



# DuPage Water Commission

600 E. Butterfield Road, Elmhurst, IL 60126-4642  
(630)834-0100 Fax: (630)834-0120

## AGENDA

**ENGINEERING COMMITTEE  
THURSDAY, MAY 12, 2005  
6:30 P.M.**

**600 EAST BUTTERFIELD ROAD  
ELMHURST, IL 60126**

## COMMITTEE MEMBERS

G. Wilcox, Chair  
R. Benson  
W. Mueller  
R. Ferraro

I. Roll Call

II. Approval of Minutes for Committee Meeting of April 14, 2005

**RECOMMENDED MOTION: To approve the Minutes of the April 14, 2005 Engineering Committee.**

III. Report of Status of Construction/Operations

IV. Work Authorization Orders

- QRE-2 Work Authorization Order No. 002 (electrical service entrance repairs at 5 meter stations—cost unknown)

**RECOMMENDED MOTION: To recommend to the Commission approval of Resolution No. R-26-05: A Resolution Approving and Ratifying Certain Work Authorization Orders under Quick Response Contract QRE-2/04 at the May 12, 2005, DuPage Water Commission Meeting during the Super/Special Omnibus Vote Agenda.**

V. Change Orders

A. Change Order No. 9: Contract TIB-1 (Inner Belt Transmission Main)  
**\$372,000.00**

B. Change Order No. 10: Contract TIB-1 (Inner Belt Transmission Main)  
**\$278,899.00**

**RECOMMENDED MOTION: To recommend to the Commission approval of Resolution No. R-30-05: A Resolution Approving and Ratifying Certain Contract Change Orders at the May 12, 2005, DuPage Water Commission Meeting during the Super/Special Omnibus Vote Agenda.**

- VI. Resolution No. R-27-05: A Resolution Directing Advertisement for Bids on a Contract for Quick Response Construction Work (Contract QR-7/05)

**RECOMMENDED MOTION: To recommend to the Commission that Resolution No. R-27-05 be adopted.**

- VII. Resolution No. R-28-05: A Resolution Approving, Accepting, and Ratifying the Execution of an Intergovernmental Agreement Between the DuPage Water Commission and the City of Elmhurst Regarding Contract TIB-1/03 Restoration Work

**RECOMMENDED MOTION: To recommend to the Commission that Resolution No. R-28-05 be adopted.**

- VIII. Status Report on Pipe Loop Testing

- IX. Adjournment

**MINUTES OF A MEETING OF THE  
ENGINEERING & CONSTRUCTION COMMITTEE  
OF THE DuPAGE WATER COMMISSION  
HELD ON APRIL 14, 2005  
600 EAST BUTTERFIELD ROAD  
ELMHURST, ILLINOIS**

The meeting was called to order at 6:32 P.M.

Committee members in attendance: R. Benson, R. Ferraro, W. Mueller (arrived at 6:35 P.M.), G. Wilcox, and M. Vondra *Ex Officio* (arrived at 6:42 P.M.).

Committee members absent: None

Also in attendance: T. McGhee, E. Kazmierczak, C. Bostick, J. Schori, F. Frelka and W. Green (AB&H)

Commissioner Ferraro moved to approve the Minutes of the March 10, 2005 Engineering Committee. Motion seconded by Commissioner Benson and passed unanimously as follows:

Aye: R. Benson, R. Ferraro and G. Wilcox  
Nay: None  
Absent: W. Mueller

The Committee reviewed the memorandum regarding the Status of Operations dated April 8, 2005.

6:35 P.M. Commissioner Mueller arrived at the Committee meeting.

Commissioner Benson moved to recommend to the Commission approval of Resolution R-20-05 during the Super/Special Omnibus Vote Agenda: A Resolution Approving and Ratifying Certain Work Authorization Orders under Quick Response Contract QR-6/02 at the April 14, 2005, DuPage Water Commission Meeting. Motion seconded by Commissioner Mueller. Commissioner Benson inquired as to the scope of the work being performed. Staff informed him that the work being performed was the repair and/or replacement of Cathodic Protection Test Stations. The Motion passed unanimously as follows:

Aye: R. Benson, R. Ferraro, W. Mueller and G. Wilcox  
Nay: None  
Absent: None

## Minutes 04/14/05 Engineering Meeting

Commissioner Benson moved to recommend to the Commission approval of Resolution R-22-05 during the Super/Special Omnibus Vote Agenda: A Resolution Approving and Ratifying Certain Contract Change Orders at the April 14, 2005 DuPage Water Commission Meeting. Motion seconded by Commissioner Ferraro. Commissioner Mueller inquired as to the present status of Contract BOV-1 and Commissioner Benson asked if the change order represented any additional costs to the contract. Staff informed them that the contract would be completed as soon as the last blow-off valve was abandoned, which would be completed in conjunction with the north tie-in of Contract TIB-1. Staff also informed them that the Change Order was a time extension and did not represent any additional costs to the contract. The Motion passed unanimously as follows:

Aye: R. Benson, R. Ferraro, W. Mueller and G. Wilcox  
Nay: None  
Absent: None

Commissioner Mueller asked about the status of Contract BOV-2. Staff informed him that AB&H is continuing with project design and that it is expected to go out for bids in July.

Commissioner Ferraro moved to recommend to the Commission approval of Resolution R-19-05: A Resolution Approving and Ratifying Certain Task Orders Under a Master Contract with Cathodic Protection Management, Inc. at the April 14, 2005 DuPage Water Commission Meeting. Motion seconded by Commissioner Benson. Commissioner Wilcox inquired about the scope of Task Order No. 3. Staff informed him that Cathodic Protection Management was conducting investigative and mitigation work to both identify and prevent future corrosion problems. The Motion passed unanimously as follows:

Aye: R. Benson, R. Ferraro, W. Mueller and G. Wilcox  
Nay: None  
Absent: None

6:42 P.M. Chairman Vondra arrived at the Committee meeting.

Commissioner Mueller moved to recommend to the Commission approval of Resolution R-25-05: A Resolution Approving and Ratifying Certain Task Orders Under a Master Contract with Patrick Engineering, Inc. at the April 14, 2005 DuPage Water Commission Meeting. Motion seconded by Commissioner Benson and passed unanimously as follows:

Aye: R. Benson, R. Ferraro, W. Mueller and G. Wilcox  
Nay: None  
Absent: None

Commissioner Benson moved to recommend to the Commission approval of Resolution R-24-05: A Resolution Approving and Authorizing the Execution of an Agreement Between the DuPage Water Commission and the State of Illinois Department of Transportation Regarding US Route 20 (Lake Street) Improvements Project No. C-91-381-01. Motion seconded by Commissioner Ferraro. Commissioner Mueller stated that he was aware of problems between Addison and IDOT and wanted to know if the Commission had any conflicts with this project. Staff informed him that there were no Commission conflicts associated with this project. The Motion passed unanimously as follows:

