



Watertown City Council  
Monday, March 11, 2013  
7:00 p.m.

## Work Session Agenda

### Discussion Items:

1. CDBG Application  
Phillip Smith, Avalon Associates
2. Jefferson County Comprehensive Economic Development Strategy  
Dave Zembiec, Jefferson County Industrial Development Agency
3. Capital Projects – Water Department  
Michael J. Sligar, Water Superintendent
4. Metropolitan Planning Organization – Memorandum of Understanding
5. New York Air Brake PILOT Modification Request

March 7, 2013

To: The Honorable Mayor and City Council  
From: Kenneth A. Mix, Planning and Community Development Coordinator  
Subject: 2013 Community Development Block Grant Application

Phillip Smith of Avalon Associates, Inc. will attend the City Council's March 11, 2013 Work Session to discuss the Community Development Block Grant (CDBG) Program and this year's application.

Over the last 34 years, the City of Watertown has received nearly \$13 million from this program. A description of the program from the New York State Homes and Community Renewal website is attached for your review.

# Homes & Community Renewal

## Program Guidelines

- Objectives
- Outline
- Types of Grants

### Overview: Working in Partnership with Local Governments to Build a Brighter Future

**The Community Development Block Grant (CDBG) Program** is a federally funded program authorized by Title I of the Housing and Community Development Act of 1974. The Office of Community Renewal is New York State's administrative agency for the CDBG Program. The CDBG Program provides grants to smaller communities in order to: ensure decent, affordable housing for all; provide services to the most vulnerable in our communities; create jobs and expand business opportunities for implementing a variety of community and economic development activities directed toward neighborhood revitalization and economic development; and to provide improved community facilities and services. Under the CDBG Program, approximately \$40 million of funding is available annually to eligible communities within New York State.

The New York CDBG Program provides community development grants to towns, villages, and cities with a population less than 50,000 and counties with an unincorporated population less than 200,000. The CDBG Program provides smaller communities with the opportunity to make local decisions concerning community development without duly increasing the local tax burden of their citizens. Please visit our Eligible Communities page to see if your community is currently eligible for New York CDBG funding.

Communities are encouraged to contact the Office of Community Renewal as early as possible to discuss the viability of potential projects.

### Objectives of the Community Development Block Grant (CDBG) Program

As set forth in the Federal Housing and Community Development Act, the Primary Objective of the CDBG program is, "the development of viable urban communities by providing decent housing and a suitable living environment and expanding economic opportunities, principally for persons of low and moderate income." Under the Act, CDBG funds are intended for the support of community development activities that are directed toward the following specific objectives:

1. The elimination of slums and blight and the prevention of blighting influences and the deterioration of property and neighborhood and community facilities of importance to the welfare of the community, principally persons of low and moderate income.
2. The elimination of conditions which are detrimental to health, safety and public welfare, through code enforcement, demolition, interim rehabilitation assistance and related activities.
3. The conservation and expansion of the nation's housing stock in order to provide a decent home and a suitable living environment for all persons, but principally those of low and moderate income.
4. The expansion and improvement of the quantity and the quality of community services, principally for persons of low and moderate income, which are essential for sound community development and for the development of viable urban communities.
5. A more rational utilization of land and other natural resources, and the better arrangement of residential, commercial, industrial, recreational and other needed activity centers.
6. The reduction of the isolation of income groups within communities and geographical areas and the promotion of an increase in the diversity and vitality of neighborhoods through the spatial de-concentration of housing opportunities for persons of lower income and the revitalization of deteriorating or deteriorated neighborhoods.
7. The restoration and preservation of properties of special value for historic, architectural or aesthetic reasons.
8. The alleviation of physical and economic distress through the stimulation of private investment and community revitalization in areas without population migration or a stagnating or declining tax base.
9. The conservation of the nation's scarce energy resources, improvement of energy efficiency, and the provision of alternative and renewable energy sources of supply.

### Objectives of the New York State CDBG Program

Financial assistance will be provided for the development of projects that meet the NYS CDBG Program Objectives and that provide decent, safe affordable housing, access to clean drinking water, proper disposal of household wastewater, access to local public facilities, and economic opportunities for persons from LMI families by supporting development projects that are designed to create or retain employment opportunities.

In support of New York's community development goals, the NYS CDBG Program will:

1. Support a mix of rehabilitation and conversion activities to preserve and increase affordable housing, for both renters and homeowners;
2. Encourage investment in communities by assisting local governments in devising and implementing economic development strategies to revitalize viable communities and provide economic opportunities that principally benefit LMI persons;
3. Revitalize the vibrancy of New York's communities and enhance the quality of life;
4. Develop and implement strategies that facilitate the coordination of NYS CDBG funding with other Federal, State, and local community development resources.

## Outline

### Available Funds

New York State received an annual allocation of funds from the U.S. Department of Housing and Urban Development (HUD). New York State intends to allocate these funds to eligible non-entitlement grant recipients according to the following categories: Community Development Funding, Economic Development Assistance, Imminent Threat, Program Administration, and Technical Assistance and Capacity Building. Actual allocation percentages are dependent upon the number of applications received in any given year.

### Eligible Applicants

Cities, towns, and villages located in non-entitlement areas with a population under 50,000 and counties with an unincorporated population of 200,000 are eligible to apply for CDBG funding through the Office of Community Renewal. Eligible applicants must be in substantial compliance with all applicable State and Federal laws, regulations, and Executive Orders that pertain to the CDBG Program.

### Types of Applications

New York State's CDBG Program is divided into two primary components: Community Development Funding and Economic Development Assistance and two secondary components: Imminent Threat and Technical Assistance and Capacity Building.

Applicants applying for Community Development Funding must address and resolve specific community development needs within the areas of Housing, Public Infrastructure, or Public Facilities. Applications for Economic Development activities must support business creation, expansion or retention.

In 2011, Governor Andrew M. Cuomo announced a comprehensive strategy to transform New York State by aligning agency resources to further the State's economic recovery and to support new economic development opportunities. To coordinate and streamline these extraordinary economic development opportunities in each region of the State, Governor Cuomo created ten Regional Economic Development Councils (Regional Councils) that are comprised of local experts and stakeholders who know their regions best.

