



# DuPage Water Commission

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**NOTICE IS HEREBY GIVEN THAT A SPECIAL MEETING OF THE DUPAGE WATER COMMISSION WILL BE HELD AT 5:00 P.M. ON THURSDAY, FEBRUARY 9, 2006, AT ITS OFFICES LISTED BELOW. THE AGENDA FOR THE SPECIAL MEETING IS AS FOLLOWS:**

## AGENDA

**DUPAGE WATER COMMISSION  
SPECIAL MEETING  
THURSDAY, FEBRUARY 9, 2006  
5:00 P.M.**

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

**I. Roll Call**

(Majority of the Commissioners then in office—minimum 7)

**II. Emergency Operations and Maintenance**

**III. Fiscal Year 2006-2007 Capital Improvement Plan**

(Concurrence of a Majority of those Commissioners Present, provided there is a quorum—minimum 4)

**RECOMMENDED MOTION: To approve the Fiscal Year 2006-2007 Capital Improvement Plan as (presented) (revised) (Voice Vote).**

**IV. Fiscal Year 2006-2007 Tentative Draft Management Budget**

(Concurrence of a Majority of those Commissioners Present, provided there is a quorum—minimum 4)

**RECOMMENDED MOTION: To direct staff to distribute the Tentative Draft Management Budget for Fiscal Year 2006 – 2007 as (presented) (revised) to the Commission's customer utilities (Voice Vote).**

**V. Other**

**VI. Adjournment**



## DuPage Water Commission

### MEMORANDUM

TO: Chairman Vondra and Commissioners

FROM: Robert L. Martin, P.E. *RLM*  
General Manager

DATE: January 6, 2006

SUBJECT: Emergency Operations and Maintenance

Attached is a report that summarizes options for emergency operations in the event of a loss of electrical service. In addition, the report discusses alternatives for enhanced maintenance at the Lexington Pumping Station.

With respect to enhanced maintenance at the Lexington Pumping Station, Staff is recommending that the Commission and the Chicago Department of Water Management perform joint maintenance at the Lexington Pumping Station. This alternative is described under 3.3 of the report. Under this arrangement, Chicago would continue to operate and maintain the Lexington Pumping Station, with the Commission performing joint monthly inspections. The Commission would also finance unbudgeted or high cost items for the station. Staff is recommending this alternative because it appears to be the only alternative acceptable to Chicago.

With respect to emergency operations in the event of a loss of electrical service, the report describes a number of options, including centralized backup generation (in full and in part), decentralized backup generation (in full and in part), and maintenance of the status quo. Staff is recommending the fully-centralized option (see 4.0 of the report), which would include the construction of backup generation at the DuPage Pumping Station and the Commission paying half of the cost of backup generation at the Lexington Pumping Station. Staff is recommending this option because the Commission's charter is to provide treated Lake Michigan water to its customers within DuPage County. The Commission should take the necessary safeguards to provide the reliable source of treated Lake Michigan water that Commission customers have come to expect. Doing nothing or opting for a decentralized approach could be viewed as the Commission abdicating its responsibilities.

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## **1.0 Executive Summary.**

**1.1 Background.** The continuous operation of the Lexington Pumping Station is essential to the continuous operation of the Commission's Waterworks System. This report discusses alternatives for enhanced maintenance at the Lexington Pumping Station and summarizes options for emergency operations in the event of a loss of electrical service.

The existing Water Supply Contract with the City of Chicago assigns responsibility for the operation and maintenance of the Lexington Pumping Station to Chicago. The Water Supply Contract also specifies that the Commission and Chicago share equally in the cost of operating and maintaining the Lexington Pumping Station except that the Commission pays approximately 80% of the electrical costs (depending upon water levels in the tunnel). The Water Supply Contract does not, however, establish any criteria for determining the required level of maintenance for the Lexington Pumping Station. Even though there has been no instance to date where a request for additional supply has not been honored by Chicago due to mechanical/electrical issues, Commission Staff believes that this is more a function of the newness of the station.

With respect to emergency operations in the event of a loss of electrical service, the Commission's Vulnerability Assessment identifies the lack of backup generation as the greatest vulnerability facing the Commission. Despite this identified vulnerability, the only emergency operational safeguard addressed in the Water Supply Contract with Chicago is a requirement for the Commission and its customers to collectively maintain storage in the amount of two times annual average daily demand. Although this storage requirement is consistent with the Commission's practice of continuing to improve the reliability of the Waterworks System to ensure the Commission's ability to supply average day demand during emergencies, additional safeguards in the event of a loss of electrical service should be considered.

**1.2 Maintenance of the Lexington Pumping Station.** Even though the Chicago Department of Water Management has renewed its commitment toward maintenance at the Lexington Pumping Station, Staff would prefer that maintenance at the Lexington Pumping Station be enhanced. As a result, several different alternatives for obtaining the desired level of maintenance (and the advantages and disadvantages associated with each alternative) have been considered, including retaining ownership of the Lexington Pumping Station, contractually-required enhanced maintenance of the Lexington Pumping Station by either the Commission or Chicago, and joint maintenance of the Lexington Pumping Station.

**1.3 Emergency Operations in the Event of a Loss of Electrical Service.** Several different options for emergency operations in the event of a loss of electrical service (and the advantages and disadvantages associated with each option) have also been considered, including centralized backup generation (in full and in part), decentralized backup generation (in full and in part), and maintenance of the status quo.

**1.3.1 Fully Centralized Backup Generation Option.** The fully centralized backup generation option would require the installation of backup generators at both the DuPage and Lexington Pumping Stations. In order to provide sufficient power to pump

year 2020 average day flow (108 MGD), the electrical generation study for the DuPage Pumping Station recommended the installation of four 2-MW diesel generators at an estimated cost of \$14.7 million for the backup generation facility and associated rebuilding of the service building. An electrical generation study for the Lexington Pumping Station has not yet been performed.

**1.3.2 Fully Decentralized Backup Generation Option.** Under the fully decentralized backup generation option, the Commission would not install backup generation at either the DuPage or Lexington Pumping Stations but, rather, smaller generators would be installed at customer well sites throughout DuPage County.<sup>1</sup> Whether the Commission would fund the cost of installing the generators is an open issue. But if the Commission were to fund the cost of installing the generators, the customer utilities would operate them at their own discretion. In addition, ownership of the generators and/or customer well sites would also have to be addressed, including probable ownership by the Commission in order to satisfy legal concerns and to assure access to all Commission revenues for funding.

**1.3.3 Limited Centralized Backup Generation Option—Generation at the DuPage Pumping Station (With or Without Additional Reservoir and/or Generation at Emergency Wells).** This option involves the installation of backup generation only at the DuPage Pumping Station, with or without the installation of an additional 30 million gallons of water storage at the DuPage Pumping Station. Under this option, the Commission's customers would have eight hours—16 if an additional 30 million gallons of storage is constructed—to activate their own emergency operation procedures. This option could also be coupled with the decentralized option of installing generators at customer well sites (in full or in part).

**1.3.4 Status Quo Option.** Another option is for the customer utilities to remain solely responsible for their own emergency operation procedures. The Commission would continue to use its best efforts to furnish Lake Water to customers, but if the Commission were unable to do so, the customers would have to use whatever means necessary to find alternative water supplies during emergencies.

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<sup>1</sup> Under this option, backup wells would need to be developed for some customers in order to assure equality among customers.

## **2.0 Background**

**2.1 Water Supply Contract with City of Chicago.** The Commission entered into a Water Supply Contract with the City of Chicago on March 19, 1984. The term of the Contract is forty years. There are two important requirements of the Water Supply Contract that bear on emergency operations and maintenance issues: One is that Chicago has been assigned responsibility for the operation and maintenance of the Lexington Pumping Station and the other is the requirement for the Commission and its customers to collectively maintain storage in the amount of two times annual average daily demand.

**2.1.1 CDWM to Operate Lexington.** Paragraph C(2) of the Water Supply Contract with the City of Chicago provides that Chicago is responsible for the operation and maintenance of the Lexington Pumping Station. The rationale for this requirement is that the Lexington Pumping Station is one of the largest pumping stations in the Chicago water system. If the Lexington Pumping Station were to be operated improperly, operational problems could result for the other pumping stations that are also supplied by the central tunnel system supplying the Commission.

Present operational procedures require Commission Staff to notify the operators at the Lexington Pumping Station one hour prior to requesting a change in pump operation. A one-hour advance notice is required because the Jardine Water Purification Plant has limited finished water storage capacity and, therefore, the operators at the Jardine Water Purification Plant need to increase or decrease production to maintain the correct water level in the central tunnel system.

**2.1.2 Water Storage Requirement.** Paragraph C(9) of the Water Supply Contract requires the Commission and its customers to collectively maintain water storage in the amount of two times their annual average daily demand. Operable shallow well capacity may be counted towards that storage requirement but only up to 10% of the storage requirement.<sup>2</sup> Table 1 shows that, in the aggregate, the Commission and its customers exceed this requirement by 51.49 million gallons.

**2.2 Water Purchase and Sale Contract with Customer Utilities.** The Commission entered into Water Purchase and Sale Contracts with 23 "Charter Customer" municipalities and four Water Purchase and Sale Contracts with four "Subsequent Customers" for ten separate systems. All of the contracts expire February 24, 2024, and most of the basic provisions are similar. One area where the Charter Customer Contract and the Subsequent Customer Contracts differ materially, however, is in the storage requirement.

**2.2.1 Charter Customer Storage Requirement.** Section 3(a) of the Charter Customer Contract does not require the Charter Customers to maintain water storage in the

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<sup>2</sup> The rationale for limiting the operable well allowance to shallow wells may relate to the fact that it has been a requirement for utilities receiving an allocation for Lake Michigan water to seal their deep wells. However, the Commission worked with the Illinois Department of Natural Resources, Division of Water Resources (formerly the Illinois Department of Transportation Division of Water Resources) to allow Commission customers to maintain their deep wells as a backup, in addition to their shallow wells.

amount of two times average day unless the City of Chicago enforces the storage requirement under the Water Supply Contract against the Commission. Once Chicago enforces the storage requirement under the Water Supply Contract against the Commission, the Charter Customers are required to use their best efforts to increase their water storage capacity.

**2.2.2 Subsequent Customer Storage Requirement.** The Subsequent Customer Contracts have a slightly more rigid requirement. The Subsequent Customers are required to adhere to the two times average day storage requirement regardless of whether the City of Chicago enforces the terms of its contract against the Commission and without the "best efforts" escape clause contained in the Charter Customer Contract. The purpose of this more rigid storage requirement is to prevent the addition of Subsequent Customers from causing a storage deficiency that results in Chicago enforcing the water storage requirement against the Commission and the Commission, in turn, enforcing the water storage requirement against the Charter Customers.

**2.3 The Waterworks System and Its Existing Redundancies.** The initial Waterworks System was constructed and installed during a six-year period between 1986 and 1992. The initial Waterworks System contained certain redundancies, including redundancies in the electrical supply to the DuPage Pumping Station. After the initial construction of the Waterworks System, the Commission has continued to improve the reliability of the System by installing additional redundancies designed to ensure the Commission's ability to supply average day demand during emergencies.

**2.3.1 DuPage Pumping Station Electrical Supply.** The DuPage Pumping Station obtains its electrical service from three Commonwealth Edison electric lines. Each service line is capable of providing 60% of the Commission's electrical demand under maximum day conditions. The third line is considered a backup. Two of the three electrical service lines come from different stations: One electrical service line comes from the Glenbard substation (located by Glen Ellyn and Lombard) and the other two come from the Bellwood substation. Normal operating procedures for the DuPage Pumping Station require two electrical service lines to be in use at all times, with operating pumps distributed evenly between each service line. As recently as the summer of 2005 during the high demand usage period, the Commission was forced to operate with one line out of service for an extended period of time, jeopardizing service reliability.

**2.3.2 72" Transmission Main.** The initial construction of the Commission's Waterworks System provided for a single 90" Transmission Main transporting water from the Lexington Pumping Station to the DuPage Pumping Station. The 90" Transmission Main was sized for year 2020 maximum demand. During the early years of operation, the Commission felt a level of redundancy was needed to compensate for its single pipeline between the two pumping stations. The Commission and Chicago discussed a separate connection to the Southwest Pumping Station, which obtains its treated water from Chicago's other treatment plant, the South Treatment Plant. However, because of the size of the Commission's demand, there was insufficient capacity available from the South Treatment Plant. It is for this reason that the plan for



a parallel 72" Transmission Main was conceived. The parallel 72" Transmission Main was sized to provide year 2020 average day flow.

**2.3.3 West and Inner Belt Transmission Mains.** Using the standard of supplying year 2020 average day demand during emergency conditions, the Commission constructed the West Transmission Main addition to the distribution system. The West Transmission Main Contract TW-2 was constructed between the Southwest and Northwest Transmission Mains to provide average day flow during a break in either the Northwest or Southwest Transmission Mains (the Commission's main transmission mains). Similarly, the Commission recently completed the installation of the Inner Belt Transmission Main to allow the continuous operation under average day conditions in the event of a break in either the Northwest or Southwest Transmission Main between the DuPage Pumping Station and Route 83.

**2.4 Capital Improvement Plans.** The Commission first began preparing Five-Year Capital Improvement Plans in 1995 for fiscal year 1996-97. These planning documents have been used by Staff to prioritize suggested improvements to the Waterworks System in five-year increments. Over the years, options for emergency operations in the event of a loss of electrical service were incorporated into the five-year plans, including backup generation. Backup generation at the DuPage Pumping Station had been suggested as a needed improvement in as early as the second five-year plan. Backup generation at the Lexington Pumping Station was not proposed until the fiscal year 2005-06 plan.

**2.4.1 Future Reservoir.** The first improvement project suggested to enhance emergency operations in the event of a loss of electrical service was the future reservoir project at the DuPage Pumping Station. This additional ground storage reservoir was proposed in the first Capital Improvement Plan. The benefit of additional reservoir capacity is to allow the Commission to take more water during off-peak time, thereby reducing energy costs as long as off-peak discounts are available, and to provide additional time for the Commission's customers to activate their own emergency operation procedures in the event of disruption of supply from Chicago, including disruptions due to loss of electrical service. The proposed construction of the ground storage reservoir is currently recommended to be deferred until fiscal year 2008-09 in lieu of the Staff-determined more immediate need for the construction of backup generation.

**2.4.2 Backup Generation.** Backup electrical generation at the DuPage Pumping Station was originally recommended in the January 9, 1997 Capital Improvement Plan for fiscal year 1998-99. The stated benefit was to provide water during periods of loss of electricity. The project was eliminated by the Board of Commissioners because the Board felt it would not be prudent to install backup generation at the DuPage Pumping Station without also constructing backup generation at the Lexington Pumping Station. At the time, the Commission was reluctant to install generators at the Lexington Pumping Station without a renewed commitment toward maintenance from Chicago. Since then, several notable events occurred (in addition to the Chicago Department of Water Management's renewed commitment toward maintenance at the Lexington Pumping Station as noted in 1.2 above), leading the Commission to reconsider its position.

**2.4.2.1 September 11, 2001 Terrorist Attack.** As the result of the terrorist attack of September 11, 2001, backup generation at the DuPage Pumping Station was again recommended in the January 10, 2002 Capital Improvement Plan.

**2.4.2.2 Vulnerability Assessment.** On June 12, 2002, again in response to the terrorist attack of September 11, 2001, President Bush signed the Bioterrorism Bill (H.R. 3448) into law creating the Public Health Security and Bioterrorism Preparedness and Response Act of 2002. Relating to drinking water security and safety, the Act mandated vulnerability assessments and emergency response plans for public water systems. As part of the Commission's Vulnerability Assessment, lack of backup power generation was identified as the greatest vulnerability facing the Commission.

**2.4.2.3 August 14, 2003 Northeast Coast Blackout.<sup>3</sup>** The largest blackout in North American history occurred on August 14, 2003. As a result, many questions and concerns were raised concerning water and wastewater utility dependence on commercially supplied power as the sole source of electrical energy.<sup>4</sup>

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<sup>3</sup> The blackout predominantly affected Michigan, Ohio, New York, and Canada.

<sup>4</sup> 2004. Emergency Power Source Planning for Water and Wastewater – American Water Works Association

**3.0 Maintenance of Lexington Pumping Station.** Table 2 shows the dollar amount expended by Chicago in operating and maintaining the Lexington Pumping Station in FY 2003-04 (and following) compared to the dollar amounts expended by the Commission in operating and maintaining the DuPage Pumping Station during the same periods. Even though the Chicago Department of Water Management has renewed its commitment toward maintenance at the Lexington Pumping Station, Staff would prefer that maintenance at the Lexington Pumping Station be enhanced. As a result, several different alternatives for obtaining the desired level of maintenance (and the advantages and disadvantages associated with each alternative) have been considered, including retaining ownership of the Lexington Pumping Station, contractually-required enhanced maintenance of the Lexington Pumping Station by either the Commission or Chicago, and joint maintenance of the Lexington Pumping Station.

**3.1 DWC Retains Ownership of Lexington Pumping Station.** The Water Supply Contract with the City of Chicago required the Commission to construct the Interconnection Facilities (12' diameter tunnel and the Lexington Pumping Station) and Chicago to reimburse the Commission for the cost of these facilities.<sup>5</sup> If the Commission were to retain ownership of the Lexington Pumping Station, the property acquisition would resolve two issues that the Commission has pending with the City of Chicago: The installation of backup generators at the Lexington Pumping Station and the enhancement of maintenance at the Lexington Pumping Station.

If the Commission maintains ownership of the Lexington Pumping Station, it is not recommended that the Commission operate the Lexington Pumping Station. Unlike the Commission, the Chicago Department of Water Management employees are unionized. Most likely, there would be labor issues if Commission employees were working at the Lexington Pumping Station with Chicago's unionized employees present. The labor issue, and Chicago's concern for coordination with the Jardine Water Purification Plant, can be eliminated with operation being performed remotely from the Jardine Water Purification Plant through the SCADA system the Commission installed at the Lexington Pumping Station. Remote operation of the Lexington Pumping Station should not be problematic for Chicago as some of Chicago's other pumping stations are currently operated remotely from the Jardine Water Purification Plant.

**3.1.1 Advantages of Retaining Ownership.** The Commission believes a higher level of maintenance at the Lexington Pumping Station would further assure reliability of the Waterworks System. For this reason, the Commission has a greater incentive to ensure the Lexington Pumping Station is maintained at this higher level. In addition, due to the Commission's size, it can utilize a more efficient purchasing procedure to acquire supplies, materials, and services quicker. Retaining ownership of the Lexington Pumping Station would also eliminate the need to coordinate maintenance and backup generation with the Chicago Department of Water Management and would additionally offer a potential vehicle for the Commission to implement treatment options to address the C-Factor problem. Finally, Chicago would realize substantial savings if the

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<sup>5</sup> The Commission originally constructed the Lexington Pumping Station and the ancillary facilities at a cost of \$55,171,000. At the present time, the Commission has been reimbursed for all but \$880,000 of the cost.

operations for this facility were moved from the Lexington Pumping Station to existing personnel at the Jardine Water Purification Plant.

**3.1.2 Disadvantages of Retaining Ownership.** The Water Supply Contract with the City of Chicago already requires that Chicago maintain and operate the Lexington Pumping Station. For this reason, it can be questioned why the Commission should incur the expense of ownership of this facility, in addition to 100% of the cost of installing backup generation, when by contract Chicago should be maintaining the station. The Commission could, instead, negotiate for a higher level of maintenance, perhaps assuming a greater share of the costs (See 3.2 below).

**3.2 DWC Maintenance of Lexington Pumping Station.** At the present time, Chicago operates and maintains the Lexington Pumping Station with the Commission generally paying 50% of the operation and maintenance costs.<sup>6</sup> An alternative to the current arrangement would be for the Commission to perform maintenance tasks, with Chicago reimbursing the Commission for its share of the Commission's maintenance costs.<sup>7</sup> A current example of this type of arrangement can be found in Chicago Water Partners' arrangement with Chicago where Chicago Water Partners, an engineering joint venture, provides program management services. As was explained previously, the only way this arrangement would work would be if operations were performed remotely from the Jardine Water Purification Plant similar to the operation of some of the other Chicago pumping stations.

**3.2.1 Advantages of DWC Maintenance.** Under this alternative the Commission would not have to incur the cost of ownership of the Lexington Pumping Station yet could ensure that maintenance at the Lexington Pumping Station is enhanced. Chicago would also benefit by having one less pumping station to maintain, with Chicago staff that currently perform operations and maintenance at the Lexington Pumping Station being made available for other assignments.

**3.2.2 Disadvantages of DWC Maintenance.** The Commission would be maintaining facilities not owned by the Commission. This could result in Chicago disagreeing with the level of maintenance and associated costs. However, this perceived disadvantage could be eliminated by cost-control measures being incorporated into an agreement with Chicago that details the new maintenance arrangement. In addition, any perceived concern by Chicago that changing maintenance responsibilities could be viewed as a failure by the Chicago Department of Water Management could be ameliorated by additional Commission funding.

**3.3 DWC/CDWM Joint Maintenance of Lexington Pumping Station.** Another alternative is a more cooperative maintenance arrangement at the Lexington Pumping

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<sup>6</sup> Pursuant to the Water Supply Contract with the City of Chicago, the Commission and Chicago share equally in the cost of operating and maintaining the Lexington Pumping Station except that the Commission pays approximately 80% of the electrical costs (depending upon water levels in the tunnel).

<sup>7</sup> Chicago's share of the Lexington Pumping Station maintenance costs could be structured to remain at 50% or, if Chicago refuses to share equally in the cost of the Commission's desired level of enhanced maintenance, Chicago's share could be fixed at some annually-determined amount or at a less than equal share.

Station. The more cooperative maintenance arrangement would involve monthly inspections of the Lexington Pumping Station by the Commission and a Chicago Department of Water Management representative, with the Commission financing unbudgeted or high cost items for the Lexington Pumping Station.

**3.3.1 Advantages of DWC/CDWM Joint Maintenance.** Under this alternative, the Commission would not have to incur the cost of ownership of the Lexington Pumping Station. The Commission would also increase the likelihood that the Commission's desired level of maintenance will be performed. In addition, the jointly-prepared, monthly inspection reports could give the Chicago Department of Water Management staff additional support with the Chicago Budget Department for increased funding for maintenance.

**3.3.2 Disadvantages of DWC/CDWM Joint Maintenance.** The size of the Chicago Department of Water Management could delay maintenance activities and increase the cost of maintenance. In addition, the Commission would not have control over the maintenance of the Lexington Pumping Station and would have to advocate changes to maintenance practices that may or may not be implemented even if the Commission were to pay the added costs.

**3.4 Performance-Based CDWM Contractual Maintenance.** Another alternative expands upon the cooperative arrangement discussed above. Under this scenario, the Commission and Chicago would enter into a contractual arrangement whereby specific maintenance tasks and frequency of performance would be detailed, and the Commission would cover any increased cost.

**3.4.1 Advantages of Performance-Based CDWM Contractual Maintenance.** Under this alternative, the Commission would not have to incur the cost of ownership. The Commission would also have an easily enforceable right to ensure that the Commission's desired level of maintenance is performed. This alternative would also be revenue neutral for Chicago as the Commission would be paying an increased share of the cost of maintenance.

**3.4.2 Disadvantages of Performance-Based CDWM Contractual Maintenance.** The size of the Chicago Department of Water Management could delay maintenance activities and increase the cost of maintenance.

**4.0 Fully Centralized Backup Generation Option.** One option being considered for emergency operations in the event of a loss of electrical service is the installation of backup generation at both the DuPage and Lexington Pumping Stations. This option has become known as the fully centralized backup generation option.

**4.1 Backup Generation at the DuPage Pumping Station.** An electrical generation study was performed by Camp Dresser & McKee in 2003 and 2004 using a baseline power generation capability of pumping year 2020 average day flow (108 MGD) during loss of utility power. To provide sufficient power to pump year 2020 average day flow, the study recommended the installation of four 2-MW diesel generators. The backup generation facility would be located in the eastern end of the maintenance yard. Because of the limited space at the DuPage Pumping Station, it would also be necessary to demolish and rebuild the service building further north from its current location. The estimated cost for the backup generation facility and the rebuilding of the service building is \$14.7 million.

**4.2 Backup Generation at the Lexington Pumping Station.** An electrical generation study has not yet been performed for the Lexington Pumping Station. For purposes of this discussion, the estimated cost for the DuPage Pumping Station can be used for estimating the cost at the Lexington Pumping Station. Diagram 1 shows the locations presently being considered for the Lexington Pumping Station generation facility:

- I. An area between the CTA tracks and the Eisenhower Expressway
- II. An area south of the Secretary of State facility on property owned by the Commission for the Interconnection Facilities
- III. Inside the Lexington Pumping Station, on the ground floor directly over Pumps 5 through 10
- IV. An area above the existing electrical room of the Lexington Pumping Station
- V. The northwest portion of the northern 15 million gallon reservoir

**4.3 Advantages of Fully Centralized Option.** The main advantage of the fully centralized backup generation option is seamless operation under emergency conditions. The customer utilities would not be required to activate their wells or backup generation for their water systems. In addition, all customer utilities should be able to operate from the Commission's pressure at average day demand. Further, the water quality during an emergency would remain the same, with a continuous supply of Lake Michigan water during any type of emergency. Finally, the problem of certain customers having insufficient or no well capacity becomes moot, and all of the Commission's funds would be available to finance the fully centralized backup generation option.<sup>8</sup>

**4.4 Disadvantages of Fully Centralized Option.** One disadvantage of the fully centralized option is that it relies upon a single source of water, that being the Jardine Water Purification Plant. However, the Jardine Water Purification Plant was designed to operate as if it were two separate plants such that if one side of the plant is rendered

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<sup>8</sup> Under the Charter Customer Contract, the Commission cannot use revenues generated from Charter Customer payments of Operations and Maintenance Costs or Fixed Costs on projects unrelated to the provision or transmission of Lake Michigan water.

inoperable, the other side would still function. In addition, in the unlikely event of a total failure of the Jardine Water Purification Plant, Chicago's central tunnel system, which supplies the Commission, is designed to be able to bypass the Jardine Water Purification Plant during an emergency and draw water directly from Lake Michigan. Moreover, to facilitate this type of operation, the Commission's chlorination system has been sized to disinfect raw Lake Michigan water. One other disadvantage of the fully centralized backup generation option is that if the adequacy of maintenance at the Lexington Pumping Station is questionable, then the reliability of the backup generation could also be questioned.

**4.5 CDWM Participation in the Cost of Backup Generation at the Lexington Pumping Station.** Senior management at the Chicago Department of Water Management are currently considering proposing that Chicago fund half of the cost of generators at the Lexington Pumping Station up to a maximum of \$8.5 million. Under this proposal, the Commission would fund the design and construction of the generation facilities at the Lexington Pumping Station and Chicago would reimburse half of the costs up to the cap through a 10% credit against Commission water purchases. The \$8.5 million cap being considered by senior management is based upon the average generation cost per average daily pumping capacity at the pumping stations where Chicago has already constructed backup generation.

**5.0 Fully Decentralized Backup Generation Option.** Another option being considered for emergency operations in the event of a loss of electrical service is the installation of backup generation at emergency wells currently maintained by Commission customers. This option has become known as the fully decentralized backup generation option. Under this option, the Commission would not construct backup generators at either the DuPage or Lexington Pumping Stations. Whether the Commission would fund the cost of installing backup generation at the emergency wells is an open question, requiring resolution of complex legal questions. As such, the advantages and disadvantages of the fully decentralized backup generation option are separate and distinct from the advantages and disadvantages of the Commission financing this option.

**5.1 Advantages of Fully Decentralized Option.** The advantage of the fully decentralized option is that the emergency wells would provide an alternate source of water. This alternate source could be dispersed throughout the County, assuming sufficient quantity and size of emergency interconnections among customer utilities.<sup>9</sup>

**5.2 Disadvantages of Fully Decentralized Option.** Some customers have no wells and would be at a distinct disadvantage if backup wells were not developed by or for them. Also, the level of maintenance of the wells and generators could vary from customer to customer. In addition, well water is generally of low quality, with its increased hardness and, in some cases, high iron and radium levels—though it could be argued that a lower quality of water is an acceptable risk during an emergency.

**5.3 DWC Funds/Reimburses the Installation of Generators at Emergency Wells.** One extension of the fully decentralized option would be for the Commission to fund the installation of backup generation at the emergency wells. If the Commission were to fund future construction of generators at the emergency wells, then it would also be equitable for the Commission to reimburse customer utilities that have already installed generators at their wells. Table 3 shows the estimated cost for the installation of generators at customer wells and for reimbursing customers with existing generators. Though no cost estimates have been prepared, the cost of developing back-up wells for some customers would also need to be considered.

**5.3.1 Advantages of DWC Funding/Reimbursement.** The Commission may be in a financial position to fund the installation of generators at customer wells. The funding of the generators at the customer emergency wells could be administered similar to the funding of the Charter Customer pressure adjusting stations. This would allow the customer utilities to immediately undertake this work rather than building reserves or borrowing funds for the project. As noted in footnote 8 above, however, the source of Commission funds that can be used for this purpose is limited. In addition, other legal restrictions may come into play if the Commission did not own these facilities.

**5.3.2 Disadvantages of DWC Funding/Reimbursement.** The Commission's charter is to provide treated Lake Michigan water to its customers within DuPage County. By subsidizing the installation of backup generation at the wells, the Commission is deviating from the purpose for which it was created. Aside from the legal issues associated with the funding of facilities for the operation of wells, such funding ordinarily

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<sup>9</sup> See 7.2 for a description of existing customer interconnections.



should be the responsibility of the customer utilities. Moreover, the Commission would most likely find itself paying for additional wells for utilities with insufficient or no well capacity, introducing another question of equity.

**5.4 DWC Takes Over Ownership of Emergency Wells.** Another extension to the fully decentralized option would be for the Commission to acquire the customer wells. This would go a long way toward resolving potential legal issues associated with Commission financing of the fully decentralized backup generation option, but the Commission would then be responsible for maintaining the emergency wells, either directly or with contract forces.

**5.4.1 Advantages for DWC Ownership of Emergency Wells.** Aside from minimizing the legal issues associated with the Commission funding the installation of generators at customer wells, there would also be cost savings associated with an economy of scale by the Commission installing the generators and then maintaining the wells and generators. Further, the Commission's customers would not have to take on the burden of maintaining new wells or generators.

**5.4.2 Disadvantages of DWC Ownership of Emergency Wells.** The wells have historically been owned and operated by the customer utilities. The Commission would be taking over facilities that would be in various states of maintenance. It could also be viewed as the Commission overstepping its area of responsibility. In addition, the Commission would have to hire additional staff to perform and/or supervise well and backup generator maintenance activities.

**6.0 Limited Centralized Backup Generation Option—Generation at DuPage Pumping Station (With or Without Additional Reservoir and/or Generation at Emergency Wells).** Another option the Commission could consider for emergency operations in the event of a loss of electrical service is the installation of backup generation only at the DuPage Pumping Station, with or without the installation of an additional 30 million gallons of water storage. This option could also be coupled with the decentralized option of installing generators at customer well sites (in full or in part).

**6.1 Backup Generation at DuPage Pumping Station Only.** With the present 30 million gallons of ground storage presently on site at the DuPage Pumping Station, backup generation would provide approximately eight hours of operation.<sup>10</sup>

**6.1.1 Advantages of Generation at DuPage Pumping Station Only.** The installation of backup generation at DuPage Pumping Station only, with or without the construction of additional reservoir capacity, would provide some time for the customer utilities to activate their own emergency procedures. If the power outage were less than eight hours—16 if an additional 30 million gallons of storage is constructed, Commission customers would experience no interruption in service.

**6.1.2 Disadvantages of Generation at DuPage Pumping Station Only.** The disadvantage of installing generators only at the DuPage Pumping Station would be the inability of the Commission to provide water service beyond eight or 16 hours (depending upon whether an additional 30 million gallons of storage is constructed) if the interruption were longer than eight or 16 hours (as the case may be). This disadvantage could be somewhat ameliorated if the installation of generators at the DuPage Pumping Station were coupled with the decentralized option of installing generators at customer well sites (in full or in part).

**6.2 Additional Reservoir.** The construction of 30 million gallons of additional ground storage at the DuPage Pumping Station would provide an additional eight hours of water if the supply from the Lexington Pumping Station were interrupted. The additional 30 million gallons of storage would also allow the Commission to take more water from the Lexington Pumping Station during low electrical demand periods when electricity costs are lower. It is the Commission's operational practice to take as much water as possible during such low-cost electrical demand times.<sup>11</sup> It is important to note, however, that Commonwealth Edison is planning to eliminate discounted off-peak rates under its proposed new rate structure.

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<sup>10</sup> This assumes the two 15 million gallon reservoirs are full and the pumping rate is average day.

<sup>11</sup> Low energy demand period is between 6:00 PM to 9:00 AM Monday through Friday and on weekends and holidays.

**7.0 Status Quo Option.** Another option that could be considered for emergency operations in the event of a loss of electrical service is maintaining the status quo: The customer utilities remaining solely responsible for their own emergency operation procedures. Section 2(b) of the Charter Customer Contract provides that "The Commission shall use its best efforts to furnish Lake Water ... as hereinabove provided, but its obligation hereunder shall be limited by (i) the amount of Lake Water from time to time available to the Commission; ... (iii) the capacity of the Waterworks System...." The Charter Customer Contract further provides, in Section 2(d), that "Nothing in this Contract shall be construed to prohibit each Charter Customer from serving its customers in cases of emergency, or when the Commission for whatever reason is unable to meet such Charter Customer's Full Water Requirements, from any source including wells owned by such Charter Customers and maintained for emergency use." Similar provisions are contained in the Subsequent Customer Contracts.

**7.1 Customer Utilities are Responsible if DWC is Unable to Operate.** Most of the customer utilities have retained their wells for emergency purposes. It could be considered prudent management of the customer water systems that the customer utilities take the necessary steps to provide their customers with water in the event the Commission cannot.

**7.1.1 Advantages of Customer Utilities being Responsible if DWC is Unable to Operate.** There is no contractual requirement for the Commission to provide water during times of interruption of the electrical supply. It can be implied by the above-quoted contractual language that the customer utilities were intended and expected to maintain their wells for emergency purposes.

**7.1.2 Disadvantages of Customer Utilities being Responsible if DWC is Unable to Operate.** Most customer utilities have changed their water department operations from one of supply, treatment, and distribution to one of straight distribution. The customer utilities have become comfortable with the Commission providing a reliable source of water to them. As a result, the customers may feel that the Commission should take the necessary safeguards to provide a reliable source of treated water.

**7.2 Interconnections.** Some of the customer utilities have emergency interconnections. Some of these interconnections are between Commission customer utilities and some are between Commission customer utilities and others not provided with water from the Commission. Some of the customer utilities have no emergency interconnections. Table 4 lists the existing interconnections for each customer utility. During a loss of water supply from the Commission, it would seem highly unlikely that a customer utility would open an emergency interconnection and allow its limited water supply to be used by anyone outside its water system.

Table 1

| <u>CUSTOMER WATER STORAGE</u> |                             |                                |                |                             |                                      |                             |  |
|-------------------------------|-----------------------------|--------------------------------|----------------|-----------------------------|--------------------------------------|-----------------------------|--|
| CUSTOMER                      | EXISTING<br>STORAGE<br>(MG) | 2005<br>ALLOCATION<br>(IN MGD) | % OF<br>SYSTEM | REQUIRED<br>STORAGE<br>(MG) | SHALLOW<br>WELL<br>ALLOWANCE<br>(MG) | % OF DWC<br>STORAGE<br>(MG) | STORAGE<br>ABOVE OR<br>(BELOW) REQ<br>(MG) |
| ADDISON                       | 6.75                        | 4.561                          | 4.74%          | 9.12                        | 0.91                                 | 2.96                        | 1.50                                       |
| ARGONNE NAT'L LAB             | 1.02                        | 0.758                          | 0.79%          | 1.52                        | 0.15                                 | 0.49                        | 0.14                                       |
| BENSENVILLE                   | 3.55                        | 2.704                          | 2.81%          | 5.41                        | 0.00                                 | 1.75                        | (0.10)                                     |
| BLOOMINGDALE                  | 4.80                        | 2.803                          | 2.91%          | 5.61                        | 0.56                                 | 1.82                        | 1.57                                       |
| CAROL STREAM                  | 8.50                        | 4.531                          | 4.70%          | 9.06                        | 0.91                                 | 2.94                        | 1.28                                       |
| CLARENDON HILLS               | 1.25                        | 0.716                          | 0.74%          | 1.43                        | 0.14                                 | 0.46                        | 0.43                                       |
| DARIEN                        | 2.75                        | 2.781                          | 2.89%          | 5.56                        | 0.56                                 | 1.80                        | (0.45)                                     |
| DOWNERS GROVE                 | 8.00                        | 6.823                          | 7.08%          | 13.65                       | 1.36                                 | 4.43                        | 0.15                                       |
| ELMHURST                      | 15.00                       | 4.683                          | 4.86%          | 9.37                        | 0.94                                 | 3.04                        | 9.61                                       |
| GLEN ELLYN (2)                | 3.17                        | 2.950                          | 3.06%          | 5.90                        | 0.59                                 | 1.91                        | (0.23)                                     |
| GLENDALE HEIGHTS              | 4.20                        | 3.049                          | 3.17%          | 6.10                        | 0.61                                 | 1.98                        | 0.69                                       |
| HINSDALE                      | 4.50                        | 2.655                          | 2.76%          | 5.31                        | 0.53                                 | 1.72                        | 1.44                                       |
| IAWC-ARROWHEAD                | 0.40                        | 0.196                          | 0.20%          | 0.39                        | 0.04                                 | 0.13                        | 0.17                                       |
| IAWC-COUNTRY CLUB             | 0.20                        | 0.117                          | 0.12%          | 0.23                        | 0.02                                 | 0.08                        | 0.07                                       |
| IAWC-DUPAGE/LISLE (1)         | 0.91                        | 0.598                          | 0.62%          | 1.20                        | 0.12                                 | 0.39                        | 0.22                                       |
| IAWC-LIBERTY RIDGE EAST (2)   | 0.07                        | 0.051                          | 0.05%          | 0.10                        | 0.01                                 | 0.03                        | 0.01                                       |
| IAWC-LIBERTY RIDGE WEST (3)   | 0.40                        | 0.349                          | 0.36%          | 0.70                        | 0.07                                 | 0.23                        | (0.00)                                     |
| IAWC-LOMBARD HEIGHTS (4)      | 0.08                        | 0.072                          | 0.07%          | 0.14                        | 0.01                                 | 0.05                        | 0.00                                       |
| IAWC-VALLEY VIEW              | 0.88                        | 0.700                          | 0.73%          | 1.40                        | 0.14                                 | 0.45                        | 0.07                                       |
| ITASCA                        | 3.50                        | 1.764                          | 1.83%          | 3.53                        | 0.35                                 | 1.14                        | 1.47                                       |
| LISLE (1)                     | 4.79                        | 3.225                          | 3.35%          | 6.45                        | 0.65                                 | 2.09                        | 1.08                                       |
| LOMBARD (4)                   | 6.14                        | 4.909                          | 5.10%          | 9.82                        | 0.98                                 | 3.19                        | 0.49                                       |
| NAPERVILLE                    | 43.90                       | 20.534                         | 21.32%         | 41.07                       | 4.11                                 | 13.32                       | 20.26                                      |
| OAK BROOK                     | 8.00                        | 4.133                          | 4.29%          | 8.27                        | 0.83                                 | 2.68                        | 3.24                                       |
| OAKBROOK TERRACE              | 0.50                        | 0.221                          | 0.23%          | 0.44                        | 0.00                                 | 0.14                        | 0.20                                       |
| ROSELLE                       | 1.75                        | 2.237                          | 2.32%          | 4.47                        | 0.00                                 | 1.45                        | (1.27)                                     |
| VILLA PARK                    | 3.80                        | 2.115                          | 2.20%          | 4.23                        | 0.42                                 | 1.37                        | 1.37                                       |
| WESTMONT                      | 4.50                        | 2.884                          | 2.99%          | 5.77                        | 0.58                                 | 1.87                        | 1.18                                       |
| WHEATON                       | 7.26                        | 5.873                          | 6.10%          | 11.75                       | 1.17                                 | 3.81                        | 0.50                                       |
| WILLOWBROOK                   | 4.00                        | 1.342                          | 1.39%          | 2.68                        | 0.00                                 | 0.87                        | 2.19                                       |
| WINFIELD (3)                  | 1.60                        | 1.127                          | 1.17%          | 2.25                        | 0.23                                 | 0.73                        | 0.30                                       |
| WOOD DALE                     | 3.35                        | 1.654                          | 1.72%          | 3.31                        | 0.33                                 | 1.07                        | 1.45                                       |
| WOODRIDGE                     | 6.15                        | 3.208                          | 3.33%          | 6.42                        | 0.64                                 | 2.08                        | 2.46                                       |
| CUSTOMER TOTAL                | 163.67                      | 96.323                         | 100.00%        | 192.65                      | 17.96                                | 62.50                       | 51.49                                      |
| COMMISSION TOTAL              | 62.50                       |                                |                |                             |                                      |                             |  |
| TOTAL                         | 226.17                      |                                |                |                             |                                      |                             |  |

(1) LISLE CONTRACTED STORAGE TO IAWC DUPAGE/LISLE  
(2) GLEN ELLYN CONTRACTED STORAGE TO IAWC LIBERTY RIDGE EAST  
(3) WINFIELD CONTRACTED STORAGE TO IAWC LIBERTY RIDGE WEST  
(4) LOMBARD CONTRACTED STORAGE TO IAWC LOMBARD

Table 2

## Lexington Pump Station Operation &amp; Maintenance Costs

| Date         | Oper.<br>Labor Costs     | Maint.<br>Labor Costs | Maint.<br>Repair Costs | Total<br>Maint. Costs | Total O&M      | DWC<br>Share   |
|--------------|--------------------------|-----------------------|------------------------|-----------------------|----------------|----------------|
| FY 2003-2004 | \$857,652.91             | \$37,148.81           | \$244,877.34           | \$282,026.15          | \$1,139,679.06 | \$569,839.53   |
| FY 2004-2005 | \$709,178.21             | \$31,021.67           | \$124,281.36           | \$155,303.03          | \$864,481.24   | \$432,240.62   |
| FY 2005-2006 | \$235,230.72             | \$12,787.43           |                        | \$12,787.43           | \$248,018.15   | \$124,009.08   |
|              |                          | \$80,957.91           | \$369,158.70           | \$450,116.61          |                |                |
| Totals       | \$1,802,061.84<br>80.01% |                       | \$450,116.61<br>19.99% |                       | \$2,252,178.45 | \$1,126,089.23 |

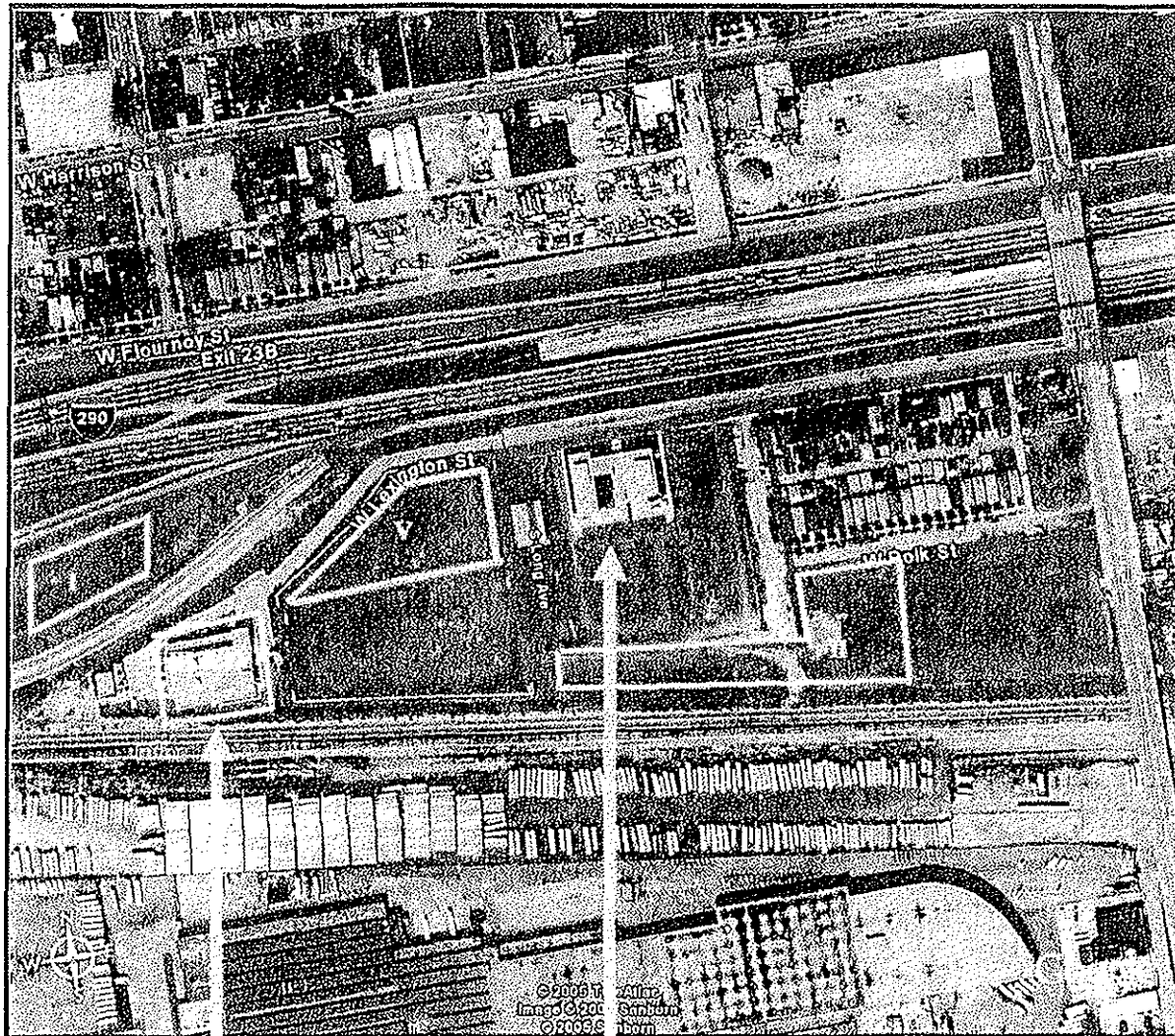
## DuPage Pump Station Operation &amp; Maintenance Costs

| Date         | Oper<br>Labor Costs  | Maint<br>Labor Costs | Maint<br>Repair Costs    | Total<br>Maint. Costs | Total O&M      |
|--------------|----------------------|----------------------|--------------------------|-----------------------|----------------|
| FY 2003-2004 | \$38,571.09          | \$732,850.67         | \$313,342.31             | \$1,046,192.98        | \$1,084,764.07 |
| FY 2004-2005 | \$33,905.65          | \$644,207.26         | \$612,167.35             | \$1,256,374.61        | \$1,290,280.26 |
| FY 2005-2006 | \$15,644.04          | \$297,236.76         | \$199,440.00             | \$496,676.76          | \$512,320.80   |
|              |                      | \$1,674,294.69       | \$1,124,949.66           | \$2,799,244.35        |                |
| Totals       | \$88,120.78<br>3.05% |                      | \$2,799,244.35<br>96.95% |                       | \$2,887,365.13 |

ops/spreadsheet/lexington O&amp;M Costs

Diagram 1

*Lexington Pump Station site plan and potential generator locations*



Lexington Pump Station

Illinois Secretary of State

Table 3

| Community        | Active Well<br>Capacity<br>(mgd) | 2020 Average<br>Day (mgd) | Well Deficit<br>(mgd) | Backed Up<br>Well Capacity<br>(mgd) | Back Up<br>Deficit (mgd) | No. of<br>Wells | Cost to Provide<br>Generation | Cost to<br>Reimburse<br>for Installed<br>Generation |   |
|------------------|----------------------------------|---------------------------|-----------------------|-------------------------------------|--------------------------|-----------------|-------------------------------|---|---|
| Addison          | 7.120                            | 5.009                     |                       | 6.040                               | -1.031                   | 5               |                               | \$1,202,160   |   |
| Argonne          | 2.016                            | 0.758                     |                       | 1.440                               | -0.682                   | 2               |                               | \$181,920   |   |
| Bensenville      | 0.000                            | 2.858                     |                       | 0.000                               | 2.858                    | 3               | \$476,333                     |   |   |
| Bloomingtondale  | 3.456                            | 3.488                     | 0.032                 | 0.000                               | 3.488                    | 3               | \$581,333                     |   |   |
| Carol Stream     | 3.492                            | 5.565                     | 2.073                 | 3.492                               | 2.073                    | 3               | \$345,500                     |   |   |
| Clarendon Hills  | 2.304                            | 0.792                     |                       | 0.350                               | 0.442                    | 2               | \$73,667                      |   |   |
| Darien           | 2.448                            | 3.254                     | 0.806                 | 0.648                               | 2.606                    | 5               | \$434,333                     |   |   |
| Downers Grove    | 4.000                            | 7.751                     | 3.751                 | 0.000                               | 7.751                    | 6               | \$1,291,833                   |   |   |
| Elmhurst         | 4.680                            | 4.906                     | 0.226                 | 0.000                               | 4.906                    | 3               | \$817,667                     |   |   |
| Glendale Heights | 2.300                            | 3.540                     | 1.24                  | 1.440                               | 2.100                    | 4               | \$350,000                     |   |   |
| Glen Ellyn       | 3.665                            | 3.164                     |                       | 3.665                               | -0.501                   | 3               |                               | \$759,360   |   |
| Hinsdale         | 6.000                            | 2.739                     |                       | 1.692                               | 1.047                    | 2               | \$174,500                     |   |   |
| IAWC-Valley View | 0.700                            | 0.700                     |                       | 0.700                               | 0.000                    | 1               |                               | \$168,000   |   |
| Itasca           | 1.728                            | 1.907                     | 0.179                 | 1.728                               | 0.179                    | 2               | \$29,833                      |   |   |
| Lisle            | 5.700                            | 3.841                     |                       | 3.200                               | 0.641                    | 4               | \$106,833                     |   |   |
| Lombard          | 5.580                            | 5.430                     |                       | 1.040                               | 4.390                    | 4               | \$731,667                     |   |   |
| Naperville       | 14.250                           | 22.432                    | 8.182                 | 0.000                               | 22.432                   | 10              | \$3,738,667                   |   |   |
| Oak Brook        | 6.480                            | 4.585                     |                       | 0.000                               | 4.585                    | 3               | \$764,167                     |   |   |
| Oakbrook Terrace | 0.000                            | 0.293                     | Note 1                | 0.000                               | 0.000                    | 0               | \$0                           |   |   |
| Roselle          | 0.000                            | 2.739                     | Note 1                | 0.000                               | 0.000                    | 0               | \$0                           |   |   |
| Villa Park       | 2.386                            | 2.206                     |                       | 0.000                               | 2.206                    | 2               | \$367,667                     |   |   |
| Westmont         | 6.912                            | 3.069                     |                       | 2.160                               | 0.909                    | 5               | \$151,500                     |   |   |
| Wheaton          | 12.528                           | 6.530                     |                       | 3.744                               | 2.786                    | 6               | \$464,333                     |   |   |
| Willowbrook      | 0.000                            | 1.508                     | Note 1                | 0.000                               | 0.000                    | 0               | \$0                           |   |   |
| Winfield         | 3.398                            | 1.341                     |                       | 0.000                               |                          | 2               |                               | \$321,840   |   |
| Wood Dale        | 3.672                            | 1.894                     |                       | 0.000                               |                          | 2               |                               | \$454,560   |   |
| Woodridge        | 5.760                            | 4.331                     |                       | 0.000                               | 4.331                    | 4               | \$721,833                     |   |   |
|                  | 110.575                          | 106.630                   | 16.489                | 31.339                              | 67.516                   | 86              | \$11,621,667                  | \$3,087,840   | <b>Total Cost to<br/>Provide<br/>Generation</b> |
|                  |                                  |                           |                       |                                     |                          |                 |                               |   | \$14,709,507                                    |

Notes:

1. These Customers do not have active wells and therefore the inability to assess costs to provide generators. Wells would need to be developed in order to ascertain generation requirement to provide 2020 Average Day.