Aye: R. Benson, R. Ferraro, W. Mueller and G. Wilcox  
Nay: None  
Absent: None

Commissioner Benson moved to recommend to the Commission approval of the following QRE2 progress payments in the total amount of \$2,122.58 as part of the Accounts Payable, subject to submission of all contractually required documentation:

#### Quick Response Contracts

- QRE2-001A: Relocate Electrical Service for ROV26A Control Cabinet in the amount of \$2,122.58

Motion seconded by Commissioner Mueller and passed unanimously as follows:

Aye: R. Benson, R. Ferraro, W. Mueller and G. Wilcox  
Nay: None  
Absent: None

With respect to the 75<sup>th</sup> Street Pipe Storage Facility, Commissioner Wilcox rejected the option of relocating the pipe storage facility to the DuPage Pump Station grounds. He stated that he received a call from Elmhurst Mayor Tom Marcucci who voiced concern over Commission projects, and questioned if staff had submitted the plan to the local municipality for their approval. Staff informed the Commissioner that it was not the Commission's policy to submit plans for approval to the local municipality and that the Commission is not subject to local zoning laws, but does abide by as best as possible to the local building codes when designing facilities. Commissioner Mueller asked how much money has been spent to date on the 75<sup>th</sup> Street Project and whether the Commission could continue with this site. Commissioner Wilcox responded that regardless of the money spent the 75<sup>th</sup> Street site was not a viable option due to the Army Corp's of Engineers wetland mitigation requirements. Commissioner Benson suggested that leasing an existing building, or space in a customer, storage yard be

## Minutes 04/14/05 Engineering Meeting

investigated. Commissioner Mueller stated he would like to see a cost estimate, conceptual drawings and a site usage plan for any future buildings. Staff reported it will continue to look for alternative options for a pipe storage facility.

Commissioner Mueller moved to recommend to the Commission that the General Manager be authorized to enter into an agreement with the City of Elmhurst modifying certain pavement restoration requirements under Contract TIB-1/03 at a cost to the Commission not to exceed \$100,000 and with the Commission's share of the total costs not to exceed 50%. Motion seconded by Commissioner Ferraro. Commissioner Wilcox asked why the Commission would be incurring additional costs for this work. Staff informed the Commissioner that during the course of the project, the contractor had damaged additional sections of the road in question for which the contractor was only required to patch the pavement. Elmhurst and Commission staff suggested the concrete road be rebuilt in its entirety, with faster curing asphalt, and the City and the Commission could share the additional costs. Commissioner Wilcox directed staff to approach the contractor in regards to whether there should be any contractor reasonability for the additional cost the Commission would incur. The Motion passed unanimously as follows:

Aye: R. Benson, R. Ferraro, W. Mueller and G. Wilcox  
Nay: None  
Absent: None

Commissioner Benson asked if there were problems with any project at this time. Staff informed him that there was a conflict with B.P. Amoco that would be discussed in Executive Session.

Commissioner Ferraro moved to adjourn the meeting at 7:15 P.M. Motion seconded by Commissioner Mueller and unanimously approved by voice vote.

All voted aye. Motion carried.

BOARD/MINUTES/ENG0504.doc



# DuPage Water Commission

## MEMORANDUM

TO: Robert Martin General Manager

FROM: Terry McGhee Operations Supervisor  
Ed Kazmierczak Pipeline Supervisor  
Chris Bostick Facilities Construction Supervisor  
John Schori Instrumentation Supervisor  
Frank Frelka GIS Coordinator

DATE: May 6, 2005

SUBJECT: Status of Operations

### **Operations Overview**

The Commission's sales for the month of April were a total of 2.299 billion gallons. This represents an average day demand of 76.6 million gallons per day (MGD), which is lower than the April 2004 average day demand of 78.0 MGD. The maximum day demand was 85.1 MGD on April 18, 2005, which is lower than the April 2004 maximum day demand of 88.3 MGD. The minimum day flow was 68.7 MGD. The Commission recorded a total precipitation for the month of April of 1.32 inches compared to 0.97 inches for April 2004.

### **Operations Construction Overview**

#### **Contract PSD-6 Reservoir Addition**

Consoer Townsend Envirodyne (CTE) is working on the design of Divisions A & B of Contract PSD-6 Reservoir Addition, which include the Vehicle Storage Building, Material Storage Structure, Reservoir Hatch Replacement and the Cadwell Ave. Re-Alignment.

#### **Contract PSD-7 DPPS Electrical Generation**

The electrical generation project is currently on hold.

Remote Pipe Storage Facility

The remote pipe storage facility is currently on hold. Staff is currently developing an alternative site use plan, investigating leasing options for commercial storage facilities, and developing preliminary cost estimates for more temporary storage facilities. Staff's findings will be presented at the June meeting.

Tank Site #1 Fencing

The fencing work at Tank Site #1 is complete.

Pipe Loop Pilot Plant

The Commission is in the process of running a Pipe Loop pilot plant to study the aluminum phosphate deposits in its pipelines. The purpose of this pilot plant is to determine whether and how the deposits can be removed or prevented. Two of the three test pipe loops were started the week of April 25<sup>th</sup>. The initial results of the study are expected in the first quarter of 2006.

GIS Development

The GIS Internet mapping software (ArcIMS) and database management system software (Spatial Database Engine [ArcSDE] with Microsoft SQL Server) were successfully installed in April. Staff has developed a very basic GIS web site and is working with Patrick Engineering to develop a more comprehensive site with additional data layers and on-line viewing access to engineering drawings. Task Order No. 6, which appears on the agenda to implement the drawing viewer project. Additional work planned in the coming weeks includes installation of GIS web site management software, hiring of a GIS Intern, data collection with soon-to-be-delivered GPS equipment, asset management software demonstrations, document management system vendor selection and GIS database design.

A GIS Plotter bid opening was held on Wednesday, April 25, 2005. Of the five bids received, (see Tabulation below) the bid from EN Pointe Tech was the most favorable, and Purchase Order No. 8855 to En Pointe Tech appears on the agenda.

En Pointe Tech	\$ 12,703.61
The Cad Store	\$ 12,770.00
Clifford Wald	\$ 13,265.00
OM Office Supply	\$ 13,278.00
Softmart	\$ 13,602.78



**Pipeline Construction Overview****CONTRACT BOV-1/02 BLOW-OFF VALVE IMPROVEMENTS**

All work sites have been restored. The abandonment of one valve is all that remains to be completed under this contract. This valve is located on the Northwest Transmission Main and will be abandoned at the same time the TIB-1 connection to the Northwest Transmission Main is made.

Lost Time Accidents to Date 05/06/05      0 Days

**CONTRACT TIB-1/03 INNER BELT TRANSMISSION MAIN**

Open cut pipe installation south of Riverside Drive has progressed approximately 4500 L.F. Rib and lagging tunnel construction has been completed and pipe installation within the tunnel is underway. Installation of the Southwest Transmission Main replacement valve and installation of the tee connection to the Southwest Transmission Main have been completed. Work on the connection to the Northwest Transmission main is in progress. A resolution authorizing an agreement with Elmhurst regarding TIB-1 restoration work appears on the agenda as R-28-05. A resolution authorizing approval of Change Orders 9 and 10 to Contract TIB-1 appears on the agenda as R-30-05.