The grant application process for New York State's various economic development agencies has been streamlined as a result of the Consolidated Funding Application (CFA). The CFA enables municipalities, businesses and other entities to apply to multiple agency funding sources through a single, web-based application.

In addition to HCR, multiple state agencies and authorities have pooled together resources to be made available through the CFA. HCR has dedicated up to \$41.2 million in resources to economic development and community revitalization projects through the CFA. Homes and Community Renewal has announced available funding from four (4) Office of Community Renewal programs, including: Urban Initiatives, Rural Area Revitalization Projects, New York Main Street, and the Community Development Block Grant categories of Economic Development, Small Business Assistance, Public Infrastructure, and Public Facilities. Each program is a competitive process with applications accepted through New York State's Consolidated Funding Application (CFA).

Applicants seeking funding for public infrastructure, public facilities and economic development activities should apply for assistance through the New York State Consolidated Funding Application available from <http://nyworks.ny.gov>.

Applicants seeking assistance for CDBG housing activities including housing rehabilitation, homeownership, and private water/wastewater activities should apply for funding under the 2012 Housing Application process. In order to apply for the following programs, please visit the Housing Resources Funding Opportunities page, <http://www.nyscr.org/AboutUs/Offices/CommunityRenewal/HousingResourcesFundingOpportunities.htm>.

In addition to the above, the Office of Community Renewal will entertain additional inquiries for applications related to Imminent Threat, and Technical Assistance and Capacity Building. If an application in either of these categories is being considered, Applicants must first contact the Office of Community Renewal to determine eligibility and potential application requirements.

### Joint and County on behalf of Applications

Under New York State's CDBG Program, two or more eligible applicants facing a common problem may submit a joint application. In order to qualify, local governments must not only share a common problem, but must also be able to demonstrate that a joint effort is required to solve the problem. With the exception of housing applications, joint applications submitted only for administrative convenience are not accepted.

Counties may apply on behalf of units of general local government located within their jurisdiction when the unit of general local government has authorized the county to apply. The unit of general local government will be considered the applicant for determining grant limits, and its statistics will be used for purpose of the selection factors.

### Maximum Grant Amounts

#### Community Development Funding

##### Towns, Cities, Villages:

Housing/Public Facilities	\$400,000
Public Infrastructure (water/sewer only)	\$600,000

##### Counties:

Housing/Public Facilities/Public Infrastructure	\$750,000
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##### Joint Applicants\*

Public Infrastructure (water/sewer only)	\$900,000
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\* Projects must meet specific requirements in order to qualify for funding under the Joint Applicants category.

#### Economic Development

##### Economic Development program

(Assistance to a business or public infrastructure projects in support of a business)	\$750,000 (minimum of \$100,000)
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##### Small Business Assistance program

(Award range for grant assistance to an individual business)	\$100,000 (minimum of \$25,000)
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Applicants may submit multiple applications, but the total requested amount within the categories of Housing, Public Infrastructure, and Public Facilities may not be exceeded. For example, an Applicant may submit multiple housing applications, but the cumulative total of all requests cannot exceed \$400,000 for Towns, Cities or Villages or \$750,000 for Counties. Applicants seeking economic development funds may also submit multiple applications. However, the total amount awarded in a program year for both Economic Development and Small Business Assistance may not exceed a total of \$750,000. The NYS OCR may exceed these caps if a project or projects have significant and transformational impacts beyond the immediate public benefit.

#### Eligible Activities

The activities eligible under the CDBG Program are identified in Section 105(a) of the Housing and Community Development Act of 1974, as amended and 24 CFR 570.482, as amended.

#### Primary and National Objectives

All CDBG projects are required to meet the two program goals - the primary and national objectives. The primary objective of the CDBG program is to develop viable communities by providing decent housing and a suitable living environment by expanding economic opportunities, principally for persons of low and moderate income. To achieve this primary objective, New York State must ensure that at least 70 percent of its grant funds are used for activities that benefit low- and moderate-income persons.

In addition to meeting the primary objective, applicants must also meet one of the three National Objectives: benefit low- and moderate-income persons, prevent or eliminate slums and blight, or address an urgent community development need. All applicants must maintain data to demonstrate that the project is meeting one of the above listed objectives.

## Types of Grants

### Housing

There are three types of housing projects eligible for NYS CDBG funding: housing rehabilitation, direct homeownership assistance, and private water/wastewater system assistance. The primary goal of any housing project is to increase the supply of affordable housing for low- and moderate-income residents. Through a needs analysis and detailed survey of income and housing conditions, each applicant will be able to determine the most suitable approach for addressing these goals.

#### 1. Housing Rehabilitation

Many of New York State's communities are concerned with high rates of substandard housing that are difficult to reduce because of homeowners' inability to address costly repairs. In order to make an application competitive, a community should conduct two types of surveys: a housing conditions survey to determine the location and severity of the substandard conditions of housing, and an income survey to identify applicants who are income eligible and willing to participate. When conducting the housing conditions survey, Applicants should adhere to the Office of Community Renewal's definition of substandard housing as stated in the CDBG Application Guidance.

The CDBG program is highly flexible, allowing for communities to develop an approach to rehabilitation that best suits their needs. The following are examples of program designs:

- Direct financial assistance as a grant or loan or a combination thereof.
- A target area approach for substandard housing located in a defined geographic area.
- A non-target area approach for substandard housing on scattered sites.
- A focus on a certain income categories (i.e. below 50% of the median income).
- Selection criteria based on severity of need or first come, first serve approach.
- Rehabilitation can be for owner-occupied, renter occupied, or vacant units to be occupied by low- and moderate-income persons.

All of the above are examples of the ways in which a community can address their substandard housing conditions. Programs designed to conduct housing rehabilitation activities that provide safe and habitable housing primarily for low-and moderate-income households at standards of quality meeting New York State building codes and federal and local regulations are strongly encouraged.