**Table 4**  
**INTERCONNECTED SYSTEMS DIRECTORY**

Last Update: November 3, 2005

| CUSTOMER EMERGENCY INTERCONNECTIONS LIST |                                  |                            |                                     |      |
|--|----------------------------------|----------------------------|-------------------------------------|------|
| MUNICIPALITY                             | WITH                             | DIRECTION<br>(ONE/TWO WAY) | LOCATION                            | SIZE |
| Addison                                  | NO EMERGENCY<br>INTERCONNECTIONS |                            |                                     |      |
|  |                                  |                            |                                     |      |
|  |                                  |                            |                                     |      |
| Bensenville                              | ELK GROVE                        | TWO WAY                    | MARK ST WEST OF RT 83               | 12"  |
|  | ELK GROVE                        | TWO WAY                    | EASTERN SOUTH OF DEVON              | 12"  |
|  | ELMHURST                         | TWO WAY                    | GRAND AVE 1 BLK WEST OF YORK        | 12"  |
|  | WOOD DALE                        | TWO WAY                    | IRVING PARK AND PINE                | 12"  |
|  |                                  |                            |                                     |      |
| Bloomington                              | NO EMERGENCY<br>INTERCONNECTIONS |                            |                                     |      |
|  |                                  |                            |                                     |      |
|  |                                  |                            |                                     |      |
| Carol Stream                             | GLENDAL HEIGHTS                  | TWO WAY                    | SCHMALE RD AND KEHOE BLVD           | 8"   |
|  | HANOVER PARK                     | TWO WAY                    | ARMY TRAIL AND MERIMAC              | 8"   |
|  | IAWC LIBERTY RIDGE E             |                            |                                     |      |
|  |                                  |                            |                                     |      |
| Clarendon Hills                          | UTILITIES INCORP                 | TO UTIL. INC.              | HOMES AND 56TH STREET               | 6"   |
|  | WESTMONT                         | TWO WAY                    | RICHMOND AVE AND CHICAGO AVE        | 10"  |
|  | WILLOBROOK                       | TWO WAY                    | 58TH AND HOLMES                     | 8"   |
|  |                                  |                            |                                     |      |
| Darien                                   | DOWNERS GROVE                    | TWO WAY                    | FAIRVIEW SOUTH OF 75TH ST           | 12"  |
|  | DOWNERS GROVE                    | TWO WAY                    | 75TH ST WEST OF FAIRVIEW (FLORENCE) | 12"  |
|  | DU PAGE CTY-Hinswood             | TWO WAY                    | CASS AND FRONTAGE                   | 8"   |
|  | DU PAGE CTY-Hinswood             | TWO WAY                    | BAILEY NORTH OF FRONTAGE            | 12"  |
|  | WILLOWBROOK                      | TWO WAY                    | 67TH AND HIGH ROAD                  | 8"   |
|  | WOODRIDGE                        | TWO WAY                    | LEMONT AND 75TH ST                  | 14"  |
|  | WOODRIDGE                        | TWO WAY                    | ALDEN AND BREWER                    | 8"   |
|  | WOODRIDGE                        | TWO WAY                    | BELLER AND 83RD                     | 12"  |
|  | WOODRIDGE                        | TWO WAY                    | GRAND VIEW AND 83RD                 | 12"  |
|  | WOODRIDGE                        | TWO WAY                    | PARKVIEW AND 83RD                   | 12"  |
|  | WOODRIDGE                        | TWO WAY                    | BELLER AND LEMONT                   | 12"  |
|  | WOODRIDGE                        | TWO WAY                    | LEMONT NORTH OF 87TH                | 12"  |
|  | WOODRIDGE                        | TWO WAY                    | LEMONT AND OLD FIELD RD             | 16"  |
|  | WOODRIDGE                        | TWO WAY                    | 87TH NORTH OF COVENTRY              | 6"   |
|  | WOODRIDGE                        | TWO WAY                    | 87TH AND HAVENS                     | 6"   |
|  | WOODRIDGE                        | TWO WAY                    | WEST OF CARLYN ON FRONTAGE          | 12"  |
|  |                                  |                            |                                     |      |
|  |                                  |                            |                                     |      |
|  |                                  |                            |                                     |      |
|  |                                  |                            |                                     |      |
|  |                                  |                            |                                     |      |



Table 4

## INTERCONNECTED SYSTEMS DIRECTORY (continued)

| CUSTOMER EMERGENCY INTERCONNECTIONS LIST |                                  |                            |                                       |      |
|--|----------------------------------|----------------------------|---------------------------------------|------|
| MUNICIPALITY                             | WITH                             | DIRECTION<br>(ONE/TWO WAY) | LOCATION                              | SIZE |
| Downers Grove                            | DARIEN                           | TWO WAY                    | FAIRVIEW SOUTH OF 75TH ST             | 12"  |
|  | DARIEN                           | TWO WAY                    | 75TH ST WEST OF FAIRVIEW (FLORENCE)   | 12"  |
|  | LIBERTY PARK H.A.                | TWO WAY                    | WILLIAMS AND 41ST ST                  | 6"   |
|  | OAK BROOK                        | TWO WAY                    | 31ST AND FAIRFIELD                    | 12"  |
|  | WESTMONT                         | TWO WAY                    | 525 CUMNOR/CUMNOR-SOUTH OF OGDEN      | 12"  |
|  | WESTMONT                         | TWO WAY                    | CUMNOR AND NAPERVILLE (MAPLE)         | 6"   |
|  | WESTMONT                         | TWO WAY                    | 5724 BUCK CT (DEERPATH-S. WHITEFAWN)  | 6"   |
|  | WESTMONT                         | TWO WAY                    | ROSLYN AVE & CHICAGO AVE (120 TRAUBE) | 6"   |
|  | WOODRIDGE                        | TWO WAY                    | 75th WEST OF BORMAN                   | 12"  |
|  | WOODRIDGE                        | TWO WAY                    | 7036 CAMBRIDGE                        | 12"  |
|  | WOODRIDGE                        | TWO WAY                    | 71ST ST WEST OF DEVEREUX              | 12"  |
|  | WOODRIDGE                        | TWO WAY                    | MIDHURST NORTH OF WESTFIELD           | 12"  |
|  |                                  |                            |                                       |      |
| Elmhurst                                 | BENSENVILLE                      | TWO WAY                    | GRAND AVE 1 BLK WEST OF YORK          | 12"  |
|  | BERKELEY                         | TO BERKELEY                | BUTTERFIELD AND HIGH STREET           | 6"   |
|  | IAWC COUNTRY CLUB                | TO IAWC                    | DIVERSEY AND YORK                     | 4"   |
|  | OAK BROOK                        | TWO WAY                    | 16TH STREET AND SPRING ROAD           | 12"  |
|  | VILLA PARK                       | TWO WAY                    | ST. CHARLES AND VILLA AVE             | 12"  |
|  |                                  |                            |                                       |      |
| Glendale Heights                         | CAROL STREAM                     | TWO WAY                    | SCHMALE RD AND KEHOE BLVD             |      |
|  |                                  |                            |                                       |      |
| Glen Ellyn                               | LOMBARD                          | TWO WAY                    | FINLEY RD AND ANN ST                  | 8"   |
|  | WHEATON                          | TWO WAY                    | OTT AND EVERGREEN                     | 6"   |
|  | WHEATON                          | TWO WAY                    | LORRAINE AND HARWARDEN                | 8"   |
|  |                                  |                            |                                       |      |
| Hinsdale                                 | BURR RIDGE                       | FUTURE                     | 63RD AND MADISON                      | 12"  |
|  | OAK BROOK                        | TWO WAY                    | MADISON AND GLENDALE                  | 6"   |
|  | OAK BROOK                        | TWO WAY                    | YORK AND SPRING                       | 6"   |
|  | WESTERN SPRINGS                  | TWO WAY                    | BITTERSWEET AND TOLLWAY               | 6"   |
|  |                                  |                            |                                       |      |
| IAWC<br>Arrowhead                        | NO EMERGENCY<br>INTERCONNECTIONS |                            |                                       |      |
|  |                                  |                            |                                       |      |
|  |                                  |                            |                                       |      |

Table 4

## INTERCONNECTED SYSTEMS DIRECTORY (continued)

| CUSTOMER EMERGENCY INTERCONNECTIONS LIST |                                  |                            |                                     |      |
|--|----------------------------------|----------------------------|-------------------------------------|------|
| MUNICIPALITY                             | WITH                             | DIRECTION<br>(ONE/TWO WAY) | LOCATION                            | SIZE |
| IAWC<br>Country Club                     | ELMHURST                         | TO CITIZENS                | DIVERSEY AND YORK                   | 4"   |
|  |                                  |                            |                                     |      |
| IAWC<br>DuPage/Lisle                     | LISLE                            | TWO WAY                    | KINGSTON AND GAMBLE                 | 8"   |
|  | LISLE                            | TWO WAY                    | MAIN AND JONQUIL                    | 6"   |
| IAWC<br>Lombard                          | NO EMERGENCY<br>INTERCONNECTIONS |                            |                                     |      |
|  |                                  |                            |                                     |      |
|  |                                  |                            |                                     |      |
| IAWC<br>Valley View                      | NO EMERGENCY<br>INTERCONNECTIONS |                            |                                     |      |
|  |                                  |                            |                                     |      |
|  |                                  |                            |                                     |      |
| IAWC<br>Liberty Ridge W                  | NO EMERGENCY<br>INTERCONNECTIONS |                            |                                     |      |
|  |                                  |                            |                                     |      |
|  |                                  |                            |                                     |      |
| IAWC<br>Liberty Ridge E                  | NO EMERGENCY<br>INTERCONNECTIONS |                            |                                     |      |
|  |                                  |                            |                                     |      |
|  |                                  |                            |                                     |      |
| Itasca                                   | WOOD DALE                        | TWO WAY                    | GEORGE AND PROSPECT                 | 8"   |
|  |                                  |                            |                                     |      |
| Lisle                                    | IAWC DUPAGE/LISLE                | TWO WAY                    | KINGSTON AND GAMBLE                 | 8"   |
|  | IAWC DUPAGE/LISLE                | TWO WAY                    | MAIN AND JONQUIL                    | 6"   |
| Lombard                                  | GLEN ELLYN                       | TWO WAY                    | FINLEY RD AND ANN ST                | 6"   |
|  | OAK BROOK                        | TO OAK BROOK               | 1500' W OF MEYERS ON BUTTERFIELD    | 8"   |
|  | VILLA PARK                       | TWO WAY                    | ADDISON AND W. PARK BLVD.           | 6"   |
|  |                                  |                            |                                     |      |
| Naperville                               | BOLINGBROOK                      | TO BOLINGBRK               | WEHRLI RD AND RYCE RD               | 8"   |
|  | PLAINFIELD                       | TO PLAINFIELD              | IL 59 AND MARATHON LANE             | 8"   |
| Oak Brook                                | DOWNERS GROVE                    | TWO WAY                    | 31ST AND FAIRFIELD                  | 10"  |
|  | ELMHURST                         | TWO WAY                    | 16TH STREET AND SPRING ROAD         | 12"  |
|  | ELMHURST                         | TWO WAY                    | S. BUTTERFIELD, W. OF KIRK AVE.     | 6"   |
|  | HINSDALE                         | TWO WAY                    | YORK AND GLENDALE                   | 6"   |
|  | HINSDALE                         | TWO WAY                    | GLENDALE RD. AND MADISON ST.        | 8"   |
|  | LOMBARD                          | TO OAK BROOK               | 1500' W OF MEYERS ON BUTTERFIELD    | 12"  |
|  | WESTMONT                         | TWO WAY                    | 35TH AND ST. STEPHENS GREEN         | 12"  |
|  | OAKBROOK TERRACE                 | TWO WAY                    | TRANS AM PLAZA NORTH OF 22ND STREET | 10"  |
|  | OAKBROOK TERRACE                 | TWO WAY                    | SOUTHLANE DR. EAST OF SUMMIT AVE.   | 8"   |
|  | HILLSIDE                         | TWO WAY                    | ROOSEVELT AND HAMILTON              | 6"   |
|  |                                  |                            |                                     |      |

Table 4

## INTERCONNECTED SYSTEMS DIRECTORY (continued)

| CUSTOMER EMERGENCY INTERCONNECTIONS LIST |                        |                            |                                       |      |
|--|------------------------|----------------------------|---------------------------------------|------|
| MUNICIPALITY                             | WITH                   | DIRECTION<br>(ONE/TWO WAY) | LOCATION                              | SIZE |
| Oakbrook Terrace                         | OAK BROOK              | TWO WAY                    | TRANS AM PLAZA NORTH OF 22ND STREET   | 10"  |
|  | OAK BROOK              | TWO WAY                    | SOUTHLANE DR. EAST OF SUMMIT AVE.     | 8"   |
|  |                        |                            |                                       |      |
| Roselle                                  | ELK GROVE              | FUTURE                     |                                       | 8"   |
|  | HANOVER PARK           | TWO WAY                    | 1800 W CENTRAL @ RR                   | 12"  |
|  | SCHAUMBURG             | TWO WAY                    | NORTH GARDEN AVE. @ RR                | 8"   |
|  | SCHAUMBURG             | TWO WAY                    | NORTH CHANCELLOR AVE. @ RR            | 12"  |
|  |                        |                            |                                       |      |
| Villa Park                               | LOMBARD                | TWO WAY                    | ADDISON AND W. PARK BLVD.             | 6"   |
|  | ELMHURST               | TWO WAY                    | ST. CHARLES AND VILLA AVE             | 6"   |
|  |                        |                            |                                       |      |
| Westmont                                 | CLARENDON HILLS        | TWO WAY                    | 5 SOUTH ELM STREET                    | 6"   |
|  | CLARENDON HILLS        | TWO WAY                    | RICHMOND AND CHICAGO AVE              | 10"  |
|  | DOWNERS GROVE          | TWO WAY                    | 525 CUMNOR/CUMNOR-SOUTH OF OGDEN      | 12"  |
|  | DOWNERS GROVE          | TWO WAY                    | CUMNOR AND NAPERVILLE (MAPLE)         | 6"   |
|  | DOWNERS GROVE          | TWO WAY                    | 5724 BUCK CT (DEERPATH-S. WHITEFAWN)  | 6"   |
|  | DOWNERS GROVE          | TWO WAY                    | ROSLYN AVE & CHICAGO AVE (120 TRAUBE) | 6"   |
|  | OAK BROOK              | TWO WAY                    | 35TH AND ST. STEPHENS GREEN           | 8"   |
|  | WILLOWBROOK            | TWO WAY                    | 61ST AND BENTLEY                      | 8"   |
|  |                        |                            |                                       |      |
| Wheaton                                  | GLEN ELLYN             | TWO WAY                    | OTT AND EVERGREEN                     | 4"   |
|  | GLEN ELLYN             | TWO WAY                    | LORRAINE AND HARWARDEN                | 4"   |
|  | WINFIELD               | TWO WAY                    | MANCHESTER AND ETHEL                  | 8"   |
|  |                        |                            |                                       |      |
| Willowbrook                              | BURR RIDGE             | TWO WAY                    | MADISON AND JOLIET RD                 | 12"  |
|  | DARIEN                 | TWO WAY                    | 67TH AND HIGH ROAD                    | 8"   |
|  | DUPAGE CTY-Farmingdale | TWO WAY                    | 79TH AND FARMINGDALE                  | 8"   |
|  | DUPAGE CTY-Farmingdale | TWO WAY                    | LOCUST AND SAWYER                     | 6"   |
|  | WESTMONT               | TWO WAY                    | 61ST AND BENTLEY                      | 10"  |
|  |                        |                            |                                       |      |
| Winfield                                 | NO EMERGENCY           |                            |                                       |      |
|  | INTERCONNECTIONS       |                            |                                       |      |
|  |                        |                            |                                       |      |
| Wood Dale                                | BENSENVILLE            | TWO WAY                    | IRVING PARK AND PINE                  | 6"   |
|  | ELK GROVE VILLAGE      | TWO WAY                    | MARK ST AND CARL BLVD                 | 12"  |
|  | ITASCA                 | TWO WAY                    | GEORGE AND PROSPECT                   | 8"   |
|  |                        |                            |                                       |      |

Table 4

## INTERCONNECTED SYSTEMS DIRECTORY (completed)

| CUSTOMER EMERGENCY INTERCONNECTIONS LIST |                          |                            |                             |      |
|--|--------------------------|----------------------------|-----------------------------|------|
| MUNICIPALITY                             | WITH                     | DIRECTION<br>(ONE/TWO WAY) | LOCATION                    | SIZE |
| Woodridge                                | BOLINGBROOK              | TWO WAY                    | 83RD AND LEEWOOD            | 12"  |
|  | BOLINGBROOK              | TWO WAY                    | MENDING WALL DRIVE AND      | 6"   |
|  | DARIEN                   | TWO WAY                    | LEMONT AND 75TH ST          | 14"  |
|  | DARIEN                   | TWO WAY                    | ALDEN AND BREWER            | 8"   |
|  | DARIEN                   | TWO WAY                    | BELLER AND 83RD             | 12"  |
|  | DARIEN                   | TWO WAY                    | GRAND VIEW AND 83RD         | 12"  |
|  | DARIEN                   | TWO WAY                    | PARKVIEW AND 83RD           | 12"  |
|  | DARIEN                   | TWO WAY                    | BELLER AND LEMONT           | 12"  |
|  | DARIEN                   | TWO WAY                    | LEMONT NORTH OF 87TH        | 12"  |
|  | DARIEN                   | TWO WAY                    | LEMONT AND OLD FIELD RD     | 16"  |
|  | DARIEN                   | TWO WAY                    | 87TH NORTH OF COVENTRY      | 6"   |
|  | DARIEN                   | TWO WAY                    | 87TH AND HAVENS             | 6"   |
|  | DARIEN                   | TWO WAY                    | WEST OF CARLYN ON FRONTAGE  | 12"  |
|  | DOWNERS GROVE            | TWO WAY                    | 75th WEST OF BORMAN         | 12"  |
|  | DOWNERS GROVE            | TWO WAY                    | 7036 CAMBRIDGE              | 12"  |
|  | DOWNERS GROVE            | TWO WAY                    | 71ST ST WEST OF DEVEREUX    | 12"  |
|  | DOWNERS GROVE            | TWO WAY                    | MIDHURST NORTH OF WESTFIELD | 12"  |
|  | DUPAGE CTY. - Greene Rd. | TWO WAY                    | GREENE RD NORTH 75TH ST     | 10"  |
|  |                          |                            |                             |      |
|  |                          |                            |                             |      |

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DRAFT MEMO

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TO: BOB MARTIN, ALLAN POOLE, GREG WILCOX, LARRY HARTWIG  
FROM: MIKE VONDRA  
SUBJECT: BACK-UP GENERATION  
DATE: 12/7/05

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The purpose of this memo is to outline some information that I received regarding backup generation; I would like to receive your comments on this information in order to prepare a briefing for the January Commission Meeting.

Bob Martin and I had a conversation today regarding his upcoming meetings with Deputy Commissioner Spatz and Commissioner Murphy. On the basis of trying to research what the City has spent on their backup generation, as well as to better understand comments which I received from both Allan and Greg, I had the opportunity to talk to Former Commissioner Rice about what the City had committed to in the past.

Former Commissioner Rice informed me that while the loss of Commonwealth Edison's service to their stations was definitely a component in motivating them to provide backup generation, another factor that they considered important in their "tabletop exercises" was the lack of fire protection if per chance one of the stations went down. Bob and I discussed this and without putting words in his mouth, he explained to me that fire protection isn't as motivating an issue for us because of the reservoir capacity that we have versus what the City has. I would like to hear Allan and Greg's review of this situation from an engineering perspective.

In regard to City budgeting, I was able to find out that the city had spent approximately \$13 million to provide backup generation at four of their plants: Jardine, South Plant, Southwest Pumping Station and the Cermak Station. It is my understanding that the process started four to five years ago and subsequent to the original budgeting and expenditure, they added backup generation at Thomas Jefferson and Lakeview plants. He explained that expenditures at the plants varied, but that 13 million was the total amount expended until they got to the 68<sup>th</sup> Street plant, which they determined to do exclusively with trailers and were able to accomplish for \$500,000.00. I have no idea of the size of these individual stations versus our requirements, but these are the dollars that the City expended as it was explained to me.

It was also explained that the City had bought multiple dedicated lines from Commonwealth Edison; I believe we have already purchased such dedicated lines. In addition, the City also paid for some automated switching; since Commonwealth Edison has a tendency and a problem to cut down the service to an area, by having automated switching, the City is able to move over to the backup generation to relieve part of ComEd's load; it is my understanding that the City received consideration from ComEd for doing this.

In addition to looking into this information, Bob is going to try to determine what, if any, component the City has included in this year's water budgeting for backup generation or any amount to be spent in this area. If these are components of the rate that is charged in the City, it is my understanding that that is also the rate that is charged to us so we should definitely inform the City that we would appreciate consideration of receiving our share of this allowance.



# DuPage Water Commission

## MEMORANDUM

TO: Chairman Vondra and Commissioners

FROM: Robert L. Martin, P.E.  
General Manager *[Signature]*

DATE: February 3, 2006

SUBJECT: Backup Generation E-mail of December 19, 2005

In an effort to provide the most accurate information to you, I would like to clarify certain statements made in Commissioner Poole's e-mail of December 19, 2005.

The Chicago Department of Water Management (CDWM) has 12 water pumping stations, including the Lexington Pumping Station. Four of the 12 water pumping stations (Mayfair, Central Park, Western Avenue, and Springfield) use natural gas to produce steam that drives the water pumps ("steam stations"). These steam stations are typically the larger capacity stations and can operate independent of any Commonwealth Edison electrical service. The other eight stations operate electrically only.

All of the eight electric water pumping stations have multiple (3 or 4) services from Commonwealth Edison. These services are always from at least two different Commonwealth Edison substations. Of the eight electric stations:

1. The Lakeview and Thomas Jefferson Pumping Stations operate as sister stations and serve a common area. The Lakeview Pumping Station has generators; the Thomas Jefferson Pumping Station does not have generators. Both the Lakeview and Thomas Jefferson Pumping Stations operate on the underground tunnel transmission system.
2. The Cermak and Chicago Avenue Pumping Stations operate as sister stations and serve a common area. The Cermak Pumping Station has generators and is presently under design for a major upgrade; the Chicago Avenue Pumping Station does not have generators. Both the Cermak and Chicago Avenue Pumping Stations operate on the underground tunnel transmission system.
3. The 68<sup>th</sup> Street Pumping Station does not have generators. The 68<sup>th</sup> Street Pumping Station service area can be served from the Western Avenue (steam) and Roseland Pumping Stations. The 68<sup>th</sup> Street Pumping Station operates on the underground tunnel transmission system.

4. The Roseland Pumping Station (recently converted from a steam station) has generators. The Roseland Pumping Station operates on the underground tunnel transmission system.
5. The Southwest Pumping Station has generators. The Southwest Pumping Station operates on the underground tunnel transmission system.
6. The Lexington Pumping Station does not have generators. The Lexington Pumping Station operates on the underground tunnel transmission system.

Both the Jardine and South Water Purification Plants have generators. Most of these facilities had temporary rental generators installed for Y2K. After Y2K, most temporary generators were removed. When Commonwealth Edison was experiencing large electrical outages in Chicago, some of the generators were re-installed. Every part of Chicago and all of CDWM's suburban customers can get water in the event of a Commonwealth Edison outage except the DuPage Water Commission.

In paragraph 3, on Page 1 of Commissioner Poole's e-mail, Commissioner Poole states "What the City of Chicago has been doing as I see it is adding engine electrical generation facilities at some of their pumping stations in lieu of adding a second feeder line from a second ComEd substation." All of CDWM's electric pumping stations have multiple independent (3 or 4) electrical services from at least two different substations.

In paragraph 4, on Page 2 of Commissioner Poole's e-mail, Commissioner Poole states "For large systems a good rule to follow is that of the Detroit Water and Sewerage Department with adequate emergency storage capacity equaling 50 to 60% of an average day." The Detroit Water System has 31 water storage reservoirs, all ground level or below ground. Water must be either pumped out of a reservoir or, during low demand, flow through a reservoir. The reservoir pumping stations typically have multiple services from Detroit Edison. On August 14, 2003, many parts of Detroit and suburbs did not have water. The boiled water advisor was not lifted until August 18<sup>th</sup>, four days after the black out occurred. "The Detroit Board of Water and Sewers, oversight board of the nation's second largest water system, reported that its system was not functioning correctly. It issued a boiled water advisory for its entire service area. A number of public water issues arose from the blackout. First, there is a need for generators and for an automatic activation switches for these generators."<sup>1</sup> Since August 14, 2003, the Detroit Water and Sewerage Department has repaired existing generator systems at reservoir pumping stations and added generators to other reservoir pumping stations.

In paragraph 5, on Page 2 of Commissioner Poole's e-mail, Commissioner Poole states "In the basis of design for any backup generators provided at Lexington and Elmhurst it is in error to design for the maximum day in 2020." The proposed generation capacity at both the DuPage and Lexington Pumping Stations is year 2020 average day. Average day historically has been the basis of the Commission's design for emergency

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<sup>1</sup> Statement of Colonel Michael C McDaniel, Assistant Adjutant General for Homeland Security Michigan National Guard



operation. Examples of this design basis can be found in the 72" Transmission Main that parallels the 90" Transmission Main, the 48" Transmission Main (TW-2) that connects the Northwest and Southwest Transmission Main in the western part of the system, and the 72" Transmission Main that connects the Northwest and Southwest Transmission Main in the Route 83 corridor.

With respect to the question raised at the end of paragraph 5, on Page 2 of Commissioner Poole's e-mail, the proposed generation design at the DuPage Pumping Station is for full startup voltage motor starters and not reduced voltage motor starters. In evaluating electrical generation supply alternatives at the DuPage Pumping Station, full startup voltage was recommended by Camp Dresser & McKee Inc. because it was more efficient than reduced voltage motor starters.

**Robert Martin**

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**From:** Mike Vondra [MikeVondra@abbottland.com]  
**Sent:** Friday, January 06, 2006 10:22 AM  
**To:** Robert Martin  
**Subject:** FW: City of Chicago Backup Electric Generation for Pump Stations.

FYI – Bob:

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**From:** Allan Poole [mailto:PooleA@naperville.il.us]  
**Sent:** Monday, December 19, 2005 2:40 PM  
**To:** Mike Vondra  
**Subject:** City of Chicago Backup Electric Generation for Pump Stations.

From an "engineering perspective" the City of Chicago does need emergency backup electrical generation for their water pumping stations taking suction from the underground tunnel transmission system as they essentially have no ground level or elevated water storage facilities. Simply put the tunnel capacity is their water storage.

Without regards to Chicago having tunnel storage or ground storage the issue is the ability to pump water and pressurize the distribution system and deliver water for all uses including the very important one of fire protection. The critical element then is electricity to power the water pumping systems and this is achieved by

- a) two source electrical power from separate ComEd electric substations with an automatic transfer switch.
- b) single source electrical power with backup from engine-generator facilities at each pumping station for the second feed source in lieu of the second separate electric also with an automatic transfer switch .

What the City of Chicago has been doing as I see it is adding engine electrical generation facilities at some of their pumping stations in lieu of adding a second feeder line from a second ComEd substation. This is an alternate solution and not in addition to two separate feed lines from independent substations. It may not be practical or excessively expensive for Chicago to have ComEd provide dual substation feed to their water pumping stations.

Since Chicago has not had dual electric feed either by two substations or one substation and standby emergency generation facilities and is now adding this they would be able to operate with a gridwide power failure by pumping out of their tunnel storage. The DWC would be spending a lot of money to add standby generators on top of the present dual substation feed arrangements.

It should be clear that water pumping stations served electrically from two independent electric substations with an automatic transfer switch arrangement has long been considered a reliable method and in fact was done by AB&H for the DuPage Water Commission Lexington and Elmhurst Water Pumping Stations. This has served us well for the past 13 years of operation.

The DWC dual electrical feed design and installation has provided reliable service. One must look at what Chicago is doing and why and this is clearly different than what the DWC is looking at for protection against a gridwide regional blackout.

The question we should remain focused on is the large expenditure at both Lexington and Elmhurst to protect against the very low level risk of a gridwide regional failure that would last more than say 8 hours. With an anticipated budget of \$28-30 Million for backup generators at both locations and the undecided matter of whether or not Chicago will give water purchase credits for the Lexington Station this matter is unresolved.

The DWC does have above ground water storage of 30 MG in 5 separate standpipes and the 30 MG storage at Elmhurst. In addition the member customers are required to have 2 day storage with consideration for a relative portion of the DWC storage plus a credit of 10% for groundwater well supply. In the case of my community Naperville we have 43.9 MG in storage with an average 2005 daily usage of 17 MGD. This gives us 2.6 days storage independent of our DWC and well water credits. Most of this storage is either elevated or has standby engine generators for ground storage reservoirs.

Many of the 25 communities need storage additions as they do not meet the 2 day storage charter customer agreement and this is something that the DWC staff should be advising in writing to these communities. Water storage would be an important consideration with a gridwide power outage and dependent on when it came if ever it would probably be in the hot summer when water storage would be seeing ups and downs in levels due to lawn sprinkling. For Naperville we consider about 25% of our storage always available as a minimum for fire protection. It would appear other communities have little available during emergencies but rely on the DWC.

An technical article appearing in the September 2005 issue of the AWWA Opflow entitled "Determining Distribution System Storage Needs" discusses the importance of water storage for fire protection. The article states that emergency storage is prudent providing adequate volume to supply the system's average daily demand for the estimated duration of a possible emergency. For large systems a good rule to follow is that of the Detroit Water and Sewerage Department with adequate emergency storage capacity equaling approximately 50 to 60% of an average day.

In the basis of design for any backup generators provided at Lexington and Elmhurst it is in error to design for the maximum day in 2020. We should be considering 65-75% of average day in 2020 and the generator sizing and cost will be substantially lower. Also, if not being considered the design should be for reduced voltage motor starters not the full startup voltage. What is the current design for the Elmhurst Pumping Station?

My concern for the two Lake Michigan Water Pumping Stations critical to our receiving distribution systems flows and pressures is to provide for highly reliable daily operation, maintenance, and management. The two/three electrical source feeders to the Lexington and Elmhurst Stations need to be monitored and patrolled by the DWC. A regular report from ComEd on their vegetative management practices (tree trimming) for the 34.5 kV power lines should be requested and DWC should view the lines once a year for our own inspection. Maintenance reports from ComEd on these lines and the substations feeding these lines should be requested and obtained on an annual basis. If they have not placed a high priority on these facilities serving over 900,000 population they should be held accountable.

What it boils down to is the risk of a complete failure of the electrical power grid in the Chicago area with this risk resulting in a downtime beyond the storage capabilities of the DWC and its member customers. Some having sufficient storage with backup power can manage the gridwide failure while others cannot or may not. I believe the risk is quite low and this makes a very large expenditure particularly if the DWC has to pay for both Lexington and Elmhurst backup electrical systems a real test of risk management. Also, the decentralized approach of placing generators on the backup wells needed to be further evaluated.

In summary from an engineering perspective water storage and pumping facilities for providing fire protection is indeed part of a public water supply system. I would like the DWC to consider the 30 MG storage addition at the Elmhurst Station in conjunction with the backup generator question as they are truly connected. An additional 8 hours of storage at 2020 average day flows would be provided over present storage volumes with the 30 MG addition. With engine generators at Elmhurst only that are properly sized for 65-75% pumping of average day we may have a combination that does not depend on Lexington for meeting the gridwide failure risk.

I do believe the backup generator question is not well understood by most customers and they are confusing it with failure of ComEd on the retail distribution side. As the basis of design has not been understood or conveyed to the members they readily accept the cost estimates for an over designed system. Most have no concept of the storage and pumping relationship and most appear adverse to any risk yet coming through 3 standby engine generators and controls they assume no risk here either.

Thanks for asking ...we need more discussion.

**DuPAGE WATER COMMISSION  
TENTATIVE DRAFT MANAGEMENT BUDGET &  
FIVE YEAR CAPITAL IMPROVEMENT PLAN  
MAY 1, 2006 to APRIL 30, 2007**

**DuPAGE WATER COMMISSION**  
**TENTATIVE DRAFT MANAGEMENT BUDGET**  
**MAY 1, 2006 to APRIL 30, 2007**  
**FEBRUARY 3, 2006**

**DuPage Water Commission  
Tentative Draft Management Budget  
May 1, 2006 to April 30, 2007  
Executive Summary**

- Total budgeted revenues increased \$3.4 million versus the fiscal year 2005-06 budget. The total Charter Customer average water rate is proposed to remain at \$1.45 per thousand gallons, with operations and maintenance and fixed cost rates being \$1.24 and \$0.21, respectively, per thousand gallons. Operation and maintenance (O&M) revenues are based on 94.0% of the IDNR allocation for the fiscal year. With the expectation that the economy will continue to rebound, sales tax proceeds are budgeted to increase 5.4% or \$1.8 million over last year's budget. Sales tax proceeds will be used to pay 50% of the annual fixed cost requirement. Investment income is budgeted to rise slightly because of an increase in expected yields.
- Total operating expenses increased \$2.3 million versus the fiscal year 2005-06 budget. Direct water distribution costs rose by \$1.2 million over last year's budget because of an increase in the maintenance of the Lexington Pump Station and valve stem replacements. The Chicago water rate remained the same, but is anticipated to increase by 3.0% next January. Personnel costs increased by \$1.7 million because of the inclusion of \$1.6 million payment to Illinois Municipal Retirement Fund for the Commission's unfunded pension liability for 2004. Budgeted insurance costs decreased by \$0.1 million because of lower insurance premiums.
- All new construction will be supported with sales tax revenues. Major repairs to existing facilities are funded by water rates.
- The Commission holds liquid assets, for the purpose of making emergency system repairs, in an amount equal to 2% of the original construction costs escalated by annual increases in the Engineering News Record (ENR) Construction Index. This reserve is expected to increase from \$12.4 million to \$12.8 million during fiscal year 2006-07. Sales tax funds not needed for this contingency will be reserved for new construction. Funds generated by usage charges not required for the contingency balance will be reserved for water rate stabilization.
- This is the first budget prepared using the new accounting software. As such, there has been new accounts established as well as reclassifications.

**TOTAL REVENUES AND OPERATING EXPENSES.** The total average Charter Customer water rate is proposed to remain at \$1.45/1,000 gallons. The operation and maintenance component of the water rate will decrease to \$1.24/1,000 gallons and the fixed cost component will increase to \$0.21/1,000 gallons. Fiscal year 2006-07 revenues are budgeted to be 4.0% more than the budgeted total revenues of fiscal year 2005-06, mainly because of the increased water sales and sales tax proceeds, which are expected to continue to rise. The Commission will use sales tax funds to reduce customer fixed cost obligations to 50% of the annual revenue bond debt service requirement.

Operating expenditures in the 2006-07 budget have increased by 2.4% over fiscal year 2005-06 budgeted expenditures. The increase can mainly be attributed to the inclusion of the unfunded pension liability at the end of 2004 was \$1.6 million which will be paid in the fiscal year 2006-07

**CONSTRUCTION EXPENDITURES**

Construction projects for fiscal year 2006-07 are outlined in the five-year planning document.



DU PAGE WATER COMMISSION  
TENTATIVE DRAFT MANAGEMENT BUDGET  
MAY 1, 2006 TO APRIL 30, 2007

## EXHIBIT 1

|                                       |               |                                  | TOTAL                           | WATER FUND | WATER FUND | WATER FUND | % CHANGE              |        |
|---------------------------------------|---------------|----------------------------------|---------------------------------|------------|------------|------------|-----------------------|--------|
|                                       |               |                                  | FROM                            | FY 05-06   | FY 05-06   | FY 06-07   | FY 06-07 BUDGET       |        |
| ACCT #                                | ACCOUNT TITLE |                                  |                                 | PROJECTED  | BUDGET     | BUDGET     | VS<br>FY 05-06 BUDGET |        |
| 01                                    | 5000          | REVENUES                         |                                 |            |            |            |                       |        |
| 01                                    | 5110          | O & M PAYMENTS                   | PAGE 3                          | 41,023,413 | 40,853,738 | 41,532,694 | 1.7%                  |        |
| 01                                    | 5120          | FIXED COST PAYMENTS              | PAGE 3                          | 7,144,469  | 7,144,469  | 7,145,094  | 0.0%                  |        |
| 01                                    | 5130          | SUBSEQUENT CUSTOMER DIFFERENTIAL | PAGE 3                          | 573,561    | 710,586    | 714,437    | 0.5%                  |        |
| 01                                    | 5140          | EMERGENCY WATER SERVICE          | PAGE 3                          | 8,344      | 32,035     | 8,511      | -73.4%                |        |
| 01                                    | 5300          | SALES TAXES                      | PAGE 3                          | 34,977,839 | 33,834,395 | 35,677,396 | 5.4%                  |        |
| 01                                    | 5810          | INTEREST INCOME                  | PAGE 3                          | 4,874,005  | 3,625,000  | 4,537,780  | 25.2%                 |        |
| 01                                    | 5900          | OTHER INCOME                     | PAGE 3                          | 2,500      | 300        | 2,500      | 733.3%                |        |
| TOTAL REVENUE                         |               |                                  |                                 | 88,604,131 | 86,200,523 | 89,618,412 | 4.0%                  |        |
| 01                                    | 60            | 6000                             | OPERATING EXPENDITURES          |            |            |            |                       |        |
| 01                                    | 60            | 6100                             | PERSONAL SERVICES               | PAGE 5     | 3,087,841  | 3,384,809  | 5,125,378             | 51.4%  |
| 01                                    | 60            | 6200                             | PROFESSIONAL SERVICES           | PAGE 7     | 457,379    | 314,925    | 641,181               | 103.6% |
| 01                                    | 60            | 6300                             | PURCHASED SERVICES              | PAGE 8     | 0          | 600,212    | 0                     | 0.0%   |
| 01                                    | 60            | 6400                             | INSURANCE                       | PAGE 9     | 729,271    | 971,497    | 864,484               | -11.0% |
| 01                                    | 60            | 6500                             | ADMINISTRATIVE COSTS            | PAGE 10    | 467,666    | 211,888    | 815,193               | 284.7% |
| 01                                    | 60            | 6600                             | DIRECT WATER DISTRIBUTION COSTS | PAGE 11    | 50,189,989 | 54,099,115 | 54,910,943            | 1.5%   |
| 01                                    | 60            | 6700                             | BOND INTEREST COSTS             | PAGE 12    | 8,767,912  | 8,760,389  | 8,208,650             | -6.3%  |
| 01                                    | 60            | 6800                             | CAPITAL EXPENDITURES            | PAGE 12    | 128,512    | 9,995      | 6,000                 | -40.0% |
| 01                                    | 60            | 6900                             | DEPRECIATION                    | PAGE 13    | 6,656,828  | 7,235,230  | 6,833,725             | -5.5%  |
| TOTAL OPERATING EXPENDITURES          |               |                                  |                                 | 70,485,398 | 75,588,060 | 77,405,554 | 2.4%                  |        |
| 01                                    | 60            | 7000                             | CONSTRUCTION EXPENDITURES       | PAGE 14    | 0          | 0          | 0                     | 0.0%   |
| 01                                    | 60            | 8000                             | GRANT TO DU PAGE COUNTY         | PAGE 15    | 0          | 0          | 0                     | 0.0%   |
| TOTAL EXPENDITURES                    |               |                                  |                                 | 70,485,398 | 75,588,060 | 77,405,554 | 2.4%                  |        |
| NET OPERATING ACCOUNTING TRANSACTIONS |               |                                  |                                 | 18,118,733 | 10,612,463 | 12,212,858 | 15.1%                 |        |

**FUND BALANCES.** The Commission reports its net assets in accordance with Generally Accepted Accounting Principles (GAAP). For internal management purposes the Unrestricted Net Assets category is divided into three sub-categories:

- 4210 - Unrestricted Net Assets
  - 4211 - Held for emergency repairs;
  - 4212 - Reserved for wholesale water rate stabilization;
  - 4213 - Reserved for the acquisition of capital assets;
  - 4214 - Reserved for water quality loans;
  - 4215 - Reserved for prior service pension costs;
- 4220 - Net Assets Restricted by Ordinance/Resolution;
- 4230 - Net Assets Invested in Property, Plant and Equipment.

The amounts reported in accounts 4211, 4212 and 4213 constitute the Commission's day-to-day operating balance. While the amounts in accounts 4214 and 4215 are not restricted, Account 4220 shows assets held for bond payments and required bond reserves. Account 4230 represents the Commission's infrastructure investment net of unpaid long-term debt used for its construction.

**FUND BALANCE RECOMMENDATION.** At the end of fiscal year 1991-92, the Commission determined that a liquid balance available for emergency repairs equal to 5% of the original construction cost (\$413,500,000) was appropriate. As of July 31, 2003, this policy was changed to 2% of the original construction cost. This balance is adjusted annually by the Engineering News Record (ENR) construction index. This index is estimated to increase by 4.97% between April 30, 2006 and April 30, 2007. Based on these criteria, targeted emergency repairs appropriations are as follows:

| <u>Fiscal Year Ended</u> | <u>ENR Index</u> | <u>Target Balance<br/>(Budgeted)</u> |
|--------------------------|------------------|--------------------------------------|
| April 30, 1992           | 4946             | \$20,700,000                         |
| April 30, 2003           | 6726 (Used)      | \$28,100,000                         |
| July 31, 2003            | 6726 (Used)      | \$11,200,000                         |
| April 30, 2004           | 7017 (Used)      | \$11,700,000                         |
| April 30, 2005           | 7355 (Used)      | \$12,300,000                         |
| April 30, 2006           | 7720 (Est.)      | \$12,900,000                         |
| April 30, 2007           | 8104 (Est.)      | \$13,500,000                         |

Net cash balances not needed for this contingency will be reserved for the acquisition of capital assets (from sales taxes) and for wholesale water rate stabilization (from water sales revenues). The Commission must carry an additional \$16.5 million of restricted funds to meet water revenue bond ordinance requirements which can be used to pay for major repairs (the depreciation account, \$5.0 million) or to support operations during an emergency (the operations and maintenance reserve account, \$11.5 million). Those amounts must begin to be replenished the month following their use.

DuPAGE WATER COMMISSION  
TENTATIVE DRAFT MANAGEMENT BUDGET  
MAY 1, 2006 TO APRIL 30, 2007

## EXHIBIT 1

| ACCT # | ACCOUNT TITLE  | TOTAL<br>FROM | WATER FUND<br>FY 05-06<br>PROJECTED | WATER FUND<br>FY 05-06<br>BUDGET | WATER FUND<br>FY 06-07<br>BUDGET | % CHANGE<br>FY 06-07 BUDGET<br>VS<br>FY 05-06 BUDGET |
|--------|--|---------------|-------------------------------------|----------------------------------|----------------------------------|--|
|        | NET ASSETS BALANCE   |               |                                     |                                  |                                  |  |
|        | NET CURRENT YEAR TRANSACTIONS  | PAGE 1        | 18,118,733                          | 10,612,463                       | 12,212,858                       | 15.1%  |
|        | FIXED ASSET EQUITY TRANSFERS   |               | 0                                   | 0                                | 0                                | 0.0%   |
|        | BEGINNING NET ASSET BALANCE  |               | 326,064,668                         | 323,595,217                      | 344,183,401                      | 6.4%   |
|        | ENDING NET ASSET BALANCE   |               | 344,183,401                         | 334,207,680                      | 356,396,259                      | 6.6%   |
|        | NET ASSETS BALANCE ANALYSIS  |               |                                     |                                  |                                  |  |
| 01     | 4211 HELD FOR EMERGENCY REPAIRS  |               | 12,400,000                          | 12,400,000                       | 12,800,000                       | 3.2%   |
| 01     | 4212 RESERVED FOR WHOLESALE WATER RATE STABILIZATION                             |               | 30,074,422                          | 14,456,768                       | 16,371,763                       | 13.2%  |
| 01     | 4213 RESERVED FOR THE ACQUISITION OF CAPITAL ASSETS                              |               | 27,267,543                          | 21,233,588                       | 43,116,801                       | 103.1%   |
|        | NET UNRESTRICTED OPERATING ASSETS  |               | 69,741,965                          | 48,090,356                       | 72,288,564                       | 50.3%  |
| 01     | 4214 WATER QUALITY LOANS RESERVE   |               | 10,000,000                          | 10,000,000                       | 10,000,000                       | 0.0%   |
| 01     | 4210 TOTAL UNRESTRICTED NET ASSETS   |               | 79,741,965                          | 58,090,356                       | 82,288,564                       | 41.7%  |
| 01     | 4220 RESTRICTED BY ORDINANCE/RESOLUTION  |               | 31,531,849                          | 31,824,363                       | 31,824,363                       | 0.0%   |
| 01     | 4230 INVESTED IN PROPERTY PLANT AND EQUIPMENT                                    |               | 232,909,587                         | 244,292,961                      | 242,283,332                      | -0.8%  |
|        | NET ASSETS BALANCE   |               | 344,183,401                         | 334,207,680                      | 356,396,259                      | 6.6%   |
|        | USE OF OPERATING INCOME  |               |                                     |                                  |                                  |  |
|        | NET OPERATING ACCOUNTING TRANSACTIONS<br>USED FOR ITEMS NOT IN ACCOUNTING BUDGET |               | 18,118,733                          | 10,612,463                       | 12,212,858                       | 15.1%  |
|        | G. O. BOND PRINCIPAL PAYMENT   |               | (9,725,000)                         | (9,725,000)                      | (10,715,000)                     | 10.2%  |
|        | REVENUE BOND PRINCIPAL PAYMENT   |               | (8,275,000)                         | (8,275,000)                      | (8,690,000)                      | 5.0%   |
|        | CONSTRUCTION OUTLAYS   |               | (5,380,698)                         | (19,873,000)                     | (1,419,000)                      | -92.9%   |
|        | STATUTORY PAYMENT TO DU PAGE COUNTY  |               | (15,000,000)                        | (15,000,000)                     | (15,000,000)                     | 0.0%   |
|        | NET CHANGES IN RECEIVABLES, PAYABLES, ETC.                                       |               | (3,261,423)                         | (2,423,092)                      | (3,391,243)                      | 40.0%  |
|        | NON-CASH ACCOUNTING EXPENSES   |               |                                     |                                  |                                  |  |
|        | DEPRECIATION   |               | 6,656,828                           | 7,235,230                        | 6,833,725                        | -5.5%  |
|        | CHANGE IN CASH POSITION  |               | (16,866,560)                        | (37,448,399)                     | (20,168,661)                     | -46.1%   |

**WATER REVENUES.** The average combined Charter Customer operation and maintenance (O&M) and fixed cost rate is proposed to remain at \$1.45 per 1,000 gallons. Under Illinois PA93-0226, enacted July 22, 2003, the combined rate cannot exceed \$1.65 per 1,000 gallons for a period of five years up to and including fiscal year 2008-09. O&M revenues for fiscal year 2006-07 are based on selling 33.494 billion gallons at a rate of \$1.24 per thousand gallons. Commission customers are expected to use 94.0% of their revised Illinois Department of Natural Resources (IDNR) allocations.

In fiscal year 2006-07, no fixed costs are being assessed under provisions of the Water Purchase and Sale Contract for any of the reserves required under the Revenue Bond Ordinance. All such reserves are fully funded. Fixed cost payments fund only the annual revenue bond principal and interest payments. By using sales taxes to fund 50% of this requirement, the average fixed cost rate will be \$0.21 per 1,000 gallons.

The Subsequent Customer Differential represents two charges and one credit budgeted for existing subsequent customers. One of the charges is the missed fixed cost recapture from January 1, 1989 to the date of first service to the subsequent customer. The cost of existing subsequent customer facilities is also recaptured in this line item net of a credit for revenue bond funds used to construct Charter Customer feeder mains and meter stations. No revenues from new subsequent customers have been budgeted for fiscal 2006-07.

**SALES TAXES.** This revenue source had been declining for a few years prior to fiscal year 2004-05. However, retail sales have been rebounding and fiscal year 2005-06 sales tax revenues are projected to increase more than 5% over fiscal year 2004-05 actual. With the expectation that sales tax revenues will continue to rebound, a 2% increase has been budgeted in fiscal year 2006-07 over the current years forecasted actual.

**INTEREST INCOME.** The average rate of return has been estimated to be 3.00%. The average invested is estimated to be \$150 million.

**OTHER INCOME.** With no new customer connections constructed by the Commission being imminent, there are no reimbursements of estimated construction costs budgeted.

DUPAGE WATER COMMISSION  
TENTATIVE DRAFT MANAGEMENT BUDGET  
MAY 1, 2006 TO APRIL 30, 2007

## EXHIBIT 1

| ACCT # | ACCOUNT TITLE                         | TOTAL<br>FROM | WATER FUND<br>FY 05-06<br>PROJECTED | WATER FUND<br>FY 05-06<br>BUDGET | WATER FUND<br>FY 06-07<br>BUDGET | % CHANGE<br>FY 06-07 BUDGET<br>VS<br>FY 05-06 BUDGET |
|--------|---------------------------------------|---------------|-------------------------------------|----------------------------------|----------------------------------|--|
| 01     | 5000 REVENUES                         |               |                                     |                                  |                                  |  |
| 01     | 5100 WATER REVENUES                   |               |                                     |                                  |                                  |  |
| 01     | 5110 O & M PAYMENTS                   |               | 41,023,413                          | 40,853,738                       | 41,532,694                       | 1.7%   |
| 01     | 5120 FIXED COST PAYMENTS              |               | 7,144,469                           | 7,144,469                        | 7,145,094                        | 0.0%   |
| 01     | 5130 SUBSEQUENT CUSTOMER DIFFERENTIAL |               | 573,561                             | 710,586                          | 714,437                          | 0.5%   |
| 01     | 5140 EMERGENCY WATER SERVICE          |               | 8,344                               | 32,035                           | 8,511                            | -73.4%   |
| 01     | 5300 SALES TAXES                      |               | 34,977,839                          | 33,834,395                       | 35,677,396                       | 5.4%   |
| 01     | 5800 INVESTMENT EARNINGS              |               |                                     |                                  |                                  |  |
| 01     | 5810 INTEREST INCOME                  |               | 4,874,005                           | 3,625,000                        | 4,537,780                        | 25.2%  |
| 01     | 5900 OTHER INCOME                     |               | 2,500                               | 300                              | 2,500                            | 733.3%   |
|        | TOTAL REVENUE                         |               | 88,604,131                          | 86,200,523                       | 89,618,412                       | 4.0%   |

**FIXED COST PAYMENT SCHEDULE.** As required in the Charter Customer water purchase contract, the schedule of fixed cost payments for the presently served Commission Customers is shown below. The costs are allocated based on historic water use for calendar years 2004 and 2005. However, the average fixed cost rate of \$0.21 per 1,000 gallons is based on the total fixed cost requirement net of sales tax funding (\$7,145,094) divided by the budgeted fiscal year 2006-07 water sales of 33.494 billion gallons.

The fixed cost payment schedule does not include any new customers added during the fiscal year.

DUPAGE WATER COMMISSION  
ESTIMATED CUSTOMER  
FIXED COST PAYMENT SCHEDULE (WF-5120)  
MAY 1, 2006 TO APRIL 30, 2007

## EXHIBIT 1

| CUSTOMER                | 2004 & 2005<br>CALENDAR<br>YEARS USE<br>(1000 GAL) | 2004 & 2005<br>CALENDAR<br>YEARS<br>% USAGE | REQUIRED<br>FIXED COST<br>PAYMENT<br>\$14,290,188<br>50%<br>SALES TAX<br>FUNDED<br>(\$7,145,094)<br>AMOUNT TO BE<br>RATE FUNDED<br>\$7,145,094 | FOR:      | FOR:      | FOR:      | FOR:      | FOR:      | FOR:      | FOR:      | FOR:      | FOR:      | FOR:      | FOR:      | FOR:      |
|-------------------------|--|---|--|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
|                         |  |   |  | 05/31/06  | 06/30/06  | 07/31/06  | 08/31/06  | 09/30/06  | 10/31/06  | 11/30/06  | 12/31/06  | 01/31/07  | 02/28/07  | 03/31/07  | 04/30/07  |
|                         |  |   |  | DUE:      | DUE:      | DUE:      | DUE:      | DUE:      | DUE:      | DUE:      | DUE:      | DUE:      | DUE:      | DUE:      | DUE:      |
|                         |  |   |  | 07/10/06  | 08/10/06  | 09/10/06  | 10/10/06  | 11/10/06  | 12/10/06  | 01/10/07  | 02/10/07  | 03/10/07  | 04/10/07  | 05/10/07  | 06/10/07  |
| ADDISON                 | 2,784,762  | 4.3514%                                     | \$310,908  | \$25,909  | \$25,909  | \$25,909  | \$25,909  | \$25,909  | \$25,909  | \$25,909  | \$25,909  | \$25,909  | \$25,909  | \$25,909  | \$25,909  |
| BENSENVILLE             | 1,789,295  | 2.7959%                                     | 199,776  | 16,648    | 16,648    | 16,648    | 16,648    | 16,648    | 16,648    | 16,648    | 16,648    | 16,648    | 16,648    | 16,648    | 16,648    |
| BLOOMINGDALE            | 1,908,231  | 2.9818%                                     | 213,048  | 17,754    | 17,754    | 17,754    | 17,754    | 17,754    | 17,754    | 17,754    | 17,754    | 17,754    | 17,754    | 17,754    | 17,754    |
| CAROL STREAM            | 2,894,388  | 4.5227%                                     | 323,148  | 26,929    | 26,929    | 26,929    | 26,929    | 26,929    | 26,929    | 26,929    | 26,929    | 26,929    | 26,929    | 26,929    | 26,929    |
| CLARENDON HILLS         | 610,269  | 0.9536%                                     | 68,136   | 5,678     | 5,678     | 5,678     | 5,678     | 5,678     | 5,678     | 5,678     | 5,678     | 5,678     | 5,678     | 5,678     | 5,678     |
| DARIEN                  | 1,659,507  | 2.5931%                                     | 185,280  | 15,440    | 15,440    | 15,440    | 15,440    | 15,440    | 15,440    | 15,440    | 15,440    | 15,440    | 15,440    | 15,440    | 15,440    |
| DOWNERS GROVE           | 4,608,085  | 7.2005%                                     | 514,488  | 42,874    | 42,874    | 42,874    | 42,874    | 42,874    | 42,874    | 42,874    | 42,874    | 42,874    | 42,874    | 42,874    | 42,874    |
| ELMHURST                | 3,292,082  | 5.1441%                                     | 367,548  | 30,629    | 30,629    | 30,629    | 30,629    | 30,629    | 30,629    | 30,629    | 30,629    | 30,629    | 30,629    | 30,629    | 30,629    |
| GLEN ELLYN              | 2,116,684  | 3.3075%                                     | 236,328  | 19,694    | 19,694    | 19,694    | 19,694    | 19,694    | 19,694    | 19,694    | 19,694    | 19,694    | 19,694    | 19,694    | 19,694    |
| GLENDALE HTS            | 1,928,844  | 3.0140%                                     | 215,352  | 17,946    | 17,946    | 17,946    | 17,946    | 17,946    | 17,946    | 17,946    | 17,946    | 17,946    | 17,946    | 17,946    | 17,946    |
| HINSDALE                | 2,003,422  | 3.1305%                                     | 223,680  | 18,640    | 18,640    | 18,640    | 18,640    | 18,640    | 18,640    | 18,640    | 18,640    | 18,640    | 18,640    | 18,640    | 18,640    |
| ITASCA                  | 1,142,138  | 1.7847%                                     | 127,512  | 10,626    | 10,626    | 10,626    | 10,626    | 10,626    | 10,626    | 10,626    | 10,626    | 10,626    | 10,626    | 10,626    | 10,626    |
| LISLE                   | 2,139,095  | 3.3425%                                     | 238,824  | 19,902    | 19,902    | 19,902    | 19,902    | 19,902    | 19,902    | 19,902    | 19,902    | 19,902    | 19,902    | 19,902    | 19,902    |
| LOMBARD                 | 3,171,294  | 4.9554%                                     | 354,072  | 29,506    | 29,506    | 29,506    | 29,506    | 29,506    | 29,506    | 29,506    | 29,506    | 29,506    | 29,506    | 29,506    | 29,506    |
| NAPERVILLE              | 13,045,138   | 20.3841%                                    | 1,456,464  | 121,372   | 121,372   | 121,372   | 121,372   | 121,372   | 121,372   | 121,372   | 121,372   | 121,372   | 121,372   | 121,372   | 121,372   |
| OAK BROOK               | 2,921,206  | 4.5646%                                     | 326,148  | 27,179    | 27,179    | 27,179    | 27,179    | 27,179    | 27,179    | 27,179    | 27,179    | 27,179    | 27,179    | 27,179    | 27,179    |
| ROSELLE                 | 1,573,974  | 2.4595%                                     | 175,728  | 14,644    | 14,644    | 14,644    | 14,644    | 14,644    | 14,644    | 14,644    | 14,644    | 14,644    | 14,644    | 14,644    | 14,644    |
| VILLA PARK              | 1,447,803  | 2.2623%                                     | 161,640  | 13,470    | 13,470    | 13,470    | 13,470    | 13,470    | 13,470    | 13,470    | 13,470    | 13,470    | 13,470    | 13,470    | 13,470    |
| WESTMONT                | 1,966,761  | 3.0732%                                     | 219,588  | 18,299    | 18,299    | 18,299    | 18,299    | 18,299    | 18,299    | 18,299    | 18,299    | 18,299    | 18,299    | 18,299    | 18,299    |
| WHEATON                 | 4,063,974  | 6.3503%                                     | 453,732  | 37,811    | 37,811    | 37,811    | 37,811    | 37,811    | 37,811    | 37,811    | 37,811    | 37,811    | 37,811    | 37,811    | 37,811    |
| WILLOWBROOK             | 848,121  | 1.3253%                                     | 94,692   | 7,891     | 7,891     | 7,891     | 7,891     | 7,891     | 7,891     | 7,891     | 7,891     | 7,891     | 7,891     | 7,891     | 7,891     |
| WOOD DALE               | 1,144,325  | 1.7831%                                     | 127,764  | 10,647    | 10,647    | 10,647    | 10,647    | 10,647    | 10,647    | 10,647    | 10,647    | 10,647    | 10,647    | 10,647    | 10,647    |
| WOODRIDGE               | 2,421,682  | 3.7841%                                     | 270,372  | 22,531    | 22,531    | 22,531    | 22,531    | 22,531    | 22,531    | 22,531    | 22,531    | 22,531    | 22,531    | 22,531    | 22,531    |
| WINFIELD                | 685,328  | 1.0709%                                     | 76,512   | 6,376     | 6,376     | 6,376     | 6,376     | 6,376     | 6,376     | 6,376     | 6,376     | 6,376     | 6,376     | 6,376     | 6,376     |
| OAK BROOK TERRACE       | 104,393  | 0.1631%                                     | 11,652   | 971       | 971       | 971       | 971       | 971       | 971       | 971       | 971       | 971       | 971       | 971       | 971       |
| IAWC-ARROWHEAD          | 127,854  | 0.1998%                                     | 14,280   | 1,190     | 1,190     | 1,190     | 1,190     | 1,190     | 1,190     | 1,190     | 1,190     | 1,190     | 1,190     | 1,190     | 1,190     |
| IAWC-VALLEY VIEW        | 505,071  | 0.7892%                                     | 56,388   | 4,699     | 4,699     | 4,699     | 4,699     | 4,699     | 4,699     | 4,699     | 4,699     | 4,699     | 4,699     | 4,699     | 4,699     |
| IAWC-COUNTRY CLUB       | 72,481   | 0.1133%                                     | 8,088  | 674       | 674       | 674       | 674       | 674       | 674       | 674       | 674       | 674       | 674       | 674       | 674       |
| IAWC-LMBRD HGHTS        | 47,757   | 0.0746%                                     | 5,328  | 444       | 444       | 444       | 444       | 444       | 444       | 444       | 444       | 444       | 444       | 444       | 444       |
| IAWC-DP/LISLE           | 355,156  | 0.5550%                                     | 39,648   | 3,304     | 3,304     | 3,304     | 3,304     | 3,304     | 3,304     | 3,304     | 3,304     | 3,304     | 3,304     | 3,304     | 3,304     |
| ARGONNE NATIONAL LAB    | 372,576  | 0.5822%                                     | 41,592   | 3,466     | 3,466     | 3,466     | 3,466     | 3,466     | 3,466     | 3,466     | 3,466     | 3,466     | 3,466     | 3,466     | 3,466     |
| IAWC-LIBERTY RIDGE WEST | 221,032  | 0.3454%                                     | 24,672   | 2,056     | 2,056     | 2,056     | 2,056     | 2,056     | 2,056     | 2,056     | 2,056     | 2,056     | 2,056     | 2,056     | 2,056     |
| IAWC-LIBERTY RIDGE EAST | 24,016   | 0.0375%                                     | 2,676  | 223       | 223       | 223       | 223       | 223       | 223       | 223       | 223       | 223       | 223       | 223       | 223       |
| ROUNDING                | 0  | 0.0000%                                     | 30   | 3         | 3         | 3         | 3         | 3         | 3         | 3         | 2         | 2         | 2         | 2         | 2         |
| ALL CUSTOMERS TOTAL (1) | 63,996,744   | 100.0000%                                   | \$7,145,094  | \$595,425 | \$595,425 | \$595,425 | \$595,425 | \$595,425 | \$595,425 | \$595,424 | \$595,424 | \$595,424 | \$595,424 | \$595,424 | \$595,424 |

(1) - CUSTOMER LESS THAN TWO FULL CALENDAR YEARS - USE ALLOCATION

|  | FY 2006-07 | FY 2005-06 |
|--|------------|------------|
| ESTIMATED O & M RATE                         | \$1.24     | \$1.23     |
| ESTIMATED FIXED COST CHARGE PER 1000 GALLONS | 0.21       | 0.22       |
| ESTIMATED TOTAL RATE                         | \$1.45     | \$1.45     |

**SALARIES AND WAGES.** Commission employee wages are established and evaluated according to competitive rates paid by the Commission's customers and general labor market considerations. Increases are awarded to employees on the basis of merit. Normal plant operation staff scheduling accounts for most of the overtime costs. Total budgeted positions are 34. Reclassification of personnel from Operations to Administration caused the respective decrease and increase.