Lost Time Accidents To Date 05/06/05      0 Days

**QUICK RESPONSE CONTRACTS QR-6 AND QR-7**

Installation of CP test stations necessary for the continued prosecution of the work under Contract CP-3 and previously approved under R-66-04 has resumed. CP Test Station installations approved under R-20-05 have begun. A resolution directing advertisement for bids on Contract QR-7 appears on the agenda as R-27-05.

Lost Time Accidents to Date 05/06/05      0 Days

**CONTRACT CP-3 CORROSION IDENTIFICATION AND ASSESSEMENT**

Cathodic Protection Management is continuing with field work under this contract.

Lost Time Accidents to Date 05/06/05      0 Days

CONTRACT BOV-2/04 90" BLOW OFF VALVE IMPROVEMENTS

AB&H is continuing with project design. Pre-Final plan sets requesting review and comment have been transmitted to the various municipalities and agencies located within the project limits.

CONTRACT TS-6/04 SOUTH TRANSMISSION MAIN—PLAINFIELD ROAD

A pre construction meeting was held on Tuesday, April 5. Work is expected to begin by the end of May.

The following are attachments to this memorandum:

1. DuPage Laboratory Bench Sheet for April, 2005
2. Water Sales Analysis 01-May-01 to 31-April-05
3. Chart showing Commission sales versus allocations
4. Chart showing Commission sales versus historical averages
5. Bid Analysis GIS Plotter

DUPAGE WATER COMMISSION LABORATORY BENCH SHEET  
MONTHLY REPORT FOR APRIL 2005

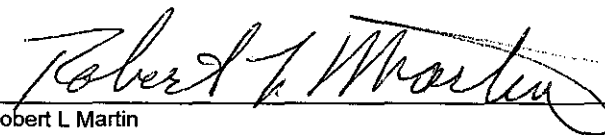
## LEXINGTON SUPPLY

## DUPAGE DISCHARGE

DAY	FREE CL <sub>2</sub> mg/l	TURBIDITY NTU	PO <sub>4</sub> mg/l	FREE CL <sub>2</sub> mg/l	TURBIDITY NTU	TEMP °F	pH	Fluoride mg/l	PO <sub>4</sub> mg/l	P.A.C. LBS/MG	ANALYST INT
1	0.70	0.10	0.51	0.70	0.09	40	7.4	1.1	0.47	0	KD
2	0.70	0.10	0.51	0.70	0.09	40	7.4	1.1	0.44	0	KD
3	0.69	0.11	0.50	0.70	0.09	42	7.4	1.2	0.45	0	JV
4	0.68	0.11	0.51	0.69	0.09	42	7.4	1.1	0.47	0	JV
5	0.68	0.10	0.54	0.69	0.08	42	7.4	1.0	0.48	0	JV
6	0.65	0.11	0.51	0.69	0.08	42	7.4	1.1	0.49	0	JV
7	0.65	0.09	0.52	0.69	0.09	42	7.4	1.1	0.49	0	KD
8	0.67	0.10	0.52	0.70	0.10	42	7.4	1.1	0.51	0	KD
9	0.70	0.11	0.51	0.70	0.08	43	7.4	1.1	0.51	0	KD
10	0.70	0.11	0.49	0.70	0.08	45	7.4	1.0	0.50	0	KD
11	0.71	0.10	0.51	0.68	0.08	44	7.4	1.1	0.50	0	JV
12	0.68	0.10	0.50	0.68	0.10	44	7.4	1.2	0.48	0	JV
13	0.68	0.10	0.51	0.69	0.09	44	7.4	1.2	0.48	0	JV
14	0.65	0.12	0.48	0.69	0.08	44	7.4	1.1	0.51	0	JV
15	0.66	0.12	0.48	0.69	0.08	44	7.4	1.0	0.50	0	KD
16	0.67	0.11	0.51	0.68	0.08	44	7.4	1.0	0.50	0	KD
17	0.67	0.10	0.51	0.68	0.07	44	7.4	1.0	0.50	0	KD
18	0.70	0.12	0.48	0.70	0.08	47	7.4	1.0	0.50	0	KD
19	0.71	0.09	0.48	0.70	0.09	44	7.4	1.2	0.50	0	JV
20	0.71	0.10	0.49	0.69	0.09	46	7.4	1.1	0.47	0	JV
21	0.69	0.11	0.49	0.68	0.09	46	7.4	1.1	0.47	0	JV
22	0.69	0.12	0.52	0.68	0.10	48	7.4	1.1	0.49	0	JV
23	0.69	0.10	0.53	0.68	0.10	48	7.4	1.1	0.49	0	KD
24	0.67	0.09	0.54	0.68	0.10	48	7.4	1.1	0.50	0	KD
25	0.68	0.09	0.54	0.67	0.08	48	7.4	1.0	0.51	0	KD
26	0.67	0.09	0.52	0.69	0.08	48	7.4	1.1	0.48	0	KD
27	0.68	0.10	0.52	0.69	0.08	49	7.4	1.1	0.47	0	JV
28	0.69	0.09	0.51	0.69	0.08	49	7.4	1.1	0.51	0	JV
29	0.69	0.08	0.51	0.69	0.09	49	7.4	1.1	0.49	0	JV
30	0.68	0.10	0.49	0.70	0.09	49	7.4	1.1	0.47	0	JV
31											
AVG	0.68	0.10	0.51	0.69	0.09	45	7.4	1.1	0.49	0	
MAX	0.71	0.12	0.54	0.70	0.10	49	7.4	1.2	0.51	0	
MIN	0.65	0.08	0.48	0.67	0.07	40	7.4	1.0	0.44	0	



