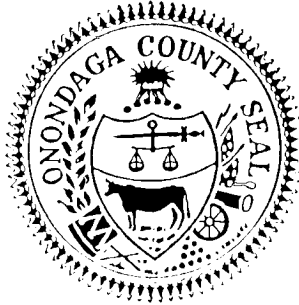


ONONDAGA COUNTY  
NEW YORK



2019 – 2024  
CAPITAL IMPROVEMENT PLAN

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## CAPITAL IMPROVEMENT PLANNING COMMITTEES

### CAPITAL PROJECTS COMMITTEE (CPC)

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*County Executive, Chair, CPC*

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Physical Services*

Steven P. Morgan  
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*County Attorney*

Don Jordan  
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### ONONDAGA COUNTY PLANNING BOARD

Daniel Cupoli  
*Chairperson*

William P. Fisher

James Corbett (Vice Chair Person)

Lisa Dell

Marty Voss (ex officio)

David Skeval

Robert E. Antonacci (ex officio)

### STAFF TO THE PLANNING COMMITTEES

Rustan Petrela  
*Coordinator, Facilities Management*

Tara Venditti  
*Management & Budget*

Don M. Jordan  
*Planning*



Joanne M. Mahoney  
COUNTY EXECUTIVE

# Onondaga County Planning Board

## Onondaga County Planning Board Resolution Concerning the 2019 to 2024 Capital Improvement Plan

WHEREAS, pursuant to the Administrative Code of the County of Onondaga, Section 6.02 (d), the Onondaga County Planning Board has reviewed the 2019 – 2024 Tentative Capital Improvement Plan; and

WHEREAS, debt management remains a high priority in the 2019 – 2024 Tentative Capital Improvement Plan; and

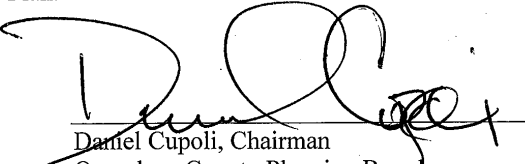
WHEREAS, the projects proposed in the 2019 – 2024 Tentative Capital Improvement Plan emphasize the maintenance of existing county facilities and transportation assets, stewardship of the natural environment, and sound fiscal management; and

WHEREAS, the goals and policies of Onondaga County's comprehensive plan, the *2010 Development Guide and Framework For Growth in Onondaga County*, support economic growth, an attractive community, well maintained and cost effective infrastructure, stewardship of natural resources, investment in existing communities, and sustainable development practices; and

WHEREAS, the 2019 – 2024 Tentative Capital Improvement Plan is consistent with the goals and policies of the *2010 Development Guide* for Onondaga County; and

WHEREAS, the Capital Improvement Plan provides an effective means of communicating the intention of the County of Onondaga with respect to planned capital investments; and

NOW, THEREFORE BE IT RESOLVED, that the Onondaga County Planning Board endorses the 2019 – 2024 Tentative Capital Improvement Plan.

  
Daniel Cupoli, Chairman  
Onondaga County Planning Board  
September 26, 2018

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# OVERVIEW

## *Section 1*





## INTRODUCTION TO CAPITAL PLANNING

A Capital Improvement Plan (CIP) serves as a guideline for the orderly acquisition and refurbishment of capital assets within the financial resources of the community. One of the key elements of a successful CIP is a clear position as to what a capital project is. In Onondaga County, a capital project is understood to be an expenditure of considerable cost that has a long, useful life. As a matter of policy, capital requests are not considered for the CIP if: 1) the total cost of the project is less than \$250,000; 2) the project has a useful life of less than five years; 3) the request involves the procurement of vehicles.

### About This Document

The 2019-2024 CIP contains four major sections. The first provides an understanding of the capital planning process and its relationship to development and land use planning. It also describes revenue sources and the county's debt management policy. The second section contains debt service narrative and summary information, as well as program summary analysis. A location map also appears at the end of section two. Section three contains narrative description and financing plans for proposed projects, as well as narrative description of completed and ongoing projects. This section is subdivided by the funds that support it. Section four contains a glossary of terms.

### The Capital Planning Process

Capital planning involves the County Executive, members of the County Legislature, heads of various county departments, and a citizen advisory board in a process that determines capital needs, alternatives, and priorities. The development of the CIP takes place over several months, beginning in February of each year, and includes five major phases:

- 1 In March, department heads begin preparation of project proposals in accordance with executive guidelines.
- 2 In May, proposals are submitted to the CIP Coordinator at Department of Facilities Management. The proposals are analyzed by CIP Coordinator in conjunction with DMB and the Syracuse-Onondaga County Planning Agency. The Law Department is consulted as needed.
- 3 By September, the County Executive has approved a tentative CIP, which is presented to the Capital Program Committee (a committee made up of legislators and representatives from the executive branch of county government). Later after the budget presentation to the County Legislature the CIP is presented to County Planning Board (a citizen advisory group).
- 4 In September, the Tentative CIP is presented with the county's Annual Operating Budget to the Ways & Means Committee of the County Legislature, and then to the full Legislature in October for approval.
- 5 From October to March, research on capital planning and management is conducted, and the prior year's process is critiqued. Revisions to forms and instructions are completed.

Coordination and interaction among units of government occurs throughout the process, both formally and informally. The heads of county departments are consulted to discuss questions and recommendations regarding particular projects. Some of the major criteria for evaluating proposals are:

- relationship of the project to the goals of the County Executive;
- degree of the overall need for the project;
- fiscal impact, including the county's capacity to borrow;
- non-county funding sources;
- consistency with the goals and policies in the 2010 Development Guide;
- community participation and support.

The final product of this process is a six-year plan to improve or construct those facilities or components of county infrastructure considered necessary to provide or maintain an adequate level of public service. Approval by the County Legislature is not a commitment to fund every project in the plan, but rather it is an

indication of support for the plan as a whole. Projects that require borrowing must be presented to the Legislature individually in order to secure authorization to incur debt.

## **THE COUNTY'S INFRASTRUCTURE**

Capital projects can be separated into two basic classes: infrastructure and facilities. Both infrastructure and facilities projects have an important role in economic development. Infrastructure includes water and sewer systems and highways. These linear systems drive the pattern of urban and suburban growth, and can be used as an important tool to influence economic development. County facilities such as the Civic Center, Onondaga Community College and the Whitney Applied Technology Center, County Parks, the Justice Center, the Correction Center at Jamesville, and the Convention Center provide locations for carrying out social, cultural, educational, and recreational programs.

The CIP serves to coordinate projects sponsored by different departments for maximum impact in a given location. Water, sewer, and highway projects - when coordinated - can provide capacity to support new development. New water service, while relatively inexpensive to provide, creates demand for sewers, wastewater treatment capacity, and improved highways. Significant savings in tax dollars can be achieved when priority is given to projects that utilize existing infrastructure over projects that require extensions to be built.

The goal of most capital expenses in this CIP is to maintain facilities at a level so as to prevent major replacement expenditures in the future. Some infrastructure projects could represent new capacity or enable development of new areas within the county. Wastewater treatment projects are designed to meet mandated water quality standards under the Federal Clean Water Act through the Amended Consent Judgment (ACJ).

### **Water**

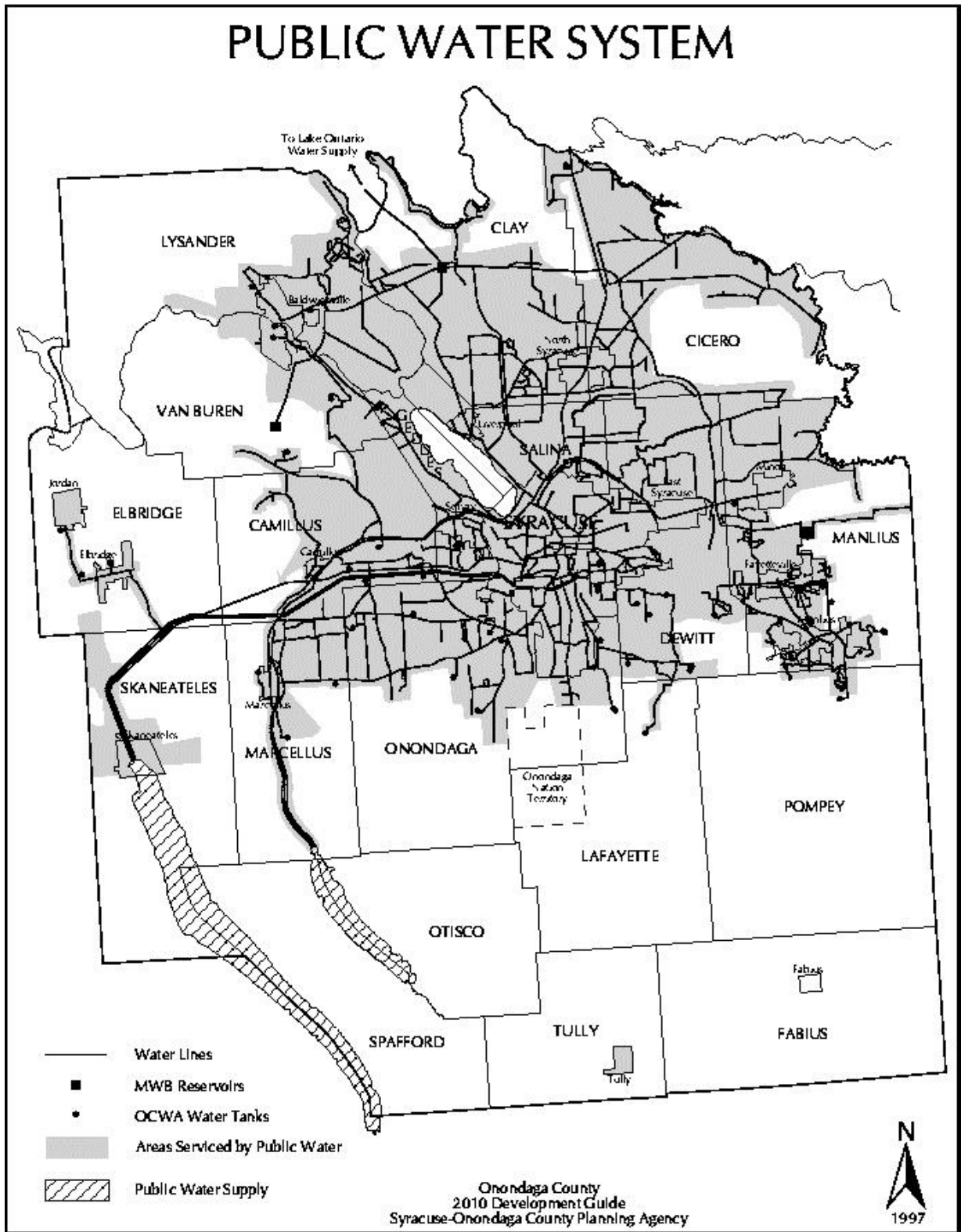
Effective January 1, 2017, Onondaga County entered into a Public Water Supply Cooperation Agreement with the Onondaga County Water Authority (OCWA), under which OCWA agreed to lease and operate the assets of the Onondaga County Water District.

Responsibility for capital projects initiated by the Metropolitan Water Board (MWB) was transferred to OCWA as of January 1, 2017. OCWA is also authorized and obligated to perform maintenance services on these assets.

The County continues to be responsible for existing debt obligations for and on behalf of the District. Under the terms of the Cooperation Agreement, the County retains the right to impose an ad valorem tax on specially benefitted properties within the District and to provide for an external charge to be passed on to OCWA's customers.

Under the Cooperation Agreement, OCWA is required to pay to the County the annual amount needed as a Revenue to balance the budgeted appropriations made by the county on behalf of the District, including costs of debt service.

The County does not plan to undertake any capital projects for, or on behalf of, the District.



### Sewers

The Department of Water Environment Protection (WEP) is responsible for wastewater treatment and transmission for the area within the Consolidated Sanitary District (CSD), which includes the City of Syracuse and all or part of eleven suburban towns including: Camillus, Cicero, Clay, Dewitt, Geddes, Lysander, Manlius, Onondaga, Pompey, Salina, and Van Buren. The Department also provides maintenance services for the following villages: Marcellus, Camillus, East Syracuse, Fayetteville, Liverpool, North Syracuse, Solvay and Manlius. The Sanitary District was formed in 1978 (see map on p. 7) to provide an equitable base for financing capital and operating costs associated with the wastewater system; a sewer unit charge (standardized fee) for service finances the system. The capital plan, maintenance, and operation of the CSD are entirely supported by fees for service, primarily through the sewer unit charge; no county tax support is provided to the CSD. The CSD boundary serves as a planning tool for decisions about extensions to new areas and other issues. The CSD provides approximately one-hundred-twenty thousand residential units (one unit per household and  $\frac{3}{4}$  unit per apartment) of service, and approximately sixty-six thousand units of commercial/industrial service, based on a unit volume equivalent of one-hundred-thirty seven thousand gallons per unit. The unit charge is only charged to properties in the district with a sewer connection. Industrial users are required to remove non-compatible pollutants, such as heavy metals, at the source. Certain high strength wastes, meeting strict local parameters, are also allowed by permit and with industrial waste surcharges.

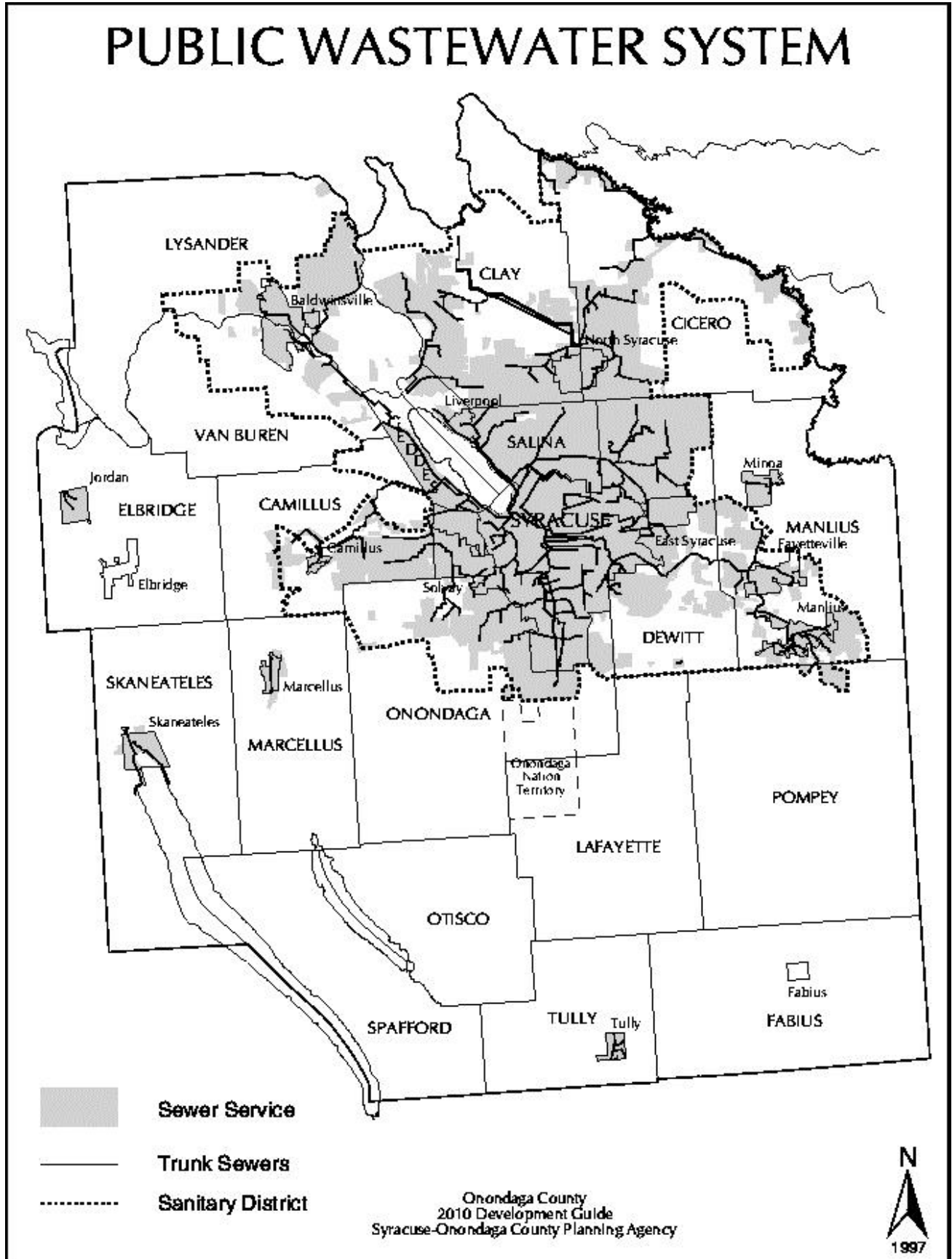
The wastewater system infrastructure managed by WEP includes six sewage wastewater treatment plants: Baldwinsville-Seneca Knolls, Brewerton, Meadowbrook-Limestone, Oak Orchard, Syracuse Metropolitan Treatment Plant, and Wetzal Road Wastewater Treatment Plants. The CSD is responsible for the interceptor sewers of the combined sanitary and storm water sewer system (CSO); much of this combined sewer infrastructure was constructed many decades ago and serves most of Syracuse. During heavy rains, overflow from the combined sewers discharges into several creeks. The CSD is responsible for the maintenance and repair of more than two thousand one hundred miles (six inches to twelve feet in diameter) and for the operation, maintenance, and repair of fifty-two CSD owned sewage-pumping stations, one hundred six municipal pump stations, and nine combined sewer overflow treatment facilities. Asset maintenance responsibilities include the inspection, maintenance, and repair of four hundred seventy miles of County owned trunk and interceptor sewer infrastructure in the Consolidated Sanitary District. While capital repair and replacement of the local sewers remain the responsibility of the towns, villages or the city, the county maintains many of these aging assets via intermunicipal agreements, allowing fee-for-service reimbursement to the CSD for these routine maintenance services. Several municipal collection systems within the CSD also collect taxes to pay for the maintenance of local municipally owned pump stations and collection sewers.

### Transportation

Onondaga County owns and maintains 25.4% or 793 miles of the combined public highway system within the County and is comprised of arterials, collectors and local roads (see map p.8). Of these, thirty-nine miles are four or five lane highways, some divided by medians. The Onondaga County Department of Transportation (OCDOT) uses a computerized pavement condition survey performed annually to determine priorities for maintenance, rehabilitation, and reconstruction. The goal of this system is to minimize the need for major reconstruction by performing timely maintenance and extending pavement life. The County's bridges are also inspected on a biennial basis to determine rehabilitation needs.

The Department of Transportation is responsible for project planning, detailed project design, right-of-way acquisitions, construction layout and inspection of major highway reconstruction projects funded by Federal, State, and local dollars. Additionally the OCDOT is responsible for the inspection, maintenance, and rehabilitation of 210 bridges, numerous culverts as well as operating and maintaining 125 signals and beacons throughout the County.

The Department of Transportation performs routine maintenance functions and limited repaving and rehabilitation with County forces. Private contractors are used to build major construction projects and to repave hot mix and cold mix bituminous highways. These projects are competitively bid as mandated by state law. The Department is currently administering federal highway funds on numerous projects. The Department of Transportation operates four Highway Maintenance Facilities- Camillus, Marcellus, Jamesville, and North Area - as bases for fleet maintenance, material storage, and labor deployment. The Administration and Engineering Divisions are located on the 11th floor of the John H. Mulroy Civic Center.



# PATTERN OF COUNTY ROAD JURISDICTION



— County Roads

Onondaga County  
2010 Development Guide  
Syracuse-Onondaga County Planning Agency



## ONONDAGA COUNTY 2010 DEVELOPMENT GUIDE

In 1991, the Onondaga County Legislature adopted the 2010 Development Guide to outline county policy with respect to infrastructure, land development, the environment, and fiscal capacity. The Guide was updated with current demographic and economic data, better graphics, and a more concise, understandable format. The updated Guide was approved by the County Legislature on June 1, 1998, and is now the official Onondaga County plan. The County is currently working on an update to the Guide.

New water lines, sewers, and roads have the effect of creating new developable land. The Guide seeks to prevent premature public expenditures, which foster urban sprawl and create unnecessary capital and operating expenses. The Guide stresses the desirability of infill development in areas served by utilities, in order to balance trends toward sprawl with the ability of a static population to pay for infrastructure. Decisions to extend utilities to provide new urban land will be related to economic growth and job creation, as well as the capacity of complementary infrastructure systems to support growth in a particular location.

### Background

In New York State, municipalities - cities, towns and villages - have strong land use controls available through zoning and subdivision regulations. Counties, on the other hand, have no state enabling legislation with which to manage growth. Many urban counties, however, have large investments in infrastructure; the timing of highway, wastewater treatment, and water facility improvements can directly influence growth patterns.

Onondaga County constructs and maintains many public works facilities, and therefore has the ability to affect land development patterns. The county adopted the 2010 Development Guide to define the conditions for extensions of county highways, sewer, and water lines. By implementing these policies through the capital program, the county can guide development and control capital and operating expenditures.

### Employment Trends

According to the New York State Department of Labor's Quarterly Census of Employment and Wages (QCEW), annual average employment by place of work in Onondaga County grew slightly from 239,704 in 2010 to 243,798 in 2017. The number of firms increased slightly from 12,690 to 12,777 over the same period, with wages experiencing steady modest increases from \$43,199 in 2010 to \$49,716 in 2017 (QCEW). The New York State Department of Labor Local Area Unemployment Statistics (LAUS) program reported that employment by place of residency in Onondaga County decreased from 218,000 in 2010 to 211,200 in 2017. The annual unemployment rate decreased from 8.0% in 2010 to 4.7% in 2017.

Losses within the past decade, as seen in the following table, are attributed mostly to the national economic recession, as well as a local economy transitioning away from the region's formerly strong manufacturing base.

## Overview

### Labor Statistics in Onondaga County

	2000	2005	2010	2017
Annual Average Employment (by Place of Work in Onondaga County)	252,378	248,278	239,704	243,798
Annual Average Establishments (# of Firms)	12,238	12,655	12,690	12,777
Average Annual Wages	\$32,499	\$37,641	\$43,199	\$49,716
Employment (by Place of Residency in Onondaga County)	221,400	223,300	218,000	211,200
Annual Unemployment Rate	3.5%	4.5%	8.0%	4.7%
<i>Source: NYS Dept. of Labor QCEW and LAUS Programs</i>				

## Demographic Trends

Demographic changes and growth patterns, along with changes in standards and technology (for wastewater treatment, for instance), will affect the need for capital projects in the next decade.

Population in Onondaga County has remained relatively unchanged over the past forty years, currently totaling 467,026 according to the 2010 US Census. In general, population within the towns has increased, villages have remained unchanged, and the City of Syracuse has seen a steady decrease in population, with the City losing approximately 50,000 residents between 1970 and 2000. According to the 2010 Census, however, these relatively dramatic population shifts from city to suburb may be slowing – likely a result of several factors including urban revitalization, immigration, the national housing market slump, and changes in household makeup.

### Demographic Statistics in Onondaga County

	1970	2000	2010
Onondaga County Population	472,835	458,336	467,026
Town Population	275,538	311,030	321,856
City Population	197,297	147,306	145,170
Housing Units	153,576	196,633	202,357
Households	145,122	181,153	187,686
<i>Source: US Census Bureau</i>			

Urban sprawl, available infrastructure capacity, and a trend toward smaller families have resulted in an increase of nearly 50,000 new housing units in Onondaga County since 1970, despite the stagnant regional population. Some of the new building activity is in response to changing family demographics, such as the aging population and smaller family and household sizes. However, when an excess of new housing is built at the edges of the urbanized area during a period of population stagnation, the result is decline and abandonment of the region's oldest stock, often in the center of the City and within traditional villages. The ability for local and regional governments to sustain existing infrastructure and housing stock, while also



adding infrastructure and services in new areas is limited, particularly for those with older neighborhoods and infrastructure.

The suburbanization of both jobs and housing and the coming of age of the baby boomers have meant an annual growth in driving, road infrastructure, and traffic congestion for the last two decades. Low-density, single-use patterns of development in suburban and rural areas have limited the region's ability to offer transit service as a feasible alternative. Trends toward urban expansion have also resulted in increased flows at certain wastewater treatment plants and capacity constraints at some facilities. Infrastructure needs are compounded by the age of some of the county's infrastructure including the more than one hundred year old sewers in Syracuse and suburban roads built to farm-to-market standards. All these factors have necessitated the 2010 Development strategy to prioritize redevelopment, minimize the need for expanded infrastructure and to take maximum advantage of existing infrastructure and limited population growth.

### The Land Use Plan

The 2010 Development Guide allows this community to anticipate the extent and location of growth over the coming decades. The plan considers the potential for further growth within the current service area of water and sewer lines, and anticipates only limited need for suburban growth beyond existing service areas. Desirable areas for growth have existing infrastructure capacity, and the cost effectiveness of public expenditures to support growth should be related to economic development and job creation and the need for additional urban land.

The plan provides a means for coordinating land use decisions by thirty-five municipalities with county plans for infrastructure and fiscal stability. The plan outlines the implications of continued low density development patterns: costs for building and maintaining water, sewers and roads increase directly with required lot width, as does the cost of police, fire, emergency services and school busing. Mass transit is effectively precluded from most towns by cost as well as trip times due to low density development patterns.

### Land Use Plan and the CIP

Capital Improvement Planning is one of the county's most useful tools for implementing the policies of the 2010 Development Guide. The CIP process provides an inventory of anticipated capital projects, prioritizes these according to need, provides cost estimates, and analyzes the community's financing capabilities. Finally, it provides a schedule of project execution that relates projects to one another (e.g. scheduling sewer and water lines prior to or concurrent with road work in a given right-of-way) and to financing requirements.

The plan and the capital program take into account revenue and real property tax base trends, outstanding debt, debt service trends and legal debt limits. The capital plan is a major means of communication between one government department and another, between the executive and legislative branches of county government, and between the county and the development community and local governments which must be able to plan for growth in relation to infrastructure improvements. The capital plan includes anticipated capital projects regardless of whether these projects will be financed from current tax revenues, borrowing or grants.

## 2019 - 2024 Capital Plan Priorities

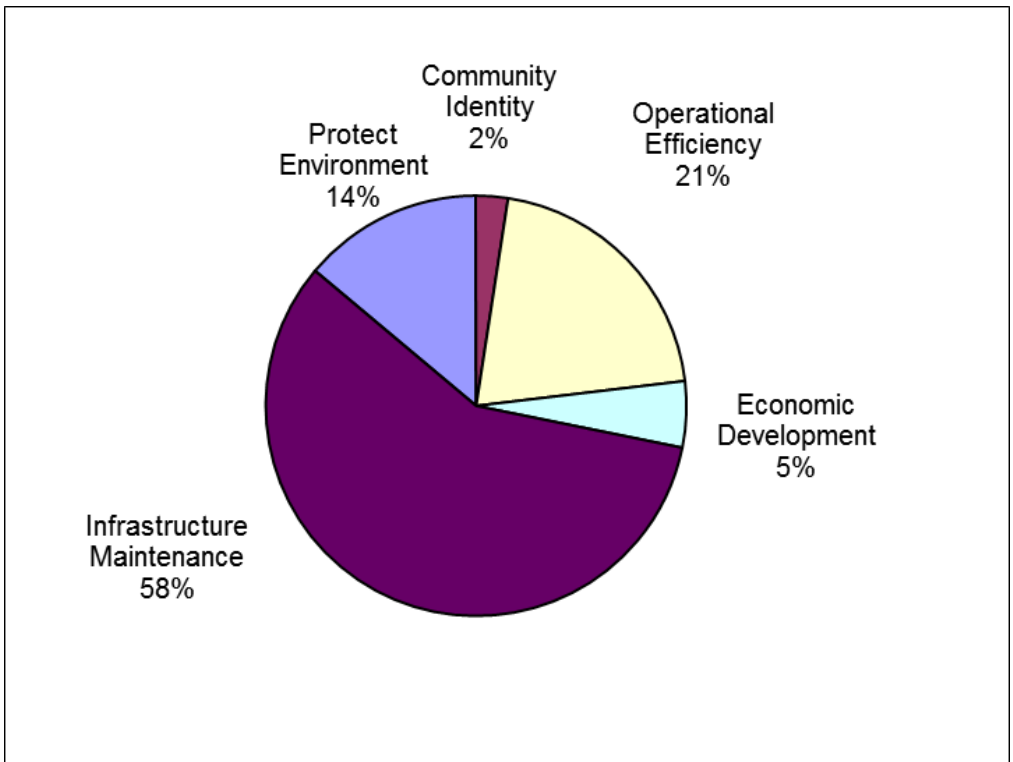
The 2019-2024 Capital Plan places high priority on projects that are consistent with the goals of the 2010 Development Guide. Most of our investments will be in the areas of infrastructure maintenance, environmental protection, and operational efficiency. Wastewater treatment projects account for 52% of the Capital Program. Mandated projects drive 39% of the proposed projects in this plan.

It should be noted that the Onondaga Lake project is now fully authorized. New wastewater treatment facilities and technologies will result in improved water quality in Onondaga Lake and the Seneca River system. The lake has become the focal point of large-scale private and public economic development projects, such as the Carousel Center, Inner Harbor redevelopment projects, William F. Walsh Transportation Center, the baseball stadium and renovated Regional Market, as well as expanded recreation and tourism initiatives such as Lakeview Amphitheater.

The highway program includes ten capital construction projects through 2024 in various locations throughout the urban and suburban parts of the county. Some of these projects represent reconstruction projects to address major rehabilitation of facilities, roads, bridges as well as drainage and shoulders, which will enhance safety. None of these projects are designed to increase capacity.

The graph that follows illustrates the percentage breakdown of the 2019-2024 Capital Plan priorities.

**2019-2024  
CAPITAL PRIORITIES**



## FUNDING SOURCES FOR CAPITAL PROJECTS

Funding sources for capital projects have, for the most part, been a combination of cash, municipal borrowing, and state and/or federal aid. More specifically, the sources cited in this document are as follows:

### Federal Monies

Federal Aid (FED) - The financing of eligible projects through the use of federal funds, other than federal revenue sharing.

### State Aid

State Aid (STA) - The financing of eligible projects through the use of state funds.

### Pay as You Go

Cash on Hand (COH) - Direct financing available from either surplus monies from prior years' taxation, unneeded balances in existing capital accounts, or earnings on temporary investments.

County Tax Revenues (CTR) - The cash financing of countywide, general fund supported projects by property taxes.

### Debt

#### Authorized

Countywide Authorized Borrowing (CAB) - The financing of a project by long or short-term borrowing that has been authorized by the County Legislature.

Special Districts Authorized Borrowing (DAB) - The financing of a project in a special district by long or short term borrowing that has been authorized by the County Legislature.

#### To Be Authorized

Countywide borrowing to be Authorized (CBA) - The financing of a project by long or short term borrowing that will require authorization by the County Legislature before the project can be undertaken.

Special Districts Borrowing to be Authorized (DBA) - Financing of a project in a special district by long or short term borrowing that will require authorization by the County Legislature before the project can be undertaken.

### Other Sources

Other (OTH) - The financing of projects from sources other than federal or state aid and not tax supported (i.e., private funds, fees).

### Operating Funds

Capital projects in this plan are managed in one of four separate operating funds. A fund is defined as an independent fiscal and accounting entity with a self-balancing set of accounts recording cash and/or other resources together with all related liabilities, obligations, reserves, and equities which are segregated for the purpose of carrying on specific activities or attaining certain objectives. All activities and obligations of each fund are carried out within that specific fund alone. The four funds are:

1. **General Fund:** The largest fund within the county, the General Fund accounts for most of the county's financial resources. General Fund revenues include property taxes, licenses and permits, local taxes, service charges, and other types of revenue such as federal and state aid. This fund usually includes most of the basic operating services, such as public safety, finance, data processing, parks and recreation, highway, and other direct operating support. (Unlike the special funds below, the Community College Fund and Library Fund do not have separate taxing ability and for presentation purposes are included in the general funds totals in this document. Borrowing for capital projects in these funds is done through the county General Fund.)
2. **Van Duyn Extended Care Fund:** This fund was established to service the operating needs of the Van Duyn Long Term Care Facility. The county no longer with covers this operation and the fund exists only to keep paying some scheduled debt that will be paid off by 2023.
3. **Water Fund:** The Water Fund was established to service the operations of the Metropolitan Water Board (MWB). On January 1, 2017, Onondaga County entered into a Cooperation Agreement with Onondaga County Water Authority (OCWA), which now leases and operate the assets of the MWB. Existing Water Fund debt service will continue to be the responsibility of Onondaga County and revenues used for such debt service will be collected by the County through the Water District's ad valorem assessment, with the remaining funds needed to support existing debt service to be received from OCWA under the Cooperation Agreement. All future maintenance expenditures and capital projects will be funded by OCWA for the 30-year term of the agreement.
4. **Water Environment Protection Fund:** The Water Environment Protection Fund (sewer fund), like the Water Fund, is a special district fund, established to service the operations of the Department of Water Environment Protection. This fund is wholly supported by revenues generated from a schedule of sewer rent charges, calculated in units, and assessed to service users of the Onondaga County Consolidated Sanitary District.

## ONONDAGA COUNTY DEBT MANAGEMENT PLAN

The primary component of Onondaga County's debt management practice is the review of capital projects and the related debt service costs by the County Executive and the Division of Management and Budget. All capital projects are reviewed not only as they relate to current capital needs, but also to optimize the county's fiscal ability to meet its future capital needs.

A major emphasis in the county's debt management practice is the pay-as-you-go concept. For debt that has to be retired within five years, for capital expenditures of less than \$250,000, and capital projects that are annually recurring costs, the objective is to pay the capital cost using operating funds.

Additionally, the county has established the following policies to guide its management of debt:

1. Debt service costs paid through the General Fund will not exceed 5.5% of total General Fund revenue.
2. The county's total net direct indebtedness will not exceed \$700 per capita or 1.5% of the full valuation of taxable property in the county.
3. Rapid pay down of debt will continue as a goal of the county's debt management policies, with a target of 65% of outstanding principal scheduled for retirement within ten years. This goal may be modified to reflect changes in the interest rate environment, which may argue for shorter or longer terms.

Local Finance Law prohibits the county from issuing debt in excess of the Debt Limit. The Debt Limit is defined as 7% of the five-year average full valuation of Taxable Real Property within the county. The county's use of its constitutional debt limit is 14.55% of its total capacity.

Bond counsel and the county's fiscal advisors play an important role in the bond issuing process. These consultants are influential in reducing borrowing costs by advising the county on how best to structure a bond issue and when best to go to market. They assist in the preparation of the county's Official Statement, ensuring that it meets all legal requirements, as well as including relevant information to present the county's

financial status and economic activities and comparisons. Additionally, they assist the county in the application for bond ratings, which provides investors with a symbol of credit quality that is easily recognized. Through careful fiscal planning and sound financial management, Onondaga County has earned the following ratings: Fitch AAA, S&P AA+, Moody's Aa2.