**FRINGE BENEFITS.** The Commission participates in the Illinois Municipal Retirement Fund and its contribution rate for 2006 is 12.23%. The Commission unfunded pension liability at the end of 2004 was \$1.6 million which will be paid in the fiscal year 2006-07. The Commission is subject to the 1.45% Medicare tax and the 6.2% Social Security tax.

Group health and life insurance benefits are provided for all full time employees. The budget is based on actual rates for January 1, 2006, with a 2% increase for the last four months of the budget year.

**PROFESSIONAL DEVELOPMENT.** Travel, training and development are budgeted for courses and seminars related to the Commission's computer system, as well as the overall operations of the Commission's facilities. Tuition reimbursement for employees is also budgeted in this line item. Reclassification of travel and conferences caused the respective increases and decreases.

**OTHER PERSONNEL COSTS.** These expenses are for employee recruitment and annual physical examinations required for normal operating procedures and confined space entry.



DUPAGE WATER COMMISSION  
TENTATIVE DRAFT MANAGEMENT BUDGET  
MAY 1, 2006 TO APRIL 30, 2007

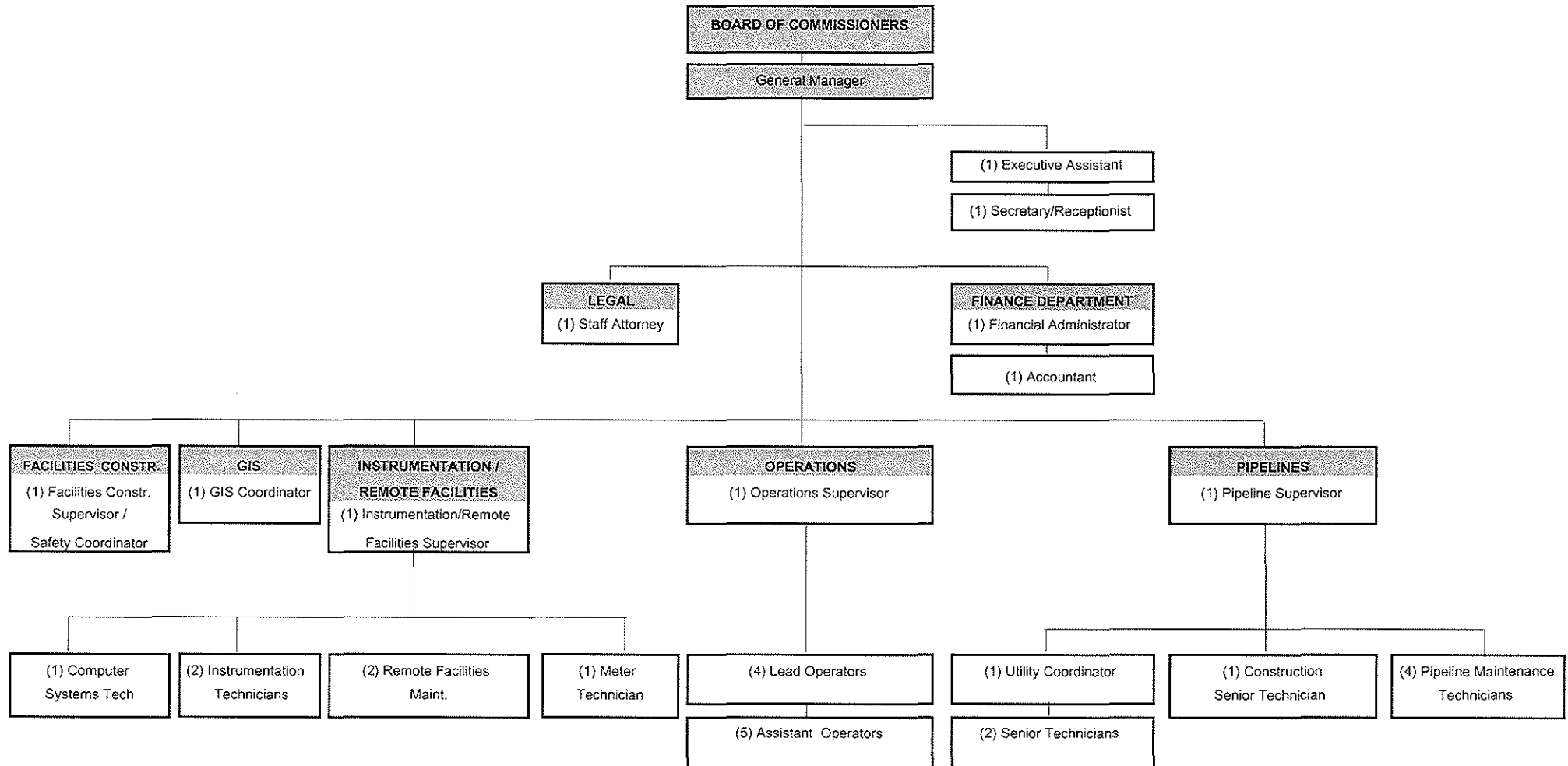
## EXHIBIT 1

|                         |    |      |   | TOTAL | WATER FUND | WATER FUND | WATER FUND | % CHANGE        |
|-------------------------|----|------|---|-------|------------|------------|------------|-----------------|
|                         |    |      |   | FROM  | FY 05-06   | FY 05-06   | FY 06-07   | FY 06-07 BUDGET |
| ACCT #                  |    |      |   |       | PROJECTED  | BUDGET     | BUDGET     | VS              |
| ACCOUNT TITLE           |    |      |   |       |            |            |            | FY 05-06 BUDGET |
| 01                      | 60 | 6000 | OPERATING EXPENSES                        |       |            |            |            |                 |
| 01                      | 60 | 6100 | PERSONAL SERVICES                         |       |            |            |            |                 |
| 01                      | 60 | 6110 | SALARIES & WAGES                          |       |            |            |            |                 |
| 01                      | 60 | 6111 | ADMINISTRATIVE-REGULAR                    |       | 629,856    | 710,039    | 1,102,402  | 55.3%           |
| 01                      | 60 | 6112 | OPERATIONS-REGULAR                        |       | 1,356,549  | 1,418,273  | 1,197,390  | -15.6%          |
| 01                      | 60 | 6113 | SUMMER INTERNS (PREVIOUSLY IN 01-60-6111) |       |            |            | 20,000     | 0.0%            |
| 01                      | 60 | 6116 | ADMINISTRATIVE - OVERTIME                 |       | 2,184      | 7,100      | 6,884      | -3.0%           |
| 01                      | 60 | 6117 | OPERATIONS - OVERTIME                     |       | 151,392    | 184,375    | 191,750    | 4.0%            |
| 01                      | 60 | 6120 | FRINGE BENEFITS                           |       |            |            |            |                 |
| 01                      | 60 | 6121 | PENSION                                   |       | 343,106    | 318,664    | 1,879,300  | 489.7%          |
| 01                      | 60 | 6122 | MEDICAL/LIFE BENEFITS                     |       | 385,097    | 431,235    | 400,542    | -7.1%           |
| 01                      | 60 | 6123 | FEDERAL PAYROLL TAXES                     |       | 140,721    | 177,464    | 183,700    | 3.5%            |
| 01                      | 60 | 6128 | STATE UNEMPLOYMENT TAXES                  |       | 1,034      | 4,284      | 4,410      | 2.9%            |
| 01                      | 60 | 6130 | PROFESSIONAL DEVELOPMENT                  |       |            |            |            |                 |
| 01                      | 60 | 6131 | TRAVEL                                    |       | 6,967      | 17,225     | 7,900      | -54.1%          |
| 01                      | 60 | 6132 | TRAINING                                  |       | 25,229     | 29,900     | 41,000     | 37.1%           |
| 01                      | 60 | 6133 | PROFESSIONAL DEVELOPMENT                  |       | 7,415      | 56,650     | 54,200     | -4.3%           |
| 01                      | 60 | 6190 | OTHER PERSONNEL COSTS                     |       |            |            |            |                 |
| 01                      | 60 | 6191 | OTHER PERSONNEL COSTS                     |       | 38,291     | 29,600     | 35,900     | 21.3%           |
| TOTAL PERSONAL SERVICES |    |      |   |       | 3,087,841  | 3,384,809  | 5,125,378  | 51.4%           |

**PERSONNEL TABLE.** The personal service budget is based on the personnel structure in the table below. The total requested personnel under this budget remains at 34.

**DUPAGE WATER COMMISSION  
ORGANIZATIONAL CHART  
FISCAL YEAR 2006-2007**

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**ENGINEERING SERVICES.** General engineering services as required.

**FINANCIAL SERVICES.** Trust services and bank charges are for revenue and general obligation bonds, as well as investment safekeeping services. The amount budgeted for other financial services include the revenue bond arbitrage rebate annual calculation and local investment program bank review.

**LEGAL SERVICES.** The budget for general counsel provides for the legal services of a corporate counsel. Bond counsel will be utilized for tax abatement, arbitrage and miscellaneous bond issues. Special counsel will provide legal services for non-routine matters such as the utility relocation (\$40,000). The other legal service line item provides for defense cost should the Commission become involved in unanticipated litigation.

**AUDIT SERVICES.** The audit service budget is for the annual audit for fiscal year ending April 30, 2006. A 10% increase was budgeted because the Illinois Auditor General will be going out to bid for the audit.

**CONSULTING SERVICES.** Major consulting costs in fiscal year 2006-07 include Geographical Information System (G.I.S.) conversion and application services (\$90,000), electrical market consultant (\$15,000), development of O&M manuals (\$25,000) and insurance consultant (\$6,000).

**CONTRACTUAL SERVICES.** Contractual services are for document scanning, UPS maintenance and temporary accounting services.

DuPAGE WATER COMMISSION  
TENTATIVE DRAFT MANAGEMENT BUDGET  
MAY 1, 2006 TO APRIL 30, 2007

## EXHIBIT 1

|                             |    |      |   | TOTAL         | WATER FUND | WATER FUND | WATER FUND | % CHANGE        |
|-----------------------------|----|------|---|---------------|------------|------------|------------|-----------------|
|                             |    |      |   | FROM          | FY 05-06   | FY 05-06   | FY 06-07   | FY 06-07 BUDGET |
| ACCT #                      |    |      |   | ACCOUNT TITLE | PROJECTED  | BUDGET     | BUDGET     | VS              |
|                             |    |      |   |               |            |            |            | FY 05-06 BUDGET |
| 01                          | 60 | 6200 | PROFESSIONAL SERVICES                                 |               |            |            |            |                 |
| 01                          | 60 | 6210 | ENGINEERING SERVICES (PREVIOUSLY IN 6389)             |               |            | 0          | 100,000    | 0.0%            |
| 01                          | 60 | 6230 | FINANCIAL SERVICES                                    |               |            |            |            |                 |
| 01                          | 60 | 6232 | GENERAL FINANCIAL CONSULTING (INCLUDED IN 01-60-6239) |               |            | 86,050     | 0          | -100.0%         |
| 01                          | 60 | 6233 | TRUST SERVICES BANK CHARGES                           |               | 27,526     | 37,125     | 37,125     | 0.0%            |
| 01                          | 60 | 6239 | GENERAL FINANCIAL CONSULTING (INCLUDES 01-60-6232)    |               | 7,900      | 1,750      | 2,200      | 25.7%           |
|                             |    |      |   |               |            |            |            |                 |
| 01                          | 60 | 6250 | LEGAL SERVICES  |               |            |            |            |                 |
| 01                          | 60 | 6251 | GENERAL COUNSEL                                       |               | 13,873     | 80,000     | 80,000     | 0.0%            |
| 01                          | 60 | 6252 | BOND COUNSEL  |               | 0          | 2,000      | 2,000      | 0.0%            |
| 01                          | 60 | 6253 | SPECIAL COUNSEL                                       |               | 0          | 80,000     | 60,000     | -25.0%          |
| 01                          | 60 | 6258 | LEGAL NOTICES   |               | 3,286      | 3,000      | 5,000      | 66.7%           |
| 01                          | 60 | 6259 | OTHER LEGAL SERVICES                                  |               | 0          | 25,000     | 25,000     | 0.0%            |
|                             |    |      |   |               |            |            |            |                 |
| 01                          | 60 | 6260 | AUDIT SERVICES (PREVIOUSLY 6310)                      |               | 54,620     | 0          | 59,798     | 0.0%            |
|                             |    |      |   |               |            |            |            |                 |
| 01                          | 60 | 6280 | CONSULTING SERVICES (PREVIOUSLY 6389)                 |               | 297,210    | 0          | 176,000    | 0.0%            |
|                             |    |      |   |               |            |            |            |                 |
| 01                          | 60 | 6290 | CONTRACTUAL SERVICES (PREVIOUSLY 6395 & 6399)         |               | 52,964     | 0          | 94,058     | 0.0%            |
|                             |    |      |   |               |            |            |            |                 |
| TOTAL PROFESSIONAL SERVICES |    |      |   |               | 457,379    | 314,925    | 641,181    | 103.6%          |

**AUDIT SERVICES.** Reclassified to other accounts.

**CONSULTING SERVICES.** Reclassified to other accounts.

**CONTRACTUAL SERVICES.** Reclassified to other accounts.

DUPAGE WATER COMMISSION  
TENTATIVE DRAFT MANAGEMENT BUDGET  
MAY 1, 2006 TO APRIL 30, 2007

## EXHIBIT 1

|        |   | TOTAL | WATER FUND            | WATER FUND         | WATER FUND         | % CHANGE                                 |
|--------|---|-------|-----------------------|--------------------|--------------------|--|
| ACCT # | ACCOUNT TITLE                                       | FROM  | FY 05-06<br>PROJECTED | FY 05-06<br>BUDGET | FY 06-07<br>BUDGET | FY 06-07 BUDGET<br>VS<br>FY 05-06 BUDGET |
| 6300   | PURCHASED SERVICES                                  |       |                       |                    |                    |  |
| 6310   | AUDIT SERVICES (INCLUDED IN 01-60-6260)             |       | 0                     | 54,362             | 0                  | -100.0%                                  |
|        | CONSULTING SERVICES                                 |       |                       |                    |                    |  |
| 6389   | OTHER CONSULTING SERVICES (INCLUDED IN 01-60-6280)  |       | 0                     | 416,000            | 0                  | -100.0%                                  |
| 6390   | CONTRACTUAL SERVICES                                |       |                       |                    |                    |  |
| 6391   | MATERIAL TESTING (INCLUDED IN 01-60-6631)           |       | 0                     | 50,000             | 0                  | -100.0%                                  |
| 6394   | PUBLIC INFORMATION (INCLUDED IN 01-60-6531)         |       | 0                     | 5,000              | 0                  | -100.0%                                  |
| 6395   | CONTRACT LABOR (INCLUDED IN 01-60-6290)             |       | 0                     | 5,000              | 0                  | -100.0%                                  |
| 6399   | OTHER CONTRACTUAL SERVICES (INCLUDED IN 01-60-6290) |       | 0                     | 69,850             | 0                  | -100.0%                                  |
|        |   |       |                       |                    | 0                  |  |
|        | TOTAL PURCHASED SERVICES                            |       | 0                     | 600,212            | 0                  | -100.0%                                  |

**CASUALTY INSURANCE.** This covers the Commission against operating liabilities. The budget is based on known costs of current policies for the first six months of the fiscal year. The budget for the second half of the fiscal year allows for a 15% adjustment based on general market conditions. Insurance policies were renewed through a competitive bidding process which resulted in savings (\$92,000).

**PROPERTY INSURANCE.** This covers the Commission against damage to its physical plant. The budget is based on known costs of current policies for the first six months of the fiscal year. The budget for the second half of the fiscal year allows for a 15% adjustment based on general market conditions. Reduced availability of this type of insurance has caused the Commission to significantly self-insure its underground facilities.

**OTHER COVERAGES.** The Commission carries deductibles on its property insurance policies. The deductible per above ground incident is \$25,000. Below ground facilities carry a \$1 million deductible per occurrence. Because it is impossible to know if an incident will occur and no known claims are currently outstanding, \$25,000 was budgeted for each type of incident.



DUPAGE WATER COMMISSION  
TENTATIVE DRAFT MANAGEMENT BUDGET  
MAY 1, 2006 TO APRIL 30, 2007

## EXHIBIT 1

|                 |    |      |                             | TOTAL | WATER FUND | WATER FUND | WATER FUND | % CHANGE        |
|-----------------|----|------|-----------------------------|-------|------------|------------|------------|-----------------|
|                 |    |      |                             | FROM  | FY 05-06   | FY 05-06   | FY 06-07   | FY 06-07 BUDGET |
| ACCT #          |    |      |                             |       | PROJECTED  | BUDGET     | BUDGET     | VS              |
| ACCOUNT TITLE   |    |      |                             |       |            |            |            | FY 05-06 BUDGET |
| 01              | 60 | 6400 | INSURANCE                   |       |            |            |            |                 |
| 01              | 60 | 6410 | CASUALTY INSURANCE          |       |            |            |            |                 |
| 01              | 60 | 6411 | GENERAL LIABILITY           |       | 133,630    | 167,849    | 101,640    | -39.4%          |
| 01              | 60 | 6412 | PUBLIC OFFICIAL'S LIABILITY |       | 92,979     | 84,000     | 85,300     | 1.5%            |
| 01              | 60 | 6413 | TEMPORARY BONDS             |       | 0          | 723        | 723        | 0.0%            |
| 01              | 60 | 6415 | WORKER'S COMPENSATION       |       | 91,113     | 84,044     | 93,555     | 11.3%           |
| 01              | 60 | 6416 | UMBRELLA COVERAGE           |       | 80,362     | 114,209    | 87,854     | -23.1%          |
| 01              | 60 | 6420 | PROPERTY INSURANCE          |       |            |            |            |                 |
| 01              | 60 | 6421 | PROPERTY                    |       | 331,187    | 470,672    | 445,412    | -5.4%           |
| 01              | 60 | 6490 | OTHER COVERAGE              |       |            |            |            |                 |
| 01              | 60 | 6491 | SELF INSURED CLAIMS         |       | 0          | 50,000     | 50,000     | 0.0%            |
| TOTAL INSURANCE |    |      |                             |       | 729,271    | 971,497    | 864,484    | -11.0%          |

**OCCUPANCY COSTS.** Amounts have been budgeted for natural gas service for the DuPage Pumping Station, as well as for communication systems. Increase is due to reclassification of all communication systems into this account. Major budget item is STARCOM 21 (\$85,000), which is the new Illinois State Police radio system that the Commission uses for two-way radio communication.

**ADMINISTRATION SUPPLIES.** General supplies include office and computer supplies. Books and publications include the purchase of standard construction books used in determining rates for labor and equipment in conjunction with the Commission's quick response repair contracts.

**PRINTING AND POSTAGE.** Printing costs are for blueline drawings used in construction in and around the Commission's pipeline. This item also includes the printing of letterhead and other business forms. Printing cost increased because of reclassification of the annual report to this account and the printing of the mapbooks of the Commission's system. Postage and delivery is for regular Commission mailings and delivery to various consultants working with the Commission.

**PROFESSIONAL DUES.** The most significant outlays for this line item are memberships in the Association of Metropolitan Water Agencies (\$6,883), Water ISAC (\$4,000) and American Water Works Association (\$8,000) and AWWA Research fund (\$2,000).

**OFFICE EQUIPMENT REPAIRS.** This item is for maintaining the Commission's copy and facsimile machines, the educational model and other office machines.

**REPAIRS & MAINT – BLDGS & GRN.** This item is for maintaining the Commission's building and grounds at the DuPage pumping station.

**COMPUTER SOFTWARE.** This item is for all the Commission's software purchases and upgrades.

**SOFTWARE MAINTENANCE.** This item is for the Commission's non-SCADA software maintenance agreements.

**OTHER ADMINISTRATIVE EXPENSES.** This item includes funds for various meetings and recognition expenses related to Commission business. Recently costs have increased due to criminal background checks performed on new employees and contractors having access to the DuPage Pump Station. Reclassification of Commissioners payment from consulting services.

DUPAGE WATER COMMISSION  
TENTATIVE DRAFT MANAGEMENT BUDGET  
MAY 1, 2006 TO APRIL 30, 2007

## EXHIBIT 1

|  |    |      |  | TOTAL         | WATER FUND | WATER FUND | WATER FUND | % CHANGE        |                              |
|--|----|------|--|---------------|------------|------------|------------|-----------------|------------------------------|
|  |    |      |  | FROM          | FY 05-06   | FY 05-06   | FY 06-07   | FY 06-07 BUDGET |                              |
| ACCT #                                   |    |      |  | ACCOUNT TITLE | PROJECTED  | BUDGET     | BUDGET     | VS              |                              |
|  |    |      |  |               |            |            |            | FY 05-06 BUDGET |                              |
| 01                                       | 60 | 6500 | ADMINISTRATIVE COSTS                               |               |            |            |            |                 |                              |
| 01                                       | 60 | 6510 | OCCUPANCY COSTS                                    |               |            |            |            |                 |                              |
| 01                                       | 60 | 6513 | NATURAL GAS  |               |            |            |            |                 | 31,911 35,750 40,200 12.4%   |
| 01                                       | 60 | 6514 | COMMUNICATION SYSTEMS                              |               |            |            |            |                 | 48,704 37,000 152,390 311.9% |
|  |    |      |  |               |            |            |            |                 |                              |
| 01                                       | 60 | 6520 | ADMINISTRATION SUPPLIES                            |               |            |            |            |                 |                              |
| 01                                       | 60 | 6521 | OFFICE SUPPLIES                                    |               |            |            |            |                 | 27,312 33,600 34,900 3.9%    |
| 01                                       | 60 | 6522 | BOOKS & PUBLICATIONS                               |               |            |            |            |                 | 4,422 11,320 12,675 12.0%    |
|  |    |      |  |               |            |            |            |                 |                              |
| 01                                       | 60 | 6530 | PRINTING & POSTAGE                                 |               |            |            |            |                 |                              |
| 01                                       | 60 | 6531 | PRINTING - GENERAL                                 |               |            |            |            |                 | 4,877 7,400 12,400 67.6%     |
| 01                                       | 60 | 6532 | POSTAGE & DELIVERY                                 |               |            |            |            |                 | 16,311 29,400 30,000 2.0%    |
|  |    |      |  |               |            |            |            |                 |                              |
| 01                                       | 60 | 6540 | PROFESSIONAL DUES                                  |               |            |            |            |                 | 22,250 20,378 23,163 13.7%   |
|  |    |      |  |               |            |            |            |                 |                              |
| 01                                       | 60 | 6550 | OFFICE EQUIPMENT REPAIRS                           |               |            |            |            |                 | 10,879 29,540 19,995 -32.3%  |
| 01                                       | 60 | 6560 | REPAIRS & MAINT - BLDGS &GRN (PREVIOUSLY 6622)     |               |            |            |            |                 | 238,861 0 359,520 0.0%       |
| 01                                       | 60 | 6580 | COMPUTER SOFTWARE (PREVIOUSLY INCLUDED IN 6951)    |               |            |            |            |                 | 37,000 0 72,500 0.0%         |
| 01                                       | 60 | 6590 | SOFTWARE MAINTENANCE (PREVIOUSLY INCLUDED IN 6951) |               |            |            |            |                 | 20,000 0 38,250 0.0%         |
|  |    |      |  |               |            |            |            |                 |                              |
| 01                                       | 60 | 6591 | OTHER ADMINISTRATIVE EXPENSE (PREVIOUSLY 6590)     |               |            |            |            |                 | 5,139 7,500 19,200 156.0%    |
|  |    |      |  |               |            |            |            |                 |                              |
| TOTAL ADMINISTRATIVE & MAINTENANCE COSTS |    |      |  |               | 467,666    | 211,888    | 815,193    | 284.7%          |                              |

**WATER SUPPLY.** The fiscal year 2006-07 budget assumes a 0.1% increase in demand as projected in the IDNR allocations. Water costs from the City of Chicago are budgeted on the assumption that the Commission's customers will use 94.0% of the 35.632 billion gallons allocated for the fiscal year (33.494 billion gallons). At 97.1% accountability, this means the Commission will purchase 34.494 billion gallons of water at an average rate of \$1.310 per 1,000 gallons. The City of Chicago did not raise water rates on January 1, 2006. An additional 3% increase is expected for January 1, 2007. In addition, 80% of the electrical costs and 50% of the labor and repair costs for the Lexington Pump Station are included in the water purchases line item. The budget for this item includes the electrical costs of operating the DuPage Pump Station, the elevated tanks and the metering stations as well as water quality chemicals and testing. Electrical costs have been reduced by \$900,000 by receiving proposals from various electrical suppliers.

**PUMP STATION OPERATIONS.** This item includes the maintenance and repair of water pumps, reservoirs and the pump station building and purchase of spare parts. Costs of meter testing and instrumentation maintenance are included here. Major cost elements for fiscal year 2006-07 are repairs on the highlift pumps (\$40,000) and upgrade and maintenance of the Supervisory Control and Data Acquisition (SCADA) system (\$96,400).

**PIPELINE MAINTENANCE.** Repairs to the Commission's pipeline include work done under both the Quick Response contract by the Commission staff. Major expenses in this category include the blow-off valve rehabilitation project BOV-2 (\$3 million) valve stem replacement project (\$410,000) and the 90" Transmission Main corrosion improvement project (\$100,000). Maintenance of remote Commission facilities (standpipes, meter stations and remotely operated valves) is budgeted in this category (\$270,000).

**VEHICLES.** Equipment repairs and maintenance includes the cost of gasoline, oil and repairs to the Commission's vehicles.

DuPAGE WATER COMMISSION  
TENTATIVE DRAFT MANAGEMENT BUDGET  
MAY 1, 2006 TO APRIL 30, 2007

## EXHIBIT 1

|                                       |    |      |  | TOTAL         | WATER FUND | WATER FUND | WATER FUND | % CHANGE        |         |
|---------------------------------------|----|------|--|---------------|------------|------------|------------|-----------------|---------|
|                                       |    |      |  | FROM          | FY 05-06   | FY 05-06   | FY 06-07   | FY 06-07 BUDGET |         |
| ACCT #                                |    |      |  | ACCOUNT TITLE | PROJECTED  | BUDGET     | BUDGET     | VS              |         |
|                                       |    |      |  |               |            |            |            | FY 05-06 BUDGET |         |
| 01                                    | 60 | 6600 | DIRECT WATER DISTRIBUTION COSTS                            |               |            |            |            |                 |         |
| 01                                    | 60 | 6610 | WATER SUPPLY   |               |            |            |            |                 |         |
| 01                                    | 60 | 6611 | WATER PURCHASES - CHICAGO                                  |               |            |            |            |                 | 2.9%    |
| 01                                    | 60 | 6612 | ELECTRIC - DuPAGE  |               |            |            |            |                 | -11.2%  |
| 01                                    | 60 | 6613 | WATER CHEMICALS  |               |            |            |            |                 | -50.0%  |
| 01                                    | 60 | 6614 | WATER TESTING  |               |            |            |            |                 | 59.4%   |
| 01                                    | 60 | 6620 | PUMP STATION OPERATIONS                                    |               |            |            |            |                 |         |
| 01                                    | 60 | 6621 | PUMPING SERVICES   |               |            |            |            |                 | -56.3%  |
|                                       |    | 6622 | BUILDING MAINTENANCE & REPAIR (CHANGED TO 01-60-6560)      |               |            |            |            |                 | -100.0% |
| 01                                    | 60 | 6623 | METER TESTING & REPAIR                                     |               |            |            |            |                 | -12.6%  |
| 01                                    | 60 | 6624 | SCADA/INSTRUMENTATION                                      |               |            |            |            |                 | -34.3%  |
| 01                                    | 60 | 6625 | EQUIPMENT RENTAL (INCLUDES 01-60-6635)                     |               |            |            |            |                 | 257.1%  |
| 01                                    | 60 | 6626 | UNIFORMS (INCLUDES 01-60-6636)                             |               |            |            |            |                 | 60.0%   |
| 01                                    | 60 | 6627 | SAFETY (NEW ACCOUNT)                                       |               |            |            |            |                 | 0.0%    |
| 01                                    | 60 | 6630 | PIPELINE MAINTENANCE                                       |               |            |            |            |                 |         |
| 01                                    | 60 | 6631 | PIPELINE REPAIRS (INCLUDES 6635)                           |               |            |            |            |                 | 14.2%   |
| 01                                    | 60 | 6632 | PIPELINE CORROSION MITIGATION (INCLUDES PARTS 6631 & 6635) |               |            |            |            |                 | 1490.0% |
| 01                                    | 60 | 6633 | METER STATIONS, ROVS, STANDPIPES                           |               |            |            |            |                 | -50.0%  |
| 01                                    | 60 | 6634 | PLAN REVIEW - PIPELINE CONFLICTS                           |               |            |            |            |                 | 1.3%    |
| 01                                    | 60 | 6635 | PIPELINE EQUIPMENT RENTAL (INCLUDED IN 01-60-6625)         |               |            |            |            |                 | -100.0% |
| 01                                    | 60 | 6636 | PIPELINE UNIFORMS (INCLUDED IN 01-60-6626)                 |               |            |            |            |                 | -100.0% |
| 01                                    | 60 | 6637 | PIPELINE SUPPLIES  |               |            |            |            |                 | -15.3%  |
| 01                                    | 60 | 6640 | VEHICLES   |               |            |            |            |                 |         |
| 01                                    | 60 | 6641 | REPAIRS & MAINT - VEHICLES                                 |               |            |            |            |                 | -55.6%  |
| 01                                    | 60 | 6642 | FUEL- VEHICLES   |               |            |            |            |                 | 0.0%    |
| 01                                    | 60 | 6643 | LICENSES - VEHICLES  |               |            |            |            |                 | 12.3%   |
| TOTAL DIRECT WATER DISTRIBUTION COSTS |    |      |  |               | 50,189,989 | 54,099,115 | 54,910,943 | 1.5%            |         |

**BOND INTEREST COSTS.** With the consolidation of the General Obligation Bond Debt Service Fund into the Water Fund, principal payments on these bonds are no longer a budgeted expense. Water revenue bond principal has never been a GAAP budgeted expense. Interest costs are the only budgeted expenses for both the Water Revenue Bonds and General Obligation Bonds. The budget for this line item has been reduced by \$0.5 million. Reductions in principal outstanding over the past fiscal year by regular maturities account for this decrease. Final maturity on the General Obligation Bonds is March 1, 2011. Final maturity on the Water Revenue Bonds was extended by two years in the refunding to May 1, 2016.

**LAND AND RIGHT-OF-WAY.** The amount budgeted for leases include Cook County and Illinois State Toll Highway Authority leases for pipeline crossings and the use of the Illinois Toll Highway Authority's antenna system for the Commission's SCADA radio system.

**EQUIPMENT PURCHASES.** The purpose of budgeting in this manner is to allow control over the purchase of equipment, as well as to plan for depreciation to conform to accounting principles in the annual audit report. The major outlays for fiscal year 2006-07 include, acquiring GIS hardware, software and training (\$38,000) and a trailer mounted vacuum (\$57,000) for cleaning the valve vaults and remotely operated valves. The capitalized equipment budget item is for year-end audit compliance.

**VEHICLE PURCHASES.** . The replacement of the Commission's Mack dump truck for a smaller truck is budgeted for in fiscal year 2006-07. The capitalized equipment budget item is for year-end audit compliance.

DUPAGE WATER COMMISSION  
TENTATIVE DRAFT MANAGEMENT BUDGET  
MAY 1, 2006 TO APRIL 30, 2007

## EXHIBIT 1

|                            |    |      |  | TOTAL | WATER FUND | WATER FUND | WATER FUND | % CHANGE        |
|----------------------------|----|------|--|-------|------------|------------|------------|-----------------|
|                            |    |      |  | FROM  | FY 05-06   | FY 05-06   | FY 06-07   | FY 06-07 BUDGET |
| ACCT #                     |    |      |  |       | PROJECTED  | BUDGET     | BUDGET     | VS              |
| ACCOUNT TITLE              |    |      |  |       |            |            |            | FY 05-06 BUDGET |
| 01                         | 60 | 6720 | BOND INTEREST                                      |       |            |            |            |                 |
| 01                         | 60 | 6721 | BOND INTEREST - GO BONDS                           |       | 2,944,092  | 2,944,092  | 2,388,747  | -18.9%          |
| 01                         | 60 | 6722 | BOND INTEREST - REV BONDS                          |       | 5,823,820  | 5,816,297  | 5,819,903  | 0.1%            |
| TOTAL INTEREST EXPENSES    |    |      |  |       | 8,767,912  | 8,760,389  | 8,208,650  | -6.3%           |
| 01                         | 60 | 6800 | CAPITAL EXPENDITURES                               |       |            |            |            |                 |
| 01                         | 60 | 6810 | LEASES   |       | 0          | 1,000      | 1,000      | 0.0%            |
| 01                         | 60 | 6820 | PERMITS & FEES                                     |       | 0          | 1,000      | 5,000      | 400.0%          |
|                            |    | 6830 | EASEMENTS (INCLUDED IN 01-60-6820)                 |       | 0          | 2,995      | 0          | -100.0%         |
| EQUIPMENT PURCHASES        |    |      |  |       |            |            |            |                 |
| 01                         | 60 | 6851 | COMPUTER (PREVIOUSLY 6951)                         |       | 46,981     | 0          | 38,900     | 0.0%            |
| 01                         | 60 | 6852 | OFFICE FURNITURE & EQUIPMENT (PREVIOUSLY 6952)     |       | 40,816     | 0          | 5,000      | 0.0%            |
| 01                         | 60 | 6856 | MACHINERY & EQUIPMENT (PREVIOUSLY 6952)            |       | 0          | 0          | 57,000     | 0.0%            |
| 01                         | 60 | 6858 | CAPITALIZED EQUIPMENT PURCHASES (PREVIOUSLY 6958)  |       | (87,797)   | 0          | (100,900)  | 0.0%            |
| VEHICLE PURCHASES          |    |      |  |       |            |            |            |                 |
| 01                         | 60 | 6860 | VEHICLES (PREVIOUSLY 6961)                         |       | 64,256     | 0          | 65,000     | 0.0%            |
| 01                         | 60 | 6868 | CAPITALIZED VEHICLES PURCHASES (PREVIOUSLY 6968)   |       | 64,256     | 0          | (65,000)   | 0.0%            |
| 01                         | 60 | 6890 | PROPERTY RELATED SERVICES (INCLUDED IN 01-60-6251) |       | 0          | 5,000      | 0          | 100.0%          |
| TOTAL CAPITAL EXPENDITURES |    |      |  |       | 128,512    | 9,995      | 6,000      | -40.0%          |

**WATER MAIN, BUILDING AND PUMPING EQUIPMENT DEPRECIATION.** The Commission recognizes depreciation on its water mains, buildings and pumping equipment. Buildings are being depreciated over a 40-year period. Pipelines are estimated to last 80 years. Pumping equipment has a 30-year life.

**EQUIPMENT DEPRECIATION.** Equipment is being depreciated over 3 – 10 years.

**VEHICLE DEPRECIATION.** Vehicles are being depreciated 5 years.



DUPAGE WATER COMMISSION  
TENTATIVE DRAFT MANAGEMENT BUDGET  
MAY 1, 2006 TO APRIL 30, 2007

## EXHIBIT 1

|                          |    |      |  | TOTAL | WATER FUND | WATER FUND | WATER FUND | % CHANGE        |
|--------------------------|----|------|--|-------|------------|------------|------------|-----------------|
| ACCT #                   |    |      |  | FROM  | FY 05-06   | FY 05-06   | FY 06-07   | FY 06-07 BUDGET |
| ACCOUNT TITLE            |    |      |  |       | PROJECTED  | BUDGET     | BUDGET     | VS              |
|                          |    |      |  |       |            |            |            | FY 05-06 BUDGET |
| 01                       | 60 | 6900 | CAPITAL DEPRECIATION                                     |       |            |            |            |                 |
| 01                       | 60 | 6920 | WATER MAINS  |       | 4,297,389  | 4,511,334  | 4,404,829  | -2.4%           |
| 01                       | 60 | 6930 | BUILDINGS  |       | 2,041,745  | 2,336,745  | 2,041,745  | -12.6%          |
|                          |    | 6940 | PUMPING EQUIPMENT (CHANGED TO 01-60-6956)                |       |            | 177,871    | 0          | -100.0%         |
| 01                       | 60 | 6951 | DATA PROCESSING PURCHASES (CHANGED TO 01-60-6851)        |       |            | 251,800    |            | -100.0%         |
| 01                       | 60 | 6952 | EQUIPMENT (PREVIOUSLY 6959)                              |       | 79,998     | 0          | 123,904    | 0.0%            |
|                          |    | 6952 | OTHER EQUIPMENT PURCHASED (CHANGED TO 01-60-6852 & 6856) |       |            | 81,000     |            | -100.0%         |
| 01                       | 60 | 6956 | PUMPING EQUIPMENT (PREVIOUSLY 6940)                      |       | 178,912    | 0          | 177,871    | 0.0%            |
|                          |    | 6958 | CAPITALIZED EQUIPMENT PURCHASES (CHANGED TO 01-60-6858)  |       |            | (332,800)  |            | -100.0%         |
|                          |    | 6959 | EQUIPMENT DEPRECIATION (CHANGED TO 01-60-6952)           |       |            | 123,904    |            | -100.0%         |
| 01                       | 60 | 6960 | VEHICLE (PREVIOUSLY 6969)                                |       | 58,784     |            | 85,376     | 0.0%            |
|                          |    | 6961 | MOTOR VEHICLE PURCHASED (CHANGED TO 01-60-6860)          |       |            | 127,000    |            | -100.0%         |
|                          |    | 6968 | CAPITALIZED MOTOR VEHICLE (CHANGED TO 01-60-6868)        |       |            | (127,000)  |            | -100.0%         |
|                          |    | 6969 | VEHICLE DEPRECIATION (CHANGED TO 01-60-6960)             |       |            | 85,376     |            | -100.0%         |
| TOTAL DEPRECIATION       |    |      |  |       | 6,656,828  | 7,235,230  | 6,833,725  | -5.5%           |
| TOTAL OPERATING EXPENSES |    |      |  |       | 70,485,398 | 75,588,060 | 77,405,554 | 2.4%            |

February 2, 2006

**METERING STATIONS.** All metering station projects are complete. No new customer connections are expected for fiscal year 2006-07.

**DUPAGE PUMPING STATION.** The capital improvements at the DuPage Pump Station that are expected to be completed in fiscal year 2006-07 include realignment of Cadwell Avenue (\$176,000). Engineering of a generation facility at the DuPage Pumping Station and Lexington Pump Station is expected to begin in fiscal year 2006-07.

**STANDPIPE MODIFICATION.** A modification to Standpipe #4 east riser pipe is proposed for fiscal year 2006-07 (\$98,000).

**TRANSMISSION MAINS.** No new transmission mains are planned for fiscal year 2006-07.

**FEEDER MAINS.** No new feeder mains are planned for fiscal year 2006-07.

**ENGINEERING, LEGAL, LAND, CONTINGENCY.** The expenditures for engineering, legal, material testing, land and right-of-way and miscellaneous items are all to support the construction of projects listed above. The capitalized fixed asset budget item is for year-end audit compliance.

DUPAGE WATER COMMISSION  
TENTATIVE DRAFT MANAGEMENT BUDGET  
MAY 1, 2006 TO APRIL 30, 2007

## EXHIBIT 1

|                                 |    |      |   | TOTAL | WATER FUND  | WATER FUND   | WATER FUND  | % CHANGE        |
|---------------------------------|----|------|---|-------|-------------|--------------|-------------|-----------------|
|                                 |    |      |   | FROM  | FY 05-06    | FY 05-06     | FY 06-07    | FY 06-07 BUDGET |
| ACCT #                          |    |      |   |       | PROJECTED   | BUDGET       | BUDGET      | VS              |
| ACCOUNT TITLE                   |    |      |   |       |             |              |             | FY 05-06 BUDGET |
| 01                              | 60 | 7000 | CONSTRUCTION EXPENDITURES                   |       |             |              |             |                 |
| 01                              | 60 | 7110 | METERING STATIONS (PREVIOUSLY 7100)         |       | 0           | 0            | 0           | 0.0%            |
| 01                              | 60 | 7210 | DU PAGE PUMPING STATION (PREVIOUSLY 7300)   |       | 0           | 10,300,000   | 150,000     | -98.5%          |
| 01                              | 60 | 7410 | SYSTEM STORAGE (PREVIOUSLY 7400)            |       | 0           | 1,500,000    | 0           | -100.0%         |
| 01                              | 60 | 7510 | TRANSMISSION MAINS (PREVIOUSLY 7500)        |       | 5,356,901   | 6,000,000    | 0           | -100.0%         |
| 01                              | 60 | 7610 | STANDPIPE MODIFICATIONS (NEW ACCOUNT)       |       | 0           | 0            | 98,000      | 100.0%          |
|                                 |    |      |   |       |             |              |             |                 |
| 01                              | 60 | 7915 | CONSTRUCTION ENGINEERING (PREVIOUSLY 7910)  |       |             |              |             |                 |
| 01                              | 60 | 7915 | FACILITIES IMPROVEMENTS (PREVIOUSLY 7912)   |       | 0           | 808,500      | 769,500     | -4.8%           |
| 01                              | 60 | 7915 | PIPELINE IMPROVEMENTS PREVIOUSLY 7913)      |       | 0           | 900,000      | 0           | -100.0%         |
| 01                              | 60 | 7915 | CUSTOMER ADDITIONS (PREVIOUSLY 7914)        |       | 0           | 15,000       | 0           | -100.0%         |
| 01                              | 60 | 7915 | STANDPIPE MODIFICATIONS                     |       | 0           | 0            | 0           | 0.0%            |
|                                 |    |      |   |       |             |              |             |                 |
| 01                              | 60 | 7919 | MISCELLANEOUS CONSTRUCTION                  |       | 0           | 120,000      | 120,000     | 0.0%            |
|                                 |    |      |   |       |             |              |             |                 |
| 01                              | 60 | 7920 | PROFESSIONAL SERVICES (PREVIOUSLY 7960)     |       |             |              |             |                 |
| 01                              | 60 | 7920 | APPRAISAL SERVICES (PREVIOUSLY 7961)        |       | 0           | 500          | 0           | -100.0%         |
| 01                              | 60 | 7920 | MATERIAL TESTING SERVICES (PREVIOUSLY 7962) |       | 0           | 160,000      | 51,000      | -68.1%          |
| 01                              | 60 | 7920 | VIDEO TAPING (PREVIOUSLY 7963)              |       | 0           | 2,500        | 0           | -100.0%         |
|                                 |    |      |   |       |             |              |             |                 |
| 01                              | 60 | 7940 | PROFESSIONAL SERVICES - LPS (NEW ACCOUNT)   |       | 0           | 0            | 200,000     | 0.0%            |
|                                 |    |      |   |       |             |              |             |                 |
| 01                              | 60 | 7950 | LEGAL                                       |       |             |              |             |                 |
| 01                              | 60 | 7950 | GENERAL COUNSEL (PREVIOUSLY 7951)           |       | 0           | 10,000       | 30,000      | 200.0%          |
| 01                              | 60 | 7950 | LEGAL NOTICES (PREVIOUSLY 7958)             |       | 0           | 4,000        | 0           | -100.0%         |
|                                 |    |      |   |       |             |              |             |                 |
| 01                              | 60 | 7970 | LAND AND RIGHT-OF-WAY                       |       |             |              |             |                 |
| 01                              | 60 | 7970 | PERMITS & FEES (PREVIOUSLY 7972)            |       | 23,797      | 22,000       | 0           | -100.0%         |
| 01                              | 60 | 7970 | EASEMENTS (PREVIOUSLY 7973)                 |       | 0           | 30,000       | 0           | -100.0%         |
| 01                              | 60 | 7970 | REAL PROPERTY (PREVIOUSLY 7974)             |       | 0           | 0            | 0           | 0.0%            |
| 01                              | 60 | 7970 | RELATED SERVICES (PREVIOUSLY 7979)          |       | 0           | 500          | 500         | 0.0%            |
|                                 |    |      |   |       |             |              |             |                 |
| 01                              | 60 | 7980 | CAPITALIZED FIXED ASSETS                    |       | (5,380,698) | (19,873,000) | (1,419,000) | -92.9%          |
|                                 |    |      |   |       |             |              |             |                 |
| TOTAL CONSTRUCTION EXPENDITURES |    |      |   |       | 0           | 0            | 0           | 0.0%            |

February 2, 2006

**GRANTS.** Public Act 93-0226 of the Illinois State Legislature required a \$75 million grant to DuPage County. The full amount was recognized as a liability on July 22, 2003.

DuPAGE WATER COMMISSION  
TENTATIVE DRAFT MANAGEMENT BUDGET  
MAY 1, 2006 TO APRIL 30, 2007

## EXHIBIT 1

| ACCT #     | ACCOUNT TITLE                             | TOTAL<br>FROM | WATER FUND<br>FY 05-06<br>PROJECTED | WATER FUND<br>FY 05-06<br>BUDGET | WATER FUND<br>FY 06-07<br>BUDGET | % CHANGE<br>FY 06-07 BUDGET<br>VS<br>FY 05-06 BUDGET |
|------------|---|---------------|-------------------------------------|----------------------------------|----------------------------------|--|
| 01 60 8001 | GRANT TO DU PAGE COUNTY (PREVIOUSLY 8000) |               | 0                                   | 0                                | 0                                | 0.0%   |


**DUPAGE WATER COMMISSION  
2006 - 2007  
FIVE YEAR CAPITAL IMPROVEMENT  
PLAN  
JANUARY 12, 2006**



# DuPage Water Commission

## MEMORANDUM

TO: Chairman Vondra and Commissioners

FROM: Robert L. Martin, P.E.  
General Manager 

DATE: January 12, 2006

SUBJECT: Capital Improvement Plan

In accordance with Commission policy, the Capital Improvement Plan is reviewed and evaluated by staff in connection with each new budget cycle. A draft of the updated plan is then submitted to the Commission for its consideration. This annual document is based on the Commission's anticipated needs for normal operations, emergency operations and improvements to the system. While the main focus is the next five fiscal years, included in the plan are additional nine year projections of revenues, expenditures and fund balances. The proposed capital plan is included in the projection summary.

The plan is divided into several sections – Distribution System Improvements, DuPage Pump Station Improvements, Lexington Pump Station Improvements, and Standpipe Improvements. A summary shows the capital outlay (funded by sales tax revenues) and major non-recurring maintenance (funded by water rates) on a fiscal year basis. Each fiscal year's programmed expenditures are included in the financial projection of Commission revenues and expenditures through fiscal year 2019-20.

The status of the Capital Improvement Plan projects is as follows:

Contract TIB-1: Construction complete

30 Million Gallon Reservoir: Design 90% complete

DuPage Electrical Generation Facility: Design 30% complete and on hold

Cadwell Avenue Realignment: Design 80% complete

The draft fiscal 2006-07 planning document represents the eleventh consecutive year in which the Commission has evaluated a Capital Improvement Plan. Utilizing this process over the years has allowed the Commission to have a much

better understanding of its long-term capital and operating needs and the level of funding required from various sources.

Current Commission policy reflected in this plan uses sales tax to pay 50% of the Water Revenue Bonds. Public Act 93-0226, which was enacted on July 22, 2003, requires the Commission to maintain a customer rate of not more than \$1.65 per 1,000 gallons for a period of five years. This plan, though, maintains the current water rate of \$1.45 per 1,000 gallons through fiscal year 2009-10. A customer rate of \$1.55 per 1,000 gallons is maintained thereafter. To accomplish this, it is necessary to use sales tax beginning in fiscal year 2008-09 to supplement operation and maintenance costs.

Planned improvements accepted by the Board will be included in the 2006-07 budget document. The budget will be sent to the Board for its review in February and released, in tentative draft form, to the Charter Customers prior to March 1, 2006.



**DUPAGE WATER COMMISSION**  
**2006 – 2007**  
**FIVE YEAR CAPITAL IMPROVEMENT PLAN**

|  |           |
|--|-----------|
| <b>SUMMARY.....</b>                                      | <b>1</b>  |
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| Summary of Revenues, Expenditures and Fund Balances..... | 3         |
| Summary of Estimated New Construction Costs.....         | 5         |
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| Valve Stem Replacement.....                              | 9         |
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| 8 MW Electrical Generation Facility.....                 | 12        |
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| Material and Equipment Storage Facilities.....           | 20        |
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**DUPAGE WATER COMMISSION  
2006 – 2007  
FIVE YEAR CAPITAL IMPROVEMENT PLAN**

**SUMMARY**

**DUPAGE WATER COMMISSION**  
**2006 – 2007**  
**FIVE YEAR CAPITAL IMPROVEMENT PLAN**

- Operation and maintenance revenues are based on 94.0% of the IDNR allocation for each fiscal year.
- Fixed cost revenue requirements are 50% of the yearly debt service scheduled for the Commission's outstanding revenue bonds. Sales taxes are used to pay the remaining 50%.
- The average water rate was maintained at \$1.45 per thousand gallons through fiscal year 2009-10 and \$1.55 per thousand gallons thereafter.
- Sales tax receipts will be used beginning May 1, 2008 to hold the water rate at those respective levels.
- Sales tax receipts pay for general obligation bond debt service requirements allowing the abatement of \$13.1 million of property tax annually.
- The 15% subsequent customer capital risk factor has been permanently waived effective for service on or after July 22, 2003.
- Sales tax increases 2% annually.
- Interest income is based on prior year's earnings versus prior year's net revenues excluding interest earned applied to the same figure for each projected fiscal year.
- Water purchase expense is based on the Commission billing 97.1% of all water purchased from Chicago and 3% annual increases in the Chicago water rate beginning January 1, 2007.
- The 20% water purchase credit ended during fiscal year 2004-05. A small amount is still subject to audit and the final credit due should be realized in FY 2007-08.
- All other operating expenses not specifically mentioned above are anticipated to rise 5% per year.
- Principal and interest costs are the scheduled debt service payments for the Commission's 2003 revenue bonds and general obligation bonds of 2001.
- Construction and major capital repair costs are inflated 2% per year.
- The Commission set a \$25 million goal for an unrestricted fund balance.
- Sales tax proceeds not needed for immediate appropriation are reserved for construction. Water sales receipts not needed for immediate appropriation are reserved for rate stabilization. The water rate stabilization reserve will be exhausted in FY 2007-08 when sales taxes begin to support the established rates.