Terrance McGhee  
Operations Supervisor



Robert L. Martin  
General Manager

DU PAGE WATER COMMISSION  
WATER SALES ANALYSIS

01-May-92 TO 30-Apr-05

PER DAY AVERAGE 80,902,858

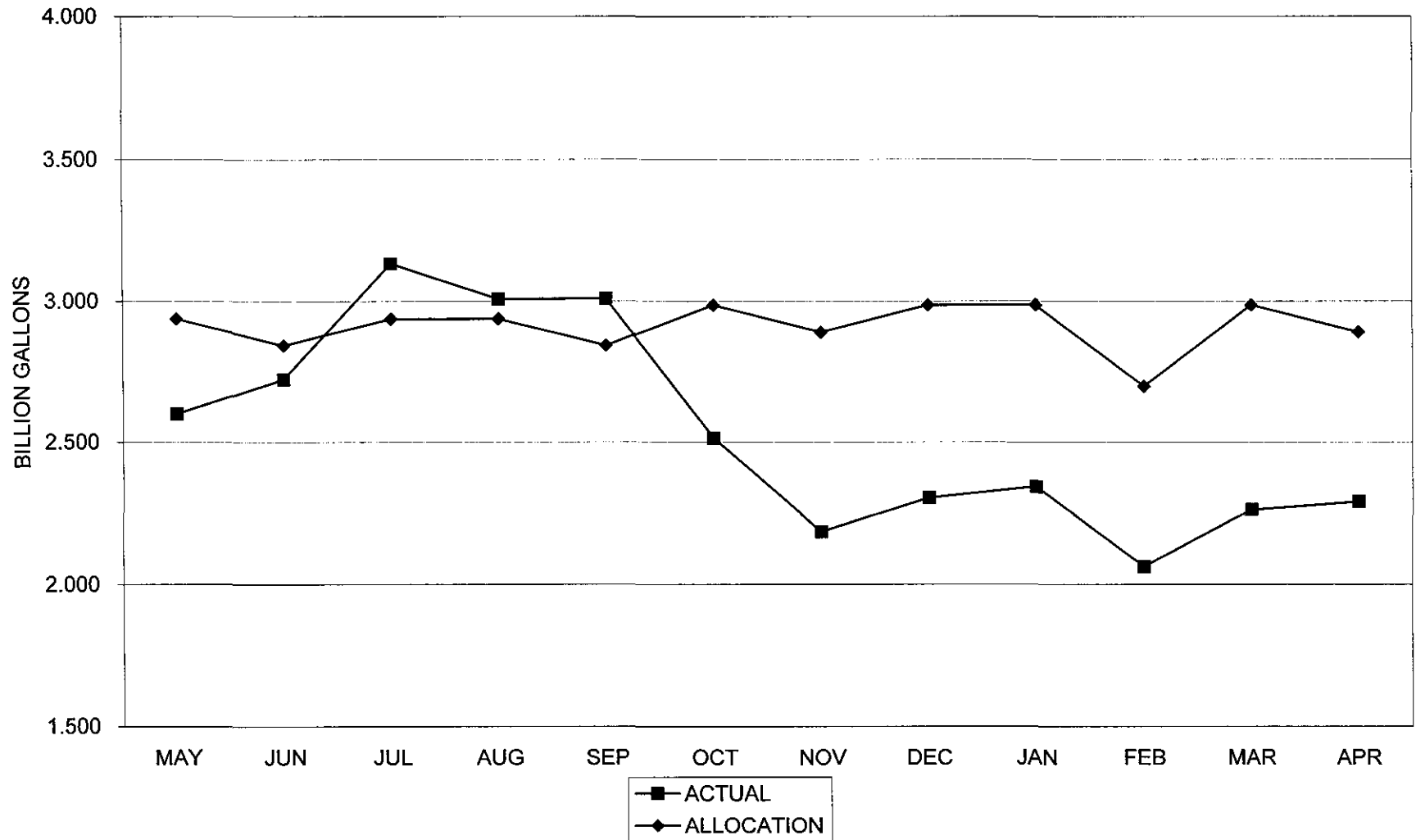
MONTH	SALES TO CUSTOMERS (GALLONS)	PURCHASES FROM CHICAGO (GALLONS)	GALLONS BILLED %	BILLINGS TO CUSTOMERS	BILLINGS FROM CHICAGO	DOCUMENTED COMMISSION WATER USE (2)	DOCUMENTED COMMISSION WATER USE %	TOTAL ACCOUNTED FOR %
May-03	2,622,301,000	2,711,004,309	96.73%	\$3,619,032.96	\$3,315,558.27	3,119,550	0.12%	96.84%
Jun-03	3,031,274,000	3,129,263,410	96.87%	\$4,183,476.12	\$3,827,089.15	9,583,535	0.31%	97.17%
Jul-03	3,114,181,000	3,213,079,828	96.92%	\$4,297,569.78	\$3,929,596.63	3,414,287	0.11%	97.03%
Aug-03	3,137,669,000	3,237,477,343	96.92%	\$4,330,318.18	\$3,959,434.79	6,589,500	0.20%	97.12%
Sep-03	2,775,903,000	2,842,321,431	97.66%	\$3,830,750.38	\$3,476,159.11	1,081,000	0.04%	97.70%
Oct-03	2,463,017,000	2,531,079,199	97.31%	\$3,361,577.64	\$3,095,509.86	1,199,100	0.05%	97.36%
Nov-03	2,220,837,000	2,263,237,760	98.13%	\$3,110,603.92	\$2,767,939.78	1,004,600	0.04%	98.17%
Dec-03	2,302,995,000	2,357,446,124	97.69%	\$3,178,138.40	\$2,883,156.61	785,500	0.03%	97.72%
Jan-04	2,353,099,000	2,415,231,136	97.43%	\$3,247,276.62	\$3,040,776.00	999,500	0.04%	97.47%
Feb-04	2,205,542,000	2,253,789,245	97.86%	\$3,043,647.96	\$2,837,520.66	799,100	0.04%	97.89%
Mar-04	2,240,813,000	2,290,496,569	97.83%	\$3,092,321.94	\$2,883,735.18	883,800	0.04%	97.87%
Apr-04	2,331,090,000	2,380,618,809	97.92%	\$3,218,939.40	\$2,997,199.08	875,000	0.04%	97.96%
May-04	2,600,130,000	2,676,783,908	97.14%	\$3,718,185.90	\$3,370,070.94	1,031,900	0.04%	97.17%
Jun-04	2,721,721,000	2,789,008,356	97.59%	\$3,892,371.69	\$3,511,361.52	1,285,000	0.05%	97.63%
Jul-04	3,133,397,000	3,223,301,033	97.21%	\$4,480,757.71	\$4,058,136.00	4,645,300	0.14%	97.35%
Aug-04	3,007,144,000	3,085,674,758	97.45%	\$4,301,191.02	\$3,884,864.52	1,430,100	0.05%	97.50%
Sep-04	3,009,009,000	3,091,578,157	97.33%	\$4,302,882.87	\$3,892,296.90	1,325,300	0.04%	97.37%
Oct-04	2,514,175,000	2,570,762,145	97.80%	\$3,615,487.65	\$3,236,589.54	947,600	0.04%	97.84%
Nov-04	2,184,341,000	2,240,388,753	97.50%	\$3,123,607.63	\$2,820,649.44	896,100	0.04%	97.54%
Dec-04	2,303,926,000	2,355,411,517	97.81%	\$3,294,614.18	\$2,965,463.10	993,900	0.04%	97.86%
Jan-05	2,343,046,000	2,403,180,116	97.50%	\$3,350,555.78	\$3,119,327.79	1,053,800	0.04%	97.54%
Feb-05	2,062,639,000	2,109,867,797	97.76%	\$2,949,573.77	\$2,738,608.40	1,012,630	0.05%	97.81%
Mar-05	2,262,071,000	2,317,877,242	97.59%	\$3,234,761.53	\$3,008,604.66	2,053,364	0.09%	97.68%
Apr-05	2,290,530,000	2,351,076,764	97.42%	\$3,275,457.90	\$3,051,697.64	3,949,022	0.17%	97.59%
TOTALS (1)	384,126,770,000	395,602,766,533	97.10%	\$516,513,290.11	\$428,424,684.60	291,431,407	0.07%	97.17%
=====								

