

Date: October 31, 2005

To: Mel Odens, Director of Public Works

Copy: Brian Bollig, Assistant City Engineer
Colleen Thompson, WWTF Superintendent
Sam Lahanis, Program Manager
Sandy Kimmler, Civil Engineer
File

From: Ken Sedmak, Senior Program Manager

Prepared by: Mike Gerbitz, Wastewater Engineer

Attendees: Mel Odens, Director of Public Works
Brian Bollig, Assistant Engineer
Colleen Thompson, WWTF Superintendent
Jim Gauer, WWTF Foreman
Terry Thole, Operator
Sam Lahanis, Donohue
Ken Sedmak, Donohue
Mike Gerbitz, Donohue
Sandy Kimmler, Donohue
Ben Koplín, MPCA (as noted)
Lisa McCormick, MPCA (as noted)
Pam Meyer, MPCA (as noted)
Greg Gross, MPCA (as noted)
Gary Rott, MPCA (as noted)

Re: Workshop No. 3 - Regulatory Landscape and Alternatives Evaluation
Wastewater Program
City of Willmar, Minnesota
Donohue Project No. 10831.105

Donohue & Associates conducted a workshop on October 10 and 11, 2005 to discuss the Regulatory Landscape and begin the Alternatives Evaluation phase.

| Note No. | Action By | Note |
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| 1 | Information | Donohue distributed hand-out materials to all Workshop participants. The purpose of these materials was to establish the agenda, guide the discussion in accordance with the agenda, provide background information, and document important discussion items. |
| 2 | Information | The Agenda is listed below: Project Status, Regulatory Landscape (Water, Solids), Wastewater Characteristics and Treatability, WWTF Alternatives (Existing, New) |
| 3 | Donohue | Several previously submitted DRAFT Technical Memorandums will be issued to MPCA and JOTS as FINAL REVIEW Technical Memorandums after all submitted revisions are incorporated. These are listed below. <ul style="list-style-type: none"> ▪ TM 101.2 – Existing Service Area ▪ TM 101.4 – Existing Wastewater Treatment Facility ▪ TM 101.5 – Historical Flows and Loadings |

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| | | <ul style="list-style-type: none"> ▪ TM 102.1 – Future Service Area ▪ TM 103.1 – Future Flows and Loadings ▪ TM 103.2 – Infiltration and Inflow Analysis |
| | | <p>Pam Meyer, MPCA, said she would review these Technical Memorandums as they are submitted by the City prior to Facility Plan submittal. During a previous phone conversation, Randy Alsleben said JOTS would review these Technical Memorandums as they are submitted by the City.</p> |
| | | <p>Two previously submitted DRAFT Technical Memorandums will be issued to the Team as FINAL, and not submitted to MPCA and JOTS. These are listed below.</p> |
| | | <ul style="list-style-type: none"> ▪ TM 2.4 – WWTP Funding and Financing ▪ TM 4.2 – Electronic File System |
| 4 | Information | <p>The MPCA was represented by several individuals during the regulatory landscape discussions. Gary Rott, MPCA, discussed the anticipated final effluent limits for the two potential discharge locations. Greg Gross, MPCA, discussed the Annandale – Maple Plain court case and its potential to affect the Willmar project.</p> |
| | | <p>One set of potential effluent limits for Ditch 19 will include the parameters listed below. This set of effluent limits assumes no CBOD/Ammonia linkage. These limits assume that Ditch 19 remains classified according to the default classification as Class 2B water.</p> |
| | | <ul style="list-style-type: none"> ▪ CBOD = 5 mg/L ▪ TSS = 30 mg/L ▪ Fecal = 200 April – October with Dechlorination ▪ Ammonia = 1 mg/L Summer, 2.4 mg/L Fall, 7.8 mg/L Winter, 6 mg/L Spring ▪ DO = 6 mg/L ▪ TP = 1 mg/L |
| | | <p>Another set of potential effluent limits for Ditch 19 will include the parameters listed below. This set of effluent limits assumes CBOD/Ammonia linkage. These limits assume that Ditch 19 remains classified according to the default classification as Class 2B water.</p> |
| | | <ul style="list-style-type: none"> ▪ CBOD = 15 mg/L ▪ TSS = 30 mg/L ▪ Fecal = 200 April – October with Dechlorination ▪ Ammonia = 1 mg/L Summer, 2.4 mg/L Fall, 5 mg/L Winter, 6 mg/L Spring ▪ DO = 6 mg/L ▪ TP = 1 mg/L |
| | | <p>One set of potential effluent limits for Hawk Creek will include the parameters listed below. This set of effluent limits assumes no CBOD/Ammonia linkage. These limits assume that Hawk Creek remains classified as Class 7 water.</p> |