#### 2. Homeownership

In addition to housing rehabilitation needs, communities may have homeownership needs that could be addressed through a homeownership assistance program. Such a program would provide financial assistance to low- and moderate-income first-time homebuyers for the purchase of homes for sale. As with the Rehabilitation activities, the program is designed to be flexible so communities can determine the appropriate means of assistance. Activities that are commonly found in homeownership programs include the following:

- Direct financial assistance including down payment assistance and closing costs
- Counseling of prospective homeowners to ensure applicants have an understanding of program obligations, budgeting, and overhead costs.
- Minor rehabilitation of certain houses that are otherwise structurally sound.
- A successful homeownership application will include: information on the manner in which the program will be marketed to potential applicants; a list of potential eligible applicants to document the market and need; real estate data including average cost of homes and number of homes available within the price range; and evidence that the amount available

#### 3. Private Water/Wastewater System Assistance

Providing safe drinking water and wastewater systems to individual property owners falls under the category of housing, as these types of assistance provide a direct benefit to those receiving funding. Direct assistance activities can include drilling of private wells, construction or rehabilitation of septic systems, and installation of lateral connections to low- and moderate-income households from the public water/sewer mains. Applications for funding of lateral connections can be stand-alone projects or can be part of a larger public infrastructure project. However, in order for a community to construct the laterals out of CDBG funds, the homeowners must be low- and moderate-income.

Successful applications for private water/wastewater systems will include evidence that property owners are eligible and willing to participate in the program, information as to how the program will be marketed, and information on the level of subsidy and type of subsidy (loan or grant).

## Public Facilities and Public Infrastructure

Communities throughout New York are faced with a variety of issues that affect public health, safety, and welfare. Through the CDBG public facilities grants, many of these issues can be addressed. At least 51% of the persons benefiting from these activities must qualify as low- and moderate-income, as determined by the U.S. Census or an income survey. In general, public facilities projects fall into two categories: public infrastructure and public service facilities.

### Public Infrastructure

Public Infrastructure includes activities consisting of, but not limited to, water source development, storage, and distribution; sanitary sewage collection and treatment; flood control and storm water drainage. Eligible projects may include the repair or replacement of existing systems, construction of new systems, or expansion of existing systems into areas previously unserved that are in compliance with the NYS Smart Growth Public Infrastructure Act (Chapter 433 of the Laws of 2010). Applications requesting funding solely for residential water and sewer lateral connections are considered for funding under the Housing Funding Category. However, applicants may seek funding for lateral connections under the public infrastructure category as long as the activity is incidental to a larger public infrastructure project.

For projects that require funding above the maximum funding level available from the Office of Community Renewal, the applicant must find additional sources of funding and provide evidence that funding is committed to the project. For additional information on other sources of information, applicants may contact the New York Co-Funding Initiative .

### Public Facilities

Public facility activities include, but are not limited to, funding for: structures to house or serve special-needs populations; senior services; child care centers; removal of architectural barriers for the disabled (installing lifts, automatic doors, ramps, etc.); and multi-purpose buildings housing several qualifying activities for low- and moderate-income persons. NYS CDBG funds can be used for construction or renovation of facilities, but cannot be used to cover the day-to-day operational costs, nor can funds be used for buildings that are primarily for the general conduct of government business (i.e. town halls). Any public facility funded with NYS CDBG funds must be maintained in the same capacity as funded for a period of five (5) years after the project is formally closed out by OCR. OCR reserves the right to inspect such facilities during the five (5) year period to substantiate compliance. Grant funds may also be used for standalone public works activities such as sidewalks, streets, parking, open space, and publicly owned utilities. Eligible projects may include the repair or replacement of existing systems, construction of new systems, or expansion of existing systems into areas previously unserved that are in compliance with the NYS Smart Growth Public Infrastructure Act (Chapter 433 of the Laws of 2010).

For projects that require funding above the maximum funding level available from the Office of Community Renewal, the applicant must find additional sources of funding and provide evidence that funding is committed to the project.

## Economic Development

The Office of Community Renewal recognizes that New York's smaller communities must have an economy that encourages business development and promotes jobs for low- and moderate-income persons. Through the Economic Development Program, the Office of Community Renewal provides grants to communities that wish to sponsor economic development activities that create or retain jobs for low- and moderate-income persons. The goal of the program is to fund projects that result in high quality, full-time jobs that are well paying and provide benefits and training to low- and moderate-income persons.

The NYS CDBG Economic Development program consists of two funding activities: Economic Development and Small Business Assistance. Eligible applicants must apply on behalf of the business seeking CDBG funds. Awards are made to the applicant community and not directly to businesses. Economic development funds are flexible and can be used for most legitimate business purposes. Eligible uses of NYS CDBG Economic Development funds include, but are not limited to: acquisition of real property; financing of machinery, furniture, fixtures and equipment; building construction and renovation; working capital; inventory; and employee training expenses. Funds awarded under the NYS CDBG Small Business program may not be used for new construction activity.

### Economic Development

Funding is provided for traditional economic development activities such as business attraction, expansion, and retention projects to provide financial assistance to for-profit businesses for an identified CDBG eligible activity. The project must result in the creation or retention of permanent job opportunities principally benefitting low- and moderate-income persons.

### Small Business Assistance

Funding is provided to eligible communities to foster small business development and growth. For the purposes of the Small Business Assistance program, a small business is defined as a commercial enterprise with twenty five (25) or fewer full-time equivalent employees at the time of application.

For additional information on the Economic Development Program, see the Economic Development Program Guidelines, or contact the Office of Community Renewal.

### Section 108

Section 108 of the Housing and Community Development Act of 1974, as amended, authorizes the Section 108 Loan Guarantee Program as an extension of the CDBG program to provide communities with a source of financing for community and economic development projects that are frequently too large for financing by annual grants. Under the Section 108 Loan Guarantee Program, HUD guarantees notes issued by entitlement and non-entitlement communities assisted by States that administer the CDBG Program. Interested eligible applicants should contact the Office of Community Renewal for further information concerning this program.