## **Debt Management - Department of Water Environment Protection**

For 2019, the County Executive is continuing the commitment to the current debt management efforts. While taking advantage of the current favorable interest rates we also utilize resources in the Department's operating budget to fund recurring capital needs. The main components of the plan call for greater investment in preventive maintenance, rapid retirement of debt that is issued, and the strategic use of the Water Environment Protection (WEP) designated fund balance and reserve for bonded debt. Many WEP authorized projects have been financed through the New York State Environmental Facilities Corporation (EFC). The EFC's no-interest construction loans and subsidized-interest long-term bonds have eased the interest rates the Department pays. The County Executive is committed to continued optimization of funding sources for the implementation of the plan.



# FINANCIAL SUMMARIES

## Section 2





## **ESTIMATED DEBT SERVICE**

### **Borrowing Funds**

Several methods are available to finance capital improvement projects. Onondaga County, like most governmental units, borrows money in order to acquire land and equipment, construct buildings, and make renovations and improvements. The cost of these capital projects is normally financed by the issuance of debt obligations, which are then repaid over several years along with the interest incurred on the borrowings. An amount is included in the county's annual operating budget to make these payments, which is defined as debt service. This policy enables the cost of these capital assets to be borne by the present and future taxpayers receiving the benefit of the capital assets or improvements.

The use of debt to finance capital projects has several advantages. Among other things, it allows the county to obtain for current use a capital facility that would go beyond its capacity to finance on a pay-as-you-go basis. In addition, the flexibility associated with the repayment of bonds allows the county to smooth out its expenditure pattern over a period of several years. The manner in which principal payments are structured has a large cumulative effect on interest payments, cash flow, and subsequently the county's operating budget.

Estimated debt service schedules are prepared to illustrate the current outstanding debt and the fiscal impact of new capital project requests on future debt service. This serves as a fiscal tool integral to the capital improvement planning process. These schedules, as well as graphs depicting the projected debt service payments if all projects were authorized, can be found in section 3 of this document.

In 2000, Onondaga County defeased \$10.7 million of debt using its fund balance. The County Legislature had passed a resolution in November 1999 that established a fund balance target of 10% of General Fund revenues. Any excess would be used to avoid or reduce debt and provide property tax relief. The defeasance had a benefit to taxpayers of \$11.7 million in 2000-2004. In August 2001, the county participated in a pooled financing with five other New York counties to sell its rights to the tobacco revenues guaranteed under the Master Tobacco Settlement Agreement with the four major tobacco companies. This resulted in defeasing \$95 million in Onondaga County General Obligation debt, lowering total debt service by \$130 million during the years 2002-2021. Again, in 2005, the county participated in another pooled financing with twenty-three other New York counties. With the proceeds, \$19.9 million of scheduled debt was defeased, benefiting the years 2007-2025. An additional \$11.6 million was set aside to finance energy saving initiatives, thereby avoiding debt. Taking advantage of the lowest interest rate environment in forty years, the county refunded \$18.5 million of ten year old bonds in 2003, saving \$1.8 million through 2014. In 2007, \$8 million in cash was used to fund capital projects, avoiding debt and maintaining the county's 10% fund balance target. In 2009 and 2012, successful refunding issues resulted in savings of \$3.3 million and \$1.2 million respectively. In 2014 the county issued \$19.6 million of refunding bonds saving over \$1.1 million and in 2015 the county issued \$11.4 million in refunding bonds saving \$0.66 million. The County once again refunded bonds in 2016 totaling close to \$34.8 million resulting in NPV savings of approximately \$3.2 million for 2017 through 2033. In 2017 the County refunded the 2013 bond issuance for a total issuance size of \$33,835,000. This resulted in an NPV savings of \$3.5 million.

The county actively monitors its outstanding debt, reviewing candidates for refunding opportunities, which will provide a target NPV of 3% savings. In 2010, the county maximized its interest savings by issuing a mix of tax-exempt, Build America (35% interest subsidy), and Recovery Zone (45% interest subsidy) bonds.

As evidenced on page 21, the county's net indebtedness is currently at 14.55% of its total borrowing capacity.

### **Borrowing Criteria**

In general, the State Legislature has granted the power and defined the procedure for the county to issue debt by enactment of the Local Finance Law (Chapter 33-A of the Consolidated Laws of New York). One central requirement states that the duration of debt payments cannot exceed the Period of Probable Usefulness (PPU). The maximum number of years over which bonded debt payments may be scheduled is determined by Bond Counsel in accordance with specifications outlined in the Finance Law relative to the item for which the debt is incurred (Ref. Paragraph A of Section 11 of the Local Finance Law; Paragraph C of Section 21 of the Local Finance Law).

## *Financial Summaries*

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Pursuant to the Local Finance Law, the Onondaga County Charter and the County Law, the county authorizes the issuance of bonds by the adoption of a bond resolution, which must be approved by at least two-thirds of the members of the County Legislature. Upon approval, the County Legislature delegates to the County's Chief Fiscal Officer the power to authorize and sell bond anticipation notes in anticipation of bonds. Each bond resolution authorizes the construction, acquisition or installation of the object or purpose to be financed, the plan of financing, the amount of money being borrowed, and the PPU, which is also the maximum maturity of the bonds subject to legal restrictions.

Within these bonding requirements, the county has considerable flexibility in its borrowing program by issuing two basic forms of debt instruments: Serial Bonds (bonds) and Bond Anticipation Notes (BANs). BANs, due to their short term duration, (one year or less, renewable up to four times, not to exceed the PPU) are used to facilitate those borrowings for projects that have a PPU of five years or less, or are relatively small in amount or otherwise inappropriate for long term borrowings. In addition, BANs allow the county the flexibility to convert BANs to Serial Bonds when interest rates are most beneficial for long term debt. Any adjustments in principal payments, whereby the intent is to schedule debt retirement in less than the mandated period, must be done while the debt is still in the form of BANs. Flexibility is lost once BANs are converted to serial bonds. There is an exception to the four-time renewal limitation on BANs for Special District borrowing for Sewer and Water. BANs may be renewed indefinitely for special districts as long as it does not violate the assigned PPU.

### Methodology

County departments' capital projects are organized alphabetically in this book. Each project includes a brief description, the cost summary and cash flow schedule for each of the years 2019-2024, the project detail, tentative financing plan, and status. Estimated debt service is calculated based on the cash flow schedule for those projects indicating the use of borrowing to finance the project in whole or in part.

Debt service for each capital project that anticipates borrowing has been calculated based on the following assumptions and calculations applied in projecting the payment schedules:

- 1 Interest rates are based on length and type of instrument used. While actual payments are determined by market conditions at the time of issuance, for planning purposes in this document, estimated payments were calculated using level debt payment schedules for a maximum of twenty years, at a 4% interest rate (certain Sewer Fund estimated payments could be calculated at 2.5% interest, anticipating the use of State revolving funds).
- 2 No principal payment is assumed in the first year.

### Market Factors Affecting Bonds

The market for Bonds and Notes is affected by a variety of factors, some of which are beyond the county's control. Adverse events or ratings downgrades at the Federal or State levels may occur, which could affect the market price of and the market for the Bonds and Notes. If a significant default or other financial crisis should occur in the affairs of the state or of any of its agencies or political subdivisions, it could impair the acceptability of obligations issued by borrowers within the state. Both the ability of Onondaga County to arrange for additional borrowings, and the market for and market value of outstanding debt obligations, including the Bonds and Notes, could be negatively affected.

## Debt Limits

Local Finance Law permits the county to issue General Obligation debt up to a statutory Debt Limit. The Statutory Debt Limit is 7% of the five-year average full valuation of Taxable Real Property within the county. Total Net Indebtedness is calculated by adding the county's short and long-term debt and subtracting the legal exclusions. As of August 2, 2018 the county had utilized 14.55% of its Statutory Debt Limit.

Should all Authorized and Unissued debt be issued this would represent 1.42% of the debt limit.

If the entirety of the projects proposed in the 2019 CIP advance and the corresponding debt is issued by the county in 2019 to fund said projects, this debt would represent 1.36% of the debt limit but combined with the debt that will retire in 2019 the net effect is a 0.05% of the debt limit. The following table shows the calculation of Total Net Indebtedness.

### Calculation of Total Net Indebtedness

5-Year Average Full Valuation of Taxable Real Property	\$27,456,474,676			
Debt Limit (7% of 5-year average) (1)	\$1,921,953,227			
Outstanding Indebtedness	Scheduled Debt as of August 2, 2018	Authorized and Unissued Debt	Proposed Debt for 2019	Total Debt as of Dec 31, 2019
Bonds	\$602,004,177			
Bond Anticipation Notes	\$1,874,974			
Outstanding Gross Indebtedness	\$603,879,151	\$166,159,483	\$94,162,000	\$864,200,634
Less Exclusions (Sewer, Water, Defeased Debt)	(\$324,295,327)	(\$138,895,510)	(\$68,091,000)	(\$531,281,837)
Less Retired Debt			(\$25,127,470)	(\$25,127,470)
Total Net Indebtedness	\$279,583,824	\$27,263,973	\$943,530	\$307,791,327
Debt Limit Margin	\$1,642,369,403			\$1,614,161,900
Percentage of Debt Limit Exhausted	14.55%	1.42% <span style="color: green;">▲</span>	0.05%	16.01%

(1) *The Debt Limit of the county is computed in accordance with the provisions of Article VIII of the State Constitution and Title 9 of article 2 of the Local Finance Law.*

## CAPITAL PROJECT CLASSIFICATIONS

Capital projects are organized in this document by fund: County Wide Funds (General Fund, County Road, Community College and Library fund), and Special Funds (Water Fund, and Sewer Fund). They are then classified according to a continuum of capital project development from idea to completion. This serves two purposes. The first purpose is to provide better control of the individual project proposals by providing a series of milestones, each with increasingly stringent standards for planning and financial data, to track the progress of each project. Second, the system provides a more accurate perspective of the overall progress of the CIP. The project development classifications are:

- 1 *Completed Projects:* Those capital projects previously scheduled that have been completed in the preceding year.
- 2 *Authorized Projects:* Those projects which have been authorized by the County Legislature and are in varying stages of progression, ranging from bonds being authorized but not yet issued to anticipated project completion in the current year.
- 3 *Proposed Projects:* Those projects at a sufficient level of development to be scheduled in the CIP for legislative consideration. Each proposed capital project in this document has received a Level of Development rating. The rating was determined by the development phase of the project as outlined in the project application. These ratings and their descriptions are as follows:
  - **Advanced:** A project assigned an advanced rating is ready to be presented for Legislative authorization; the capital project application is complete and information is reliable.
  - **Intermediate:** A project is assigned an intermediate rating when the problems and causes have been identified, possible alternative solutions have been examined, and a plan has been selected. An intermediate rating is also assigned to projects that have established or are in the process of establishing project scope, and/or maintenance and operations estimates.
  - **Preliminary:** A project is assigned a preliminary rating when project definition is being established or an in-depth needs assessment is being conducted in order to determine any of the following: in-depth identifications, examination, selection and description or alternative solutions to the problem.

## PROJECT ACTIVITY BY DEPARTMENT

Department	Completed Projects	Authorized Projects	Proposed Projects	Fund
COUNTY CLERK (RECORDS)	0	1	0	General Fund
DEPARTMENT OF CORRECTIONS	5	0	1	General Fund
ELECTIONS BOARD	1	0	0	General Fund
EMERGENCY COMMUNICATIONS	13	6	8	General Fund
FACILITIES MANAGEMENT	13	6	6	General Fund
FINANCE DEPT	0	1	0	General Fund
HILLBROOK DETENTION HOME	1	1	0	General Fund
INFORMATION TECHNOLOGY	0	1	1	General Fund
METROPOLITAN WATER	2	2	0	Water
OFFICE OF ENVIRONMENT	0	0	2	General Fund
ONONDAGA COMMUNITY	32	1	4	Community College
ONONDAGA COUNTY PUBLIC LIB.	3	0	1	Library
PARKS & RECREATION DEPT.	8	6	9	General Fund
SHERIFF CUSTODY	1	0	0	General Fund
SHERIFF POLICE/CIVIL	1	0	1	General Fund
TRANSPORTATION	0	1	9	County Road
TRANSPORTATION	3	0	0	General Fund
VAN DUYN EXTENDED CARE	6	0	0	Van Duyn
WATER ENVIRONMENT	22	10	12	Drain & San
<b>Total</b>	<b>111</b>	<b>36</b>	<b>54</b>	

## PROPOSED CAPITAL PROJECT SUMMARY (2019-2024)

The following is a list of proposed projects and their estimated six year cost broken down by fund (\$ in 000's)

### County Wide

Department	STATUS	PROJECT	2019 - 24 Total
<b>General Fund</b>			
DEPARTMENT OF CORRECTIONS			
		Physical Plant Improvements and Security Upgrades	986
		Subtotal	\$ 986
EMERGENCY COMMUNICATIONS			
		Auxiliary Power Systems Replacement	688
		Computer Aided Dispatch (CAD) System Hardware Refresh	903
		Next Generation 911 (NG-911) Telephone System Replacement/Refresh	3,659
		Oblique Aerial Digital Imagery Refresh (2019)	300
		Public Safety Radio Tower Replacement	265
		Repave E911 Center Parking Lot	344
		Replacement of Mobile Data Communications Network (MDCN) Infrastructure	3,600
		Tower Site Shelter Rehabilitation	1,091
		Subtotal	\$ 10,850
FACILITIES MANAGEMENT			
		Carnegie Library Rehabilitation	4,101
		Community Plaza Garage	1,350
		Courthouse - HVAC Renovations	10,000
		Facilities Various Capital Improvements	7,500
		LED lighting upgrade in various buildings in downtown campus	535
		Oncenter Rehabilitations	1,500
		Subtotal	\$ 24,986
INFORMATION TECHNOLOGY			
	<b>new</b>	Technology Refresh (NEW)	1,581
		Subtotal	\$ 1,581
OFFICE OF ENVIRONMENT			
		Ash Tree Management	4,500
		Beach Development at Onondaga Lake Park	300
		Subtotal	\$ 4,800
PARKS & RECREATION DEPT.			
		Building an AZA Required Animal Medical Care Center with African Savannah Exhibit	15,050
		Carpenters Brook Fish Hatchery Pond Repair	302
		Lights on the Lake Storage Facility	370
		Long Branch Park Improvements	1,950
		Park Improvements/Willow Bay	2,740
		Park Roads, Parking Areas, and Trail Paving	4,335
	<b>new</b>	Parks Infrastructure Rehabilitation (NEW)	2,627
		Playground Improvements	1,800
		Salt Museum Rehabilitation	310
		Subtotal	\$ 29,484
SHERIFF POLICE/CIVIL			
		Sheriff's New Headquarters Facility	869
		Subtotal	\$ 869
		<b>General Fund Total</b>	<b>\$ 73,556</b>

## Financial Summaries

### County Wide

Department	STATUS	PROJECT	2019 - 24 Total
<b>Library</b>			
ONONDAGA COUNTY PUBLIC LIBRARY			
		Petit Branch Library addition and improvements	885
			-----
<b>Library Total</b>			<b>\$ 885</b>

### Community College

ONONDAGA COMMUNITY COLLEGE			
		Allyn Hall Upgrades and Improvements	2,780
		Elevator Replacement and Upgrades/ Protection of the Campus E-mail and Phone Servers	646
		Infrastructure - Campus Wide	10,488
		Site Improvements	2,718
			-----
<b>Community College Total</b>			<b>\$ 16,632</b>

### County Road

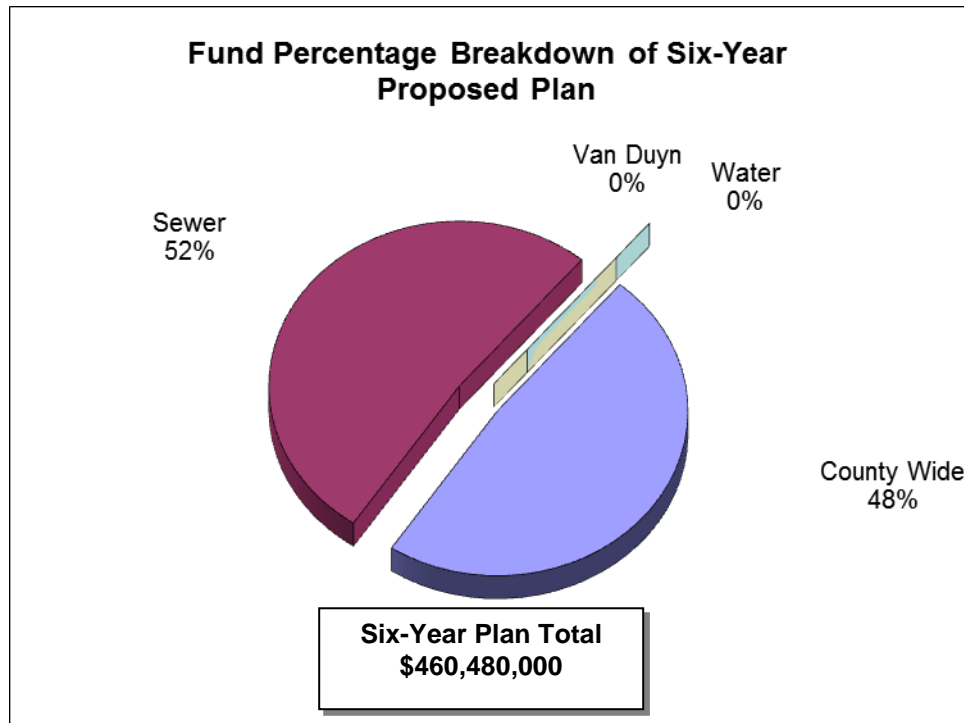
TRANSPORTATION			
		Bituminous Surface Treatment	11,808
		Bridges	6,930
		Capital Highway Construction	10,550
		Caughdenoy Road / NYS Route 31 Road Improvements	4,120
		Cold Mix Bituminous Paving	25,022
		Guide Rail	2,940
		Repaving Program (Hot Mix Bituminous)	64,800
		Testing, Drainage and Facilities Repair	3,300
		Traffic Systems Management	1,990
			-----
<b>County Road Total</b>			<b>\$ 131,360</b>
<b>County Wide Total</b>			<b>\$ 222,433</b>

### Special Funds

Department	STATUS	PROJECT	2019 - 24 Total
<b>Sewer</b>			
WATER ENVIRONMENT PROTECTION			
		Baldwinsville Seneca Knolls WWTP Disinfection and Phase II Asset Renewal Improvements	22,924
		Brewerton WWTP Asset Renewal Improvements	12,575
		Camillus Force Main Replacement	6,500
		Energy Efficiency Improvements/Performance Contracting	25,141
		Harbor Brook Miscellaneous Culvert and Channel Improvements	400
		Ley Creek/Liverpool Force Main Rehabilitation/Replacement Project	17,300
<b>new</b>		Meadowbrook-Limestone WWTP Inflow & Infiltration Abatement (NEW)	9,000
<b>new</b>		Metropolitan (Metro ) Wastewater Treatment Plant - Thickener Rehabilitation (NEW)	3,730
		Metropolitan (Metro) Wastewater Treatment Plant - Phase II Digester Improvements	27,680
<b>new</b>		Metropolitan WWTP Biosolids Drying System (NEW)	15,106
		Oak Orchard WWTP Secondary Clarifier Rehabilitation	6,200
		Wastewater Transportation System Improvements	91,491
			-----
<b>Sewer</b>			<b>\$ 238,047</b>
<b>Special Funds Total</b>			<b>\$ 238,047</b>
<b>Grand Total</b>			<b>\$ 460,480</b>

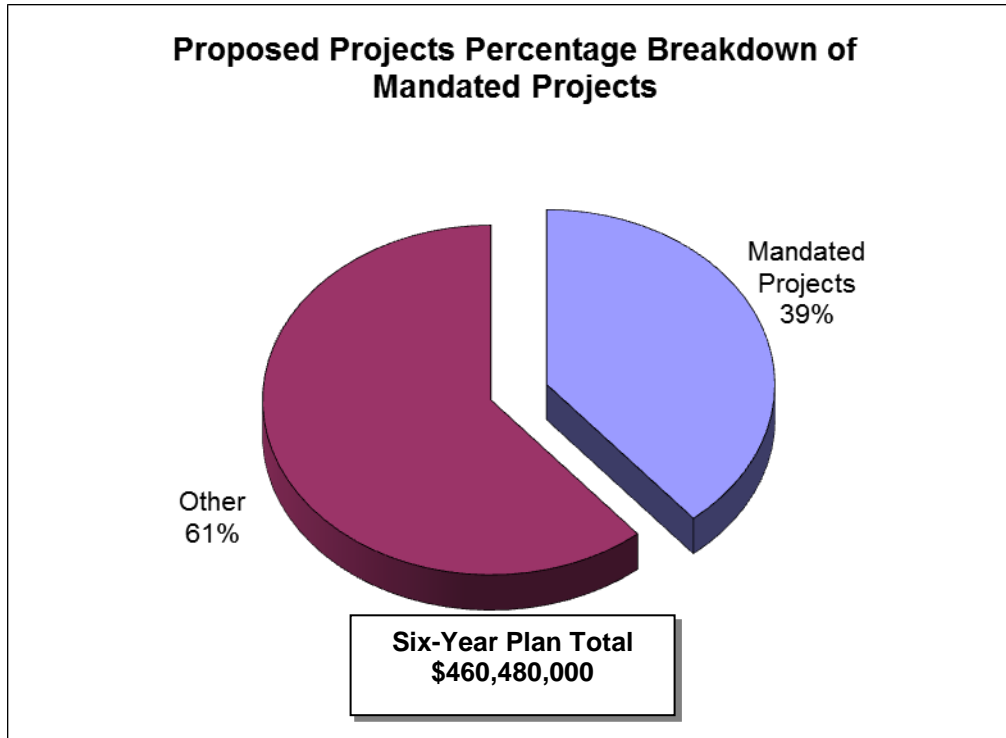
## Financial Summaries

Out of the 54 projects proposed in this plan, 42 are in the Countywide Funds, and they account for 48% of the costs, as illustrated by the graph below.



## MANDATES

Of the \$460,480,000 in proposed projects, 39% are the result of environmental and other mandates established by either federal or state law. These are projects that the county is compelled to do by legal requirement, and in some cases, as a result of court order. Failure to place a high priority on projects addressing mandated requirements could result in fines, license restrictions, and loss of aid. Within the confines and challenges that mandates have placed on the county's capital planning efforts, 61% of this plan's proposal focuses on non-mandated infrastructure maintenance, operational efficiency, environmental protection, community identity, and economic development in an effort to preserve existing assets and enhance growth and development opportunities in the county.



## PROPOSED FUNDING SOURCES

To achieve a balanced program that effectively serves the community's needs, careful attention must be given to the methods or sources of funding for capital projects. Customarily, projects are funded through the issuance of debt, cash capital, federal and state aid, and to a lesser degree other sources such as private donations, fees, etc. Projects that benefit present and future taxpayers are generally financed through the issuance of debt so as to more fairly spread the cost. Cash capital is the preferred method of financing for smaller projects, and more importantly, recurring or maintenance related projects. Federal and state aid is sought for any appropriate project, as well as alternate sources of funding such as donations and fees. To the extent that a municipality carefully plans for the strategic use of these various funding sources, taxpayer dollars will realize maximum effectiveness. The chart below shows the anticipated sources of funding for the proposed projects in this plan, by fund and for all funds combined. The following page shows the impact of the county's effort to address the issue of financing sources in the General Fund and other funds.

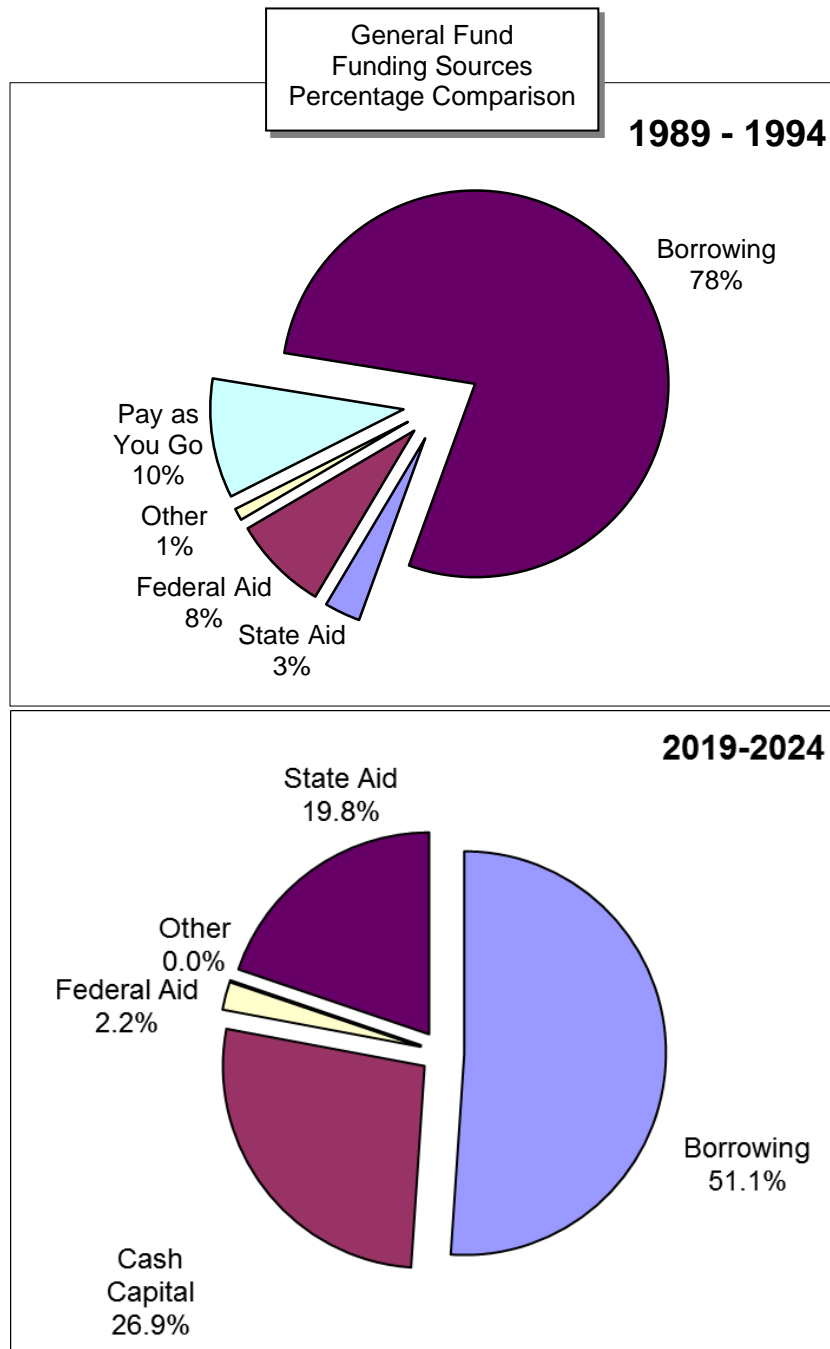


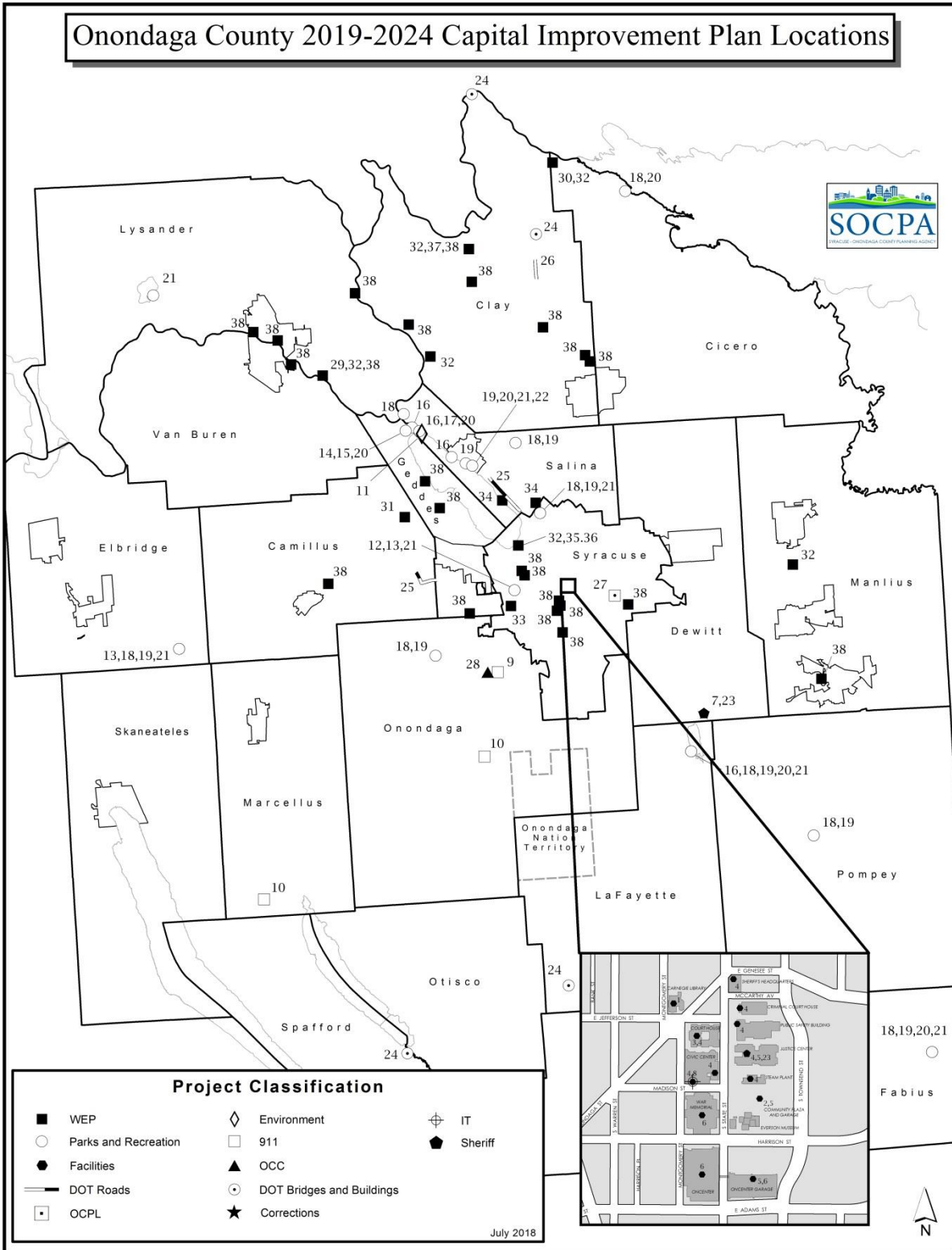
## FUNDING SOURCES OF PROPOSED PROJECTS

<b>County Wide</b>	<b>2019</b>	<b>2020</b>	<b>2021</b>	<b>2022</b>	<b>2023</b>	<b>2024</b>	<b>6yr Total</b>
<b>General Fund</b>							
Pay as You Go		1,000	1,000	1,000	1,000	1,000	<b>5,000</b>
Authorized Borrowing	869						<b>869</b>
Borrowing to be Authorized	17,821	13,975	19,734	7,040	7,126	1,250	<b>66,946</b>
State Aid	300	441					<b>741</b>
<b>SUB TOTALS</b>	<b>\$18,990</b>	<b>\$15,416</b>	<b>\$20,734</b>	<b>\$8,040</b>	<b>\$8,126</b>	<b>\$2,250</b>	<b>\$73,556</b>
<b>County Road</b>							
Pay as You Go	1,240	4,600	8,000	10,800	13,400	16,550	<b>54,590</b>
Borrowing to be Authorized	8,000	11,120	6,000	5,000	4,000	3,000	<b>37,120</b>
Federal Aid	1,800	3,200					<b>5,000</b>
State Aid	5,850	6,240	5,640	5,640	5,640	5,640	<b>34,650</b>
<b>SUB TOTALS</b>	<b>\$16,890</b>	<b>\$25,160</b>	<b>\$19,640</b>	<b>\$21,440</b>	<b>\$23,040</b>	<b>\$25,190</b>	<b>\$131,360</b>
<b>Library</b>							
Borrowing to be Authorized		485					<b>485</b>
State Aid		350					<b>350</b>
Other		50					<b>50</b>
<b>SUB TOTALS</b>		<b>\$885</b>					<b>\$885</b>
<b>Community College</b>							
Borrowing to be Authorized		1,390	1,682	5,244			<b>8,316</b>
State Aid		1,390	1,682	5,244			<b>8,316</b>
<b>SUB TOTALS</b>		<b>\$2,780</b>	<b>\$3,364</b>	<b>\$10,488</b>			<b>\$16,632</b>
<b>County Wide TOTALS</b>	<b>\$35,880</b>	<b>\$44,241</b>	<b>\$43,738</b>	<b>\$39,968</b>	<b>\$31,166</b>	<b>\$27,440</b>	<b>\$222,433</b>
<b>Special Funds</b>							
<b>Sewer</b>							
Pay as You Go	7,951	8,182	8,200	8,180	8,300	8,450	<b>49,263</b>
Authorized Borrowing	5,283	6,341	1,715	614	100		<b>14,053</b>
Borrowing to be Authorized	17,585	40,243	44,674	34,279	23,850	14,100	<b>174,731</b>
<b>Sewer TOTALS</b>	<b>\$30,891</b>	<b>\$54,766</b>	<b>\$54,589</b>	<b>\$43,073</b>	<b>\$32,250</b>	<b>\$22,550</b>	<b>\$238,047</b>
<b>GRAND TOTAL</b>	<b>\$66,699</b>	<b>\$99,007</b>	<b>\$98,327</b>	<b>\$83,041</b>	<b>\$63,416</b>	<b>\$49,990</b>	<b>\$460,480</b>

## Financial Summaries

Recognizing national trends and growing mandate requirements, the county is continuously examining its financing strategies. The goal has been to reduce debt issuance when possible, saving taxpayer dollars and maximizing other resources without compromising the commitment to preserving existing assets and stimulating growth and development. This has resulted in far fewer dollars being spent on interest costs for general fund supported projects. This is illustrated in the comparison of the two graphs below, one depicting the funding source percentages for general fund projects in the current plan, and the other depicting those sources for the 1989-1994 Capital Plan. You will note that the 1989 plan anticipated funding 78% of the General Fund proposed project costs through borrowing, while the current plan calls for 50.9% funding through borrowing.