DUPAGE WATER COMMISSION - 14 YEAR PROJECTION  
SUMMARY OF REVENUES, EXPENDITURES AND FUND BALANCES  
MAY 1, 2006 TO APRIL 30, 2020  
50% REVENUE BOND SUBSIDY - \$1.45 RATE THRU FY09-10 - THEN \$1.55 - RESERV. ACCELERATED

| ACCOUNT TITLE   | ALL FUNDS<br>FY 04-05<br>ACTUAL | ALL FUNDS<br>FY 05-06<br>FORECAST | ASSUMPTION<br>OR % CHGE | ALL FUNDS<br>FY 06-07<br>FORECAST | ALL FUNDS<br>FY 07-08<br>FORECAST | ALL FUNDS<br>FY 08-09<br>FORECAST | ALL FUNDS<br>FY 09-10<br>FORECAST | ALL FUNDS<br>FY 10-11<br>FORECAST |
|---|---------------------------------|-----------------------------------|-------------------------|-----------------------------------|-----------------------------------|-----------------------------------|-----------------------------------|-----------------------------------|
| <b>REVENUES</b>   |                                 |                                   |                         |                                   |                                   |                                   |                                   |                                   |
| O & M PAYMENTS  | 43,486,319                      | 41,023,413                        | CALCULATED              | 41,532,694                        | 41,878,257                        | 42,220,527                        | 42,558,653                        | 46,348,412                        |
| SALES TAX USED FOR O & M COSTS                                | 0                               | 0                                 | CALCULATED              | 0                                 | 0                                 | 12,877,304                        | 12,939,023                        | 14,747,828                        |
| FIXED COST PAYMENTS (% PAID BY SALES TAX)                     | 7,143,969                       | 7,144,469                         | 50.0%                   | 7,145,094                         | 7,145,344                         | 7,144,719                         | 7,145,219                         | 7,146,219                         |
| SUBSEQUENT CUSTOMER DIFFERENTIAL (ONE TIME REFUND - FY 2006)  | 709,918                         | 573,561                           | 1.0%                    | 714,437                           | 721,581                           | 728,797                           | 736,085                           | 743,446                           |
| EMERGENCY SUPPLY  | 59,072                          | 8,344                             | 2.0%                    | 8,511                             | 8,681                             | 8,855                             | 9,032                             | 9,213                             |
| SALES TAX USED FOR CONSTRUCTION AND BOND PAYMENTS             | 34,384,906                      | 34,977,839                        | 2.0%                    | 35,677,396                        | 36,390,944                        | 24,241,459                        | 24,922,115                        | 23,870,533                        |
| INTEREST INCOME   | 2,856,461                       | 4,874,005                         | EXTRAPOLATED            | 4,537,780                         | 4,281,977                         | 3,707,266                         | 3,259,717                         | 3,079,590                         |
| OTHER INCOME  | 6,393                           | 2,500                             | 0.0%                    | 2,500                             | 2,500                             | 2,500                             | 2,500                             | 2,500                             |
| <b>TOTAL REVENUE</b>  | <b>88,647,038</b>               | <b>88,604,131</b>                 |                         | <b>89,618,412</b>                 | <b>90,429,284</b>                 | <b>90,931,427</b>                 | <b>91,572,344</b>                 | <b>95,947,741</b>                 |
| <b>OPERATING EXPENDITURES</b>                                 |                                 |                                   |                         |                                   |                                   |                                   |                                   |                                   |
| WATER PURCHASES (3% ANNUAL RATE INCR. AFTER 1/1/07)           | 39,657,670                      | 44,584,319                        | CALCULATED              | 45,187,726                        | 46,920,176                        | 48,706,282                        | 50,580,904                        | 52,505,924                        |
| 20% CREDIT THRU 10/31/04; 10% FOR GENERATORS STARTING FY2010  | (3,743,346)                     | 0                                 | CALCULATED              | (868,166)                         | 0                                 | 0                                 | (5,058,090)                       | (2,061,910)                       |
| 5 YEAR CAPITAL PLAN MAJOR REPAIRS                             | 4,810,523                       | 1,926,006                         | CALCULATED              | 2,938,000                         | 0                                 | 0                                 | 0                                 | 0                                 |
| OTHER OPERATING EXPENSES (EXCL BOND INTEREST/DEPRC)           | 8,035,655                       | 10,226,824                        | 5.0%                    | 10,738,165                        | 11,275,073                        | 11,838,827                        | 12,430,768                        | 13,052,306                        |
| REVENUE BOND PRINCIPAL AND INTEREST COSTS                     | 14,287,938                      | 14,288,937                        | CALCULATED              | 14,290,188                        | 14,290,687                        | 14,289,438                        | 14,290,437                        | 14,292,438                        |
| G.O. BOND PRINCIPAL AND INTEREST COSTS                        | 13,122,150                      | 13,124,150                        | CALCULATED              | 13,117,900                        | 13,117,650                        | 13,116,900                        | 13,121,275                        | 13,119,413                        |
| CAPITAL EQUIPMENT   | 193,747                         | 397,056                           | 5.0%                    | 200,000                           | 210,000                           | 220,500                           | 231,525                           | 243,101                           |
| <b>TOTAL OPERATING EXPENDITURES AND COMMITMENTS</b>           | <b>76,364,337</b>               | <b>84,547,292</b>                 |                         | <b>85,603,813</b>                 | <b>85,813,586</b>                 | <b>88,171,947</b>                 | <b>85,596,819</b>                 | <b>91,151,272</b>                 |
| 5 YEAR CAPITAL PLAN NEW CONSTRUCTION                          | 13,792,352                      | 5,356,901                         | CALCULATED              | 1,218,000                         | 14,780,000                        | 22,275,000                        | 17,775,000                        | 9,231,000                         |
| 5 YEAR CONSTRUCTION PLAN (DELAY)-CATCH-UP                     | 0                               | 0                                 | CALCULATED              | 0                                 | 0                                 | 0                                 | 0                                 | 0                                 |
| OTHER MINOR RELATED OUTLAYS                                   | 0                               | 0                                 | 4.0%                    | 250,000                           | 260,000                           | 270,400                           | 281,216                           | 292,465                           |
| DUPAGE COUNTY SALES TAX GRANT                                 | 15,000,000                      | 15,000,000                        | PA93-0226               | 15,000,000                        | 15,000,000                        | 0                                 | 0                                 | 0                                 |
| WATER QUALITY LOANS   | 2,103,547                       | (902,956)                         | BOARD POLICY            | (700,000)                         | (337,409)                         | 0                                 | 0                                 | 0                                 |
| <b>TOTAL CASH OUTLAYS AND COMMITMENTS</b>                     | <b>107,260,236</b>              | <b>104,001,237</b>                |                         | <b>101,371,813</b>                | <b>115,516,177</b>                | <b>110,717,347</b>                | <b>103,653,035</b>                | <b>100,674,737</b>                |
| <b>NET TRANSACTIONS</b>                                       | <b>(18,613,198)</b>             | <b>(15,397,106)</b>               |                         | <b>(11,753,401)</b>               | <b>(25,086,893)</b>               | <b>(19,785,920)</b>               | <b>(12,080,691)</b>               | <b>(4,726,996)</b>                |
| BEGINNING FIVE YEAR PLAN CASH AND EQUIVALENTS                 | 138,776,328                     | 119,903,780                       | CALCULATED              | 104,506,674                       | 92,753,273                        | 67,666,380                        | 47,880,460                        | 35,799,769                        |
| CONVERTED (TO) - FROM RESTRICTED OR CAPITAL NET ASSETS        | (259,350)                       | 0                                 |                         | 0                                 | 0                                 | 0                                 | 0                                 | 0                                 |
| <b>ENDING FIVE YEAR PLAN CASH AND EQUIVALENTS</b>             | <b>119,903,780</b>              | <b>104,506,674</b>                |                         | <b>92,753,273</b>                 | <b>67,666,380</b>                 | <b>47,880,460</b>                 | <b>35,799,769</b>                 | <b>31,072,773</b>                 |
| HELD FOR EMERGENCY REPAIRS-TARGET (1)                         | 12,300,000                      | 12,400,000                        | 3.0%                    | 12,800,000                        | 13,200,000                        | 13,600,000                        | 14,000,000                        | 14,400,000                        |
| O&M RATE STABILIZATION RESERVE                                | 42,862,895                      | 30,074,422                        |                         | 16,371,763                        | 2,650,688                         | 0                                 | 0                                 | 0                                 |
| CONSTRUCTION RESERVE  | 15,879,132                      | 27,267,543                        |                         | 43,116,801                        | 46,013,574                        | 28,478,342                        | 15,997,651                        | 10,870,655                        |
| PA93-0226 UNDISTRIBUTED                                       | 45,000,000                      | 30,000,000                        |                         | 15,000,000                        | 0                                 | 0                                 | 0                                 | 0                                 |
| UNDISTRIBUTED WATER QUALITY LOANS                             | 3,861,753                       | 4,764,709                         |                         | 5,464,709                         | 5,802,118                         | 5,802,118                         | 5,802,118                         | 5,802,118                         |
| <b>ENDING FIVE YEAR PLAN CASH AND EQUIVALENTS BY CATEGORY</b> | <b>119,903,780</b>              | <b>104,506,674</b>                |                         | <b>92,753,273</b>                 | <b>67,666,380</b>                 | <b>47,880,460</b>                 | <b>35,799,769</b>                 | <b>31,072,773</b>                 |
| O & M RATE  | 1.43                            | 1.23                              |                         | 1.24                              | 1.24                              | 1.24                              | 1.24                              | 1.34                              |
| FIXED COST RATE   | 0.23                            | 0.21                              |                         | 0.21                              | 0.21                              | 0.21                              | 0.21                              | 0.21                              |
| <b>TOTAL RATE</b>   | <b>1.66</b>                     | <b>1.44</b>                       |                         | <b>1.45</b>                       | <b>1.45</b>                       | <b>1.45</b>                       | <b>1.45</b>                       | <b>1.55</b>                       |

NOTE (1) - TO MAX OF 25,000,000

REVISED: 01/04/06

DUPAGE WATER COMMISSION - 14 YEAR PROJECTION  
SUMMARY OF REVENUES, EXPENDITURES AND FUND BALANCES  
MAY 1, 2006 TO APRIL 30, 2020  
50% REVENUE BOND SUBSIDY - \$1.45 RATE THRU FY09-10 - THEN \$1.55 - RESERV. ACCEL

| ACCOUNT TITLE   | ALL FUNDS<br>FY 11-12<br>FORECAST | ALL FUNDS<br>FY 12-13<br>FORECAST | ALL FUNDS<br>FY 13-14<br>FORECAST | ALL FUNDS<br>FY 14-15<br>FORECAST | ALL FUNDS<br>FY 15-16<br>FORECAST | ALL FUNDS<br>FY 16-17<br>FORECAST | ALL FUNDS<br>FY 17-18<br>FORECAST | ALL FUNDS<br>FY 18-19<br>FORECAST | ALL FUNDS<br>FY 19-20<br>FORECAST |
|---|-----------------------------------|-----------------------------------|-----------------------------------|-----------------------------------|-----------------------------------|-----------------------------------|-----------------------------------|-----------------------------------|-----------------------------------|
| <b>REVENUES</b>   |                                   |                                   |                                   |                                   |                                   |                                   |                                   |                                   |                                   |
| O & M PAYMENTS  | 46,700,658                        | 47,403,895                        | 47,758,769                        | 48,113,494                        | 48,475,633                        | 56,079,770                        | 56,500,701                        | 56,922,149                        | 57,344,316                        |
| SALES TAX USED FOR O & M COSTS                                | 19,616,544                        | 21,410,846                        | 23,746,224                        | 26,101,941                        | 28,618,770                        | 0                                 | 23,628,973                        | 28,899,583                        | 31,674,836                        |
| FIXED COST PAYMENTS (% PAID BY SALES TAX)                     | 7,144,594                         | 7,144,844                         | 7,144,163                         | 7,144,969                         | 7,143,844                         | 0                                 | 0                                 | 0                                 | 0                                 |
| SUBSEQUENT CUSTOMER DIFFERENTIAL (ONE TIME REFUND - FY 2006)  | 750,880                           | 758,389                           | 765,973                           | 773,633                           | 781,369                           | 789,183                           | 797,075                           | 805,046                           | 813,096                           |
| EMERGENCY SUPPLY  | 9,397                             | 9,585                             | 9,777                             | 9,973                             | 10,172                            | 10,375                            | 10,583                            | 10,795                            | 11,011                            |
| SALES TAX USED FOR CONSTRUCTION AND BOND PAYMENTS             | 19,774,184                        | 18,767,697                        | 17,235,890                        | 15,699,815                        | 14,019,021                        | 43,490,547                        | 20,731,385                        | 16,347,982                        | 14,477,680                        |
| INTEREST INCOME   | 2,993,502                         | 3,289,208                         | 3,560,562                         | 3,796,279                         | 3,993,558                         | 4,150,762                         | 5,278,818                         | 5,709,438                         | 6,096,863                         |
| OTHER INCOME  | 2,500                             | 2,500                             | 2,500                             | 2,500                             | 2,500                             | 2,500                             | 2,500                             | 2,500                             | 2,500                             |
| <b>TOTAL REVENUE</b>  | <b>96,992,259</b>                 | <b>98,786,964</b>                 | <b>100,223,858</b>                | <b>101,642,604</b>                | <b>103,044,867</b>                | <b>104,523,137</b>                | <b>106,950,035</b>                | <b>108,697,493</b>                | <b>110,420,302</b>                |
| <b>OPERATING EXPENDITURES</b>                                 |                                   |                                   |                                   |                                   |                                   |                                   |                                   |                                   |                                   |
| WATER PURCHASES (3% ANNUAL RATE INCR. AFTER 1/1/07)           | 54,484,220                        | 56,558,486                        | 58,694,265                        | 60,892,006                        | 63,199,341                        | 65,579,480                        | 68,061,374                        | 70,611,376                        | 73,268,742                        |
| 20% CREDIT THRU 10/31/04; 10% FOR GENERATORS STARTING FY2010  | 0                                 | 0                                 | 0                                 | 0                                 | 0                                 | 0                                 | 0                                 | 0                                 | 0                                 |
| 5 YEAR CAPITAL PLAN MAJOR REPAIRS                             | 599,352                           | 611,339                           | 623,566                           | 636,037                           | 648,758                           | 661,733                           | 674,968                           | 688,467                           | 702,236                           |
| OTHER OPERATING EXPENSES (EXCL BOND INTEREST/DEPRC)           | 13,704,921                        | 14,390,167                        | 15,109,675                        | 15,865,159                        | 16,658,417                        | 17,491,338                        | 18,365,905                        | 19,284,200                        | 20,248,410                        |
| REVENUE BOND PRINCIPAL AND INTEREST COSTS                     | 14,289,187                        | 14,289,688                        | 14,288,325                        | 14,289,937                        | 14,287,687                        | 0                                 | 0                                 | 0                                 | 0                                 |
| G.O. BOND PRINCIPAL AND INTEREST COSTS                        | 0                                 | 0                                 | 0                                 | 0                                 | 0                                 | 0                                 | 0                                 | 0                                 | 0                                 |
| CAPITAL EQUIPMENT   | 255,256                           | 268,019                           | 281,420                           | 295,491                           | 310,266                           | 325,779                           | 342,068                           | 359,171                           | 377,130                           |
| <b>TOTAL OPERATING EXPENDITURES AND COMMITMENTS</b>           | <b>83,332,936</b>                 | <b>86,117,699</b>                 | <b>88,997,251</b>                 | <b>91,978,630</b>                 | <b>95,104,469</b>                 | <b>84,058,330</b>                 | <b>87,444,315</b>                 | <b>90,943,214</b>                 | <b>94,596,518</b>                 |
| 5 YEAR CAPITAL PLAN NEW CONSTRUCTION                          | 2,500,000                         | 2,550,000                         | 2,601,000                         | 2,653,020                         | 2,706,080                         | 2,760,202                         | 2,815,406                         | 2,871,714                         | 2,929,148                         |
| 5 YEAR CONSTRUCTION PLAN (DELAY)-CATCH-UP                     | 0                                 | 0                                 | 0                                 | 0                                 | 0                                 | 0                                 | 0                                 | 0                                 | 0                                 |
| OTHER MINOR RELATED OUTLAYS                                   | 304,164                           | 316,331                           | 328,984                           | 342,143                           | 355,829                           | 370,062                           | 384,864                           | 400,259                           | 416,269                           |
| DUPAGE COUNTY SALES TAX GRANT                                 | 0                                 | 0                                 | 0                                 | 0                                 | 0                                 | 0                                 | 0                                 | 0                                 | 0                                 |
| WATER QUALITY LOANS   | 0                                 | (368,308)                         | (368,308)                         | (368,308)                         | (368,308)                         | (368,308)                         | (368,308)                         | (368,308)                         | (368,308)                         |
| <b>TOTAL CASH OUTLAYS AND COMMITMENTS</b>                     | <b>86,137,100</b>                 | <b>88,615,722</b>                 | <b>91,558,927</b>                 | <b>94,605,485</b>                 | <b>97,798,070</b>                 | <b>86,820,286</b>                 | <b>90,276,277</b>                 | <b>93,846,879</b>                 | <b>97,573,627</b>                 |
| <b>NET TRANSACTIONS</b>                                       | <b>10,855,159</b>                 | <b>10,171,242</b>                 | <b>8,664,931</b>                  | <b>7,037,119</b>                  | <b>5,246,797</b>                  | <b>17,702,851</b>                 | <b>16,673,758</b>                 | <b>14,850,614</b>                 | <b>12,846,675</b>                 |
| BEGINNING FIVE YEAR PLAN CASH AND EQUIVALENTS                 | 31,072,773                        | 41,927,932                        | 52,099,174                        | 60,764,105                        | 67,801,224                        | 73,048,021                        | 118,877,152                       | 135,550,910                       | 150,401,524                       |
| CONVERTED (TO) - FROM RESTRICTED OR CAPITAL NET ASSETS        | 0                                 | 0                                 | 0                                 | 0                                 | 0                                 | 28,126,280                        | 0                                 | 0                                 | 0                                 |
| <b>ENDING FIVE YEAR PLAN CASH AND EQUIVALENTS</b>             | <b>41,927,932</b>                 | <b>52,099,174</b>                 | <b>60,764,105</b>                 | <b>67,801,224</b>                 | <b>73,048,021</b>                 | <b>118,877,152</b>                | <b>135,550,910</b>                | <b>150,401,524</b>                | <b>163,248,199</b>                |
| HELD FOR EMERGENCY REPAIRS-TARGET (1)                         | 14,800,000                        | 15,200,000                        | 15,700,000                        | 16,200,000                        | 16,700,000                        | 17,200,000                        | 17,700,000                        | 18,200,000                        | 18,700,000                        |
| O&M RATE STABILIZATION RESERVE                                | 0                                 | 0                                 | 0                                 | 0                                 | 0                                 | 2,802,048                         | 0                                 | 0                                 | 0                                 |
| CONSTRUCTION RESERVE  | 21,325,814                        | 30,728,748                        | 38,525,371                        | 44,694,182                        | 49,072,671                        | 91,231,446                        | 109,838,944                       | 123,821,250                       | 135,799,617                       |
| PA93-0226 UNDISTRIBUTED                                       | 0                                 | 0                                 | 0                                 | 0                                 | 0                                 | 0                                 | 0                                 | 0                                 | 0                                 |
| UNDISTRIBUTED WATER QUALITY LOANS                             | 5,802,118                         | 6,170,426                         | 6,538,734                         | 6,907,042                         | 7,275,350                         | 7,643,658                         | 8,011,966                         | 8,380,274                         | 8,748,582                         |
| <b>ENDING FIVE YEAR PLAN CASH AND EQUIVALENTS BY CATEGORY</b> | <b>41,927,932</b>                 | <b>52,099,174</b>                 | <b>60,764,105</b>                 | <b>67,801,224</b>                 | <b>73,048,021</b>                 | <b>118,877,152</b>                | <b>135,550,910</b>                | <b>150,401,524</b>                | <b>163,248,199</b>                |
| O & M RATE  | 1.34                              | 1.35                              | 1.35                              | 1.35                              | 1.35                              | 1.55                              | 1.55                              | 1.55                              | 1.55                              |
| FIXED COST RATE   | 0.21                              | 0.20                              | 0.20                              | 0.20                              | 0.20                              | 0.00                              | 0.00                              | 0.00                              | 0.00                              |
| <b>TOTAL RATE</b>   | <b>1.55</b>                       | <b>1.55</b>                       | <b>1.55</b>                       | <b>1.55</b>                       | <b>1.55</b>                       | <b>1.55</b>                       | <b>1.55</b>                       | <b>1.55</b>                       | <b>1.55</b>                       |

NOTE (1) - TO MAX OF 25,000,000

REVISED: 01/04/06

**SUMMARY OF ESTIMATED NEW CONSTRUCTION COSTS**  
**50% REVENUE BOND SUBSIDY - \$1.45 RATE THRU FY09-10 - THEN \$1.55 - RESERV. ACCELERATED**

| DESCRIPTION (BASED ON FY 05-06 COSTS)                    | FY 06-07         | FY 07-08          | FY 08-09          | FY 09-10          | FY 10-11         | TOTAL             |
|--|------------------|-------------------|-------------------|-------------------|------------------|-------------------|
| <b>DUPAGE PUMP STATION IMPROVEMENTS</b>                  |                  |                   |                   |                   |                  |                   |
| 8 MW Electrical Generator Facility - Engineering         | 680,000          | 425,000           | 425,000           | 200,000           |                  | 1,730,000         |
| 8 MW Electrical Generator Facility - Construction        |                  | 6,000,000         | 4,500,000         | 1,000,000         |                  | 11,500,000        |
| Garage/Office Building- Engineering                      | 50,000           | 25,000            | 25,000            |                   |                  | 100,000           |
| Garage/Office Building- Construction                     |                  | 700,000           | 700,000           |                   |                  | 1,400,000         |
| Cadwell Avenue Realignment- Engineering                  | 26,500           |                   |                   |                   |                  | 26,500            |
| Cadwell Avenue Realignment- Construction                 | 150,000          |                   |                   |                   |                  | 150,000           |
| 30 MG Reservoir Engineering                              |                  | 250,000           | 350,000           | 300,000           | 300,000          | 1,200,000         |
| 30 MG Reservoir Construction                             |                  |                   | 7,760,000         | 15,250,000        | 7,750,000        | 30,760,000        |
| Material and Equipment Storage Facilities- Engineering   |                  |                   | 60,000            |                   |                  | 60,000            |
| Material and Equipment Storage Facilities- Construction  |                  |                   | 640,000           |                   |                  | 640,000           |
| Pump #10-Engineering                                     |                  |                   |                   |                   | 40,000           | 40,000            |
| Pump #10-Installation                                    |                  |                   |                   |                   | 438,000          | 438,000           |
| <b>LEXINGTON PUMP STATION IMPROVEMENTS</b>               |                  |                   |                   |                   |                  |                   |
| Generator Facility - Engineering                         | 200,000          | 1,090,000         | 450,000           |                   |                  | 1,740,000         |
| Generator Facility - Construction                        |                  | 6,000,000         | 6,500,000         |                   |                  | 12,500,000        |
| <b>STANDPIPE IMPROVEMENTS</b>                            |                  |                   |                   |                   |                  |                   |
| Standpipe #4 East Riser Pipe Modifications- Engineering  | 13,000           |                   |                   |                   |                  | 13,000            |
| Standpipe #4 East Riser Pipe Modifications- Construction | 98,000           |                   |                   |                   |                  | 98,000            |
|  | <u>1,217,500</u> | <u>14,490,000</u> | <u>21,410,000</u> | <u>16,750,000</u> | <u>8,528,000</u> | <u>62,395,500</u> |
| INFLATION FACTOR 2% PER YEAR                             | 100.0%           | 102.0%            | 104.0%            | 106.1%            | 108.2%           | 104.6%            |
|  | <u>1,218,000</u> | <u>14,780,000</u> | <u>22,275,000</u> | <u>17,775,000</u> | <u>9,231,000</u> | <u>65,279,000</u> |

Note (1) - Includes legal, property acquisition (if any) and soil testing services.

REVISED: 01/04/06

**SUMMARY OF ESTIMATED MAJOR REPAIR COSTS**  
**50% REVENUE BOND SUBSIDY - \$1.45 RATE THRU FY09-10 - THEN \$1.55 - RESERV. ACCELERATED**

| BASED ON FY 05-06 COSTS  | FY 06/07     | FY 07/08 | FY 08/09 | FY 09/10 | FY 10/11 | Total     |
|--|--------------|----------|----------|----------|----------|-----------|
| DISTRIBUTION SYSTEM IMPROVEMENTS                                     |              |          |          |          |          |           |
| Contract BOV-2; Rehab Blowoff Valves 90" TM-Engineering Tech Observ. | DWC In House |          |          |          |          |           |
| Contract BOV-2; Rehab Blowoff Valves 90" TM-Construction             | 2,528,000    |          |          |          |          | 2,528,000 |
| Contract TBA; Valve Stem Replacements                                | 410,000      |          |          |          |          | 410,000   |
| PUMP STATION IMPROVEMENTS  |              |          |          |          |          |           |
| None   |              |          |          |          |          |           |
| STANDPIPE IMPROVEMENTS   |              |          |          |          |          |           |
| None   |              |          |          |          |          |           |
|  | 2,938,000    | 0        | 0        | 0        | 0        | 2,938,000 |
| INFLATION FACTOR 2% PER YEAR   | 100.0%       | 102.0%   | 104.0%   | 106.1%   | 108.2%   | 100.0%    |
|  | 2,938,000    | 0        | 0        | 0        | 0        | 2,938,000 |

REVISED: 01/04/06

**DUPAGE WATER COMMISSION  
2006 – 2007  
FIVE YEAR CAPITAL IMPROVEMENT PLAN**

**DISTRIBUTION SYSTEM IMPROVEMENTS**



**DUPAGE WATER COMMISSION  
2006 – 2007  
FIVE YEAR CAPITAL IMPROVEMENT PLAN**

**PROJECT:** Contract BOV-2; Rehab Blow-off Valves 90"

**LOCATION:** Cook County

**DESCRIPTION:** Rehabilitate 29 blow-off valves on the Commission's 90" Transmission Main

**PURPOSE:** To reduce the number of leaking blow-off valves that requires continuous repair and/or replacement by systematically rehabilitating all such valves.

**BENEFIT:** This rehabilitation will eliminate untimely leaks along the 90" Transmission Main.

**ESTIMATED COST (2006 DOLLARS):**

**ENGINEERING:** Technical observation and construction services by DWC personnel

**LAND/ROW:** None; work performed on Commission owned pipe

**CONSTRUCTION:** \$2,528,000

**TIMING:** Fiscal Year 2006-2007 – Construction completed

**DUPAGE WATER COMMISSION  
2006 – 2007  
FIVE YEAR CAPITAL IMPROVEMENT PLAN**

**PROJECT:** Valve Stem Replacement

**LOCATION:** Cook and DuPage Counties

**DESCRIPTION:** Replace hollow core valve risers for all line valves with solid stock risers.

**PURPOSE:** The originally installed hollow core valve risers have corroded making them unreliable due to their tendency to fail during operation.

**BENEFIT:** The Commission has experienced numerous failures of the originally installed hollow core risers during performance of the valve/exercise program.

**ESTIMATED COST (2006 DOLLARS):**

**ENGINEERING:** Technical observation and construction services by DWC personnel

**LAND/ROW:** None; work performed on Commission owned pipe

**CONSTRUCTION:** \$410,000

**TIMING:** Fiscal Year 2006-2007 – Construction completed

**DUPAGE WATER COMMISSION  
2006 – 2007  
FIVE YEAR CAPITAL IMPROVEMENT PLAN**

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**DUPAGE WATER COMMISSION  
2006 – 2007  
FIVE YEAR CAPITAL IMPROVEMENT PLAN**

**DUPAGE PUMP STATION IMPROVEMENTS**

**DUPAGE WATER COMMISSION  
2006 – 2007  
FIVE YEAR CAPITAL IMPROVEMENT PLAN**

**PROJECT:** 8 MW Electrical Generation Facility

**LOCATION:** East side of the DuPage Pumping Station service yard

**DESCRIPTION:** Construct building and install diesel fueled generators.

**PURPOSE:** Backup electrical power to provide average day flow.

**BENEFIT:** To maintain pumping operations during electrical power outages. In addition, installed generation will allow DWC to enter into a "curtailable" electric rate structured contract.

**ESTIMATED COST (2006 DOLLARS):**

**ENGINEERING:** \$1,730,000

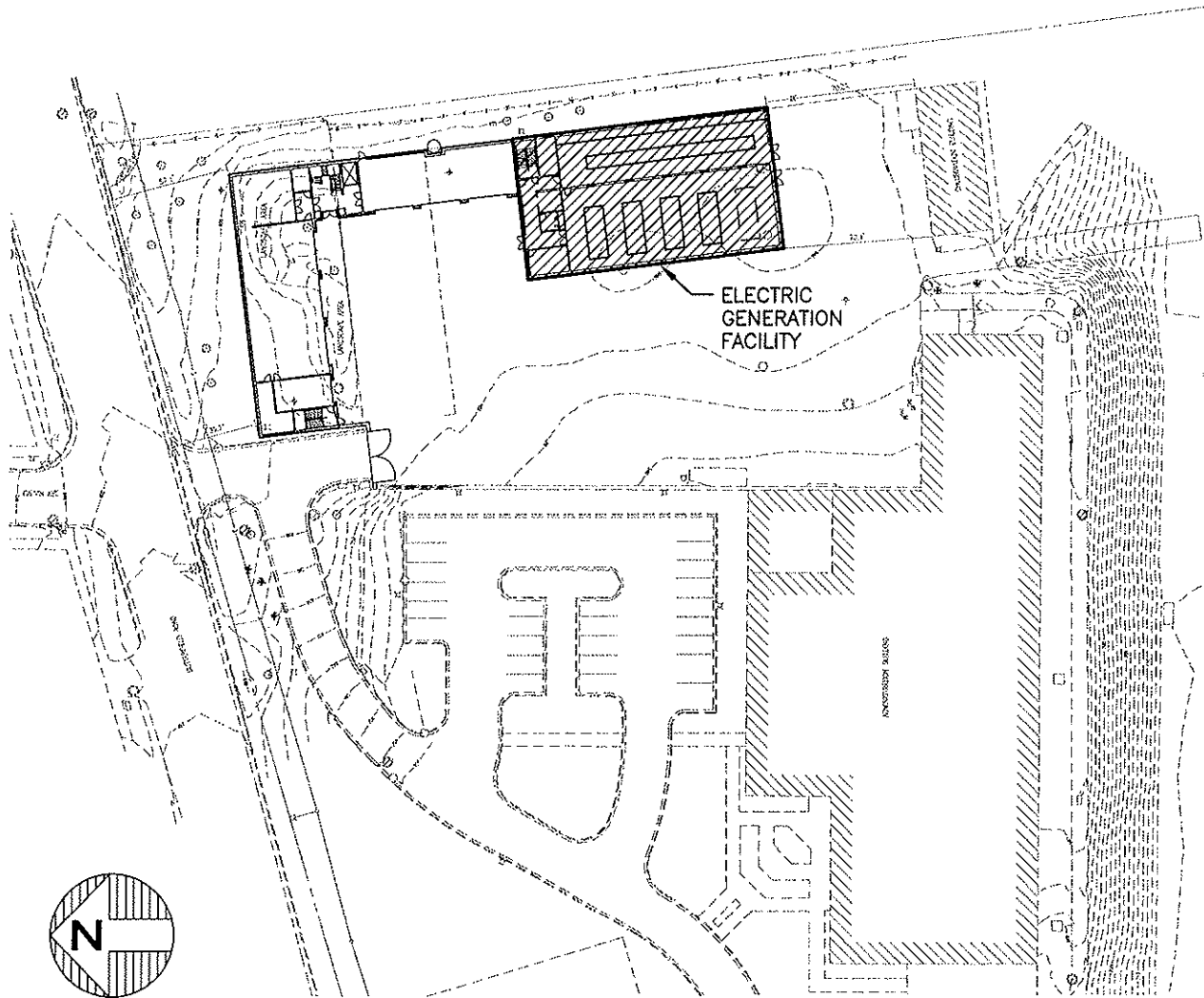
**LAND/ROW:** Constructed on property owned by Commission

**CONSTRUCTION:** \$11,500,000

**TIMING:** Fiscal year 2006-2007 – Complete design  
Fiscal year 2007-2008 – Construction begins

See site plan on next page.

PROPOSED 8 MW ELECTRIC  
GENERATION FACILITY  
DU PAGE WATER COMMISSION



**DUPAGE WATER COMMISSION  
2006 – 2007  
FIVE YEAR CAPITAL IMPROVEMENT PLAN**

**PROJECT:** Garage/Office Building

**LOCATION:** East side of the DuPage Pumping Station service yard

**DESCRIPTION:** Small vehicles, parts storage and additional office space for Pipeline, Facilities Construction and GIS Staff.

**PURPOSE:** To provide garage space for vehicles and spare/stock parts. In addition, provide office space and training facilities for staff.

**ESTIMATED COST (2006 DOLLARS):**

**ENGINEERING:** \$100,000

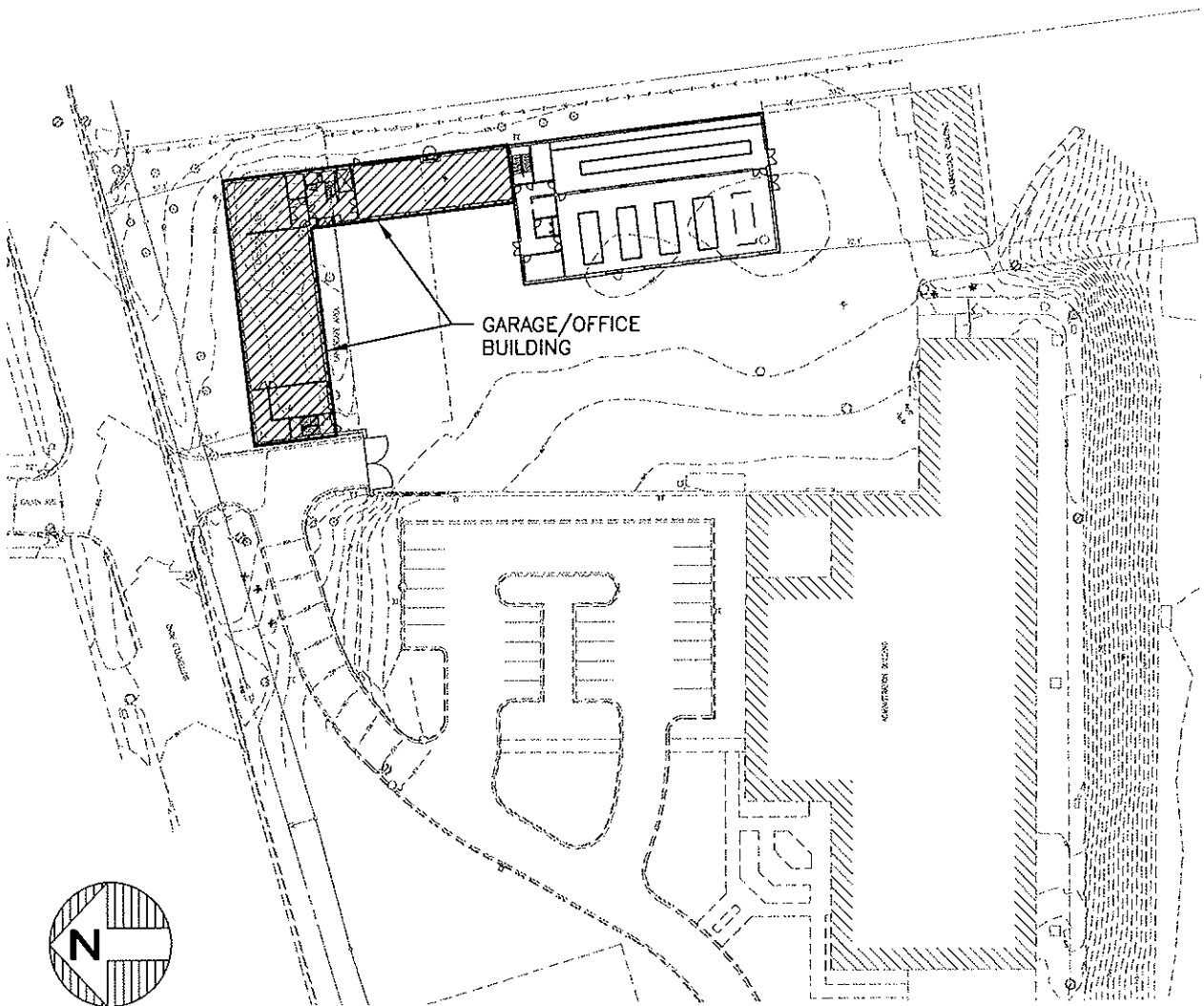
**LAND/ROW:** Constructed on property owned by Commission

**CONSTRUCTION:** \$1,400,000

**TIMING:** Fiscal year 2006-2007 – Complete design  
Fiscal year 2007-2008 – Construction begins

See site plan on next page.

# PROPOSED GARAGE/OFFICE BUILDING DU PAGE WATER COMMISSION





**DUPAGE WATER COMMISSION  
2006 – 2007  
FIVE YEAR CAPITAL IMPROVEMENT PLAN**

**PROJECT:** Cadwell Avenue Realignment

**LOCATION:** On the south and west sides of the DuPage Pumping Station existing 30 MG reservoir

**DESCRIPTION:** Remove existing township road and replace with Elmhurst road aligned with existing improved roadway.

**PURPOSE:** Allows the Commission to formally abandon Congress and Harrison Avenue right of ways as approved in an Intergovernmental Agreement with the City of Elmhurst.

**BENEFIT:** Allows for relocation of utilities and thereby allowing the Commission to provide and install additional perimeter security at the DuPage Pumping Station.

**ESTIMATED COST (2006 DOLLARS):**

**ENGINEERING:** \$26,500

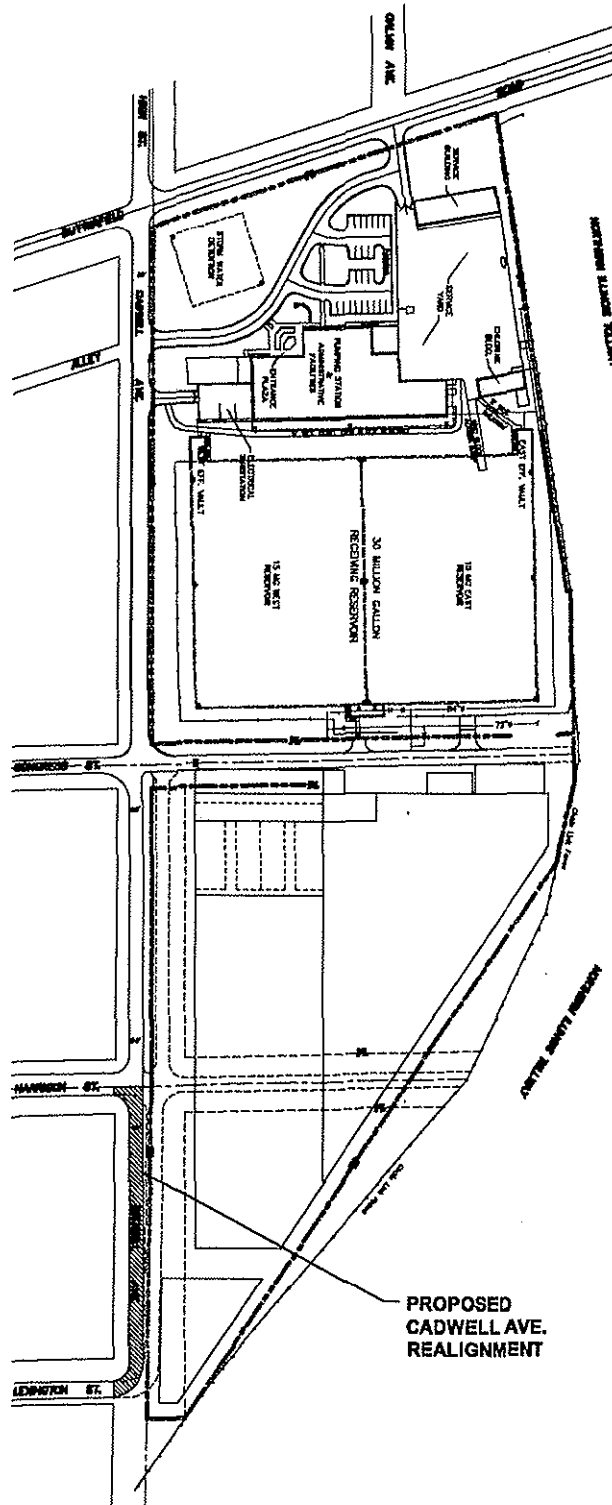
**LAND/ROW:** None; previously negotiated and acquired

**CONSTRUCTION:** \$150,000

**TIMING:** Fiscal Year 2006-2007 – Design completed and Construction

See site plan on next page.

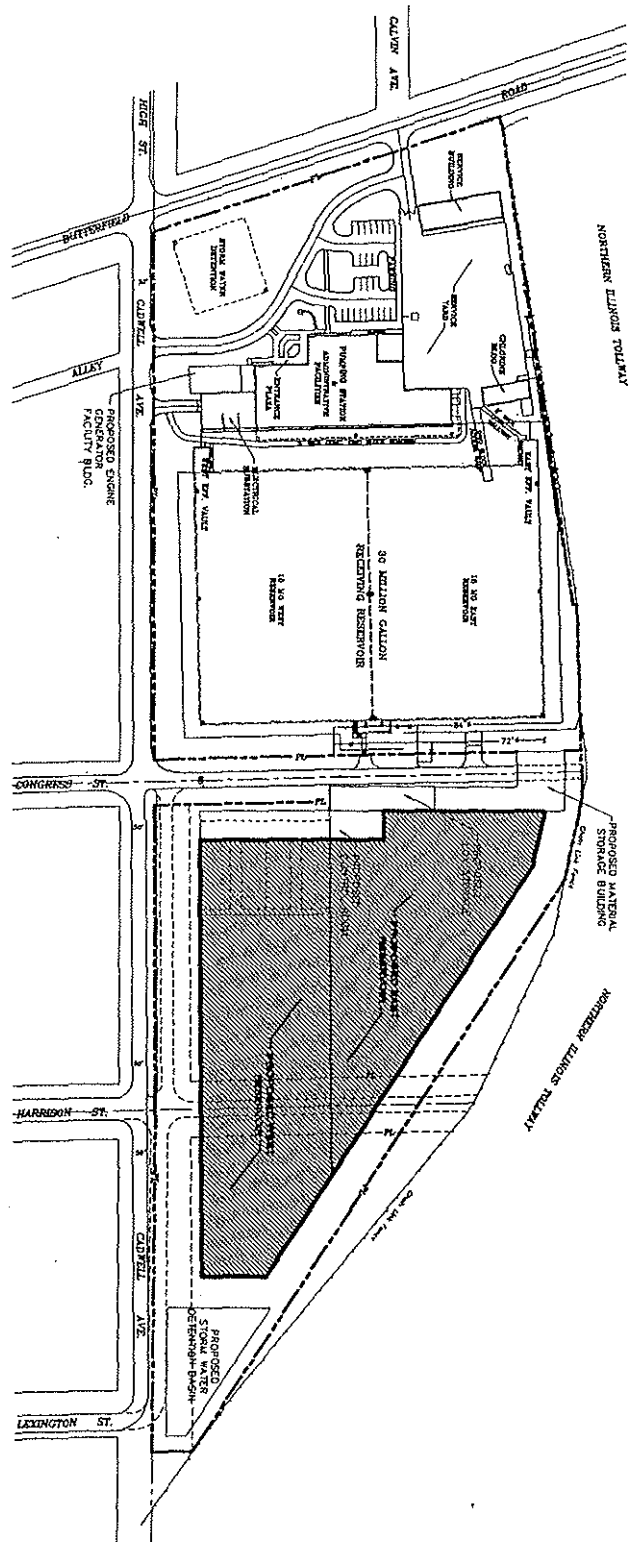
# PROPOSED CADWELL AVENUE REALIGNMENT DU PAGE WATER COMMISSION



**DUPAGE WATER COMMISSION  
2006 – 2007  
FIVE YEAR CAPITAL IMPROVEMENT PLAN**

- PROJECT:** Proposed 30 Million-Gallon Reservoir
- LOCATION:** South of two existing 15 million-gallon (MG) reservoirs at the DuPage Pumping Station
- DESCRIPTION:** Two 15-MG concrete reservoirs with baffled walls to prevent short-circuiting. The reservoirs will operate in series with the existing reservoirs. The influent of the proposed reservoirs will be constructed to allow for the addition of a taste and odor chemical feed system, if needed in the future.
- PURPOSE:** Increase storage capacity in the event of disruption in service from Chicago.
- BENEFIT:** Provide additional time for the Commission's customer utilities in the event of disruption of supply from Chicago and ability to take more water off peak to decrease power demand charge at Lexington Pumping Station.
- ESTIMATED COST (2006 DOLLARS):**
- ENGINEERING:** \$1,200,000
- LAND/ROW:** Construction on property owned by Commission
- CONSTRUCTION:** \$30,760,000
- TIMING:** Fiscal year 2007-2008 – Design completed  
Fiscal year 2008-2009 – Construction begins

See drawing on next page.



**DUPAGE WATER COMMISSION  
2006 – 2007  
FIVE YEAR CAPITAL IMPROVEMENT PLAN**

**PROJECT:** Material and Equipment Storage Facilities

**LOCATION:** South side of the DuPage Pumping Station existing 30 MG reservoir

**DESCRIPTION:** Three sided material storage and a garage for heavy equipment.

**PURPOSE:** To stockpile granular and landscape materials for facilities maintenance and a garage for heavy vehicles and equipment.

**BENEFIT:** To provide indoor housing for vehicles and equipment and allowing for materials on hand.

**ESTIMATED COST (2006 DOLLARS):**

**ENGINEERING:** \$60,000

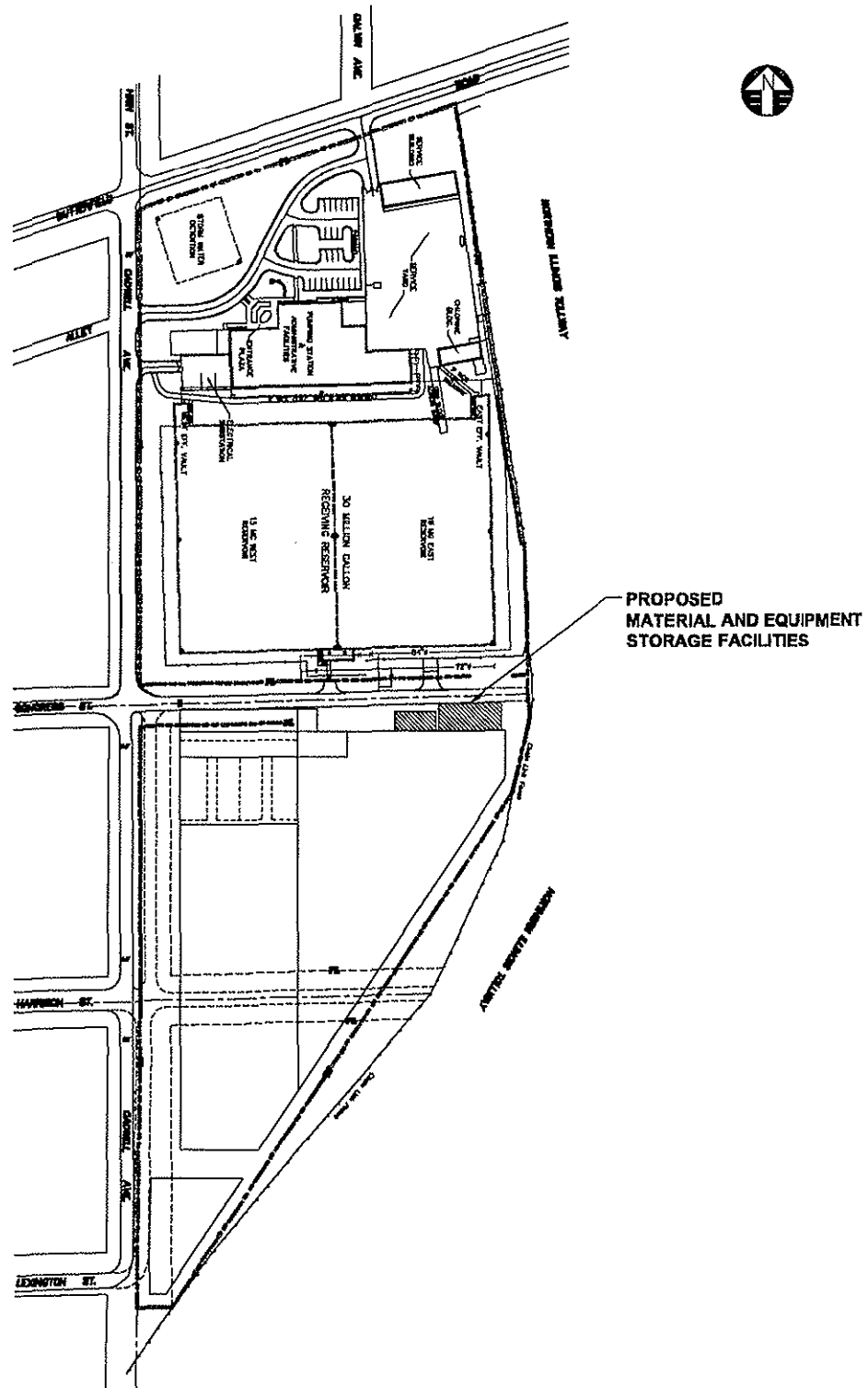
**LAND/ROW:** Constructed on property owned by Commission

**CONSTRUCTION:** \$640,000

**TIMING:** Fiscal Year 2008-2009 – Construction

See site plan on next page.

# PROPOSED MATERIAL AND EQUIPMENT STORAGE FACILITIES DU PAGE WATER COMMISSION



**DUPAGE WATER COMMISSION  
2006 – 2007  
FIVE YEAR CAPITAL IMPROVEMENT PLAN**

**PROJECT:** Pump #10

**LOCATION:** DuPage Pumping Station

**DESCRIPTION:** Install 30 MGD split case centrifugal pump and associated piping in space reserved for future pump.

**PURPOSE:** To increase firm pumping capacity from 210 MGD to 240 MGD to satisfy future demand requirements.

**BENEFIT:** To keep up with current rising water demands, new customers and maintain current ability to remove pumps from service without reducing pumping capacity.

**ESTIMATED COST (2006 DOLLARS):**

**ENGINEERING:** \$40,000

**LAND/ROW:** Improvements to be constructed on property presently owned by the Commission

**CONSTRUCTION:** \$438,000

**TIMING:** Fiscal year 2010-2011 – Engineering  
Fiscal year 2010-2011 – Installation

See drawing on next page.

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LOWER LEVEL PLAN



**DUPAGE WATER COMMISSION  
2006 – 2007  
FIVE YEAR CAPITAL IMPROVEMENT PLAN**

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**DUPAGE WATER COMMISSION  
2006 – 2007  
FIVE YEAR CAPITAL IMPROVEMENT PLAN**

**LEXINGTON PUMP STATION IMPROVEMENTS**

**DUPAGE WATER COMMISSION  
2006 – 2007  
FIVE YEAR CAPITAL IMPROVEMENT PLAN**

**PROJECT:** Electrical Generation Facility

**LOCATION:** City of Chicago Lexington Pumping Station

**DESCRIPTION:** Construct building and install stand-by generators. Note: Discussions are being held with the Chicago Water Department to design, construct and operate these facilities. Preliminarily, Chicago is willing to reimburse half of the cost of generation facility up to \$8.5 million. The Commission would provide initial funding and the Chicago Water Department would reimburse the Commission with a credit against the Commission's water purchases.

**PURPOSE:** To provide critical backup electrical power at Lexington Pumping Station

**BENEFIT:** To provide continuous pumping operations to the DuPage Pumping Station during electrical power outages in the City of Chicago. In addition, installed generation will allow the City to enter into a "curtailable" electric rate structured contract.

**ESTIMATED COST (2006 DOLLARS):**

**ENGINEERING:** \$1,740,000

**LAND/ROW:** Minimal

**CONSTRUCTION:** \$12,500,000

**REIMBURSEMENT:** \$7,120,000

**TIMING:** Fiscal year 2006-2007 – Design begins  
Fiscal year 2007-2009 – Construction begins

See site plan on next page.



**DUPAGE WATER COMMISSION  
2006 – 2007  
FIVE YEAR CAPITAL IMPROVEMENT PLAN**

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**DUPAGE WATER COMMISSION  
2006 – 2007  
FIVE YEAR CAPITAL IMPROVEMENT PLAN**

**STANDPIPE IMPROVEMENTS**

**DUPAGE WATER COMMISSION  
2006 – 2007  
FIVE YEAR CAPITAL IMPROVEMENT PLAN**

**PROJECT:** Standpipe #4 East Riser Modifications

**LOCATION:** Standpipes #4E & #4W Lisle Township.

**DESCRIPTION:** Install modified inlet riser pipes within standpipes.

**PURPOSE:** To allow for better mixing of water when filling tanks.

**BENEFIT:** By lengthening and providing openings on the inlet riser pipes, better mixing of water by de-stratification will assist in reducing taste and odor problems that result from stale water.

**ESTIMATED COST (2006 DOLLARS):**

**ENGINEERING:** \$13,000

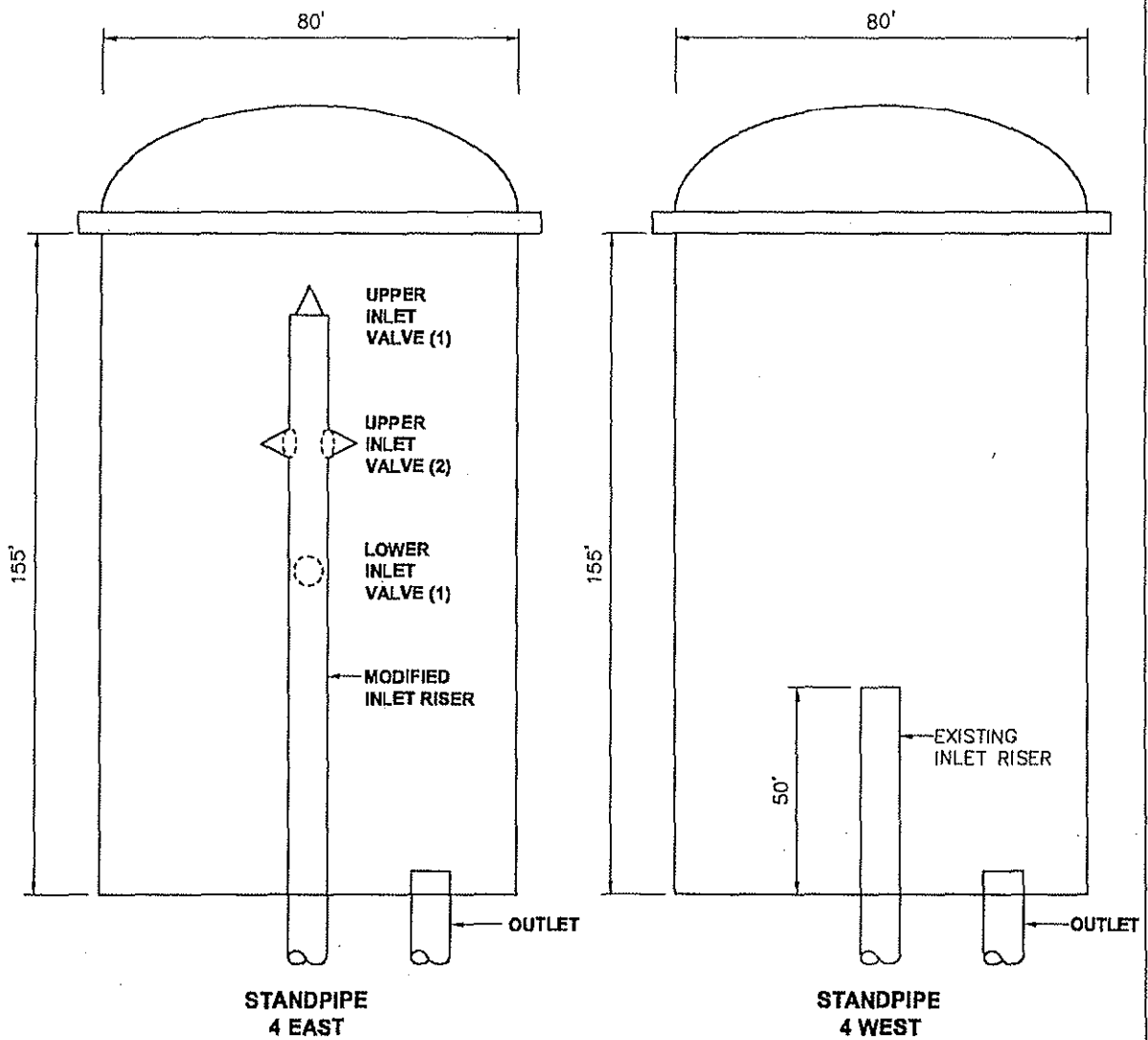
**LAND/ROW:** Improvements to be constructed on property presently owned by the Commission.

**CONSTRUCTION:** \$98,000

**TIMING:** Fiscal year 2006-2007 – Construction

See drawing on next page.