(1) - SINCE MAY 1, 1992

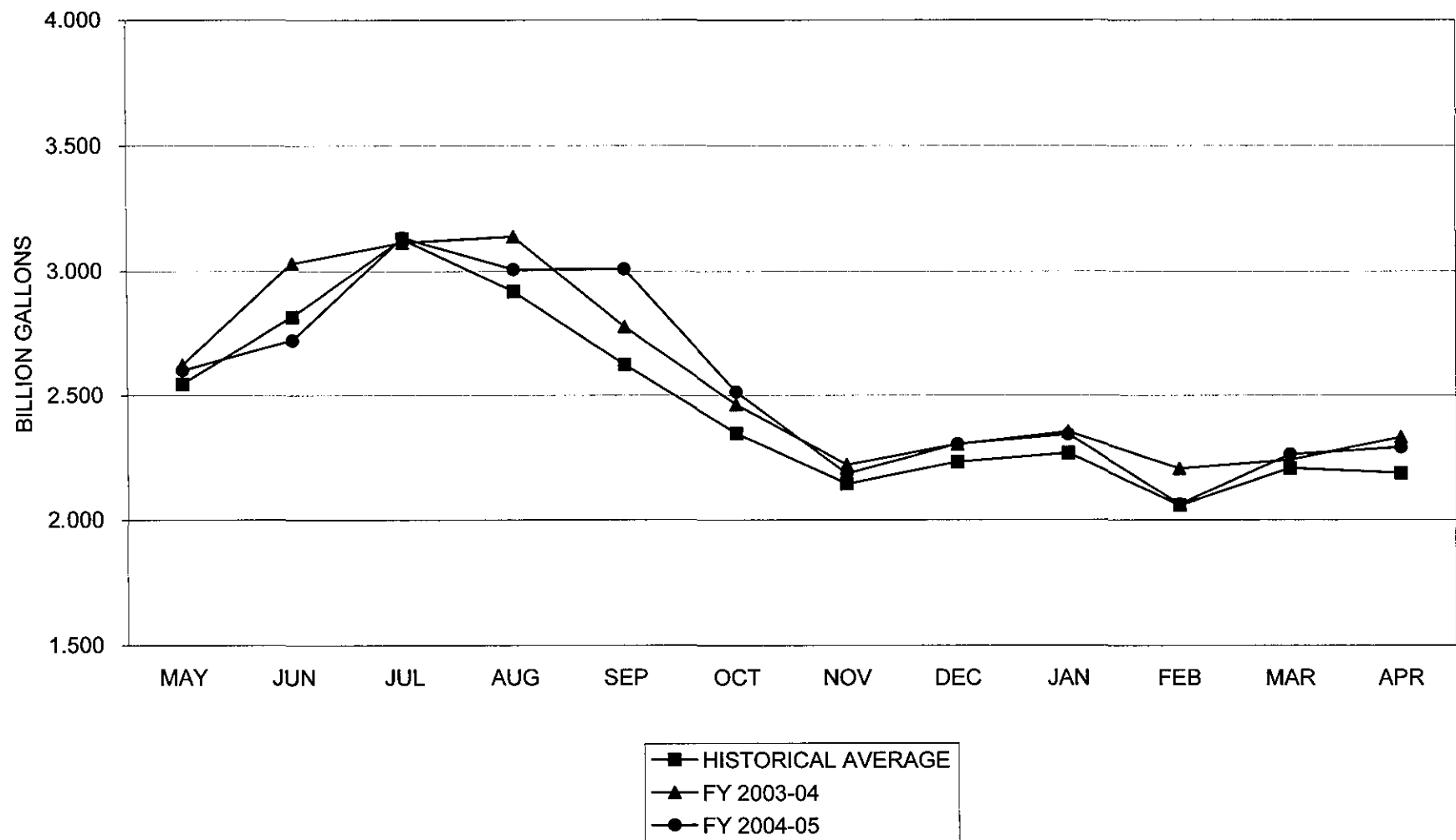
(2) - REPRESENTS DU PAGE PUMP STATION, METER TESTING AND CONSTRUCTION PROJECT USAGE

Operations\Spreadsheets\H2OSALES.xls

**DU PAGE WATER COMMISSION SALES  
FY 2004-05 VS. ALLOCATION**



**DU PAGE WATER COMMISSION SALES  
FY 2004-05 & FY 2003-04 VS. HISTORICAL AVERAGE**



HP 5500 ps Plotter Bids

	1	2	3	4	5
Item	En Pointe Tech	The Cad Store	Clifford-Wald	OM Office Supply	Softmart
DesignJet 5500 42"	\$9,850.53	\$9,995.00	\$10,495.00	\$10,300.00	\$10,592.72
Installation/Setup	\$409.42	\$0.00	\$150.00	\$430.00	\$433.36
Shipping/Freight	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Take-up Reel	\$572.13	\$625.00	\$625.00	\$588.00	\$595.17
3-Year Care Package	\$1,871.53	\$2,150.00	\$1,995.00	\$1,960.00	\$1,981.53
Total Bid	\$12,703.61	\$12,770.00	\$13,265.00	\$13,278.00	\$13,602.78
Bid Date: April 25, 2005					

# CHANGE ORDER

THE DUPAGE WATER COMMISSION

SHEET 1 OF 3

PROJECT NAME: Inner Belt Transmission Main

CHANGE ORDER NO. 09

LOCATION: Butterfield Road To Prairie Path

CONTRACT NO. TIB-1/03

CONTRACTOR: Rossi Contractors, Inc.

DATE: April 28, 2005

**I. A. DESCRIPTION OF CHANGES INVOLVED:**

Additional cost associated with dewatering operations during the 84-inch steel tunnel casing installation under the entrance ramp to Roosevelt Road.

**B. REASON FOR CHANGE:**

During the installation of the 84-inch steel casing (St. 3+12 to St. 4+58), the tunnel contractor encountered excessive groundwater flow at approximately 115 feet or about 30 feet from the north end of tunnel. Over the course of the next two weeks, the contractor installed four large diameter dewatering wells to lower the water level so tunnel construction could proceed. During this period of dewatering operations, it became apparent that the groundwater issue was much more extensive than the preconstruction geotechnical investigations had indicated. Based on the information collected during dewatering operations, the geotechnical experts that were monitoring the conditions concluded that the origin of this extensive groundwater flow was the result of a complex geological environment known as perched water table. To overcome this situation, the contractor was required to continuously operate the dewatering systems for a period of six weeks until the water level was below the tunnel alignment. Once the water level was lowered to a point below the tunnel casing invert, the casing and water main piping work was completed.