# Financial Summaries

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## FACILITIES MANAGEMENT

1. Carnegie Library Rehabilitation
2. Community Plaza Garage
3. Court House - HVAC Renovations
4. Facilities Various Capital Improvements
5. LED Lighting Upgrades (Downtown Campus)
6. Oncenter Rehabilitation

## DEPARTMENT OF CORRECTIONS

7. Physical Plant Improvements and Security Upgrades

## INFORMATION TECHNOLOGY

8. Technology Refresh

## EMERGENCY COMMUNICATIONS (E-911)

9. Auxiliary Power Systems Replacement
9. Computer Aided Dispatch (CAD) System Hardware Refresh
9. Next Generation 911 (NG-911) Telephone System Replacement/Refresh
9. Repave E911 Center Parking Lot Asset Renewal Improvements
9. Oblique Aerial Digital Imagery Refresh
9. Replacement of Mobile Data Communications Network Infrastructure
9. Tower Site Shelter Rehabilitation
10. Public Safety Radio Tower Replacement

## ENVIRONMENT

11. Beach Development at Onondaga Lake

## PARKS AND RECREATION

12. Building an AZA Required Animal Med. Care Center with African Savannah Exhibit
13. Carpenter's Brook Fish Hatchery Pond Repair
14. Lights on the Lake Storage Facility
15. Long Branch Park Improvements
16. Park Buildings
17. Park Improvements/Willow Bay
18. Park Roads, Parking Areas, and Trail Paving
19. Park Infrastructure
20. Playground Improvements
21. Replace Obsolete Heating Venting and Air Conditioning (HVAC)
22. Salt Museum Rehabilitation

## SHERIFF CUSTODY

23. Upgrades of Security Operation and Inmate Information Systems

## TRANSPORTATION

24. Bridges
25. Capital Highway Construction
26. Caughdenoy Road/NYS Route 31 Road Improvements

## ONONDAGA COUNTY PUBLIC LIBRARY

27. Petit Branch Library Additions and Improvements

## ONONDAGA COMMUNITY COLLEGE

28. Allyn Hall Upgrades and Improvements
28. Elevator Replacement and Upgrades/Protection of the Campus E-mail and Phone Servers
28. Infrastructure - Campus Wide
28. Site Improvements

## WATER ENVIRONMENT PROTECTION

29. Baldwinsville-Seneca Knolls WWTP Disinfection and Phase II
30. Brewerton WWTP Asset Renewal Improvements
31. Camillus Force Main Replacement
32. Energy Efficiency Improvements/Performance Contracting
33. Harbor Brook Miscellaneous Culvert and Channel Improvements
34. Ley Creek/Liverpool Force Main Rehabilitation/Replacement Project
35. Metro WWTP Phase II - Digester Improvements
36. Metro WWTP Thickener Rehabilitation
37. Oak Orchard WWTP Secondary Clarifier Rehabilitation
38. Wastewater Transportation System Improvements

# CAPITAL PROJECTS

## Section 3

### COUNTYWIDE FUNDS

GENERAL

COMMUNITY COLLEGE

COUNTY ROADS

### SPECIAL FUNDS

WATER DISTRICT

SEWER DISTRICT



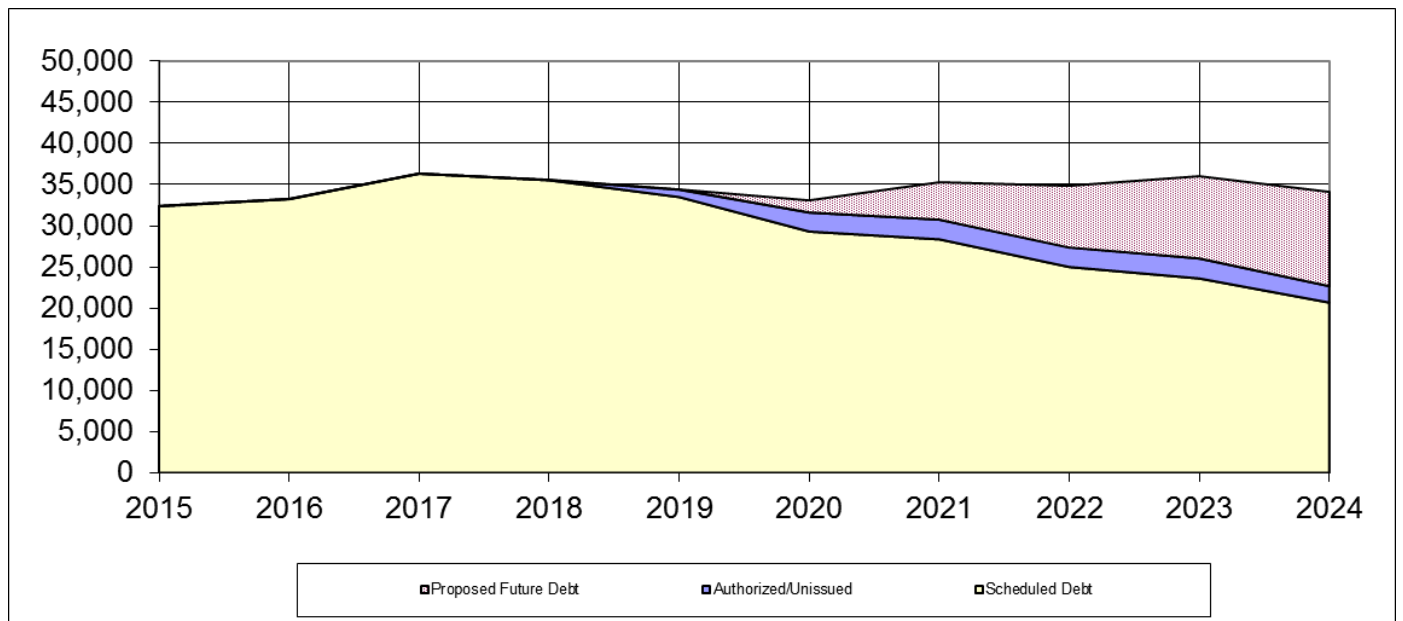
## COUNTYWIDE CAPITAL PROJECTS

Capital projects are organized into two sections: Countywide projects that include the General Funds, the Library Fund, and the Community College Fund; and Special Funds, which are the Van Duyn Fund, the Water Fund and the Sewer Fund. All projects require the recommendation of the County Executive and the authorization of the County Legislature. The Countywide fund projects address most of the basic operating services such as public safety, finance, data processing, parks and recreation, highway, and other direct operating services. Debt service for borrowing associated with these capital projects is an operating budget expense supported primarily by the property tax levy and sales tax revenues. As discussed in previous sections, the county has placed a high priority on maximizing the use of taxpayer dollars through judicious use of debt issuance.

Unlike the Countywide projects, projects initiated through the Special Funds departments are supported by revenues raised within those individual funds. They do not rely on financial support from the general property tax levy.

Below is a graph depicting scheduled debt service supported by the General Fund as well as estimated debt service for projects that have been authorized by the County Legislature but debt has not yet been issued, and estimated debt service for the proposed projects that follow in this section. Borrowing for the Community College and the County Library is included in General Fund borrowing. Special funds borrowing is not included.

**General Funds  
Scheduled & Estimated Debt Service  
2015-2024**



A debt service summary associated with the graph above can be found on the next page, followed by summary information of the currently authorized projects. Following the authorized project information is information on proposed future projects to be supported by the general funds, beginning with a summary of projects and estimated six year expenses, then a breakdown of the proposed source of funds for these projects and the estimated debt service for these projects that will require part or whole funding with borrowed funds. The estimated debt service for these projects is shown in the graph above. The same information is presented for the special funds.

*Countywide Funds*

**General Funds  
Debt Service Summary**

Payments in (\$000's)

	2014	2015	2016	2017	2018	2019	2020	2021
<b>Principal &amp; Interest <u>Scheduled Debt</u></b>	30,187	32,399	33,251	36,334	35,528	33,676	29,231	28,287
<b><u>Estimated Debt</u></b>								
<i>Authorized &amp; Unissued</i>	0	0	0	0	0	1,123	3,692	5,115
<i>Proposed Future Debt</i>	0	0	0	0	0	0	1,549	4,600
<b>Total</b>	<b>30,187</b>	<b>32,399</b>	<b>33,251</b>	<b>36,334</b>	<b>35,528</b>	<b>34,799</b>	<b>34,472</b>	<b>38,002</b>
	2022	2023	2024	2025	2026	2027	2028	2029
<b>Principal &amp; Interest <u>Scheduled Debt</u></b>	24,850	23,450	20,529	18,302	15,892	13,480	11,142	10,117
<b><u>Estimated Debt</u></b>								
<i>Authorized &amp; Unissued</i>	5,189	5,203	4,736	4,472	4,472	4,472	4,472	4,459
<i>Proposed Future Debt</i>	7,472	10,020	11,506	12,042	11,597	11,080	9,920	9,484
<b>Total</b>	<b>37,511</b>	<b>38,673</b>	<b>36,771</b>	<b>34,816</b>	<b>31,961</b>	<b>29,032</b>	<b>25,534</b>	<b>24,060</b>
	2030	2031	2032	2033	2034	2035	2036	2037
<b>Principal &amp; Interest <u>Scheduled Debt</u></b>	9,283	7,339	6,710	5,494	5,204	4,548	3,681	2,988
<b><u>Estimated Debt</u></b>								
<i>Authorized &amp; Unissued</i>	4,319	4,319	4,319	4,319	3,580	2,783	2,715	2,697
<i>Proposed Future Debt</i>	9,055	8,220	7,818	7,540	6,770	6,547	5,686	4,380
<b>Total</b>	<b>22,657</b>	<b>19,878</b>	<b>18,847</b>	<b>17,353</b>	<b>15,554</b>	<b>13,878</b>	<b>12,082</b>	<b>10,065</b>
	2038	2039	2040	2041	2042	2043	2044	TOTAL
<b>Principal &amp; Interest <u>Scheduled Debt</u></b>	2,652	2,635	2,621	2,601	2,578	2,554	2,520	<b>292,364</b>
<b><u>Estimated Debt</u></b>								
<i>Authorized &amp; Unissued</i>	2,672	1,130	49	0	0	0	0	<b>80,307</b>
<i>Proposed Future Debt</i>	3,441	2,662	2,043	1,325	882	296	213	<b>156,148</b>
<b>Total</b>	<b>8,765</b>	<b>6,427</b>	<b>4,713</b>	<b>3,926</b>	<b>3,460</b>	<b>2,850</b>	<b>2,733</b>	<b>528,819</b>



## AUTHORIZED PROJECTS

Currently there are several Countywide Capital Projects that have been authorized by the County Legislature and are in varying stages of development, ranging from funds being authorized but not yet issued to projects anticipated to be completed in 2018. A brief summary of most of them follows.

### COUNTY CLERK (RECORDS DEPT)

#### **Replacement of Legacy County Clerk Document Management System**

Project On-going

In June 7, 2016 the County Legislature authorized \$600,000 to replace the legacy document management system for County Clerk. The application was written in-house and the documents are stored in a 10 year old obsolete content management system. The content management system is nearly out of space and the County Clerk Office is also in need of new functionalities to reduce manual processing and also generate income. The main feature desired is the means to allow for request and pay for copies (via credit card) of property documents online (on the internet). Such copies requested are mortgages, deeds, abstracts, judgments, power of attorney, etc. The funding for this project will be used for application licensing, customization, conversions and hardware.

### EMERGENCY COMMUNICATIONS

#### **Computer Aided Dispatch (CAD) System Refresh**

Project On-going

This project funds a refresh of Onondaga County's current Computer Aided Dispatch (CAD) system, which was installed in 2007. These computer workstations and servers were over 5 years old in 2012 and beyond their recommended lifecycle. This entails the scheduled refresh of computer hardware and the implementation of necessary software updates. This is critical to the reliability of dispatch operations. In April 2012 the contract with Intergraph, the CAD System vendor, was executed. The system has been installed. We are currently working with Intergraph and other vendors on minor issues.

#### **E911 Center Console Furniture Replacement**

Project On-going

On June 4, 2013, by resolution # 91, the County Legislature authorized borrowing of \$648,840 to replace thirty-six call taking, dispatch, and training room console furniture workstations that were installed in 2003 and are not compliant with the most recent computer workstation standards. This replacement took place simultaneously with the installation of the radio system replacement to minimize operational interruption and was completed in August 2014. We are still working on some minor updates on carpeting.

#### **E911 Center Facility Rehabilitation**

Project On-going

This project consisted in engaging an architectural firm to review current operational, administrative, technical support, storage needs, and physical and mechanical condition of the current E911 Center, and to make recommendations and provide cost estimates for replacements and repairs, improvements, and adjustments required to accommodate advancements in technology. The goal of this project was to study the current E911 Center, the former Hillbrook/Fire Control/OCSO South Station building and the campus area (parking lot, fences, etc.).

The County has engaged C&S Engineers to conduct the study. C&S has surveyed the properties and met with E911 staff on several occasions between December 2016 and April 2017. An initial draft of the study has been written and is currently being reviewed by E911 and C&S Engineering.

#### **E911 Main Center HVAC System Replacement**

Project On-going

In Fall 2014 we received legislative authorization for \$350,000 to fund the engineering design and to develop a request for proposals (RFP), which was issued in June 2015 and subsequently awarded through the County procurement process. The engineering design was completed in May 2016.

In May 2016 the County Legislature authorized \$1,788,852 for the construction phase of this project.

The replacement of the heat pumps will be accomplished by the successful bidder in close cooperation with engineers, County Facilities, and E911 Center staff to ensure that public safety communications operations and systems are not disrupted. Call taking and dispatch areas will moved to the Civic Center back-up site, as necessary, to permit work to be done on heat pumps, ducts and ventilation in operations floor area.

Bids were awarded in mid 2016 and Airside Technology was selected as the HVAC contractor. Knapp Electric was selected as the electrical contractor. 1st Point, LLC, was selected as the project manager. Work began in late 2016 and is in-progress at this time. Expected completion of the project is June 2019.

**Radio Tower & Property Rehabilitation**

Project            On-going

This project will fund the necessary refurbishing of selected 911 Center remote tower sites. This will include replacement of security fencing, upgrade of the IP remote video/audio monitoring system, installation of proximity detection, replacing roofs, siding, and doors as well as replacing the HVAC system at the Pompey legacy site to increase energy efficiency. We will also add quick generator connect “Jones Plugs” at all sites to allow emergency hook up of a portable generator in the event of a catastrophic generator failure.

Progress has been on-going. Fence repairs have been made and Jones plugs have been installed at all tower sites except E911. IP security cameras have been replaced but work is being done to accommodate the additional bandwidth of the new system. Work is pending on tower lighting and other incidentals.

**Replace E911 Radio Consoles**

Project            On-going

On April 4, 2013, by resolution # 049, the County Legislature accepted \$4,959,000 in NY State grant funds to replace twenty-three Motorola Gold Elite radio consoles including integrated radio recorders at the E911 Center, and twelve Motorola Gold Elite radio consoles including integrated radio recorders at the E911 back-up site. Consoles and associated back room equipment are computer based and were originally installed in 2003 (Main Center) and 2005 (back-up site), and are not fully compatible with future functionality improvements. The consoles have been replaced but there are still several on-going adjustments to the system which are being addressed with the remaining balance of the project.

**Replacement of Mobile Data Communications Network (MDCN)**

Project            Proposed

Legislative authorization for \$245,000 has been approved to determine the most efficient, cost effective, and reliable method of providing data connectivity to emergency responders and implement that solution. The E911 Center’s Mobile Data Communications Network (MDCN) Infrastructure was projected to reach its predicted end-of-life at the end of 2017. This will take into account the advances in wireless broadband communications technology and the cost of acquisition and maintenance of proprietary communications infrastructure. This included both data communications hardware as well as encryption software that meet federal CJIS standards for data security and integrity, infrastructure, and mobile data radio equipment.

**FACILITIES MANAGEMENT**

**Center for Forensic Sciences Building Rehab./Renovations**

Project            On-going

On June 7, 2016 the County Legislature authorized borrowing \$335,000 to finance this project which will provide for various improvements in the Center for Forensic Sciences. The scope of these improvements includes:

1. Installation of additional proximity card readers, electric locks and door position contacts on doors for six areas. We have received quotes and the work will be completed in 2018.
2. Retrofitting showers and eyewash stations for tempered water through the installation of tempering valves. We have received quotes and the work will be completed in 2018.
3. Architectural study and design related to the reorganization of forensic disciplines and staff in some areas within the Center, which are in need of renovations. We are in process of hiring the needed Architectural and Design services.
4. Replacement of the old remote entry intercom system. This work is already done.
5. Replacement of old morgue cooler door mechanisms. This work is already done.
6. Replacement of Medical Examiner overhead garage doors. This work is already done.
7. Sidewalk and Parking Lot Repair. We have received quotes and the work will be completed in 2018.
8. Replacement of water heaters. We have received quotes and the work will be completed in 2018.

## Countywide Funds

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Carpet and tile replacement in Center for Forensic Sciences and morgue floor resurfacing, which have previously been part of this project are already completed with 2016 funds, reducing the amount we need to borrow from \$390,000 to \$335,000.

### **Civic Center Office Maintenance, Repairs and Improvements**

Project On-going

This is an ongoing project. Since October 2011 the County Legislature has authorized 5 bond resolutions for a total of \$5,217,000. In addition, we appropriated \$400,000 from Fund Balance in 2012. This money was designated for the following scopes:

Masonry repointing and repairs to the street level brick veneer.

Renovations of floors 7, 8, 13, and 15 will include new office environments, painting, lighting, carpeting, and HVAC modifications. The aforementioned floors are the original floor configurations since the building was opened. This will increase operational efficiency for departments located in those spaces and improve air flow, as well as allow more natural lighting into these spaces.

In 2012 we were successful in renovating the west side of the Civic Center 15 with a strategy of open floor planning. We were able to create the swing space needed for other renovations as well as the temporary relocations for the departments displaced by the KOB abatement and demolition project. We also renovated a portion of 15 east and now a program of Mental Health occupies this area. We also renovated the space vacated by the Syracuse Symphony and moved Facilities offices to this space. We renovated the former CNY Arts offices and moved the Syracuse Opera into the more efficient consolidated space.

In 2016 completed the renovations of Bureau of Vital Statistics and Health Department, Floor 9 east.

In June 7, 2016 the County Legislature authorized \$801,000 which funds the construction of space renovations on floors 7 and 8 as well as HVAC upgrades, ADA upgrades, and security provisions in floors 7 and 8 that started in 2016 and continued in 2017.

We have completed the office design and construction for floors 6 and 7.

The funds allocated in 2018 will be used to continue and finish the above projects.

We plan on finishing by summer of 2019.

### **Civic Center Re-roof**

Project On-going

On June 7, 2016 the County Legislature authorized \$1,383,000 to re-roof the Civic Center.

The built-up IRMA roofs on the Civic Center Office Tower and theaters are, substantially, the original roofs installed in 1975, making them forty years old and beyond their expected life. Lately, we have experienced acceleration in leak conditions above the IT department. This project will require replacement of all insulation, wood blocking, walk path pavers, stone ballast, coping covers, brick veneer repointing, restoration of the integrity of the davit bases and associated flashings. An improvement in the thermal insulation value is required by code, which will offset some of the capital cost with ongoing added energy savings.

Due to emergencies experienced during 2014 we used \$500,000 cash in hand to replace the theater roofs.

The rest of the scope of this project will be completed in 2018.

### **Community Plaza and Walks Renovations**

Project On-going

The Community Plaza , Bernthal Way, and portions of the walks around the Everson Museum are repaired. A project to restore the deteriorated expansion joints is underway in design development. This will mitigate the leaks through the plaza into the museum spaces. Surrounding concrete sections will be replaced as well. Many of the walks in the proximity of the expansion joints, which are settled and/or heaved and severely cracked and uneven, will be addressed with this project, making the Community Plaza and Everson Museum areas more accessible to the public. The remaining balance of funds will be spent in 2018.

### **Edward Kochian County Office Building Rehab./Renovation**

Project On-going

This project entails the continued renovation of the Edward Kochian County Office Building, giving it an extended useful life of forty-five to fifty years with improved fire safety, reduced maintenance, and energy cost savings. As a result of the asbestos abatement we will continue upgrading finishes, mechanical systems, fire protection, lighting, furniture and improve energy management. Three of the eight floors (3, 7, and 8), as well as the basement, were completed in the past 10 years. We now have also renovated 6,5 and 1st floors. Our rehabilitations include ADA compliance and security enhancements.

The asbestos abatement in the Edward Kochian County Office Building (County Office Building) was completed in May 2013. As result of this abatement, the basement, first, second, fourth, fifth, and sixth floors as well as seventh and eighth floor lobbies, and the mechanical penthouse were made ready for renovation. We replaced air handlers, pumps, exhaust fans, drives, piping, chiller and controls. We provided specific climate control for new data closets. We added fire protection to the renovated floors. We completed the renovations of the first, fifth and sixth floors by fall of 2014 and this work included upgrades to the bathrooms on these floors. This allowed the Probation Department to move to the 1st and 5th floors before the end of 2014.

The additional funds authorized in 2015 will be used to continue to carry this project to completion, which means renovations of 4th floor, as well as the elevator lobbies on floors 2, 7 and 8, including bathrooms. The rehabilitation of the County Office Building will include HVAC systems and controlling upgrades, fire alarm, fire protection, managed electrical service, water use reduction in plumbing, safety and security provisions, audio and visual technologies, lighting enhancement with programmable technology, as well as ergonomics and ADA improvements. We expect energy use reduction and savings, department staff performance improvements, and increased useful life and security of our asset upon completion of this project. The 4th floor has been completed. The next and last floor we expect to renovate is the 2nd floor. The design is completed and the construction will be completed in 2018.

### **Remodeling Social Services Reception**

Project            On-going

In 12/04/2012, by Resolution #217, we received authorization of \$378,000, which was spent for the study and design for construction.

In 12/05/2017, by Resolution #192, we received authorization of \$3,000,000 which will be used for construction.

This project will provide for efficiency improvements in the Department of Social Services by renovating the Division of Temporary Assistance Intake - with attention to congestion reduction, staff and public safety, as well as security - to allow for streamlined and effective delivery of services.

The rehabilitation will include improved service environments, enhanced video surveillance, duress alarms, security stations, new public address systems, reconfigured client approaches, and progressive stations. The signage will be graphic lighted displays and call up. There will be interpretive language systems. In addition we will enhance access control on doors and barriers, and the new furnishings will be ergonomic, appropriately aligned with the program flow. The building systems will be rehabilitated to include improved, efficient and balanced HVAC, sustainable lighting solutions, and maintenance friendly BMS interfacing. ADA enhancements will include mechanical door operators, selective seating arrangements, comfortable approach, and service stations. We expect that a more comfortable yet durable environment will improve the services to the clients.

The asbestos abatement project in the Edward Kochian County Office Building was completed in May of 2013. Now we will continue with the design and a phased construction of this project.

## **FINANCE DEPT**

### **Tax Collection and Delinquency Software**

Project            On-going

This project was authorized by the County Legislature in December 2014 (Resolution # 212). The goal of this project is to standardize and modernize its delinquent tax collection software, as well as the tax collection software systems utilized by the nineteen towns, fifteen villages, and twenty-five school districts for which it guarantees taxes. There are currently several different vendors providing varying levels of services and support. At the end of each collection period a report of paid and unpaid taxes are turned over to the County and are uploaded/entered into the delinquency program so that we can begin to accept payments and enforce collection. These reports are often formatted differently, or in some instances, hand written. In addition, this process relies heavily on the experience, expertise, and technical ability of each individual Tax Collector/Receiver to send accurate and timely information. Standardizing the collection systems will ease this burden and allow the reconciliation process to be automated, while providing the County with a consolidated database throughout the collection period. We are now in the process of selecting a vendor and the project implementation will start this summer and finish in 18 months.

## HILLBROOK DETENTION HOME

### Hillbrook Detention Facility Improvements (NEW)

Project On-going

The County Legislature has authorized \$394,500 with resolutions #67, 06/2017 (\$253,500) and #186, 12/2017 (\$140,000) for Improvements and replacements of various elements of security and safety throughout the existing facility.

The scope of this project will include several elements and in early 2018 we started working on the following:

1. Replacement of existing surveillance system hardware and software.
2. Replacing existing outdated control panel/door release system with a guard tour system.

The next phase of the project will address the following scope elements:

1. Replacing the two-way radio system to include an emergency duress system.
2. Install security glass/doors in four unit lounge offices and replace flooring.
3. Replacing seven gymnasium doors.
4. Adding pole mounted IP cameras to the parking lot, access drive, and fence line.

All the items mentioned above are outdated and at the end of their life. It is hard and costly to maintain them and keep them functioning appropriately.

## INFORMATION TECHNOLOGY

### Enterprise Resource Planning (ERP)

Project On-going

The new system will integrate the payroll, financial and other systems into one, providing the ability to enter time, track leave balances, enter benefits information, view and process payroll and budget information, in one countywide system. This system will be flexible and robust enough to provide shared services. The end users will be provided with real time data and the ability to inquire into specific transactional information. The various numbers of platforms supported by IT and the in-house applications written around the current systems, which cost time and money to create and maintain, will be reduced.

In June 2010 the County Legislature authorized \$9,887,416 (BR-127) which was amended in May 2014 by issuing another \$988,741.

Under the initial investment of \$9,887,416, the County implemented PeopleSoft Financials and Hyperion modules which now support Budgets, Purchasing and Payables for all departments within the County. The amended amount of \$988,741 is currently being used to implement PeopleSoft Human Capital Management which will support all processes associated with HR, Payroll and Benefits. This component is currently in parallel testing phase.

There are 3 projects we need to support to enhance our enterprise systems for PeopleSoft financials. All three projects need professional services and expertise to implement. The total funding needed for three projects is \$775,000. The county Legislature authorized this amount on February 2, 2016.

1. Supplier Contract Management, Strategic Sourcing and Supplier Portal – these modules allow for us to streamline contracts, purchasing, payments and overall processing with vendors. For professional services and hardware we are asking \$350,000. Base implementation for this component is complete and we are finalizing legal terms, conditions and supplemental documents.
2. Asset Management – allows us to automate many manual processes and integration with Financial Management and Supply Chain. This module will also improve accuracy associated with tracking assets and assist in meeting regulatory requirements. For professional services to perform the configuration, customization, training and testing: \$125,000. All identified assets from participating departments have been brought into PeopleSoft and base functionality is in place.
3. Upgrade PeopleSoft Financial Environment (FSCM) to the current release and take advantage of new feature sets. Oracle started to discontinue support of version 9.1 in 2017. We estimate that the upgrade will be at least a 9 month project and will

require assistance from experienced PeopleSoft consultants. The upgrade not only brings to a current level of technology and positions us for longer term support, but it gives us a number of new features that benefit the County. The new features include:

- Fluid User Interface – provides multiple applications and view from central tiles/pages
- Pivot Grids – to support enhanced queries, reporting and charts
- Update Manager – simplifies PeopleSoft upgrades (going forward) saving time and money on future upgrades
- Usability with tablets and other mobile devices
- Forms & Approval Builder – support elimination of paper form processes

For professional services need to perform the configuration, customization, training and testing: \$300,000

Upgrade to version 9.2 was completed in Summer 2016.

## ONONDAGA COMMUNITY COLLEGE

### West Quad Renovation: Ferrante/Coulter Project

Project On-going

On June 2, 2015 the County Legislature authorized this project in the amount of \$8,800,000. The total project was approved at \$17,600,000, 50% funded from Onondaga County and 50% from the State.

This project consists of major repairs and redesign for the campus quad area as well as two (2) of the College's main academic buildings, Ferrante and Coulter. All of these fundamental areas of the College's physical plant are in need of repairs as all, or parts, have not been renovated for years.

Exterior quad work consisting of major repairs and redesign to eliminate excessive "hardscape", empty plaza, deteriorating retaining walls, pavements and steps is complete. This area is now a major hub of activity on campus and is far more accessible for those traversing on campus.

The Coulter building renovations are substantially complete. The College library, a critical component of the learning landscape on campus, occupies the majority of the Coulter building. This structure has not been renovated since its construction in 1969. The renovation to Coulter Hall transformed a dark, tired building into a new "reinvented" library coupled with a number of student support services (Veterans, EOP, Honors, Career and Transfer, Office of Accessibility Resources, etc.) and much needed student gathering space. These services are centered around a mission of improving retention and completion for our full "community of learners" embracing all students from those needing to build skills to honors. Work in this building included abatement, code compliance, roof replacement, elevator refurbishment, major HVAC system updates, sprinkler system work, new flooring, lighting, bathroom fixtures, doors, hardware replacements and a new entranceway that clearly defines and separates the library function from student gathering/study spaces.

Ferrante, the home of Onondaga's Nursing and key science programs will be the final component of this project. This project will include major renovations to primarily the first floor including life safety upgrades (sprinklers, elevator), abatement, elevator refurbishments, classroom upgrades and entranceway repairs. In addition, a new innovative teaching and learning space will be developed focusing on the disciplines housed within Ferrante Hall.

The overall project is anticipated to be complete by August 2018.

## PARKS & RECREATION DEPARTMENT

### Energy efficiency and reliability upgrade at the zoo (NEW)

Project On-going

The resolution no. 231 of December 19, 2017 authorized \$328,000 for this project. In addition NYSERDA has approved incentive of \$182,502. Preliminary Engineering as required for NYSERDA Incentive Application was completed and submitted to NYSERDA. Detailed engineering as required for installation and bid is underway.

This project entails installing a Combined Heat and Power unit that will provide electricity and heat more efficiently and less costly than from utility sources. In addition the unit will provide a source of emergency electrical power in the event of a utility

power outage. This emergency power is necessary to maintain the habitat for exotic and expensive species housed at the zoo. NYSERDA funding is currently available to offset approximately 35% of the project cost. The estimated simple payback for the project is less than 12 years. The savings over the 30 year useful life of this project are estimated to be over \$350,000.

**Loop the Lake Trail**

Project            On-going

In December 5, 2017 the County Legislature authorized \$500,000 in pay-as-you-go funds and \$1,000,000 in debt by resolutions #183 and #185 (respectively) for a total of \$1,500,000 to construct a mile of multi-use trails on the southeast shore of Onondaga Lake known as Murphy’s Island. This is a trail segment which will eventually be part of the completed Loop the Lake trail system. When completed, the Loop the Lake Trail will be a continuous trail around Onondaga Lake that connects to the City Creek-walk, the Erie Canal Trail and serves as a vital part of the Empire State Trail. The multiuse trail will serve as a major recreational attraction, as well as provide a transportation alternative to historical, recreational, and other destinations on and near the shores of Onondaga Lake.

The New York State Department of Transportation Planning approved preliminary plans in late 1992. Over time, Onondaga County has completed trail extension segments beginning with the West Shore Trail Extension in 2014 and will be completing the whole west shore trail system by 2019 including a bridge over the CSX railroad.

Since 1998, several studies have been conducted to assess public interest and project feasibility of the Loop the Lake trail. These studies are a SMTC sponsored study of the Onondaga Lake Parkway, The Lake Front Development Corporation Waterfront Plan and most recently a study by FOCUS Greater Syracuse in 2012. The studies supported the feasibility of the Loop the Lake Trail and indicated strong public support as well.

The Murphy’s Island project segment will be a continuation of the Loop the Lake Trail and will traverse property Onondaga County Parks purchased in 1980 from the Estate of Donald Murphy. The trail segment begins at the Onondaga Creekwalk and continues along the southeast shore of Onondaga Lake. Eventually, this trail segment will be used for the future connection to the Onondaga Lake East Shore trail and the completion of the Loop the Lake trail system.

At this point the County has procured the services for design of the trail and to address the concerns related to the sites use as a habitat. We expect to have a completed final design for the trail segment by the end of 2018 and to go out to bid for the construction of the trail in early 2019.

**Onondaga Lake Park Shoreline Stabilization**

Project            On-going

On December 20, 2016 the County Legislature approved BR-250 authorizing \$756,000 to fund this project. The Shoreline around Onondaga Lake Park has seen some significant erosion and is in need of stabilization to prevent further deterioration. This is a phased project that will address several hundred feet of shoreline each year over the next four years. Phase 1 was completed Fall of 2017. Preparation of SEQRA documents and application for permit from DEC and Army Corps of Engineers for Phases 2-4 in process as of April 2018.

**Park Roofs**

Project            On-going

On February 2, 2016 the County Legislature approved \$261,000 as a part of BR-009 to repair/replace various park facility roofs. These funds were used to replace the following roofs:

- Highland Forest Overlook Shelter
- Pratts Falls Tractor Bays
- Administrative Office

In BR-251 on December 20, 2016 the County Legislature authorized \$569,000 to replace the roofs at various parks which when combined with BR-009 resulted in a total authorization of \$830,000 for park roofs repair/replacement. With these authorized funds roofs at the following parks will be replaced at the costs indicated. Purchase Orders have been issued and work began in late April 2018.

Beaver Lake Nature Center -	\$218,000
Highland Valley Camp Annex -	\$7,000
Highland Skyline Lodge	\$200,000
Jamesville Overlook Restroom	\$10,000
Onondaga Lake Park Stable -	\$22,000

## *Countywide Funds*

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Willow Bay Restroom -	\$20,000
OLP Marina Comfort Station -	\$20,000
Total	\$497,000

This leaves us with a surplus of \$72,000 of authorized funds which we will use for small sheds and storage buildings in various parks.

### **Rosamond Gifford Zoo Boardwalk Replacement**

Project            On-going

The funding of \$2,200,000 was approved in August of 2016, BR-132 (\$1,005,000) and in December of 2017, BR-230 (\$1,195,000)

Parks desires to repair or replace the elevated walkway and viewing stations at the Rosamond Gifford Zoo. The elevated boardwalk was constructed in the early 1980's and the precast spans of concrete are starting to delaminate and deteriorate. The new boardwalk design will include a service access road to better accommodate service vehicles.

### **Veteran's Cemetery Expansion**

Project            On-going

As a part of BR-009, on February 2, 2016 the County Legislature authorized \$480,000 to fund this project. This project is the expansion of the Veterans Memorial Cemetery. A master plan was completed in late 2015 and we have started the implementation of this plan with a phase one by clearing land for an expanded roadway to access future burial sites. These additional burial sites will accommodate the needs of the cemetery for several years.

Phase two will include the construction of a new maintenance building to better accommodate the larger site.

## **TRANSPORTATION**

### **Rehabilitation of North Area and Camillus Highway Maintenance**

Project            On-going

The Department of Transportation's North Area and Camillus highway maintenance facilities were both built in the early 1960s. Neither site was designed or intended to function as a highway operations/maintenance facility. The North Area shop was originally a United Parcel Service distribution center. The Camillus facility was built to serve as a small private airport. The layout and condition of these buildings and property result in significant operating inefficiencies and costs, leading to a critical need for major structural renovations to both facilities. In addition, building systems in both facilities need complete rehabilitation (HVAC, electrical, plumbing).

Funding for replacement of the Camillus facility was approved on 12/20/2016. Design was completed in 2017 with construction beginning at the end of winter operations that year. The new facility was completed in the spring of 2018.

Funding for renovation of the North Area Maintenance facility was approved on 12/5/2017. Upon completion of design, construction is expected to begin in the fall of 2018 with completion expected prior to the start of winter operations in the fall of 2019.