# PROPOSED TS NO.4 RISER PIPE MODIFICATIONS DU PAGE WATER COMMISSION







# Emergency Operations and Maintenance

February 9, 2006



# INTRODUCTION

- The continuous operation of the Lexington Pumping Station (LPS) is essential to the continuous operation of the Commission's Waterworks System
- As a result
  - Enhancing the level of maintenance at LPS should be considered
  - Additional emergency operational safeguards in the event of a loss of electrical service should also be considered



## 2.1 Background

- Water Supply Contract with Chicago
  - Entered on March 19, 1984
  - Forty year term
  - CDWM operates LPS
  - Two times average day storage requirement



## 2.1.1 Background

### ➤ CDWM to Operate LPS

- Paragraph C (2) of the Water Supply Contract requires CDWM to be responsible for the operation and maintenance of LPS
- No criteria established in the Water Supply Contract for determining the level of maintenance required



## 2.1.2 Background

### ➤ Water Storage Requirement

- Paragraph C (9) of the Water Supply Contract requires DWC and participating customers to collectively maintain water storage in the amount of two times annual average daily demand
- Storage is the only emergency operational safeguard addressed in the Water Supply Contract



## 2.2 Background

### ➤ Charter Customer Storage Requirement

- Charter Customers are not required to maintain required storage unless Chicago enforces requirement

### ➤ Subsequent Customer Storage Requirement

- Subsequent Customers are always required to maintain two times average day storage



## 2.3 Background

- Initial Waterworks System contained certain redundancies
  - DPPS has three electrical feeds
- DWCC continued to add redundancies to improve reliability and assure average day supply during emergencies
  - 72" Transmission Main
  - West and Inner Belt Transmission Mains



## 2.4 Background

- Capital Improvement Plan options for emergency operations in the event of a loss of electrical service
  - Backup Generation
    - Originally appeared in the January 9, 1997 CIP
    - Re-recommended in the January 10, 2002 CIP as a result of Vulnerability Assessment
  - Future Reservoir
    - Originally appeared in the first (1995) CIP
    - Proposed construction 2008-09





## EMERGENCY OPERATIONS AND MAINTENANCE

- Several different options for emergency operations in the event of a loss of electrical service have been considered
  - Centralized backup generation (in full and in part)
  - Decentralized backup generation (in full and in part)
  - Maintenance of the status quo



## EMERGENCY OPERATIONS AND MAINTENANCE

- In addition, several different alternatives for obtaining the desired level of maintenance at LPS have been considered
  - Retaining ownership of LPS
  - Contractually-required enhanced maintenance of LPS (by either DWC or CDWM)
  - Joint maintenance of LPS



# Maintenance of LPS

- 3.1 DWC Retains Ownership of LPS
  - Originally constructed at a cost of \$55,171,000
  - 3.1.1 Advantages of Retaining Ownership
    - DWC has a greater incentive to make sure that LPS is maintained at a higher level
    - DWC has more efficient purchasing procedures
    - No need to coordinate maintenance and backup generation with CDWM
    - Potential vehicle for DWC to implement C-Factor treatment options
    - Cost savings associated with CDWM remote operation
  - 3.1.2 Disadvantages of Retaining Ownership
    - Why should DWC incur expense of ownership if by contract Chicago should be maintaining it



# Maintenance of LPS

## ➤ 3.2 DWC Maintenance of LPS

- DWC performs maintenance and Chicago reimburses 50% of the cost
- Similar to program management by Chicago Water Partners
- 3.2.1 Advantages of DWC Maintenance
  - DWC would not incur cost of ownership yet still assure DWC desired level of maintenance is performed
  - Chicago would have one less pumping station to maintain
- 3.2.2 Disadvantages of DWC Maintenance
  - CDWM might disagree with level of maintenance being performed unless Chicago's share were fixed at some annually-determined amount or at a less than equal share
  - CDWM management not in favor of this option



# Maintenance of LPS

## ➤ 3.3 DWC/CDWM Joint Maintenance of LPS

- Chicago performs maintenance and DWC reimburse 50% of the cost
- DWC and Chicago perform monthly inspections of LPS
- DWC finances unbudgeted or high cost items for LPS
- 3.3.1 Advantages of Joint Maintenance
  - DWC would not incur cost of ownership
  - DWC would increase likelihood that DWC's desired level of maintenance is performed
  - CDWM management willing to support this option
- 3.3.2 Disadvantages of Joint Maintenance
  - CDWM size could delay maintenance activities and increase cost
  - No guaranty that DWC's desired level of maintenance would be performed; DWC would have to advocate for changes



# Maintenance of LPS

- 3.4 Performance-Based CDWM Contract Maintenance
  - DWC and CDWM enter into a contractual arrangement where specific maintenance tasks and frequency of performance would be detailed
  - DWC would cover any increased cost
  - 3.4.1 Advantages of Performance-Based Maintenance
    - DWC would not incur cost of ownership
    - DWC would have an easily enforceable right to ensure DWC's desired level of maintenance is performed
    - Revenue neutral for Chicago
  - 3.4.2 Disadvantages of Performance-Based Maintenance
    - CDWM size could delay maintenance activities and increase cost



# EMERGENCY OPERATIONS

## Fully Centralized Backup Generation Option

- One option being considered for emergency operations in the event of a loss of electrical service is the installation of backup generation at both DPPS and LPS
- This option has become known as the fully centralized backup generation option



# EMERGENCY OPERATIONS

## Fully Centralized Backup Generation Option

### ➤ 4.1 Backup Generation at DPPS

- Camp Dresser & McKee performed an electrical generation study
- Baseline power generation for year 2020 average day flow (108 MGD)
- Four 2-MW diesel generators
- Estimated cost for backup generation and rebuilding of service building is \$14.7 million

### ➤ 4.2 Backup Generation at LPS

- Electrical generation study needs to be performed





# EMERGENCY OPERATIONS

## Fully Centralized Backup Generation Option

- 4.3 Advantages of Fully Centralized Option
  - Seamless operation
  - Water quality remains the same
  - Customer avg. day operation from DWC pressure
  - Customer well capacity/quality irrelevant
  - All funds of the Commission available for funding
- 4.4 Disadvantages of Fully Centralized Option
  - Single source of water
- 4.5 CDWM Participation in the Cost at LPS
  - Chicago considering funding half the cost (up to \$8.5 million) at LPS



# EMERGENCY OPERATIONS

## Fully Decentralized Backup Generation Option

- Another option being considered for emergency operations in the event of a loss of electrical service is the installation of backup generation at emergency wells currently maintained by Customers
- Under this option, DWC would not construct backup generators at either DPPS or LPS
- This option has become known as the fully decentralized backup generation option



# EMERGENCY OPERATIONS

## Fully Decentralized Backup Generation Option

- 5.1 Advantages of Fully Decentralized Option
  - Alternate source of water
- 5.2 Disadvantages of Fully Centralized Option
  - Some Customers have no wells
  - Level of maintenance could vary from Customer to Customer
  - Lesser quality water



# EMERGENCY OPERATIONS

## Fully Decentralized Backup Generation Option

- 5.3 DWC Funds/Reimburses the Installation of Generators at Emergency Wells
  - Whether DWC could fund the cost of backup generation at emergency wells is an open question, requiring resolution of complex legal questions
  - Next table shows estimated cost of new and existing generators at emergency wells
  - Though no cost estimates have been prepared, the cost of developing back-up wells for those customers without wells would also need to be considered



# EMERGENCY OPERATIONS

## Fully Decentralized Backup Generation Option

Table 3

| Community        | Active Well Capacity (mgd) | 2020 Average Day (mgd) | Well Deficit (mgd) | Backed Up Well Capacity (mgd) | Back Up Deficit (mgd) | No. of Wells | Cost to Provide Generation | Cost to Reimburse for Installed Generation |
|------------------|----------------------------|------------------------|--------------------|-------------------------------|-----------------------|--------------|----------------------------|--|
| Addison          | 7.120                      | 5.009                  |                    | 6.040                         | -1.031                | 5            |                            | \$1,202,160                                |
| Argonne          | 2.016                      | 0.758                  |                    | 1.440                         | -0.682                | 2            |                            | \$181,920                                  |
| Bensenville      | 0.000                      | 2.858                  |                    | 0.000                         | 2.858                 | 3            | \$476,333                  |  |
| Bloomington      | 3.456                      | 3.458                  | 0.032              | 0.000                         | 3.458                 | 3            | \$581,333                  |  |
| Carol Stream     | 3.492                      | 5.585                  | 2.073              | 3.492                         | 2.073                 | 3            | \$345,500                  |  |
| Clarendon Hills  | 2.304                      | 0.792                  |                    | 0.350                         | 0.442                 | 2            | \$73,667                   |  |
| Darien           | 2.448                      | 3.254                  | 0.806              | 0.648                         | 2.606                 | 5            | \$434,333                  |  |
| Downers Grove    | 4.000                      | 7.751                  | 3.751              | 0.000                         | 7.751                 | 6            | \$1,291,833                |  |
| Elmhurst         | 4.680                      | 4.906                  | 0.226              | 0.000                         | 4.906                 | 3            | \$817,667                  |  |
| Glendale Heights | 2.300                      | 3.540                  | 1.24               | 1.440                         | 2.100                 | 4            | \$350,000                  |  |
| Glen Ellyn       | 3.665                      | 3.164                  |                    | 3.665                         | -0.501                | 3            |                            | \$759,360                                  |
| Hinsdale         | 6.000                      | 2.739                  |                    | 1.692                         | 1.047                 | 2            | \$174,500                  |  |
| IAWC-Valley View | 0.700                      | 0.700                  |                    | 0.700                         | 0.000                 | 1            |                            | \$168,000                                  |
| Itasca           | 1.728                      | 1.907                  | 0.179              | 1.728                         | 0.179                 | 2            | \$29,633                   |  |
| List             | 5.700                      | 3.941                  |                    | 3.200                         | 0.641                 | 4            | \$106,833                  |  |
| Lombard          | 5.580                      | 5.430                  |                    | 1.040                         | 4.390                 | 4            | \$731,667                  |  |
| Naperville       | 14.250                     | 22.432                 | 8.182              | 0.000                         | 22.432                | 10           | \$3,736,667                |  |
| Oak Brook        | 6.480                      | 4.555                  |                    | 0.000                         | 4.555                 | 3            | \$764,167                  |  |
| Oakbrook Terrace | 0.000                      | 0.293                  | Note 1             | 0.000                         | 0.000                 | 0            | \$0                        |  |
| Roselle          | 0.000                      | 2.739                  | Note 1             | 0.000                         | 0.000                 | 0            | \$0                        |  |
| Villa Park       | 2.386                      | 2.206                  |                    | 0.000                         | 2.206                 | 2            | \$357,667                  |  |
| Westmont         | 6.812                      | 3.069                  |                    | 2.160                         | 0.909                 | 5            | \$151,500                  |  |
| Wheaton          | 12.526                     | 6.530                  |                    | 3.744                         | 2.786                 | 6            | \$464,333                  |  |
| Willowbrook      | 0.000                      | 1.508                  | Note 1             | 0.000                         | 0.000                 | 0            | \$0                        |  |
| Winfield         | 3.398                      | 1.341                  |                    | 0.000                         |                       | 2            |                            | \$321,840                                  |
| Wood Dale        | 3.672                      | 1.894                  |                    | 0.000                         |                       | 2            |                            | \$454,560                                  |
| Woodridge        | 5.760                      | 4.331                  |                    | 0.000                         | 4.331                 | 4            | \$721,833                  |  |
|                  | 110.675                    | 106.630                | 16.489             | 31.339                        | 67.616                | 66           | \$11,621,667               | \$3,087,840                                |
|                  |                            |                        |                    |                               |                       |              |                            | <b>Total Cost to Provide Generation</b>    |
|                  |                            |                        |                    |                               |                       |              |                            | <b>\$14,709,507</b>                        |

Notes:

- These Customers do not have active wells and therefore the inability to assess costs to provide generators. Wells would need to be developed in order to ascertain generation requirement to provide 2020 Average Day.

February 9, 2006

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# EMERGENCY OPERATIONS

## Fully Decentralized Backup Generation Option

- 5.3.1 Advantages of DWC Funding/Reimbursement
  - Customers could immediately undertake work rather than building reserves or borrowing funds
- 5.3.2 Disadvantages of DWC Funding/Reimbursement
  - DWC's charter is to provide treated Lake Michigan water to Customers; subsidizing backup generation at well sites deviates from the purpose for which DWC was created
  - DWC would most likely find itself paying for additional wells for Customers with insufficient or no well capacity, introducing questions of equity
  - The source of DWC funds that can be used for this purpose is limited
  - Additional legal restrictions may come into play if DWC did not own the facilities



# EMERGENCY OPERATIONS

## Fully Decentralized Backup Generation Option

### ➤ 5.4.1 Advantages of DWC Ownership

- Cost savings associated with economies of scale
- Customers would not have to take on the burden of maintaining new wells or generators
- Minimizes legal issues associated with DWC funding

### ➤ 5.4.2 Disadvantages of DWC Ownership

- DWC taking over facilities in various states of maintenance
- Could be viewed as DWC overstepping responsibility
- DWC would have to hire additional staff to perform and/or supervise well and backup generator maintenance activities



# EMERGENCY OPERATIONS

## Limited Centralized Backup Generation Option

- Another option the Commission could consider for emergency operations in the event of a loss of electrical service is the installation of backup generation only at DPPS
  - Could be coupled with the installation of an additional 30 million gallons of water storage
  - Could also be coupled with the decentralized option of installing generators at Customer well sites (in full or in part)
- This option is a limited centralized backup generation option





# EMERGENCY OPERATIONS

## Limited Centralized Backup Generation Option

- 6.1.1 Advantages of DPPS Generation Only
  - Provides time for Customers to activate their own emergency procedures
- 6.1.2 Disadvantages of DPPS Generation Only
  - Limited ability to provide water
    - Eight hours with existing 30 million gallons of storage
    - Sixteen hours with additional 30 million gallons of storage
    - Assumes reservoir(s) full and pumping rate of average day



# EMERGENCY OPERATIONS

## 6.2 Additional Reservoir

- Other Benefits of Additional 30MG Reservoir
  - Provides an additional eight hours of water in the event of a disruption of flow from LPS
    - Regardless of cause (loss of electrical service; main break; etc.)
    - Assumes reservoir full and pumping rate of average day
  - Allows more water to be taken during low-cost electrical demand period
    - Assumes discounted off-peak rates continue to be offered



# EMERGENCY OPERATIONS

## Status Quo Option

- Another option the Commission could consider for emergency operations in the event of a loss of electrical service is maintaining the status quo
  - Customers remain solely responsible for their own emergency operation procedures



# EMERGENCY OPERATIONS

## Status Quo Option

- 7.1.1 Advantages of Maintaining Status Quo
  - There is no contractual requirement for DWC to provide water during times of interruption of electrical supply
  - Presumably, Customers were intended and expected to maintain wells for emergency purposes
- 7.1.2 Disadvantages of Maintaining Status Quo
  - Most Customers have changed their water department operations from one of supply, treatment and distribution to one of straight distribution



# EMERGENCY OPERATIONS

## Status Quo Option

- During a loss of water supply from DWC, alternate sources could be dispersed throughout the County, assuming sufficient quantity and size of emergency interconnections among Customers
  - Table 4 lists the existing interconnections
  - Some are between DWC Customers; some are between DWC Customers and others not provided with water from DWC; and some DWC Customers have no emergency interconnections
  - During a loss of water supply from DWC, it would seem highly unlikely that a Customer would open an emergency interconnection and allow its limited water supply to be used by anyone outside its water system



# Questions & Comments

February 9, 2006

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# Capital Improvement Plan FY 2006 - 2007

February 9, 2006



# BOV-2

## Rehab Blow-off Valves 90"



February 9, 2006





## BOV-2

# Rehab Blow-off Valves 90"

### ➤ Cost

- Engineering Tech Ob & Con Serv by DWC
- Construction \$2,528,000

### ➤ Timing

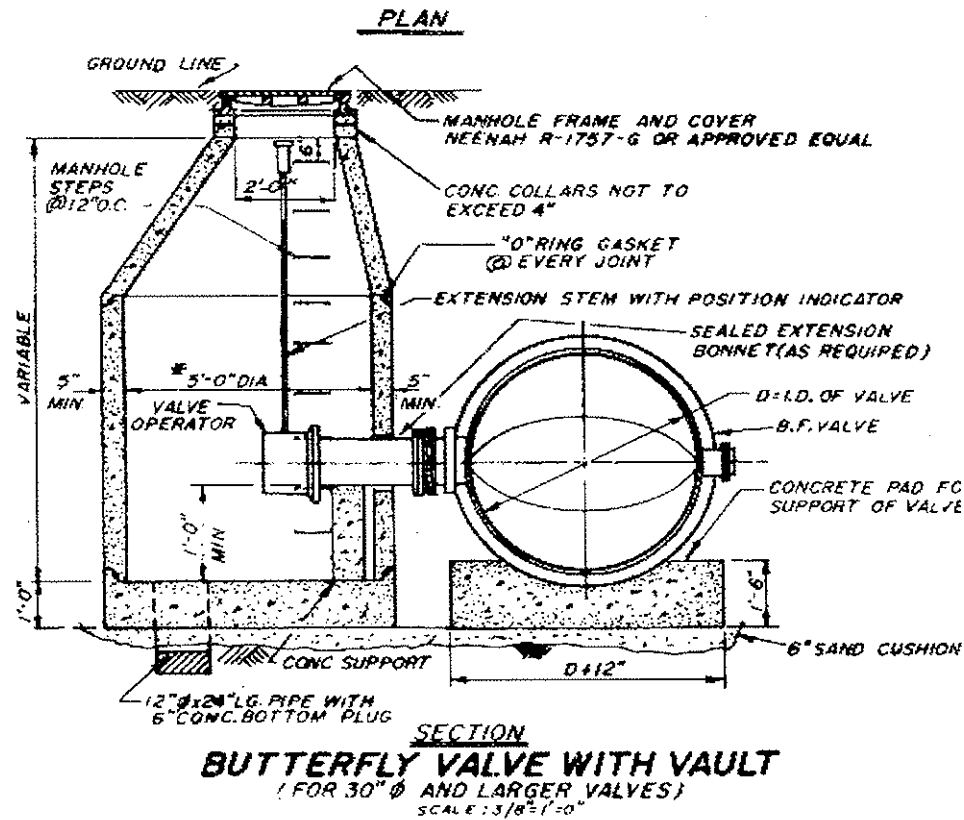
- FY 2006-2007 – Construction completed

### ➤ Rehabilitate 29 blow-off valves on 90" Transmission Main

### ➤ Eliminate untimely leaks along the 90" Transmission Main



# Valve Stem Replacement





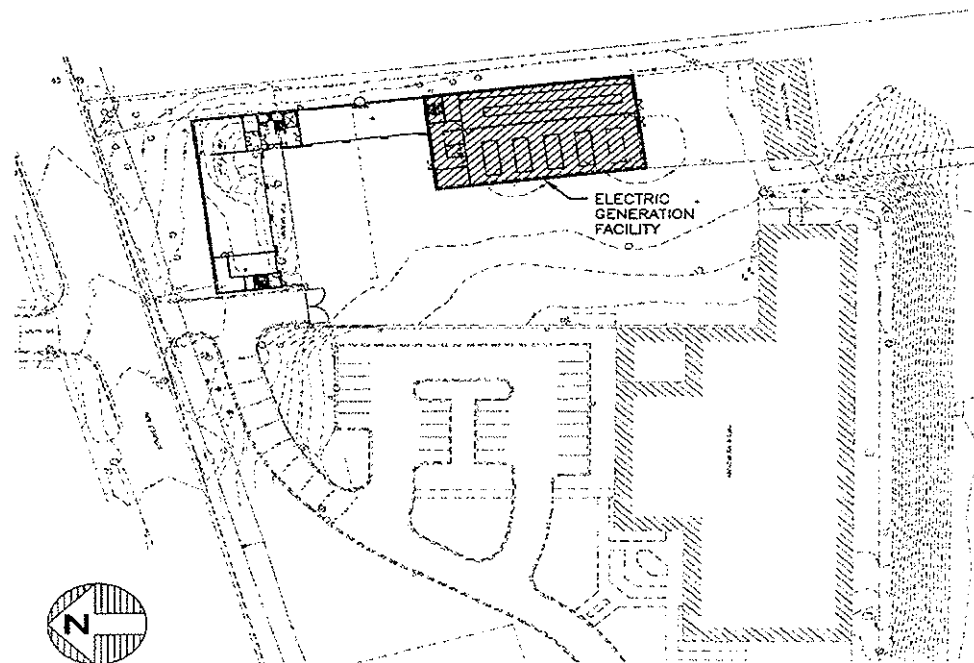
# Valve Stem Replacement

- Cost
  - Engineering Tech Ob & Con Serv by DWC
  - Construction \$410,000
- Timing
  - FY 2006-2007 – Construction completed
- DWC has experienced numerous failures of the originally installed hollow core risers during the performance of the valve/exercise program
- Replace hollow core valve risers with solid stock risers



# 8 MW Generation Facility

PROPOSED 8 MW ELECTRIC  
GENERATION FACILITY  
DU PAGE WATER COMMISSION



February 9, 2006



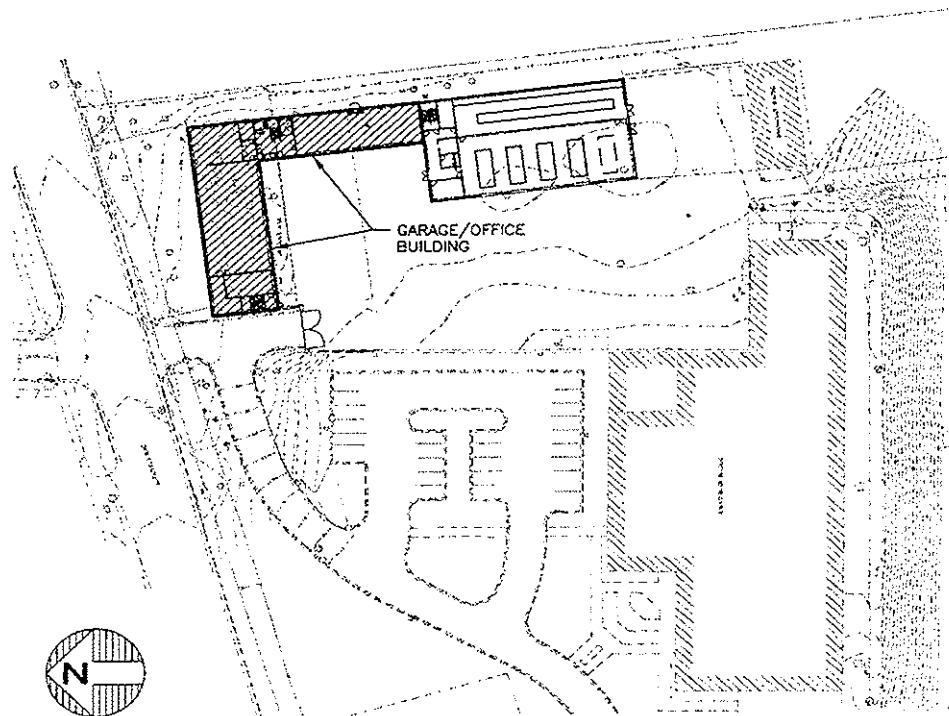
# 8 MW Generation Facility

- Cost
  - Engineering \$1,730,000
  - Construction \$11,500,000
- Timing
  - FY 2006-2007 – Design completed
  - FY 2007-2008 – Construction begins
- Backup electrical power to provide average day flow
- Allow DWC to enter into a “curtailable” electric rate structured contract (if curtailable rate continues to be available)



# Garage/ Office Building

PROPOSED GARAGE/OFFICE BUILDING  
DU PAGE WATER COMMISSION



February 9, 2006



# Garage/ Office Building

## ➤ Cost

- Engineering \$100,000
- Construction \$1,400,000

## ➤ Timing

- FY 2006-2007 – Design completed
- FY 2007-2008 – Construction begins

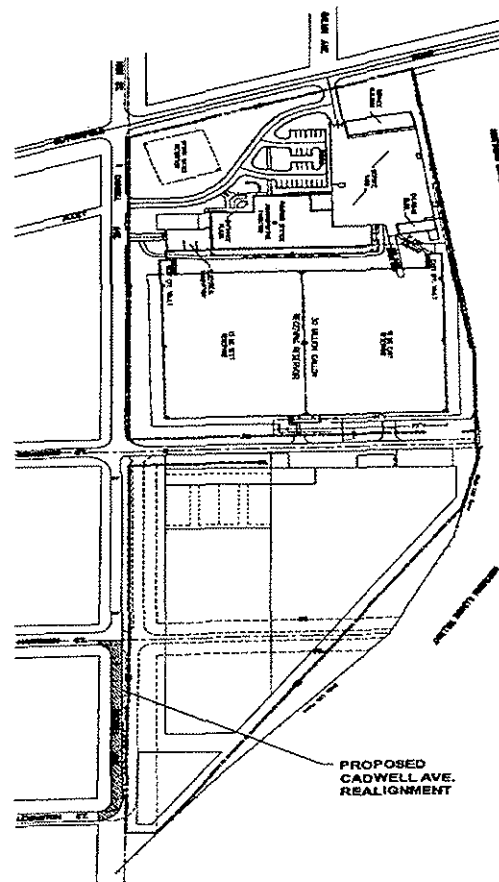
## ➤ Make room for backup generation facility

## ➤ Small vehicles, parts storage and additional office space



# Cadwell Avenue Realignment

PROPOSED CADWELL AVENUE REALIGNMENT  
DU PAGE WATER COMMISSION



February 9, 2006





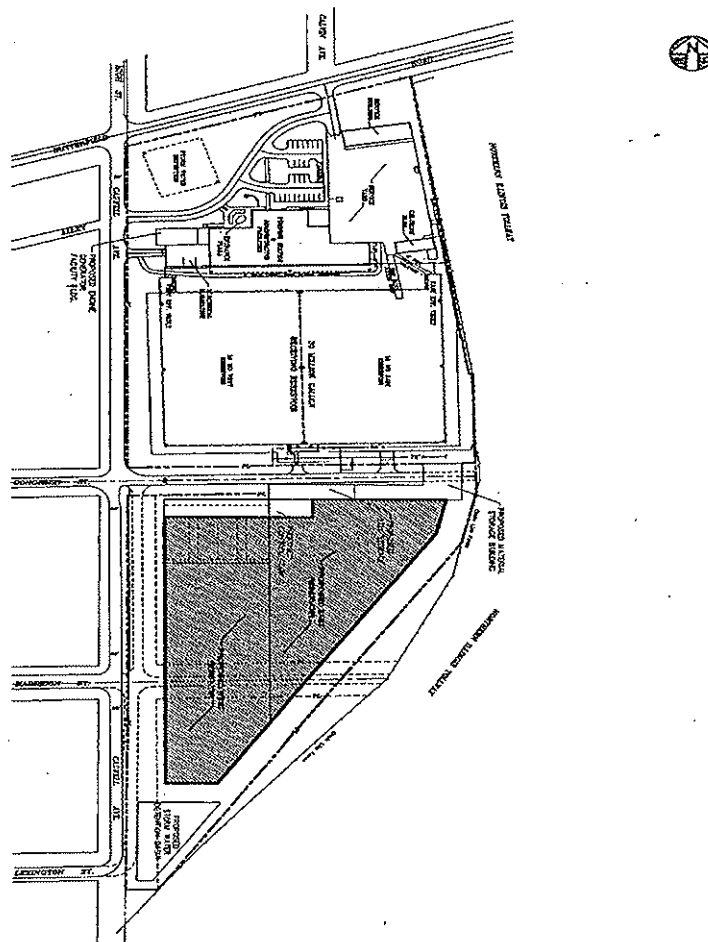
# Cadwell Avenue Realignment

- Cost
  - Engineering \$26,500
  - Construction \$150,000
- Timing
  - FY 2006-2007 – Design completed
  - FY 2007-2008 – Construction completed
- Remove existing township-standard road and replace with Elmhurst-standard road aligned with existing improved roadway
- Allows for relocation of utilities, thereby allowing the Commission to install additional perimeter security at the DuPage Pumping Station



# 30 MG Reservoir

PROPOSED 30 MG RESERVOIR  
DU PAGE WATER COMMISSION



February 9, 2006



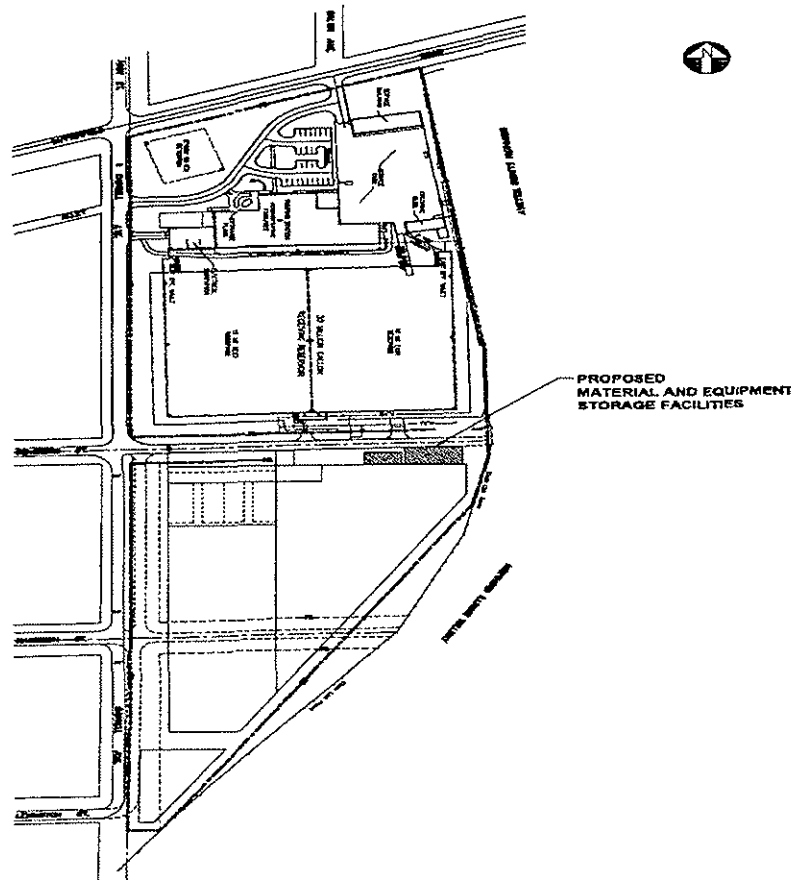
# 30 MG Reservoir

- Cost
  - Engineering \$1,200,000
  - Construction \$30,760,000
- Timing
  - FY 2007-2008 – Design completed
  - FY 2008-2009 – Construction begins
- Two 15 MG concrete reservoirs with baffled walls to prevent short-circuiting
- The influent of the proposed reservoirs will be constructed to allow for the addition of a taste and odor chemical feed system if needed in the future
- Provide additional time for the customer utilities in the event of disruption of supply from Chicago and ability to take more water off peak to decrease power demand charge at Lexington Pumping Station (if off peak discounts continue to be offered)



# Material & Equipment Storage Facilities

PROPOSED MATERIAL AND EQUIPMENT  
STORAGE FACILITIES  
DU PAGE WATER COMMISSION



February 9, 2006



# Material & Equipment Storage Facilities

## ➤ Cost

- Engineering \$60,000
- Construction \$640,000

## ➤ Timing

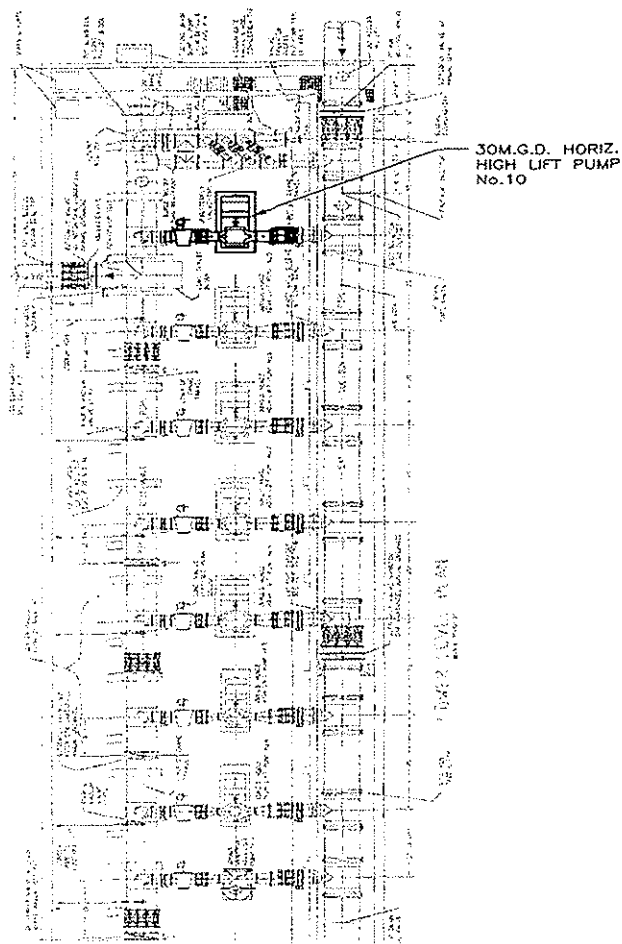
- FY 2008-2009 – Construction

## ➤ To stockpile granular and landscape materials for maintenance and to garage heavy equipment



# Pump # 10

PROPOSED PUMP #10  
DU PAGE WATER COMMISSION



February 9, 2006



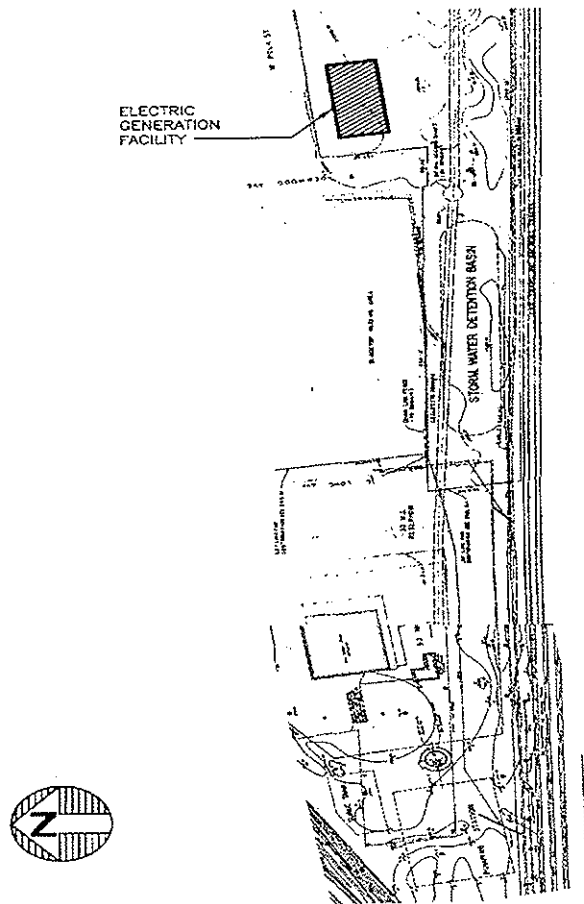
# Pump # 10

- Cost
  - Engineering \$40,000
  - Construction \$438,000
- Timing
  - FY 2010-2011 – Engineering
  - FY 2010-2011 – Construction
- To install 30 MGD split case centrifugal pump and associated piping in space reserved for future pump
- To increase firm pumping capacity from 210 MGD to 240 MGD to satisfy future demand requirements



# Lexington Generation Facility

ELECTRIC GENERATION FACILITY  
AT LEXINGTON PUMPING STATION  
DU PAGE WATER COMMISSION



February 9, 2006





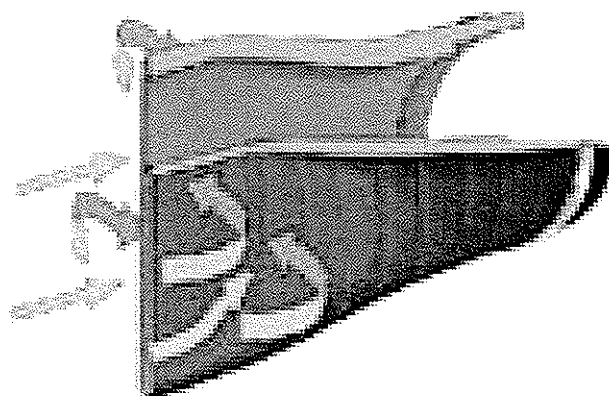
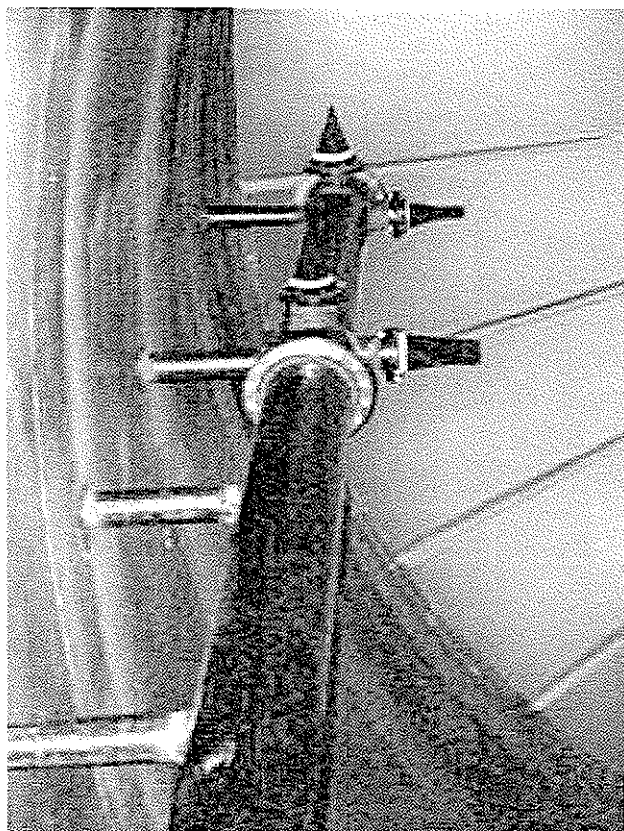
# Lexington Generation Facility

- Cost
  - Engineering \$1,740,000
  - Construction \$12,500,000
  - Reimbursement \$7,120,000
- Timing
  - FY 2006-2007 – Engineering
  - FY 2007-2009 – Construction
- Construct building and install stand-by generators for average day flow
- Chicago is considering reimbursing half of the cost (up to \$8.5 million)
- Installed generation will allow the City to enter into a “curtailable” electric rate structured contract (if curtailable rate continues to be available)

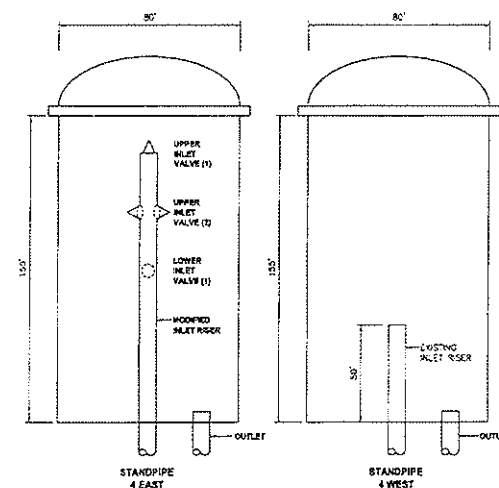


# Tank # 4E

## Riser Modification



PROPOSED TS NO.4 RISER PIPE MODIFICATIONS  
DU PAGE WATER COMMISSION



February 9, 2006



# Tank # 4E

## Riser Modification

- Cost
  - Engineering \$13,000
  - Construction \$98,000
- Timing
  - FY 2006-2007 – Construction
- By lengthening and providing openings on the inlet riser pipes, better mixing of water by de-stratification will assist in reducing taste and odor problem that results from stale water



# General CIP Notes

- O&M revenues are based on 94.0% of the IDNR allocation for each fiscal year
- Fixed Costs revenue requirement is 50% of the annual debt service on the Commission's outstanding revenue bonds, with sales taxes funding the remaining 50%
- Sales tax receipts increase 2% annually
- Interest income based upon prior year's earnings versus prior year's net revenues excluding interest earned (applied to the same figure for each projected fiscal year)



# General CIP Notes

- Water purchase expense is based upon the Commission billing 97.1% of all water purchased from Chicago and 3% annual increases in the Chicago water rate beginning January 1, 2007
- All other operating expenses not specifically mentioned are anticipated to rise 5% per year
- Construction and major capital repair costs are inflated 2% per year



# CIP Notes

- The average water rate is maintained at \$1.45 per thousand gallons through fiscal year 2009-10 and \$1.55 per thousand gallons thereafter
- Sales tax receipts used beginning May 1, 2008 to hold the water rate at those respective levels
- Sales tax receipts pay for general obligation bond debt service requirements to allow for the annual abatement of \$13.1 million property tax
- Principal and interest costs relate to scheduled debt service on the Commission's 2003 revenue bonds and 2001 general obligation bonds



# 2006 – 2007 Capital Improvement Plan

DUPAGE WATER COMMISSION - 14 YEAR PROJECTION  
SUMMARY OF REVENUES, EXPENDITURES AND FUND BALANCES  
MAY 1, 2006 TO APRIL 30, 2020  
50% REVENUE BOND SUBSIDY - \$1.45 RATE THRU FY09-10 - THEN \$1.55 - RESERV. ACCELERATED

| ACCOUNT TITLE   | ALL FUNDS<br>FY 04-05<br>ACTUAL | ALL FUNDS<br>FY 05-06<br>FORECAST | ASSUMPTION<br>OR % CHGE | ALL FUNDS<br>FY 06-07<br>FORECAST | ALL FUNDS<br>FY 07-08<br>FORECAST | ALL FUNDS<br>FY 08-09<br>FORECAST | ALL FUNDS<br>FY 09-10<br>FORECAST | ALL FUNDS<br>FY 10-11<br>FORECAST |
|---|---------------------------------|-----------------------------------|-------------------------|-----------------------------------|-----------------------------------|-----------------------------------|-----------------------------------|-----------------------------------|
| <b>REVENUES</b>   |                                 |                                   |                         |                                   |                                   |                                   |                                   |                                   |
| O & M PAYMENTS  | 43,486,319                      | 41,023,413                        | CALCULATED              | 41,532,694                        | 41,878,257                        | 42,220,527                        | 42,558,653                        | 46,348,412                        |
| SALES TAX USED FOR O & M COSTS                                | 0                               | 0                                 | CALCULATED              | 0                                 | 0                                 | 12,877,304                        | 12,939,022                        | 14,747,828                        |
| FIXED COST PAYMENTS (% PAID BY SALES TAX)                     | 7,143,969                       | 7,144,469                         | 50.0%                   | 7,145,094                         | 7,145,344                         | 7,144,719                         | 7,145,219                         | 7,146,219                         |
| SUSSEQUENT CUSTOMER DIFFERENTIAL (ONE TIME REFUND - FY 2006)  | 709,918                         | 573,561                           | 1.0%                    | 714,437                           | 721,581                           | 728,797                           | 736,085                           | 743,446                           |
| EMERGENCY SUPPLY  | 59,072                          | 8,344                             | 2.0%                    | 8,511                             | 8,681                             | 8,855                             | 9,032                             | 9,213                             |
| SALES TAX USED FOR CONSTRUCTION AND BOND PAYMENTS             | 34,384,906                      | 34,977,839                        | 2.0%                    | 35,677,396                        | 36,390,944                        | 24,241,459                        | 24,922,116                        | 23,870,533                        |
| INTEREST INCOME   | 2,856,461                       | 4,874,005                         | EXTRAPOLATED            | 4,537,780                         | 4,281,977                         | 3,707,266                         | 3,259,717                         | 3,079,590                         |
| OTHER INCOME  | 6,393                           | 2,500                             | 0.0%                    | 2,500                             | 2,500                             | 2,500                             | 2,500                             | 2,500                             |
| <b>TOTAL REVENUE</b>  | <b>88,647,038</b>               | <b>88,604,131</b>                 |                         | <b>89,618,412</b>                 | <b>90,429,284</b>                 | <b>90,931,427</b>                 | <b>91,572,344</b>                 | <b>95,947,741</b>                 |
| <b>OPERATING EXPENDITURES</b>                                 |                                 |                                   |                         |                                   |                                   |                                   |                                   |                                   |
| WATER PURCHASES (3% ANNUAL RATE INCR. AFTER 1/1/07)           | 39,657,670                      | 44,584,319                        | CALCULATED              | 45,187,726                        | 46,920,176                        | 48,706,262                        | 50,580,904                        | 52,505,924                        |
| 20% CREDIT THRU 10/31/04; 10% FOR GENERATORS STARTING FY2010  | (3,743,346)                     | 0                                 | CALCULATED              | (868,166)                         | 0                                 | 0                                 | (5,058,090)                       | (2,061,910)                       |
| 5 YEAR CAPITAL PLAN MAJOR REPAIRS                             | 4,810,523                       | 1,926,006                         | CALCULATED              | 2,938,000                         | 0                                 | 0                                 | 0                                 | 0                                 |
| OTHER OPERATING EXPENSES (EXCL BOND INTEREST/DEPRC)           | 8,035,655                       | 10,226,824                        | 5.0%                    | 10,738,165                        | 11,275,073                        | 11,838,827                        | 12,430,768                        | 13,052,306                        |
| REVENUE BOND PRINCIPAL AND INTEREST COSTS                     | 14,287,938                      | 14,288,937                        | CALCULATED              | 14,290,188                        | 14,290,687                        | 14,289,438                        | 14,290,437                        | 14,292,438                        |
| G.O. BOND PRINCIPAL AND INTEREST COSTS                        | 13,122,150                      | 13,124,150                        | CALCULATED              | 13,117,900                        | 13,117,650                        | 13,116,900                        | 13,121,275                        | 13,119,413                        |
| CAPITAL EQUIPMENT   | 193,747                         | 397,056                           | 5.0%                    | 200,000                           | 210,000                           | 220,500                           | 231,525                           | 243,101                           |
| <b>TOTAL OPERATING EXPENDITURES AND COMMITMENTS</b>           | <b>76,364,337</b>               | <b>84,547,292</b>                 |                         | <b>85,603,813</b>                 | <b>85,813,586</b>                 | <b>88,171,947</b>                 | <b>85,596,819</b>                 | <b>91,151,272</b>                 |
| 5 YEAR CAPITAL PLAN NEW CONSTRUCTION                          | 13,792,352                      | 5,356,901                         | CALCULATED              | 1,218,000                         | 14,780,000                        | 22,275,000                        | 17,775,000                        | 9,231,000                         |
| 5 YEAR CONSTRUCTION PLAN (DELAY)-CATCH-UP                     | 0                               | 0                                 | CALCULATED              | 0                                 | 0                                 | 0                                 | 0                                 | 0                                 |
| OTHER MINOR RELATED OUTLAYS                                   | 0                               | 0                                 | 4.0%                    | 250,000                           | 260,000                           | 270,400                           | 281,216                           | 292,465                           |
| DUPAGE COUNTY SALES TAX GRANT                                 | 15,000,000                      | 15,000,000                        | PA93-0226               | 15,000,000                        | 15,000,000                        | 0                                 | 0                                 | 0                                 |
| WATER QUALITY LOANS   | 2,103,547                       | (902,956)                         | BOARD POLICY            | (700,000)                         | (337,409)                         | 0                                 | 0                                 | 0                                 |
| <b>TOTAL CASH OUTLAYS AND COMMITMENTS</b>                     | <b>107,260,236</b>              | <b>104,001,237</b>                |                         | <b>101,371,813</b>                | <b>115,516,177</b>                | <b>110,717,347</b>                | <b>103,653,035</b>                | <b>100,674,737</b>                |
| <b>NET TRANSACTIONS</b>                                       | <b>(18,613,198)</b>             | <b>(15,397,106)</b>               |                         | <b>(11,753,401)</b>               | <b>(25,086,893)</b>               | <b>(19,785,920)</b>               | <b>(12,080,691)</b>               | <b>(4,726,996)</b>                |
| BEGINNING FIVE YEAR PLAN CASH AND EQUIVALENTS                 | 138,776,328                     | 119,903,780                       | CALCULATED              | 104,506,674                       | 92,753,273                        | 67,666,380                        | 47,880,460                        | 35,799,769                        |
| CONVERTED (TO) - FROM RESTRICTED OR CAPITAL NET ASSETS        | (259,350)                       | 0                                 |                         | 0                                 | 0                                 | 0                                 | 0                                 | 0                                 |
| <b>ENDING FIVE YEAR PLAN CASH AND EQUIVALENTS</b>             | <b>119,903,780</b>              | <b>104,506,674</b>                |                         | <b>92,753,273</b>                 | <b>67,666,380</b>                 | <b>47,880,460</b>                 | <b>35,799,769</b>                 | <b>31,072,773</b>                 |
| <b>HELD FOR EMERGENCY REPAIRS-TARGET (1)</b>                  | <b>12,300,000</b>               | <b>12,400,000</b>                 | <b>3.0%</b>             | <b>12,800,000</b>                 | <b>13,200,000</b>                 | <b>13,600,000</b>                 | <b>14,000,000</b>                 | <b>14,400,000</b>                 |
| O&M RATE STABILIZATION RESERVE                                | 42,862,895                      | 30,074,422                        |                         | 16,371,763                        | 2,650,688                         | 0                                 | 0                                 | 0                                 |
| CONSTRUCTION RESERVE  | 15,879,132                      | 27,267,543                        |                         | 43,116,801                        | 46,013,574                        | 28,478,342                        | 15,997,651                        | 10,870,655                        |
| PA93-0226 UNDISTRIBUTED                                       | 45,000,000                      | 30,000,000                        |                         | 15,000,000                        | 0                                 | 0                                 | 0                                 | 0                                 |
| UNDISTRIBUTED WATER QUALITY LOANS                             | 3,861,753                       | 4,764,709                         |                         | 5,464,709                         | 5,802,118                         | 5,802,118                         | 5,802,118                         | 5,802,118                         |
| <b>ENDING FIVE YEAR PLAN CASH AND EQUIVALENTS BY CATEGORY</b> | <b>119,903,780</b>              | <b>104,506,674</b>                |                         | <b>92,753,273</b>                 | <b>67,666,380</b>                 | <b>47,880,460</b>                 | <b>35,799,769</b>                 | <b>31,072,773</b>                 |
| <b>O &amp; M RATE</b>   | <b>1.43</b>                     | <b>1.23</b>                       |                         | <b>1.24</b>                       | <b>1.24</b>                       | <b>1.24</b>                       | <b>1.24</b>                       | <b>1.34</b>                       |
| <b>FIXED COST RATE</b>  | <b>0.23</b>                     | <b>0.21</b>                       |                         | <b>0.21</b>                       | <b>0.21</b>                       | <b>0.21</b>                       | <b>0.21</b>                       | <b>0.21</b>                       |
| <b>TOTAL RATE</b>   | <b>1.66</b>                     | <b>1.44</b>                       |                         | <b>1.45</b>                       | <b>1.45</b>                       | <b>1.45</b>                       | <b>1.45</b>                       | <b>1.55</b>                       |

NOTE (1) - TO MAX OF 25,000,000

REVISED: 01/04/06

February 9, 2006

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# 2006 – 2007 Capital Improvement Plan

DuPAGE WATER COMMISSION - 14 YEAR PROJECTION  
SUMMARY OF REVENUES, EXPENDITURES AND FUND BALANCES  
MAY 1, 2006 TO APRIL 30, 2020  
50% REVENUE BOND SUBSIDY - \$1.45 RATE THRU FY09-10 - THEN \$1.55 - RESERV. ACCEL

| ACCOUNT TITLE   | ALL FUNDS<br>FY 11-12<br>FORECAST | ALL FUNDS<br>FY 12-13<br>FORECAST | ALL FUNDS<br>FY 13-14<br>FORECAST | ALL FUNDS<br>FY 14-15<br>FORECAST | ALL FUNDS<br>FY 15-16<br>FORECAST | ALL FUNDS<br>FY 16-17<br>FORECAST | ALL FUNDS<br>FY 17-18<br>FORECAST | ALL FUNDS<br>FY 18-19<br>FORECAST | ALL FUNDS<br>FY 19-20<br>FORECAST |
|---|-----------------------------------|-----------------------------------|-----------------------------------|-----------------------------------|-----------------------------------|-----------------------------------|-----------------------------------|-----------------------------------|-----------------------------------|
| <b>REVENUES</b>   |                                   |                                   |                                   |                                   |                                   |                                   |                                   |                                   |                                   |
| O & M PAYMENTS  | 46,700,658                        | 47,403,895                        | 47,758,769                        | 48,113,494                        | 48,475,633                        | 56,079,770                        | 56,500,701                        | 56,922,149                        | 57,344,316                        |
| SALES TAX USED FOR O & M COSTS                                | 19,616,544                        | 21,410,846                        | 23,746,223                        | 26,101,941                        | 28,618,769                        | 0                                 | 23,628,973                        | 28,899,583                        | 31,674,836                        |
| FIXED COST PAYMENTS (% PAID BY SALES TAX)                     | 7,144,594                         | 7,144,844                         | 7,144,163                         | 7,144,969                         | 7,143,844                         | 0                                 | 0                                 | 0                                 | 0                                 |
| SUBSEQUENT CUSTOMER DIFFERENTIAL (ONE TIME REFUND - FY 2006)  | 750,880                           | 758,389                           | 765,973                           | 773,633                           | 781,369                           | 789,183                           | 797,075                           | 805,046                           | 813,096                           |
| EMERGENCY SUPPLY  | 9,397                             | 9,585                             | 9,777                             | 9,973                             | 10,172                            | 10,375                            | 10,583                            | 10,795                            | 11,011                            |
| SALES TAX USED FOR CONSTRUCTION AND BOND PAYMENTS             | 19,774,184                        | 18,767,697                        | 17,235,891                        | 15,699,815                        | 14,019,022                        | 43,490,547                        | 20,731,385                        | 16,347,982                        | 14,477,680                        |
| INTEREST INCOME   | 2,993,502                         | 3,289,208                         | 3,560,562                         | 3,796,279                         | 3,993,558                         | 4,150,762                         | 5,278,818                         | 5,709,438                         | 6,096,863                         |
| OTHER INCOME  | 2,500                             | 2,500                             | 2,500                             | 2,500                             | 2,500                             | 2,500                             | 2,500                             | 2,500                             | 2,500                             |
| <b>TOTAL REVENUE</b>  | <b>96,992,259</b>                 | <b>98,786,964</b>                 | <b>100,223,858</b>                | <b>101,642,604</b>                | <b>103,044,867</b>                | <b>104,523,137</b>                | <b>106,950,035</b>                | <b>108,697,493</b>                | <b>110,420,302</b>                |
| <b>OPERATING EXPENDITURES</b>                                 |                                   |                                   |                                   |                                   |                                   |                                   |                                   |                                   |                                   |
| WATER PURCHASES (3% ANNUAL RATE INCR. AFTER 1/1/07)           | 54,484,220                        | 56,558,486                        | 58,694,265                        | 60,892,006                        | 63,199,341                        | 65,579,480                        | 68,061,374                        | 70,611,376                        | 73,268,742                        |
| 20% CREDIT THRU 10/31/04; 10% FOR GENERATORS STARTING FY2010  | 0                                 | 0                                 | 0                                 | 0                                 | 0                                 | 0                                 | 0                                 | 0                                 | 0                                 |
| 5 YEAR CAPITAL PLAN MAJOR REPAIRS                             | 599,352                           | 611,339                           | 623,566                           | 636,037                           | 648,758                           | 661,733                           | 674,968                           | 688,467                           | 702,236                           |
| OTHER OPERATING EXPENSES (EXCL BOND INTEREST/DEPRC)           | 13,704,921                        | 14,390,167                        | 15,109,675                        | 15,865,159                        | 16,658,417                        | 17,491,338                        | 18,365,905                        | 19,284,200                        | 20,248,410                        |
| REVENUE BOND PRINCIPAL AND INTEREST COSTS                     | 14,289,187                        | 14,289,688                        | 14,288,325                        | 14,289,937                        | 14,287,687                        | 0                                 | 0                                 | 0                                 | 0                                 |
| G.O. BOND PRINCIPAL AND INTEREST COSTS                        | 0                                 | 0                                 | 0                                 | 0                                 | 0                                 | 0                                 | 0                                 | 0                                 | 0                                 |
| CAPITAL EQUIPMENT   | 255,256                           | 268,019                           | 281,420                           | 295,491                           | 310,266                           | 325,779                           | 342,068                           | 359,171                           | 377,130                           |
| <b>TOTAL OPERATING EXPENDITURES AND COMMITMENTS</b>           | <b>83,332,936</b>                 | <b>86,117,699</b>                 | <b>88,997,251</b>                 | <b>91,978,630</b>                 | <b>95,104,469</b>                 | <b>98,058,330</b>                 | <b>101,044,315</b>                | <b>104,043,214</b>                | <b>107,096,518</b>                |
| 5 YEAR CAPITAL PLAN NEW CONSTRUCTION                          | 2,500,000                         | 2,550,000                         | 2,601,000                         | 2,653,020                         | 2,706,080                         | 2,760,202                         | 2,815,406                         | 2,871,714                         | 2,929,148                         |
| 5 YEAR CONSTRUCTION PLAN (DELAY)-CATCH-UP                     | 0                                 | 0                                 | 0                                 | 0                                 | 0                                 | 0                                 | 0                                 | 0                                 | 0                                 |
| OTHER MINOR RELATED OUTLAYS                                   | 304,164                           | 316,331                           | 328,984                           | 342,143                           | 355,829                           | 370,082                           | 384,864                           | 400,259                           | 416,269                           |
| DUPAGE COUNTY SALES TAX GRANT                                 | 0                                 | 0                                 | 0                                 | 0                                 | 0                                 | 0                                 | 0                                 | 0                                 | 0                                 |
| WATER QUALITY LOANS   | 0                                 | (368,308)                         | (368,308)                         | (368,308)                         | (368,308)                         | (368,308)                         | (368,308)                         | (368,308)                         | (368,308)                         |
| <b>TOTAL CASH OUTLAYS AND COMMITMENTS</b>                     | <b>86,137,100</b>                 | <b>88,615,722</b>                 | <b>91,558,927</b>                 | <b>94,605,485</b>                 | <b>97,798,070</b>                 | <b>100,820,286</b>                | <b>103,276,277</b>                | <b>105,845,879</b>                | <b>108,573,627</b>                |
| <b>NET TRANSACTIONS</b>                                       | <b>10,855,159</b>                 | <b>10,171,242</b>                 | <b>8,664,931</b>                  | <b>7,037,119</b>                  | <b>5,246,797</b>                  | <b>17,702,851</b>                 | <b>16,673,758</b>                 | <b>14,850,614</b>                 | <b>12,846,675</b>                 |
| BEGINNING FIVE YEAR PLAN CASH AND EQUIVALENTS                 | 31,072,773                        | 41,927,932                        | 52,099,174                        | 60,764,105                        | 67,801,224                        | 73,048,021                        | 118,877,152                       | 135,550,910                       | 150,401,524                       |
| CONVERTED (TO) - FROM RESTRICTED OR CAPITAL NET ASSETS        | 0                                 | 0                                 | 0                                 | 0                                 | 0                                 | 28,126,280                        | 0                                 | 0                                 | 0                                 |
| <b>ENDING FIVE YEAR PLAN CASH AND EQUIVALENTS</b>             | <b>41,927,932</b>                 | <b>52,099,174</b>                 | <b>60,764,105</b>                 | <b>67,801,224</b>                 | <b>73,048,021</b>                 | <b>118,877,152</b>                | <b>135,550,910</b>                | <b>150,401,524</b>                | <b>163,248,199</b>                |
| <b>HELD FOR EMERGENCY REPAIRS-TARGET (1)</b>                  | <b>14,800,000</b>                 | <b>15,200,000</b>                 | <b>15,700,000</b>                 | <b>16,200,000</b>                 | <b>16,700,000</b>                 | <b>17,200,000</b>                 | <b>17,700,000</b>                 | <b>18,200,000</b>                 | <b>18,700,000</b>                 |
| O&M RATE STABILIZATION RESERVE                                | 0                                 | 0                                 | 0                                 | 0                                 | 0                                 | 2,802,048                         | 0                                 | 0                                 | 0                                 |
| CONSTRUCTION RESERVE  | 21,325,814                        | 30,728,748                        | 38,525,371                        | 44,694,182                        | 49,072,671                        | 91,231,446                        | 109,838,944                       | 123,821,250                       | 135,799,617                       |
| PA93-0226 UNDISTRIBUTED                                       | 0                                 | 0                                 | 0                                 | 0                                 | 0                                 | 0                                 | 0                                 | 0                                 | 0                                 |
| UNDISTRIBUTED WATER QUALITY LOANS                             | 5,802,118                         | 6,170,426                         | 6,538,734                         | 6,907,042                         | 7,275,350                         | 7,643,658                         | 8,011,966                         | 8,380,274                         | 8,748,582                         |
| <b>ENDING FIVE YEAR PLAN CASH AND EQUIVALENTS BY CATEGORY</b> | <b>41,927,932</b>                 | <b>52,099,174</b>                 | <b>60,764,105</b>                 | <b>67,801,224</b>                 | <b>73,048,021</b>                 | <b>118,877,152</b>                | <b>135,550,910</b>                | <b>150,401,524</b>                | <b>163,248,199</b>                |
| O & M RATE  | 1.34                              | 1.35                              | 1.35                              | 1.35                              | 1.35                              | 1.55                              | 1.55                              | 1.55                              | 1.55                              |
| FIXED COST RATE   | 0.21                              | 0.20                              | 0.20                              | 0.20                              | 0.20                              | 0.00                              | 0.00                              | 0.00                              | 0.00                              |
| <b>TOTAL RATE</b>   | <b>1.55</b>                       | <b>1.55</b>                       | <b>1.55</b>                       | <b>1.55</b>                       | <b>1.55</b>                       | <b>1.55</b>                       | <b>1.55</b>                       | <b>1.55</b>                       | <b>1.55</b>                       |

NOTE (1) - TO MAX OF 25,000,000

REVISED: 01/04/06

February 9, 2006

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# 2006 – 2007 Capital Improvement Plan

## SUMMARY OF ESTIMATED NEW CONSTRUCTION COSTS 50% REVENUE BOND SUBSIDY - \$1.45 RATE THRU FY09-10 - THEN \$1.55 - RESERV. ACCELERATED

| DESCRIPTION (BASED ON FY 05-06 COSTS)                    | FY 06-07  | FY 07-08   | FY 08-09   | FY 09-10   | FY 10-11  | TOTAL      |
|--|-----------|------------|------------|------------|-----------|------------|
| <b>DUPAGE PUMP STATION IMPROVEMENTS</b>                  |           |            |            |            |           |            |
| 8 MW Electrical Generator Facility - Engineering         | 680,000   | 425,000    | 425,000    | 200,000    |           | 1,730,000  |
| 8 MW Electrical Generator Facility - Construction        |           | 6,000,000  | 4,500,000  | 1,000,000  |           | 11,500,000 |
| Garage/Office Building- Engineering                      | 50,000    | 25,000     | 25,000     |            |           | 100,000    |
| Garage/Office Building- Construction                     |           | 700,000    | 700,000    |            |           | 1,400,000  |
| Cadwell Avenue Realignment- Engineering                  | 26,500    |            |            |            |           | 26,500     |
| Cadwell Avenue Realignment- Construction                 | 150,000   |            |            |            |           | 150,000    |
| 30 MG Reservoir Engineering                              |           | 250,000    | 350,000    | 300,000    | 300,000   | 1,200,000  |
| 30 MG Reservoir Construction                             |           |            | 7,760,000  | 15,250,000 | 7,750,000 | 30,760,000 |
| Material and Equipment Storage Facilities- Engineering   |           |            | 60,000     |            |           | 60,000     |
| Material and Equipment Storage Facilities- Construction  |           |            | 640,000    |            |           | 640,000    |
| Pump #10-Engineering                                     |           |            |            |            | 40,000    | 40,000     |
| Pump #10-Installation                                    |           |            |            |            | 438,000   | 438,000    |
| <b>LEXINGTON PUMP STATION IMPROVEMENTS</b>               |           |            |            |            |           |            |
| Generator Facility - Engineering                         | 200,000   | 1,090,000  | 450,000    |            |           | 1,740,000  |
| Generator Facility - Construction                        |           | 6,000,000  | 6,500,000  |            |           | 12,500,000 |
| <b>STANDPIPE IMPROVEMENTS</b>                            |           |            |            |            |           |            |
| Standpipe #4 East Riser Pipe Modifications- Engineering  | 13,000    |            |            |            |           | 13,000     |
| Standpipe #4 East Riser Pipe Modifications- Construction | 98,000    |            |            |            |           | 98,000     |
|  | 1,217,500 | 14,490,000 | 21,410,000 | 16,750,000 | 8,528,000 | 62,395,500 |
| <b>INFLATION FACTOR 2% PER YEAR</b>                      | 100.0%    | 102.0%     | 104.0%     | 106.1%     | 108.2%    | 104.6%     |
|  | 1,218,000 | 14,780,000 | 22,275,000 | 17,775,000 | 9,231,000 | 65,279,000 |

Note (1) - Includes legal, property acquisition (if any) and soil testing services.