**C. REVISION IN PRICE:**

NEGOTIATED PRICE:

ADDITION: LUMP SUM

Dewatering Cost	<u>\$372,000.00</u>
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<b>TOTAL</b>	<b>\$372,000.00</b>
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**II. CHANGE ORDER CONDITIONS:**

1. The Contract completion date established in the Original Contract or as modified by previous Change Orders is hereby extended by 0 calendar days, making the final completion date **August 29, 2005**.
2. Any additional work to be performed under this Change Order shall be carried out in compliance with the specifications included in the preceding Description of Changes Involved, with the Contract Drawings designated as Inner Belt Transmission Main, and under the provisions of the Original Contract, including compliance with applicable Equipment Specifications, General Specifications, and Project Specifications for the same type of work.
3. This Change Order unless otherwise provided herein does not relieve the contractor from strict compliance with the guarantee provisions of the Original Contract, particularly those pertaining to performance and operation of equipment.
4. The Contractor expressly agrees he will place under coverage of his Performance and Payment Bonds and Contractor's Insurance all work covered by this Change Order. The Contractor will furnish to the Owner evidence of increased coverage of his Performance and Payment Bonds for the accrued value of all Change Orders which exceeds the Original Contract Price by twenty percent (20%).

CHANGE ORDER NO. 09

III. ADJUSTMENTS IN AMOUNT OF CONTRACT:

1.	Amount of Original Contract	<u>\$12,730,597.31</u>
2.	Net change due to previous Change Order Nos. 1 to 8	<u>\$ 2,595,635.70</u>
3.	Amount of Contract, not including this Change Order	<u>\$15,326,233.01</u>
4.	Addition to Contract due to this Change Order	<u>\$372,000.00</u>
5.	Amount of Contract including this Change Order	<u>\$15,698,233.01</u>

RECOMMENDED FOR ACCEPTANCE:

CONSULTING ENGINEERS: Alvord, Burdick & Howson, L.L.C.

By: \_\_\_\_\_ ( \_\_\_\_\_ )  
Signature of Authorized Date  
Representative

ACCEPTED:

CONTRACTOR: Rossi Contractors, Inc.

By: \_\_\_\_\_ ( \_\_\_\_\_ )  
Signature of Authorized Date  
Representative

DUPAGE WATER COMMISSION:

By: \_\_\_\_\_ ( \_\_\_\_\_ )  
Robert L. Martin Date  
General Manager

# CHANGE ORDER

**THE DUPAGE WATER COMMISSION**

**SHEET 1 OF 4**

PROJECT NAME: Inner Belt Transmission Main

CHANGE ORDER NO. 10

LOCATION: Butterfield Road To Prairie Path

CONTRACT NO. TIB-1/03

CONTRACTOR: Rossi Contractors, Inc.

DATE: April 29, 2005

**I. A. DESCRIPTION OF CHANGES INVOLVED:**

Additional quantities required for restoration work on Dorchester Road and Frontage Road from approximate St. 5+25 to St. 58+00, between Old Butterfield Road and Monroe Street, as per agreement between the Commission and the City of Elmhurst.

**B. REASON FOR CHANGE:**

The restoration on Dorchester Road, per Contract, included replacement of only west half of the concrete pavement in kind. The City of Elmhurst requested the Commission to replace full width of the pavement with bituminous pavement and agreed to share the cost differential.

The restoration on Frontage Road, per Contract, included replacement of full width of bituminous pavement in kind. The City of Elmhurst requested the Commission to widen the bituminous pavement by four feet to the east and agreed to pay for the additional cost.

**C. REVISION IN PRICE:**ADDITION:

Negotiated Price:

Remove Conc. Pavt. & Replace With Bit. Pavt.	9200.00 SY @ \$55.85/SY	\$513,820.00
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Contract Price:

Item 23: Curb & Gutter, R & R	3500.00 LF @ \$16.05/LF	\$56,175.00
Item 47: Granular Fdn. Mat.	600.00 CY @ \$ 21.19/CY	\$12,714.00

DEDUCTION:

Contract Price:

Item 20: Conc. Pavt., R & R	3800.00 SY @\$79.95/SY	<u>(\$303,810.00)</u>
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<b>TOTAL</b>	<b>\$278,899.00</b>
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CHANGE ORDER NO. 10

**II. CHANGE ORDER CONDITIONS:**

1. The Contract completion date established in the Original Contract or as modified by previous Change Orders is hereby extended by 0 calendar days, making the final completion date **August 29, 2005**.
2. Any additional work to be performed under this Change Order shall be carried out in compliance with the specifications included in the preceding Description of Changes Involved, with the Contract Drawings designated as Inner Belt Transmission Main, and under the provisions of the Original Contract, including compliance with applicable Equipment Specifications, General Specifications, and Project Specifications for the same type of work.
3. This Change Order unless otherwise provided herein does not relieve the contractor from strict compliance with the guarantee provisions of the Original Contract, particularly those pertaining to performance and operation of equipment.
4. The Contractor expressly agrees he will place under coverage of his Performance and Payment Bonds and Contractor's Insurance all work covered by this Change Order. The Contractor will furnish to the Owner evidence of increased coverage of his Performance and Payment Bonds for the accrued value of all Change Orders which exceeds the Original Contract Price by twenty percent (20%).

## CHANGE ORDER NO. 10

## III. ADJUSTMENTS IN AMOUNT OF CONTRACT:

1.	Amount of Original Contract	<u>\$12,730,597.31</u>
2.	Net change due to previous Change Order Nos. 1 to 9	<u>\$ 2,967,635.70</u>
3.	Amount of Contract, not including this Change Order	<u>\$15,698,233.01</u>
4.	Addition to Contract due to this Change Order	<u>\$278,899.00</u>
5.	Amount of Contract including this Change Order	<u>\$15,977,132.01</u>

## RECOMMENDED FOR ACCEPTANCE:

CONSULTING ENGINEERS: Alvord, Burdick & Howson, L.L.C.

By: \_\_\_\_\_ ( \_\_\_\_\_ )  
Signature of Authorized Representative Date

## ACCEPTED:

CONTRACTOR: Rossi Contractors, Inc.

By: \_\_\_\_\_ ( \_\_\_\_\_ )  
Signature of Authorized Representative Date

## DUPAGE WATER COMMISSION:

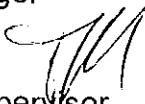
By: \_\_\_\_\_ ( \_\_\_\_\_ )  
Robert L. Martin Date  
General Manager



# DuPage Water Commission

## MEMORANDUM

TO: Robert Martin  
General Manager

FROM: Terry McGhee   
Operations Supervisor

DATE: May 9, 2005

SUBJECT: Pipe Loop Pilot Plant

In 1998 the DuPage Water Commission (DWC) contacted the Chicago Department of Water Management (CDWM) in regards to unusually high hydraulic losses that the DWC was experiencing in its supply lines between the Lexington Pumping Station and the DuPage Pumping Station. Upon further investigation it was determined that the losses were caused by a thin white coating on the walls of the Commissions pipelines. It was also determined that the coating was developing throughout the Commission's distribution system.