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| | | <ul style="list-style-type: none"> ▪ CBOD = 5 mg/L ▪ TSS = 30 mg/L ▪ Fecal = 200 May – October with Dechlorination ▪ Ammonia = 8.4 mg/L ▪ DO = 6 mg/L Winter ▪ TP = 1 mg/L <p>One set of potential effluent limits for Hawk Creek will include the parameters listed below. This set of effluent limits assumes CBOD/Ammonia linkage. These limits assume that Hawk Creek remains classified as Class 7 water.</p> <ul style="list-style-type: none"> ▪ CBOD = 15 mg/L ▪ TSS = 30 mg/L ▪ Fecal = 200 May – October with Dechlorination ▪ Ammonia = 5 mg/L ▪ DO = 6 mg/L Winter ▪ TP = 1 mg/L <p>MPCA said the MPCA could perform a stream survey and determine the appropriate stream classification for Ditch 19. If Ditch 19 is classified as Class 7, then the effluent limits would be the same as those presented for Hawk Creek.</p> |
| 5 | Donohue | Pursue stream classification of Ditch 19 with MPCA. |
| 6 | Donohue | Request MPCA to submit stream classification of Ditch 23A. |
| 7 | Information | According to Greg Gross, the MPCA does not expect the pending Annandale – Maple Plain court case (MN Supreme Court) to affect the Willmar project because Willmar is part of the Minnesota Watershed and its associated TMDL. |
| 8 | Information | Waters downstream of the proposed discharge locations are impaired for mercury. The effluent mercury limit will likely be 6.9 ng/L. There is no downstream TMDL for mercury. According to Greg Gross, the lack of an EPA-approved mercury TMDL could become problematic for Willmar if environmental advocacy groups make an issue of this. The Team should be aware of this issue and stay current with state-wide mercury TMDL efforts. |
| 9 | Information | A May 5, 2005 effluent sample from the Willmar WWTF was tested for mercury. The test result was 5.5 ng/L, which is less than the likely future limit of 6.9 ng/L. |
| 10 | Information | The City will likely need to implement a Pollutant Management Plan (PMP) for mercury in the future. |
| 11 | Information | <p>Lisa McCormick, MPCA, reviewed the timing of the Environmental Assessment Worksheet and NPDES Permitting Process. These are generally outlined below.</p> <ul style="list-style-type: none"> ▪ Submit EAW and NPDES Permit Application at same time. ▪ MPCA will public notice EAW and NPDES Permit together. |