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February 9, 2006

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# 2006 – 2007 Capital Improvement Plan

## SUMMARY OF ESTIMATED MAJOR REPAIR COSTS

50% REVENUE BOND SUBSIDY - \$1.45 RATE THRU FY09-10 - THEN \$1.55 - RESERV. ACCELERATED

| BASED ON FY 05-06 COSTS  | FY 06/07     | FY 07/08 | FY 08/09 | FY 09/10 | FY 10/11 | Total     |
|--|--------------|----------|----------|----------|----------|-----------|
| <b>DISTRIBUTION SYSTEM IMPROVEMENTS</b>                              |              |          |          |          |          |           |
| Contract BOV-2; Rehab Blowoff Valves 90" TM-Engineering Tech Observ. | DWC In House |          |          |          |          |           |
| Contract BOV-2; Rehab Blowoff Valves 90" TM-Construction             | 2,528,000    |          |          |          |          | 2,528,000 |
| Contract TBA; Valve Stem Replacements                                | 410,000      |          |          |          |          | 410,000   |
| <b>PUMP STATION IMPROVEMENTS</b>                                     |              |          |          |          |          |           |
| None   |              |          |          |          |          |           |
| <b>STANDPIPE IMPROVEMENTS</b>  |              |          |          |          |          |           |
| None   |              |          |          |          |          |           |
|  | 2,938,000    | 0        | 0        | 0        | 0        | 2,938,000 |
| INFLATION FACTOR 2% PER YEAR   | 100.0%       | 102.0%   | 104.0%   | 106.1%   | 108.2%   | 100.0%    |
|  | 2,938,000    | 0        | 0        | 0        | 0        | 2,938,000 |

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# Alternate CIP Notes

- Target maximum available balance at April 30, 2020 is \$25 million
- Total water rate is \$1.45 for FY 06-07 and FY07-08. Rate increases \$0.05 in FY08-09 then \$0.06 each fiscal year through FY19-20
- General obligation bonds are defeased during a period of positive arbitrage in FY06-07
- O&M rates subsidize \$1.6 million of the general obligation bond defeasance in FY06-07



# Alternate CIP Notes

- O&M rates are subsidized by current sales tax collections FY08-09 through FY13-14
- Water revenue bonds are defeased during a period of positive arbitrage on April 30, 2014
- Sales tax ends April 30, 2014 when all original construction and original bonds are paid in full (assuming Charter Customer consent)
- On April 30, 2014, all remaining sales tax balances not needed for estimated unspecified construction through FY19-20 are transferred as a one-time O&M rate subsidy to be used through FY19-20



# 2006 – 2007

## Alt Capital Improvement Plan

DUPAGE WATER COMMISSION - 14 YEAR PROJECTION  
SUMMARY OF REVENUES, EXPENDITURES AND FUND BALANCES  
MAY 1, 2006 TO APRIL 30, 2020  
50% REV. BOND SUBSIDY /\$1.45 RATE THRU FY07-08/FY08-09 \$0.05 INCR./THEN \$0.06 INCR.  
RESERVOIR CONSTRUCTION & ENGINEERING COMPLETED BY FY10-11

| ACCOUNT TITLE  | ALL FUNDS           | ALL FUNDS            | ASSUMPTION<br>OR % CHGE | ALL FUNDS            | ALL FUNDS            | 5 YEARS                           |                                   |                                   |  |
|--|---------------------|----------------------|-------------------------|----------------------|----------------------|-----------------------------------|-----------------------------------|-----------------------------------|--|
|  | FY 04-05<br>ACTUAL  | FY 05-06<br>FORECAST |                         | FY 06-07<br>FORECAST | FY 07-08<br>FORECAST | ALL FUNDS<br>FY 08-09<br>FORECAST | ALL FUNDS<br>FY 09-10<br>FORECAST | ALL FUNDS<br>FY 10-11<br>FORECAST |  |
| <b>REVENUES</b>  |                     |                      |                         |                      |                      |                                   |                                   |                                   |  |
| O & M PAYMENTS   | 43,486,319          | 41,023,413           | CALCULATED              | 41,532,694           | 41,878,257           | 43,922,967                        | 46,334,017                        | 48,769,597                        |  |
| SALES TAX USED FOR O & M COSTS (NEGATIVE - RATES USED FOR CONSTR.)   | 0                   | 0                    | CALCULATED              | (1,615,582)          | 0                    | 13,980,712                        | 9,836,482                         | 13,072,130                        |  |
| FIXED COST PAYMENTS (NOTE 50% PAID BY SALES TAX)                     | 7,143,969           | 7,144,469            | 50.0%                   | 7,145,094            | 7,145,344            | 7,144,719                         | 7,145,219                         | 7,146,219                         |  |
| SUBSEQUENT CUSTOMER DIFFERENTIAL (ONE TIME REFUND - FY 2006)         | 709,918             | 573,561              | 1.0%                    | 714,437              | 721,581              | 728,797                           | 736,085                           | 743,446                           |  |
| EMERGENCY SUPPLY   | 59,072              | 8,344                | 2.0%                    | 8,511                | 8,681                | 8,855                             | 9,032                             | 9,213                             |  |
| SALES TAXES (ENDS APRIL, 2014; NEGATIVE - DRAWN FROM PRIOR RECEIPTS) | 34,384,906          | 34,977,839           | 2.0%                    | 37,292,978           | 36,390,944           | 23,138,051                        | 28,024,656                        | 25,546,231                        |  |
| INTEREST INCOME  | 2,856,461           | 4,874,005            | EXTRAPOLATED            | 4,537,780            | 3,209,195            | 2,963,541                         | 2,902,526                         | 3,085,874                         |  |
| OTHER INCOME   | 6,393               | 2,500                | 0.0%                    | 2,500                | 2,500                | 2,500                             | 2,500                             | 2,500                             |  |
| <b>TOTAL REVENUE</b>   | <b>88,647,038</b>   | <b>88,604,131</b>    |                         | <b>89,618,412</b>    | <b>89,356,502</b>    | <b>91,890,142</b>                 | <b>94,990,517</b>                 | <b>98,375,210</b>                 |  |
| <b>OPERATING EXPENDITURES</b>  |                     |                      |                         |                      |                      |                                   |                                   |                                   |  |
| WATER PURCHASES (3% ANNUAL RATE INCR. AFTER 1/1/07)                  | 39,657,670          | 44,584,319           | CALCULATED              | 45,187,726           | 46,920,176           | 48,706,282                        | 50,580,904                        | 52,505,924                        |  |
| 20% CREDIT THRU 10/31/04; 10% FOR GENERATORS STARTING FY2010         | (3,743,346)         | 0                    | CALCULATED              | (868,166)            | 0                    | 0                                 | (5,058,090)                       | (2,061,910)                       |  |
| 5 YEAR CAPITAL PLAN MAJOR REPAIRS                                    | 4,810,523           | 1,926,006            | CALCULATED              | 2,938,000            | 0                    | 0                                 | 0                                 | 0                                 |  |
| OTHER OPERATING EXPENSES (EXCL BOND INTEREST/DEPRC)                  | 8,035,655           | 10,226,824           | 5.0%                    | 10,738,165           | 11,275,073           | 11,838,827                        | 12,430,768                        | 13,052,306                        |  |
| REVENUE BOND PRINCIPAL AND INTEREST COSTS                            | 14,287,938          | 14,288,937           | AS SCHEDULED            | 14,290,188           | 14,290,687           | 14,289,438                        | 14,290,437                        | 14,292,438                        |  |
| REVENUE BOND PRINCIPAL DEFEASED                                      | 0                   | 0                    | DEFEASE 4/30/14         | 0                    | 0                    | 0                                 | 0                                 | 0                                 |  |
| G.O. BOND PRINCIPAL AND INTEREST COSTS                               | 13,122,150          | 13,124,150           | DEFEASE 9/1/06          | 11,661,450           | 0                    | 0                                 | 0                                 | 0                                 |  |
| G.O. BOND PRINCIPAL DEFEASED   | 0                   | 0                    | DEFEASE 9/1/06          | 46,275,000           | 0                    | 0                                 | 0                                 | 0                                 |  |
| CAPITAL EQUIPMENT  | 193,747             | 397,056              | 5.0%                    | 200,000              | 210,000              | 220,500                           | 231,525                           | 243,101                           |  |
| <b>TOTAL OPERATING EXPENDITURES AND COMMITMENTS</b>                  | <b>76,364,337</b>   | <b>84,547,292</b>    |                         | <b>130,422,363</b>   | <b>72,695,936</b>    | <b>75,055,047</b>                 | <b>72,475,544</b>                 | <b>78,031,859</b>                 |  |
| 5 YEAR CAPITAL PLAN NEW CONSTRUCTION                                 | 13,792,352          | 5,356,901            | CALCULATED              | 1,218,000            | 14,780,000           | 22,275,000                        | 17,775,000                        | 9,231,000                         |  |
| OTHER MINOR RELATED OUTLAYS  | 0                   | 0                    | 4.0%                    | 250,000              | 260,000              | 270,400                           | 281,216                           | 292,465                           |  |
| DUPAGE COUNTY SALES TAX GRANT  | 15,000,000          | 15,000,000           | PA93-0226               | 15,000,000           | 15,000,000           | 0                                 | 0                                 | 0                                 |  |
| WATER QUALITY LOANS  | 2,103,547           | (902,956)            | BOARD POLICY            | (700,000)            | (337,409)            | 0                                 | 0                                 | 0                                 |  |
| <b>TOTAL CASH OUTLAYS AND COMMITMENTS</b>                            | <b>107,260,236</b>  | <b>104,001,237</b>   |                         | <b>146,190,363</b>   | <b>102,398,527</b>   | <b>97,600,447</b>                 | <b>90,531,760</b>                 | <b>87,555,324</b>                 |  |
| <b>NET TRANSACTIONS</b>  | <b>(18,613,198)</b> | <b>(15,397,106)</b>  |                         | <b>(56,571,951)</b>  | <b>(13,042,025)</b>  | <b>(5,710,305)</b>                | <b>4,458,757</b>                  | <b>10,819,886</b>                 |  |
| BEGINNING FIVE YEAR PLAN CASH AND EQUIVALENTS                        | 138,776,328         | 119,903,780          | CALCULATED              | 104,506,674          | 47,934,723           | 34,892,698                        | 29,182,393                        | 33,641,150                        |  |
| CONVERTED (TO) - FROM RESTRICTED OR CAPITAL NET ASSETS               | (259,350)           | 0                    |                         | 0                    | 0                    | 0                                 | 0                                 | 0                                 |  |
| <b>ENDING FIVE YEAR PLAN CASH AND EQUIVALENTS</b>                    | <b>119,903,780</b>  | <b>104,506,674</b>   |                         | <b>47,934,723</b>    | <b>34,892,698</b>    | <b>29,182,393</b>                 | <b>33,641,150</b>                 | <b>44,461,036</b>                 |  |
| <b>HELD FOR EMERGENCY REPAIRS-TARGET</b>                             | <b>12,300,000</b>   | <b>12,400,000</b>    | <b>3.0%</b>             | <b>12,800,000</b>    | <b>13,200,000</b>    | <b>13,600,000</b>                 | <b>14,000,000</b>                 | <b>14,400,000</b>                 |  |
| O&M RATE STABILIZATION RESERVE                                       | 42,862,895          | 30,074,422           |                         | 14,670,014           | 329,329              | 0                                 | 352,225                           | 1,068,268                         |  |
| CONSTRUCTION RESERVE   | 15,879,132          | 27,267,543           |                         | 0                    | 15,561,251           | 9,780,275                         | 13,486,807                        | 23,190,650                        |  |
| UNDISTRIBUTED WATER QUALITY LOANS                                    | 3,861,753           | 4,784,709            |                         | 5,464,709            | 5,802,118            | 5,802,118                         | 5,802,118                         | 5,802,118                         |  |
| <b>TOTAL DESIGNATED RESERVES (1)</b>                                 | <b>74,903,780</b>   | <b>74,506,674</b>    |                         | <b>32,934,723</b>    | <b>34,892,698</b>    | <b>29,182,393</b>                 | <b>33,641,150</b>                 | <b>44,461,036</b>                 |  |
| PA93-0226 UNDISTRICTED   | 45,000,000          | 30,000,000           |                         | 15,000,000           | 0                    | 0                                 | 0                                 | 0                                 |  |
| <b>ENDING FIVE YEAR PLAN CASH AND EQUIVALENTS BY CATEGORY</b>        | <b>119,903,780</b>  | <b>104,506,674</b>   |                         | <b>47,934,723</b>    | <b>34,892,698</b>    | <b>29,182,393</b>                 | <b>33,641,150</b>                 | <b>44,461,036</b>                 |  |
| <b>O &amp; M RATE</b>  | <b>1.43</b>         | <b>1.23</b>          |                         | <b>1.24</b>          | <b>1.24</b>          | <b>1.29</b>                       | <b>1.35</b>                       | <b>1.41</b>                       |  |
| <b>FIXED COST RATE</b>   | <b>0.23</b>         | <b>0.21</b>          |                         | <b>0.21</b>          | <b>0.21</b>          | <b>0.21</b>                       | <b>0.21</b>                       | <b>0.21</b>                       |  |
| <b>TOTAL RATE</b>  | <b>1.66</b>         | <b>1.44</b>          | <b>0.06</b>             | <b>1.45</b>          | <b>1.45</b>          | <b>1.50</b>                       | <b>1.56</b>                       | <b>1.62</b>                       |  |

NOTE (1) - TO FY 19-20 TARGET OF 25,000,000

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# 2006 – 2007 Alt Capital Improvement Plan

DUPAGE WATER COMMISSION - 14 YEAR PROJECTION  
SUMMARY OF REVENUES, EXPENDITURES AND FUND BALANCES  
MAY 1, 2006 TO APRIL 30, 2020  
50% REV. BOND SUBSIDY /\$1.45 RATE THRU FY07-08/FY08-09 \$0.05 INCR./THEN \$0.06 INCR.  
RESERVOIR CONSTRUCTION & ENGINEERING COMPLETED BY FY10-11

| ACCOUNT TITLE  | 3 YEARS                           |                                   |                                   | FY 13-14<br>ONE TIME<br>O&M SUBSIDY |
|--|-----------------------------------|-----------------------------------|-----------------------------------|-------------------------------------|
|  | ALL FUNDS<br>FY 11-12<br>FORECAST | ALL FUNDS<br>FY 12-13<br>FORECAST | ALL FUNDS<br>FY 13-14<br>FORECAST |                                     |
| <b>REVENUES</b>  |                                   |                                   |                                   |                                     |
| O & M PAYMENTS   | 51,231,318                        | 54,075,554                        | 56,602,986                        |                                     |
| SALES TAX USED FOR O & M COSTS (NEGATIVE - RATES USED FOR CONSTR.)   | 15,934,682                        | 15,899,334                        | 16,648,520                        |                                     |
| FIXED COST PAYMENTS (NOTE 50% PAID BY SALES TAX)                     | 7,144,594                         | 7,144,844                         | 7,144,163                         |                                     |
| SUBSEQUENT CUSTOMER DIFFERENTIAL (ONE TIME REFUND - FY 2006)         | 750,880                           | 758,389                           | 765,973                           |                                     |
| EMERGENCY SUPPLY   | 9,397                             | 9,585                             | 9,777                             |                                     |
| SALES TAXES (ENDS APRIL, 2014; NEGATIVE - DRAWN FROM PRIOR RECEIPTS) | 23,456,046                        | 24,279,209                        | 24,333,594                        |                                     |
| INTEREST INCOME  | 3,422,411                         | 3,889,134                         | 4,387,773                         |                                     |
| OTHER INCOME   | 2,500                             | 2,500                             | 2,500                             |                                     |
| <b>TOTAL REVENUE</b>   | <b>101,951,828</b>                | <b>106,058,549</b>                | <b>109,895,286</b>                |                                     |
| <b>OPERATING EXPENDITURES</b>  |                                   |                                   |                                   |                                     |
| WATER PURCHASES (3% ANNUAL RATE INCR. AFTER 1/1/07)                  | 54,484,220                        | 56,558,486                        | 58,694,265                        |                                     |
| 20% CREDIT THRU 10/31/04; 10% FOR GENERATORS STARTING FY2010         | 0                                 | 0                                 | 0                                 |                                     |
| 5 YEAR CAPITAL PLAN MAJOR REPAIRS                                    | 599,352                           | 611,339                           | 623,566                           |                                     |
| OTHER OPERATING EXPENSES (EXCL BOND INTEREST/DEPRC)                  | 13,704,921                        | 14,390,167                        | 15,109,675                        |                                     |
| REVENUE BOND PRINCIPAL AND INTEREST COSTS                            | 14,289,187                        | 14,289,688                        | 14,288,325                        |                                     |
| REVENUE BOND PRINCIPAL DEFEASED                                      | 0                                 | 0                                 | 26,475,000                        |                                     |
| G.O. BOND PRINCIPAL AND INTEREST COSTS                               | 0                                 | 0                                 | 0                                 |                                     |
| G.O. BOND PRINCIPAL DEFEASED   | 0                                 | 0                                 | 0                                 |                                     |
| CAPITAL EQUIPMENT  | 255,256                           | 268,019                           | 281,420                           |                                     |
| <b>TOTAL OPERATING EXPENDITURES AND COMMITMENTS</b>                  | <b>83,332,936</b>                 | <b>86,117,699</b>                 | <b>115,472,251</b>                |                                     |
| 5 YEAR CAPITAL PLAN NEW CONSTRUCTION                                 | 2,760,000                         | 2,815,000                         | 2,872,000                         |                                     |
| OTHER MINOR RELATED OUTLAYS  | 0                                 | 0                                 | 0                                 |                                     |
| DUPAGE COUNTY SALES TAX GRANT  | 0                                 | 0                                 | 0                                 |                                     |
| WATER QUALITY LOANS  | 0                                 | (368,308)                         | (368,308)                         |                                     |
| <b>TOTAL CASH OUTLAYS AND COMMITMENTS</b>                            | <b>86,092,936</b>                 | <b>88,564,391</b>                 | <b>117,975,943</b>                |                                     |
| <b>NET TRANSACTIONS</b>  |                                   |                                   |                                   |                                     |
| BEGINNING FIVE YEAR PLAN CASH AND EQUIVALENTS                        | 15,858,892                        | 17,494,158                        | (8,080,657)                       |                                     |
| CONVERTED (TO) - FROM RESTRICTED OR CAPITAL NET ASSETS               | 44,461,036                        | 60,319,928                        | 77,814,086                        |                                     |
|  | 0                                 | 0                                 | 26,163,824                        |                                     |
| <b>ENDING FIVE YEAR PLAN CASH AND EQUIVALENTS</b>                    | <b>60,319,928</b>                 | <b>77,814,086</b>                 | <b>95,897,253</b>                 |                                     |
| <b>HELD FOR EMERGENCY REPAIRS-TARGET</b>                             | <b>14,800,000</b>                 | <b>15,200,000</b>                 | <b>15,700,000</b>                 | <b>0</b>                            |
| <b>O&amp;M RATE STABILIZATION RESERVE</b>                            | <b>2,160,964</b>                  | <b>3,643,248</b>                  | <b>5,528,707</b>                  | <b>49,652,812</b>                   |
| <b>CONSTRUCTION RESERVE</b>  | <b>37,556,846</b>                 | <b>52,800,412</b>                 | <b>68,129,812</b>                 | <b>(49,652,812)</b>                 |
| <b>UNDISTRIBUTED WATER QUALITY LOANS</b>                             | <b>5,802,118</b>                  | <b>6,170,426</b>                  | <b>6,538,734</b>                  | <b>0</b>                            |
| <b>TOTAL DESIGNATED RESERVES (1)</b>                                 | <b>60,319,928</b>                 | <b>77,814,086</b>                 | <b>95,897,253</b>                 | <b>0</b>                            |
| <b>PA93-0226 UNDISTRIBUTED</b>                                       | <b>0</b>                          | <b>0</b>                          | <b>0</b>                          | <b>0</b>                            |
| <b>ENDING FIVE YEAR PLAN CASH AND EQUIVALENTS BY CATEGORY</b>        | <b>60,319,928</b>                 | <b>77,814,086</b>                 | <b>95,897,253</b>                 | <b>0</b>                            |
| <b>O &amp; M RATE</b>  | <b>1.47</b>                       | <b>1.54</b>                       | <b>1.60</b>                       |                                     |
| <b>FIXED COST RATE</b>   | <b>0.21</b>                       | <b>0.20</b>                       | <b>0.20</b>                       |                                     |
| <b>TOTAL RATE</b>  | <b>1.68</b>                       | <b>1.74</b>                       | <b>1.80</b>                       |                                     |

NOTE (1) - TO FY 19-20 TARGET OF 25,000,000

REVISED: 01/23/06

February 9, 2006

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# 2006 – 2007

## Alt Capital Improvement Plan

DUPAGE WATER COMMISSION - 14 YEAR PROJECTION  
SUMMARY OF REVENUES, EXPENDITURES AND FUND BALANCES  
MAY 1, 2006 TO APRIL 30, 2020  
50% REV. BOND SUBSIDY /\$1.45 RATE THRU FY07-08/FY08-09 \$0.05 INCR./THEN \$0.06 INCR.  
RESERVOIR CONSTRUCTION & ENGINEERING COMPLETED BY FY10-11

| ACCOUNT TITLE  | 6 YEARS                           |                                   |                                   |                                   |                                   |                                   |
|--|-----------------------------------|-----------------------------------|-----------------------------------|-----------------------------------|-----------------------------------|-----------------------------------|
|  | ALL FUNDS<br>FY 14-15<br>FORECAST | ALL FUNDS<br>FY 15-16<br>FORECAST | ALL FUNDS<br>FY 16-17<br>FORECAST | ALL FUNDS<br>FY 17-18<br>FORECAST | ALL FUNDS<br>FY 18-19<br>FORECAST | ALL FUNDS<br>FY 19-20<br>FORECAST |
| <b>REVENUES</b>  |                                   |                                   |                                   |                                   |                                   |                                   |
| O & M PAYMENTS   | 66,289,703                        | 68,943,122                        | 71,637,384                        | 74,362,213                        | 77,120,331                        | 79,912,079                        |
| SALES TAX USED FOR O & M COSTS (NEGATIVE - RATES USED FOR CONSTR.)   | 0                                 | 0                                 | 0                                 | 0                                 | 0                                 | 0                                 |
| FIXED COST PAYMENTS (NOTE 50% PAID BY SALES TAX)                     | 0                                 | 0                                 | 0                                 | 0                                 | 0                                 | 0                                 |
| SUBSEQUENT CUSTOMER DIFFERENTIAL (ONE TIME REFUND - FY 2006)         | 773,633                           | 781,369                           | 789,183                           | 797,075                           | 805,046                           | 813,096                           |
| EMERGENCY SUPPLY   | 9,973                             | 10,172                            | 10,375                            | 10,583                            | 10,795                            | 11,011                            |
| SALES TAXES (ENDS APRIL, 2014; NEGATIVE - DRAWN FROM PRIOR RECEIPTS) | 0                                 | 0                                 | 0                                 | 0                                 | 0                                 | 0                                 |
| INTEREST INCOME  | 3,900,703                         | 3,742,444                         | 3,568,793                         | 3,377,398                         | 3,165,129                         | 2,929,543                         |
| OTHER INCOME   | 2,500                             | 2,500                             | 2,500                             | 2,500                             | 2,500                             | 2,500                             |
| <b>TOTAL REVENUE</b>   | <b>70,976,512</b>                 | <b>73,479,607</b>                 | <b>76,008,235</b>                 | <b>78,549,769</b>                 | <b>81,103,801</b>                 | <b>83,668,229</b>                 |
| <b>OPERATING EXPENDITURES</b>  |                                   |                                   |                                   |                                   |                                   |                                   |
| WATER PURCHASES (3% ANNUAL RATE INCR. AFTER 1/1/07)                  | 60,892,006                        | 63,199,341                        | 65,579,480                        | 68,061,374                        | 70,611,376                        | 73,268,742                        |
| 20% CREDIT THRU 10/31/04; 10% FOR GENERATORS STARTING FY2010         | 0                                 | 0                                 | 0                                 | 0                                 | 0                                 | 0                                 |
| 5 YEAR CAPITAL PLAN MAJOR REPAIRS                                    | 636,037                           | 648,758                           | 661,733                           | 674,968                           | 688,467                           | 702,236                           |
| OTHER OPERATING EXPENSES (EXCL BOND INTEREST/DEPRC)                  | 15,865,159                        | 16,658,417                        | 17,491,338                        | 18,365,905                        | 19,284,200                        | 20,248,410                        |
| REVENUE BOND PRINCIPAL AND INTEREST COSTS                            | 0                                 | 0                                 | 0                                 | 0                                 | 0                                 | 0                                 |
| REVENUE BOND PRINCIPAL DEFEASED                                      | 0                                 | 0                                 | 0                                 | 0                                 | 0                                 | 0                                 |
| G.O. BOND PRINCIPAL AND INTEREST COSTS                               | 0                                 | 0                                 | 0                                 | 0                                 | 0                                 | 0                                 |
| G.O. BOND PRINCIPAL DEFEASED   | 0                                 | 0                                 | 0                                 | 0                                 | 0                                 | 0                                 |
| CAPITAL EQUIPMENT  | 295,491                           | 310,266                           | 325,779                           | 342,068                           | 359,171                           | 377,130                           |
| <b>TOTAL OPERATING EXPENDITURES AND COMMITMENTS</b>                  | <b>77,688,693</b>                 | <b>80,816,782</b>                 | <b>84,058,330</b>                 | <b>87,444,315</b>                 | <b>90,943,214</b>                 | <b>94,596,518</b>                 |
| 5 YEAR CAPITAL PLAN NEW CONSTRUCTION                                 | 2,929,000                         | 2,968,000                         | 3,047,000                         | 3,108,000                         | 3,171,000                         | 3,234,000                         |
| OTHER MINOR RELATED OUTLAYS  | 0                                 | 0                                 | 0                                 | 0                                 | 0                                 | 0                                 |
| DUPAGE COUNTY SALES TAX GRANT  | 0                                 | 0                                 | 0                                 | 0                                 | 0                                 | 0                                 |
| WATER QUALITY LOANS  | (368,308)                         | (368,308)                         | (368,308)                         | (368,308)                         | (368,308)                         | (368,308)                         |
| <b>TOTAL CASH OUTLAYS AND COMMITMENTS</b>                            | <b>80,249,385</b>                 | <b>83,436,474</b>                 | <b>86,737,022</b>                 | <b>90,184,007</b>                 | <b>93,745,906</b>                 | <b>97,462,210</b>                 |
| <b>NET TRANSACTIONS</b>  | <b>(9,272,873)</b>                | <b>(9,956,867)</b>                | <b>(10,728,787)</b>               | <b>(11,634,238)</b>               | <b>(12,642,105)</b>               | <b>(13,793,981)</b>               |
| BEGINNING FIVE YEAR PLAN CASH AND EQUIVALENTS                        | 95,897,253                        | 86,624,380                        | 76,667,513                        | 65,938,726                        | 54,304,488                        | 41,662,383                        |
| CONVERTED (TO) - FROM RESTRICTED OR CAPITAL NET ASSETS               | 0                                 | 0                                 | 0                                 | 0                                 | 0                                 | 0                                 |
| <b>ENDING FIVE YEAR PLAN CASH AND EQUIVALENTS</b>                    | <b>86,624,380</b>                 | <b>76,667,513</b>                 | <b>65,938,726</b>                 | <b>54,304,488</b>                 | <b>41,662,383</b>                 | <b>27,868,402</b>                 |
| <b>HELD FOR EMERGENCY REPAIRS-TARGET</b>                             | <b>16,200,000</b>                 | <b>16,700,000</b>                 | <b>17,200,000</b>                 | <b>17,700,000</b>                 | <b>18,200,000</b>                 | <b>18,700,000</b>                 |
| O&M RATE STABILIZATION RESERVE                                       | 47,969,338                        | 40,132,163                        | 31,582,068                        | 22,187,522                        | 11,848,109                        | 419,820                           |
| CONSTRUCTION RESERVE   | 15,548,000                        | 12,560,000                        | 9,513,000                         | 6,405,000                         | 3,234,000                         | 0                                 |
| UNDISTRIBUTED WATER QUALITY LOANS                                    | 6,907,042                         | 7,275,350                         | 7,643,658                         | 8,011,966                         | 8,380,274                         | 8,748,582                         |
| <b>TOTAL DESIGNATED RESERVES (1)</b>                                 | <b>86,624,380</b>                 | <b>76,667,513</b>                 | <b>65,938,726</b>                 | <b>54,304,488</b>                 | <b>41,662,383</b>                 | <b>27,868,402</b>                 |
| PA93-0226 UNDISTIBUTED   | 0                                 | 0                                 | 0                                 | 0                                 | 0                                 | 0                                 |
| <b>ENDING FIVE YEAR PLAN CASH AND EQUIVALENTS BY CATEGORY</b>        | <b>86,624,380</b>                 | <b>76,667,513</b>                 | <b>65,938,726</b>                 | <b>54,304,488</b>                 | <b>41,662,383</b>                 | <b>27,868,402</b>                 |
| <b>O &amp; M RATE</b>  | <b>1.86</b>                       | <b>1.92</b>                       | <b>1.98</b>                       | <b>2.04</b>                       | <b>2.10</b>                       | <b>2.16</b>                       |
| <b>FIXED COST RATE</b>   | <b>0.00</b>                       | <b>0.00</b>                       | <b>0.00</b>                       | <b>0.00</b>                       | <b>0.00</b>                       | <b>0.00</b>                       |
| <b>TOTAL RATE</b>  | <b>1.86</b>                       | <b>1.92</b>                       | <b>1.98</b>                       | <b>2.04</b>                       | <b>2.10</b>                       | <b>2.16</b>                       |

NOTE (1) - TO FY 19-20 TARGET OF 25,000,000

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February 9, 2006

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# 2006 – 2007 Alt Capital Improvement Plan

## SUMMARY OF ESTIMATED NEW CONSTRUCTION COSTS

50% REV. BOND SUBSIDY /\$1.45 RATE THRU FY07-08/FY08-09 \$0.05 INCR./THEN \$0.06

INCR.

RESERVOIR CONSTRUCTION & ENGINEERING COMPLETED BY FY10-11

5 YEARS

| DESCRIPTION (BASED ON FY 05-06 COSTS)                              | FY 06-07  | FY 07-08   | FY 08-09   | FY 09-10   | FY 10-11  | TOTAL      |
|--|-----------|------------|------------|------------|-----------|------------|
| <b>DUPAGE PUMP STATION IMPROVEMENTS</b>                            |           |            |            |            |           |            |
| 8 MW Electrical Generator Facility - Engineering                   | 680,000   | 425,000    | 425,000    | 200,000    |           | 1,730,000  |
| 8 MW Electrical Generator Facility - Construction                  |           | 6,000,000  | 4,500,000  | 1,000,000  |           | 11,500,000 |
| Garage/Office Building- Engineering                                | 50,000    | 25,000     | 25,000     |            |           | 100,000    |
| Garage/Office Building- Construction                               |           | 700,000    | 700,000    |            |           | 1,400,000  |
| Cadwell Avenue Realignment- Engineering                            | 26,500    |            |            |            |           | 26,500     |
| Cadwell Avenue Realignment- Construction                           | 150,000   |            |            |            |           | 150,000    |
| 30 MG Reservoir Engineering  |           | 250,000    | 350,000    | 300,000    | 300,000   | 1,200,000  |
| 30 MG Reservoir Construction                                       |           |            | 7,760,000  | 15,250,000 | 7,750,000 | 30,760,000 |
| Material and Equipment Storage Facilities- Engineering             |           |            | 60,000     |            |           | 60,000     |
| Material and Equipment Storage Facilities- Construction            |           |            | 640,000    |            |           | 640,000    |
| Pump #10-Engineering   |           |            |            |            | 40,000    | 40,000     |
| Pump #10-Installation  |           |            |            |            | 438,000   | 438,000    |
| <b>LEXINGTON PUMP STATION IMPROVEMENTS</b>                         |           |            |            |            |           | 0          |
| Generator Facility - Engineering                                   | 200,000   | 1,090,000  | 450,000    |            |           | 1,740,000  |
| Generator Facility - Construction                                  |           | 6,000,000  | 6,500,000  |            |           | 12,500,000 |
| <b>STANDPIPE IMPROVEMENTS</b>                                      |           |            |            |            |           |            |
| Standpipe #4 East Riser Pipe Modifications- Engineering            | 13,000    |            |            |            |           | 13,000     |
| Standpipe #4 East Riser Pipe Modifications- Construction           | 98,000    |            |            |            |           | 98,000     |
| Unspecified Capital Needs After Year Five (\$2.5 million per year) | 1,217,500 | 14,490,000 | 21,410,000 | 16,750,000 | 8,528,000 | 62,395,500 |
| <b>INFLATION FACTOR 2% PER YEAR</b>                                | 100.0%    | 102.0%     | 104.0%     | 106.1%     | 108.2%    | 104.6%     |
|  | 1,218,000 | 14,780,000 | 22,275,000 | 17,775,000 | 9,231,000 | 65,279,000 |

Note (1) - Includes legal, property acquisition (if any) and soil testing services.

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# 2006 – 2007

## Alt Capital Improvement Plan

### SUMMARY OF ESTIMATED MAJOR REPAIR COSTS

50% REV. BOND SUBSIDY /\$1.45 RATE THRU FY07-08/FY08-09 \$0.05

INCR./THEN \$0.06 INCR.

RESERVOIR CONSTRUCTION & ENGINEERING COMPLETED BY FY10-11

5 YEARS

| BASED ON FY 05-06 COSTS  | FY 06/07     | FY 07/08 | FY 08/09 | FY 09/10 | FY 10/11 | Total     |
|--|--------------|----------|----------|----------|----------|-----------|
| DISTRIBUTION SYSTEM IMPROVEMENTS                                     |              |          |          |          |          |           |
| Contract BOV-2; Rehab Blowoff Valves 90" TM-Engineering Tech Observ. | DWC In House |          |          |          |          |           |
| Contract BOV-2; Rehab Blowoff Valves 90" TM-Construction             | 2,528,000    |          |          |          |          | 2,528,000 |
| Contract TBA; Valve Stem Replacements                                | 410,000      |          |          |          |          | 410,000   |
| PUMP STATION IMPROVEMENTS  |              |          |          |          |          |           |
| None   |              |          |          |          |          |           |
| STANDPIPE IMPROVEMENTS   |              |          |          |          |          |           |
| None   |              |          |          |          |          |           |
|  | 2,938,000    | 0        | 0        | 0        | 0        | 2,938,000 |
| INFLATION FACTOR 2% PER YEAR   | 100.0%       | 102.0%   | 104.0%   | 106.1%   | 108.2%   | 100.0%    |
|  | 2,938,000    | 0        | 0        | 0        | 0        | 2,938,000 |

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# 2006 – 2007

## Alt Capital Improvement Plan

### DUPAGE WATER COMMISSION 2001 G. O. BOND ISSUE SCHEDULE OF PRINCIPAL, INTEREST AND TAX LEVIES

|                   | PRINCIPAL        | INTEREST        | TOTAL            | FISCAL<br>YEAR | PROPERTY TAX     | LEVY<br>YEAR |
|-------------------|------------------|-----------------|------------------|----------------|------------------|--------------|
| September 1, 2005 |                  | \$ 1,699,575.00 | \$ 1,699,575.00  |                |                  |              |
| March 1, 2006     | \$ 9,725,000.00  | \$ 1,699,575.00 | \$ 11,424,575.00 | 2006           | \$ 13,124,150.00 | 2004         |
| September 1, 2006 | \$ 10,205,000.00 | \$ 1,456,450.00 | \$ 11,661,450.00 |                |                  |              |
| September 1, 2006 | \$ 46,275,000.00 | \$ -            | \$ 46,275,000.00 | 2007           | \$ 57,936,450.00 | 2005         |
| TOTAL             | \$ 66,205,000.00 | \$ 4,855,600.00 | \$ 71,060,600.00 |                | \$ 71,060,600.00 |              |



# 2006 – 2007

## Alt Capital Improvement Plan

DUPAGE WATER COMMISSION  
2003 REVENUE BOND ISSUE  
SCHEDULE OF PRINCIPAL, INTEREST AND ANNUAL REQUIREMENTS

|                  | PRINCIPAL         | INTEREST         | TOTAL             | FISCAL YEAR<br>TOTAL | FISCAL<br>YEAR |
|------------------|-------------------|------------------|-------------------|----------------------|----------------|
| November 1, 2005 |                   | \$ 3,006,968.75  | \$ 3,006,968.75   |                      |                |
| May 1, 2006      | \$ 8,275,000.00   | \$ 3,006,968.75  | \$ 11,281,968.75  | \$ 14,288,937.50     | 2006           |
| November 1, 2006 |                   | \$ 2,800,093.75  | \$ 2,800,093.75   |                      |                |
| May 1, 2007      | \$ 8,690,000.00   | \$ 2,800,093.75  | \$ 11,490,093.75  | \$ 14,290,187.50     | 2007           |
| November 1, 2007 |                   | \$ 2,582,843.75  | \$ 2,582,843.75   |                      |                |
| May 1, 2008      | \$ 9,125,000.00   | \$ 2,582,843.75  | \$ 11,707,843.75  | \$ 14,290,687.50     | 2008           |
| November 1, 2008 |                   | \$ 2,354,718.75  | \$ 2,354,718.75   |                      |                |
| May 1, 2009      | \$ 9,580,000.00   | \$ 2,354,718.75  | \$ 11,934,718.75  | \$ 14,289,437.50     | 2009           |
| November 1, 2009 |                   | \$ 2,115,218.75  | \$ 2,115,218.75   |                      |                |
| May 1, 2010      | \$ 10,060,000.00  | \$ 2,115,218.75  | \$ 12,175,218.75  | \$ 14,290,437.50     | 2010           |
| November 1, 2010 |                   | \$ 1,863,718.75  | \$ 1,863,718.75   |                      |                |
| May 1, 2011      | \$ 10,565,000.00  | \$ 1,863,718.75  | \$ 12,428,718.75  | \$ 14,292,437.50     | 2011           |
| November 1, 2011 |                   | \$ 1,599,593.75  | \$ 1,599,593.75   |                      |                |
| May 1, 2012      | \$ 11,090,000.00  | \$ 1,599,593.75  | \$ 12,689,593.75  | \$ 14,289,187.50     | 2012           |
| November 1, 2012 |                   | \$ 1,322,343.75  | \$ 1,322,343.75   |                      |                |
| May 1, 2013      | \$ 11,645,000.00  | \$ 1,322,343.75  | \$ 12,967,343.75  | \$ 14,289,687.50     | 2013           |
| November 1, 2013 |                   | \$ 1,016,662.50  | \$ 1,016,662.50   |                      |                |
| May 1, 2014      | \$ 12,255,000.00  | \$ 1,016,662.50  | \$ 13,271,662.50  | \$ 14,288,325.00     | 2014           |
| May 1, 2014      | \$ 26,475,000.00  | \$ -             | \$ 26,475,000.00  | \$ 26,475,000.00     | 2014           |
| TOTAL            | \$ 117,760,000.00 | \$ 37,324,325.00 | \$ 155,084,325.00 | \$ 155,084,325.00    |                |



# Questions & Comments

February 9, 2006

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## DuPage Water Commission MEMORANDUM

TO: Chairman Vondra & Commissioners

FROM: Robert L. Martin, P.E.  
General Manager

DATE: February 1, 2006

SUBJECT: Commissioner Poole CIP Alternate

Attached is an alternate long range funding method proposed by Commissioner Poole. The following are notes regarding Commissioner Poole's proposed plan.

1. The target maximum available balance at April 30, 2020 is \$25 million.
2. The total water rate is \$1.45 for FY 2006-07 and FY 2007-08. The rate increases \$0.05 in FY 2008-09 then \$0.06 each fiscal year through FY 2019-20.
3. General Obligation bonds are defeased during a period of positive arbitrage in FY 2006-07.
4. Operation and Maintenance rates subsidize \$1.6 million of the General Obligation bond defeasance in FY 2006-07.
5. Operation and Maintenance rates are subsidized by current sales tax collections in FY 2008-09 through FY 2013-14.
6. Water Revenue bonds are defeased during a period of positive arbitrage on April 30, 2014.
7. Sales tax ends April 30, 2014 and all remaining sales tax balances not needed for estimated unspecified construction through FY 2019-20 are transferred as a one-time Operation & Maintenance rate subsidy to be used through FY 2019-20.

Administration/Reports/Five Year Capital/FY 2006-2007/Poole Plan 060201.doc

DUPAGE WATER COMMISSION - 14 YEAR PROJECTION  
SUMMARY OF REVENUES, EXPENDITURES AND FUND BALANCES  
MAY 1, 2006 TO APRIL 30, 2020  
50% REV. BOND SUBSIDY /\$1.45 RATE THRU FY07-08/FY08-09 \$0.05 INCR./THEN \$0.06 INCR.  
RESERVOIR CONSTRUCTION & ENGINEERING COMPLETED BY FY10-11

| ACCOUNT TITLE  | ALL FUNDS<br>FY 04-05<br>ACTUAL | ALL FUNDS<br>FY 05-06<br>FORECAST | ASSUMPTION<br>OR % CHGE | 5 YEARS                           |                                   |                                   |                                   |                                   |
|--|---------------------------------|-----------------------------------|-------------------------|-----------------------------------|-----------------------------------|-----------------------------------|-----------------------------------|-----------------------------------|
|  |                                 |                                   |                         | ALL FUNDS<br>FY 06-07<br>FORECAST | ALL FUNDS<br>FY 07-08<br>FORECAST | ALL FUNDS<br>FY 08-09<br>FORECAST | ALL FUNDS<br>FY 09-10<br>FORECAST | ALL FUNDS<br>FY 10-11<br>FORECAST |
| REVENUES   |                                 |                                   |                         |                                   |                                   |                                   |                                   |                                   |
| O & M PAYMENTS   | 43,486,319                      | 41,023,413                        | CALCULATED              | 41,532,694                        | 41,878,257                        | 43,922,967                        | 46,334,017                        | 48,769,597                        |
| SALES TAX USED FOR O & M COSTS (NEGATIVE - RATES USED FOR CONSTR.)   | 0                               | 0                                 | CALCULATED              | (1,615,582)                       | 0                                 | 13,980,712                        | 9,836,482                         | 13,072,130                        |
| FIXED COST PAYMENTS (NOTE 50% PAID BY SALES TAX)                     | 7,143,969                       | 7,144,469                         | 50.0%                   | 7,145,094                         | 7,145,344                         | 7,144,719                         | 7,145,219                         | 7,146,219                         |
| SUBSEQUENT CUSTOMER DIFFERENTIAL (ONE TIME REFUND - FY 2006)         | 709,918                         | 573,561                           | 1.0%                    | 714,437                           | 721,581                           | 728,797                           | 736,085                           | 743,446                           |
| EMERGENCY SUPPLY   | 59,072                          | 8,344                             | 2.0%                    | 8,511                             | 8,681                             | 8,855                             | 9,032                             | 9,213                             |
| SALES TAXES (ENDS APRIL, 2014; NEGATIVE - DRAWN FROM PRIOR RECEIPTS) | 34,384,906                      | 34,977,839                        | 2.0%                    | 37,292,978                        | 36,390,944                        | 23,138,051                        | 28,024,656                        | 25,546,231                        |
| INTEREST INCOME  | 2,856,461                       | 4,874,005                         | EXTRAPOLATED            | 4,537,780                         | 3,209,195                         | 2,963,541                         | 2,902,526                         | 3,085,874                         |
| OTHER INCOME   | 6,393                           | 2,500                             | 0.0%                    | 2,500                             | 2,500                             | 2,500                             | 2,500                             | 2,500                             |
| TOTAL REVENUE  | 88,647,038                      | 88,604,131                        |                         | 89,618,412                        | 89,356,502                        | 91,890,142                        | 94,990,517                        | 98,375,210                        |
| OPERATING EXPENDITURES   |                                 |                                   |                         |                                   |                                   |                                   |                                   |                                   |
| WATER PURCHASES (3% ANNUAL RATE INCR. AFTER 1/1/07)                  | 39,657,670                      | 44,584,319                        | CALCULATED              | 45,187,726                        | 46,920,176                        | 48,706,282                        | 50,580,904                        | 52,505,924                        |
| 20% CREDIT THRU 10/31/04; 10% FOR GENERATORS STARTING FY2010         | (3,743,346)                     | 0                                 | CALCULATED              | (868,166)                         | 0                                 | 0                                 | (5,058,090)                       | (2,061,910)                       |
| 5 YEAR CAPITAL PLAN MAJOR REPAIRS                                    | 4,810,523                       | 1,926,006                         | CALCULATED              | 2,938,000                         | 0                                 | 0                                 | 0                                 | 0                                 |
| OTHER OPERATING EXPENSES (EXCL BOND INTEREST/DEPRC)                  | 8,035,655                       | 10,226,824                        | 5.0%                    | 10,738,165                        | 11,275,073                        | 11,838,827                        | 12,430,768                        | 13,052,306                        |
| REVENUE BOND PRINCIPAL AND INTEREST COSTS                            | 14,287,938                      | 14,288,937                        | AS SCHEDULED            | 14,290,188                        | 14,290,687                        | 14,289,438                        | 14,290,437                        | 14,292,438                        |
| REVENUE BOND PRINCIPAL DEFEASED                                      | 0                               | 0                                 | DEFEASE 4/30/14         | 0                                 | 0                                 | 0                                 | 0                                 | 0                                 |
| G.O. BOND PRINCIPAL AND INTEREST COSTS                               | 13,122,150                      | 13,124,150                        | DEFEASE 9/1/06          | 11,661,450                        | 0                                 | 0                                 | 0                                 | 0                                 |
| G.O. BOND PRINCIPAL DEFEASED   | 0                               | 0                                 | DEFEASE 9/1/06          | 46,275,000                        | 0                                 | 0                                 | 0                                 | 0                                 |
| CAPITAL EQUIPMENT  | 193,747                         | 397,056                           | 5.0%                    | 200,000                           | 210,000                           | 220,500                           | 231,525                           | 243,101                           |
| TOTAL OPERATING EXPENDITURES AND COMMITMENTS                         | 76,364,337                      | 84,547,292                        |                         | 130,422,363                       | 72,695,936                        | 75,055,047                        | 72,475,544                        | 78,031,859                        |
| 5 YEAR CAPITAL PLAN NEW CONSTRUCTION                                 | 13,792,352                      | 5,356,901                         | CALCULATED              | 1,218,000                         | 14,780,000                        | 22,275,000                        | 17,775,000                        | 9,231,000                         |
| OTHER MINOR RELATED OUTLAYS  | 0                               | 0                                 | 4.0%                    | 250,000                           | 260,000                           | 270,400                           | 281,216                           | 292,465                           |
| DUPAGE COUNTY SALES TAX GRANT  | 15,000,000                      | 15,000,000                        | PA93-0226               | 15,000,000                        | 15,000,000                        | 0                                 | 0                                 | 0                                 |
| WATER QUALITY LOANS  | 2,103,547                       | (902,956)                         | BOARD POLICY            | (700,000)                         | (337,409)                         | 0                                 | 0                                 | 0                                 |
| TOTAL CASH OUTLAYS AND COMMITMENTS                                   | 107,260,236                     | 104,001,237                       |                         | 146,190,363                       | 102,398,527                       | 97,600,447                        | 90,531,760                        | 87,555,324                        |
| NET TRANSACTIONS   | (18,613,198)                    | (15,397,106)                      |                         | (56,571,951)                      | (13,042,025)                      | (5,710,305)                       | 4,458,757                         | 10,819,886                        |
| BEGINNING FIVE YEAR PLAN CASH AND EQUIVALENTS                        | 138,776,328                     | 119,903,780                       | CALCULATED              | 104,506,674                       | 47,934,723                        | 34,892,698                        | 29,182,393                        | 33,641,150                        |
| CONVERTED (TO) - FROM RESTRICTED OR CAPITAL NET ASSETS               | (259,350)                       | 0                                 |                         | 0                                 | 0                                 | 0                                 | 0                                 | 0                                 |
| ENDING FIVE YEAR PLAN CASH AND EQUIVALENTS                           | 119,903,780                     | 104,506,674                       |                         | 47,934,723                        | 34,892,698                        | 29,182,393                        | 33,641,150                        | 44,461,036                        |
| HELD FOR EMERGENCY REPAIRS-TARGET                                    | 12,300,000                      | 12,400,000                        | 3.0%                    | 12,800,000                        | 13,200,000                        | 13,600,000                        | 14,000,000                        | 14,400,000                        |
| O&M RATE STABILIZATION RESERVE                                       | 42,862,895                      | 30,074,422                        |                         | 14,670,014                        | 329,329                           | 0                                 | 352,225                           | 1,068,268                         |
| CONSTRUCTION RESERVE   | 15,879,132                      | 27,267,543                        |                         | 0                                 | 15,561,251                        | 9,780,275                         | 13,486,807                        | 23,190,650                        |
| UNDISTRIBUTED WATER QUALITY LOANS                                    | 3,861,753                       | 4,764,709                         |                         | 5,464,709                         | 5,802,118                         | 5,802,118                         | 5,802,118                         | 5,802,118                         |
| TOTAL DESIGNATED RESERVES (1)  | 74,903,780                      | 74,506,674                        |                         | 32,934,723                        | 34,892,698                        | 29,182,393                        | 33,641,150                        | 44,461,036                        |
| PA93-0226 UNDISTRIBUTED  | 45,000,000                      | 30,000,000                        |                         | 15,000,000                        | 0                                 | 0                                 | 0                                 | 0                                 |
| ENDING FIVE YEAR PLAN CASH AND EQUIVALENTS BY CATEGORY               | 119,903,780                     | 104,506,674                       |                         | 47,934,723                        | 34,892,698                        | 29,182,393                        | 33,641,150                        | 44,461,036                        |
| O & M RATE   | 1.43                            | 1.23                              |                         | 1.24                              | 1.24                              | 1.29                              | 1.35                              | 1.41                              |
| FIXED COST RATE  | 0.23                            | 0.21                              |                         | 0.21                              | 0.21                              | 0.21                              | 0.21                              | 0.21                              |
| TOTAL RATE   | 1.66                            | 1.44                              | 0.06                    | 1.45                              | 1.45                              | 1.50                              | 1.56                              | 1.62                              |

