

# Memorandum

To: Programs, Projects and Operations Subcommittee

Subject: Walnut Creek Sediment Removal Project (City of Papillion)

Date: November 30, 2009

From: Gerry Bowen

Last May, the Board established the Lake Dredging Program (see attached guidelines) to assist communities to dredge sediment basins above public recreation reservoirs. The cost share rate was 50% of the local share of the costs, up to a maximum of \$100,000 per project.

The first project approved under this program was the City of Papillion's request to remove sediment from a sediment basin above Walnut Creek Lake. The project was also approved for funding from the Nebraska Department of Environmental Quality (NDEQ). The project anticipated the removal of approximately 13,000 cubic yards of sediment from the basin. The total estimated cost (see chart below) of the project was \$312,000, with an estimated \$170,000 from NDEQ, and \$71,000 from the District and the City.

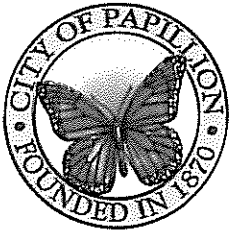
Actual bids for the project came in considerably under the proposed estimate (see chart below). The total bid for the project (including engineering services) is \$132,210. The District's share would be \$32,500.

The City would like to remove an additional 13,000 cubic yards of sediment (see attached letter) at an estimated cost of \$84,500, plus approximately \$4,000 in additional engineering services, for a total of \$88,500. No additional funds are available from NDEQ. Therefore, the City is requesting an increase in the cost share amount from \$32,500 to \$76,750.

|                             | Total Cost       | NDEQ            | City of Papillion | NRD             |
|-----------------------------|------------------|-----------------|-------------------|-----------------|
| Estimated costs (May, 2009) | \$312,000        | \$170,000       | \$71,000          | \$71,000        |
| Actual Bid Price            | \$132,000        | \$67,000        | \$32,500          | \$32,500        |
| Additional Work             | \$88,500         | 0               | \$44,250          | \$44,250        |
| <b>Proposed New Totals</b>  | <b>\$220,500</b> | <b>\$67,000</b> | <b>\$76,750</b>   | <b>\$76,750</b> |

Budget Line item #05 00 4411 – Lake Dredging Program, includes \$63,000 for this project. It is unclear why this line item was not \$71,000, based upon the estimates. Regardless, approving this increase will cause this budget item to exceed 110%.

- **It is recommended that the Subcommittee recommend to the Board that the cost share amount for the Walnut Creek Sediment Basin Dredging Project be increased from \$32,500 to \$76,750, and that Budget Item “#05 00 4411 Lake Dredging Program” be allowed to exceed 110% of the budgeted amount.**



CITY OF PAPIILLION

David P. Black, Mayor

Anthony Gowan, Parks Director

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November 25, 2009

Mr. Gerry Bowen  
Papio-Missouri River Natural Resources District  
8901 S. 154<sup>th</sup> Street  
Omaha, Ne. 68138

Dear Gerry,

Please find attached to this letter, a correspondence from Thompson, Dreesen and Dorner regarding additional silt removal we would like to request additional funding, from the P-MRNRD.

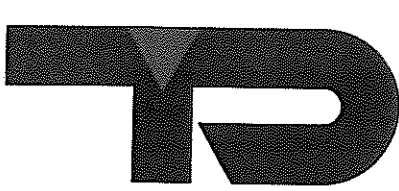
The City of Papillion feels this is a project that needs to occur, to rid the pond of additional sediment discovered as a result of the project already underway at the Walnut Creek site.

The City of Papillion feels this project, if continued as prescribed, will allow the basin to continue to function, without hindrance, for many years to come. The contractor has performed his duties associated with the initial removal process professionally and in a timely manner. We feel that continuing the removal of the sediment at this time is advantageous and cost effective due to the fact that Mr. Hausman's equipment is still mobilized at the site, and also because of his advanced knowledge of the basin, after the initial removal process.

Please present this request to the committee for review. We would be available to meet in person to answer any further questions regarding this request, if so desired.