Last Updated: 06/26/12



Michael J. Sligar  
Superintendent

Julie Bailey  
Principal Account Clerk

## Water Department City of Watertown, New York

Municipal Building, Suite 202  
245 Washington Street  
Watertown, New York 13601

Phone: (315) 785-7757  
Fax: (315) 785-7738  
Email: [msligar@watertown-ny.gov](mailto:msligar@watertown-ny.gov)  
March 3, 2013

Brian Gaffney  
Chief Plant Operator  
Water Treatment

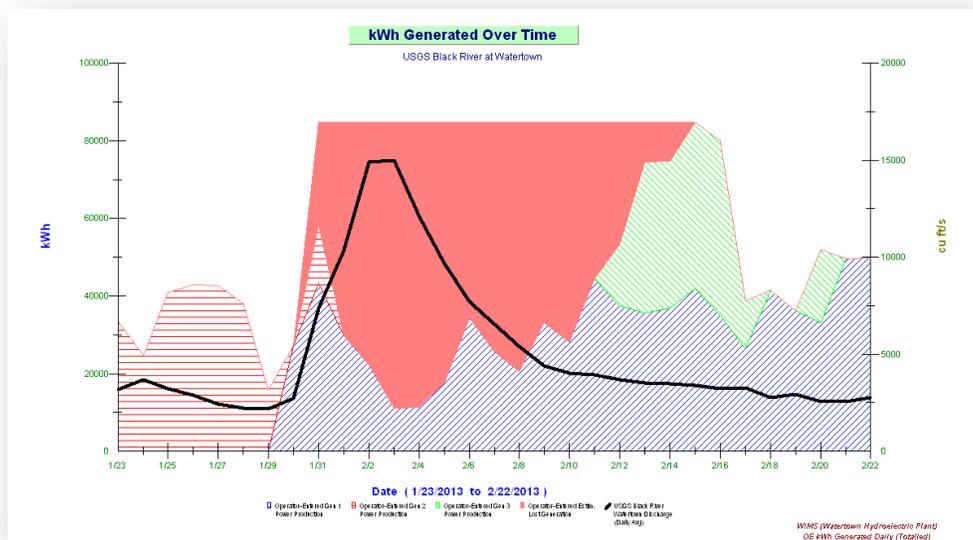
R. Mark Crandall  
Chief Plant Operator  
Wastewater Trmt

Kevin Patchen  
Supervisor  
Water Distribution

### Proposed Capital Program (FY 2013-14)

#### I. Hydro Electric Production:

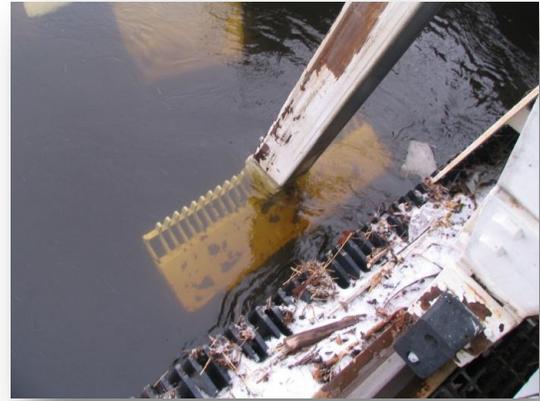
In an update report to the City Council dated February 22, 2013, the City Manager alerted the City Council to the loss in hydro electric power production caused by the formation of ice on the trash racks at the intake to the electric turbines. **Figure 1** below is a repeat of the graph that had been presented. In the graph, the Black River flow rate is indicated by a solid black line superimposed over the various area graphs also presented. Each of the three turbine driven generators is indicated by its respective area graph distinguished by color and different oriented hash marks. The solid red area graph represents the estimated production lost due to the ice formation that prevented much of the water from reaching the turbines. Some 730,000 ± kWh of lost potential is indicated, resulting in \$125,000 to \$130,000 lost revenue in the two week period of the recorded event.



**Figure 1: Production lost due to frazil ice January - February 2013.**



**Figure 2: Collapsed telescoping boom**



**Figure 3: Extended Boom**

The defense against the lost production from the ice formation is the tenacity of the operator and the quality of the equipment employed in the work effort. The former's tenacity cannot overcome the lack of quality of the latter. At our facility a mechanical operated rake is employed to scrape debris and



**Figure 4: Portable Heating Unit used to melt ice formation within the telescoping boom.**

when necessary, ice formations collecting at the upstream surface of the trash racks. Our unit is a head rake mounted on a telescoping boom as is indicated in **Figures 2 and 3** above. The telescoping unit is severely impacted by ice that forms inside the collapsed segments of the telescoping boom. This prohibits further extension or collapse until the ice has been thawed or otherwise removed. The portable heating unit shown in **Figure 4** is employed for this purpose. Each time, 30 to 90 minutes is lost while freeing the movements of the boom rendering it difficult to even keep the level of ice already formed from further advancement. This is archaic, costing us potential revenues. As indicated in **Figure 1**, the losses can be dramatic. While fully

deployable in warmer climates, the telescoping unit does not seem to be as well suited in the colder climate of Upstate New York.

Different types of mechanical rakes with "knuckle style" articulating booms are much better suited for the colder climates (see **Figure 5** below). The avoidance of two or perhaps three such events similar to that depicted in **Figure 1** would recover the cost of acquisition, installation and start-up of a new and

more appropriate rake system for our facility.<sup>1</sup> It would take 24 to 30 weeks from the point of receipt of a purchase order for such a project to be brought to completion. This includes the modification to the existing rails at our facility, the full testing of equipment and training of our personnel. The Department recommends that we start the work now and have the more appropriate unit in place before next winter.



**Figure 5: Trash rake with knuckle style articulating boom mounted on an interlocking rail system.**

**Hydro Generation Plant SCADA (Supervisory Control and Data Acquisition):**

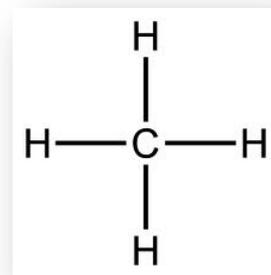
Fiber optic cable is in the process of being run to the Generation Plant by the City Electric Section of the DPW. Once connected, IT and the Water Department SCADA Technician will work together with the contract operator of the Plant to tie all electrical and electronic sensing equipment into the communication network. Real time data sensing, properly trended and graphed will be continuously monitored at the Administration Office on the second floor of City Hall.<sup>2</sup> Instantaneous kWh production per unit, number of units

running, time stamped when started and when shut down, river flows and water temperatures, critical thrust bearing temperatures, power factors, per cent gate settings, etc. all will be continuously displayed for quality control and quality assurance purposes.

**II. Water Source of Supply, Power, Pumping and Purification:**

The Regulatory Agencies (herein the USEPA and NYS DOH) promulgated and administer the Disinfection Byproduct Rule – Stage 2 (the Rule) which goes into effect October 2013. Trihalomethanes and haloacetic acids are the disinfection byproducts that are the focus of the Rule.