NOTE (1) - TO FY 19-20 TARGET OF 25,000,000

REVISED: 01/23/06

DUPAGE WATER COMMISSION - 14 YEAR PROJECTION  
SUMMARY OF REVENUES, EXPENDITURES AND FUND BALANCES  
MAY 1, 2006 TO APRIL 30, 2020  
50% REV. BOND SUBSIDY /\$1.45 RATE THRU FY07-08/FY08-09 \$0.05 INCR./THEN \$0.06 INCR.  
RESERVOIR CONSTRUCTION & ENGINEERING COMPLETED BY FY10-11

| ACCOUNT TITLE  | 3 YEARS                           |                                   |                                   | FY 13-14<br>ONE TIME<br>O&M SUBSIDY |
|--|-----------------------------------|-----------------------------------|-----------------------------------|-------------------------------------|
|  | ALL FUNDS<br>FY 11-12<br>FORECAST | ALL FUNDS<br>FY 12-13<br>FORECAST | ALL FUNDS<br>FY 13-14<br>FORECAST |                                     |
| <b>REVENUES</b>  |                                   |                                   |                                   |                                     |
| O & M PAYMENTS   | 51,231,318                        | 54,075,554                        | 56,602,986                        |                                     |
| SALES TAX USED FOR O & M COSTS (NEGATIVE - RATES USED FOR CONSTR.)   | 15,934,682                        | 15,899,334                        | 16,648,520                        |                                     |
| FIXED COST PAYMENTS (NOTE 50% PAID BY SALES TAX)                     | 7,144,594                         | 7,144,844                         | 7,144,163                         |                                     |
| SUBSEQUENT CUSTOMER DIFFERENTIAL (ONE TIME REFUND - FY 2006)         | 750,880                           | 758,389                           | 765,973                           |                                     |
| EMERGENCY SUPPLY   | 9,397                             | 9,585                             | 9,777                             |                                     |
| SALES TAXES (ENDS APRIL, 2014; NEGATIVE - DRAWN FROM PRIOR RECEIPTS) | 23,456,046                        | 24,279,209                        | 24,333,594                        |                                     |
| INTEREST INCOME  | 3,422,411                         | 3,889,134                         | 4,387,773                         |                                     |
| OTHER INCOME   | 2,500                             | 2,500                             | 2,500                             |                                     |
| <b>TOTAL REVENUE</b>   | <b>101,951,828</b>                | <b>106,058,549</b>                | <b>109,895,286</b>                |                                     |
| <b>OPERATING EXPENDITURES</b>  |                                   |                                   |                                   |                                     |
| WATER PURCHASES (3% ANNUAL RATE INCR. AFTER 1/1/07)                  | 54,484,220                        | 56,558,486                        | 58,694,265                        |                                     |
| 20% CREDIT THRU 10/31/04; 10% FOR GENERATORS STARTING FY2010         | 0                                 | 0                                 | 0                                 |                                     |
| 5 YEAR CAPITAL PLAN MAJOR REPAIRS                                    | 599,352                           | 611,339                           | 623,566                           |                                     |
| OTHER OPERATING EXPENSES (EXCL BOND INTEREST/DEPRC)                  | 13,704,921                        | 14,390,167                        | 15,109,675                        |                                     |
| REVENUE BOND PRINCIPAL AND INTEREST COSTS                            | 14,289,187                        | 14,289,688                        | 14,288,325                        |                                     |
| REVENUE BOND PRINCIPAL DEFEASED                                      | 0                                 | 0                                 | 26,475,000                        |                                     |
| G.O. BOND PRINCIPAL AND INTEREST COSTS                               | 0                                 | 0                                 | 0                                 |                                     |
| G.O. BOND PRINCIPAL DEFEASED   | 0                                 | 0                                 | 0                                 |                                     |
| CAPITAL EQUIPMENT  | 255,256                           | 268,019                           | 281,420                           |                                     |
| <b>TOTAL OPERATING EXPENDITURES AND COMMITMENTS</b>                  | <b>83,332,936</b>                 | <b>86,117,699</b>                 | <b>115,472,251</b>                |                                     |
| 5 YEAR CAPITAL PLAN NEW CONSTRUCTION                                 | 2,760,000                         | 2,815,000                         | 2,872,000                         |                                     |
| OTHER MINOR RELATED OUTLAYS  | 0                                 | 0                                 | 0                                 |                                     |
| DUPAGE COUNTY SALES TAX GRANT  | 0                                 | 0                                 | 0                                 |                                     |
| WATER QUALITY LOANS  | 0                                 | (368,308)                         | (368,308)                         |                                     |
| <b>TOTAL CASH OUTLAYS AND COMMITMENTS</b>                            | <b>86,092,936</b>                 | <b>88,564,391</b>                 | <b>117,975,943</b>                |                                     |
| <b>NET TRANSACTIONS</b>  | <b>15,858,892</b>                 | <b>17,494,158</b>                 | <b>(8,080,657)</b>                |                                     |
| BEGINNING FIVE YEAR PLAN CASH AND EQUIVALENTS                        | 44,461,036                        | 60,319,928                        | 77,814,086                        |                                     |
| CONVERTED (TO) - FROM RESTRICTED OR CAPITAL NET ASSETS               | 0                                 | 0                                 | 26,163,824                        |                                     |
| <b>ENDING FIVE YEAR PLAN CASH AND EQUIVALENTS</b>                    | <b>60,319,928</b>                 | <b>77,814,086</b>                 | <b>95,897,253</b>                 |                                     |
| HELD FOR EMERGENCY REPAIRS-TARGET                                    | 14,800,000                        | 15,200,000                        | 15,700,000                        | 0                                   |
| O&M RATE STABILIZATION RESERVE                                       | 2,160,964                         | 3,643,248                         | 5,528,707                         | 49,652,812                          |
| CONSTRUCTION RESERVE   | 37,556,846                        | 52,800,412                        | 68,129,812                        | (49,652,812)                        |
| UNDISTRIBUTED WATER QUALITY LOANS                                    | 5,802,118                         | 6,170,426                         | 6,538,734                         | 0                                   |
| <b>TOTAL DESIGNATED RESERVES (1)</b>                                 | <b>60,319,928</b>                 | <b>77,814,086</b>                 | <b>95,897,253</b>                 | <b>0</b>                            |
| PA93-0226 UNDISTRIBUTED  | 0                                 | 0                                 | 0                                 | 0                                   |
| <b>ENDING FIVE YEAR PLAN CASH AND EQUIVALENTS BY CATEGORY</b>        | <b>60,319,928</b>                 | <b>77,814,086</b>                 | <b>95,897,253</b>                 | <b>0</b>                            |
| O & M RATE   | 1.47                              | 1.54                              | 1.60                              |                                     |
| FIXED COST RATE  | 0.21                              | 0.20                              | 0.20                              |                                     |
| <b>TOTAL RATE</b>  | <b>1.68</b>                       | <b>1.74</b>                       | <b>1.80</b>                       |                                     |

NOTE (1) - TO FY 19-20 TARGET OF 25,000,000

REVISED: 01/23/06

DUPAGE WATER COMMISSION - 14 YEAR PROJECTION  
SUMMARY OF REVENUES, EXPENDITURES AND FUND BALANCES  
MAY 1, 2006 TO APRIL 30, 2020  
50% REV. BOND SUBSIDY /\$1.45 RATE THRU FY07-08/FY08-09 \$0.05 INCR./THEN \$0.06 INCR.  
RESERVOIR CONSTRUCTION & ENGINEERING COMPLETED BY FY10-11

| ACCOUNT TITLE  | 6 YEARS                           |                                   |                                   |                                   |                                   |                                   |
|--|-----------------------------------|-----------------------------------|-----------------------------------|-----------------------------------|-----------------------------------|-----------------------------------|
|  | ALL FUNDS<br>FY 14-15<br>FORECAST | ALL FUNDS<br>FY 15-16<br>FORECAST | ALL FUNDS<br>FY 16-17<br>FORECAST | ALL FUNDS<br>FY 17-18<br>FORECAST | ALL FUNDS<br>FY 18-19<br>FORECAST | ALL FUNDS<br>FY 19-20<br>FORECAST |
| REVENUES   |                                   |                                   |                                   |                                   |                                   |                                   |
| O & M PAYMENTS   | 66,289,703                        | 68,943,122                        | 71,637,384                        | 74,362,213                        | 77,120,331                        | 79,912,079                        |
| SALES TAX USED FOR O & M COSTS (NEGATIVE - RATES USED FOR CONSTR.)   | 0                                 | 0                                 | 0                                 | 0                                 | 0                                 | 0                                 |
| FIXED COST PAYMENTS (NOTE 50% PAID BY SALES TAX)                     | 0                                 | 0                                 | 0                                 | 0                                 | 0                                 | 0                                 |
| SUBSEQUENT CUSTOMER DIFFERENTIAL (ONE TIME REFUND - FY 2006)         | 773,633                           | 781,369                           | 789,183                           | 797,075                           | 805,046                           | 813,096                           |
| EMERGENCY SUPPLY   | 9,973                             | 10,172                            | 10,375                            | 10,583                            | 10,795                            | 11,011                            |
| SALES TAXES (ENDS APRIL, 2014; NEGATIVE - DRAWN FROM PRIOR RECEIPTS) | 0                                 | 0                                 | 0                                 | 0                                 | 0                                 | 0                                 |
| INTEREST INCOME  | 3,900,703                         | 3,742,444                         | 3,568,793                         | 3,377,398                         | 3,165,129                         | 2,929,543                         |
| OTHER INCOME   | 2,500                             | 2,500                             | 2,500                             | 2,500                             | 2,500                             | 2,500                             |
| TOTAL REVENUE  | 70,976,512                        | 73,479,607                        | 76,008,235                        | 78,549,769                        | 81,103,801                        | 83,668,229                        |
| OPERATING EXPENDITURES   |                                   |                                   |                                   |                                   |                                   |                                   |
| WATER PURCHASES (3% ANNUAL RATE INCR. AFTER 1/1/07)                  | 60,892,006                        | 63,199,341                        | 65,579,480                        | 68,061,374                        | 70,611,376                        | 73,268,742                        |
| 20% CREDIT THRU 10/31/04; 10% FOR GENERATORS STARTING FY2010         | 0                                 | 0                                 | 0                                 | 0                                 | 0                                 | 0                                 |
| 5 YEAR CAPITAL PLAN MAJOR REPAIRS                                    | 636,037                           | 648,758                           | 661,733                           | 674,968                           | 688,467                           | 702,236                           |
| OTHER OPERATING EXPENSES (EXCL BOND INTEREST/DEPRC)                  | 15,865,159                        | 16,658,417                        | 17,491,338                        | 18,365,905                        | 19,284,200                        | 20,248,410                        |
| REVENUE BOND PRINCIPAL AND INTEREST COSTS                            | 0                                 | 0                                 | 0                                 | 0                                 | 0                                 | 0                                 |
| REVENUE BOND PRINCIPAL DEFEASED                                      | 0                                 | 0                                 | 0                                 | 0                                 | 0                                 | 0                                 |
| G.O. BOND PRINCIPAL AND INTEREST COSTS                               | 0                                 | 0                                 | 0                                 | 0                                 | 0                                 | 0                                 |
| G.O. BOND PRINCIPAL DEFEASED   | 0                                 | 0                                 | 0                                 | 0                                 | 0                                 | 0                                 |
| CAPITAL EQUIPMENT  | 295,491                           | 310,266                           | 325,779                           | 342,068                           | 359,171                           | 377,130                           |
| TOTAL OPERATING EXPENDITURES AND COMMITMENTS                         | 77,688,693                        | 80,816,782                        | 84,058,330                        | 87,444,315                        | 90,943,214                        | 94,596,518                        |
| 5 YEAR CAPITAL PLAN NEW CONSTRUCTION                                 | 2,929,000                         | 2,988,000                         | 3,047,000                         | 3,108,000                         | 3,171,000                         | 3,234,000                         |
| OTHER MINOR RELATED OUTLAYS  | 0                                 | 0                                 | 0                                 | 0                                 | 0                                 | 0                                 |
| DUPAGE COUNTY SALES TAX GRANT  | 0                                 | 0                                 | 0                                 | 0                                 | 0                                 | 0                                 |
| WATER QUALITY LOANS  | (368,308)                         | (368,308)                         | (368,308)                         | (368,308)                         | (368,308)                         | (368,308)                         |
| TOTAL CASH OUTLAYS AND COMMITMENTS                                   | 80,249,385                        | 83,436,474                        | 86,737,022                        | 90,184,007                        | 93,745,906                        | 97,462,210                        |
| NET TRANSACTIONS   | (9,272,873)                       | (9,956,867)                       | (10,728,787)                      | (11,634,238)                      | (12,642,105)                      | (13,793,981)                      |
| BEGINNING FIVE YEAR PLAN CASH AND EQUIVALENTS                        | 95,897,253                        | 86,624,380                        | 76,667,513                        | 65,938,726                        | 54,304,488                        | 41,662,383                        |
| CONVERTED (TO) - FROM RESTRICTED OR CAPITAL NET ASSETS               | 0                                 | 0                                 | 0                                 | 0                                 | 0                                 | 0                                 |
| ENDING FIVE YEAR PLAN CASH AND EQUIVALENTS                           | 86,624,380                        | 76,667,513                        | 65,938,726                        | 54,304,488                        | 41,662,383                        | 27,868,402                        |
| HELD FOR EMERGENCY REPAIRS-TARGET                                    | 16,200,000                        | 16,700,000                        | 17,200,000                        | 17,700,000                        | 18,200,000                        | 18,700,000                        |
| O&M RATE STABILIZATION RESERVE                                       | 47,969,338                        | 40,132,163                        | 31,582,068                        | 22,187,522                        | 11,848,109                        | 419,820                           |
| CONSTRUCTION RESERVE   | 15,548,000                        | 12,560,000                        | 9,513,000                         | 6,405,000                         | 3,234,000                         | 0                                 |
| UNDISTRIBUTED WATER QUALITY LOANS                                    | 6,907,042                         | 7,275,350                         | 7,843,658                         | 8,011,966                         | 8,380,274                         | 8,748,582                         |
| TOTAL DESIGNATED RESERVES (1)  | 86,624,380                        | 76,667,513                        | 65,938,726                        | 54,304,488                        | 41,662,383                        | 27,868,402                        |
| PA93-0226 UNDISTIBUTED   | 0                                 | 0                                 | 0                                 | 0                                 | 0                                 | 0                                 |
| ENDING FIVE YEAR PLAN CASH AND EQUIVALENTS BY CATEGORY               | 86,624,380                        | 76,667,513                        | 65,938,726                        | 54,304,488                        | 41,662,383                        | 27,868,402                        |
| O & M RATE   | 1.86                              | 1.92                              | 1.98                              | 2.04                              | 2.10                              | 2.16                              |
| FIXED COST RATE  | 0.00                              | 0.00                              | 0.00                              | 0.00                              | 0.00                              | 0.00                              |
| TOTAL RATE   | 1.86                              | 1.92                              | 1.98                              | 2.04                              | 2.10                              | 2.16                              |

NOTE (1) - TO FY 19-20 TARGET OF 25,000,000

REVISED: 01/23/06



# SUMMARY OF ESTIMATED NEW CONSTRUCTION COSTS

50% REV. BOND SUBSIDY /\$1.45 RATE THRU FY07-08/FY08-09 \$0.05 INCR./THEN \$0.06 INCR.

RESERVOIR CONSTRUCTION & ENGINEERING COMPLETED BY FY10-11

5 YEARS

| DESCRIPTION (BASED ON FY 05-06 COSTS)                              | FY 06-07  | FY 07-08   | FY 08-09   | FY 09-10   | FY 10-11  | TOTAL      |
|--|-----------|------------|------------|------------|-----------|------------|
| DuPAGE PUMP STATION IMPROVEMENTS                                   |           |            |            |            |           |            |
| 8 MW Electrical Generator Facility - Engineering                   | 680,000   | 425,000    | 425,000    | 200,000    |           | 1,730,000  |
| 8 MW Electrical Generator Facility - Construction                  |           | 6,000,000  | 4,500,000  | 1,000,000  |           | 11,500,000 |
| Garage/Office Building- Engineering                                | 50,000    | 25,000     | 25,000     |            |           | 100,000    |
| Garage/Office Building- Construction                               |           | 700,000    | 700,000    |            |           | 1,400,000  |
| Cadwell Avenue Realignment- Engineering                            | 26,500    |            |            |            |           | 26,500     |
| Cadwell Avenue Realignment- Construction                           | 150,000   |            |            |            |           | 150,000    |
| 30 MG Reservoir Engineering  |           | 250,000    | 350,000    | 300,000    | 300,000   | 1,200,000  |
| 30 MG Reservoir Construction                                       |           |            | 7,760,000  | 15,250,000 | 7,750,000 | 30,760,000 |
| Material and Equipment Storage Facilities- Engineering             |           |            | 60,000     |            |           | 60,000     |
| Material and Equipment Storage Facilities- Construction            |           |            | 640,000    |            |           | 640,000    |
| Pump #10-Engineering   |           |            |            |            | 40,000    | 40,000     |
| Pump #10-Installation  |           |            |            |            | 438,000   | 438,000    |
| LEXINGTON PUMP STATION IMPROVEMENTS                                |           |            |            |            |           | 0          |
| Generator Facility - Engineering                                   | 200,000   | 1,090,000  | 450,000    |            |           | 1,740,000  |
| Generator Facility - Construction                                  |           | 6,000,000  | 6,500,000  |            |           | 12,500,000 |
| STANDPIPE IMPROVEMENTS   |           |            |            |            |           |            |
| Standpipe #4 East Riser Pipe Modifications- Engineering            | 13,000    |            |            |            |           | 13,000     |
| Standpipe #4 East Riser Pipe Modifications- Construction           | 98,000    |            |            |            |           | 98,000     |
| Unspecified Capital Needs After Year Five (\$2.5 million per year) | 1,217,500 | 14,490,000 | 21,410,000 | 16,750,000 | 8,528,000 | 62,395,500 |
| INFLATION FACTOR 2% PER YEAR                                       | 100.0%    | 102.0%     | 104.0%     | 106.1%     | 108.2%    | 104.6%     |
|  | 1,218,000 | 14,780,000 | 22,275,000 | 17,775,000 | 9,231,000 | 65,279,000 |

Note (1) - Includes legal, property acquisition (if any) and soil testing services.

REVISED: 01/23/06

# SUMMARY OF ESTIMATED NEW CONSTRUCTION COSTS

50% REV. BOND SUBSIDY /\$1.45 RATE THRU FY07-08/FY08-09 \$0.05 INCR./THEN \$0.06 INCR.

RESERVOIR CONSTRUCTION & ENGINEERING COMPLETED BY FY10-11

3 YEARS

| DESCRIPTION (BASED ON FY 05-06 COSTS)                              | FY 11-12  | FY 12-13  | FY 13-14  |
|--|-----------|-----------|-----------|
| <b>DUPAGE PUMP STATION IMPROVEMENTS</b>                            |           |           |           |
| 8 MW Electrical Generator Facility - Engineering                   |           |           |           |
| 8 MW Electrical Generator Facility - Construction                  |           |           |           |
| Garage/Office Building- Engineering                                |           |           |           |
| Garage/Office Building- Construction                               |           |           |           |
| Cadwell Avenue Realignment- Engineering                            |           |           |           |
| Cadwell Avenue Realignment- Construction                           |           |           |           |
| 30 MG Reservoir Engineering  |           |           |           |
| 30 MG Reservoir Construction                                       |           |           |           |
| Material and Equipment Storage Facilities- Engineering             |           |           |           |
| Material and Equipment Storage Facilities- Construction            |           |           |           |
| Pump #10-Engineering   |           |           |           |
| Pump #10-Installation  |           |           |           |
| <b>LEXINGTON PUMP STATION IMPROVEMENTS</b>                         |           |           |           |
| Generator Facility - Engineering                                   |           |           |           |
| Generator Facility - Construction                                  |           |           |           |
| <b>STANDPIPE IMPROVEMENTS</b>                                      |           |           |           |
| Standpipe #4 East Riser Pipe Modifications- Engineering            |           |           |           |
| Standpipe #4 East Riser Pipe Modifications- Construction           |           |           |           |
| Unspecified Capital Needs After Year Five (\$2.5 million per year) | 2,500,000 | 2,500,000 | 2,500,000 |
|  | 2,500,000 | 2,500,000 | 2,500,000 |
| <b>INFLATION FACTOR 2% PER YEAR</b>                                | 110.4%    | 112.6%    | 114.9%    |
|  | 2,760,000 | 2,815,000 | 2,872,000 |

Note (1) - Includes legal, property acquisition (if any) and soil testing services.

REVISED: 01/23/06

# SUMMARY OF ESTIMATED NEW CONSTRUCTION COSTS

50% REV. BOND SUBSIDY /\$1.45 RATE THRU FY07-08/FY08-09 \$0.05 INCR./THEN \$0.06 INCR.

RESERVOIR CONSTRUCTION & ENGINEERING COMPLETED BY FY10-11

6 YEARS

| DESCRIPTION (BASED ON FY 05-06 COSTS)                              | FY 14-15  | FY 15-16  | FY 16-17  | FY 17-18  | FY 18-19  | FY 19-20  |
|--|-----------|-----------|-----------|-----------|-----------|-----------|
| DUPAGE PUMP STATION IMPROVEMENTS                                   |           |           |           |           |           |           |
| 8 MW Electrical Generator Facility - Engineering                   |           |           |           |           |           |           |
| 8 MW Electrical Generator Facility - Construction                  |           |           |           |           |           |           |
| Garage/Office Building- Engineering                                |           |           |           |           |           |           |
| Garage/Office Building- Construction                               |           |           |           |           |           |           |
| Cadwell Avenue Realignment- Engineering                            |           |           |           |           |           |           |
| Cadwell Avenue Realignment- Construction                           |           |           |           |           |           |           |
| 30 MG Reservoir Engineering  |           |           |           |           |           |           |
| 30 MG Reservoir Construction                                       |           |           |           |           |           |           |
| Material and Equipment Storage Facilities- Engineering             |           |           |           |           |           |           |
| Material and Equipment Storage Facilities- Construction            |           |           |           |           |           |           |
| Pump #10-Engineering   |           |           |           |           |           |           |
| Pump #10-Installation  |           |           |           |           |           |           |
| LEXINGTON PUMP STATION IMPROVEMENTS                                |           |           |           |           |           |           |
| Generator Facility - Engineering                                   |           |           |           |           |           |           |
| Generator Facility - Construction                                  |           |           |           |           |           |           |
| STANDPIPE IMPROVEMENTS   |           |           |           |           |           |           |
| Standpipe #4 East Riser Pipe Modifications- Engineering            |           |           |           |           |           |           |
| Standpipe #4 East Riser Pipe Modifications- Construction           |           |           |           |           |           |           |
| Unspecified Capital Needs After Year Five (\$2.5 million per year) | 2,500,000 | 2,500,000 | 2,500,000 | 2,500,000 | 2,500,000 | 2,500,000 |
|  | 2,500,000 | 2,500,000 | 2,500,000 | 2,500,000 | 2,500,000 | 2,500,000 |
| INFLATION FACTOR 2% PER YEAR                                       | 117.2%    | 119.5%    | 121.9%    | 124.3%    | 126.8%    | 129.4%    |
|  | 2,929,000 | 2,988,000 | 3,047,000 | 3,108,000 | 3,171,000 | 3,234,000 |

Note (1) - Includes legal, property acquisition (if any) and soil testing services.

REVISED: 01/23/06

DuPAGE WATER COMMISSION  
2001 G. O. BOND ISSUE  
SCHEDULE OF PRINCIPAL, INTEREST AND TAX LEVIES

|                   | PRINCIPAL        | INTEREST        | TOTAL            | FISCAL<br>YEAR | PROPERTY TAX     | LEVY<br>YEAR |
|-------------------|------------------|-----------------|------------------|----------------|------------------|--------------|
| September 1, 2005 |                  | \$ 1,699,575.00 | \$ 1,699,575.00  |                |                  |              |
| March 1, 2006     | \$ 9,725,000.00  | \$ 1,699,575.00 | \$ 11,424,575.00 | 2006           | \$ 13,124,150.00 | 2004         |
| September 1, 2006 | \$ 10,205,000.00 | \$ 1,456,450.00 | \$ 11,661,450.00 |                |                  |              |
| September 1, 2006 | \$ 46,275,000.00 | \$ -            | \$ 46,275,000.00 | 2007           | \$ 57,936,450.00 | 2005         |
| TOTAL             | \$ 66,205,000.00 | \$ 4,855,600.00 | \$ 71,060,600.00 |                | \$ 71,060,600.00 |              |

DuPAGE WATER COMMISSION  
2003 REVENUE BOND ISSUE  
SCHEDULE OF PRINCIPAL, INTEREST AND ANNUAL REQUIREMENTS


|                  | PRINCIPAL         | INTEREST         | TOTAL             | FISCAL YEAR<br>TOTAL | FISCAL<br>YEAR |
|------------------|-------------------|------------------|-------------------|----------------------|----------------|
| November 1, 2005 |                   | \$ 3,006,968.75  | \$ 3,006,968.75   |                      |                |
| May 1, 2006      | \$ 8,275,000.00   | \$ 3,006,968.75  | \$ 11,281,968.75  | \$ 14,288,937.50     | 2006           |
| November 1, 2006 |                   | \$ 2,800,093.75  | \$ 2,800,093.75   |                      |                |
| May 1, 2007      | \$ 8,690,000.00   | \$ 2,800,093.75  | \$ 11,490,093.75  | \$ 14,290,187.50     | 2007           |
| November 1, 2007 |                   | \$ 2,582,843.75  | \$ 2,582,843.75   |                      |                |
| May 1, 2008      | \$ 9,125,000.00   | \$ 2,582,843.75  | \$ 11,707,843.75  | \$ 14,290,687.50     | 2008           |
| November 1, 2008 |                   | \$ 2,354,718.75  | \$ 2,354,718.75   |                      |                |
| May 1, 2009      | \$ 9,580,000.00   | \$ 2,354,718.75  | \$ 11,934,718.75  | \$ 14,289,437.50     | 2009           |
| November 1, 2009 |                   | \$ 2,115,218.75  | \$ 2,115,218.75   |                      |                |
| May 1, 2010      | \$ 10,060,000.00  | \$ 2,115,218.75  | \$ 12,175,218.75  | \$ 14,290,437.50     | 2010           |
| November 1, 2010 |                   | \$ 1,863,718.75  | \$ 1,863,718.75   |                      |                |
| May 1, 2011      | \$ 10,565,000.00  | \$ 1,863,718.75  | \$ 12,428,718.75  | \$ 14,292,437.50     | 2011           |
| November 1, 2011 |                   | \$ 1,599,593.75  | \$ 1,599,593.75   |                      |                |
| May 1, 2012      | \$ 11,090,000.00  | \$ 1,599,593.75  | \$ 12,689,593.75  | \$ 14,289,187.50     | 2012           |
| November 1, 2012 |                   | \$ 1,322,343.75  | \$ 1,322,343.75   |                      |                |
| May 1, 2013      | \$ 11,645,000.00  | \$ 1,322,343.75  | \$ 12,967,343.75  | \$ 14,289,687.50     | 2013           |
| November 1, 2013 |                   | \$ 1,016,662.50  | \$ 1,016,662.50   |                      |                |
| May 1, 2014      | \$ 12,255,000.00  | \$ 1,016,662.50  | \$ 13,271,662.50  | \$ 14,288,325.00     | 2014           |
| May 1, 2014      | \$ 26,475,000.00  | \$ -             | \$ 26,475,000.00  | \$ 26,475,000.00     | 2014           |
| TOTAL            | \$ 117,760,000.00 | \$ 37,324,325.00 | \$ 155,084,325.00 | \$ 155,084,325.00    |                |



# DuPage Water Commission

## MEMORANDUM

TO: Chairman and Commissioners

FROM: Robert L. Martin, P.E.  
General Manager 

DATE: February 2, 2006

SUBJECT: 2005 Five Year Capital Improvement Plan

Per the direction of Chairman Vondra, attached is the 2005 Five Year Capital Improvement Plan for your reference.

**DUPAGE WATER COMMISSION  
2005 - 2006  
FIVE YEAR CAPITAL IMPROVEMENT  
PLAN**

**JANUARY 7, 2005**



# DuPage Water Commission

## MEMORANDUM

TO: Chairman Vondra and Commissioners

FROM: Robert L. Martin, P.E.  
General Manager

DATE: January 7, 2005

SUBJECT: Capital Improvement Plan

In accordance with Commission policy, the Capital Improvement Plan is reviewed and evaluated by staff in connection with each new budget cycle. A draft of the updated plan is then submitted to the Commission for its consideration. This annual document is based on the Commission's anticipated needs for normal operations, emergency operations and improvements to the system. Included in the plan is a 15 year projection of revenues, expenditures and fund balances. The proposed capital plan is included in the projection summary.

The plan is divided into several sections – Distribution System Improvements, DuPage Pump Station Improvements, Lexington Pump Station Improvements, and Standpipe Improvements. A summary shows the capital outlay (funded by sales tax revenues) and major non-recurring maintenance (funded by water rates) on a fiscal year basis. Each fiscal year's programmed expenditures are included in the financial projection of Commission revenues and expenditures through fiscal year 2019-20.

The status of the Capital Improvement Plan projects is as follows:

Contract TIB-1: under construction approximately 43% complete

30 Million Gallon Reservoir: design 90% complete

DuPage Electrical Generation Facility: design 30% complete and on hold

Pipe Storage Facility: design complete

The draft fiscal 2005-06 planning document represents the tenth consecutive year in which the Commission has evaluated a Capital Improvement Plan. Utilizing this process over the years has allowed the Commission to have a much



better understanding of its long-term capital and operating needs and the level of funding required from various sources.

Current Commission policy reflected in this plan uses sales tax to pay 50% of the Water Revenue Bonds. Public Act 93-0226, which was enacted on July 22, 2003, requires the Commission to maintain a customer rate of \$1.65 per 1,000 gallons for a period of five years. To accomplish this, and to maintain the rate thereafter, it is necessary to use sales tax beginning in fiscal year 2008-09 to supplement operation and maintenance costs.

Planned improvements accepted by the Board will be included in the 2005-06 budget document. The budget will be sent to the Board for its review in February and released, in tentative draft form, to the Charter Customers prior to March 1, 2005.

**DUPAGE WATER COMMISSION**  
**2005 – 2006**  
**FIVE YEAR CAPITAL IMPROVEMENT PLAN**

|  |           |
|--|-----------|
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**DUPAGE WATER COMMISSION  
2005 – 2006  
FIVE YEAR CAPITAL IMPROVEMENT PLAN**

**SUMMARY**

**DUPAGE WATER COMMISSION**  
**2005 – 2006**  
**FIVE YEAR CAPITAL IMPROVEMENT PLAN**

- Operation and maintenance revenues are based on 94.0% of the IDNR allocation for each fiscal year.
- Fixed cost revenue requirements are 50% of the yearly debt service scheduled for the Commission's outstanding revenue bonds. Sales taxes are used to pay the remaining 50%.
- The total charter customer average water rate remains \$1.65 per thousand gallons.
- Sales tax receipts will be used beginning May 1, 2008 to hold the water rate at \$1.65 per thousand gallons.
- Sales tax receipts pay for general obligation bond debt service requirements allowing the abatement of \$13.1 million of property tax annually.
- The 15% subsequent customer capital risk factor has been suspended effective January 1, 2004.
- Sales tax increases 2% annually.
- Interest income is based on prior year's earnings versus prior year's net revenues excluding interest earned applied to the same figure for each projected fiscal year.
- Water purchase expense is based on the Commission billing 97.1% of all water purchased from Chicago and 3% annual increases in the Chicago water rate.
- The 20% water purchase credit is based on annual anticipated purchases. This credit ended during fiscal year 2004-05.
- All other operating expenses not specifically mentioned above are anticipated to rise 5% per year.
- Principal and interest costs are the scheduled debt service payments for the Commission's 2003 revenue bonds and general obligation bonds of 2001.
- Construction and major capital repair costs are inflated 2% per year.
- The target fund balance available for emergency repairs will increase by 3% per year. However, once this amount reaches a targeted maximum of \$20 million, the balance will hold at that level. (Presently the Commission indexes its targeted emergency repair balance to be 2% of the original construction costs escalated by the annual increases in the Engineering News Record Construction Index.)
- Sales tax proceeds not needed for immediate appropriation are reserved for construction. Water sales receipts not needed for immediate appropriation are reserved for rate stabilization.

**DUPAGE WATER COMMISSION - 5 YEAR PROJECTION**  
**SUMMARY OF REVENUES, EXPENDITURES AND FUND BALANCES**  
**MAY 1, 2005 TO APRIL 30, 2010**

| ACCOUNT TITLE   | ALL FUNDS<br>FY 03-04<br>ACTUAL | ALL FUNDS<br>FY 04-05<br>ADJ. BUDGET | ASSUMPTION<br>OR % CHGE<br>FY 06-10 ONLY | ALL FUNDS<br>FY 05-06<br>PROJECTION | ALL FUNDS<br>FY 06-07<br>FORECAST | ALL FUNDS<br>FY 07-08<br>FORECAST | ALL FUNDS<br>FY 08-09<br>FORECAST | ALL FUNDS<br>FY 09-10<br>FORECAST |
|---|---------------------------------|--------------------------------------|--|-------------------------------------|-----------------------------------|-----------------------------------|-----------------------------------|-----------------------------------|
| <b>REVENUES</b>   |                                 |                                      |  |                                     |                                   |                                   |                                   |                                   |
| O & M PAYMENTS  | 42,485,698                      | 44,853,380                           | CALCULATED                               | 47,496,509                          | 48,231,400                        | 48,632,815                        | 49,030,289                        | 49,422,953                        |
| SALES TAX USED FOR O & M COSTS                                | 0                               | 0                                    | CALCULATED                               | 0                                   | 0                                 | 0                                 | 7,605,961                         | 16,254,414                        |
| FIXED COST PAYMENTS (% PAID BY SALES TAX)                     | 8,916,329                       | 7,143,969                            | 50.0%                                    | 7,143,969                           | 7,144,469                         | 7,145,094                         | 7,145,344                         | 7,144,719                         |
| SUBSEQUENT CUSTOMER DIFFERENTIAL/EMERGENCY SUPPLY             | 783,326                         | 791,159                              | 1.0%                                     | 799,071                             | 807,062                           | 815,133                           | 823,284                           | 831,517                           |
| SALES TAX USED FOR CONSTRUCTION AND BOND PAYMENTS             | 31,620,982                      | 32,632,524                           | 2.0%                                     | 33,285,174                          | 33,950,877                        | 34,629,895                        | 27,716,532                        | 19,774,529                        |
| INTEREST INCOME   | 2,321,233                       | 1,753,263                            | EXTRAPOLATED                             | 1,639,801                           | 1,341,830                         | 1,160,857                         | 1,013,669                         | 976,596                           |
| OTHER INCOME  | 102,058                         | 0                                    | 0.0%                                     | 0                                   | 0                                 | 0                                 | 0                                 | 0                                 |
| <b>TOTAL REVENUE</b>  | <b>86,229,626</b>               | <b>87,174,295</b>                    |  | <b>90,364,524</b>                   | <b>91,475,638</b>                 | <b>92,383,794</b>                 | <b>93,335,079</b>                 | <b>94,404,728</b>                 |
| <b>OPERATING EXPENDITURES</b>                                 |                                 |                                      |  |                                     |                                   |                                   |                                   |                                   |
| WATER PURCHASES (3% ANNUAL RATE INCREASES)                    | 39,013,675                      | 41,615,189                           | CALCULATED                               | 45,399,451                          | 47,161,752                        | 48,980,542                        | 50,853,868                        | 52,816,647                        |
| 20% CREDIT THRU OCTOBER 2004                                  | (7,802,735)                     | (4,611,512)                          | CALCULATED                               | 0                                   | 0                                 | 0                                 | 0                                 | 0                                 |
| 5 YEAR CAPITAL PLAN MAJOR REPAIRS                             | 4,810,523                       | 2,572,000                            | CALCULATED                               | 3,000,000                           | 1,020,000                         | 0                                 | 0                                 | 0                                 |
| OTHER OPERATING EXPENSES (EXCL BOND INTEREST/DEPRC)           | 10,036,387                      | 10,738,677                           | 5.0%                                     | 11,476,082                          | 12,049,886                        | 12,652,380                        | 13,284,999                        | 13,949,249                        |
| REVENUE BOND PRINCIPAL AND INTEREST COSTS                     | 20,727,699                      | 14,287,938                           | CALCULATED                               | 14,287,938                          | 14,288,937                        | 14,290,188                        | 14,290,687                        | 14,289,438                        |
| G.O. BOND PRINCIPAL AND INTEREST COSTS                        | 13,112,650                      | 13,122,150                           | CALCULATED                               | 13,122,150                          | 13,124,150                        | 13,117,900                        | 13,117,650                        | 13,116,900                        |
| CAPITAL EQUIPMENT   | 84,608                          | 88,838                               | 5.0%                                     | 93,280                              | 97,944                            | 102,841                           | 107,983                           | 113,382                           |
| <b>TOTAL OPERATING EXPENDITURES AND COMMITMENTS</b>           | <b>79,982,807</b>               | <b>77,813,280</b>                    |  | <b>87,378,901</b>                   | <b>87,742,669</b>                 | <b>89,143,851</b>                 | <b>91,655,187</b>                 | <b>94,285,616</b>                 |
| 5 YEAR CAPITAL PLAN NEW CONSTRUCTION                          | 3,432,005                       | 10,505,000                           | CALCULATED                               | 19,589,000                          | 9,935,000                         | 5,171,000                         | 4,691,000                         | 476,000                           |
| 5 YEAR CONSTRUCTION PLAN RSRVR (DELAY)-CATCH-UP               | 0                               | 0                                    | CALCULATED                               | 0                                   | 0                                 | 0                                 | 0                                 | 0                                 |
| OTHER MINOR RELATED OUTLAYS                                   | 0                               | 250,000                              | 4.0%                                     | 250,000                             | 260,000                           | 270,400                           | 281,216                           | 292,465                           |
| DUPAGE COUNTY SALES TAX GRANT                                 | 15,000,000                      | 15,000,000                           | PA93-0226                                | 15,000,000                          | 15,000,000                        | 15,000,000                        | 0                                 | 0                                 |
| WATER QUALITY LOANS   | 4,034,000                       | 1,250,000                            | BOARD POLICY                             | 4,716,000                           | 0                                 | 0                                 | 0                                 | 0                                 |
| REVOLVING LOANS   | 0                               | 0                                    | BOARD POLICY                             | 2,500,000                           | 2,500,000                         | 2,500,000                         | 2,500,000                         | 2,500,000                         |
| <b>TOTAL CASH OUTLAYS AND COMMITMENTS</b>                     | <b>102,448,812</b>              | <b>104,818,280</b>                   |  | <b>129,433,901</b>                  | <b>115,437,669</b>                | <b>112,085,251</b>                | <b>99,127,403</b>                 | <b>97,554,081</b>                 |
| <b>NET TRANSACTIONS</b>                                       | <b>(16,219,186)</b>             | <b>(17,643,985)</b>                  |  | <b>(39,069,377)</b>                 | <b>(23,962,031)</b>               | <b>(19,701,467)</b>               | <b>(5,792,324)</b>                | <b>(3,149,353)</b>                |
| BEGINNING FIVE YEAR PLAN CASH AND EQUIVALENTS                 | 136,423,000                     | 136,171,835                          | CALCULATED                               | 118,527,850                         | 79,458,473                        | 55,496,442                        | 35,794,985                        | 30,002,661                        |
| RELEASE OF REV BOND DSR (SURETY BOND)                         | 17,837,213                      | 0                                    |  | 0                                   | 0                                 | 0                                 | 0                                 | 0                                 |
| CONVERTED (TO) - FROM RESTRICTED OR CAPITAL NET ASSETS        | (1,869,192)                     | 0                                    |  | 0                                   | 0                                 | 0                                 | 0                                 | 0                                 |
| <b>ENDING FIVE YEAR PLAN CASH AND EQUIVALENTS</b>             | <b>136,171,835</b>              | <b>118,527,850</b>                   |  | <b>79,458,473</b>                   | <b>55,496,442</b>                 | <b>35,794,985</b>                 | <b>30,002,661</b>                 | <b>26,853,308</b>                 |
| HELD FOR EMERGENCY REPAIRS-TARGET (1)                         | 11,700,000                      | 12,000,000                           | 3.0%                                     | 12,300,000                          | 12,700,000                        | 13,100,000                        | 13,500,000                        | 13,900,000                        |
| O&M RATE STABILIZATION RESERVE                                | 44,223,355                      | 40,248,184                           |  | 29,300,078                          | 18,445,984                        | 6,478,592                         | 0                                 | 0                                 |
| CONSTRUCTION RESERVE  | 14,282,480                      | 16,563,666                           |  | 7,858,395                           | 9,350,458                         | 16,216,393                        | 16,502,661                        | 12,953,308                        |
| PA93-0226 UNDISTRIBUTED                                       | 60,000,000                      | 45,000,000                           |  | 30,000,000                          | 15,000,000                        | 0                                 | 0                                 | 0                                 |
| UNDISTRIBUTED WATER QUALITY LOANS                             | 5,966,000                       | 4,716,000                            |  | 0                                   | 0                                 | 0                                 | 0                                 | 0                                 |
| <b>ENDING FIVE YEAR PLAN CASH AND EQUIVALENTS BY CATEGORY</b> | <b>136,171,835</b>              | <b>118,527,850</b>                   |  | <b>79,458,473</b>                   | <b>55,496,442</b>                 | <b>35,794,985</b>                 | <b>30,002,661</b>                 | <b>26,853,308</b>                 |
| O & M RATE  | 1.38                            | 1.43                                 |  | 1.43                                | 1.44                              | 1.44                              | 1.44                              | 1.44                              |
| FIXED COST RATE   | 0.29                            | 0.23                                 |  | 0.22                                | 0.21                              | 0.21                              | 0.21                              | 0.21                              |
| <b>TOTAL RATE</b>   | <b>1.67</b>                     | <b>1.66</b>                          |  | <b>1.65</b>                         | <b>1.65</b>                       | <b>1.65</b>                       | <b>1.65</b>                       | <b>1.65</b>                       |

NOTE (1) - TO MAX OF 20,000,000

REVISED: JANUARY 5, 2005

DuPAGE WATER COMMISSION - 5 YEAR PROJECTION  
SUMMARY OF REVENUES, EXPENDITURES AND FUND BALANCES  
MAY 1, 2005 TO APRIL 30, 2010

| ACCOUNT TITLE   | ALL FUNDS<br>FY 10-11<br>FORECAST | ALL FUNDS<br>FY 11-12<br>FORECAST | ALL FUNDS<br>FY 12-13<br>FORECAST | ALL FUNDS<br>FY 13-14<br>FORECAST | ALL FUNDS<br>FY 14-15<br>FORECAST | ALL FUNDS<br>FY 15-16<br>FORECAST | ALL FUNDS<br>FY 16-17<br>FORECAST | ALL FUNDS<br>FY 17-18<br>FORECAST |
|---|-----------------------------------|-----------------------------------|-----------------------------------|-----------------------------------|-----------------------------------|-----------------------------------|-----------------------------------|-----------------------------------|
| <b>REVENUES</b>   |                                   |                                   |                                   |                                   |                                   |                                   |                                   |                                   |
| O & M PAYMENTS  | 49,807,248                        | 50,185,781                        | 50,915,294                        | 51,296,456                        | 51,677,456                        | 52,066,420                        | 52,461,721                        | 60,145,907                        |
| SALES TAX USED FOR O & M COSTS                                | 19,384,255                        | 21,826,877                        | 24,058,899                        | 26,762,075                        | 29,474,686                        | 32,347,025                        | 14,883,734                        | 31,326,183                        |
| FIXED COST PAYMENTS (% PAID BY SALES TAX)                     | 7,145,219                         | 7,146,219                         | 7,144,594                         | 7,144,844                         | 7,144,163                         | 7,144,969                         | 7,143,844                         | 0                                 |
| SUBSEQUENT CUSTOMER DIFFERENTIAL/EMERGENCY SUPPLY             | 839,832                           | 848,230                           | 856,712                           | 865,279                           | 873,932                           | 882,671                           | 891,498                           | 900,413                           |
| SALES TAX USED FOR CONSTRUCTION AND BOND PAYMENTS             | 17,365,267                        | 15,657,635                        | 14,175,303                        | 12,236,811                        | 10,304,178                        | 8,227,416                         | 26,502,196                        | 10,887,466                        |
| INTEREST INCOME   | 960,489                           | 932,480                           | 895,672                           | 949,994                           | 993,742                           | 1,023,343                         | 962,844                           | 1,031,840                         |
| OTHER INCOME  | 0                                 | 0                                 | 0                                 | 0                                 | 0                                 | 0                                 | 0                                 | 0                                 |
| <b>TOTAL REVENUE</b>  | <b>95,502,310</b>                 | <b>96,597,222</b>                 | <b>98,046,474</b>                 | <b>99,255,459</b>                 | <b>100,468,157</b>                | <b>101,691,844</b>                | <b>102,845,837</b>                | <b>104,291,809</b>                |
| <b>OPERATING EXPENDITURES</b>                                 |                                   |                                   |                                   |                                   |                                   |                                   |                                   |                                   |
| WATER PURCHASES (3% ANNUAL RATE INCREASES)                    | 54,830,562                        | 56,898,588                        | 59,063,675                        | 61,291,377                        | 63,582,125                        | 65,983,993                        | 68,497,397                        | 71,076,622                        |
| 20% CREDIT THRU OCTOBER 2004                                  | 0                                 | 0                                 | 0                                 | 0                                 | 0                                 | 0                                 | 0                                 | 0                                 |
| 5 YEAR CAPITAL PLAN MAJOR REPAIRS                             | 820,080                           | 836,482                           | 853,212                           | 870,276                           | 887,682                           | 905,436                           | 923,545                           | 942,016                           |
| OTHER OPERATING EXPENSES (EXCL BOND INTEREST/DEPRC)           | 14,645,711                        | 15,379,047                        | 16,147,999                        | 16,955,399                        | 17,803,169                        | 18,693,327                        | 19,627,993                        | 20,609,393                        |
| REVENUE BOND PRINCIPAL AND INTEREST COSTS                     | 14,290,437                        | 14,292,438                        | 14,289,187                        | 14,289,688                        | 14,288,325                        | 14,289,937                        | 14,287,688                        | 0                                 |
| G.O. BOND PRINCIPAL AND INTEREST COSTS                        | 13,121,275                        | 13,119,413                        | 0                                 | 0                                 | 0                                 | 0                                 | 0                                 | 0                                 |
| CAPITAL EQUIPMENT   | 119,051                           | 125,004                           | 131,254                           | 137,817                           | 144,708                           | 151,943                           | 159,540                           | 167,517                           |
| <b>TOTAL OPERATING EXPENDITURES AND COMMITMENTS</b>           | <b>97,828,116</b>                 | <b>100,650,972</b>                | <b>90,485,327</b>                 | <b>93,544,557</b>                 | <b>96,706,009</b>                 | <b>100,024,636</b>                | <b>103,496,163</b>                | <b>92,795,548</b>                 |
| 5 YEAR CAPITAL PLAN NEW CONSTRUCTION                          | 2,032,962                         | 2,073,621                         | 2,115,093                         | 2,157,395                         | 2,200,543                         | 2,244,554                         | 2,289,445                         | 2,335,234                         |
| 5 YEAR CONSTRUCTION PLAN RSRVR (DELAY)-CATCH-UP               | 0                                 | 0                                 | 0                                 | 0                                 | 0                                 | 9,447,000                         | 18,961,000                        | 9,829,000                         |
| OTHER MINOR RELATED OUTLAYS                                   | 304,164                           | 316,331                           | 328,984                           | 342,143                           | 355,829                           | 370,062                           | 384,864                           | 400,259                           |
| DUPAGE COUNTY SALES TAX GRANT                                 | 0                                 | 0                                 | 0                                 | 0                                 | 0                                 | 0                                 | 0                                 | 0                                 |
| WATER QUALITY LOANS   | 0                                 | (305,462)                         | (401,615)                         | (764,385)                         | (764,385)                         | (764,385)                         | (764,385)                         | (764,385)                         |
| REVOLVING LOANS   | 0                                 | 0                                 | (192,308)                         | (384,615)                         | (576,923)                         | (769,231)                         | (961,538)                         | (961,538)                         |
| <b>TOTAL CASH OUTLAYS AND COMMITMENTS</b>                     | <b>100,165,242</b>                | <b>102,735,462</b>                | <b>92,335,481</b>                 | <b>94,895,095</b>                 | <b>97,921,073</b>                 | <b>110,552,636</b>                | <b>123,405,549</b>                | <b>103,634,118</b>                |
| <b>NET TRANSACTIONS</b>                                       | <b>(4,562,932)</b>                | <b>(6,138,240)</b>                | <b>5,710,993</b>                  | <b>4,360,364</b>                  | <b>2,547,084</b>                  | <b>(8,860,792)</b>                | <b>(20,559,712)</b>               | <b>657,691</b>                    |
| BEGINNING FIVE YEAR PLAN CASH AND EQUIVALENTS                 | 26,853,308                        | 22,190,376                        | 16,052,136                        | 21,763,129                        | 26,123,493                        | 28,670,577                        | 19,809,785                        | 27,153,054                        |
| RELEASE OF REV BOND DSR (SURETY BOND)                         | 0                                 | 0                                 | 0                                 | 0                                 | 0                                 | 0                                 | 0                                 | 0                                 |
| CONVERTED (TO) - FROM RESTRICTED OR CAPITAL NET ASSETS        | 0                                 | 0                                 | 0                                 | 0                                 | 0                                 | 0                                 | 27,902,981                        | 0                                 |
| <b>ENDING FIVE YEAR PLAN CASH AND EQUIVALENTS</b>             | <b>22,190,376</b>                 | <b>16,052,136</b>                 | <b>21,763,129</b>                 | <b>26,123,493</b>                 | <b>28,670,577</b>                 | <b>19,809,785</b>                 | <b>27,153,054</b>                 | <b>27,810,745</b>                 |
| HELD FOR EMERGENCY REPAIRS-TARGET (1)                         | 14,300,000                        | 14,700,000                        | 15,100,000                        | 15,600,000                        | 16,100,000                        | 16,600,000                        | 17,100,000                        | 17,600,000                        |
| O&M RATE STABILIZATION RESERVE                                | 0                                 | 0                                 | 0                                 | 0                                 | 0                                 | 0                                 | 0                                 | 0                                 |
| CONSTRUCTION RESERVE  | 7,890,376                         | 1,046,674                         | 5,956,052                         | 9,052,031                         | 10,334,730                        | 209,553                           | 6,288,437                         | 5,681,743                         |
| PA93-0226 UNDISTRIBUTED                                       | 0                                 | 0                                 | 0                                 | 0                                 | 0                                 | 0                                 | 0                                 | 0                                 |
| UNDISTRIBUTED WATER QUALITY LOANS                             | 0                                 | 305,462                           | 707,077                           | 1,471,462                         | 2,235,847                         | 3,000,232                         | 3,764,617                         | 4,529,002                         |
| <b>ENDING FIVE YEAR PLAN CASH AND EQUIVALENTS BY CATEGORY</b> | <b>22,190,376</b>                 | <b>16,052,136</b>                 | <b>21,763,129</b>                 | <b>26,123,493</b>                 | <b>28,670,577</b>                 | <b>19,809,785</b>                 | <b>27,153,054</b>                 | <b>27,810,745</b>                 |
| O & M RATE  | 1.44                              | 1.44                              | 1.45                              | 1.45                              | 1.45                              | 1.45                              | 1.45                              | 1.65                              |
| FIXED COST RATE   | 0.21                              | 0.21                              | 0.20                              | 0.20                              | 0.20                              | 0.20                              | 0.20                              | 0.00                              |
| <b>TOTAL RATE</b>   | <b>1.65</b>                       | <b>1.65</b>                       | <b>1.65</b>                       | <b>1.65</b>                       | <b>1.65</b>                       | <b>1.65</b>                       | <b>1.65</b>                       | <b>1.65</b>                       |

NOTE (1) - TO MAX OF 20,000,000

**DUPAGE WATER COMMISSION - 5 YEAR PROJECTION**  
**SUMMARY OF REVENUES, EXPENDITURES AND FUND BALANCES**  
**MAY 1, 2005 TO APRIL 30, 2010**

| ACCOUNT TITLE   | ALL FUNDS<br>FY 18-19<br>FORECAST | ALL FUNDS<br>FY 19-20<br>FORECAST |
|---|-----------------------------------|-----------------------------------|
| <b>REVENUES</b>   |                                   |                                   |
| O & M PAYMENTS  | 60,594,546                        | 61,043,949                        |
| SALES TAX USED FOR O & M COSTS                                | 34,573,233                        | 37,924,923                        |
| FIXED COST PAYMENTS (% PAID BY SALES TAX)                     | 0                                 | 0                                 |
| SUBSEQUENT CUSTOMER DIFFERENTIAL/EMERGENCY SUPPLY             | 909,417                           | 918,511                           |
| SALES TAX USED FOR CONSTRUCTION AND BOND PAYMENTS             | 8,484,689                         | 5,994,157                         |
| INTEREST INCOME   | 1,047,344                         | 1,121,062                         |
| OTHER INCOME  | 0                                 | 0                                 |
| <b>TOTAL REVENUE</b>  | <b>105,609,229</b>                | <b>107,002,602</b>                |
| <b>OPERATING EXPENDITURES</b>                                 |                                   |                                   |
| WATER PURCHASES (3% ANNUAL RATE INCREASES)                    | 73,762,941                        | 76,558,363                        |
| 20% CREDIT THRU OCTOBER 2004                                  | 0                                 | 0                                 |
| 5 YEAR CAPITAL PLAN MAJOR REPAIRS                             | 960,856                           | 980,073                           |
| OTHER OPERATING EXPENSES (EXCL BOND INTEREST/DEPRC)           | 21,639,863                        | 22,721,856                        |
| REVENUE BOND PRINCIPAL AND INTEREST COSTS                     | 0                                 | 0                                 |
| G.O. BOND PRINCIPAL AND INTEREST COSTS                        | 0                                 | 0                                 |
| CAPITAL EQUIPMENT   | 175,893                           | 184,688                           |
| <b>TOTAL OPERATING EXPENDITURES AND COMMITMENTS</b>           | <b>96,539,553</b>                 | <b>100,444,980</b>                |
| 5 YEAR CAPITAL PLAN NEW CONSTRUCTION                          | 2,381,939                         | 2,429,578                         |
| 5 YEAR CONSTRUCTION PLAN RSRVR (DELAY)-CATCH-UP               | 0                                 | 0                                 |
| OTHER MINOR RELATED OUTLAYS                                   | 416,269                           | 432,920                           |
| DUPAGE COUNTY SALES TAX GRANT                                 | 0                                 | 0                                 |
| WATER QUALITY LOANS   | (764,385)                         | (764,385)                         |
| REVOLVING LOANS   | (961,538)                         | (961,538)                         |
| <b>TOTAL CASH OUTLAYS AND COMMITMENTS</b>                     | <b>97,611,838</b>                 | <b>101,581,555</b>                |
| <b>NET TRANSACTIONS</b>                                       | <b>7,997,391</b>                  | <b>5,421,047</b>                  |
| BEGINNING FIVE YEAR PLAN CASH AND EQUIVALENTS                 | 27,810,745                        | 35,808,136                        |
| RELEASE OF REV BOND DSR (SURETY BOND)                         | 0                                 | 0                                 |
| CONVERTED (TO) - FROM RESTRICTED OR CAPITAL NET ASSETS        | 0                                 | 0                                 |
| <b>ENDING FIVE YEAR PLAN CASH AND EQUIVALENTS</b>             | <b>35,808,136</b>                 | <b>41,229,183</b>                 |
| HELD FOR EMERGENCY REPAIRS-TARGET (1)                         | 18,100,000                        | 18,600,000                        |
| O&M RATE STABILIZATION RESERVE                                | 0                                 | 0                                 |
| CONSTRUCTION RESERVE  | 12,414,749                        | 16,571,411                        |
| PA93-0226 UNDISTRIBUTED                                       | 0                                 | 0                                 |
| UNDISTRIBUTED WATER QUALITY LOANS                             | 5,293,387                         | 6,057,772                         |
| <b>ENDING FIVE YEAR PLAN CASH AND EQUIVALENTS BY CATEGORY</b> | <b>35,808,136</b>                 | <b>41,229,183</b>                 |
| O & M RATE  | 1.65                              | 1.65                              |
| FIXED COST RATE   | 0.00                              | 0.00                              |
| <b>TOTAL RATE</b>   | <b>1.65</b>                       | <b>1.65</b>                       |

NOTE (1) - TO MAX OF 20,000,000

# SUMMARY OF ESTIMATED NEW CONSTRUCTION COSTS

| DESCRIPTION (BASED ON FY 05-06 COSTS)                    | FY 05-06          | FY 06-07         | FY 07-08         | FY 08-09         | FY 09-10       | TOTAL             |
|--|-------------------|------------------|------------------|------------------|----------------|-------------------|
| <b>DISTRIBUTION SYSTEM IMPROVEMENTS</b>                  |                   |                  |                  |                  |                |                   |
| Contract TIB-1; Route 83 - Engineering                   | 900,000           |                  |                  |                  |                | 900,000           |
| Contract TIB-1; Route 83 - Construction (1)              | 6,000,000         |                  |                  |                  |                | 6,000,000         |
| <b>DuPAGE PUMP STATION IMPROVEMENTS</b>                  |                   |                  |                  |                  |                |                   |
| 8 MW Electrical Generator Facility - Engineering         | 520,500           | 470,000          |                  |                  |                | 990,500           |
| 8 MW Electrical Generator Facility - Construction        | 8,000,000         | 4,500,000        |                  |                  |                | 12,500,000        |
| Garage/Office Building- Engineering                      | 205,500           |                  |                  |                  |                | 205,500           |
| Garage/Office Building- Construction                     | 1,550,000         |                  |                  |                  |                | 1,550,000         |
| Granular and Equipment Storage Facilities- Engineering   | 25,500            |                  |                  |                  |                | 25,500            |
| Granular and Equipment Storage Facilities- Construction  | 640,000           |                  |                  |                  |                | 640,000           |
| Cadwell Avenue Realignment- Engineering                  | 26,500            |                  |                  |                  |                | 26,500            |
| Cadwell Avenue Realignment- Construction                 | 110,000           |                  |                  |                  |                | 110,000           |
| Pump #10-Engineering                                     |                   |                  |                  |                  | 40,000         | 40,000            |
| Pump #10-Installation                                    |                   |                  |                  |                  | 400,000        | 400,000           |
| Reservoir Engineering & Construction (2)                 |                   |                  |                  |                  |                |                   |
| <b>LEXINGTON PUMP STATION IMPROVEMENTS</b>               |                   |                  |                  |                  |                |                   |
| Generator Facility - Engineering                         |                   | 770,500          | 470,000          | 420,000          |                | 1,660,500         |
| Generator Facility - Construction                        |                   | 4,000,000        | 4,500,000        | 4,000,000        |                | 12,500,000        |
| <b>STANDPIPE IMPROVEMENTS</b>                            |                   |                  |                  |                  |                |                   |
| Pipe Storage Facility- Engineering                       | 20,500            |                  |                  |                  |                | 20,500            |
| Pipe Storage Facility- Construction                      | 1,500,000         |                  |                  |                  |                | 1,500,000         |
| Standpipe #4 East Riser Pipe Modifications- Engineering  | 10,500            |                  |                  |                  |                | 10,500            |
| Standpipe #4 East Riser Pipe Modifications- Construction | 80,000            |                  |                  |                  |                | 80,000            |
|  | <u>19,589,000</u> | <u>9,740,500</u> | <u>4,970,000</u> | <u>4,420,000</u> | <u>440,000</u> | <u>39,159,500</u> |
| <b>INFLATION FACTOR 2% PER YEAR</b>                      | 100.0%            | 102.0%           | 104.0%           | 106.1%           | 108.2%         | 101.8%            |
|  | <u>19,589,000</u> | <u>9,935,000</u> | <u>5,171,000</u> | <u>4,691,000</u> | <u>476,000</u> | <u>39,862,000</u> |

Note (1) - Includes legal, property acquisition (if any) and soil testing services.