Respectfully,

Anthony Gowan  
Parks Director  
City of Papillion



# THOMPSON, DREESSEN & DORNER, INC.

Consulting Engineers & Land Surveyors

November 24, 2009

Mr. Tony Gowan  
City of Papillion  
122 East Third Street  
Papillion, NE 68046

RE: City of Papillion - Walnut Creek Pond Silt Removal  
Request for additional funds to expand project  
TD<sup>2</sup> File No. 181-539.22

Mr. Gowan:

This letter has been prepared for your use in making a formal request to the Papio-Missouri River Natural Resources District (P-MRNRD) for consideration of additional funds at their December 8, 2009 subcommittee meeting. The request is for additional funds at the same cost share rate as approved at the P-MRNRD May 12, 2009 subcommittee meeting for the Papillion Walnut Creek Pond - Silt Removal Project. In May, the estimated total project cost was about \$312,000.00, with up to \$170,000.00 of potential funding from NDEQ/EPA for 13,000 CY of sediment removal. The committee agreed to cost share 50% of the remaining project costs which, at that time, was estimated to be about \$71,000.00 for the P-MRNRD.

Bids were received on September 4<sup>th</sup> and Hausman Enterprises was awarded the lump sum contract at a construction cost of \$97,500.00 to remove a minimum of 13,000 CY. The NDEQ/EPA funding amount was capped at \$67,000.00 for the new total project cost of approximately \$132,000.00. The 50% cost share amount for the P-MRNRD would be approximately \$32,500.00 for the original contract amount. The work started in October and the 13,000 CY minimum sediment removals are believed to have been achieved on November 19, 2009. A post-construction topographic survey is scheduled for the week of November 30<sup>th</sup> to confirm that the contract volume of 13,000 CY minimum has been removed.

It became apparent during the sediment removal activities that the pond contained significantly more sediment than the contract amount of 13,000 CY. I have attached photos taken on November 21, 2009 that show the extent of silt remaining in the pond. The 13,000 CY contract amount was based upon removing an average of 2 feet throughout the 4 acre pond in order to restore the water quality benefits and to keep the project costs within the budgeted amounts. The best information at this time is that the average sediment depth was between 3.5 to 4 feet. The contractor has proposed to remove all or a portion of the remaining silt at a unit rate of \$6.50/CY if additional funding can be secured. There is a lot of interest at this time to remove all of the remaining sediment in order to extend the time period to the maximum possible before the pond needs to have the accumulated silt removed again.

Robert E. Dreessen, P.E.  
Ka "Kip" P. Squire III, P.E., S.E.  
Douglas S. Dreessen, P.E.  
Chris E. Dorner, L.S.  
Nelson J. Hymans, P.E.  
James D. Warner, L.S.  
Charles E. Riggs, P.E.  
John M. Kottmann, P.E.  
Arthur D. Beccard, P.E.  
Dean A. Jaeger, P.E.  
Richard M. Broyles, L.S.

David H. Neef, L.S.  
Ronald M. Koenig, L.S.  
Michael J. Smith, L.S.  
Troy J. Nissen, P.E., S.E.  
Douglas E. Kellner, P.E.  
Gary A. Norton, P.E.  
Brian L. Lodes, P.E. LEED AP  
Kurtis L. Rohn, P.E.  
Jeffrey L. Thompson, P.E.  
Daren A. Konda, P.E.  
Michael T. Caniglia, L.S.  
Jeremy T. Steenhoek, P.E.  
Joshua J. Storm, P.E.

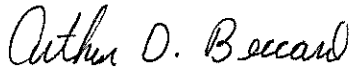
Mr. Tony Gowan  
November 24, 2009  
Page Two

We recommend that you use this letter with a request to the P-MRNRD to provide additional cost share funds in order to remove all of the accumulated sediment in this pond. The best estimate at this time is that there is an additional 13,000 CY of sediment to be removed at a cost of \$84,500.00 (13,000 CY x \$6.50/CY). We will try to survey the "hard bottom" elevations during the post-construction survey during the week of November 30<sup>th</sup> in order to obtain a better estimate of the remaining silt. The actual final cost will be based upon surveyed quantities. The additional engineering costs are estimated to be \$4,000.00 for the additional topographic survey and contract administration for a total additional work cost of \$88,500.00. The requested 50% cost share will increase the P-MRNRD cost share amount to about \$76,750.00 for the total project.

I will provide Gerry Bowen of the P-MRNRD with pdf files of photos and topographic maps to use in the December 8, 2009 presentation. We are available to assist you at the P-MRNRD subcommittee meeting and answer any questions that you or the subcommittee members may have at that time.