Methane (see **Figure 6**) is one of the simpler byproducts of the decomposition of organic things in water. In surface waters (such as the Black River) when one considers the decomposition of plants or insects or fish or whatever that has died, or the urination and defecation of

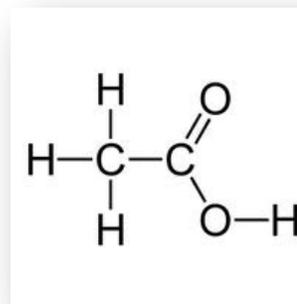


**Figure 6: Methane.**

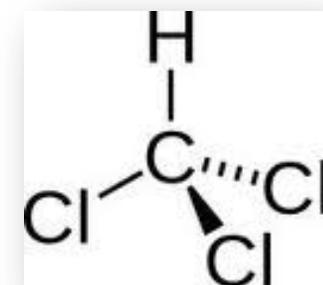
<sup>1</sup> A manufacturer of trash rake equipment submitted a budget price of \$226,200 to design, furnish, fabricate, and start-up of equipment as described in this Proposed Capital Budget

<sup>2</sup> Two 42" wall mounted monitors are being installed for this purpose.

animals, or a myriad of other things, one easily finds the sources of decaying organic things in the water. Once formed, the methane can offer up one or more of its hydrogen atoms to form a host of other things. One such thing formed is acetic acid (see **Figure 7**). In **Figure 7** you easily detect the methane that gave up one hydrogen atom and accepted a more complex carbon/oxygen/hydrogen group in its stead. When methane gives up a hydrogen atom and replaces it with a halogen, it becomes a “halomethane.” If it gives up 3 hydrogen atoms and replaces each with a halogen, it becomes the trihalomethane that is regulated under the disinfection byproduct rule. Chlorine, a disinfectant used by the City of Watertown in its water purification process, is by definition a halogen. Mother Nature puts the decaying carbon in the water, and we put the chlorine in the water. When three chlorine atoms replace three hydrogen atoms in the methane, it becomes a trihalomethane, sometimes called trichloromethane, more commonly referred to as chloroform (see **Figure 8**).



**Figure 7: Acetic Acid.**



**Figure 8: Trichloromethane (Chloroform)**

The presence of the chlorine in the water can also replace hydrogen atoms in the acetic acid molecule, forming the haloacetic acid. This is the other disinfection byproduct formed that is regulated under the Rule.

The degree to which the purification process actually removes the carbon materials from the water, and the degree to which we can then reduce the amount of chlorine we have to add to the water to achieve the proper degree of disinfection, are each valid approaches to the degree we will also reduce the amount of disinfection byproducts that will subsequently be formed. The Rule is written in parts per billion for the regulated concentration of these byproducts

– hence, the Rule is both very strict and will prove quite difficult to consistently achieve.

The City has been working diligently over the past several years to place itself in a position to perform satisfactorily under the Rule. To that end, a comprehensive study was conducted by Hazen & Sawyer and Miller Engineers in 2009 / 2010 and helped map the path the City ought to follow.<sup>3</sup>

Recommendations concentrated on improving the degree silts and sediments (the decaying carbon things) that are carried in the River water are removed in the coagulation basin before such things could enter the Water Treatment Plant. Recommendations focused on the rehabilitation of the upstream dam which guards the entrance to the coagulation basin, the installation of a pH control facility adjacent to the dosing station at the head of the coagulation basin, the filter media replacement project, and for the City to be more aggressive with its dredging program of the basin itself.

<sup>3</sup> “GREATER WATERTOWN WATER QUALITY IMPROVEMENT PROJECT: STAGE 2 D/DBP RULE COMPLIANCE REPORT – FINAL”; October 2010; Hazen and Sawyer, Environmental Engineers & Scientists in association with Miller Engineers.

**The upstream dam:** the dam leaked and required rehabilitation. The leakage averaged up to 1.5 million gallons per day (MGD). This is significant as the degree water leaked into the coagulation basin is the degree it did not pass through the chemical dosing station. The dosing station mixes a chemical coagulant with the raw river water passing through it to aid the settling process that then takes place in the basin. Water not going through the dosing station does not get the coagulant added to it. Some 30 % of the raw water was not being properly pretreated and the coagulation basin's performance was adversely impacted by this. The City's Engineering Department designed and administered a project in 2011 to rehabilitate about 85 % of the upstream face and river bed footers of the upstream dam. As a result of the project, the leakage was reduced from 1.5 MGD to about 0.5 MGD. While much improved, the leakage remains an adverse impact upon the pretreatment operations. The completion of the upstream face and the rehabilitation of the downstream face of the dam are scheduled to be accomplished this summer (CY 2013). The NYSDEC and the US Army Corps of Engineers requisite permit applications are submitted and nearing approval. The Capital Fund shows \$150,000 budgeted for the project.

**pH Control Facility:** The effectiveness of the chemical coagulant mixed with the raw river water is very much a function of alkalinity and pH. These parameters vary during the calendar year and performance is adversely impacted by this fact. The purpose of the pH Control Facility to be collocated with the dosing station at the headworks of the coagulation basin is to better control and therefore enhance the performance of the chemical coagulant. The overall aim is to more efficiently capture the sediments and perhaps with the increased efficiency of the coagulant chemical, reduce the quantity of coagulant needed to accomplish the requisite task. The pH Facility is scheduled for design in FY 2013-14 (\$80,000) and for installation in the following FY (\$300,000).

**The Filter Media Replacement:** This project has just been completed. With the replacement of the filter media (1<sup>st</sup> time replaced since the units were put into service in 1990-91) their ability to screen sediments from the raw water should improve.