## PROPOSED CAPITAL PROJECT SUMMARY

**County Wide**

Department	STATUS	PROJECT	2019 - 24 Total
<b>General Fund</b>			
DEPARTMENT OF CORRECTIONS			
		Physical Plant Improvements and Security Upgrades	986
		Subtotal	\$ 986
EMERGENCY COMMUNICATIONS			
		Auxiliary Power Systems Replacement	688
		Computer Aided Dispatch (CAD) System Hardware Refresh	903
		Next Generation 911 (NG-911) Telephone System Replacement/Refresh	3,659
		Oblique Aerial Digital Imagery Refresh (2019)	300
		Public Safety Radio Tower Replacement	265
		Repave E911 Center Parking Lot	344
		Replacement of Mobile Data Communications Network (MDCN) Infrastructure	3,600
		Tower Site Shelter Rehabilitation	1,091
		Subtotal	\$ 10,850
FACILITIES MANAGEMENT			
		Carnegie Library Rehabilitation	4,101
		Community Plaza Garage	1,350
		Courthouse - HVAC Renovations	10,000
		Facilities Various Capital Improvements	7,500
		LED lighting upgrade in various buildings in downtown campus	535
		Oncenter Rehabilitations	1,500
		Subtotal	\$ 24,986
INFORMATION TECHNOLOGY			
	<b>new</b>	Technology Refresh (NEW)	1,581
		Subtotal	\$ 1,581
OFFICE OF ENVIRONMENT			
		Ash Tree Management	4,500
		Beach Development at Onondaga Lake Park	300
		Subtotal	\$ 4,800
PARKS & RECREATION DEPT.			
		Building an AZA Required Animal Medical Care Center with African Savannah Exhibit	15,050
		Carpenters Brook Fish Hatchery Pond Repair	302
		Lights on the Lake Storage Facility	370
		Long Branch Park Improvements	1,950
		Park Improvements/Willow Bay	2,740
		Park Roads, Parking Areas, and Trail Paving	4,335
	<b>new</b>	Parks Infrastructure Rehabilitation (NEW)	2,627
		Playground Improvements	1,800
		Salt Museum Rehabilitation	310
		Subtotal	\$ 29,484
SHERIFF POLICE/CIVIL			
		Sheriff's New Headquarters Facility	869
		Subtotal	\$ 869
		<b>General Fund Total</b>	<b>\$ 73,556</b>

*Countywide Funds*

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**County Wide**

Department	STATUS	PROJECT	2019 - 24 Total
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**Library**

ONONDAGA COUNTY PUBLIC LIBRARY			
		Petit Branch Library addition and improvements	885
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		<b>Library Total</b>	<b>\$ 885</b>

**Community College**

ONONDAGA COMMUNITY COLLEGE			
		Allyn Hall Upgrades and Improvements	2,780
		Elevator Replacement and Upgrades/ Protection of the Campus E-mail and Phone Servers	646
		Infrastructure - Campus Wide	10,488
		Site Improvements	2,718
			-----
		<b>Community College Total</b>	<b>\$ 16,632</b>

**County Road**

TRANSPORTATION			
		Bituminous Surface Treatment	11,808
		Bridges	6,930
		Capital Highway Construction	10,550
		Caughdenoy Road / NYS Route 31 Road Improvements	4,120
		Cold Mix Bituminous Paving	25,022
		Guide Rail	2,940
		Repaving Program (Hot Mix Bituminous)	64,800
		Testing, Drainage and Facilities Repair	3,300
		Traffic Systems Management	1,990
			-----
		<b>County Road Total</b>	<b>\$ 131,360</b>
		<b>County Wide Total</b>	<b>\$ 222,433</b>

## Countywide Funds

The remainder of this section provides information on proposed future projects. Below is the proposed source of funding and the estimated associated debt service schedule followed by the descriptive information for each proposed project.

### County Wide

#### SOURCE OF FUNDS

	2019	2020	2021	2022	2023	2024	6yr Total
Pay as You Go	1,240	5,600	9,000	11,800	14,400	17,550	<b>59,590</b>
Authorized Borrowing	869						<b>869</b>
Borrowing to be Authorized	25,821	26,970	27,416	17,284	11,126	4,250	<b>112,867</b>
Federal Aid	1,800	3,200					<b>5,000</b>
State Aid	6,150	8,421	7,322	10,884	5,640	5,640	<b>44,057</b>
Other		50					<b>50</b>
<b>TOTALS</b>	<b>\$35,880</b>	<b>\$44,241</b>	<b>\$43,738</b>	<b>\$39,968</b>	<b>\$31,166</b>	<b>\$27,440</b>	<b>\$222,433</b>

### Estimated Debt Service

Payment Schedule (\$ in 000's)

#### County Wide

##### General Fund

##### FACILITIES MANAGEMENT

	2019	2020	2021	2022	2023	2024
LED lighting upgrade in various buildings in downtown	0	0	27	62	60	59
Courthouse - HVAC Renovations	0	0	60	227	497	869
Facilities Various Capital Improvements	0	0	30	75	119	162
Community Plaza Garage	0	0	81	121	119	116
Oncenter Rehabilitations	0	45	112	133	130	127
Carnegie Library Rehabilitation	0	0	121	286	334	326
<b>Department Total</b>	<b>0</b>	<b>45</b>	<b>431</b>	<b>904</b>	<b>1,259</b>	<b>1,659</b>

##### DEPARTMENT OF CORRECTIONS

	2019	2020	2021	2022	2023	2024
Physical Plant Improvements and Security Upgrades	0	22	60	91	102	100
<b>Department Total</b>	<b>0</b>	<b>22</b>	<b>60</b>	<b>91</b>	<b>102</b>	<b>100</b>

##### INFORMATION TECHNOLOGY

	2019	2020	2021	2022	2023	2024
Technology Refresh (NEW)	0	30	135	219	213	207
<b>Department Total</b>	<b>0</b>	<b>30</b>	<b>135</b>	<b>219</b>	<b>213</b>	<b>207</b>

##### EMERGENCY COMMUNICATIONS

	2019	2020	2021	2022	2023	2024
Computer Aided Dispatch (CAD) System Hardware	0	54	217	209	202	195
Oblique Aerial Digital Imagery Refresh (2019)	0	18	72	70	67	65
Public Safety Radio Tower Replacement	0	16	24	23	23	22
Next Generation 911 (NG-911) Telephone System	0	0	13	258	876	847
Tower Site Shelter Rehabilitation	0	0	0	0	0	65
Auxiliary Power Systems Replacement	0	41	73	72	70	68
Repave E911 Center Parking Lot	0	0	21	37	36	35
Replacement of Mobile Data Communications Network	0	216	504	490	475	461
<b>Department Total</b>	<b>0</b>	<b>345</b>	<b>924</b>	<b>1,159</b>	<b>1,749</b>	<b>1,758</b>

##### OFFICE OF ENVIRONMENT

	2019	2020	2021	2022	2023	2024
Ash Tree Management	0	45	225	399	567	729
<b>Department Total</b>	<b>0</b>	<b>45</b>	<b>225</b>	<b>399</b>	<b>567</b>	<b>729</b>

## Countywide Funds

### PARKS & RECREATION DEPT.

	2019	2020	2021	2022	2023	2024
Building an AZA Required Animal Medical Care Center	0	480	750	1,142	1,321	1,291
Playground Improvements	0	0	30	83	135	174
Park Roads, Parking Areas, and Trail Paving	0	45	170	298	375	423
Lights on the Lake Storage Facility	0	0	0	22	39	38
Parks Infrastructure Rehabilitation (NEW)	0	39	141	214	252	268
Long Branch Park Improvements	0	0	57	161	205	200
Park Improvements/Willow Bay	0	0	13	101	235	288
Carpenters Brook Fish Hatchery Pond Repair	0	18	27	27	26	25
Salt Museum Rehabilitation	0	0	19	33	32	31
<b>Department Total</b>	<b>0</b>	<b>582</b>	<b>1,207</b>	<b>2,081</b>	<b>2,620</b>	<b>2,738</b>
<b>General Fund Total</b>	<b>0</b>	<b>1,069</b>	<b>2,982</b>	<b>4,853</b>	<b>6,510</b>	<b>7,191</b>

### County Road

#### TRANSPORTATION

	2019	2020	2021	2022	2023	2024
Testing, Drainage and Facilities Repair	0	0	0	0	0	0
Caughdenoy Road / NYS Route 31 Road Improvements	0	0	247	439	428	417
Repaving Program (Hot Mix Bituminous)	0	306	782	1,086	1,254	1,348
Cold Mix Bituminous Paving	0	89	236	386	524	617
Traffic Systems Management	0	18	52	86	120	154
Capital Highway Construction	0	14	56	138	243	345
Bridges	0	53	133	214	294	374
Guide Rail	0	0	0	0	0	0
<b>Department Total</b>	<b>0</b>	<b>480</b>	<b>1,506</b>	<b>2,349</b>	<b>2,863</b>	<b>3,255</b>

### Library

#### ONONDAGA COUNTY PUBLIC LIBRARY

	2019	2020	2021	2022	2023	2024
Petit Branch Library addition and improvements	0	0	29	44	43	42
<b>Department Total</b>	<b>0</b>	<b>0</b>	<b>29</b>	<b>44</b>	<b>43</b>	<b>42</b>

### Community College

#### ONONDAGA COMMUNITY COLLEGE

	2019	2020	2021	2022	2023	2024
Infrastructure - Campus Wide	0	0	0	0	315	734
Elevator Replacement and Upgrades/ Protection of the	0	0	0	19	45	44
Allyn Hall Upgrades and Improvements	0	0	83	125	122	120
Site Improvements	0	0	0	82	122	120
<b>Department Total</b>	<b>0</b>	<b>0</b>	<b>83</b>	<b>226</b>	<b>604</b>	<b>1,018</b>

**County Wide Total**      **0**      **1,549**      **4,600**      **7,472**      **10,020**      **11,506**

## Countywide Funds

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**DEPARTMENT:** DEPARTMENT OF CORRECTIONS

**Project:** Physical Plant Improvements and Security Upgrades

**Purpose:** Public/Employee Safety/Health, Reduce Operating Costs/Efficiency, Maintain Existing Investment, Federal/State Mandate

**Level of Development:** Advanced

**Budget Impact:** (\$31,700)

**Project Description:**

This project provides for improvement to original structures, building equipment and enhances security around the facility. Building repairs include repair/replacement of kitchen flooring, housing unit entries, programs corridor ceiling replacement, air conditioning in Housing Units 1, 2 & 3, and the replacement of inmate housing unit entry and cell doors. The kitchen dishwasher and the food service delivery carts need to be replaced and a large laundry washing machine needs to be purchased. Security enhancement includes the installation of lighting on facility roadways and an alternative entry and egress from the facility. Grounds and exterior improvements include resurfacing of roadways and parking lots of the facility. The completion of these projects will maintain the safety and security of the facility and the compliance of health and safety standards.

**Project Cost Summary:**

FUNDING SOURCE:	Pre-2019	2019	2020	2021	2022	2023	2024	6yr Total	Total:
Borrowing to be Authorized	0	368	342	276				986	986
Authorized Borrowing	325							0	325
<b>TOTALS</b>	<b>325</b>	<b>368</b>	<b>342</b>	<b>276</b>				<b>986</b>	<b>1,311</b>

**Project Detail and Status:**

This project provides for needed improvements to and replacement of aging original structures and unserviceable building equipment. It also provides for safety and security enhancements. The items below are listed in priority order.

On December 19, 2017 the County Legislature authorized \$325,000 (Resolution # 224) to accomplish the following scope elements (1 to 6) of this project for which we have received quotes and the work will start and finish in summer 2018:

- 1) Kitchen Floor Restoration & Restoration of Housing Unit Entries. This is necessary to maintain compliance with health codes and for basic safety and sanitary reasons in the kitchen and housing unit entry ways. The quote we have received for this work is \$29,000, which is what we had estimated.
- 2) Food Service Delivery Carts – Existing carts are becoming unserviceable as doors are not closing properly and motors are not working. Parts are no longer available for these models. The carts are needed to maintain food standards of proper refrigeration and heating temperatures of the food. The quote we have received for this work is \$120,000. Our initial estimate was \$158,000.
- 3) Laundry washing machine – Current 100-lb washer is over 50 years old and beyond repair. Current contracted vendor is not efficient as there have been numerous problems with inmate laundry returning wet which leads to the added expense of us having to use an officer and our equipment to dry. The quote we have received for this work is \$24,500. Our initial estimate was \$35,000.
- 4) Kitchen Dishwasher – Current washer continues to breakdown causing high repair expenses being incurred. Also, when machine is down, it creates major disruptions in service and the operations of the facility in addition to our using Styrofoam which is an added supply and trash removal expense. The quote we have received for this work is \$101,000, which is what we had estimated.
- 5) Ceiling Replacement in the Corridor Wing of facility – There is approx. 4,800 sq. ft. of current ceiling that was damaged by water leaking from previous old roofing. There are gaps in ceilings which lead to security issues of

## *Countywide Funds*

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inmates hiding contraband. The ceiling needs to be replaced due to the extensive water damage which may lead to mold and health concerns if left untreated and the potential of ceiling failure, causing staff or inmate danger. The quote we have received for this work is \$32,000, which is what we had estimated.

6) Hot water on demand in the housing units will be more energy efficient than using boilers which can lead to cost savings as the boilers are expensive to replace. Consistently keeping water hot when not in use is wasteful of county tax dollars. Overnight, hot water is not used and this results in a waste of money. In 2018 we plan to cover only the units 8 and 9 for \$18,500. We have planned to spend a total of \$53,000 for all the units and we intend to ask for legislative authorization for the remaining \$34,500 in fall 2018.

7) Repairs to Roadways & New Entry/Egress - This is an issue as poor road conditions lead to damaged vehicles. We cannot use the forklift on various areas due to poor road conditions. The new entrance is needed to relieve the back up at the perimeter post and ease congestion for staff entry and exit. The entrance will require gates and proximity readers and cards. (\$235,000)

8) Air Conditioning in Housing 1, 2 & 3 - The amount of heat in the housing units is excessive and getting worse due to population increases. The heat & moisture builds up and ruins metal fixtures and causes peeling paint and buildup of floor humidity which is a safety issue as it causes mold, metal rust and fatigue of the floors as the units have multiple floor levels. (\$439,000)

9) Replacement of Housing Unit Doors & Cell Door replacement – Existing doors are deteriorating, rusted, welds are broken and cracked, with gaps at bottom which impedes security and creates a problem with climate control issues. Many steel stiffened cell doors also need replacement due to similar issues and the expanding of the metal in the doors have made some difficult to open/close. (\$50,000)

10) Lighting on the grounds - Is needed as it will improve security camera operations and the overall safety and security of the facility. (\$48,000)

In fall 2018 we will seek legislative authorization for \$368,000. With these funds we will cover the \$34,500 needed to finish the item 6, full amount for item 7 and \$98,500 to start the work on item 8 as listed above.

*Countywide Funds*

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**DEPARTMENT:** EMERGENCY COMMUNICATIONS

**Project:** Auxiliary Power Systems Replacement

**Purpose:** Public/Employee Safety/Health

**Level of Development:** Intermediate

**Project Description:**

Replace end of life auxiliary power systems at the E911 Main Center. This includes the building generator, auxiliary generator control panel, transfer switch, and the uninterruptable power supply.

**Project Cost Summary:**

<b>FUNDING SOURCE:</b>	<b>Pre-2019</b>	<b>2019</b>	<b>2020</b>	<b>2021</b>	<b>2022</b>	<b>2023</b>	<b>2024</b>	<b>6yr Total</b>	<b>Total:</b>
Borrowing to be Authorized	0	688						688	688
<b>TOTALS</b>	<b>0</b>	<b>688</b>						<b>688</b>	<b>688</b>

**Project Detail and Status:**

This project involves the replacement of the 125 kVA uninterruptable power supply (UPS) system and updating and installing a new primary 500 KW generator at the main E911 Center.

The UPS at the main E911 was manufactured in 2003 with a useful service life of 15-20 years. The CAT 500 KW generator was installed when the building was built and is 25 years old. Replacement of the E911 Center UPS will take place in 2019 in concert with the replacement of the emergency transfer switch and the addition of a 500 KW generator. The old generator will be retained as an auxiliary until parts are no longer available in the event of the failure of the new generator.

E911 intends to seek legislative authorization for this project in Fall 2018.

**DEPARTMENT:** EMERGENCY COMMUNICATIONS

**Project:** Computer Aided Dispatch (CAD) System Hardware Refresh

**Purpose:** Public/Employee Safety/Health

**Level of Development:** Advanced

**Project Description:**

This project will refresh Computer Aided Dispatch (CAD) workstations and servers located at the main E911 Center and at the Civic Center Backup Operations Center (BOC) that are out of warranty and will be six years old and at the end of their life cycle (originally installed in 2012) as well as continue to try to refresh CAD software every three years in order to keep pace with developments in technology (e.g., Next Generation 911 location addressing, new Micrometry interface, changes in mobile computing) and improvements in functionality

**Project Cost Summary:**

<b>FUNDING SOURCE:</b>	<b>Pre-2019</b>	<b>2019</b>	<b>2020</b>	<b>2021</b>	<b>2022</b>	<b>2023</b>	<b>2024</b>	<b>6yr Total</b>	<b>Total:</b>
Borrowing to be Authorized	0	903						903	903
<b>TOTALS</b>	<b>0</b>	<b>903</b>						<b>903</b>	<b>903</b>

**Project Detail and Status:**

This project involves the refresh of computer aided dispatch (CAD) software and the replacement of CAD hardware (along with a concurrent software refresh) in 2019. CAD hardware and software were last refreshed in 2013. The hardware (CAD servers and workstations in the Main 911 Center and the Backup Operations Center) will be six years old in 2019. In addition, CAD servers are currently running on outdated SQL server software that will need to be updated to stay consistent with any security patches necessary to protect mission critical CAD systems from being vulnerable to a cyber-attack.

The 2019 hardware/software refresh will require an on-site presence from the CAD vendor's engineering staff to ensure smooth implementation which is necessary due to the size and complexity of our system which serves 94 police, fire and EMS agencies.

CAD workstations and servers run 24 hours a day, 365 days a year, continuously processing information related to the safety of citizens and first responders, and must be highly reliable. After six years this equipment is no longer covered by service warranty, which increases costs for repair and down time. All operating systems (OS) and hardware (e.g., memory) must be capable of running software upgrades provided as a part of the software maintenance agreement.

This project will involve a software update, hardware refresh, and necessary on-site engineering and implementation assistance. The software refresh will cost approximately \$310,000 and will include an extended on-site presence from the CAD vendor's (Hexagon-Intergraph) engineering staff. The cost of hardware replacements (i.e., 8 CAD servers and 68 CAD workstations) is estimated at \$341,000 (NYS OGS pricing). The cost of replacing the outdated SQL server software is projected at \$200,000 (NYS OGS pricing). Costs may be able to be reduced if a contract is signed prior to the end of 2018.



*Countywide Funds*

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**DEPARTMENT:** EMERGENCY COMMUNICATIONS

**Project:** Next Generation 911 (NG-911) Telephone System Replacement/Refresh

**Purpose:** Public/Employee Safety/Health, Federal/State Mandate

**Level of Development:** Intermediate

**Project Description:**

This project will involve the replacement of Next Generation 911 (NG-911) call taking solution that was originally installed in 2016 at both the main 911 Center and the Backup Operations Center (BOC). Equipment was originally leased under contract (5 years) with Verizon and will need to be replaced and maintained through a private vendor in 2021.

**Project Cost Summary:**

<b>FUNDING SOURCE:</b>	<b>Pre-2019</b>	<b>2019</b>	<b>2020</b>	<b>2021</b>	<b>2022</b>	<b>2023</b>	<b>2024</b>	<b>6yr Total</b>	<b>Total:</b>
Borrowing to be Authorized	0		212	3,447				3,659	3,659
<b>TOTALS</b>	<b>0</b>		<b>212</b>	<b>3,447</b>				<b>3,659</b>	<b>3,659</b>

**Project Detail and Status:**

The Airbus DS Vesta call taking solution that was installed in 2016 will need to be replaced/refreshed in 2021 as system hardware (i.e., computer workstations and servers) will be at the end of its useful service life based on 24/7 critical public safety service. At least 43 workstations (27 at the Main E911 Center and 16 at the Backup Operations Center) will need to be replaced along with other peripheral hardware, software and interfaces as necessary. Considerable labor will be expended to ensure continuity of public safety operations. Installation will need to be coordinated based on call volume activity and cannot occur at the main Center between June and August.

The current Vesta call taking solution has been provided through a lease with Verizon. Since Verizon is phasing out of the business of providing and maintaining 911 customer premise equipment (CPE), it will be necessary to consider other purchase options that may include migrating from the Vesta system that has been in use at E911 for many years. Consultant services will be necessary to assist the County in developing an RFP for equipment, services, installation and maintenance, evaluating proposals, and in implementation. In addition, if there are significant differences in the CPE acquired, the budgeting of overtime for the training of approximately 140 employees who call take will be necessary.

E911 intends to seek legislative authorization for engineering and bid specification work in Fall 2019 and for the call taking system and installation work in September 2020.

*Countywide Funds*

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**DEPARTMENT:** EMERGENCY COMMUNICATIONS

**Project:** Oblique Aerial Digital Imagery Refresh (2019)

**Purpose:** Public/Employee Safety/Health, Community/Economic Development, Other

**Level of Development:** Advanced

**Project Description:**

Refresh oblique aerial digital imagery that was taken during a May 2014 flyover of Onondaga County. Aerial imagery is used by the Department of Emergency Communications to assist in locating emergencies and is also used frequently by the Syracuse-Onondaga County Planning Agency (SOCPA), other county departments, towns, villages and the City of Syracuse.

**Project Cost Summary:**

<b>FUNDING SOURCE:</b>	<b>Pre-2019</b>	<b>2019</b>	<b>2020</b>	<b>2021</b>	<b>2022</b>	<b>2023</b>	<b>2024</b>	<b>6yr Total</b>	<b>Total:</b>
Borrowing to be Authorized	0	300						300	300
<b>TOTALS</b>	<b>0</b>	<b>300</b>						<b>300</b>	<b>300</b>

**Project Detail and Status:**

Project will involve a flyover of Onondaga County and bordering areas by an airplane equipped with high resolution digital camera. Flyovers will be done during the time of year (e.g., late April, early May) when there are no leaves on the trees that might obstruct camera views. Digital imagery will be stored on County servers and made available on all E911 call taking and dispatch workstations and at SOCPA. Other County departments, the City of Syracuse, towns and villages will have access to the imagery.

The most recent oblique aerial imagery was secured in May 2014. Refreshes must be done periodically (i.e., four years) to remain accurate. Based on experience, aerial imagery that ages becomes increasingly unreliable. The cost of aerial "flyovers" must be balanced against the loss in value to the users as the imagery ages.

E911 intends to seek legislative authorization for this project in Fall 2018.

*Countywide Funds*

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**DEPARTMENT:** EMERGENCY COMMUNICATIONS

**Project:** Public Safety Radio Tower Replacement

**Purpose:** Public/Employee Safety/Health

**Level of Development:** Advanced

**Project Description:**

Replace two critical public safety radio communications towers that will have reached the end of their useful life cycle and do not meet current standards for critical public safety standards.

**Project Cost Summary:**

<b>FUNDING SOURCE:</b>	<b>Pre-2019</b>	<b>2019</b>	<b>2020</b>	<b>2021</b>	<b>2022</b>	<b>2023</b>	<b>2024</b>	<b>6yr Total</b>	<b>Total:</b>
Borrowing to be Authorized	0	265						265	265
Authorized Borrowing	339							0	339
<b>TOTALS</b>	<b>339</b>	<b>265</b>						<b>265</b>	<b>604</b>

**Project Detail and Status:**

In the summer of 2018, the existing 325' Rose Hill (ROS) radio tower, located at 2724 Rose Hill Road in the Town of Marcellus, will be replaced with a new 325' SSV type radio tower meeting TIA-222 public safety communications tower standards. Once the new tower is constructed adjacent to the old tower, and antennas and feed line are installed, the old radio tower will be decommissioned and removed from the site. The Rose Hill tower was constructed in the early 1960's.

In the summer of 2019, the existing 200' self-supporting Makyes (MAK) radio tower, located at 4050 Makyes Road in the Town of Onondaga, will be replaced with a new 165' self-supporting SSV type radio tower meeting TIA-222 public safety communications tower standards. Once the new tower is constructed adjacent to the old tower, and antennas and feed line are installed, the old radio tower will be decommissioned and removed from the site. The Makyes tower was inherited by Onondaga County and the age or origin is unknown. It is not of public safety communications grade.

In December 2017 the County Legislature authorized \$339,000 (Resolution 2017-225) to replace the Rose Hill Tower. Bid specifications are being prepared and the plan is to replace the Rose Hill tower in the Summer/Fall of 2018. E911 intends to seek legislative authorization for the Makyes tower replacement project in the Fall of 2018.

**DEPARTMENT:** EMERGENCY COMMUNICATIONS

**Project:** Repave E911 Center Parking Lot

**Purpose:** Public/Employee Safety/Health, Maintain Existing Investment

**Level of Development:** Advanced

**Project Description:**

Repave and restripe the Onondaga County Department of Emergency Communications parking lot at 3911 Central Avenue, Syracuse, New York 13215. Project includes milling, 4" of new pavement, and striping of 43,082 square feet of existing parking lot and the addition of 1,027 square feet of new area pavement. Parking lot will be 28 years old in 2019 and is used 24/7 by E911 employees and visitors. Parking lot is in a state of deterioration; some areas no longer have any sub-base.

**Project Cost Summary:**

<b>FUNDING SOURCE:</b>	<b>Pre-2019</b>	<b>2019</b>	<b>2020</b>	<b>2021</b>	<b>2022</b>	<b>2023</b>	<b>2024</b>	<b>6yr Total</b>	<b>Total:</b>
Borrowing to be Authorized	0		344					344	344
<b>TOTALS</b>	<b>0</b>		<b>344</b>					<b>344</b>	<b>344</b>

**Project Detail and Status:**

Repave approximately 43,082 square feet of the E911 Center parking lot at 3911 Central Avenue, Syracuse, and add approximately 1,027 square feet of new parking area. Stripe parking lot when complete. Project necessary to due to age (28 years) and deterioration of the existing parking lot and due to current lot being undersized. We plan to seek Legislative authorization in Fall 2019.

E911 will use the county's pavement vendor to execute the work during the summer of 2020. The county's fence vendor will be used to replace the in ground security gate sensors following completion of the paving.

*Countywide Funds*

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**DEPARTMENT:** EMERGENCY COMMUNICATIONS

**Project:** Replacement of Mobile Data Communications Network (MDCN) Infrastructure

**Purpose:** Public/Employee Safety/Health

**Level of Development:** Advanced

**Project Description:**

This project will replace the 800 MHz mobile data communications infrastructure, including fixed base station equipment at radio tower sites and mobile data radio modems in public safety vehicles. The end of life for the current Mobile Data Communications Network (MCDN) was December of 2017.

**Project Cost Summary:**

<b>FUNDING SOURCE:</b>	<b>Pre-2019</b>	<b>2019</b>	<b>2020</b>	<b>2021</b>	<b>2022</b>	<b>2023</b>	<b>2024</b>	<b>6yr Total</b>	<b>Total:</b>
Borrowing to be Authorized	0	3,600						3,600	3,600
Authorized Borrowing	245							0	245
<b>TOTALS</b>	<b>245</b>	<b>3,600</b>						<b>3,600</b>	<b>3,845</b>

**Project Detail and Status:**

The MDCN infrastructure has reached its predicted end-of-life at the end of 2017. Taking into account the advances in wireless broadband communications technology and the cost of acquisition and maintenance of proprietary communications infrastructure, the project will begin by determining the most efficient, cost effective and reliable method of providing data connectivity to emergency responders and implement that solution. This included both data communications hardware as well as encryption software that meet federal CJIS standards for data security and integrity, infrastructure, and mobile data radio equipment. In February 2016 E911 received legislative authorization for \$245,000 for a consultant to advise the County on the most efficient and effective option for replacing the MDCN and for engineering and design. An RFP was issued in May 2016 and Winbourne Consulting was selected as the vendor in October 2016. A kick-off meeting was held in December 2016. The consultant team met with stakeholders in January 2017 and the Phase I project report (Review of Current System/Needs) was completed in April 2017. Work on the next Phase II (System Recommendations) started in May and was completed in late August 2017.

E911 intends to seek legislative authorization for construction of this project in Fall 2018.

**DEPARTMENT:** EMERGENCY COMMUNICATIONS

**Project:** Tower Site Shelter Rehabilitation

**Purpose:** Public/Employee Safety/Health, Maintain Existing Investment, Federal/State Mandate

**Level of Development:** Preliminary

**Project Description:**

Rehabilitate or replace equipment at various E911 radio tower site shelters that was installed in 2006 and will be at the end of the useful lifecycle. Equipment to be rehabilitated or replaced includes shelter doors/door hardware, HVAC equipment and controllers, DC power plants and batteries, power generators, fire/intrusion/temperature alarm sensor and controllers, and FCC/FAA tower painting and lighting.

**Project Cost Summary:**

FUNDING SOURCE:	Pre-2019	2019	2020	2021	2022	2023	2024	6yr Total	Total:
Borrowing to be Authorized	0					1,091		1,091	1,091
<b>TOTALS</b>	<b>0</b>					<b>1,091</b>		<b>1,091</b>	<b>1,091</b>

**Project Detail and Status:**

E911 radio tower sites are critical infrastructure housing Department of Emergency Communications public safety land mobile radio and microwave systems that currently support more than 8,500 public safety and public service radios for 150 agencies operated within Onondaga County. This equipment must be maintained in a secure, dry, clean, and temperature controlled environment. Tower sites are often located on remote hill top locations and must be target hardened and continue to operate in the event of adverse conditions and/or utility failure. Some E911 radio towers require FCC/FAA mandated tower paint (aviation orange/white) that must be maintained within FCC/FAA specifications.

The 12'x20' CSI concrete shelters installed at most E911 tower sites were installed between 2006 and 2008. They must be maintained to ensure the reliability of critical public safety communications systems. HVAC systems and controllers, (48 volt DC battery power plants, alarm systems) will be at or near the end of their useful lifecycles in 2023 and should be replaced or overhauled to prevent a catastrophic failure. Other elements (e.g., generators) need to be refurbished to ensure continued reliability.

Legislative authorization will be sought in Fall 2022.

## Countywide Funds

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**DEPARTMENT:** FACILITIES MANAGEMENT

**Project:** Carnegie Library Rehabilitation

**Purpose:** Reduce Operating Costs/Efficiency, Maintain Existing Investment, Community/Economic Development, Addition Capacity, Other

**Level of Development:** Advanced

**Budget Impact:** (\$600,000)

**Project Description:**

The Carnegie Library Building (circa 1912), is a registered Historical treasure that has been vacant since the Syracuse City School District ceased operating it as a special program location and returned it to Onondaga County. The building underwent a renovation nineteen years ago, in 1994. The County intends to rehabilitate the building by performing renovations that will prepare the building for department occupation and services.

**Project Cost Summary:**

<b>FUNDING SOURCE:</b>	<b>Pre-2019</b>	<b>2019</b>	<b>2020</b>	<b>2021</b>	<b>2022</b>	<b>2023</b>	<b>2024</b>	<b>6yr Total</b>	<b>Total:</b>
Borrowing to be Authorized	0		2,015	1,736				3,751	3,751
State Aid	0		350					350	350
<b>TOTALS</b>	<b>0</b>		<b>2,365</b>	<b>1,736</b>				<b>4,101</b>	<b>4,101</b>

**Project Detail and Status:**

OCFM will design and manage this project from concepts that have been developed over the last years. We will undertake a facelift to the finishes, keeping in kind with the historical character of the building. We will deliver open floor office environments for strategic departments we would relocate into this property.

We will need to expand on the HVAC system, the fire protection system, introduce a wireless network, and enhance security. The plan will be designed in-house, saving money and time, and maintaining concept continuity. Structural modifications will not be needed. We intend to start construction in early 2020 and finish in 2021. Therefore, we would like to request the authorization for construction funds in Fall 2019.

**DEPARTMENT:** FACILITIES MANAGEMENT

**Project:** Community Plaza Garage

**Purpose:** Public/Employee Safety/Health, Maintain Existing Investment

**Level of Development:** Advanced

**Project Description:**

The floor of the Community Plaza parking garage has continued to delaminate as a result of chloride contamination of the steel reinforcing bars in the upper level of the slab. The floor of the garage is, in fact, the foundation for the entire structure, including the plaza above. This project is intended to offer a long-term solution to prolong the life of the garage. The sump covers and trench drains are deteriorated as well and in desperate need of replacement.

**Project Cost Summary:**

<b>FUNDING SOURCE:</b>	<b>Pre-2019</b>	<b>2019</b>	<b>2020</b>	<b>2021</b>	<b>2022</b>	<b>2023</b>	<b>2024</b>	<b>6yr Total</b>	<b>Total:</b>
Authorized Borrowing	250							0	250
Borrowing to be Authorized	0		1,350					1,350	1,350
<b>TOTALS</b>	<b>250</b>		<b>1,350</b>					<b>1,350</b>	<b>1,600</b>

**Project Detail and Status:**

The garage and plaza were built in 1967 in support of the governmental plaza and the Everson Museum. The garage accommodates approximately 130 vehicles and the loading dock functions for the museum. It is linked by a tunnel system to the District Heating and Cooling Plant, War Memorial, Court House and the Public Safety Building. The plaza above is a critical plaza park in this area of downtown that hosts numerous civic and cultural events throughout the year.

An earlier engineering study (done in about 2004) recommended overwhelmingly invasive construction efforts that included sophisticated cathodic protection systems. At this time we have a more economical and effective solution than the earlier study.

In 2012 we asked and received legislative approval of \$250,000 to fund the engineering design for this project. This engineering design was completed by the end of 2013. According to this design we will strategically remove the top layer of the deteriorated floor, replace deteriorated reinforcing bars, replace the removed concrete layer and treat the surface with a protective coating. This new solution, recommended by the 2013 design, is bringing the cost down from \$2.85 million to \$1.15 million, which is a reduction of \$1.7 million. The cost of \$1.15 million estimated in 2013 is now escalated to reflect the 2018 cost of \$1.35 million. If we use the same escalation factor on the initial estimate of \$2.85 million this figure would have been \$3.2 million in 2018 money. In this case the savings are \$1.98 million.

We intend to seek legislative approval for construction funds in Fall 2019.



## Countywide Funds

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**DEPARTMENT:** FACILITIES MANAGEMENT

**Project:** Courthouse - HVAC Renovations

**Purpose:** Public/Employee Safety/Health, Reduce Operating Costs/Efficiency, Maintain Existing Investment, Federal/State Mandate

**Level of Development:** Advanced

**Budget Impact:** (\$160,000)

**Project Description:**

This project is designed to address the aging, 50+ year old HVAC systems in this important 106 year old landmark building. The goal of this project is to extend and improve the mechanical life of the building's infrastructure without the need to displace the critical functions that take place during the renovation process.

**Project Cost Summary:**

<b>FUNDING SOURCE:</b>	<b>Pre-2019</b>	<b>2019</b>	<b>2020</b>	<b>2021</b>	<b>2022</b>	<b>2023</b>	<b>2024</b>	<b>6yr Total</b>	<b>Total:</b>
Borrowing to be Authorized	0		1,000	2,000	3,000	4,000		10,000	10,000
Authorized Borrowing	400							0	400
<b>TOTALS</b>	<b>400</b>		<b>1,000</b>	<b>2,000</b>	<b>3,000</b>	<b>4,000</b>		<b>10,000</b>	<b>10,400</b>

**Project Detail and Status:**

The County has completed major spatial and functional changes at the Courthouse in response to the NYS Court Facilities Act. Approximately 40% of the building was renovated with the focus on spatial changes, however, those changes did not address the building's infrastructure needs. Much of the HVAC, electrical switchgear, and electrical distribution systems are in excess of fifty years old. The air handlers and perimeter coil induction units throughout the building are in need of replacement. The pumps and environmental controls are obsolete and also need to be replaced.