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| | | <ul style="list-style-type: none"> ▪ Public notice period is a minimum of 30 days. ▪ City holds a public meeting during the 30-day public notice period. ▪ If the public contests the EAW or NPDES Permit, then the issue goes to the MPCA Review Board. The Board may decide to submit the issue to an Administrative Law Judge (ALJ). ▪ From a timing standpoint, the worst-case timing scenario is 60 – 90 days AFTER public notice period begins. Best-case timing scenario is 30 day public notice period. <p>Lisa McCormick stressed the problems encountered when the final design differs from the project defined in the EAW and NPDES Permit phase. To avoid severe inefficiencies and time delays, the project outlined during the EAW and NPDES Permit process should be well defined and only the details should change. For this reason, it is necessary to complete preliminary design prior to the EAW and NPDES Permit application. The EAW and NPDES Permit process is a part of the design phase.</p> <p>Lisa McCormick also made a point to make all in attendance well aware of the fact that the collection system is part of the project and even the slightest change in collection system alignment would require the EAW process to be re-opened.</p> |
| 12 | Donohue | Update project timeline with EAW / NPDES Permit process identified. |
| 13 | Information | Pam Meyer, MPCA, said she would be willing to review pre-FINAL plans and specifications – e.g., 30%, 60%, etc. It is unusual for a regulator to make such an offer. It will be extremely beneficial to Willmar as it is certain to expedite the process. |
| 14 | Information | The MPCA and Team discussed potential JOTS treatment and discharge scenarios. |
| 15 | Information | The Team discussed current and potential future solids-related regulations, and the solids “treatment” and disposal schemes to satisfy these requirements. |
| 16 | Information | <p>The Team discussed the characteristics of the raw wastewater in general as well as the wastewater from several dischargers of interest: JOTS, Hospital, Epitopix. After discussions with appropriate representatives, the wastewater from the hospital and Epitopix should not be problematic.</p> <p>Secondary treatment alternatives must consider the “special” nature of the JOTS’ wastewater.</p> |
| 17 | Donohue | Document current ambient odors at new WWTF site and existing WWTF site. |
| 18 | Donohue | Assist City in effort to document sulfur discharge from JOTS and related issues (e.g., odors, safety, treatability). |
| 19 | Donohue | Obtain electric rate structure for new WWTF site and existing WWTF site. |

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| 20 | Donohue | Review historical Hawk Creek flow data. This information may be useful if it is necessary to define the effects associated with an increased discharge from the Willmar WWTF. |
| 21 | Donohue | Review fly ash analytical data. Determine if fly ash will or might affect wastewater treatability, solids stabilization, equipment life, or solids disposal alternatives. Recommend a course of action to the City. |
| 22 | Donohue | Submit a memorandum to the City (not official Technical Memorandum) that documents potential gas monitoring and HVAC alternatives and outlines recommendations. |
| 23 | Information | <p>The Team discussed potential methods for evaluating and ultimately selecting alternatives. The Team decided to use a weighted scoring scheme that includes the criteria listed below.</p> <ul style="list-style-type: none"> ▪ Capital Cost ▪ Operating Cost ▪ Reliability ▪ Flexibility ▪ Expandability ▪ Compatibility ▪ Operability ▪ Maintainability ▪ Constructability ▪ Safety ▪ Land Requirements ▪ Process Experience ▪ Neighbor Issues ▪ Public Acceptance ▪ Odors ▪ Environmental Issues |
| 24 | Donohue | Develop draft alternative scoring “forms” for review by the Team. These draft forms should have initial weighting factors. The City will review the evaluation criteria and weighting factors, and adjust as deemed appropriate. |
| 25 | Information | The Team “brainstormed” potential alternatives for the existing WWTF (both for the interim period and the future) and the new WWTF. |
| 26 | Information | A subsequent Workshop will “brainstorm” potential collection system alternatives. |
| 27 | Information | An initial listing of the potential alternatives developed during the brainstorming session is attached. This listing is merely a starting point. Undoubtedly, alternatives will be added and deleted from this listing as the evaluation proceeds. These Notes are not intended to document discussions ancillary to the brainstorming session. Rather, they are intended to document the “first cut” of the alternatives considered worthy of additional investigation. The pros and cons of |

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| | | alternatives will be documented in future work products. |
| | | The alternatives will include both chemical and biological phosphorus removal alternatives. |
| 28 | Information | The next Workshop was tentatively set for the week of November 7. |
| 29 | City | The City agreed to test the %TSS of the secondary sludge after it has settled in the secondary clarifiers over night. |
| 30 | Donohue | Assist City with CEPT pilot program. |
| 31 | Information | Donohue recommended flow monitoring continue. Donohue stated they would begin evaluating the flow monitoring data after the data set for week four is received. |

Please contact Ken Sedmak with any comments concerning these notes.

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