**Basin dredging:** The sediments that are removed from the raw water in the coagulation basin have to be periodically dredged from the basin lest it fill with sediments and no longer function. It has been a long standing practice of the City to dredge the basin routinely every third year. The Hazen & Sawyer study recommended a more aggressive program, suggesting the dredging be accomplished every other year. The basin was last dredged in the summer of 2011 calling for this summer (2013) to once again dredge. The City has always contracted this operation at a cost of \$80,000 to \$100,000 per operation. Contracting for the dredging operation does not seem to make fiscal sense. The City could acquire



**Figure 9: Horizontal Dredger**

its own equipment, construct a pole barn facility adjacent to the basin on Huntington Island to house it in the off season, and construct a concrete ramp with embedded rail and trolley system to launch and retrieve the dredging equipment. With its own equipment, the basin could be dredged annually, further improving the conditions of the basin and positively impacting the coagulation performances. Preliminary estimates from vendors place the equipment under \$300,000 (a number that should improve with competitive bidding). With the addition of the pole barn and ramp, it is believed that “pay back” would be 6 to 8 years. The request is to acquire our own equipment now, finance the equipment over time, use the “sinking fund” already in hand for its down payment and pay the interest and principle of the investment with what would have otherwise been expended on the contract dredging operations as conducted up to now. It is no different from deciding to buy a house in lieu of renting.

### **III. Water Transmission and Distribution:**

**Flushing Hydrants:** As a further defense against the formation of the disinfection byproducts, the element of time must also enter the equation. Not only does the formation of the byproducts require the presence of carbon and chlorine, it also requires residency. The byproduct formation requires a necessary resident detention time in the distribution system pipes to enable the byproduct to form. Flushing hydrants strategically located at sensitive and critical points in the distribution system can reduce this resident detention time perhaps sufficiently to abate some of the more expensive control measures already indicated above. Specific reference is made herein to the pH control facility. Hence, the Department would like to move quickly on the flushing hydrants and delay the pH control facility long enough to assess the effectiveness of the hydrants. A total of four units are envisioned in this initial phase of installation and assessment. We would focus upon the connection points with our contingent users, that is, the water districts south and west of the City. As stewards of the source of supply of drinking water, it is incumbent upon the City to deliver the water in as optimum a condition as practical. This will not relieve the contingent users of their own efforts to properly address the Rule, but it does place the City in the position of considering and doing all things practical in this regulatory requirement that faces the contingent users as well as us. We would not need to focus upon the connecting point to the north as that is at the Water Treatment Plant on Eastern Blvd and Huntington, which is already at the connection point and has therefore, zero residence time when it leaves the City.

The auto flushing units are priced in the order of \$18,000 to \$20,000 each. Further, the protective manholes, discharge piping to the storm sewer, and a water metering unit would add an additional \$5,000 to \$10,000 per unit.

**Water Meter Replacement Program:** Earlier this Fiscal Year, the City Council approved a \$75,000 increase Department expenditure for the acquisition and installation of 37 larger service account meters. The existing meters in these accounts were found to be old, “slow” and that increased projected water sales in the first consecutive 12 months of service for the new meters is believed to equal or exceed the additional expenditure.

The City has been involved in a systematic meter replacement program since FY 2006-07. This is to replace manually read meters with radio read units. There are approximately 8,950 metered accounts

in the City of Watertown. As of the end of FY 2010-11, the City replaced 1,670 meters, averaging 441 meters replaced per year for the last 3 years of this period. Some of those meters replaced in the 5 years leading up to FY 2010-11 are meters that had been replaced in that same 5 year period. At the rate in which the work is being done, it will take 16 years to complete the effort, assuming that no meters go out of service in the interim (a bad assumption).

It takes two people working full time 3 months to read each cycle. The cycles run quarterly, meaning that each meter is read and billed four times per year (larger meters are read monthly).

This is a drain on assets that is not necessary. The radio read meters are “proximity read” by driving by the individual meter transmitters with a receiver unit in the vehicle. When fully implemented, one person could read the entire City in one day. The two meter readers and two vehicles would be absorbed into other needed areas of staff and employed more efficiently and cost effectively. Staff was instructed earlier this FY to concentrate on meter replacement with the units we routinely purchase to test how quickly the units could be swapped out. We believe the entire project could be a three year swap out. Given the cost of meters, adapters, and tools, \$650,000 is the cost for one third of the total replacement program. This Proposed Capital Budget calls for the program to be accelerated and accomplished in three consecutive Fiscal Years beginning with FY 2013-14.

**Thompson Park 250,000 gallon elevated water storage tank:** This program is on track to be completed this summer with the restoration of the existing tank. The project is defined as the sand blast cleaning and the application of a two coat protective system to the interior of the tank, and a complete restoration of the exterior tank and column. The project is estimated to cost \$913,100.



**Figure 10: 250,000 Gallon Elevated Water Storage Tank.**

#### **IV. Wastewater Treatment and Sewage Sludge Disposal:**

**Modification to the Sludge Disposal Operations:** The City received notice on December 20, 2012 that it had been awarded a \$585,646 NYSERDA Grant for our project.<sup>4</sup> The following tasks and timeline were immediately launched (we are at Task #5 awaiting City Council authorization to proceed):

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<sup>4</sup> NYSERDA Program Opportunity Notice (PON) 2571 with the Consolidated Funding Application (CFA) due date of July 16, 2012.

**Table 1: Immediate Tasks - NYSERDA Grant Project.**

	<b>Task Description</b>	<b>Comments</b>
1.	Publish a Request for Qualifications (the RFQ) for Consultant Services to assist in the development of a work plan; basis of design; regulatory applications; specifications and drawings; and full implementation of the final approved plan	RFQ was published January 9, 2013 with February 15, 2013 as the due date for a formal response
2.	Establish point of contact with NYSERDA	Kathleen M. O'Connor, NYSERDA is our contact. First organizational telephone conference call conducted January 18, 2013; City offered preliminary schedule to NYSERDA of tasks
3.	Received authorization from NYSERDA to proceed with work with up to \$117,129 deemed as allowable costs to be applied against the grant prior to the City/NYSERDA agreement being formally in place.	Advanced authorization effective December 20, 2012
4.	City Committee to recommend to the City Manager and City Council its preferred consultant	Four consultant groups formally responded on 2/15/2013. The Committee ultimately recommended GHD and notified the CM on 2/21/2013.
5.	Obtain City Council authorization to proceed with the preparation of a consultant agreement/schedule of tasks and milestones/consultant budget	Authorization not yet received; earliest opportunity City Council Meeting March 4, 2013
6.	Submit prepared consultant agreement/tasks/budget to City Council seeking their approval to proceed.	Earliest opportunity City Council Meeting March 18, 2013
7.	Formalize a work plan with NYSERDA, negotiate the draft NYSERDA/City agreement to formalize the grant award and authorize its drawdown consistent with the agreed upon work plan and schedule.	Date yet to be determined. NYSERDA is under pressure to expedite.