A comprehensive engineering study of the building's HVAC systems has been completed and will be instrumental in assisting the County to create a plan for the systematic replacement of the HVAC systems without temporarily displacing the functions within the Courthouse.

On June 7, 2016 the County Legislature approved \$400,000 to fund the engineering design for this project. We plan to seek legislative approval for construction funds in Fall 2019.

*Countywide Funds*

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**DEPARTMENT:** FACILITIES MANAGEMENT

**Project:** Facilities Various Capital Improvements

**Purpose:** Public/Employee Safety/Health, Reduce Operating Costs/Efficiency, Maintain Existing Investment, Addition Capacity

**Level of Development:** Advanced

**Project Description:**

This project will generate improvements in structural integrity, mechanical systems, energy efficiency systems, life/safety issues, office environments, building exteriors, infrastructure, ADA improvements, and security and fire alarm systems of buildings and grounds in various facilities, as well as providing for the preservation of County assets.

**Project Cost Summary:**

<b>FUNDING SOURCE:</b>	<b>Pre-2019</b>	<b>2019</b>	<b>2020</b>	<b>2021</b>	<b>2022</b>	<b>2023</b>	<b>2024</b>	<b>6yr Total</b>	<b>Total:</b>
Borrowing to be Authorized	0		500	500	500	500	500	2,500	2,500
Pay as You Go	380		1,000	1,000	1,000	1,000	1,000	5,000	5,380
Authorized Borrowing	7,905							0	7,905
<b>TOTALS</b>	<b>8,285</b>		<b>1,500</b>	<b>1,500</b>	<b>1,500</b>	<b>1,500</b>	<b>1,500</b>	<b>7,500</b>	<b>15,785</b>

**Project Detail and Status:**

This is an ongoing project.

In October 2011 the County Legislature authorized \$3,860,000 to be used in 2012 on the following scope:

**CENTER FOR FORENSIC SCIENCES:** \$1,200,000

We have completed the following projects: structural masonry repairs and window replacements.

**COURTHOUSE:** \$50,000

We completed the Motor Control Center replacement project.

**JUSTICE CENTER:** \$413,000

We have completed the project to refinish the exterior insulation and finish system. We have completed the kitchen floor and trench drain replacements. We purchased and installed a new industrial dishwasher. We have completed the fire alarm panel and system replacement.

**PUBLIC SAFETY BUILDING:** \$350,000

We have completed the third floor Central Intelligence Division. We have completed renovations on the fourth floor in the Finance and ABC areas, as well as relocation of the records division to the first floor.

**SHERIFF'S HEADQUARTERS:** \$50,000

We have completed selective abatement, as well as carpet and flooring replacement projects. We have also reconfigured and modified the lobby of this building.

**MULTIPLE BUILDINGS/EXTERIOR COMPLEX:** \$800,000

We have completed the storefront entries at the Civic Center, Public Safety Building, and Justice Center. We have completed the contract for upgrading the telecom room HVAC at the Civic Center. We have begun various lighting and controller replacements with new LED systems and have upgraded our War Memorial athletic fitness area.

**ED KOCHIAN COUNTY OFFICE BUILDING:** \$1,246,000

The abatement project for floors 1, 2, 4, 5 and 6 was completed. This project was the first step of a multiple floor rehabilitation project.

In December 2012 the County Legislature authorized \$1,000,000 in our 2013 budget to continue the following

## Countywide Funds

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improvements:

CRIMINAL COURTHOUSE: \$105,000

The elevator shaft pits have buckled under a combination of subgrade hydraulic pressure and structural failure and need to be repaired. Engineering expected in 2018.

JUSTICE CENTER: \$70,000

The elevator shaft pits have buckled under a combination of subgrade hydraulic pressure and structural failure and need to be repaired. Engineering expected in 2018.

PUBLIC SAFETY BUILDING: \$210,000

We completed the abatement, encapsulation and renovation on the third floor CID. In addition, the renovation of the 4th floor for Evidence(CSU) was completed.

DH&C PLANT: \$250,000

Replacement of National Grid vaults, which are unsafe and unstable. Design is complete, project is delayed because of high bids and the design is being reevaluated.

MULTIPLE BUILDINGS/EXTERIOR COMPLEX: \$435,000

Completed the installation of ADA operators for elevator lobby doors (\$160,000) and ADA improvements to the Theater Restrooms were completed in May 2017.

In Fall 2013 the County Legislature authorized \$500,000 in our 2014 budget as pay-as-you-go funds and in 2014 they authorized \$645,000 to be used on the following scope:

ASSET MANAGEMENT SYSTEM: \$650,000

The County is in need to assess benchmark and input data pertaining to the condition of all County's assets. With an Asset Management System, we will have the tools necessary to analyze and review building conditions and systems in order to determine capital planning, prioritize investments, and protect the County's assets. The first step in the asset management system was deployed in 2016 with the application of Que Ware work order system. We are in the process of researching different asset management systems.

VARIOUS IMPROVEMENTS IN CIVIC CENTER \$180,000

This project provided for renovations of the Onondaga Room for the use by the general public, county employees and the theater patrons. In 2015 and 2016 the former Onondaga Room was renovated as well as the entrance to the cafeteria.

EVERSON GARAGE/COMMUNITY PLAZA: \$330,000

This sub-project will address the following:

- Replacement of Everson Garage fire alarm system. (\$270,000)
- Concrete work on West Garage stairs/entrances (\$50,000) was completed in early 2017

In June 7, 2016 the County Legislature authorized \$1,100,000. These funds, which will be spent in 2018, as well as some of the future funds, for which we plan to seek legislative authorization in the future years, will be spent on the following projects:

VARIOUS IMPROVEMENTS IN CIVIC CENTER \$1,000,000

The main focus of this project is to continue the renovation efforts in the Civic Center, which include ADA enhancements in restrooms and security provisions for employees related to modifications of front entrances, key access doors and surveillance cameras.

MULTIPLE BUILDINGS/EXTERIOR COMPLEX: \$946,000

This sub-project will address the following objects:

- Asbestos removals. We will continue removals and cleanups in various buildings and tunnels. (\$350,000)
- Sidewalk panel replacement - miscellaneous areas (\$100,000)
- Replace and enhance public address systems in compliance with PESH, Codes and Emergency Management reports (\$150,000)

## *Countywide Funds*

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- Repair Terrazzo flooring and drains at Civic Center entries. Replacement of the existing vestibule flooring with Pedigrid systems at entries.(\$60,000)

- Steam trap replacements in various buildings. This project has a 5 year payback due to savings in maintenance and energy (\$300,000 with \$99,000 NYSERDA incentive leaving a local cost of \$201,000)

- Justice Center: We have already started to modify and correct controlling for the booster pumps and domestic hot water. We are also replacing hot water storage tanks including master mixing valves, balancing the domestic hot water recirculation (circuit setters) and replacing solenoid valves that control the individual towers. We used previously authorized funds to finance this project. This work was completed by summer of 2018.

-Civic Center: Various repairs to the compactor and dumpster station in the loading dock. (\$85,000). Design has begun and the work is expected to be complete by fall 2018.

-Board of Elections: Roof replacement. This roof has been in need of many repairs in the last 3 years. In 2010 a condition assessment of this roof was done and the recommendation was to replace it in 5 years. (\$350,000)

We intend to seek legislative authorization for \$1.5 M for construction funds in fall 2019.

*Countywide Funds*

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**DEPARTMENT:** FACILITIES MANAGEMENT

**Project:** LED lighting upgrade in various buildings in downtown campus

**Purpose:** Reduce Operating Costs/Efficiency

**Level of Development:** Advanced

**Project Description:**

The goal of this project is to replace existing light bulbs in various buildings in the downtown campus with LED light bulbs. This retrofit will achieve savings in both energy and maintenance.

**Project Cost Summary:**

<b>FUNDING SOURCE:</b>	<b>Pre-2019</b>	<b>2019</b>	<b>2020</b>	<b>2021</b>	<b>2022</b>	<b>2023</b>	<b>2024</b>	<b>6yr Total</b>	<b>Total:</b>
Borrowing to be Authorized	0		444					444	444
State Aid	0		91					91	91
<b>TOTALS</b>	<b>0</b>		<b>535</b>					<b>535</b>	<b>535</b>

**Project Detail and Status:**

This project will consist of installing Light Emitting Diode (LED) bulbs and tubes in compatible existing fixtures in the Onondaga County Justice Center, OnCenter Parking Garage, Everson Parking Garage. For the most part the existing fluorescent fixtures and ballasts are compatible with linear LEDs and bulbs and no substantial electrical work will be required. In a few instances, fixture or ballast replacement may be required. The use of LEDs will result in a 50% energy savings as compared with the lights being replaced and have a life of approximately 10 years when used about 12 hours per day. Thus the replacement of fluorescent and incandescent lights with LEDs will reduce maintenance costs as well as energy costs.

It is calculated that the costs, savings and the payback for the three locations included in the scope of this project are the following:

Justice center:

Total Cost : \$440,000  
Local Cost: \$384,000  
National Grid incentives: \$56,000  
Annual Savings Maintenance and Electricity: \$62,000  
Payback: within 6.5 years

OnCenter Parking Garage:

Total Cost: \$81,000  
Local Cost: \$51,000  
National Grid incentives: \$30,000.  
Annual Savings Maintenance and Electricity: \$19,500  
Payback: within 3 years

Everson Parking Garage:

Total Cost: \$10,000  
Local Cost: \$4,500  
National Grid incentives: \$5,500.  
Annual Savings Maintenance and Electricity: \$2,000  
Payback: within 3 years

We plan to seek Legislative authorization for these funds in Fall 2019.

*Countywide Funds*

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**DEPARTMENT:** FACILITIES MANAGEMENT

**Project:** OnCenter Rehabilitations

**Purpose:** Public/Employee Safety/Health, Reduce Operating Costs/Efficiency, Maintain Existing Investment, Community/Economic Development

**Level of Development:** Advanced

**Project Description:**

We propose to replace, rehabilitate and restore various fatigued, out of date and failing systems and components within the OnCenter Building group. This will include, but will not be limited to, theater enhancements of acoustical treatments, ADA upgrades and appurtenances, building systems modifications, as well as lighting and insulation replacements.

**Project Cost Summary:**

<b>FUNDING SOURCE:</b>	<b>Pre-2019</b>	<b>2019</b>	<b>2020</b>	<b>2021</b>	<b>2022</b>	<b>2023</b>	<b>2024</b>	<b>6yr Total</b>	<b>Total:</b>
Authorized Borrowing	3,000							0	3,000
Borrowing to be Authorized	0	750	750					1,500	1,500
State Aid	100							0	100
<b>TOTALS</b>	<b>3,100</b>	<b>750</b>	<b>750</b>					<b>1,500</b>	<b>4,600</b>

**Project Detail and Status:**

In December 2012 the County Legislature authorized \$1,500,000 for reconstruction/construction of improvements at the OnCenter, including equipment and furnishings, for projects planned in 2013, 2014, and 2015. The following projects have been completed or are planned:

- Replaced a part of the Convention Center roof, specifically the lower west side roof over the loading dock (\$153,000). The east side of the lower roof will be replaced at an estimated cost of (\$125,000).
- Reinforced and secured OnCenter Garage safety cable fencing (\$78,000).
- Replaced dasher boards for ice hockey and indoor soccer events (\$345,000).
- Replaced the War Memorial laundry facility equipment (\$20,000).
- State St. door system (\$144,000).
- Harrison St. door system (\$72,000).
- Montgomery St. door system (\$20,000).
- Expansion of War Memorial of ice surface (\$500,000). The work was completed in October 2015.
- Replacement of the ballroom lights (\$141,000). The work was expected to begin in 2015. It was publicly bid and the low bid was over \$500,000. We have not started the work because the lowest bid was over budget. We have to work with SMG to make a decision on how to proceed.

In June 7, 2016, the County Legislature authorized \$1,500,000 to be spent in 2016-2018 on the following:

- Entry doors to the theater will be replaced with those meeting new attenuation standards and silent hardware (\$75,000).
- Replace the existing marquees with new digital marquees (\$875,000).

## *Countywide Funds*

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- Replace the inefficient high wattage lighting and controlling systems (\$500,000).

- Insulation repairs, Convention Center (\$250,000).

We have many areas of disrepair and disturbance, mostly in the mechanical, kitchen, and basement areas. They need to be restored to their original integrity. Leaking condensation is causing damage to assets and the loss of heating and cooling radiating away from our systems is costing money.

- Metasys system expansion (\$95,000).

We will extend the connections and interface into the DH&C plant where 24/7 monitoring is available. An expansion of network cabling and programming is needed.

- Replace the next section of Convention Center roof (\$205,000).

In fall 2018 we will seek legislative authorization for the remainder of funds. With these funds we will do the following: Mechanical systems upgrades, flooring replacements, lighting replacements and controls as well as building exterior repairs.

*Countywide Funds*

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**DEPARTMENT:** INFORMATION TECHNOLOGY

**Project:** Technology Refresh (NEW)

**Purpose:** Reduce Operating Costs/Efficiency, Maintain Existing Investment

**Level of Development:** Advanced

**Project Description:**

This project will consist of a technology refresh for Voice, Network, Internet and Data Backup / Restore Services.

**Project Cost Summary:**

<b>FUNDING SOURCE:</b>	<b>Pre-2019</b>	<b>2019</b>	<b>2020</b>	<b>2021</b>	<b>2022</b>	<b>2023</b>	<b>2024</b>	<b>6yr Total</b>	<b>Total:</b>
Borrowing to be Authorized	0	500	1,081					1,581	1,581
<b>TOTALS</b>	<b>0</b>	<b>500</b>	<b>1,081</b>					<b>1,581</b>	<b>1,581</b>

**Project Detail and Status:**

The current technology stack that supports Voice, Network, Internet and Data Backup / Restore Services is at the end of its support life. The support for the above components will discontinue in years 2018 to 2020.

Under this project we intend to upgrade/replace the following:

In 2019:

VOIP Call Manager to version 12.0 and getting our phone licensing up to date: \$450,000

Tivoli Server Manager Backup Server Replacement: \$50,000

In 2020:

2 Cisco Nexus 7000 Core Network Switches: \$226,000

Replacement of Firewall devices, routers, floor switches, Wireless Access Points, Software modules & licenses: \$225,000

Tape Library Replacement: \$630,000

The above scope has been defined in cooperation with certified NYS contractors, which we engaged during 2017 and 2018. By Spring 2018 recommendations of services and bill of materials with associated pricing were provided.

In the first quarter of 2019 we intend to seek legislative authorization for \$500,000 to accomplish the 2019 scope described above.



## Countywide Funds

**DEPARTMENT:** OFFICE OF ENVIRONMENT

**Project:** Ash Tree Management

**Purpose:** Public/Employee Safety/Health, Reduce Operating Costs/Efficiency, Maintain Existing Investment

**Level of Development:** Advanced

**Project Description:**

Emerald Ash Borer (EAB), an invasive species of beetle that kills ash trees, arrived in the U.S. around 2002 and is spreading across the Country. The beetle is already infesting ash trees in Onondaga County. One in nine trees in Onondaga County is an ash tree.

Onondaga County has developed and is implementing an Emerald Ash Borer (EAB) management strategy in order to minimize the hazard risk to the community, the impact of EAB on County operations and to plan for and minimize EAB costs (tree removal/inoculation, manpower and equipment, disposal and tree replacement). All County-owned ash trees with potential targets in the drop zone (people or physical assets) will need to be removed or inoculated to protect the public, protect assets and reduce liability.

**Project Cost Summary:**

<b>FUNDING SOURCE:</b>	<b>Pre-2019</b>	<b>2019</b>	<b>2020</b>	<b>2021</b>	<b>2022</b>	<b>2023</b>	<b>2024</b>	<b>6yr Total</b>	<b>Total:</b>
Borrowing to be Authorized	1,500	750	750	750	750	750	750	4,500	6,000
Pay as You Go	250							0	250
Authorized Borrowing	750							0	750
<b>TOTALS</b>	<b>2,500</b>	<b>750</b>	<b>750</b>	<b>750</b>	<b>750</b>	<b>750</b>	<b>750</b>	<b>4,500</b>	<b>7,000</b>

**Project Detail and Status:**

The County owns approximately 300 parcels of land covering roughly 8,000 acres (including parkland, water supply and wastewater treatment plants, drainage districts, pumping stations, radio towers, institutional campuses for uses including administration, correctional facilities, emergency response operations and more) and nearly 800 miles of highway rights-of-way. These properties are home to tens of thousands of ash trees.

Steps must be taken by the County to ensure that the threat of harm to humans and/or damage to County-owned property is minimized, that the public cost of managing affected trees on County-owned property is minimized and that overall disruption in the community is minimized (including tree replacement needs). To this end the County has taken the following steps:

- 1) Conducted an inventory of ash trees on County-owned property
- 2) Managing ash trees on county owned properties (treating or removing)
- 3) Helping organize a community-wide task force to coordinate a Community EAB Management Strategy.

The inventory of ash trees (location, size, health, nearby targets) was initiated in 2012 and was completed in 2014. Early management efforts have been aimed at removing priority hazard trees, and damaged trees that are likely to become priority hazard trees in critical areas.

Onondaga County will implement a balanced or “selective” ash tree management strategy. The benefit of this balanced approach is that management of ash trees can be optimized at each location, preserving tree functions where they provide the greatest value, restoring lost canopy over time in other locations, and preemptively removing less valuable trees before they become a safety hazard. The County's program features the following key elements:

- 1) Preemptive removal of approximately 95% of inventoried ash trees over a period of 19 years (a little over 44,000 trees).
- 2) Replacement of approximately 10% of removed trees, phased over 19 years, primarily in the County's parks, with non-invasive, non-host tree species (a little over 4,400 replacement trees).

3) Preservation of approximately 5% of inventoried ash trees. These will be carefully chosen, high value ash trees that provide significant amenities for up to 25 years (approximately 2,300 ash trees).

To carry out the County's Ash Tree Management Strategy, the County Office of Environment has entered into an Agreement with the Onondaga County Soil & Water Conservation District (SWCD) to prepare bid documents, administer contracts with vendors and to oversee tree removal and replacement. The SWCD will also assist the County with other EAB associated activities such as monitoring for infestations, community outreach and coordination with other municipalities within the county. It is estimated that the cost for the SWCD to provide these services to the County will be \$80,000/year. Though not part of these administrative and oversight costs, it is also expected that the SWCD will be responsible for inoculating trees selected for preservation.

The projected cost to carry out the County's ash tree management strategy over the next 25 years is approximately \$14 million, \$15.8 million if paid for through the issuance of bonds. In round numbers, estimated ash tree management costs include:

Estimated tree removal costs (over 19 years):	\$9.6 million
Estimated tree replacement costs (over 19 years):	\$1.5 million
Estimated tree inoculation costs (over 25 years):	\$1.6 million
Estimated administrative/oversight costs (over 19 years):	\$1.36 million
Estimated total cost (over 25 years):	\$14 million
Estimated cost to retire debt if bonds are issued:	\$1.8 million
Estimated total cost if bonds are issued:	\$15.8 million

We intend to seek legislative authorization for \$750,000 in Fall 2018

*Countywide Funds*

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**DEPARTMENT:** OFFICE OF ENVIRONMENT

**Project:** Beach Development at Onondaga Lake Park

**Purpose:** Community/Economic Development, Addition Capacity

**Level of Development:** Preliminary

**Project Description:**

The goal of this project is to conduct a feasibility study regarding a beach at Onondaga Lake Park. This study is supported by a state grant. With the cleanliness of Onondaga Lake acceptable to swimming levels, we will study the feasibility options to adding a third beach to the parks system.

**Project Cost Summary:**

<b>FUNDING SOURCE:</b>	<b>Pre-2019</b>	<b>2019</b>	<b>2020</b>	<b>2021</b>	<b>2022</b>	<b>2023</b>	<b>2024</b>	<b>6yr Total</b>	<b>Total:</b>
State Aid	0	300						300	300
<b>TOTALS</b>	<b>0</b>	<b>300</b>						<b>300</b>	<b>300</b>

**Project Detail and Status:**

At this point it appears that water quality levels could support the study of a potential beach along the shores of Onondaga Lake. When appropriate, the Parks Department will assess the feasibility for alternative types of water based recreation at Onondaga Lake Park.

The study will be fully funded by a New York State Department of State Local Waterfront Revitalization (LWRP) grant. The grant calls on \$110,000 in local match which the County Office of Environment, Parks Department and Water Environment Protection will provide in-kind services or budgeted 2018 contracted services to meet.

Legislative authorization for acceptance of the funds happened in the Spring of 2018.

*Countywide Funds*

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**DEPARTMENT:** ONONDAGA COUNTY PUBLIC LIBRARY

**Project:** Petit Branch Library addition and improvements

**Purpose:** Public/Employee Safety/Health, Maintain Existing Investment, Community/Economic Development, Addition Capacity

**Level of Development:** Intermediate

**Project Description:**

The goal of this project is to build a community room as an addition to Petit Library. In addition this project will include various interior and exterior upgrades.

**Project Cost Summary:**

<b>FUNDING SOURCE:</b>	<b>Pre-2019</b>	<b>2019</b>	<b>2020</b>	<b>2021</b>	<b>2022</b>	<b>2023</b>	<b>2024</b>	<b>6yr Total</b>	<b>Total:</b>
State Aid	0		350					350	350
Borrowing to be Authorized	0		485					485	485
Other	0		50					50	50
<b>TOTALS</b>	<b>0</b>		<b>885</b>					<b>885</b>	<b>885</b>

**Project Detail and Status:**

The Petit Library has never had a community room in which to hold programs or community based meetings. This library is located in a busy vibrant neighborhood (Westcott) and the community has expressed a desire to have this kind of space within the library. The addition will provide the community with this space and will include areas for meetings, programs and maker space activities.

In addition this project will address a variety of maintenance and repair needs in both exterior and interior of the library:

- Flammable storage locker
- Tyco Security Camera System
- Time Card Clock Installation
- Replace rear entrance door/replace steel shed door & frame
- New sidewalk from parking lot to Library entrance/Stampcrete design
- Install new ceiling tile/drop ceiling
- Upgrade existing emergency lighting

We plan to seek Legislative authorization for these funds in Fall 2019.

*Countywide Funds*

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**DEPARTMENT:** ONONDAGA COMMUNITY COLLEGE

**Project:** Allyn Hall Upgrades and Improvements

**Purpose:** Reduce Operating Costs/Efficiency, Maintain Existing Investment

**Level of Development:** Preliminary

**Project Description:**

Complete the renovation of Allyn Hall.

**Project Cost Summary:**

<b>FUNDING SOURCE:</b>	<b>Pre-2019</b>	<b>2019</b>	<b>2020</b>	<b>2021</b>	<b>2022</b>	<b>2023</b>	<b>2024</b>	<b>6yr Total</b>	<b>Total:</b>
State Aid	0		1,390					1,390	1,390
Borrowing to be Authorized	0		1,390					1,390	1,390
<b>TOTALS</b>	<b>0</b>		<b>2,780</b>					<b>2,780</b>	<b>2,780</b>

**Project Detail and Status:**

This project will complete the renovation of Allyn Hall including updating the existing locker rooms and restroom facilities, upgrading of the HVAC system, and the installation of a sprinkler system.

*Countywide Funds*

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**DEPARTMENT:** ONONDAGA COMMUNITY COLLEGE

**Project:** Elevator Replacement and Upgrades/ Protection of the Campus E-mail and Phone Servers

**Purpose:** Reduce Operating Costs/Efficiency, Maintain Existing Investment

**Level of Development:** Preliminary

**Project Description:**

Replace outdated elevators along with upgrading the College's e-mail and Phone servers.

**Project Cost Summary:**

<b>FUNDING SOURCE:</b>	<b>Pre-2019</b>	<b>2019</b>	<b>2020</b>	<b>2021</b>	<b>2022</b>	<b>2023</b>	<b>2024</b>	<b>6yr Total</b>	<b>Total:</b>
State Aid	0			323				323	323
Borrowing to be Authorized	0			323				323	323
<b>TOTALS</b>	<b>0</b>			<b>646</b>				<b>646</b>	<b>646</b>

**Project Detail and Status:**

Replace existing elevators with new, energy efficient units. Upgrade and enhance the software protection associated with College's e-mail and Phone servers currently housed in the Mawhinney Hall basement.

*Countywide Funds*

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**DEPARTMENT:** ONONDAGA COMMUNITY COLLEGE

**Project:** Infrastructure - Campus Wide

**Purpose:** Public/Employee Safety/Health, Reduce Operating Costs/Efficiency, Maintain Existing Investment

**Level of Development:** Preliminary

**Project Description:**

Various campus wide infrastructure enhancements.

**Project Cost Summary:**

<b>FUNDING SOURCE:</b>	<b>Pre-2019</b>	<b>2019</b>	<b>2020</b>	<b>2021</b>	<b>2022</b>	<b>2023</b>	<b>2024</b>	<b>6yr Total</b>	<b>Total:</b>
State Aid	0				5,244			5,244	5,244
Borrowing to be Authorized	0				5,244			5,244	5,244
<b>TOTALS</b>	<b>0</b>				<b>10,488</b>			<b>10,488</b>	<b>10,488</b>

**Project Detail and Status:**

Provide for the addition and enhancement to various campus infrastructure items including the installation of a centralized emergency generator, installation of building kiosk system, update HVAC controls, campus lighting, technology upgrades, building access controls, and other various capital investment maintenance items.

*Countywide Funds*

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**DEPARTMENT:** ONONDAGA COMMUNITY COLLEGE

**Project:** Site Improvements

**Purpose:** Public/Employee Safety/Health, Reduce Operating Costs/Efficiency, Maintain Existing Investment

**Level of Development:** Preliminary

**Project Description:**

Various campus site improvements and projects.

**Project Cost Summary:**

<b>FUNDING SOURCE:</b>	<b>Pre-2019</b>	<b>2019</b>	<b>2020</b>	<b>2021</b>	<b>2022</b>	<b>2023</b>	<b>2024</b>	<b>6yr Total</b>	<b>Total:</b>
State Aid	0			1,359				1,359	1,359
Borrowing to be Authorized	0			1,359				1,359	1,359
<b>TOTALS</b>	<b>0</b>			<b>2,718</b>				<b>2,718</b>	<b>2,718</b>

**Project Detail and Status:**

Various campus site improvements and projects including: outdoor campus spaces, development of the overlook parking lot and upgrading the northeast part of campus.



## Countywide Funds

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**DEPARTMENT:** PARKS & RECREATION DEPT.

**Project:** Building an AZA Required Animal Medical Care Center with African Savannah Exhibit

**Purpose:** Public/Employee Safety/Health, Federal/State Mandate, Community/Economic Development, Addition Capacity

**Level of Development:** Intermediate

**Project Description:**

This project seeks to design and construct a medical care center for animals which would include quarantine areas and medical facilities with the capacity for much larger zoo animals. This project also includes a large hoof-stock savannah exhibit that would be located directly adjacent to the medical facility.

**Project Cost Summary:**

FUNDING SOURCE:	Pre-2019	2019	2020	2021	2022	2023	2024	6yr Total	Total:
Borrowing to be Authorized	0	8,000	500	6,550				15,050	15,050
Authorized Borrowing	500							0	500
<b>TOTALS</b>	<b>500</b>	<b>8,000</b>	<b>500</b>	<b>6,550</b>				<b>15,050</b>	<b>15,550</b>

**Project Detail and Status:**

The Rosamond Gifford Zoo presently has a animal medical clinic which does not meet the requirements specified by the American Zoological Association (AZA). Therefore the existing clinic will be decommissioned. This space will be converted to program space for elementary school education and the housing for the outreach animal collection. New adequate facilities will be designed and constructed to meet the required standards, at the same time, creating a more interactive and educational experience for the visitors from the community. Also, this facility will enable the zoo staff to take care of much larger animals and more of them concurrently. This will be done in an environment that is medically and surgically compliant with the standards.

On December 5, 2017 the Legislature approved BR-190 authorizing \$500,000 to fund the engineering design of the first phase of this project.

Engineering and design began in early 2018. Construction will begin in 2019.

The Friends of Rosamond Gifford Zoo will begin a capital campaign to help defray the expenses of this project.

The other component of this project is a large hoof-stock savannah exhibit. The current configuration limits our ability to bring more varieties of larger species of animals in our zoo. Once we build this exhibit we will bring new animals to the zoo. This will cause increases in park visitation and revenues and will improve the identity of our zoo in our community. We plan to start the engineering and design in early 2020 and begin construction in 2021.

The Friends of Rosamond Gifford Zoo will begin a capital campaign to help defray the expenses of this project.

In Fall 2018 we plan to seek legislative authorization for \$8,000,000 to fund the construction of the Animal Medical Care Center.

## Countywide Funds

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**DEPARTMENT:** PARKS & RECREATION DEPT.

**Project:** Carpenters Brook Fish Hatchery Pond Repair

**Purpose:** Reduce Operating Costs/Efficiency, Maintain Existing Investment

**Level of Development:** Advanced

**Project Description:**

This project will provide funding to patch & resurface the current 18 circular and 9 raceway ponds at Carpenters Brook Fish Hatchery.

Problem that Exists: The original concrete ponds were constructed in 1934. These ponds have been exposed to over 80 years of harsh environments. The ponds are leaking at a rapid pace making it more and more difficult to successfully raise fish.

**Project Cost Summary:**

FUNDING SOURCE:	Pre-2019	2019	2020	2021	2022	2023	2024	6yr Total	Total:
Borrowing to be Authorized	0	302						302	302
Authorized Borrowing	100							0	100
<b>TOTALS</b>	<b>100</b>	<b>302</b>						<b>302</b>	<b>402</b>

**Project Detail and Status:**

Carpenters Brook Fish Hatchery has 27 ponds that are in need of repair. Parks has researched other hatcheries in the North East to learn what is currently being done in this industry to improve fish production. Pricing was obtained based on these findings.

This price includes having the vendor ready the ponds' surfaces for proper fiberglass application and adherence by sandblasting loose particles off all ponds, then filling any cracks and crevices in the concrete to make the surface sturdy and level. Vendor will then clean and dry all surfaces to meet the specifications of product(s) being used. Once dry, the surface will be top coated with an aqua gel coat including an ultra violet inhibitor. The tanks will be primed, and then a layer of fiberglass applied. All materials will be FDA approved. The temperature will need to be above 60°F making our window to work on this project from late spring through early fall.

On December 19, 2017 the Legislature approved BR-231 authorizing \$100,000 to begin preparing and lining eighteen round tanks of 25' diameter and twelve rectangular (45'X6') concrete tanks with 3/16" thick fiberglass. This work will start in summer 2018 and will be completed in fall 2018.

In Fall 2018 the Parks Department will seek legislative authorization for the remaining \$302,000 to complete the lining of the tanks as planned. This work will start in late spring 2019 and finish in fall 2019.

*Countywide Funds*

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**DEPARTMENT:** PARKS & RECREATION DEPT.

**Project:** Lights on the Lake Storage Facility

**Purpose:** Reduce Operating Costs/Efficiency, Maintain Existing Investment, Addition Capacity, Other

**Level of Development:** Advanced

**Budget Impact:** (\$34,800)

**Project Description:**

This project seeks to construct a warehouse facility to house the Lights on the Lake show inventory and also provide space in which to work on the light displays.

**Project Cost Summary:**

<b>FUNDING SOURCE:</b>	<b>Pre-2019</b>	<b>2019</b>	<b>2020</b>	<b>2021</b>	<b>2022</b>	<b>2023</b>	<b>2024</b>	<b>6yr Total</b>	<b>Total:</b>
Borrowing to be Authorized	0			370				370	370
<b>TOTALS</b>	<b>0</b>			<b>370</b>				<b>370</b>	<b>370</b>

**Project Detail and Status:**

Onondaga Lake Park is home to the annual Lights on the Lake show and the approximately 200 displays are currently stored in a rented space. This is a construction project for building a warehouse and workspace for the lighting displays of the Lights on the Lake show. The new building would be located in Onondaga Lake Park, which increases convenience over the current location because it is on site; Parks employees would not have to leave the park to store or work on Lights on the Lake displays. The proposed building is expected to have a useful life of at least thirty years.

*Countywide Funds*

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**DEPARTMENT:** PARKS & RECREATION DEPT.

**Project:** Long Branch Park Improvements

**Purpose:** Public/Employee Safety/Health, Reduce Operating Costs/Efficiency, Maintain Existing Investment, Community/Economic Development, Addition Capacity

**Level of Development:** Advanced

**Project Description:**

Long Branch Park is one of the most popular event destinations in the Onondaga County Parks system. This construction project is to replace the aging structures and improve the parking and entrance area to the park. This effort will also bring the aging park up to current ADA and building codes for restrooms, accessibility and parking.

**Project Cost Summary:**

<b>FUNDING SOURCE:</b>	<b>Pre-2019</b>	<b>2019</b>	<b>2020</b>	<b>2021</b>	<b>2022</b>	<b>2023</b>	<b>2024</b>	<b>6yr Total</b>	<b>Total:</b>
Authorized Borrowing	350							0	350
Borrowing to be Authorized	0		950	1,000				1,950	1,950
<b>TOTALS</b>	<b>350</b>		<b>950</b>	<b>1,000</b>				<b>1,950</b>	<b>2,300</b>

**Project Detail and Status:**

On 2/2/2016 the County Legislature authorized \$350,000 (BR-009). With this amount authorized we have accomplished and are working on the following:

The designs for the maintenance building, ADA compliant comfort station and parking lot are complete. The shelters have been completed in the Spring of 2017. (\$296,000)

The electrical service design for upgraded capacity to the park is complete and the construction work will be done in 2020.

The construction of the maintenance building, ADA compliant comfort station and parking lot are scheduled to begin in 2020.

In fall 2019 the Parks Department intends to seek legislative authorization for \$950,000 to continue the construction of the scope elements of this project planned for 2020.

*Countywide Funds*

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**DEPARTMENT:** PARKS & RECREATION DEPT.

**Project:** Park Improvements/Willow Bay

**Purpose:** Maintain Existing Investment, Community/Economic Development

**Level of Development:** Preliminary

**Project Description:**

This project is to explore ideas to further develop Onondaga Lake Shoreline property. In 2012, the Onondaga County Parks Department invested limited resources in developing a preliminary plan for improvements to the Willow Bay area of Onondaga Lake Park. This preliminary investigation led to the determination that the Willow Bay area could benefit from significant capital improvements as attendance at Onondaga Lake grows and the cleanup of Onondaga Lake progresses into its final phases.