Since that time the DWC and the CDWM have been working to identify the source and composition of this coating. They have also been working to identify possible solutions to minimize and/or eliminate the material that is causing the coating. It has been determined that the coating is an aluminum-phosphate compound. Both of these chemicals are added by the CDWM as part of their treatment process, the aluminum is added as a coagulant to treat the water and the phosphate is added to comply with the EPA's Lead and Copper Rule (LCR) of 1991.

The CDWM has focused their efforts on reducing and/or changing the amount and/or type of aluminum and phosphate treatment chemicals that they use to determine if they can reduce the coatings without adversely affecting the water quality or violating the LCR.

The DWC has joined forces with the CDWM in an effort to solve this problem. The purpose of this testing program is to identify and examine strategies that the DWC can implement to control and/or remove the coating without adversely affecting the water quality or interfere with our customer's ability to comply with the LCR.

The Commission contracted with Camp Dresser McKee (CDM) to construct, deliver, and install three cement lined ductile iron and lead pipe loops. CDM will also provide start-up and testing support throughout the length of the study. The Commission will flow water through the cement lined ductile iron loops continuously during the duration of the study; the flow of water through the lead loops will be shut off at night to simulate a normal residential customer. At different points in the pipe loops sodium hydroxide (NaOH) will be injected in the flow to raise the pH of the water. The rationale of raising the pH is an attempt to keep the aluminum in its soluble form and prevent it from precipitating out of solution and reacting with the phosphate to form the aluminum-phosphate coating on the pipe walls. By preventing the aluminum-phosphate formation the phosphate will be allowed to react with the lead to form lead-phosphate which is the desired product required for effective corrosion control.

During phase #1 of the testing we will be running water through the loops to purge any existing residue out of the pipe loops. This phase will last approximately 5 weeks.

During phase #2 we will start adding the NaOH to loops #2 and #3. Loop #2 will receive a dosage of NaOH that will raise the pH level to 7.9 and Loop #3 will receive a dosage of NaOH that will raise the pH level to 8.2. Loop #1 will not receive any chemical treatment; it will remain the benchmark that the other loops will be compared to. This phase will last approximately 52 weeks.

During phase #2 we will monitor the loops on a daily basis and conduct weekly sampling. The samples will be analyzed for pH, temperature, turbidity, aluminum, orthophosphate, total phosphate and lead. The goal of this phase is to find the pH range that will prevent the aluminum-phosphate coating from forming without raising the lead levels in the water.

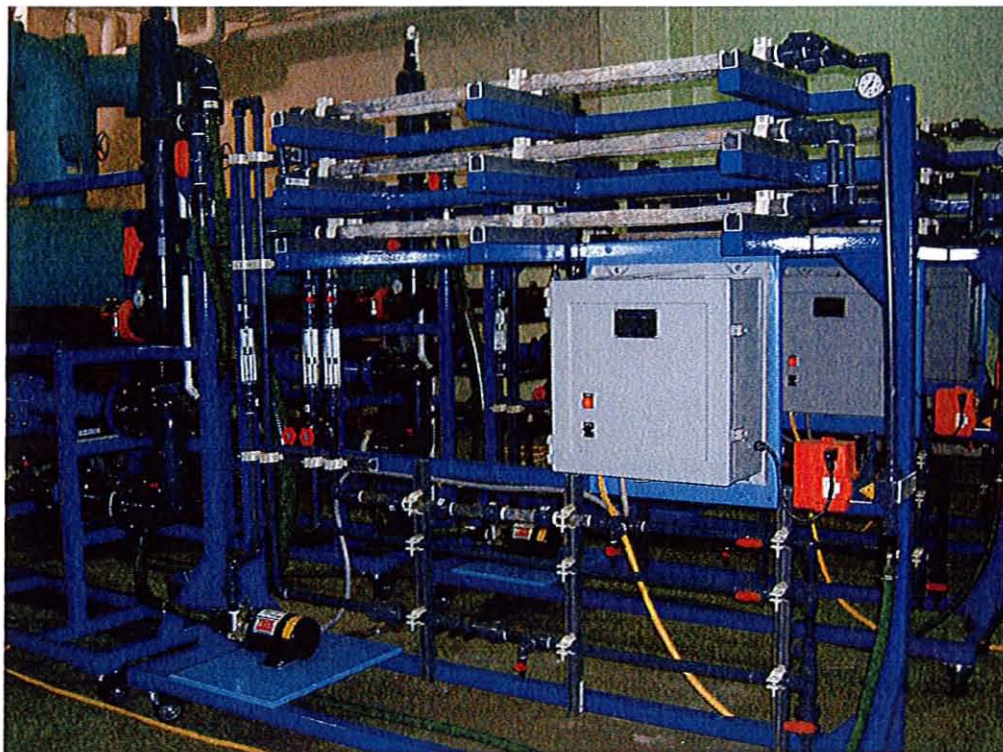
During phase #3 we will attempt to remove the coating that was formed in loop #1 by changing the velocity of the water through the loop, pH adjustments or other chemical additions.

Attached are some photographs of the pipe loop pilot plant.