**Facility Disinfection Project:** The project reached the 95% point for Design Drawings and Construction Contract Specifications on February 11, 2013. On February 14, 2013 the package was submitted to the NYSDEC for their review and approval. It is hoped that the project can be advertised by April 8, 2013 with a projected bid opening on or about May 15, 2013. Construction should start in June 2013 and be completed by end of CY 2014. The project remains estimated at \$6.1 million.

Project and Dept. Section	FY 2013-14	FY 2014-15	FY 2015-16	FY 2016-17	FY 2017-18
Replace Trash Rake Hydroelectric	↔ \$240,000				
Excitation System Upgrade Hydroelectric		↔ \$80,000 Unit #1	↔ \$80,000 Unit #2	↔ \$80,000 Unit #3	
Coagulation Basin Dredger Water Purification	↔ \$375,000				
pH Control Facility at Coagulation Basin Water Purification			↔ \$80,000 Design	↔ \$300,000 Installation	
Coagulation Dam Rehab of Downstream Face Water Purification		↔ \$150,000			
4 Flushing Hydrant Systems Trans. & Distr.		↔ \$56,000	↔ \$56,000		
Elevated Storage Tank Rehabilitation Trans. & Distr.	↔ \$1,000,000				
Water Meter Replacement Trans. & Distr.	↔ \$650,000 Phase 1	↔ \$650,000 Phase 2	↔ \$650,000 Phase 3		

Project and Dept. Section	FY 2013-14	FY 2014-15	FY 2015-16	FY 2016-17	FY 2017-18
<b>SPDES Disinfection System Installation</b> <b>Wastewater Treatment</b>	 <b>\$6,100,000</b>				
<p><b>NOTE: for what follows, the timeline is for sequence only, the actual dates or years are yet not known.</b></p> <p><b>Modification to the Sludge Disposal Operations (NYSERDA Grant Project)</b>  <b>Wastewater Treatment</b></p> <p><b>\$585,646 Grant Award for up to 75% of Project</b></p>	 <p style="text-align: center;"><b>Seek Additional Funding</b></p>  <p style="text-align: center;"> <b>Scope, Design, Seek Approvals, &amp; Modify Operations</b>     <b>Installation of Facilities to the extent of approved Grants</b>     <b>Complete Project</b> </p>				

Project and Dept. Section	FY 2013-14	FY 2014-15	FY 2015-16	FY 2016-17	FY 2017-18
<p data-bbox="226 268 633 393">Trickling Filter Distributor Assembly Replacement Wastewater Treatment</p> <p data-bbox="226 448 633 534">Final B Settling Tank Chain Wastewater Treatment</p>			<p data-bbox="1126 260 1357 294">←————→</p> <p data-bbox="1146 310 1336 388">First set 2 of four units</p>	<p data-bbox="1357 260 1588 294">←————→</p> <p data-bbox="1377 310 1567 388">Second set 2 of four units</p>	<p data-bbox="1357 448 1588 482">←————→</p> <p data-bbox="1412 490 1533 529">\$70,000</p>

New York State Department of Transportation

MEMORANDUM OF UNDERSTANDING

*March 8<sup>th</sup>, 2013 - Draft*

MEMORANDUM OF UNDERSTANDING RELATING TO THE COMPREHENSIVE,  
CONTINUING, COOPERATIVE TRANSPORTATION PLANNING AND  
PROGRAMMING PROCESS FOR THE WATERTOWN-JEFFERSON COUNTY  
REGION

By and Between the

New York State Department of Transportation  
City of Watertown  
And County of Jefferson

WATERTOWN-JEFFERSON COUNTY AREA TRANSPORTATION COUNCIL

WITNESSETH:

**WHEREAS**, it is in the national and local interest to encourage and promote development of transportation systems embracing various transportation modes, so as to efficiently maximize mobility of people and goods and minimize the needed resources in providing that mobility, and

**WHEREAS**, Federal Law, in order to ensure that cooperative planning and coordination shall be a normal and continuing process for all transportation modes, has directed, under the provisions of the Federal Highway Law, US Code Title 23, Section 134, that transportation projects in urbanized areas of more than 50,000 population shall be based upon a continuing, comprehensive transportation planning process carried on cooperatively by the state and involved, local communities therein, and

**WHEREAS**, the United States Bureau of the Census has designated Watertown and its environs as an "urbanized area" with a population over 50,000, and

**WHEREAS**, further to the designation of Watertown and its environs as an "urbanized area" by the United States Bureau of the Census, the New York State Department of Transportation has delineated a boundary surrounding the aforementioned "urbanized area" that is henceforth referred to as the "Watertown FHWA Urban Area Boundary", the location of which, upon final approval by the Federal Highway Administration (FHWA), may be obtained

either through the Federal Highway Administration New York Division Office or the New York State Department of Transportation Region 7 Planning & Program Management Office, and

**WHEREAS**, the “Watertown FHWA Urban Area Boundary” encompasses the area of Watertown and its environs that are designated by the United States Bureau of the Census as being an urbanized area as well as the contiguous areas that are anticipated to become urbanized within 20 years of the signing of this document, the “Watertown FHWA Urban Area Boundary” forms the boundary of the “Watertown-Jefferson County Area Transportation Council”, (hereinafter referred to as the “Council”), and

**WHEREAS**, the Council, in accordance with Federal and state law is hereby designated in accordance with New York State Transportation Law §15-a, by the Commissioner on behalf of the Governor, as the Metropolitan Planning Organization (MPO) within the “Watertown FHWA Urban Area Boundary”, and which will be responsible for the performance of the Federal transportation planning process and, in cooperation with the State, for the development of transportation plans and programs vital to the economic, social and civic well-being of the metropolitan area of Watertown and Jefferson County, and

**WHEREAS**, local, city, county and state agencies participate in the Council to integrate all federal transportation-related planning activities and effect transportation policy and programming consistent with local area objectives and federal and state directives, and

**WHEREAS**, comprehensive requirements for the transportation programming and planning processes have been reaffirmed and enhanced in the current Federal Highway Authorization, Moving Ahead for Progress in the 21<sup>st</sup> Century (MAP-21), and

**WHEREAS**, it is the purpose of this Memorandum of Understanding to formally affirm the continuing metropolitan transportation policy, planning and programming process and to set forth MPO responsibilities, in accordance with the most current federal and state regulations.