**Project Cost Summary:**

<b>FUNDING SOURCE:</b>	<b>Pre-2019</b>	<b>2019</b>	<b>2020</b>	<b>2021</b>	<b>2022</b>	<b>2023</b>	<b>2024</b>	<b>6yr Total</b>	<b>Total:</b>
Borrowing to be Authorized	0		220	1,300	1,220			2,740	2,740
<b>TOTALS</b>	<b>0</b>		<b>220</b>	<b>1,300</b>	<b>1,220</b>			<b>2,740</b>	<b>2,740</b>

**Project Detail and Status:**

This project builds upon investments made in 2012 to improve trails, parking facilities, and ADA access within Onondaga Lake Park.

Preliminary investigations funded in 2012 of the various picnic shelters, parking facilities, and trails within the Willow Bay area of Onondaga Lake Park have indicated the need for investment in aging facilities and substandard parking facilities that no longer meet the demands of Onondaga Lake Park's visitors. Parking facilities require modernization and improvement, picnic pavilions need full replacement, and aged trail systems need to be removed and/or repaired.

These improvements will help to advance that long-term objective by ensuring that the trails, pavilions and parking facilities are up to modern standards for a public bathing beach, which is object of another project of this capital improvement plan.

In the fall of 2019, the Parks Department will seek legislative authorization for \$220,000 to fund a study and engineering of the future plan for Willow Bay.

*Countywide Funds*

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**DEPARTMENT:** PARKS & RECREATION DEPT.

**Project:** Park Roads, Parking Areas, and Trail Paving

**Purpose:** Maintain Existing Investment, Community/Economic Development

**Level of Development:** Advanced

**Project Description:**

This project is the ongoing maintaining, resurfacing or new construction of park roads, trails and parking lots

**Project Cost Summary:**

<b>FUNDING SOURCE:</b>	<b>Pre-2019</b>	<b>2019</b>	<b>2020</b>	<b>2021</b>	<b>2022</b>	<b>2023</b>	<b>2024</b>	<b>6yr Total</b>	<b>Total:</b>
Borrowing to be Authorized		750	1,500	1,000	600	485		4,335	4,335
Authorized Borrowing	6,265							0	6,265
<b>TOTALS</b>	<b>6,265</b>	<b>750</b>	<b>1,500</b>	<b>1,000</b>	<b>600</b>	<b>485</b>		<b>4,335</b>	<b>10,600</b>

**Project Detail and Status:**

This project is the ongoing reconstruction, resurfacing and improvement to park roads, trails and parking lots.

In 2/2/2016 the County Legislature authorized \$700,000 and in 12/19/2017 authorized \$100,000. These funds have been and are being used to accomplish the following:

McKinley entrance road at Oneida Shores, which was completed in Fall 2016.

The main entrance road, Overlook lot, Maintenance lot, Skate Park lot at Onondaga Lake Park, which was completed in Fall 2016.

The Salt Museum, which was completed in Fall 2017.

Portions of Ten Eyck Drive, which will be completed in 2018.

In Fall 2018 we plan to seek legislative authorization for \$750,000 that will fund the next phase of this project.

In 2019 we plan to do the following projects:

Carpenter's Brook Main Entrance road	\$300,000
Veterans Cemetery internal roads	\$70,000
Remaining portions of Ten Eyck	\$70,000
Pratts Falls and Camp Brockway roads and lots	\$310,000
Subtotal	\$750,000

In 2020 we plan to do the following project:

Baseball Stadium parking	\$1,500,000
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In 2021 we plan to do the following projects:

Hopkins Road parking	\$750,000
Loomis Cemetery road repair and new stone dust	\$250,000
Subtotal	\$1,000,000

In 2022 we plan to do the following projects:

Jamesville Beach parking and driveways	\$450,000
Highland Sledding Hill parking lot	\$80,000
Oneida Shores Park Office and Maintenance compound	\$70,000
Subtotal	\$600,000

In 2023 we plan to do the following projects:

Oneida Shores McKinley Shelter parking areas and entry roads	\$175,000
Highland main road from Community House to Grove Gate	\$60,000
Highland main road from Spruce Grove Gate to Mill Yard	\$250,000
Subtotal	\$485,000
Grand Total	\$4,335,000

*Countywide Funds*

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**DEPARTMENT:** PARKS & RECREATION DEPT.

**Project:** Parks Infrastructure Rehabilitation (NEW)

**Purpose:** Public/Employee Safety/Health, Reduce Operating Costs/Efficiency, Maintain Existing Investment

**Level of Development:** Intermediate

**Project Description:**

Much of the Parks Infrastructure is over 20 years old or older and is need of replacement. Some equipment is obsolete and spare parts are unavailable. Buildings are in need of renovations and updating to meet current standards. This project will take a systematic approach to replace old and obsolete equipment and systems at buildings in the Parks Department portfolio.

**Project Cost Summary:**

<b>FUNDING SOURCE:</b>	<b>Pre-2019</b>	<b>2019</b>	<b>2020</b>	<b>2021</b>	<b>2022</b>	<b>2023</b>	<b>2024</b>	<b>6yr Total</b>	<b>Total:</b>
Borrowing to be Authorized	0	645	1,207	305	470			2,627	2,627
<b>TOTALS</b>	<b>0</b>	<b>645</b>	<b>1,207</b>	<b>305</b>	<b>470</b>			<b>2,627</b>	<b>2,627</b>

**Project Detail and Status:**

The following list represents the parks and the objects in each of them where we will do replacing or renovating work. This list is presented in priority order.

In 2019 we plan to do the following:

At Highland Forest, Parks Administration office and Jamesville Beach we will replace air conditioning units that are inefficient and obsolete to the point that repair parts are not available. In addition they use R-22 refrigerant that is no longer environmentally permitted. Replace old furnaces or boilers at Highland Forest Patrol Office and Beaver Lake Maintenance Building as well as at Parks Administration Building and Garage. (\$220,000)

Replace obsolete and inefficient furnaces at Onondaga Lake Park Office and Carpenter's Brook. Replace Zoo exhibit HVAC Units that are corroded by the acidic or caustic environment in which they operate. Replace Baseball Stadium A/C, Heat Pump Units for suites. These units are original equipment and are failing periodically. (\$200,000)

Highland - Replace Fire Suppression System. The current system is leaking causing spurious false alarms some of which have occurred during reserved events. (\$125,000)

Renovate the Willow Bay Annex Comfort Station. (\$100,000)

Subtotal: \$645,000

In 2020 we plan to do the following:

Baseball Stadium Parking Lot Lights Replacement - Lights are obsolete and National Grid will no longer maintain them. There are 12 light poles that the County plans to buy from the National Grid and upgrade them to LEDs which will reduce annual operating costs. (\$200,000)

Loomis/Veterans - Address recurring flooding issues. Loomis and Veterans Cemetery have areas that flood persistently doe to the land contour and location. To eliminate flooding, a creek that runs through the property will be deepened and rerouted. In addition, flood retention ponds will be constructed. (\$210,000)

Onondaga Lake Park - Replace water main and add hydrant to Marina and Yacht Club. In 2016 a portion of the waterline from the Village border to the Onondaga Lake Park Marina and Onondaga Lake Yacht Club failed and needed repair. This line is very old and will likely fail again. This project will replace the old piping as well as add a hydrant that will protect both the Marina and Yacht club. (\$90,000)

## *Countywide Funds*

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Hopkins Field - Lighting repair and scoreboard replacement. The field lights at the Hopkins Road Park softball fields are tilting and failing. This project will repair or replace the failed lights and scoreboard which is very old, malfunctioning and beyond repair. (\$50,000)

Renovate Hiawatha Point Comfort Station and convert former Onondaga Lake Park Concession building, that is now empty, into a reserved shelter space. Build two new reserved space shelters at Jamesville Beach, one to replace an aging point tent, the second to mitigate capacity constraints. (\$657,000)

Subtotal: \$1,207,000

In 2021 we plan to do the following:

Jamesville - Replace Sandpiper Shelter. The Sandpiper Shelter is aging and is in need of replacement ( \$200,000)

Jamesville - Replace Deck at Overlook Shelter. The deck at the Overlook Shelter is aging and is in need of replacement. (\$15,000)

Highland Forest - Add Equipment Garage. Highland Forest has vehicles and equipment that are currently stored outdoors. This project would add a structure where this equipment could be stored and maintained. (\$90,000)

Subtotal: \$305,000

In 2022 we plan to do the following:

Pratts Falls - Camp Brockway Kitchen Remodel. Camp Brockway is one of the County's most rented facilities for parties and banquets. This project will update the kitchen facilities. (\$45,000)

Carpenter's Brook - Renovate Public Restrooms. The public restrooms at Carpenter's Brook are old and have equipment for which spare parts can no longer be purchased. This project will update the restrooms. (\$65,000)

Parks Administration Building – Replace office windows. The windows in the Parks Building have significant air leakage and infiltration resulting in high energy costs. This project will replace the windows with ones that are more energy efficient. (\$360,000)

Subtotal: \$470,000

Grand Total: \$2,627,000

Parks intends to request \$645,000 in Fall of 2018 for the initial phase of this project.



*Countywide Funds*

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**DEPARTMENT:** PARKS & RECREATION DEPT.

**Project:** Playground Improvements

**Purpose:** Public/Employee Safety/Health, Reduce Operating Costs/Efficiency, Maintain Existing Investment, Federal/State Mandate, Addition Capacity

**Level of Development:** Advanced

**Project Description:**

The Parks system is home to several major playgrounds that represent a multi-million dollar investment. Many of these playgrounds have expensive composite surfaces that deteriorate over time. This project seeks funding to maintain, repair, upgrade and create playgrounds at new sites.

**Project Cost Summary:**

FUNDING SOURCE:	Pre-2019	2019	2020	2021	2022	2023	2024	6yr Total	Total:
Borrowing to be Authorized	0		500	500	500	300		1,800	1,800
Authorized Borrowing	200							0	200
<b>TOTALS</b>	<b>200</b>		<b>500</b>	<b>500</b>	<b>500</b>	<b>300</b>		<b>1,800</b>	<b>2,000</b>

**Project Detail and Status:**

The Parks system is home to several major playgrounds that represent a multi-million dollar investment. For safety, many of these playgrounds have expensive composite surfaces that deteriorate over time. This project seeks funding to maintain, repair, upgrade and create playgrounds at new sites. On December 19, 2017, the Legislature approved BR-231 authorizing \$200,000 for replacement of the surface at the Wegmans Boundless Playground which will be performed in 2018.

The Parks Department intends to seek legislative authorization for \$500,000 in fall 2019 to continue the upgrades as listed below:

Willow Bay Annex

Surface: \$2,500 Additional Fibar (Engineered Wood Fiber)  
Structures: \$45,000 Remove current outdated structure, replace with similar structure

Willow Bay

Surface: \$75,000 Full Tuff-Turf carpeting  
Addition: \$15,000 Second set of swings (2 additional bays)  
Structures: \$100,000 Remove current outdated structure, replace with similar, expanded structure

Long Branch

Surface: \$2,500 Additional Fibar (Engineered Wood Fiber)  
Addition: \$15,000 Two bays of swings  
Structures: \$45,000 Remove current outdated structure, replace with new updated pieces

Oneida Shores

Beach Playground \$75,000 Surfacing - removal current rubber surfacing and installation of Full Tuff Turf Carpeting

Jamesville Beach \$82,000 Surfacing - removal current fibar surfacing and installation of Full Tuff Turf Carpeting

Wegmans Good Dog Park Agility Playground \$35,000 - add two agility playgrounds; a larger one on the "any dog side", a smaller one on the "small dog side".

In future years some of the projects the Parks Department will seek funding to include:

Wegmans Boundless Playground

## *Countywide Funds*

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Additional play structure, double the swing bays and climber

Highland Forest \$175,000 New playground - play pieces and surfacing designed with the lodge theme to fit into the landscape at Highland Forest

Other projects still in planning phase

## Countywide Funds

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**DEPARTMENT:** PARKS & RECREATION DEPT.

**Project:** Salt Museum Rehabilitation

**Purpose:** Public/Employee Safety/Health, Maintain Existing Investment, Community/Economic Development

**Level of Development:** Advanced

**Project Description:**

The historic Salt Museum at Onondaga Lake Parks has deteriorated over time and is in need of some repair to protect from further decline. This project will replace the roof and fix the chimney to seal the building from the elements. In the second phase, which we plan to execute in 2019, we will address the need to repair the foundation and associated landscaping as well as windows.

**Project Cost Summary:**

FUNDING SOURCE:	Pre-2019	2019	2020	2021	2022	2023	2024	6yr Total	Total:
Authorized Borrowing	290							0	290
Borrowing to be Authorized			310					310	310
<b>TOTALS</b>			<b>310</b>					<b>310</b>	<b>600</b>

**Project Detail and Status:**

The Salt Museum is 82 years old and is a very important part of our historical heritage and identity. Due to its age and use throughout the years, it is now in need of comprehensive repairs. These repairs include total roof replacement with chimney repointing, windows replacement, and siding repair and replacement with board and batten siding, as well as painting. The deck walkway will also be replaced together with asphalt side walk. The foundation and window replacement work has not started yet and will start in 2020.

Restoration of the Salt Museum began in the Fall of 2016. The siding was repaired and building was painted by the Facilities painters with two coats of paint. The roof repairs were completed in 2017. The chimney has been repaired and the broken bricks replaced and deteriorated mortar joints reconstructed. The chimney is being fitted with a steel cap to prevent water intrusion and as a long term protection for the chimney.

On August 2, 2016 the County Legislature approved BR-133 for \$290,000 to fund the construction of roof and chimney repairs. The rest of the work completed so far was done with funds from operating budget.

*Countywide Funds*

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**DEPARTMENT:** SHERIFF POLICE/CIVIL

**Project:** Sheriff's New Headquarters Facility

**Purpose:** Public/Employee Safety/Health, Reduce Operating Costs/Efficiency, Addition Capacity

**Level of Development:** Preliminary

**Project Description:**

The goal of this project is to conduct a study to consolidate all of the Police and Civil operations into a central facility. The new facility will consolidate several existing facilities including Headquarters (South State Street), the Property and Evidence Facility/Impound Lot (Joy Road), the Special Operations Facility (Cessna Road), the Patrol Substations, and all administrative functions.

**Project Cost Summary:**

<b>FUNDING SOURCE:</b>	<b>Pre-2019</b>	<b>2019</b>	<b>2020</b>	<b>2021</b>	<b>2022</b>	<b>2023</b>	<b>2024</b>	<b>6yr Total</b>	<b>Total:</b>
Authorized Borrowing		869						869	869
<b>TOTALS</b>		<b>869</b>						<b>869</b>	<b>869</b>

**Project Detail and Status:**

Due to the age of the facilities currently in use by the Sheriff's Office, several of the facilities are in deteriorating conditions. These deteriorating facilities include the Sheriff's Headquarters building, the Special Operations Unit at Cessna Road, and the Property and Evidence building. The purpose of this project is to consolidate all of the Sheriff's Office facilities including the K-9 Unit and the Police Substations.

Initially, we intend to hire an engineering/consulting firm to help us with identifying a location and configuration of this new facility as well as the cost of construction. The funds we are requesting will serve to acquire these services. Once we get the study and the engineering design completed, we will request the construction funds.

The funds that are needed to complete the needs assessment study and engineering design are available from previous authorizations.

In the fall of 2018 we intend to seek legislative authorization that will allow the use these available authorized funds for the scope of this project.

## Countywide Funds

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**DEPARTMENT:** TRANSPORTATION

**Project:** Bituminous Surface Treatment

**Purpose:** Public/Employee Safety/Health, Reduce Operating Costs/Efficiency, Maintain Existing Investment

**Level of Development:** Ongoing

**Project Description:**

This project provides for the treatment of County highways with a bituminous surface treatment to prolong the life of the wearing surface.

**Project Cost Summary:**

<b>FUNDING SOURCE:</b>	<b>2018</b>	<b>2019</b>	<b>2020</b>	<b>2021</b>	<b>2022</b>	<b>2023</b>	<b>2024</b>	<b>6yr Total</b>	<b>Total:</b>
State Aid	1250	450	450	450	450	450	450	2,700	3,950
Pay as You Go		390	1,170	1,450	1,760	2,030	2,308	9,108	9,108
<b>TOTALS</b>	<b>1,250</b>	<b>840</b>	<b>1,620</b>	<b>1,900</b>	<b>2,210</b>	<b>2,480</b>	<b>2,758</b>	<b>11,808</b>	<b>13,058</b>

**Project Detail and Status:**

The bituminous surface treatment program is designed to protect 375 centerline miles of the low volume County cold mix highway system. The program's focus is to preserve the cold mix roads using a data driven, system-wide decision making approach. Consistent with the New York State Department of Transportation's Forward Four Guiding Principles, a "preservation first" strategy is being implemented as part of this capital plan to keep good cold mix roads in a state of good repair in order to realize a lower-cost preservation cycle, as opposed to using a "worst first" approach.

This process seals the surface of low volume highways while enhancing the traction and stopping abilities of the wearing surface, thereby reducing the County's liability.

Pavement ratings and traffic volumes will be used as a basis in the selection of the needed highway work. In addition, the importance of each highway as it relates to the overall transportation system will be considered as well.

## Countywide Funds

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**DEPARTMENT:** TRANSPORTATION

**Project:** Bridges

**Purpose:** Public/Employee Safety/Health, Reduce Operating Costs/Efficiency, Maintain Existing Investment, Federal/State Mandate, Community/Economic Development

**Level of Development:** Ongoing

**Project Description:**

This program addresses the maintenance and repair of bridges within the County highway system.

**Project Cost Summary:**

<b>FUNDING SOURCE:</b>	<b>2018</b>	<b>2019</b>	<b>2020</b>	<b>2021</b>	<b>2022</b>	<b>2023</b>	<b>2024</b>	<b>6yr Total</b>	<b>Total:</b>
Federal Aid	2464							0	2,464
Borrowing to be Authorized		880	900	920	940	960	980	5,580	5,580
Pay as You Go	140	200	210	220	230	240	250	1,350	1,490
State Aid	458							0	458
<b>TOTALS</b>	<b>3,062</b>	<b>1,080</b>	<b>1,110</b>	<b>1,140</b>	<b>1,170</b>	<b>1,200</b>	<b>1,230</b>	<b>6,930</b>	<b>9,992</b>

**Project Detail and Status:**

The Department of Transportation operates an ongoing bridge construction program, using Department forces, to maintain the 210 bridges within the County highway system in a safe and acceptable condition. Site selection is determined through inspection results. Contract forces, frequently with State and Federal aid, undertake larger projects.

The New York State Department of Transportation conducts an annual inspection of all bridges in the State with a span of twenty feet or greater. Each bridge receives a condition rating based on a scale of zero to seven. The Onondaga County Department of Transportation's goal is to raise the average condition rating of its bridges to over five. The increased annual funding of this project reflects the Department's efforts to meet this goal.

## Countywide Funds

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**DEPARTMENT:** TRANSPORTATION

**Project:** Capital Highway Construction

**Purpose:** Public/Employee Safety/Health, Reduce Operating Costs/Efficiency, Maintain Existing Investment, Community/Economic Development, Maximize Outside Funding

**Level of Development:** Ongoing

**Project Description:**

This project involves construction of major highway improvements.

**Project Cost Summary:**

<b>FUNDING SOURCE:</b>	<b>2018</b>	<b>2019</b>	<b>2020</b>	<b>2021</b>	<b>2022</b>	<b>2023</b>	<b>2024</b>	<b>6yr Total</b>	<b>Total:</b>
Borrowing to be Authorized		240	500	1,000	1,000	1,000	1,000	4,740	4,740
State Aid	3015	210	600					810	3,825
Federal Aid	19680	1,800	3,200					5,000	24,680
Authorized Borrowing	1164							0	1,164
Other	900							0	900
<b>TOTALS</b>	<b>24,759</b>	<b>2,250</b>	<b>4,300</b>	<b>1,000</b>	<b>1,000</b>	<b>1,000</b>	<b>1,000</b>	<b>10,550</b>	<b>35,309</b>

**Project Detail and Status:**

This project encompasses major highway improvements as follows:

1. - Traffic Capacity - includes improvements to signalization, grading, and alignment using designs based upon the projection of traffic volumes 20 years into the future.
2. - Accident Reduction - using NYS "Accident Location Information System" (ALIS) accident rate reports, improvements to pavement quality, highway geometrics, road shoulders, turning lanes, traffic control devices, guide rail, and the elimination of roadside hazards, are made in an effort to reduce the accident rates at identified locations.
3. - Green Infrastructure - Projects under this category would utilize means and methods of green infrastructure to encourage the retention and infiltration of storm water runoff.
4. - Maintenance Costs - improvements such as full depth replacement of the pavement, paved shoulders, improved drainage, and provisions for sub base drainage are made to extend the pavement life of highways.
5. - Right of Way Acquisitions – the purchase of needed Rights of Way necessary to complete the programmed projects.

The program's focus is to preserve our highway system consistent with the New York State Department of Transportation's Forward Four Guiding Principles. This "preservation first" strategy is being implemented as part of this capital plan to keep pavements in a state of good repair in order to realize a lower-cost preservation cycle, as opposed to using a "worst first" approach.

Individual highway projects are at various stages of development. Due to the severely rising costs of construction and the need to maintain an even flow of funding, some projects have been funded over multiple years. The schedule is as follows:

Locally Administered, Federally Aided Highway and Bridge Construction projects have been funded as part of this plan. Projects include Old Route 5 & Warners Road, Onondaga Lake Canal way Trail Salina Extension, and Old Liverpool Road Paving Project.

*Countywide Funds*

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**DEPARTMENT:** TRANSPORTATION

**Project:** Caughdenoy Road / NYS Route 31 Road Improvements

**Purpose:** Public/Employee Safety/Health, Reduce Operating Costs/Efficiency, Maintain Existing Investment, Community/Economic Development, Maximize Outside Funding, Addition Capacity

**Level of Development:** Preliminary

**Project Description:**

This project will improve Caughdenoy Road from NYS Route 31 to 0.61 miles north in conjunction with the White Pines Business Park Development. The intersection of NYS Route 31 and Caughdenoy Road will also be improved.

**Project Cost Summary:**

<b>FUNDING SOURCE:</b>	<b>Pre-2019</b>	<b>2019</b>	<b>2020</b>	<b>2021</b>	<b>2022</b>	<b>2023</b>	<b>2024</b>	<b>6yr Total</b>	<b>Total:</b>
Authorized Borrowing	530							0	530
Borrowing to be Authorized	0		4,120					4,120	4,120
<b>TOTALS</b>	<b>530</b>		<b>4,120</b>					<b>4,120</b>	<b>4,650</b>

**Project Detail and Status:**

The scope of this project is to replace the existing two lane Caughdenoy Road with a three lane section from NYS Route 31 to the railroad crossing 0.61 miles north in conjunction with the development of the White Pines Business Park. As part of the project, the Caughdenoy/Route 31 intersection will be improved by adding dedicated left turn lanes on all legs and the addition of a new three colored traffic signal. The funding for engineering design of this project was authorized by Resolution #165 dated November 9, 2012. The construction, by contract forces, is anticipated to start in 2019 and be completed in 2019.



## Countywide Funds

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**DEPARTMENT:** TRANSPORTATION

**Project:** Cold Mix Bituminous Paving

**Purpose:** Public/Employee Safety/Health, Reduce Operating Costs/Efficiency, Maintain Existing Investment

**Level of Development:** Ongoing

**Project Description:**

This project entails the repaving of the 375 miles of secondary County roads on a rotating basis.

**Project Cost Summary:**

<b>FUNDING SOURCE:</b>	<b>2018</b>	<b>2019</b>	<b>2020</b>	<b>2021</b>	<b>2022</b>	<b>2023</b>	<b>2024</b>	<b>6yr Total</b>	<b>Total:</b>
Borrowing to be Authorized		1,480	1,300	1,550	1,220	800	350	6,700	6,700
Pay as You Go		0	600	900	1,550	2,050	3,082	8,182	8,182
State Aid	950	1,690	1,690	1,690	1,690	1,690	1,690	10,140	11,090
Authorized Borrowing	1047							0	1,047
<b>TOTALS</b>	<b>1,997</b>	<b>3,170</b>	<b>3,590</b>	<b>4,140</b>	<b>4,460</b>	<b>4,540</b>	<b>5,122</b>	<b>25,022</b>	<b>27,019</b>

**Project Detail and Status:**

The cold mix bituminous paving program is designed to maintain 375 centerline miles of the low volume County cold mix highway system. The cold mix bituminous pavement is laid with a paving machine, and then surface treatment is applied.

The program's focus is to preserve the cold mix roads using a data driven, system-wide decision making approach. Consistent with the New York State Department of Transportation's Forward Four Guiding Principles, a "preservation first" strategy is being implemented as part of this capital plan to keep good cold mix roads in a state of good repair in order to realize a lower-cost preservation cycle, as opposed to using a "worst first" approach.

Pavement ratings and traffic volumes will be used as a basis in the selection of the needed highway work. In addition, the importance of each highway as it relates to the overall transportation system will be considered as well.

*Countywide Funds*

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**DEPARTMENT:** TRANSPORTATION

**Project:** Guide Rail

**Purpose:** Public/Employee Safety/Health, Maintain Existing Investment

**Level of Development:** Ongoing

**Project Description:**

This program involves the installation of guide rail at various locations on County highways.

**Project Cost Summary:**

<b>FUNDING SOURCE:</b>	<b>2018</b>	<b>2019</b>	<b>2020</b>	<b>2021</b>	<b>2022</b>	<b>2023</b>	<b>2024</b>	<b>6yr Total</b>	<b>Total:</b>
Pay as You Go		250	510	530	540	550	560	2,940	2,940
Authorized Borrowing	250							0	250
<b>TOTALS</b>	<b>250</b>	<b>250</b>	<b>510</b>	<b>530</b>	<b>540</b>	<b>550</b>	<b>560</b>	<b>2,940</b>	<b>3,190</b>

**Project Detail and Status:**

Guide rail has been used extensively in the last thirty years as a means to protect the traveling public from roadside hazards. This program is an ongoing annual program that will upgrade existing guide rail and provide for the installation of new guide rail at various locations on County highways to improve safety and reduce liability where roadside hazards are impossible or too costly to eliminate. Costs for guide rail replacement have increased since the New York State Department of Transportation now requires the usage of box beam type of guide rail. Costs shown reflect the additional cost to upgrade existing "W" beam rail with "box beam" rail.

## Countywide Funds

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**DEPARTMENT:** TRANSPORTATION

**Project:** Repaving Program (Hot Mix Bituminous)

**Purpose:** Public/Employee Safety/Health, Reduce Operating Costs/Efficiency, Maintain Existing Investment, Community/Economic Development, Maximize Outside Funding

**Level of Development:** Ongoing

**Project Description:**

This program provides for the repaving of major, high volume County roads to maintain our investment in the transportation system.

**Project Cost Summary:**

<b>FUNDING SOURCE:</b>	<b>2018</b>	<b>2019</b>	<b>2020</b>	<b>2021</b>	<b>2022</b>	<b>2023</b>	<b>2024</b>	<b>6yr Total</b>	<b>Total:</b>
State Aid	3440	3,500	3,500	3,500	3,500	3,500	3,500	21,000	24,440
Pay as You Go			1,590	4,360	6,160	7,950	9,750	29,810	29,810
Borrowing to be Authorized		5,100	3,970	2,200	1,500	900	320	13,990	13,990
Authorized Borrowing	2490							0	2,490
<b>TOTALS</b>	<b>5,930</b>	<b>8,600</b>	<b>9,060</b>	<b>10,060</b>	<b>11,160</b>	<b>12,350</b>	<b>13,570</b>	<b>64,800</b>	<b>70,730</b>

**Project Detail and Status:**

This ongoing bituminous hot mix program, which began in 1978, is designed to protect the County's investment in 428 centerline miles, equating to 477 two lane equivalent highway miles of higher-type roads.

The program's focus is to preserve the hot mix roads using a data driven, system-wide decision making approach. Consistent with the New York State Department of Transportation's Forward Four Guiding Principles, a "preservation first" strategy is being implemented as part of this capital plan to keep good hot mix roads in a state of good repair in order to realize a lower-cost preservation cycle, as opposed to using a "worst first" approach.

Pavement ratings and traffic volumes will be used as a basis in the selection of the needed highway work. In addition, the importance of each highway as it relates to the overall transportation system will be considered as well.

*Countywide Funds*

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**DEPARTMENT:** TRANSPORTATION

**Project:** Testing, Drainage and Facilities Repair

**Purpose:** Public/Employee Safety/Health, Reduce Operating Costs/Efficiency, Maintain Existing Investment

**Level of Development:** Ongoing

**Project Description:**

This project provides support programs for the Department of Transportation's Annual Work Plan.

**Project Cost Summary:**

<b>FUNDING SOURCE:</b>	<b>2018</b>	<b>2019</b>	<b>2020</b>	<b>2021</b>	<b>2022</b>	<b>2023</b>	<b>2024</b>	<b>6yr Total</b>	<b>Total:</b>
Pay as You Go	154	400	520	540	560	580	600	3,200	3,354
Authorized Borrowing	500							0	500
<b>TOTALS</b>	<b>654</b>	<b>400</b>	<b>520</b>	<b>540</b>	<b>560</b>	<b>580</b>	<b>600</b>	<b>3,200</b>	<b>3,854</b>

**Project Detail and Status:**

The Department of Transportation operates and maintains ongoing Testing, Drainage and Facilities Repair programs to support our Annual Highway Work Plan and maintain the County highway system in a safe, acceptable and reliable condition. The testing program provides funds to continue our Pavement Management System, allowing us to prepare and prioritize our highways for Hot and Cold Mix Paving and Surface Treatment applications. The drainage project covers drainage repairs that need to be made in advance of the maintenance paving programs in order to perform these operations in a cost effective manner. The facilities repair project allows us to make repairs and perform maintenance to our four maintenance facilities not provided for in the annual budget.

## Countywide Funds

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**DEPARTMENT:** TRANSPORTATION

**Project:** Traffic Systems Management

**Purpose:** Public/Employee Safety/Health, Reduce Operating Costs/Efficiency, Maintain Existing Investment

**Level of Development:** Ongoing

**Project Description:**

This program addresses Traffic System improvements on County highways.

**Project Cost Summary:**

<b>FUNDING SOURCE:</b>	<b>2018</b>	<b>2019</b>	<b>2020</b>	<b>2021</b>	<b>2022</b>	<b>2023</b>	<b>2024</b>	<b>6yr Total</b>	<b>Total:</b>
Borrowing to be Authorized		300	330	330	340	340	350	1,990	1,990
Authorized Borrowing	250							0	250
<b>TOTALS</b>	<b>250</b>	<b>300</b>	<b>330</b>	<b>330</b>	<b>340</b>	<b>340</b>	<b>350</b>	<b>1,990</b>	<b>2,240</b>

**Project Detail and Status:**

This program provides funds to upgrade various County highway intersections to improve traffic flow and safety. Highway capacity and safety can be increased at minimal cost on many County roads through intersection improvements. These projects are identified through our ongoing traffic count program, or through the use of the Accident Location Information System (ALIS). Types of work included in this classification are:

- Traffic signal installation or modification.
- Addition of turning lanes at an intersection.
- Complete intersection reconstruction including signals, adequate lanes, paving, striping, roadside hazard elimination, etc.

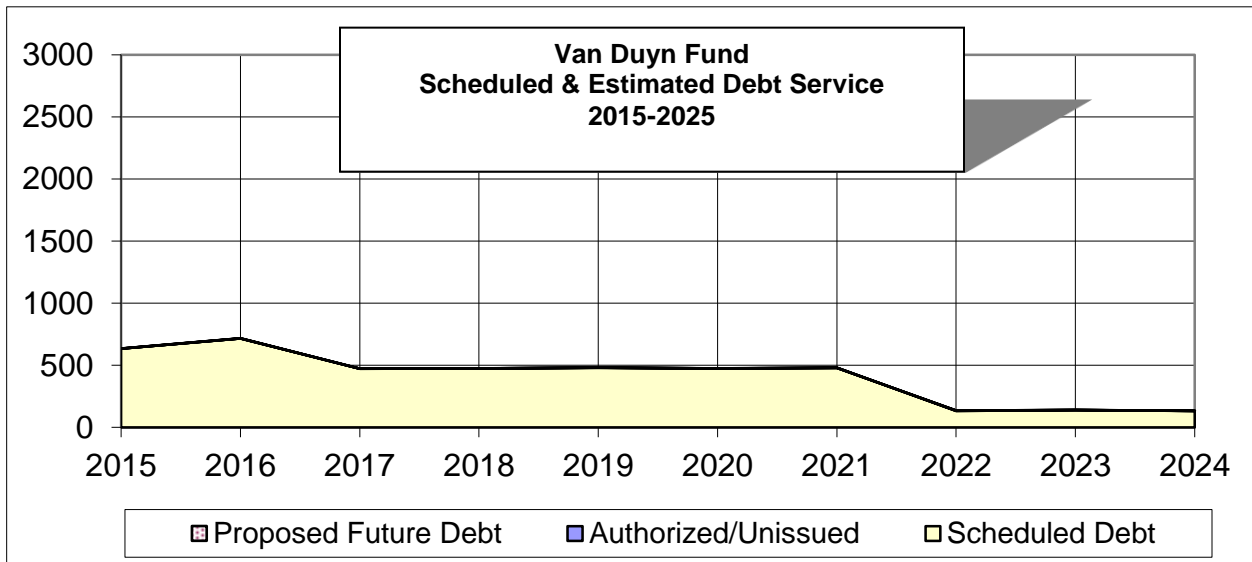
The Department is constantly working to acquire Federal and State funds to supplement this program.

## SPECIAL FUNDS

This section presents proposed and authorized projects in the special funds category. Those funds are the Van Duyn Fund, and the special district funds, which include the Water Fund and the Sewer Fund. A brief description of each fund and its operational purpose, as well as the capital project activity and financing information follows.