Cement lined Ductile Iron Loop

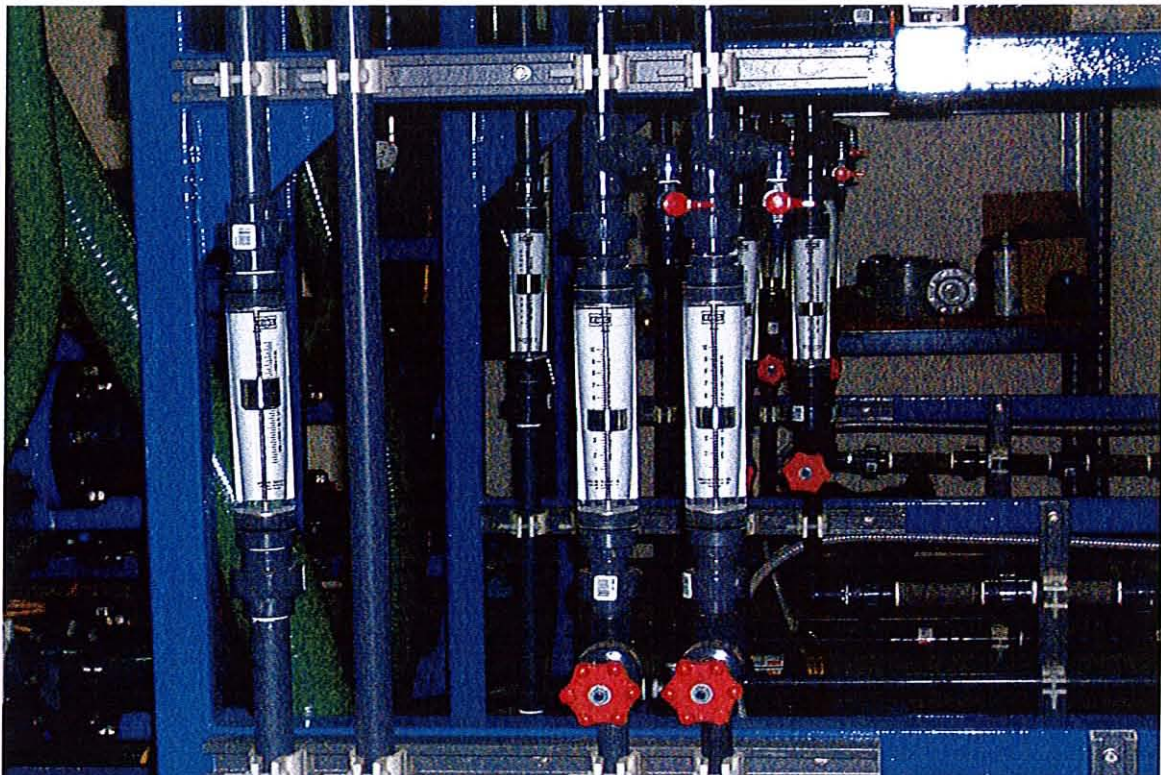


Lead Loop Section



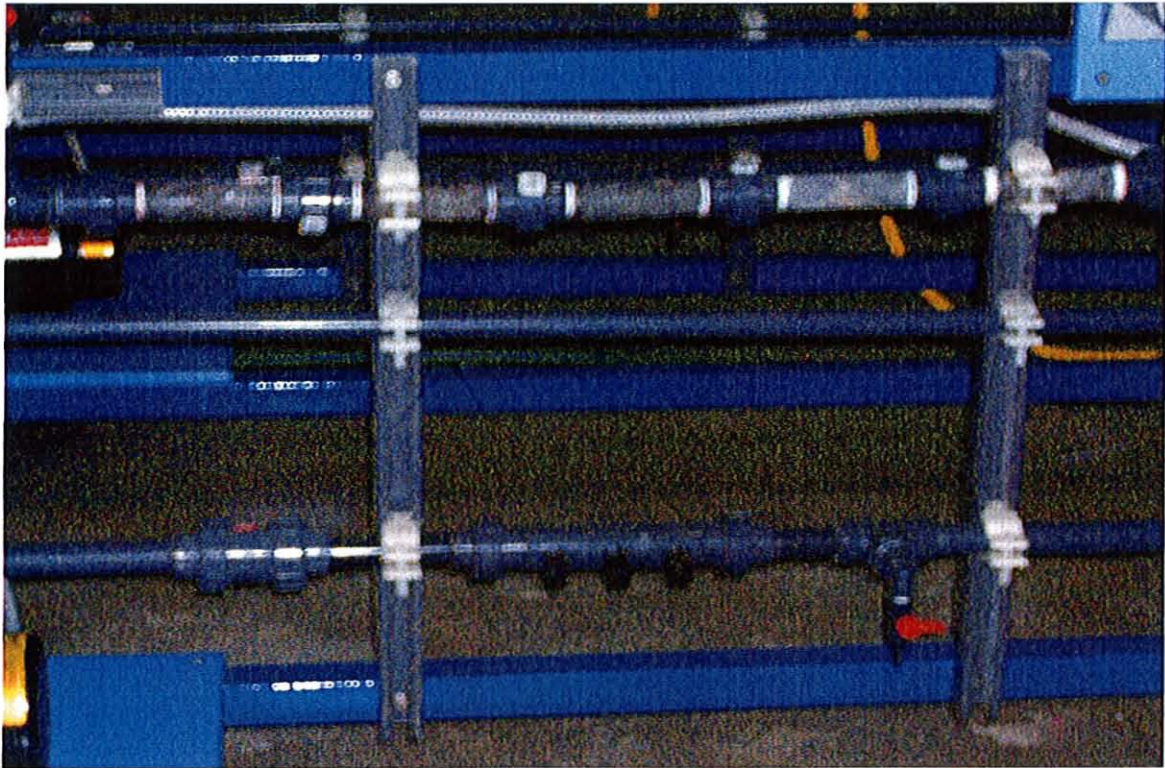


Three finished test loops

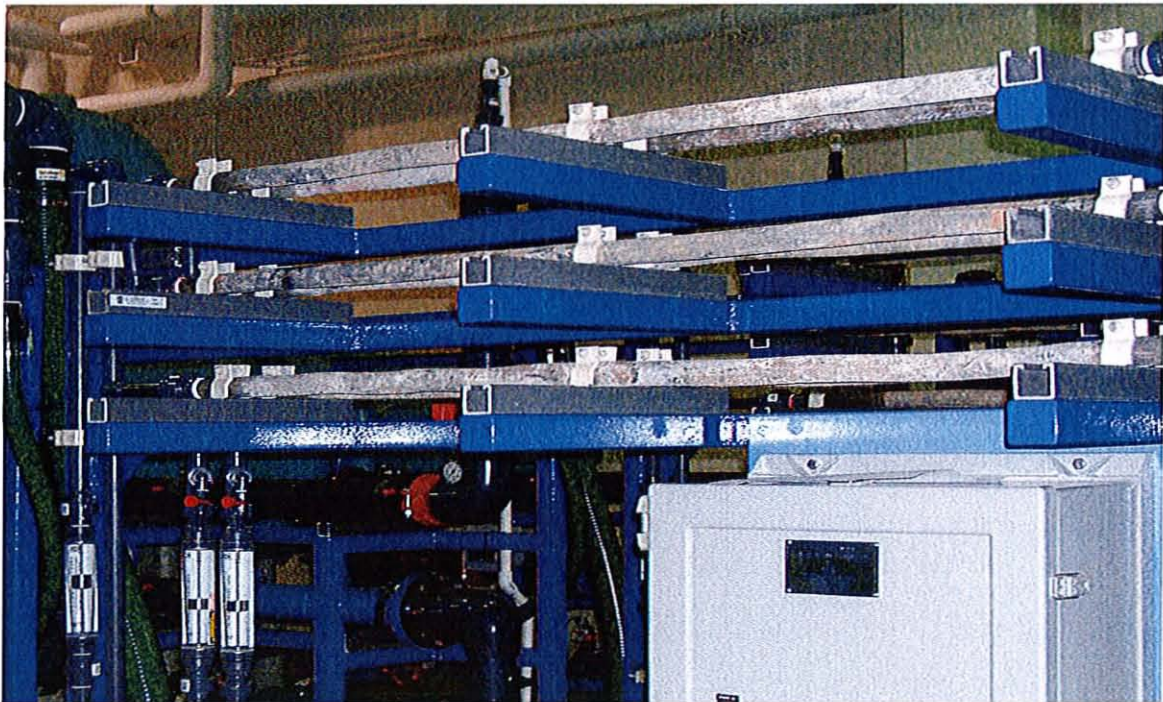


Pipe Loop flow meters





Chemical injection points and pipe coupons



Lead Service Lines