayor Graham and City Council
From: Dennis Sullivan, Director of Engineering & Public Works
 Walter Denton, City Administrator
Date: November 5, 2007
Subject: RESOLUTION – Fairwood Lake Dam Modifications

List of Committees that have reviewed: None

Background: Hoelscher Engineering was asked by staff to provide a proposal for designing the modification to the Fairwood Lake Dam and outlet structure as a result of their determination that modification would provide a great benefit to controlling the release of stormwater from an area roughly bounded by State on the south to Wesley on the north, from Lincoln on the west to Smiley on the east. The impacts for the reduction in flow for a 2, 10 and 100-year storm on a southern reach of Engle Creek are impressive. For the 2 and 10-year events (storms likely to have a 50% and 10% chance of occurring every year, respectively) the reduction in flow rate from the lake is 90% if a modification to the dam and the outlet structure of the lake are made. For the 100-year event (a chance of 1% every year) the reduction is better than 50%.

RESULTS OF PROPOSED MODIFICATIONS TO FAIRWOOD LAKE DAM FOR DETENTION PURPOSES				
CONDITION	Parameter	Storm Event		
		2-year	10-year	100-year
Existing	Pool Elevation	523.6	524.1	525.3
	Outflow (cfs)	34	76	216
Proposed	Pool Elevation	523.9	524.6	526.2
	Outflow (cfs)	3	6	100

Legal Considerations, if any: None beyond the normal ones associated with contracting for professional services.

Budget Impact: Construction of the modifications currently estimated at \$105,000 to \$125,000 is tentatively budgeted for CY08. Prop S funding.

Staff Recommendation: Staff recommends acceptance of the design proposal from Hoelscher Engineering in an amount not to exceed \$38,100. This proposal was not taken to the Public Works Committee as we need Hoelscher to start preparing as soon as possible to assist staff in meeting with

Fairwood Lake property owners to gain their acceptance of the idea of using the lake for detention prior to anything beyond conceptual design.