### Van Duyn Extended Care Fund

For the CIP 2019-2024 there are no proposed capital projects under Van Duyn Fund. There is only some scheduled debt that is left to be paid and will be paid by 2023



*Special Funds*

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**Van Duyn Fund  
Debt Service Summary**

*Payments in (\$000's)*

	2014	2015	2016	2017	2018	2019	2020	2021
<b>Principal &amp; Interest <u>Scheduled Debt</u></b>	634	716	473	475	481	473	477	134
<b><u>Estimated Debt</u></b>								
<i>Authorized &amp; Unissued</i>	0	0	0	0	0	0	0	0
<i>Proposed Future Debt</i>								
<b>Total</b>	<b>634</b>	<b>716</b>	<b>473</b>	<b>475</b>	<b>481</b>	<b>473</b>	<b>477</b>	<b>134</b>

	2022	2023	2024	2025	2026	2027	2028	2029
<b>Principal &amp; Interest <u>Scheduled Debt</u></b>	134	127	0	0	0	0	0	0
<b><u>Estimated Debt</u></b>								
<i>Authorized &amp; Unissued</i>	0	0	0	0	0	0	0	0
<i>Proposed Future Debt</i>								
<b>Total</b>	<b>134</b>	<b>127</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>

	2030	2031	2032	2033	2034	2035	2036	2037
<b>Principal &amp; Interest <u>Scheduled Debt</u></b>	0	0	0	0	0	0	0	0
<b><u>Estimated Debt</u></b>								
<i>Authorized &amp; Unissued</i>	0	0	0	0	0	0	0	0
<i>Proposed Future Debt</i>								
<b>Total</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>

	2038	2039	2040	2041	2042	2043	2044	TOTAL
<b>Principal &amp; Interest <u>Scheduled Debt</u></b>	0	0	0	0	0	0		
<b><u>Estimated Debt</u></b>								
<i>Authorized &amp; Unissued</i>	0	0	0	0	0	0		
<i>Proposed Future Debt</i>								
<b>Total</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>1,345</b>

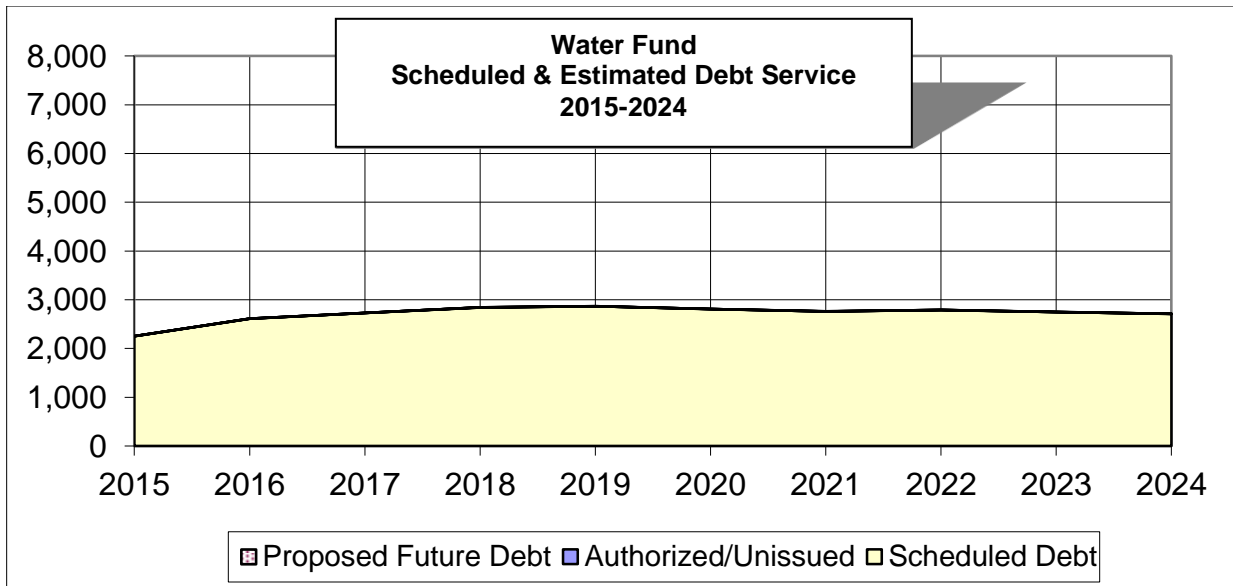
## Special Districts

Special districts have been created in Onondaga County to provide water and sewer services for the residents of the districts. These districts have the authority to assess the users for the cost of operations, maintenance and capital projects to maintain the integrity of the operations. Separate funds were created to account for the activities of each district.

## Water Fund

The Metropolitan Water Board (MWB) is the administrative body of the Onondaga County Water District (OCWD). Until January 1, 2017, MWB was responsible for operating and maintaining the wholesale drinking water systems and infrastructure from Lake Ontario to the Central New York region, both within and outside of Onondaga County. On January 1, 2017, Onondaga County entered into a Cooperation Agreement with Onondaga County Water Authority (OCWA), which now leases and operate the assets of the OCWD. OCWA is a public benefits corporation under New York State law and was the primary customer of MWB. All MWB employees were transferred to OCWA in accordance with the agreement. Under OCWA, the region continues to be served primarily from Ontario and Otisco Lakes, with a consolidated mission of providing clean, safe, reliable, sustainable, and cost-efficient wholesale drinking water to the Central New York region for public health and economic development benefits, as well as emergency fire response. OCWA currently provides water to homes and industry, hospitals and schools, located in forty municipalities in Onondaga, Oswego, Madison, Oneida and Cayuga counties.

Existing Water Fund debt service will continue to be the responsibility of Onondaga County and revenues used for such debt service will be collected by the County through the Water District's ad valorem assessment, with the remaining funds needed to support existing debt service to be received from OCWA under the Cooperation Agreement. All future maintenance expenditures and capital projects will be funded by OCWA for the 30-year term of the agreement.





*Special Funds*

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**Water Fund  
Debt Service Summary**

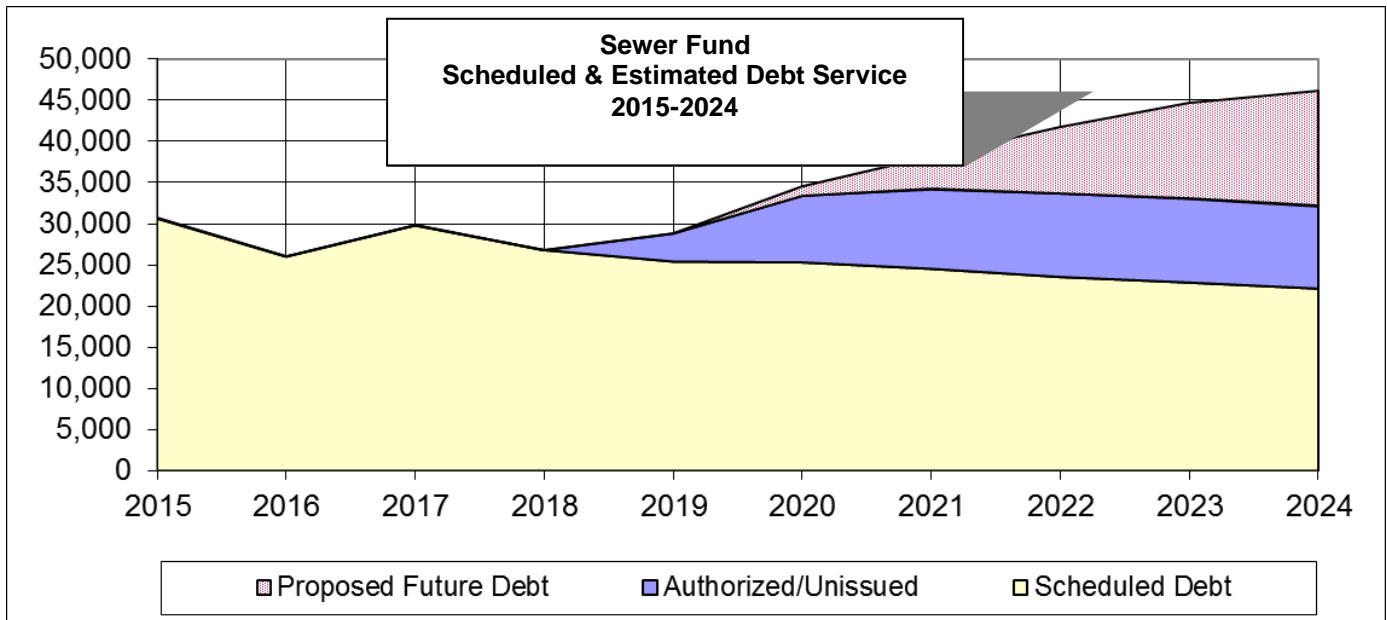
<i>Payments in (\$000's)</i>								
	<b>2014</b>	<b>2015</b>	<b>2016</b>	<b>2017</b>	<b>2018</b>	<b>2019</b>	<b>2020</b>	<b>2021</b>
<b>Principal &amp; Interest <u>Scheduled Debt</u></b>	1,746	2,253	2,613	2,729	2,844	2,829	2,773	2,723
<b><u>Estimated Debt</u></b>								
<i>Authorized &amp; Unissued</i>	0	0	0	0	0	0	0	0
<i>Proposed Future Debt</i>								
<b>Total</b>	<b>1,746</b>	<b>2,253</b>	<b>2,613</b>	<b>2,729</b>	<b>2,844</b>	<b>2,829</b>	<b>2,773</b>	<b>2,723</b>
	<b>2022</b>	<b>2023</b>	<b>2024</b>	<b>2025</b>	<b>2026</b>	<b>2027</b>	<b>2028</b>	<b>2029</b>
<b>Principal &amp; Interest <u>Scheduled Debt</u></b>	2,729	2,684	2,641	2,521	2,517	2,267	2,221	2,238
<b><u>Estimated Debt</u></b>								
<i>Authorized &amp; Unissued</i>	0	0	0	0	0	0	0	0
<i>Proposed Future Debt</i>								
<b>Total</b>	<b>2,729</b>	<b>2,684</b>	<b>2,641</b>	<b>2,521</b>	<b>2,517</b>	<b>2,267</b>	<b>2,221</b>	<b>2,238</b>
	<b>2030</b>	<b>2031</b>	<b>2032</b>	<b>2033</b>	<b>2034</b>	<b>2035</b>	<b>2036</b>	<b>2037</b>
<b>Principal &amp; Interest <u>Scheduled Debt</u></b>	2,159	2,132	2,083	2,059	1,250	1,001	616	534
<b><u>Estimated Debt</u></b>								
<i>Authorized &amp; Unissued</i>	0	0	0	0	0	0	0	0
<i>Proposed Future Debt</i>								
<b>Total</b>	<b>2,159</b>	<b>2,132</b>	<b>2,083</b>	<b>2,059</b>	<b>1,250</b>	<b>1,001</b>	<b>616</b>	<b>534</b>
	<b>2038</b>	<b>2039</b>	<b>2040</b>	<b>2041</b>	<b>2042</b>	<b>2043</b>	<b>2044</b>	<b>TOTAL</b>
<b>Principal &amp; Interest <u>Scheduled Debt</u></b>	0	0	0	0	0	0		
<b><u>Estimated Debt</u></b>								
<i>Authorized &amp; Unissued</i>	0	0	0	0	0	0		
<i>Proposed Future Debt</i>								
<b>Total</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>39,977</b>

## Sewer Fund

The County Legislature established the Onondaga County Consolidated Sanitary District in 1978 by consolidating all the various sanitary districts within Onondaga County. They established a sewer rent schedule to defray all costs of operation, maintenance, indebtedness, and all other obligations of the Water Environment Protection operations to be allocated on the basis of unit charges. The commercial/industrial and institutional property units are based on one hundred forty thousand gallons of water use per unit.

The Department of Water Environment Protection also operates and maintains flood control facilities within four special drainage districts: Bear Trap-Ley Creek; Bloody Brook; Harbor Brook and Meadowbrook. The special districts were created in order to address flooding problems that crossed multi-municipal boundaries. Taxable properties within each of the districts are assessed a drainage district tax for operations and maintenance, plus debt service.

Current and proposed future debt service obligations for the Department of Water Environment Protection are shown in the graph and the debt service summary on the next page.



*Special Funds*

**Sewer Funds  
Debt Service Summary**

Payments in (\$000's)

	2014	2015	2016	2017	2018	2019	2020	2021
<b>Principal &amp; Interest <u>Scheduled Debt</u></b>	23,703	30,644	26,008	29,794	26,802	29,245	28,873	27,444
<b><u>Estimated Debt</u></b>								
<i>Authorized &amp; Unissued</i>	0	0	0	0		631	2,143	3,664
<i>Proposed Future Debt</i>	0	0	0	0	0	0	1,078	4,059
<b>Total</b>	<b>23,703</b>	<b>30,644</b>	<b>26,008</b>	<b>29,794</b>	<b>26,802</b>	<b>29,876</b>	<b>32,094</b>	<b>35,167</b>

	2022	2023	2024	2025	2026	2027	2028	2029
<b>Principal &amp; Interest <u>Scheduled Debt</u></b>	26,192	25,549	24,760	22,395	21,835	20,644	18,981	17,966
<b><u>Estimated Debt</u></b>								
<i>Authorized &amp; Unissued</i>	4,313	4,437	4,452	4,294	4,254	4,230	4,230	4,230
<i>Proposed Future Debt</i>	8,061	11,583	14,018	15,468	15,734	15,340	14,948	14,553
<b>Total</b>	<b>38,566</b>	<b>41,569</b>	<b>43,230</b>	<b>42,157</b>	<b>41,823</b>	<b>40,214</b>	<b>38,159</b>	<b>36,749</b>

	2030	2031	2032	2033	2034	2035	2036	2037
<b>Principal &amp; Interest <u>Scheduled Debt</u></b>	17,622	16,580	15,512	14,728	13,875	13,003	11,552	9,064
<b><u>Estimated Debt</u></b>								
<i>Authorized &amp; Unissued</i>	4,230	4,230	4,230	4,230	4,199	4,129	4,129	4,129
<i>Proposed Future Debt</i>	14,160	13,766	13,375	12,579	11,804	11,038	10,296	9,964
<b>Total</b>	<b>36,012</b>	<b>34,576</b>	<b>33,117</b>	<b>31,537</b>	<b>29,878</b>	<b>28,170</b>	<b>25,977</b>	<b>23,157</b>

	2038	2039	2040	2041	2042	2043	2044	TOTAL
<b>Principal &amp; Interest <u>Scheduled Debt</u></b>	8,211	5,495	5,464	5,410	5,350	5,278	5,210	<b>416,238</b>
<b><u>Estimated Debt</u></b>								
<i>Authorized &amp; Unissued</i>	4,129	2,869	1,279	219	77	11		
<i>Proposed Future Debt</i>	9,637	9,305	8,979	7,768	5,462	3,216	1,579	<b>257,770</b>
<b>Total</b>	<b>21,977</b>	<b>17,669</b>	<b>15,722</b>	<b>13,397</b>	<b>10,889</b>	<b>8,505</b>	<b>6,789</b>	<b>756,976</b>

## **AUTHORIZED PROJECTS**

### **METROPOLITAN WATER BOARD**

#### **Comprehensive Asset Renewal and Energy (CARE) Program**

Project            On-going

This project addresses the need to replace aging infrastructure with innovative, integrated process and technology solutions that will reduce energy consumption and improve operational efficiency. The original equipment motors, pumps, drives and controls within the Raw Water, Clear Water and Farrell Pump Stations are predominately original 1960's equipment - approaching forty-five years of operation - with fixed-speed operability and limited automation. As part of Onondaga County's 2005 energy performance contract with Carrier Corporation, it was determined that 1,052,600 kilowatt hours of energy could be saved annually by replacing four of twelve units with variable frequency drives. The current Energy Efficiency and Conservation Block Grant Assessment being performed by Johnson Controls Incorporated (JCI) recommends a broader scope of work with additional operational and energy savings. These pump stations are an integrated system and the exclusive means of conveying water from the Lake Ontario intake to the water storage facilities for the region.

This is a design-build project in accordance with New York State Energy Law. Technical Memoranda Describing the Basis of Design has been completed and reviewed. Final design, procurement and installation will be completed in 2017.

#### **Water Treatment Plant Comprehensive Improvements**

Project            On-going

Existing Water Treatment Plant facilities/infrastructure are now nearing fifty years old, have received minimal capital investment since their construction and do not operate at contemporary levels of energy or operational efficiency. A comprehensive condition and program assessment was completed in 2014 to develop and identify the scope of improvements and provide cost estimates for the project. The assessment evaluated both building facility improvements, such as roofing, HVAC, and electrical systems as well as filtration and treatment process improvements, including filter beds, piping and valves, process controls, data collection and reporting, etc. These improvements will provide energy savings, improve physical conditions of the plant building and infrastructure, and will update and improve water quality. In accordance with the 2014 assessment, design and construction of Phase 1 was completed in 2016. This initial work included Water Treatment Campus (Oswego) exterior security improvements and roof replacements.

Design and construction of the remaining phases of work will advance under the Onondaga County Water Authority (OCWA) as the result of the consolidation of MWB operations and lease of County-owned infrastructure, with/to OCWA effective January 1, 2017. Funds to complete the architectural and engineering design as well as for the Phase 1 construction of the project were approved December 2015. The design and construction of the next phases will continue under OCWA funding and supervision. No further funding will be requested from the County.

### **WATER ENVIRONMENT PROTECTION**

#### **Hiawatha Trunk Sewer Service Area Improvement Project**

Project            On-going

The Hiawatha Trunk Sewer was installed by the City of Syracuse in the late 1920's and ownership was transferred to Onondaga County in the early 1970's. The original sewer was installed to provide service to the factories, businesses and homes located in the Inner Harbor area. The Hiawatha Trunk Sewer consists of approximately 4,600 linear feet of reinforced concrete sewer pipe ranging from 33 to 36-inches in diameter. This project will provide adequate sewerage service to the businesses and residences that are constructed as part of COR Inner Harbor Development, Destiny USA expansion and other economic development projects located in Syracuse New York. This infrastructure is a vital part of the revitalization of the Inner Harbor and north side of Syracuse.

Project was authorized on 12/02/2014 by the County Legislature. Grant funding in the amount of \$960,000 was awarded to Onondaga County by New York State Empire State Development in December of 2014. In February 2015, the County Legislature authorized acceptance of grant funds.

## *Special Funds*

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\$4.8 million was authorized for construction spending. Approximately \$2.5 million dollars were spent in 2015 rehabilitating the Hiawatha Trunk Sewer using trenchless technology using the contractor selected under the blanket contract for these services. The sewer lining portion of the project was completed in November of 2015. The Department received authorization to proceed from Empire State Development to qualify for the grant funding.

The remaining project balance will be used to construct the sanitary sewer force main over the NYS Barge Canal. It is planned to bid that portion of the work in late 2018 and construct the pipeline in 2019-2020.

### **Ley Creek Pump Station**

Project            Completed

This project includes upgrades to the pump and control systems at the facility. The engineering investigation evaluated the most efficient and sustainable pumping configuration for the facility. Additional items that were evaluated and identified for replacement and/or rehabilitation include:

- Pumps and motors
- VFDs and pump controls
- Substation and Electrical Upgrades
- Flood Protection
- Mechanicals
- HVAC/Boiler Replacement
- Water Service
- Miscellaneous Building Repair
- Health and Safety/Security Upgrades
- Fencing and paving

Project has been bid and awarded. Notice to proceed has been issued to the 4 prime contractors:

- CO Falter - General
- Patricia Electric - Electrical
- Syracusa Mechanical - plumbing
- King and King Mechanical - HVAC

Project completed in December of 2017. Awaiting final closeout.

### **Meadowbrook-Limestone WWTP Disinfection System and Collection**

Project            On-going

Bonding authorized the construction of various improvements to the Meadowbrook Limestone WWTP in order to meet new NYSDEC SPDES permit limits which are effective May 2018. Additionally, the project includes needed improvements to replace aging equipment, improve control and security systems, and maintain building infrastructure at the wastewater treatment plant. The main improvements include the following.

1. Upgrade to the clarifiers to replace the mechanisms, and concrete repair.
2. Improvements to the existing clarifier tank drains.
3. Replacement of the existing scum pumps.
4. Replacement of the existing coagulant feed system.
5. Upgrades to the polymer feed system.
6. Installation of a fiber optic network for control.
7. Supervisory control and data acquisition (SCADA) system control improvements.
8. Unit heater replacements.
9. Implementation of security improvements.
10. Building roof replacements.
11. Replacement of Influent Building make-up air unit.
12. Replacement of electrical transformers.
13. Other necessary improvements.

Cash funding for engineering design, in the amount of \$1.1 million, was procured for this project. Bonding resolution #17018A of March 2017, issued for \$11,725,000, is for construction. The construction project started in September 2017. Construction of the disinfection system was completed in compliance with the SPDES permit mandates. Final construction is anticipated to be completed circa November 2018.

## *Special Funds*

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As of April 2018, approximately \$4.8 million has been spent for this project. It is expected that a total of approximately \$10.4 million will be spent on the project.

### **Metro WWTP (002) Bypass Treatment**

Project            On-going

On March 21, 2012, the Onondaga County Department of Water Environment Protection's (WEP) State Pollutant Discharge Elimination System (SPDES) Permit renewal for the Metropolitan Syracuse Wastewater Treatment Plant (Metro WWTP) took effect. The permit included new fecal coliform bacteria and total residual chlorine limits for the plant's secondary treatment bypass discharge outfall (Outfall 002). WEP had to comply with these limits by April 1, 2017. In addition, a SPDES Permit revision issued on June 4, 2014 included requirements to disinfect tertiary treatment bypasses (designated as outfall 001A). The existing infrastructure was inadequate to meet those new limits. To that end, this project provided for larger process tankage and chemical systems with more capacity such that the applicable NYSDEC SPDES effluent limits could be met.

Bonding of \$20,200,000 was authorized in December 2012. Final design was completed in May 2015. Additional bonding, in the amount of \$5,627,294, was approved in June 2015, due to increased anticipated construction costs (resolution #100). Construction began in September 2015. The new treatment system was put into operation by April 1, 2017. Final construction closeout, including site restoration, is expected to be completed mid-2018. As of April 2018, approximately \$20.0 million has been spent on this project. It is expected that a total of approximately \$20.2 million will be spent on the project.

### **Metro WWTP Phosphorus Treatment System Optimization**

Project            On-going

Bonding authorized the engineering and construction of improvements to the Metropolitan Wastewater Treatment Plant's phosphorus treatment system. This project is the result of a phosphorus treatment optimization analysis required by the Amended Consent Judgment (ACJ) to ensure the continuation of high level of phosphorus treatment at the Metro facility. The modifications included in the project will promote conditions that lead to improved treatment performance and reliability, thus meeting the regulatory goals for phosphorus loads entering Onondaga Lake. Specifically, the following improvements will be made to Metro's phosphorus treatment system.

- Addition of a polyaluminum chloride feed system.
- Replacement of the existing ferric chloride feed system.
- Installation of new baffles in high rate flocculated settling (HRFS) influent boxes.
- Replacement of slide gates.
- Replacement HRFS sludge piping.
- Installation of an isolation wall in cross channel.
- Replacement flow meters.
- Modify programmable logic controller (PLC) and supervisory control and data acquisition.
- (SCADA) systems.
- Replacement of ultraviolet system control weir.
- Installation of a new bypass tank outfall conveyance.
- Miscellaneous structural rehabilitation.

Bond resolution #223 of December 2012, for \$2.84 million, was for engineering design of phosphorus treatment system improvements at the Metro Wastewater Treatment Plant.

Bonding resolution #BR17016A of March 2017, for \$21.355 million, was for construction.

Construction started in October 2017 and is expected to be completed in circa May 2019. As of April 2018, approximately \$4.4 million has been spent on this project. It is expected that a total of approximately \$16 million will be spent on the project.

### **Oak Orchard Facilities Improvement**

Project            On-going

Project authorization provides for the construction of various infrastructure improvements/rehabilitation to the Oak Orchard Wastewater Treatment Plant including: replacement of existing influent screen rakes; installation of new primary clarification equipment; HVAC replacement; grit aeration blowers; grit handling equipment; building improvements; and other asset renewal measures.

Bonding was procured in October of 2011 for \$12,405,000 for construction; this value was subsequently reduced to \$11,305,000. The project consists of two construction components: infrastructure rehabilitation and administration building rehabilitation. Construction is largely completed for both project components; final construction closeout will be completed circa mid-2018. As of April 2018, approximately \$10.8 million has been spent on this project.

## *Special Funds*

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### **Oak Orchard WWTP Disinfection and Lagoon Cleaning**

Project            On-going

Bonding in the amount of \$11,540,000 was issued in December 2017 for construction of disinfection system improvements in accordance with a renewed NYS State Pollutant Discharge Elimination System (SPDES) Discharge Permit issued June 2014 by the New York State Department of Environmental Conservation (NYSDEC). Bonding also authorized cleaning and dredging of the two onsite lagoons.

It is expected that construction of the disinfection project will start circa July 2018 and be completed in March 2019. Lagoon construction work is expected to start in August 2018 and be completed in April 2019.

As of June 2018, no construction bond monies have been spent. Construction bids have been received and contract processing has begun. It is expected that total construction costs will be \$9.9 million.

### **Oneida Lake PS**

Project            On-going

This project is for the rehabilitation/upgrades to the Oneida Lake Pump Stations and associated sewer force mains, including Harbor Village, Long Point, Maple Bay, Muskrat Bay, Polar Beach, Shepard Point, and South Bay.

In 2012, \$2 million in bonding was approved. In 2015, an additional \$8.12 million in bonding was approved, resulting in a total authorized bonding amount of \$10.12 million.

Construction should be completed by the end of 2018.

Project is almost 75% complete and construction should closeout by the end of 2018. Approximately \$8.7 million dollars has been expended as of April 2018.

### **Onondaga Lake Improvement Project**

Project            On-going

This project results from the settlement of suits brought by Atlantic States Legal Foundation (ASLF) and the State of New York. The County, ASLF and New York State signed the agreement in August and September 1997. On January 20, 1998, the District Federal Court signed the order. This court order is referred to as the Amended Consent Judgment, or ACJ. The ACJ ordered improvement to the Metro Wastewater Treatment Plant (WWTP), CSO abatement facilities, and water quality monitoring over the twenty years ACJ was estimated to cost \$703 million (in today's dollars). The fourth stipulation of the ACJ was effected in November of 2009.

The Amended Consent Judgment (ACJ) and associated stipulations include several components or categories:

- Interim capital improvement projects at Metro WWTP
- Major capital projects at the Metro WWTP
- Interim Combined Sewer Overflow (CSO) abatement projects
- Major Combined Sewer Overflow (CSO) abatement projects
- Separation of combined sewers in specified areas
- Water quality monitoring of the lake, tributaries and Seneca River (non-capital)
- Green Infrastructure projects for CSO abatement.

The following projects are complete:

- Aeration System Upgrade (7/1/98-1/15/00 for \$6.9M)
- Ammonia Removal Demolition (6/1/98-12/31/99 for \$1.3M)
- Digester Mod./Chemical Storage and Feed System Upgrade (11/9/98-10/1/00 for \$5.1M)
- Digital Systems Improvements (5/1/98-6/30/01 for \$3.5M)
- Stage III Ammonia/Stage II Phosphorus Removal (5/1/01-04/30/05 for \$129M)
- Franklin Street FCF (4/30/99-5/1/00 for \$4.9M)
- Hiawatha RTF (10/1/98-12/31/00 for \$9.4M)
- Kirkpatrick Street Pump Station and Force Main (5/15/01-6/30/02 for \$12.6M)
- Teall Brook FCF (5/1/01-4/31/02 for \$1.2M)
- Newell Street RTF/Demolition (8/3/98-3/11/02 for \$.5M)
- Onondaga Creek FCF (5/1/01-7/31/02 for \$.7M)
- West Street Sewer Separation (5/1/99-12/15/99 for \$2.7M)
- Erie Boulevard Storage (3/1/01-7/31/02 for \$2.7M)
- Biosolids Handling Improvements (1/1/04-6/30/07 for \$14.8M)
- Harbor Brook In-stream FCF (10/31/00-7/31/02 for \$.9M)
- Advanced Phosphorous Removal Pilot phase I, II & III (2/1/00 for \$4.1M)
- Clinton Storage
- Lower Harbor Brook Conveyances and Storage

## *Special Funds*

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- Sewer Separation 022/045
- Midland 044 Conveyances.

Projects still in progress include:

Metro WWTP Phosphorus Optimization:

In accordance with the ACJ 4th Stipulation, Phosphorus Workplan and Optimization reports have been completed for the Metro WWTP. The workplan has been approved by the NYSDEC; no further capital work is projected. The NYSDEC has also approved the Metro WWTP Phosphorus Treatment Optimization report. That report identified a number of infrastructure improvements needed to ensure continued and consistent compliance with Metro's SPDES phosphorus limits. Improvements include: installation of two new isolation gates and a dividing wall to isolate the north and south biological aerated filter cells; chemical addition and mixing; replacement of various gates; and other associated treatment system improvements. The final design of those improvements was approved by the New York State Department of Environmental Conservation in April 2017. Construction was started in October 2017 and is scheduled to be completed in May 2019.

Midland Avenue Conveyances and RTF, Storage and Green Infrastructure (5/01/00-12/31/18 for \$131.9M). This project was completely authorized in October 2016.

The following CSO's have been evaluated in a facilities plan to determine how best to abate their overflows: 060/077 (West Colvin) and 052 (Hunt and Elmhurst). The remaining CSO's 076 (Brighton and Midland), and 067 (West Newell) will be abated by using green infrastructure, implementing floatable control (where warranted), monitoring and eventual closure. Green infrastructure will be implemented where appropriate throughout the Midland sewer shed to reduce the volume of storm water entering the combined sewer system.

Sewer Separation Continuous (1/1/12 for \$27.7M – Ongoing). This project was completely authorized in July 2010. In 2016, a green scope was added to this project and will continue through December 2018.

Clinton CSO Abatement and Green Infrastructure (5/1/04-12/31/18 for \$185.5M – Ongoing). This project was completely authorized in December 2013. Construction of a new 6.5 million gallon storage facility in the Trolley Lot located near Armory Square has been completed. The facility collects all CSO discharges from the Clinton sewer shed with the exception of 027 (West Fayette), and 029 (Walton St.). The remaining CSO's were evaluated in a facilities plan to determine how best to abate their overflows. Green infrastructure will be implemented where appropriate throughout the Clinton sewer shed to reduce the volume of storm water entering the combined sewer system.

Harbor Brook CSO Abatement Storage & Green Infrastructure (11/18/01-12/31/18 for \$108.5M)

- This project was completely authorized in October 2016.
- Construction of a new storage facility on State Fair Boulevard has been completed.
- The remaining CSO's in the Harbor Brook Sewer shed will be abated by using green infrastructure, implementing floatable control (where warranted), monitoring, conveyance modifications as needed, and eventual closure. Green infrastructure will be implemented where appropriate throughout the Harbor Brook Sewer shed to reduce the volume of storm water entering the combined sewer system.

### **Suburban I/I Reduction - Green and Innovative Improvements**

Project            On-going

Green infrastructure has been recognized as a viable and cost effective alternative for abating infiltration and inflow. Individual green, innovative and other projects will be developed and subsequently authorized by the County Legislature on a per project basis. The projects will focus on municipal (public) installations of green infrastructure such as bioswales, rain gardens, and green streetscapes as well as innovative projects. Green infrastructure and innovative improvement projects will be designed to reduce infiltration and inflow into sanitary sewer systems - in compliance with the recently enacted Capacity Management and Operation and Maintenance (CMOM)/Sewer Use Ordinance (SUO) passed in January 2011.

Projects utilizing green infrastructure will be considered from the following towns: Camillus, Cicero, Clay, DeWitt, Geddes, Lysander, Manlius, Onondaga, Pompey, Salina and villages: Baldwinsville, Camillus, East Syracuse, Fayetteville, Liverpool, Manlius, North Syracuse, and Solvay.

It is expected that this project will go on for several years. Project scopes will evolve over time as new green infrastructure technologies are developed and implemented. The Suburban I/I Reduction - Green and Innovative Improvements project has been very successful to date; it is expected that this success will continue for future years.



## *Special Funds*

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Bonding for this project was procured as follows: 2012 in the bonded amount of \$3 million; 2013 in the bonded amount of \$2 million; in 2015 for \$1.98 million in bonds; and in 2018 in the amount of \$500,000 in cash.

### **Westside Pumping Station Service Area**

Project            On-going

The funds for this project totaling \$18,150,000 are fully authorized by the County Legislature. The goal of this project is to implement conveyance system improvements at Westside Pumping Station and tributary sewer conveyances and pumping facilities in order to reduce extraneous flows (i.e., infiltration and inflow), eliminate sanitary sewer overflows, provide for future capacity and eliminate odors.

Project is on schedule to be completed by the end of 2018. The construction is roughly 40% complete as of April 2018. It is expected that the construction pace will accelerate over the next several months. Approximately \$7.4 million dollars has been expended through April 2018.

*Special Funds*

## SPECIAL DISTRICTS PROPOSED PROJECTS SUMMARY

**Special Funds**

Department	STATUS	PROJECT	2019 - 24 Total
<b>Sewer</b>			
WATER ENVIRONMENT PROTECTION			
		Baldwinsville Seneca Knolls WWTP Disinfection and Phase II Asset Renewal Improvements	22,924
		Brewerton WWTP Asset Renewal Improvements	12,575
		Camillus Force Main Replacement	6,500
		Energy Efficiency Improvements/Performance Contracting	25,141
		Harbor Brook Miscellaneous Culvert and Channel Improvements	400
		Ley Creek/Liverpool Force Main Rehabilitation/Replacement Project	17,300
<b>new</b>		Meadowbrook-Limestone WWTP Inflow & Infiltration Abatement (NEW)	9,000
<b>new</b>		Metropolitan (Metro ) Wastewater Treatment Plant - Thickener Rehabilitation (NEW)	3,730
		Metropolitan (Metro) Wastewater Treatment Plant - Phase II Digester Improvements	27,680
<b>new</b>		Metropolitan WWTP Biosolids Drying System (NEW)	15,106
		Oak Orchard WWTP Secondary Clarifier Rehabilitation	6,200
		Wastewater Transportation System Improvements	91,491
<b>Sewer Total</b>			<b>\$ 238,047</b>
<b>Special Funds Total</b>			<b>\$ 238,047</b>

## SPECIAL DISTRICTS FUNDING SOURCES

**Sewer**

SOURCE OF FUNDS	2019	2020	2021	2022	2023	2024	6yr Total
Pay as You Go	7,951	8,182	8,200	8,180	8,300	8,450	<b>49,263</b>
Authorized Borrowing	5,283	6,341	1,715	614	100		<b>14,053</b>
Borrowing to be Authorized	17,585	40,243	44,674	34,279	23,850	14,100	<b>174,731</b>
<b>TOTALS</b>	<b>\$30,819</b>	<b>\$54,766</b>	<b>\$54,589</b>	<b>\$43,073</b>	<b>\$32,250</b>	<b>\$22,550</b>	<b>\$238,047</b>

## SPECIAL DISTRICTS ESTIMATED DEBT SERVICE

**Estimated Debt Service**

Payment Schedule (\$ in 000's)

**WATER ENVIRONMENT PROTECTION**

	2019	2020	2021	2022	2023	2024
Metropolitan WWTP Biosolids Drying System (NEW)	0	39	131	832	1,393	1,479
Meadowbrook-Limestone WWTP Inflow & Infiltration	0	75	250	448	640	828
Metropolitan (Metro ) Wastewater Treatment Plant -	0	106	277	332	325	317
Ley Creek/Liverpool Force Main	0	0	0	0	465	1,162
Brewerton WWTP Asset Renewal Improvements	0	280	895	1,122	1,097	1,072
Energy Efficiency Improvements/Performance Contracting	0	0	0	240	800	1,344
Metropolitan (Metro) Wastewater Treatment Plant -	0	578	1,733	2,364	2,424	2,368
Harbor Brook Miscellaneous Culvert and Channel	0	0	12	30	36	35
Camillus Force Main Replacement	0	0	120	300	476	528
Oak Orchard WWTP Secondary Clarifier Rehabilitation	0	0	0	180	405	467
Baldwinsville Seneca Knolls WWTP Disinfection and	0	0	425	1,276	1,793	1,864
Wastewater Transportation System Improvements	0	0	216	937	1,729	2,554
<b>Department Total</b>	<b>0</b>	<b>1,078</b>	<b>4,059</b>	<b>8,061</b>	<b>11,583</b>	<b>14,018</b>

## *Special Funds*

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**DEPARTMENT:** WATER ENVIRONMENT PROTECTION

**Project:** Baldwinsville Seneca Knolls WWTP Disinfection and Phase II Asset Renewal Improvements

**Purpose:** Public/Employee Safety/Health, Maintain Existing Investment, Federal/State Mandate

**Level of Development:** Advanced

**Project Description:**

The Baldwinsville-Seneca Knolls Wastewater Treatment Plant was issued a renewed SPDES Discharge Permit in June 2014 by the New York State Department of Environmental Conservation (NYSDEC) which included modifications to the effluent total residual chlorine (TRC) limit from 2.0 mg/L to 0.08 mg/L. The new TRC permit limits will become effective beginning May 15, 2018. The WWTP currently has no means to dechlorinate the effluent to meet this limit. Therefore, the County initiated this project to design and construct upgrades to the disinfection system which will enable the new TRC limit to be met. Additionally, the plant is over thirty-five years old. Various small and discrete improvements and repairs have been done to the facility as a means of operational enhancements and infrastructure maintenance. However, there is a contemporary need to implement a robust infrastructure renewal project for many of the treatment plant's assets so as to ensure continued satisfactory operation and extend its service life. This project is for Phase II asset renewal improvements.