Respectfully submitted,

THOMPSON DREESSEN & DORNER, INC.



Arthur D. Beccard, P.E.

ADB/bam

Attachments



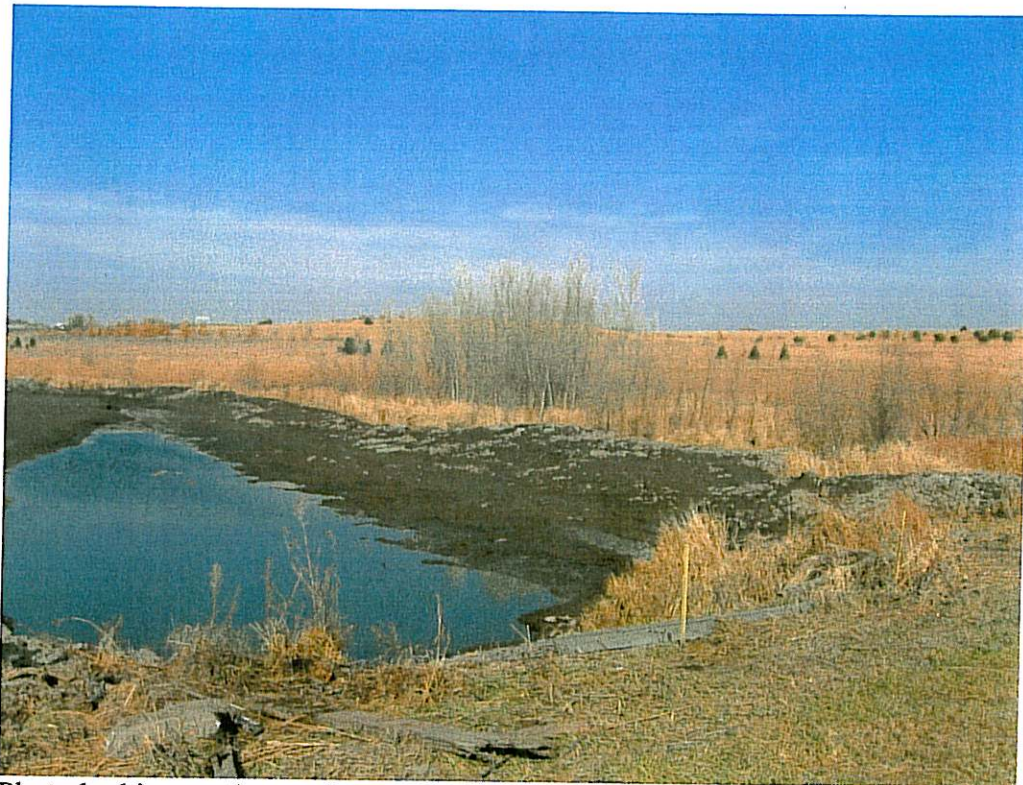


Photo looking north - northwest from the silt pond outlet structure area.