Note (2) - Deferred until FY 10-11. Completed FY 12-13. Estimated costs are as follows:

FY 15-16 \$ 7,700,000

FY 16-17 \$15,250,000

FY 17-18 \$ 7,750,000



# SUMMARY OF ESTIMATED MAJOR REPAIR COSTS

| BASED ON FY 05-06 COSTS  |  | FY 05/06     | FY 06/07  | FY 07/08 | FY 08/09 | FY 09/10 | Total     |
|--|--|--------------|-----------|----------|----------|----------|-----------|
| DISTRIBUTION SYSTEM IMPROVEMENTS                                     |  |              |           |          |          |          |           |
| Contract BOV-2; Rehab Blowoff Valves 90" TM-Engineering Design       |  |              |           |          |          |          |           |
| Contract BOV-2; Rehab Blowoff Valves 90" TM-Engineering Tech Observ. |  | DWC In House |           |          |          |          |           |
| Contract BOV-2; Rehab Blowoff Valves 90" TM-Construction             |  | 3,000,000    | 1,000,000 |          |          |          | 4,000,000 |
| PUMP STATION IMPROVEMENTS  |  |              |           |          |          |          |           |
| None   |  |              |           |          |          |          |           |
| STANDPIPE IMPROVEMENTS   |  |              |           |          |          |          |           |
| None   |  |              |           |          |          |          |           |
|  |  | 3,000,000    | 1,000,000 | 0        | 0        | 0        | 4,000,000 |
| INFLATION FACTOR 2% PER YEAR   |  | 100.0%       | 102.0%    | 104.0%   | 106.1%   | 108.2%   | 100.5%    |
|  |  | 3,000,000    | 1,020,000 | 0        | 0        | 0        | 4,020,000 |

**DUPAGE WATER COMMISSION  
2005 – 2006  
FIVE YEAR CAPITAL IMPROVEMENT PLAN**

**DISTRIBUTION SYSTEM IMPROVEMENTS**

**DUPAGE WATER COMMISSION**  
**2005 – 2006**  
**FIVE YEAR CAPITAL IMPROVEMENT PLAN**

**DISTRIBUTION SYSTEM INTRODUCTION**

The Commission operates and maintains 170 miles of pipeline ranging in size from 12" to 90" in diameter. Water supply from Chicago is provided by 90" and 72" Transmission Mains. The 90" Transmission Main, with a C-factor of 120, is sized for the year 2020 maximum day demand for the Commission's service area. The 72" Transmission Main, with a C-factor of 120, is sized to provide year 2020 average day demand. Average day demand is defined as the total amount of water used by a customer within a year divided by 365. The projected average day demand is referred to as the Department of Natural Resources (DNR) allocation. Maximum day demand is defined in the Water Purchase Agreement as 1.7 times average day demand.

The pipeline system within DuPage County is sized in accordance with DNR allocations that were based upon estimates made by Commission customers in the early 1980's. This is also based upon C-factors of 120 for pipelines greater than 20" in diameter and 100 for pipelines 20" or smaller in diameter. The distribution system is looped to minimize disruption in the event of a break in one of the mains.<sup>1,2</sup>

The following are the 2005 IDNR allocations for Commission customer utilities:

|                         | MGD   |                      | MGD    |
|-------------------------|-------|----------------------|--------|
| Addison                 | 4.561 | IAWC-Lombard Heights | 0.072  |
| Argonne N L             | 0.758 | IAWC-Valley View     | 0.700  |
| Bensenville             | 2.704 | Itasca               | 1.764  |
| Bloomingtondale         | 2.803 | Lisle                | 3.225  |
| Carol Stream            | 4.531 | Lombard              | 4.909  |
| Clarendon Hills         | 0.716 | Naperville           | 20.534 |
| Darien                  | 2.781 | Oak Brook            | 4.133  |
| Downers Grove           | 6.823 | Oakbrook Terrace     | 0.221  |
| Elmhurst                | 4.683 | Roselle              | 2.237  |
| Glen Ellyn              | 2.950 | Villa Park           | 2.115  |
| Glendale Heights        | 3.049 | Westmont             | 2.884  |
| Hinsdale                | 2.655 | Wheaton              | 5.873  |
| IAWC-Arrowhead          | 0.196 | Willowbrook          | 1.342  |
| IAWC-Country Club Est   | 0.117 | Winfield             | 1.141  |
| IAWC-DuPage/Lisle       | 0.598 | Wood Dale            | 1.654  |
| IAWC-Liberty Ridge East | 0.051 | Woodridge            | 3.208  |
| IAWC-Liberty Ridge West | 0.349 | Total                | 96.323 |

<sup>1</sup> Funds are available in the emergency reserve for C-Factor corrective action.

<sup>2</sup> The hydraulic analysis reflected in this plan was based upon the original design C-Factors and not the present C-Factors.

**DUPAGE WATER COMMISSION  
2005 – 2006  
FIVE YEAR CAPITAL IMPROVEMENT PLAN**

**PROPOSED IMPROVEMENTS**

As approved in previous Capital Improvement Plans, the Commission is constructing the Inner Belt Transmission Main, Contract TIB-1. This transmission main will increase flow in the system in the event of a break on the Northwest or Southwest Transmission Mains. These mains are the primary conduits for water leaving the DuPage Pumping Station. TIB-1 will become the eastern connection between the Southwest and Northwest Transmission Mains along Illinois Route 83.

To eliminate the need to repair or replace leaking corroded blow-off valves throughout the DuPage County, the rehabilitation of 320 blow-off valves on the Commission's transmission and feeder mains, Contract BOV-1, was completed this fiscal year. To provide the same level of protection for the 90" Transmission Main, Contract BOV-2 has been proposed which rehabilitates 29 blow-off valves. The 72" Transmission Main blow-off valves were installed with the non-corroding bolt design.

**DUPAGE WATER COMMISSION  
2005 – 2006  
FIVE YEAR CAPITAL IMPROVEMENT PLAN**

**PROJECT:** Contract TIB-1; Route 83

**LOCATION:** Elmhurst and Oakbrook Terrace

**DESCRIPTION:** Install 11,000 feet of a 72" transmission main and one remotely operated valve. This transmission main will connect the Northwest Transmission Main with Southwest Transmission Main by Route 83.

**PURPOSE:** To increase flow in the event of a break on the Northwest or Southwest Transmission Mains which are the main conduits for water leaving the DuPage Pumping Station.

**BENEFIT:** During a break of the Southwest Transmission or Northwest Transmission Main, service is disrupted. This improvement minimizes the disruption and provides additional flow to satisfy average day demand during emergency conditions.

**ESTIMATED COST (2004 DOLLARS):**

**ENGINEERING:** \$900,000 (Remaining for 2005-06)

**LAND/ROW:** Minimal; pipe installed in public right-of-way

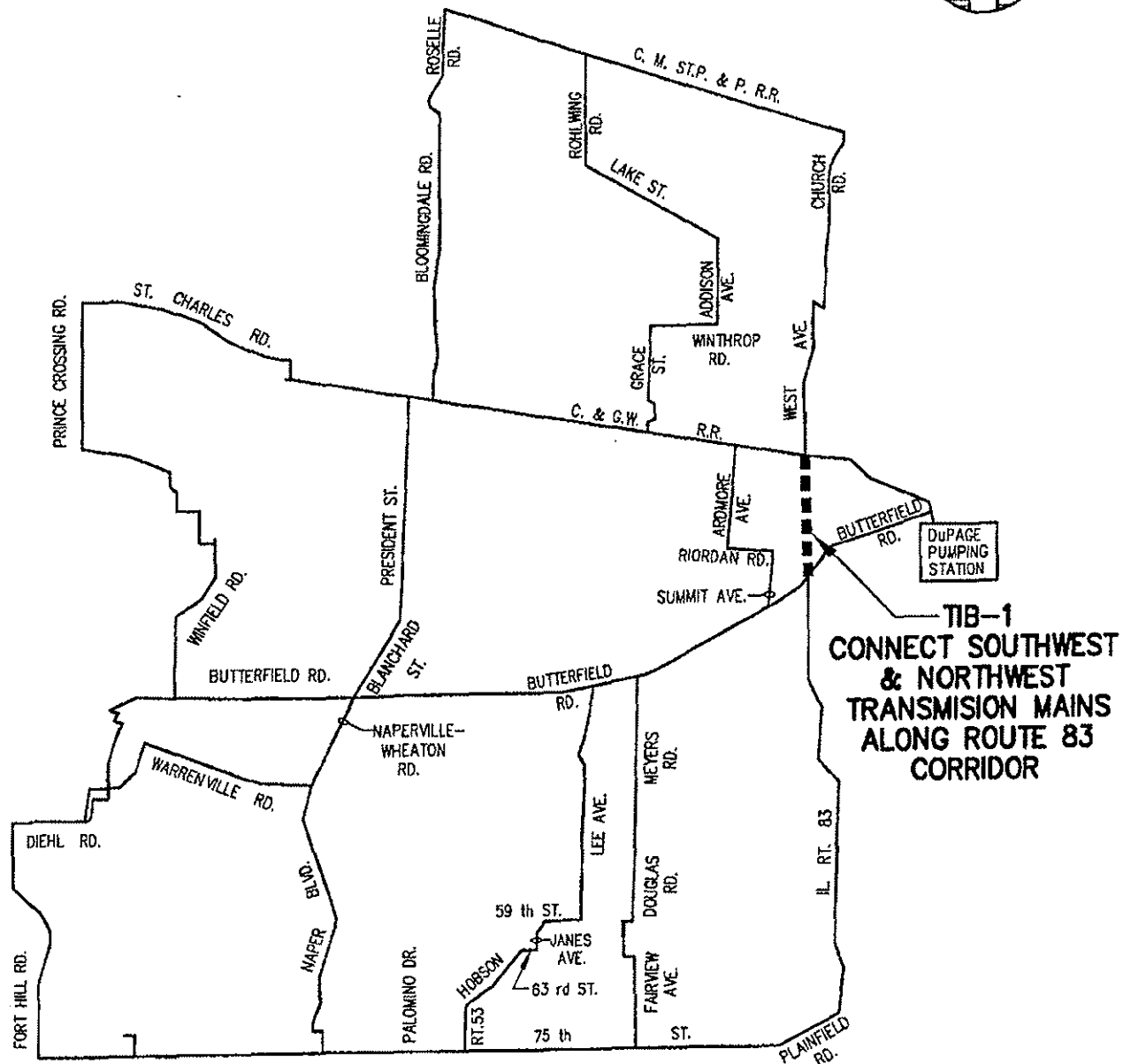
**CONSTRUCTION:** \$6,000,000 (Remaining for 2005-06)

**TIMING:** Fiscal year 2005-2006 – Construction completed

Agreement Date: January 7, 2004  
Completion Date: August 29, 2005  
Amended Contract Cost: \$15,304,233.01

See location map on next page.

# CONTRACT TIB-1 DU PAGE WATER COMMISSION



**DUPAGE WATER COMMISSION  
2005 – 2006  
FIVE YEAR CAPITAL IMPROVEMENT PLAN**

**PROJECT:** Contract BOV-2; Rehab Blow-off Valves 90"

**LOCATION:** Cook County

**DESCRIPTION:** Rehabilitate 29 blow-off valves on the Commission's 90" Transmission Main

**PURPOSE:** To reduce the number of leaking blow-off valves that requires continuous repair and/or replacement by systematically rehabilitating all such valves.

**BENEFIT:** This rehabilitation will eliminate untimely leaks along the 90" Transmission Main.

**ESTIMATED COST (2004 DOLLARS):**

**ENGINEERING:** \$10,000 (Remaining; reviews only, technical observation by DWC personnel)

**LAND/ROW:** None; work performed on Commission owned pipe

**CONSTRUCTION:** \$4,000,000

**TIMING:** Fiscal Year 2004-2005 – Design completed  
Fiscal Year 2006-2007 – Construction completed

**DUPAGE WATER COMMISSION  
2005 – 2006  
FIVE YEAR CAPITAL IMPROVEMENT PLAN**

**DUPAGE PUMP STATION IMPROVEMENTS**



**DUPAGE WATER COMMISSION  
2005 – 2006  
FIVE YEAR CAPITAL IMPROVEMENT PLAN**

**PROJECT:** 8 MW Electrical Generation Facility

**LOCATION:** East side of the DuPage Pumping Station service yard

**DESCRIPTION:** Building and diesel fueled generators.

**PURPOSE:** Backup electrical power to provide average day flow.

**BENEFIT:** To maintain pumping operations during electrical power outages. In addition, installed generation will allow DWC to enter into a "curtailable" electric rate structured contract which will save approximately 10% to 20% in electrical charges.

**ESTIMATED COST (2004 DOLLARS):**

**ENGINEERING:** \$990,500 (Remaining)

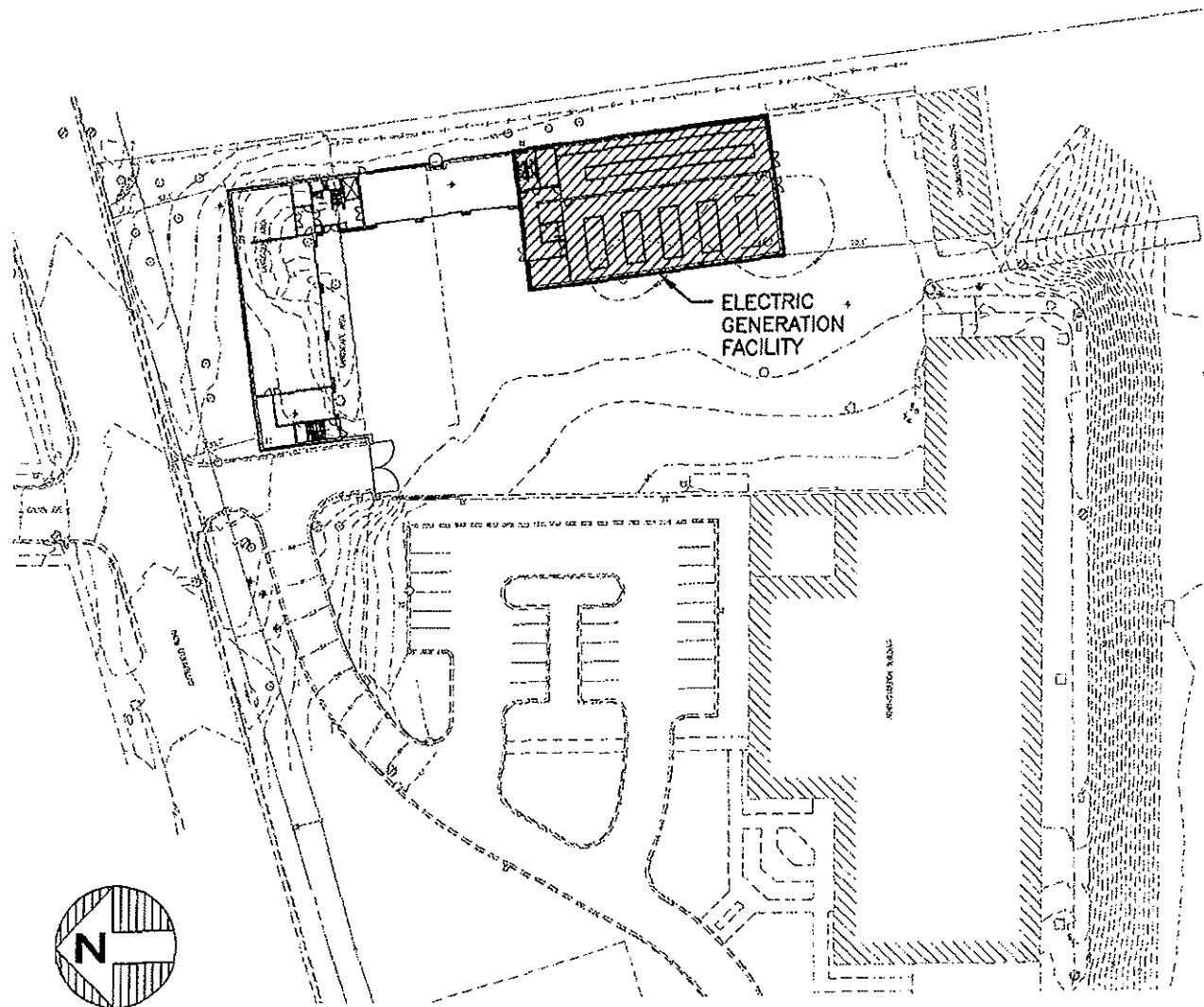
**LAND/ROW:** Constructed on property owned by Commission

**CONSTRUCTION:** \$12,500,000

**TIMING:** Fiscal year 2005-2006 – Complete design, construction begins  
Fiscal year 2007-2008 – Complete construction

See site plan on next page.

# PROPOSED 8 MW ELECTRIC GENERATION FACILITY DU PAGE WATER COMMISSION



**DUPAGE WATER COMMISSION  
2005 – 2006  
FIVE YEAR CAPITAL IMPROVEMENT PLAN**

**PROJECT:** Garage/Office Building

**LOCATION:** East side of the DuPage Pumping Station service yard

**DESCRIPTION:** Small vehicle, parts storage and additional office space for Pipeline, Facilities Construction and GIS Staff.

**PURPOSE:** To provide garage space for vehicles and spare/stock parts. In addition, provide office space and training facilities for staff.

**ESTIMATED COST (2004 DOLLARS):**

**ENGINEERING:** \$205,500

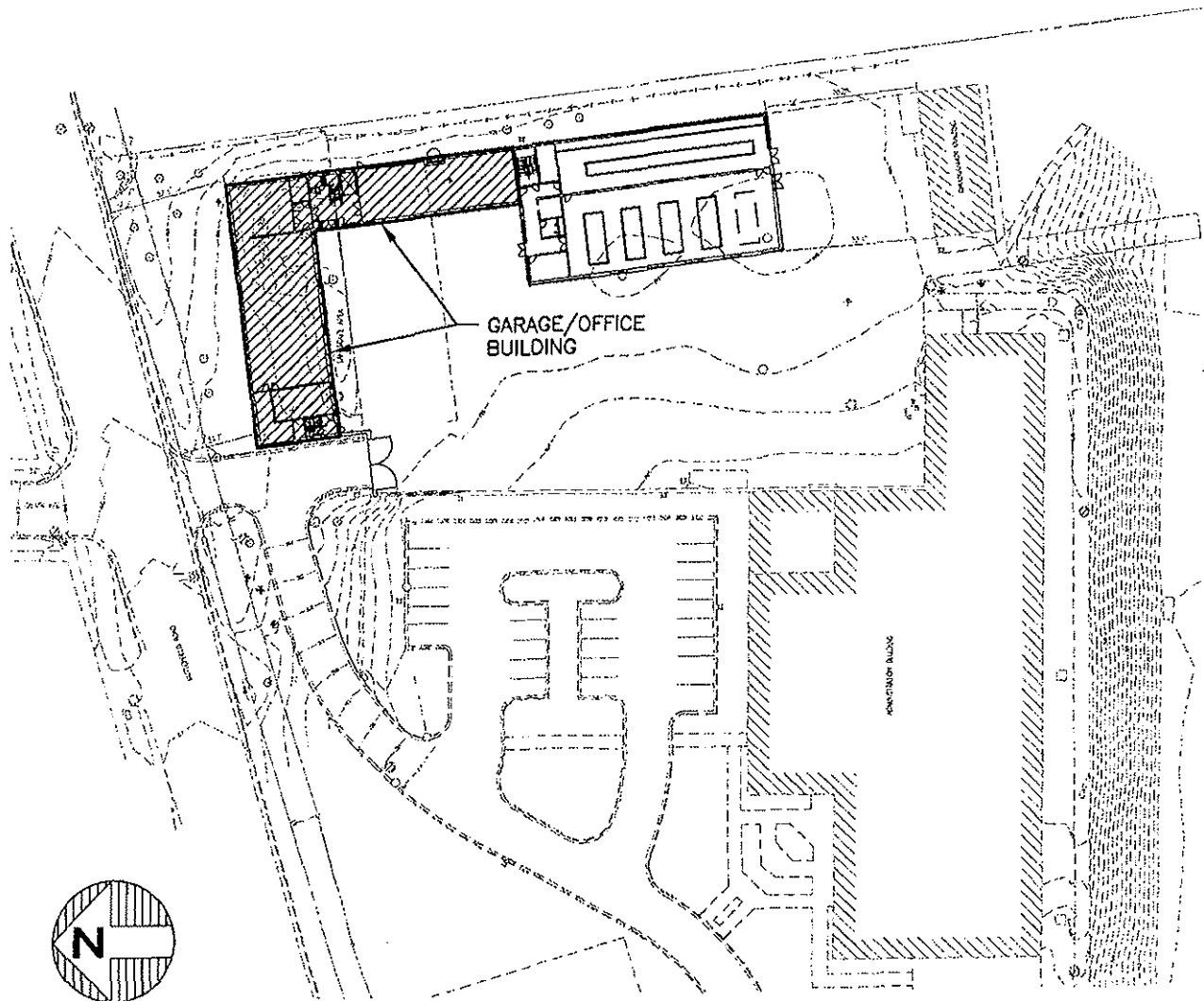
**LAND/ROW:** Constructed on property owned by Commission

**CONSTRUCTION:** \$1,550,000

**TIMING:** Fiscal Year 2005-2006 – Design and Construction

See site plan on next page.

# PROPOSED GARAGE/OFFICE BUILDING DU PAGE WATER COMMISSION



**DUPAGE WATER COMMISSION  
2005 – 2006  
FIVE YEAR CAPITAL IMPROVEMENT PLAN**

**PROJECT:** Material and Equipment Storage Facilities

**LOCATION:** South side of the DuPage Pumping Station existing 30 MG reservoir

**DESCRIPTION:** Three sided material storage and a garage for heavy equipment.

**PURPOSE:** To stockpile granular and landscape materials for facilities maintenance and a garage for heavy vehicles and equipment.

**BENEFIT:** To provide indoor housing for vehicles and equipment and allowing for materials on hand.

**ESTIMATED COST (2004 DOLLARS):**

**ENGINEERING:** \$25,500

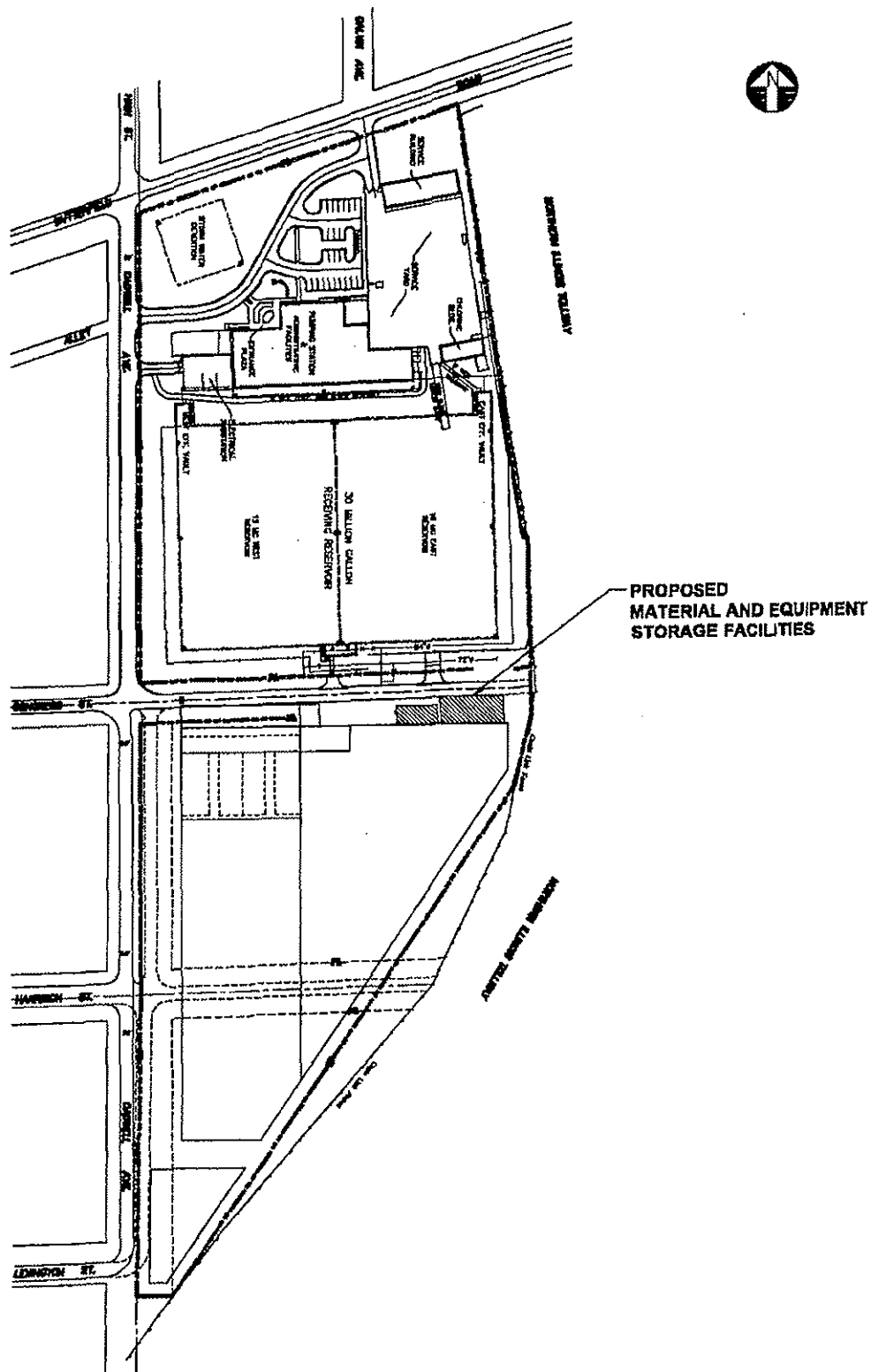
**LAND/ROW:** Constructed on property owned by Commission

**CONSTRUCTION:** \$640,000

**TIMING:** Fiscal Year 2005-2006 – Design and Construction

See site plan on next page.

# PROPOSED MATERIAL AND EQUIPMENT STORAGE FACILITIES DU PAGE WATER COMMISSION



**DUPAGE WATER COMMISSION  
2005 – 2006  
FIVE YEAR CAPITAL IMPROVEMENT PLAN**

**PROJECT:** Cadwell Avenue Realignment

**LOCATION:** On the south and west sides of the DuPage Pumping Station  
existing 30 MG reservoir

**DESCRIPTION:** Remove existing township road and replace with Elmhurst road  
aligned with existing improved roadway.

**PURPOSE:** Allows the Commission to formally abandon Congress and  
Harrison Avenue right of ways as approved in an  
Intergovernmental Agreement with the City of Elmhurst.

**BENEFIT:** Allows for relocation of utilities and thereby allowing the  
Commission to provide and install additional perimeter security  
at the DuPage Pumping Station.

**ESTIMATED COST (2004 DOLLARS):**

**ENGINEERING:** \$26,500

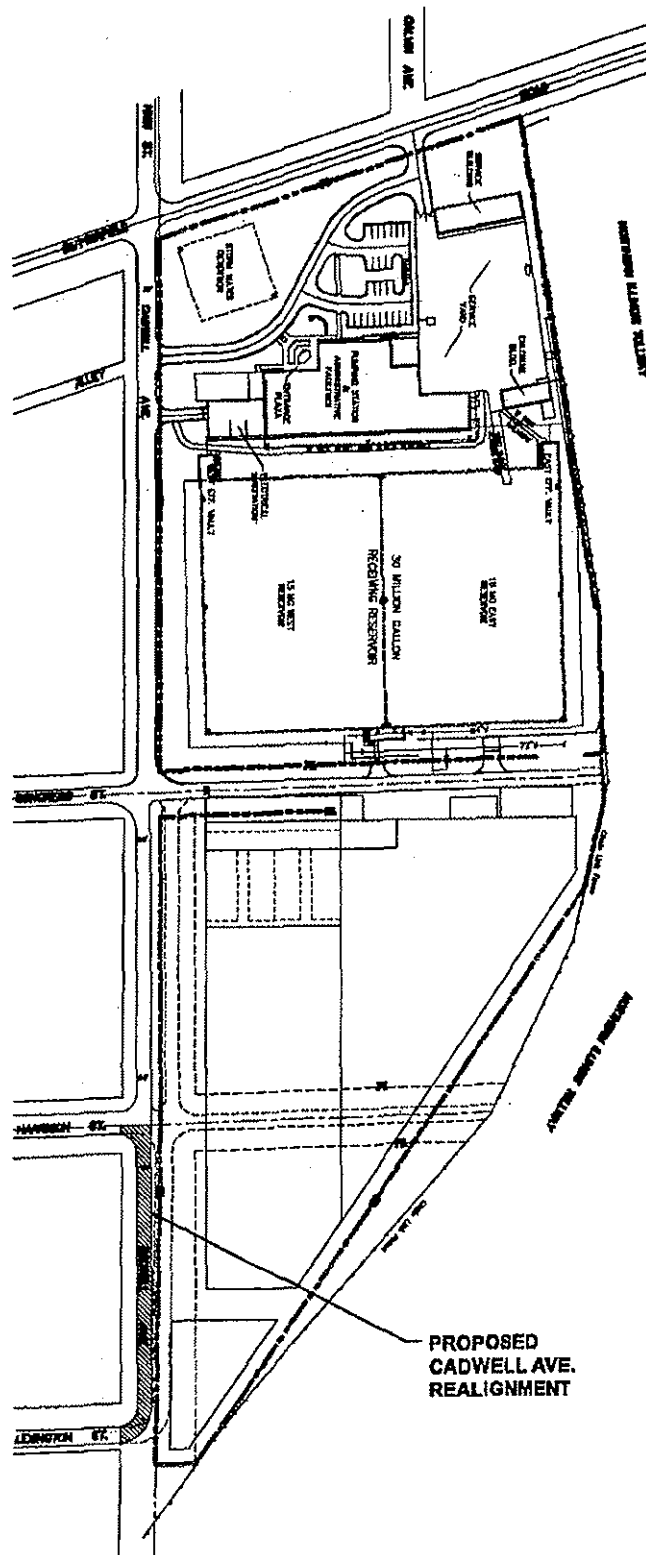
**LAND/ROW:** None; previously negotiated and approved

**CONSTRUCTION:** \$110,000

**TIMING:** Fiscal Year 2005-2006 – Design and Construction

See site plan on next page.

# PROPOSED CADWELL AVENUE REALIGNMENT DU PAGE WATER COMMISSION





**DUPAGE WATER COMMISSION  
2005 – 2006  
FIVE YEAR CAPITAL IMPROVEMENT PLAN**

**PROJECT:** Pump #10

**LOCATION:** DuPage Pumping Station

**DESCRIPTION:** Install 30 MGD split case centrifugal pump and associated piping in space reserved for future pump.

**PURPOSE:** To increase firm pumping capacity from 210 MGD to 240 MGD to satisfy future demand requirements.

**BENEFIT:** To keep up with current rising water demands, new customers and maintain current ability to remove pumps from service without reducing pumping capacity.

**ESTIMATED COST (2004 DOLLARS):**

**ENGINEERING:** \$40,000 (10%)

**LAND/ROW:** Improvements to be constructed on property presently owned by the Commission

**CONSTRUCTION:** \$400,000

**TIMING:** Fiscal year 2009-2010 – Engineering  
Fiscal year 2009-2010 – Installation

See drawing on next page.

LOWER LEVEL PLAN

**DUPAGE WATER COMMISSION  
2005 – 2006  
FIVE YEAR CAPITAL IMPROVEMENT PLAN**

**LEXINGTON PUMP STATION IMPROVEMENTS**

**DUPAGE WATER COMMISSION  
2005 – 2006  
FIVE YEAR CAPITAL IMPROVEMENT PLAN**

**PROJECT:** Electrical Generation Facility

**LOCATION:** City of Chicago Lexington Pumping Station

**DESCRIPTION:** Building and stand-by generators

**PURPOSE:** To provide backup electrical power

**BENEFIT:** To provide continuous pumping operations to the DuPage Pumping Station during electrical power outages in the City of Chicago. In addition, installed generation will allow the City to enter into a "curtailable" electric rate structured contract which will save approximately 10% to 20% in electrical charges to the Commission.

**ESTIMATED COST (2004 DOLLARS):**

**ENGINEERING:** \$1,660,500

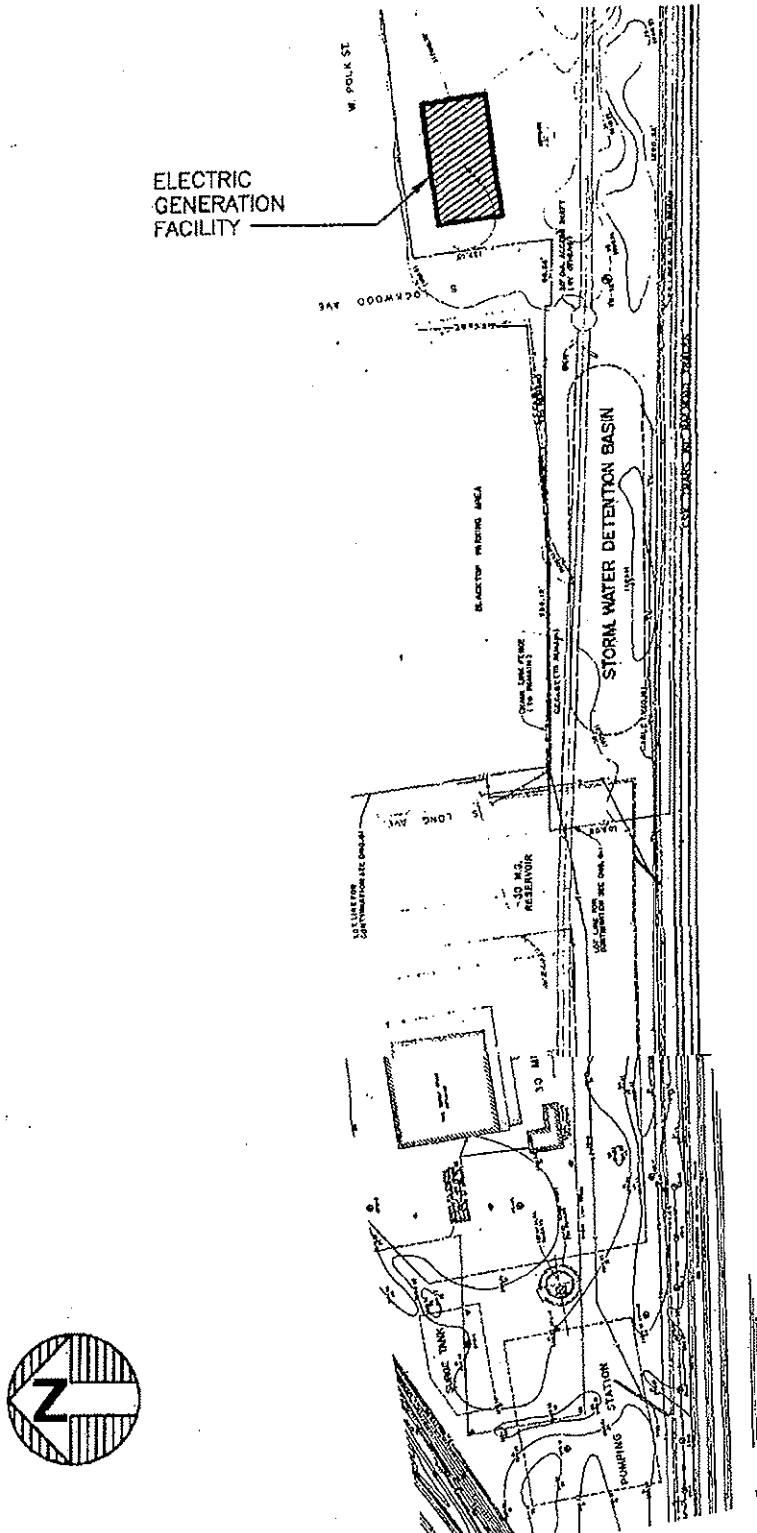
**LAND/ROW:** Minimal

**CONSTRUCTION:** \$12,500,000

**TIMING:** Fiscal year 2005-2006 – Design, construction begins  
Fiscal year 2007-2008 – Construction completed

See site plan on next page.

# ELECTRIC GENERATION FACILITY AT LEXINGTON PUMPING STATION DU PAGE WATER COMMISSION



**DUPAGE WATER COMMISSION  
2005 – 2006  
FIVE YEAR CAPITAL IMPROVEMENT PLAN**

**STANDPIPE IMPROVEMENTS**

**DUPAGE WATER COMMISSION  
2005 – 2006  
FIVE YEAR CAPITAL IMPROVEMENT PLAN**

**PROJECT:** Pipe Storage Facility

**LOCATION:** 75<sup>th</sup> Street – Lisle Township – Tank Site #4

**DESCRIPTION:** Steel storage structure

**PURPOSE:** To provide indoor cold storage of spare water main piping, valves, fittings and other distribution system materials

**BENEFIT:** To provide a protected environment, from ultra-violet and ice damage, to stored materials. Allows for increased materials storage capacity in a more centralized location in the distribution area.

**ESTIMATED COST (2004 DOLLARS):**

**ENGINEERING:** \$20,500 (reviews only, technical observation by DWC personnel)

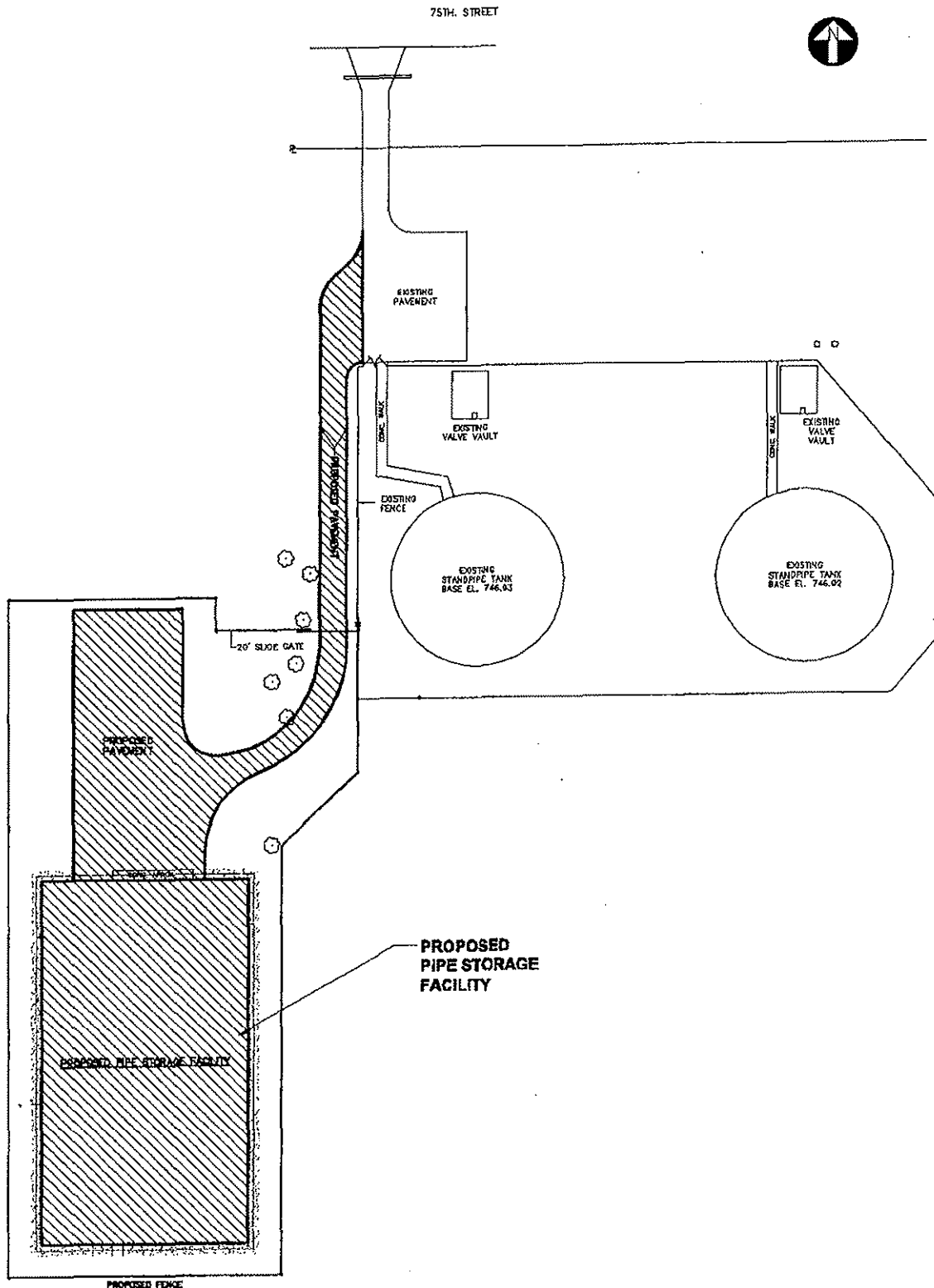
**LAND/ROW:** None; Constructed on Commission owned property

**CONSTRUCTION:** \$1,500,000

**TIMING:** Fiscal year 2005-2006 –Construction

See site plan on next page.

# PROPOSED PIPE STORAGE FACILITY DU PAGE WATER COMMISSION





**DUPAGE WATER COMMISSION  
2005 – 2006  
FIVE YEAR CAPITAL IMPROVEMENT PLAN**

**PROJECT:** Standpipe #4 East Riser Modifications

**LOCATION:** Standpipes #4E & #4W Lisle Township.

**DESCRIPTION:** Install modified inlet riser pipes within standpipes.

**PURPOSE:** To allow for better mixing of water when filling tanks.

**BENEFIT:** By lengthening and providing orifices on the inlet riser pipes, better mixing of water by de-stratification will assist in reducing taste and odor problems that result from stale water.

**ESTIMATED COST (2003 DOLLARS):**

**ENGINEERING:** \$10,500

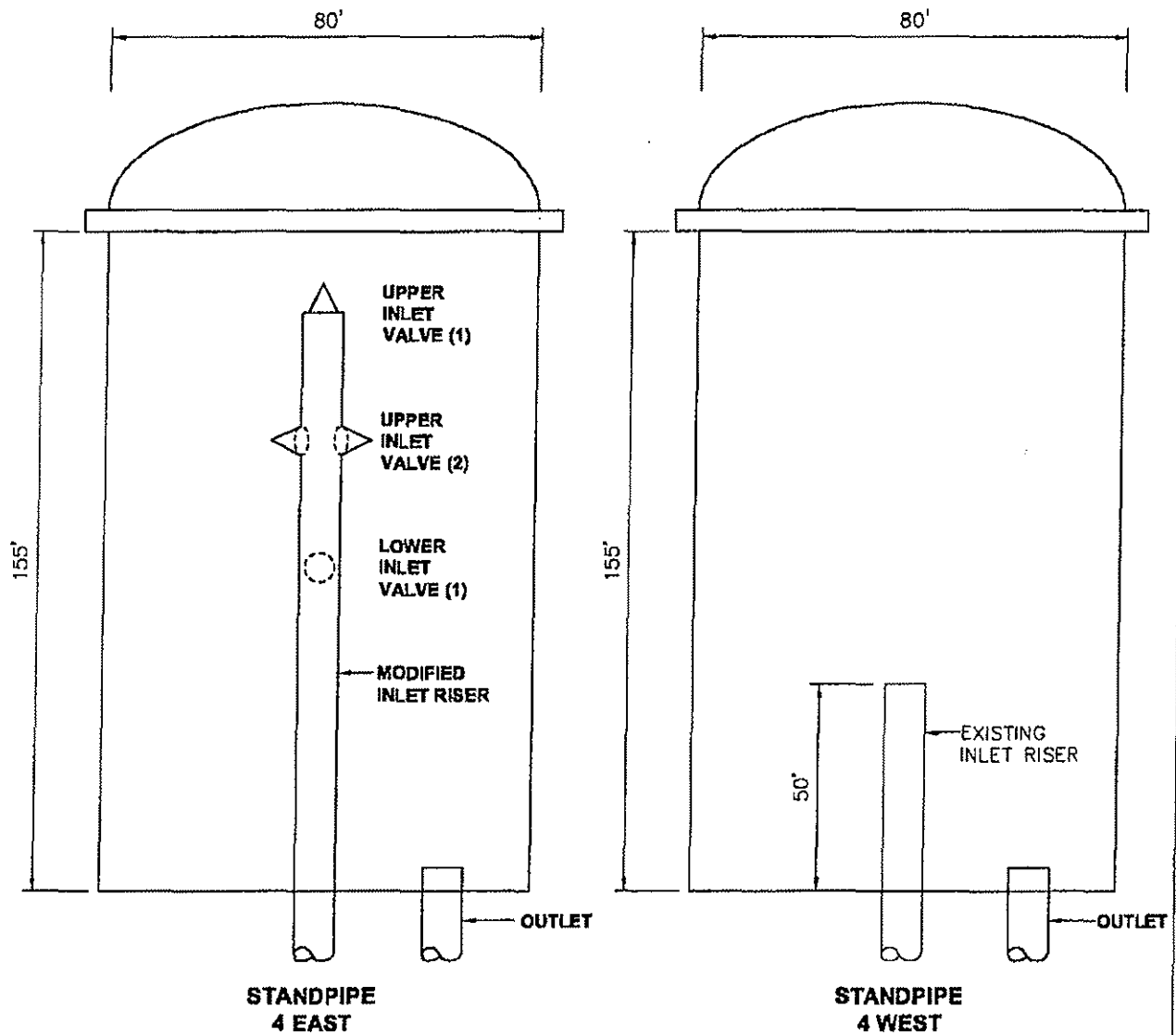
**LAND/ROW:** Improvements to be constructed on property presently owned by the Commission.

**CONSTRUCTION:** \$80,000

**TIMING:** Fiscal year 2005-2006 – Design  
Fiscal year 2005-2006 – Construction

See drawing on next page.

# PROPOSED TS NO.4 RISER PIPE MODIFICATIONS DU PAGE WATER COMMISSION





## DuPage Water Commission

### MEMORANDUM

TO: Chairman Vondra and Commissioners

FROM: Robert L. Martin, P.E. *RLM*  
General Manager

DATE: January 31, 2006

SUBJECT: Commissioner Benson's Question About Portable Generators

At the January 12, 2006 Commission meeting, Commissioner Benson inquired about the use of portable generators rather than constructing a permanent building with generators. Attached is a specification sheet for a typical 2000kW portable generator. As you can see from the sheet, these are large semi trailer mounted units and would require four 2000kW units for the DuPage Pumping Station and five 2000kW units for the Lexington Pumping Station. The portable generators do not include the necessary electrical modification such as transformers and fuel storage.

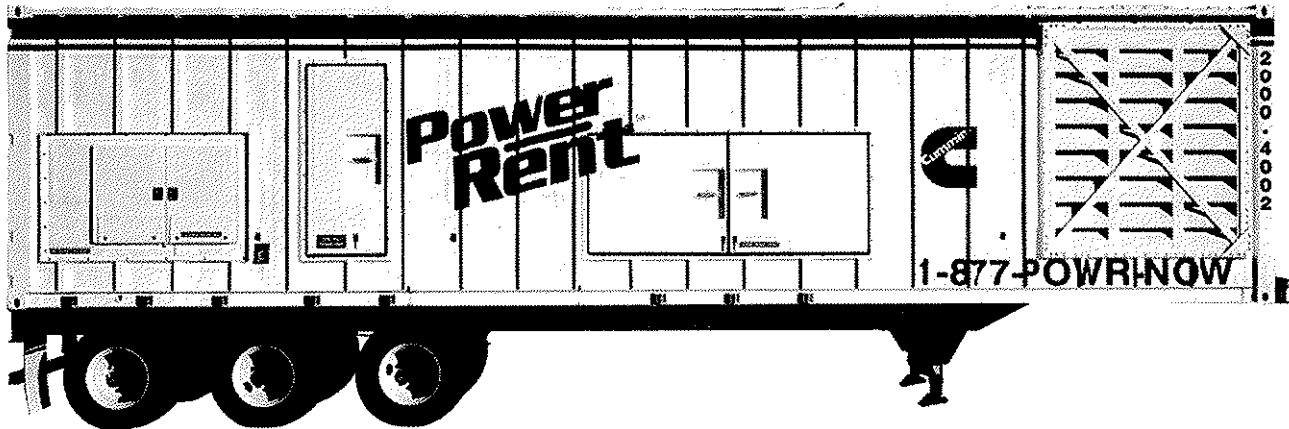
Though the portability of power generation has its inherent advantages, the following are the difficulties with portable generation.

1. The Commission would have to purchase a fleet of semi tractors to tow the portable generators or contract with a company to tow the generators. If the Commission were to purchase the semi tractors the Commission would have to employ properly licensed staff to drive the semi tractors in addition to maintaining the semi tractors that are not driven regularly.
2. The generators would be stored outside so maintenance, including the recommended exercising under load, of the generators would be difficult.
3. The use of portable generators does not eliminate the need for diesel fuel storage. The permanent generators would have two days worth of fuel stored on site, or about 14,400 gallons.

4. The movement of the portable generators would be difficult during a regional power failure. Most likely, there would be traffic grid lock with the loss of electricity for traffic signals. These trailer mounted generators are large and difficult to maneuver under ideal circumstances.



# 2000kW Rental Package



## Features

### Cummins® Power Generation Sets

- Cummins engines, Newage Alternators and PowerCommand Controls - Designed, built, certified prototype tested and warranted by the only company that controls the process from start to finish.
- Supported exclusively worldwide by your Cummins Distributors.
- Utilize proven standard generator set designs.
- Includes jacket water heaters for more reliable operation in emergency standby applications.

### Cummins Diesel Engines

- Lightweight, compact and excellent fuel economy.
- Operate at up to 45°C (113°F) with no effect on output.
- Equipped with Heavy Duty Air Cleaners and Bypass-type Oil Filters. Includes jacket water heaters for more reliable operation in emergency standby applications.

### Newage® Alternators

- Designed and built by Cummins Power Generation.
- Oversized alternators for improved motor starting and low temperature rise in prime and continuous applications.
- Permanent Magnet excitation for improved performance in cyclic and non-linear load applications.

### PowerCommand® Paralleling Controls

- The most advanced, reliable and capable generator set control system available in the market today.
- Integrated generator set governing, voltage regulation, protection and paralleling functionality in one easy-to-operate customer interface.
- Multiple unit and grid paralleling ready.
- Fully automatic paralleling capability.
- Remote monitoring and networking operation capable.
- Integrated Ground Fault Indication.
- Optional freestanding, electronically operated closed-transition transfer switches are available.