**NOW THEREFORE**, the County of Jefferson; the City of Watertown; the New York State Department of Transportation (NYSDOT); and local government, whose representatives comprise the Council, in order to continue the cooperative metropolitan transportation planning and programming processes within the “Watertown FHWA Urban Area Boundary” that is required for Federal and State funding,

**AGREE AS FOLLOWS:**

**1. Policy Committee**

**A. Membership:** The Council will include the following permanent voting members:

- City of Watertown – Two representatives as selected by the City Council
- Jefferson County – Two representatives as selected by Jefferson County

- NYSDOT – Two representatives as selected by NYSDOT
  - Local Government Representative – One representative selected as per the Unified Operations Plan (UOP).
- B. Leadership:** The Council shall elect a Chair and Vice Chair annually. The New York State Department of Transportation shall serve as Secretary.
- C. Delegation:** Council members may designate a representative to preside on their behalf; such designation shall be addressed in writing to the Chairperson.
- 2. Voting Process:** The Council’s transportation policy, planning and programming processes reside with the Council, which is composed of elected officials and administrative officers of the participating bodies. The Council will engage in a cooperative, majority-driven decision-making process conducted in a neutral forum. For the purposes of this document majority is defined as four yes votes. If the Technical Committee recommendations are not 100% consensus, then the Council will require a super majority vote defined as five yes votes.
- 3. Outreach:** The Council will conduct open planning and programming processes through which it will reach out to stakeholders, interest groups, and the general public, especially under-represented and under-served populations, as well as to the media. The Council will make every attempt to be responsive to the needs and requests of constituents within the MPO area and will communicate with and cooperate with other MPOs and transportation agencies and organizations within the state and nationally.
- 4. The Council’s MPO Responsibilities:** The Council will cooperate with the modal administrations of the United States Department of Transportation (and with the New York State Department of Transportation) in carrying out all responsibilities assigned to it as MPO including, but not limited to, consideration of the eight planning factors in MAP-21 which focus on the preservation and more efficient use of existing transportation systems; the enhancement of transit services; the consistency of transportation programs with land use plans; the increased safety and security of the transportation system; and an increased consideration of social, economic, and environmental effects. The Council shall submit its biennial Transportation Improvement Program (TIP) to NYSDOT for inclusion in its Statewide Transportation Improvement Program (STIP), in accordance with 23 U.S.C., 49 U.S.C., 23 CFR and MAP-21 requirements.
- 5. Technical Committee & Central Staff:**
- A. Technical Committee:** The Council shall appoint, by a method described in the UOP, a technical committee to oversee and coordinate the staff work of the transportation planning process and to accomplish such other work as directed by the Council.

- B. Central Staff:** The Council may be supported by the MPO Director/staff, consultant, transportation planning and engineering professionals, and staff resources from the New York State Department of Transportation, by a method described in the UOP. The Central Staff shall perform the tasks required to progress the development of plans, programs, and other activities as prescribed in the annually adopted Unified Planning Work Program (UPWP).
- 6. Planning Documents:** The Council shall adopt and update a Long Range Transportation Plan (LRP) periodically, as required by Federal Law and Regulation, or more frequently as it may deem appropriate. The LRP will present a long-term vision for transportation within the MPO area. The vision delineated in the LRP will drive the short-range planning activities described in the annual Unified Planning Work Program (UPWP), and project implementation described in the Transportation Improvement Program (TIP), which documents are also adopted by the Council. The LRP, UPWP and TIP shall be developed on a cooperative basis.
- 7. Host Agency:** The NYSDOT will serve as the interim host of the MPO Central Staff until March 31, 2015 at which time the Council will decide whether to extend NYSDOT or select a new host. The NYSDOT shall assist with legal and financial advice and administrative services as may be required to supplement, as appropriate and feasible, the planning programs to be funded with Federal monies that are available to MPO's.
- 8. Equal Employment Opportunities and Affirmative Action:** In carrying out the described cooperative transportation planning and programming process and in conjunction with Title VI of the Civil Rights Act of 1964 and the President's Executive Orders 11246 and 11375, equal employment opportunities/affirmative action programs shall be pursued in the spirit of the laws provided herein.
- 9. Funding:** The NYSDOT, on behalf of the Council, shall make application to the United States Department of Transportation, in accordance with procedures established by the latter, to secure funding for transportation planning available under MAP-21, and such other Federal and State funds as may become available, for transportation planning as programmed through the annual UPWP. Participating members of the Council shall not be precluded from applying for other Federal funds pursuant to present and/or future Federal Laws and Regulations.
- 10. Unified Operations Plan (UOP):** The MPO Central Staff shall prepare for Council adoption, a UOP specifying how various Council activities shall be conducted. Activities included in the UOP may include procedures and other decision-making, membership, public participation and media coverage, parliamentary procedures, and any other matters which may be agreed to by the Council. The UOP shall be adopted by approval of the initial members of the Council prior to their implementation. They may be thereafter revised only by majority approval of such members of the Council.

**11. Amendments:** This agreement may be amended by the majority vote of the Council. Any member that wishes to amend this agreement must notify by written notice to the Council no later than 60 days prior to the anniversary date hereof.

**12. Term of Agreement:** Council shall review and amend, as necessary, this agreement biennially, beginning April 1, 2013.

**IN WITNESS WHEREOF** the participating members have caused this agreement to be executed by their authorized officials as of the date first above written.

**PARTICIPATING MEMBERS**

By: \_\_\_\_\_

Carolyn D. Fitzpatrick, Chairwoman of the Board of Legislators

Jefferson County  
County Office Building  
175 Arsenal St.  
Watertown, NY 13601

By: \_\_\_\_\_

Honorable Jeffrey E. Graham, Mayor

City of Watertown City Hall  
245 Washington St., Room 302A  
Watertown, NY 13601

By: \_\_\_\_\_

Joan McDonald

Commissioner of Transportation, as  
Designee of the Governor of New York  
NYS Department of Transportation  
50 Wolf Road  
Albany, NY