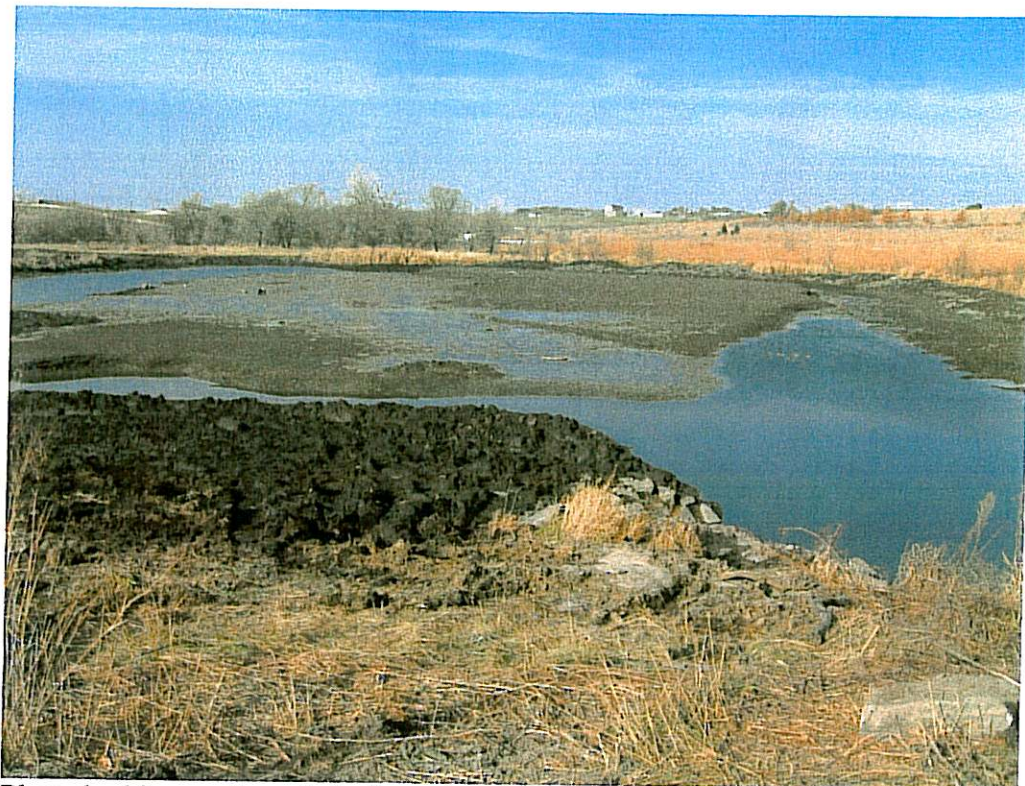


Photo looking northwesterly from the silt pond outlet structure area.



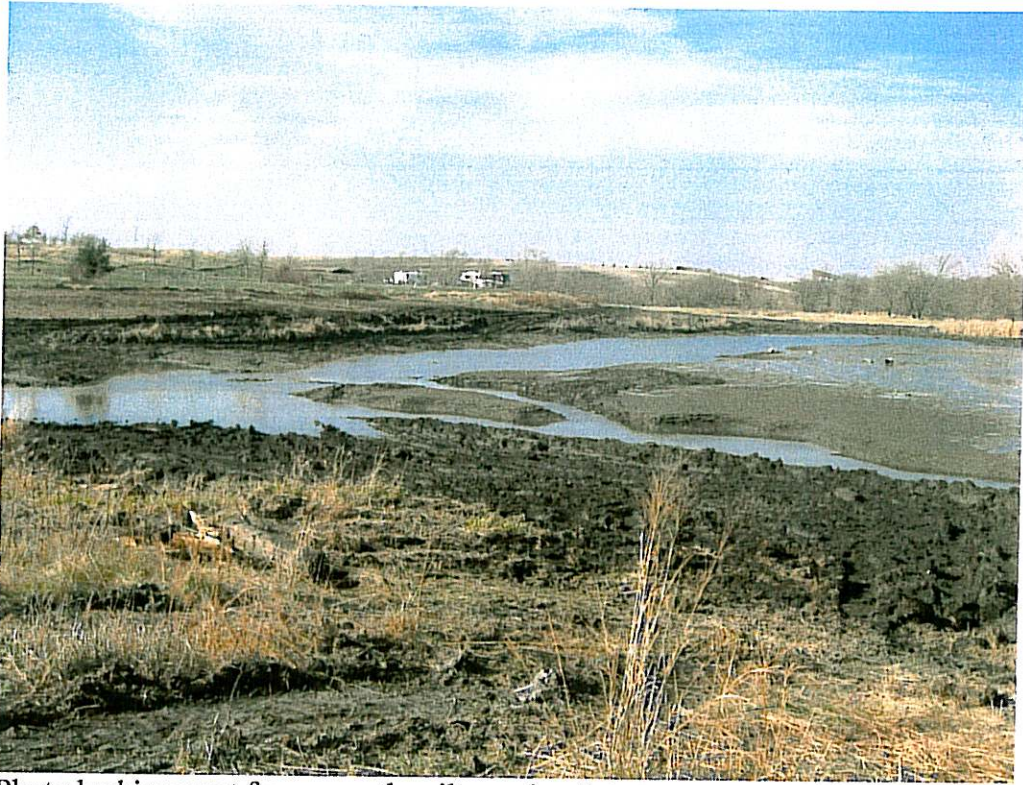


Photo looking west from near the silt pond outlet structure area.



Photo looking southwest from near the silt pond outlet structure.