**Project Cost Summary:**

<b>FUNDING SOURCE:</b>	<b>Pre-2019</b>	<b>2019</b>	<b>2020</b>	<b>2021</b>	<b>2022</b>	<b>2023</b>	<b>2024</b>	<b>6yr Total</b>	<b>Total:</b>
Borrowing to be Authorized	0		7,087	10,631	3,544			21,262	21,262
Pay as You Go	1,150							0	1,150
Authorized Borrowing	4,638	505	405	345	407			1,662	6,300
<b>TOTALS</b>	<b>5,788</b>	<b>505</b>	<b>7,492</b>	<b>10,976</b>	<b>3,951</b>			<b>22,924</b>	<b>28,712</b>

**Project Detail and Status:**

The disinfection/dechlorinating project in 2017 and 2018 provides for an upgrade to the facility's disinfection system so as to comply with new DEC SPDES permit limits. Specifically, additional process tankage and a dechlorinating system will be installed downstream of the existing chlorination system, along with ancillary improvements.

The ongoing project is for the design and construction of what is known as Phase II improvements as identified in the engineering evaluation completed in June 2014 for the facility. The majority of the improvements, largely consisting of asset renewal measures, include the following elements: grit processing equipment, chemical tanks, concrete structures, aeration systems, aerobic digesters, life safety, major mechanicals, fire alarm system, odor control, code compliance, water supply systems, energy conservation measures, noise abatement, and other necessary asset renewal measures. Asset renewal design is expected to be completed by June 2019, with construction starting in April 2020 and being completed in April 2022.

Legislative approval for \$3.4 million for the engineering design phase of this project was obtained in 2014 for both disinfection and asset renewal design. Bonding for construction of the disinfection improvements project was fully procured in July 2017 (resulting in a total amount of \$2.9 million). Construction of disinfection improvements was nearly complete as of April 2018 and compliance achieved by the SPDES due date.

It is expected that legislative approval will be sought in September 2019 for approximately \$21.3 million in bonding for the asset renewal (construction) portion of this project.

## *Special Funds*

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**DEPARTMENT:** WATER ENVIRONMENT PROTECTION

**Project:** Brewerton WWTP Asset Renewal Improvements

**Purpose:** Public/Employee Safety/Health, Reduce Operating Costs/Efficiency, Maintain Existing Investment

**Level of Development:** Advanced

**Project Description:**

The Brewerton Wastewater Treatment Plant (WWTP) is over forty years old. There is a contemporary need to implement a robust infrastructure renewal project for many of the treatment plant's assets so as to ensure continued satisfactory operation and extend its service life. This project is for Phase I improvements. Phase II improvements are in the 10-yr CIP window. Final design and construction will be performed for a variety of infrastructure, energy efficiency, and life safety improvements.

**Project Cost Summary:**

<b>FUNDING SOURCE:</b>	<b>Pre-2019</b>	<b>2019</b>	<b>2020</b>	<b>2021</b>	<b>2022</b>	<b>2023</b>	<b>2024</b>	<b>6yr Total</b>	<b>Total:</b>
Borrowing to be Authorized	0	4,670	7,905					12,575	12,575
Pay as You Go	1,500							0	1,500
<b>TOTALS</b>	<b>1,500</b>	<b>4,670</b>	<b>7,905</b>					<b>12,575</b>	<b>14,075</b>

**Project Detail and Status:**

An evaluation of the overall infrastructure condition of the Brewerton WWTP was completed in October 2014 which identified necessary repairs, replacement needs, and modifications necessary so that the WWTP maintains compliance with NYSDEC SPDES permit limits and comes into compliance with applicable building and fire codes. Various CIP (5-year) cycles and plans were included in the final report. The project described herein is for Phase I improvements. Phase II improvement recommendations shall be for the 10-year CIP window. This Phase I project will maintain the facility's asset value and reliable operation into the foreseeable future. Ancillary benefits will include energy efficiency gains via installation of modern and more efficient equipment.

The significant components of the current 5-year CIP (Phase I) project include the following:

- Energy use improvements to sludge re-aeration tanks, mixed liquor tanks and digester tanks via installation of new turbo blowers.
- Energy use improvements to existing grit tank via installation of new positive displacement blowers.
- Installation of new fine bubble diffuser system in sludge re-aeration tanks.
- Relocation of all new blowers to outside locations in heated and sound proof enclosures.
- Replacement of various aging and outdated programmable logic controllers (PLC's).
- Replacement of aging variable frequency drives (VFD's) for raw pumps and return activated sludge pumps.
- Supervisory control and data acquisition (SCADA) programming for all new PLC's.
- Replacement sodium hypochlorite chemical bulk storage tanks.
- In-kind replacement of the grit system in Raw Sewage Pumping Station (RSPS).
- Rehabilitation of special manhole #1, including influent sluice gate replacement.
- Replacement of isolation gates for screen rake/grit chamber bypass channel in RSPS.
- Site security improvements to exterior fencing, surveillance monitoring, and alarms.
- Fire alarm improvements for code compliance.
- Site lighting improvements and enhancement to public address (PA) system.
- Replacement of plant water piping and hydrants.
- Control Building improvements to include restrooms, office and laboratory.
- Heating and ventilation air conditioning improvements throughout Control Building.
- Replace all exterior doors and overhead doors for all buildings.
- Masonry repair and sealant joint replacement.
- Replace lightning protection system.
- Odor control upgrades to include new carbon odor control system.
- Rehabilitation/lining of the mixed liquor effluent channels.
- Replace both tepid eyewash and deluge shower stations in rotary drum thickener area and chemical bulk

## *Special Funds*

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storage area for safety.

- All exterior process tanks and associated walkways to have railings replaced and kick plates added as needed for safety.
- Installation of personnel retrieval systems for all tanks, (14) fourteen total - for safety.
- Roof replacement for the Control Building.
- Arc flash analysis for code compliance and safety.

Final design (cash) monies were previously procured for this project. Final design is expected to be completed in late 2018, with construction starting circa May 2019, and being completed in October 2020. It is expected that legislative approval will be sought in September 2018 for approximately \$12.6 million in bonding for construction.

## *Special Funds*

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**DEPARTMENT:** WATER ENVIRONMENT PROTECTION

**Project:** Camillus Force Main Replacement

**Purpose:** Public/Employee Safety/Health, Maintain Existing Investment

**Level of Development:** Intermediate

**Project Description:**

Replacement of a 24 inch diameter 7 mile long wastewater pipeline.

**Project Cost Summary:**

<b>FUNDING SOURCE:</b>	<b>Pre-2019</b>	<b>2019</b>	<b>2020</b>	<b>2021</b>	<b>2022</b>	<b>2023</b>	<b>2024</b>	<b>6yr Total</b>	<b>Total:</b>
Borrowing to be Authorized	0		2,000	2,000	2,000			6,000	6,000
Authorized Borrowing	3,000	500						500	3,500
<b>TOTALS</b>	<b>3,000</b>	<b>500</b>	<b>2,000</b>	<b>2,000</b>	<b>2,000</b>			<b>6,500</b>	<b>9,500</b>

**Project Detail and Status:**

The 7 mile long 24 inch diameter Camillus force main conveys wastewater from the Town of Camillus and Village of Camillus to the Westside pump station located on the shore of Onondaga Lake. The force main has failed several times over the past 4 years releasing raw sewage to the ground and Nine Mile creek which is a recreational resource in Onondaga County. The length of the force main and the chemical make-up of the wastewater has accelerated the degradation of this asset. An internal assessment of the pipe line using "Smart ball" technology indicated numerous pipe line anomalies that may indicate that the pipe line has a high probability of failure. It is anticipated that the pipe line would be replaced with a plastic pipe that would not be susceptible to chemical attack.

Project will be phased. Phases 1 and 2 have been authorized. Total authorization is \$3.5 million.

## *Special Funds*

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**DEPARTMENT:** WATER ENVIRONMENT PROTECTION

**Project:** Energy Efficiency Improvements/Performance Contracting

**Purpose:** Reduce Operating Costs/Efficiency, Other

**Level of Development:** Intermediate

**Project Description:**

This project entails working with an energy service company (ESCO, a commercial business providing a broad range of comprehensive energy solutions including designs and implementation of energy savings projects, energy conservation, power generation and energy supply, and risk management) to design and implement various process and infrastructure improvements for energy savings. The project serves to support the County's effort to pursue sustainability, effect the goals of the County's Climate Action Plan, reduce energy usage, and correspondingly reduce annual operating costs.

**Project Cost Summary:**

<b>FUNDING SOURCE:</b>	<b>Pre-2019</b>	<b>2019</b>	<b>2020</b>	<b>2021</b>	<b>2022</b>	<b>2023</b>	<b>2024</b>	<b>6yr Total</b>	<b>Total:</b>
Borrowing to be Authorized	0			4,000	4,000	4,000	4,000	16,000	16,000
Authorized Borrowing	1,159	2,653	5,561	927				9,141	10,300
<b>TOTALS</b>	<b>1,159</b>	<b>2,653</b>	<b>5,561</b>	<b>4,927</b>	<b>4,000</b>	<b>4,000</b>	<b>4,000</b>	<b>25,141</b>	<b>26,300</b>

**Project Detail and Status:**

In January of 2016, a New York State Energy Research and Development Authority (NYSERDA) Flextech evaluation was completed for WEP wastewater treatment plants. The evaluation identified several different areas of energy saving opportunities, including, improvements to treatment plant aeration systems, pumping systems, heating and ventilation systems, and other measures. After internal analysis of the evaluation results, the department has identified a number of energy conservation measures (ECMs) for implementation - which collectively have paybacks of less than 16 years. This group of ECMs has been classified as Phase I of this energy efficiency project. Bonding in the amount of \$10,300,000 was authorized in April 2016 for the Phase I component. Phase I specifically includes the replacement of aeration blowers, pumps, valves, mixers, HVAC, boiler control systems, and other equipment at select WEP wastewater treatment plants.

Phase I design started in January 2018 and is expected to be completed by May 2019. Construction is expected to start circa October 2019 and be completed in February 2021.

Phase II of this project, consisting of additional (ECMs), is expected to be begin in 2021 and be completed in 2024. Legislative approval for bonding for Phase II would be pursued in September 2020.

## *Special Funds*

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**DEPARTMENT:** WATER ENVIRONMENT PROTECTION

**Project:** Harbor Brook Miscellaneous Culvert and Channel Improvements

**Purpose:** Public/Employee Safety/Health, Maintain Existing Investment

**Level of Development:** Advanced

**Project Description:**

Repair and rehabilitation of 110 year old culvert and channel sections within the Harbor Brook Drainage District. Project would include rehabilitation of the concrete wing walls near Delaware and Amy Streets and rehabilitation of selected culvert sections.

**Project Cost Summary:**

<b>FUNDING SOURCE:</b>	<b>Pre-2019</b>	<b>2019</b>	<b>2020</b>	<b>2021</b>	<b>2022</b>	<b>2023</b>	<b>2024</b>	<b>6yr Total</b>	<b>Total:</b>
Borrowing to be Authorized	0	0	200	200				400	400
Authorized Borrowing	200							0	200
<b>TOTALS</b>	<b>200</b>	<b>0</b>	<b>200</b>	<b>200</b>				<b>400</b>	<b>600</b>

**Project Detail and Status:**

The Harbor Brook drainage channels and culverts were installed in the early 1900's to address flooding and public nuisance issues related to sanitary conditions and flooding. The 100 plus year old infrastructure is beginning to show signs of deficiency. This project will target the most deficient areas for rehabilitation.

Bonding in the amount of \$200,000 was authorized in March 2017 (BR 17 024R). In 2017, approximately \$145,000 was used for the following work: channel headwall repairs, fencing repairs and restoration of erosion areas off Grand Avenue. The remaining balance will be used on miscellaneous channel and fencing repairs.

In 2019 an additional \$200,000 will be requested to continue repairs of the deficient channel section.



## *Special Funds*

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**DEPARTMENT:** WATER ENVIRONMENT PROTECTION

**Project:** Ley Creek/Liverpool Force Main Rehabilitation/Replacement Project

**Purpose:** Maintain Existing Investment, Federal/State Mandate

**Level of Development:** Preliminary

**Project Description:**

Rehabilitation/Replacement of the Ley Creek 42-inch wastewater force main and the Liverpool 18-inch wastewater force main. Both force mains have exceeded their expected service life and have resulted in costly emergency repairs and additional regulatory scrutiny.

**Project Cost Summary:**

<b>FUNDING SOURCE:</b>	<b>Pre-2019</b>	<b>2019</b>	<b>2020</b>	<b>2021</b>	<b>2022</b>	<b>2023</b>	<b>2024</b>	<b>6yr Total</b>	<b>Total:</b>
Authorized Borrowing	500	1,000	300	300	100	100		1,800	2,300
Borrowing to be Authorized	0				7,750	7,750		15,500	15,500
<b>TOTALS</b>	<b>500</b>	<b>1,000</b>	<b>300</b>	<b>300</b>	<b>7,850</b>	<b>7,850</b>		<b>17,300</b>	<b>17,800</b>

**Project Detail and Status:**

The 42-inch diameter Ley Creek force main is approximately 11,900 feet long (approx. 2.25 miles) and was constructed in 1967. The 18- inch diameter Liverpool force main is approximately 17,500 feet long (approx. 3.30 miles) and was constructed in 1960. These pipelines serve nearly the entire eastern portion of Onondaga County and support many industrial and commercial entities. The expected service life of a pre-stressed concrete pipe is approximated at 50 years and these pipelines have reached or exceeded their expected service life and need to be replaced or rehabilitated. The Ley Creek force main has failed 3 times in the past 5 years and the Liverpool force main has experienced several significant failures over the past several decades releasing raw sewage into the environment.

In December 2017 the County Legislature authorized \$2.3 million for Engineering Phase of Ley Creek/Liverpool Force Mains Replacement/Rehabilitation. A consulting engineer will investigate multiple options for replacement or rehabilitation. The investigation will also include evaluation of capacity for future need, land acquisition and the most robust pipe design for the longest service life. A request for proposal is expected to be released in May or June of 2018.

*Special Funds*

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**DEPARTMENT:** WATER ENVIRONMENT PROTECTION

**Project:** Meadowbrook-Limestone WWTP Inflow & Infiltration Abatement (NEW)

**Purpose:** Maintain Existing Investment, Federal/State Mandate, Other

**Level of Development:** Advanced

**Budget Impact:** (\$570,000)

**Project Description:**

The Meadowbrook-Limestone WWTP received a Notice of Violation for recurring exceedances of SPDES permit limits due to extraneous flows during wet weather events. This project includes sewer lining and repair, manhole repair and rehabilitation, and catch basin disconnection as necessary. Areas of excessive inflow and infiltration were identified in a 2002 Sanitary Sewer Evaluation Survey (SSES), and this was updated in August 2018 by GHD. Updated costs are estimated at \$9 million. The improvements will be located in the Meadowbrook-Limestone service areas of City of Syracuse, Town of Manlius, Town of Dewitt, Village of Manlius and Village of Fayetteville. The infrastructure improvements will be performed by the County and charged to each municipality accordingly through intermunicipal agreements. At this time, WEP is seeking grant funding assistance for NYS EFC to cover 40% of project costs.

**Project Cost Summary:**

<b>FUNDING SOURCE:</b>	<b>Pre-2019</b>	<b>2019</b>	<b>2020</b>	<b>2021</b>	<b>2022</b>	<b>2023</b>	<b>2024</b>	<b>6yr Total</b>	<b>Total:</b>
Borrowing to be Authorized	0	1,000	2,000	2,000	2,000	2,000	0	9,000	9,000
<b>TOTALS</b>	<b>0</b>	<b>1,000</b>	<b>2,000</b>	<b>2,000</b>	<b>2,000</b>	<b>2,000</b>	<b>0</b>	<b>9,000</b>	<b>9,000</b>

**Project Detail and Status:**

This project is being undertaken in response to a Sewer System Evaluation Survey (SSES) conducted in 2002 and recently updated by GHD which identified areas where the inflow and infiltration of storm water and groundwater into the sanitary sewer system was compromising treatment at the Meadowbrook-Limestone WWTP. The extraneous flows have frequently caused the plant to exceed its SPDES permit limits during periods of wet weather, resulting in violations cited by the DEC. Due to the recurrence of these flow violations, the DEC has indicated that a Consent Order is forthcoming. The work to be performed involves sewer and manhole replacement and rehabilitation, and possible catch basin disconnection. The project is being advanced now to address the violations and to pursue NYS EFC grant monies that are available for infrastructure improvements. Cooperating municipalities (of which there are 5 for this service area) are eligible to receive 40% grant funding. With the grant subsidy, the net project cost would be \$5.4 million.

We intend to seek legislative authorization for the full amount in Fall 2018.

## *Special Funds*

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**DEPARTMENT:** WATER ENVIRONMENT PROTECTION

**Project:** Metropolitan (Metro ) Wastewater Treatment Plant - Thickener Rehabilitation (NEW)

**Purpose:** Maintain Existing Investment

**Level of Development:** Advanced

**Project Description:**

The project includes the replacement of mechanical and electrical equipment within the thickeners, concrete repair, hand railing systems and access platforms, and provides for the other ancillary improvements.

**Project Cost Summary:**

<b>FUNDING SOURCE:</b>	<b>Pre-2019</b>	<b>2019</b>	<b>2020</b>	<b>2021</b>	<b>2022</b>	<b>2023</b>	<b>2024</b>	<b>6yr Total</b>	<b>Total:</b>
Borrowing to be Authorized	0	1,765	1,965					3,730	3,730
<b>TOTALS</b>	<b>0</b>	<b>1,765</b>	<b>1,965</b>					<b>3,730</b>	<b>3,730</b>

**Project Detail and Status:**

The Thickener Complex at the Metro WWTP, constructed in 1978, requires process equipment replacement, rehabilitation, and modifications to extend the life of the Thickener System for an additional 25-30 years. This project serves to address this requirement through structural, mechanical, HVAC and electrical improvements associated with the Thickener Complex.

The following improvements are included in the project:

- Replacement of thickener feed wells, sludge boxes, center columns, drive mechanisms and associated equipment.
- Replacement of deteriorated influent channels.
- Replacement of thickener effluent weirs, scum baffles and effluent troughs of each thickener with FRP weirs, baffles, and troughs.
- Replacement of sludge collector and scrapper system of each thickener.
- Replacement of scum pumps, scum house sump pumps, and associated piping valves and appurtenances.
- Removal and replacement of an air compressor, pulsation dampeners, sump pump, and effluent water line.
- Replacement of electrical grounding and lightning protection systems for safety.
- Installation of a new tanker truck unloading station for system efficiency and reliability.
- HVAC improvements including replacement of unit ventilator, condensate receiver, unit heaters, roof exhaust fans, steam piping, condensate lines and associated valves.
- Supervisory Control and Data Acquisition (SCADA) programming and instrument control upgrades.
- Structural improvements, various concrete repairs, repair and replacement of railings, replacement of carbon steel bridges and grating, replacement of doors, installation of railings and kick plates, rehabilitation of exterior building brick façade, and removal and replacement of existing concrete coating systems.
- Ancillary civil, electrical and mechanical improvements.

Final design (cash) monies were previously procured for this project. Final design is scheduled to be completed in August 2018; with construction starting circa June 2019 and being completed in June 2020.

It is expected that legislative approval will be sought in September 2018 for approximately \$3.7 million in bonding for construction.

## *Special Funds*

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**DEPARTMENT:** WATER ENVIRONMENT PROTECTION

**Project:** Metropolitan (Metro) Wastewater Treatment Plant - Phase II Digester Improvements

**Purpose:** Reduce Operating Costs/Efficiency, Maintain Existing Investment

**Level of Development:** Advanced

**Project Description:**

The Metro WWTP Digester facility was constructed circa 1959 and consists of three primary digesters, one secondary digester with a floating cover, and a Digester Control House. Various improvements have been implemented over the years; the most recent improvement, known as Phase I improvements, was completed in 2012. The department is now pursuing Phase II improvements. Additionally, the installation of two new cogeneration units will be completed.

**Project Cost Summary:**

<b>FUNDING SOURCE:</b>	<b>Pre-2019</b>	<b>2019</b>	<b>2020</b>	<b>2021</b>	<b>2022</b>	<b>2023</b>	<b>2024</b>	<b>6yr Total</b>	<b>Total:</b>
Pay as You Go	1,720							0	1,720
Borrowing to be Authorized	0	9,628	14,442	3,610				27,680	27,680
<b>TOTALS</b>	<b>1,720</b>	<b>9,628</b>	<b>14,442</b>	<b>3,610</b>				<b>27,680</b>	<b>29,400</b>

**Project Detail and Status:**

The Metro WWTP Digester facility plays a vital role in the processing of biosolids as part of the wastewater treatment process; serving to reduce the amount of biosolids disposed. A byproduct of anaerobic digestion is biogas (mostly methane). Biogas at the Metro WWTP is used for fueling boilers, generating electricity (cogeneration), or is flared. The Metro Digester facility includes three (3) primary anaerobic digesters, each with a volume of 1.8 million gallons, and one (1) secondary anaerobic digester with a floating cover (which stores the biogas produced in the primary digesters). The four (4) digesters are oriented around a central Digester Control House (DCH).

In an effort to maintain the digesters and ensure they are operating efficiently as possible, the four (4) digesters are currently scheduled for cleaning at five (5) to seven (7) year intervals. During the last cleaning conducted between the years 2007 through 2012, an engineering consultant prepared an infrastructure evaluation report providing recommendations for immediate improvements and phased rehabilitation. The report was based on the present condition of each asset, the relative importance of that asset in maintaining proper digester function, and its remaining useful life. Any items considered "poor" were replaced or rehabilitated during Phase I when the digesters were offline for cleaning. The engineering consultant also included a list of future Phase II improvements (items to be replaced within the next 5 to 10 years). Phase II improvements serve as asset renewal and operational efficiency measures in accordance with the department's mission, vision, and asset management program.

The main elements of Phase II improvements include the following:

- Cleaning of all four digesters.
- New fixed cover and mixing system for digester #4 for safety and operations effectiveness.
- New gas bubble(s) storage system for methane gas.
- Replacement of the three (3) sludge heat exchangers.
- Replacement of three (3) sludge recirculation pumps.
- Replacement of three (3) hot water heat exchangers along with associated insulation.
- Replacement of the three (3) digester waste gas burner systems based on new configuration of Digester No. 4 and new gas storage system.
- Replacement of the five (5) gas compressors which supply biogas for the Cannon mixer system.
- Replacement of the current sludge transfer system.
- Replacement of various valves, pumps, and piping.
- Replacement of the gas flaring system for safety.
- Repair of all cracked and spalled concrete pilasters and other concrete repairs to 60-year old tanks.
- Installation of two new cogeneration units to convert excess methane gas into electricity which will subsequently be used at the Metro WWTP. Moreover, the "waste" heat generated from cogeneration units will be used to

## *Special Funds*

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supplement digester heating requirements. The installation of the cogeneration units will reduce greenhouse gas emissions via beneficial use of methane gas and the system's waste heat. It is noted that the department has been awarded a 50% matching grant (maximum reimbursement value of \$1.3 million) from Department of Environmental Conservation (DEC) Office of Climate Change (OCC) via 2017 Climate Smart Communities Grant Program; part of NYS Environmental Protection Fund. With this grant the new cogeneration units would have an expected payback period of seventeen years.

Final design (cash) monies were previously procured for this project. Final design is expected to be completed circa September 2018; with construction starting circa April 2019 and being completed in March 2021. It is expected that legislative approval will be sought in September 2018 for approximately \$27.7 million in bonding for construction.

## *Special Funds*

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**DEPARTMENT:** WATER ENVIRONMENT PROTECTION

**Project:** Metropolitan WWTP Biosolids Drying System (NEW)

**Purpose:** Reduce Operating Costs/Efficiency

**Level of Development:** Advanced

**Budget Impact:** (\$1,400,000)

**Project Description:**

A large operating cost of the Metropolitan WWTP relates to its processing and ultimate disposal of biosolids. To offset this significant operational cost, the installation of a sludge drying system to reduce the total weight of biosolids disposed is recommended. The Metro treatment plant also manages final biosolids dewatering and disposition for 4 of the 5 satellite (county-owned) treatment plants.

**Project Cost Summary:**

<b>FUNDING SOURCE:</b>	<b>Pre-2019</b>	<b>2019</b>	<b>2020</b>	<b>2021</b>	<b>2022</b>	<b>2023</b>	<b>2024</b>	<b>6yr Total</b>	<b>Total:</b>
Borrowing to be Authorized	0	522	1,044	9,026	4,514			15,106	15,106
<b>TOTALS</b>	<b>0</b>	<b>522</b>	<b>1,044</b>	<b>9,026</b>	<b>4,514</b>			<b>15,106</b>	<b>15,106</b>

**Project Detail and Status:**

The Metro WWTP produces approximately 37,000 wet tons of dewatered sludge at 30% solids per year. With a transportation and disposal cost of \$77.50 per wet ton, that equates to over \$2.8 million per year on landfill spending. The amount of water content in the biosolids has a direct effect on the disposal costs. The current biosolids disposed consists of 30% solids and 70% water. The more water that can be removed from the biosolids, the less expensive it will be to dispose of. As part of a NYSERDA Flextech Study completed in 2016, WEP and their contracted consultant explored the concept of installing a biosolids dryer to reduce the water content of the sludge. At that time, biosolids disposal costs were around \$50/wet ton, which resulted in a greater than 20-year payback. As such, the project was not pursued any further.

Recent dramatic changes in the biosolids disposal marketplace have caused this project to be re-evaluated. Combined with the recent evolution of biosolids drying technology, the project now is proposed to have an acceptable (8.1 - 11.1 year) payback period. Specifically, it is anticipated that by increasing the dryness of the biosolids to approximately 90%, the transport and disposal costs are expected to be reduced by \$1.9 million per year, with net annual savings of \$1.4 million per year (after debt service and O&M costs of the dryer and related infrastructure). Savings calculations include a service contract for \$60,000 per year, which includes annual parts and consumables and quarterly inspections by the manufacturer.

The proposed project includes a biosolids dryer, a building to house the dryer, a control room and electrical room, and storing of solids at the Metro WWTP site. Additional infrastructure includes the extension of utilities, construction of odor control systems, and a materials handling system. The project is being proposed as a design/build project under the NYS Energy Law.

We intend to seek legislative authorization for the full amount in Fall 2018.

## *Special Funds*

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**DEPARTMENT:** WATER ENVIRONMENT PROTECTION

**Project:** Oak Orchard WWTP Secondary Clarifier Rehabilitation

**Purpose:** Maintain Existing Investment

**Level of Development:** Advanced

**Project Description:**

The Oak Orchard WWTP has been in operation since 1980. The secondary clarifiers, critical to the successful operation of the plant, are original to the plant and have been identified for replacement.

**Project Cost Summary:**

<b>FUNDING SOURCE:</b>	<b>Pre-2019</b>	<b>2019</b>	<b>2020</b>	<b>2021</b>	<b>2022</b>	<b>2023</b>	<b>2024</b>	<b>6yr Total</b>	<b>Total:</b>
Authorized Borrowing	0	625	75	143	107			950	950
Borrowing to be Authorized	0			2,993	2,257			5,250	5,250
<b>TOTALS</b>	<b>0</b>	<b>625</b>	<b>75</b>	<b>3,136</b>	<b>2,364</b>			<b>6,200</b>	<b>6,200</b>

**Project Detail and Status:**

The OOWWTP secondary clarifier infrastructure is original to the circa 1980 plant. This vital portion of the facility provides solids removal in compliance with NYSDEC SPDES permit requirements. Major components of the mechanical and electrical systems are at the end of their useful life, or beyond, and are in need of replacement. Associated improvements include concrete rehabilitation within the clarifiers and adjoining tanks. As the infrastructure continues to age it puts the facility at increasing risk of violating several permit conditions. This project will aid in continued permit compliance.

The significant project components include the following.

- New motors and drives for the longitudinal and cross collectors for all six (6) clarifiers.
- New chain and flight equipment (sludge collection system) within the six (6) clarifiers.
- Clarifier, plant waste station, and various concrete rehabilitation - including coating and repair of significantly deteriorated concrete.
- Renewal and rehabilitation of scum pit infrastructure.
- Replacement of critical isolation gates and telescoping valves.

Legislative approval was received in March 2017 for \$950,000 in bonds for engineering design. Engineering design to be completed circa January 2020. It is anticipated that legislative approval will be sought in September 2020 for construction in the approximate amount of \$5.3 million.

## *Special Funds*

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**DEPARTMENT:** WATER ENVIRONMENT PROTECTION

**Project:** Wastewater Transportation System Improvements

**Purpose:** Public/Employee Safety/Health, Reduce Operating Costs/Efficiency, Maintain Existing Investment, Federal/State Mandate

**Level of Development:** Ongoing

**Project Description:**

This project consists of three primary or categorical elements: pump station improvements, trunk sewer improvements, and facility maintenance improvements (i.e., paving, roofing, and larger-scale maintenance activities).

**Project Cost Summary:**

<b>FUNDING SOURCE:</b>	<b>Pre-2019</b>	<b>2019</b>	<b>2020</b>	<b>2021</b>	<b>2022</b>	<b>2023</b>	<b>2024</b>	<b>6yr Total</b>	<b>Total:</b>
Borrowing to be Authorized	46,028		3,600	10,214	8,214	10,100	10,100	42,228	88,256
Pay as You Go	53,008	7,951	8,182	8,200	8,180	8,300	8,450	49,263	102,271
Authorized Borrowing	28,540							0	28,540
<b>TOTALS</b>	<b>127,576</b>	<b>7,951</b>	<b>11,782</b>	<b>18,414</b>	<b>16,394</b>	<b>18,400</b>	<b>18,550</b>	<b>91,491</b>	<b>219,067</b>

**Project Detail and Status:**

This project consists of three primary or categorical elements: pump station improvements, trunk sewer improvements, and facility maintenance improvements - including asset renewal measures/projects (i.e., paving, roofing, larger-scale maintenance activities). Detailed below is a description of the elements included in each of those categories.

**Pump Station Upgrade Program Elements:**

This project provides for ongoing pump station replacement and upgrading of components or systems and structural fixtures to preclude failures and prevent potential harm to the environment by discharge of raw sewage. Pump station sites scheduled in this project are: Camillus, Davis Road, Gaskin Road, Lakeside, Richmond Street, Sackett Street, Taylor Street and rehabilitation/upgrades to the Baldwinsville Seneca Knolls (BSK) Wastewater Pump Stations. The BSK pump stations include: Baldwinsville North, Baldwinsville South, Baldwinsville West, and Belgium. Pump station improvements will include, but not be limited to, replacement/rehabilitation of pumps, valves, flow meters, variable frequency drives, heating and ventilation systems, and other mechanical and electrical systems.

Includes re-commissioning of the Midland Ave RTF in regards to potential changes to pump sizes and operation. The Forcemain Air Relief and Cathodic Protection project will involve the repair and/or replacement of air relief valves and cathodic protection equipment at various county owned pump station forcemains.

Rehabilitation and replacement of targeted wastewater force mains in the Consolidated Sanitary District. The Consolidated Sanitary District owns 53 miles of force main ranging in size from 42 inch diameter to 6 inches in diameter. More than 45 miles of these pipelines are over 40 years old and have exceeded the recommended service life. It is the intent of this project to strategically rehabilitate or replace this aging infrastructure. This will include forcemains such as Davis Road, Clay /Cicero, Oak Orchard FM, and Manlius FM, amongst others.

**Trunk Sewer Upgrade Program Elements:**

Another component of this project addresses modification, repair, and/or replacement of specified trunk sewers and pressure pipelines, of aged facilities comprising the 400 miles of trunk sewer network which the Department has responsibility. Trunk sewers identified in this project are: Portions of Tallman Trunk Sewer (circa 1898), Midland Trunk Sewer (circa 1905), Hillcrest Trunk Sewer (circa 1955), Lakeland Trunk Sewer (circa 1960) and Meadowbrook Trunk Sewer (circa 1960).



## *Special Funds*

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A number of projects are generally combined to provide the most practical package from a constructability and economic viewpoint. The trunk sewer improvement/renewal program includes provisions for the design of improvements to a number of combined trunk sewers in the City of Syracuse and other trunk sewers within the Consolidated Sanitary District.

This project is also to include other sewer infrastructure improvements. A major aspect of the project will be a comprehensive manhole rehabilitation program, so as to achieve infiltration/inflow reductions. This program which is a key component of the Asset Management Program, will first consist of a high-intensity effort to improve the most problematic manholes in targeted service areas; thereafter, the manhole repair program will be segmented and portions will be completed annually. This is expected to continue for the next several years.

Collectively, these trunk sewer rehabilitation/renewal programs, along with other ancillary support efforts, are part of the department's Asset Management program.

### Facility Maintenance Improvements:

The third component of this project involves maintenance and improvement of other department facilities and wastewater treatment plants, such as repairs and capital projects to replace necessary roofing and paved areas at various facilities, lightning protection, major repairs to grit and clarifier mechanisms at several treatment facilities, miscellaneous engineering support, asset management programs, maintenance management systems, chemical tank and petroleum tank replacements, crane/hoist renewal project, concrete repairs, smaller-scale infrastructure improvements, infrastructure evaluations, upgrades to Metro WWTP's headworks bypass system, code compliance and safety improvement measures. Replacement of inefficient mechanical equipment, including drives/energy systems, is also anticipated.

The roofing and paving, as well as the clarifier weir capital programs, pump rehabilitation/repair project, and lightning protection, are customarily segmented and portions are completed annually. This is expected to continue for the next several years. The asset management and GIS applications within the department continue to expand. Efforts also include Arcflash analysis and compliance, site and information technology security evaluations, safety projects; motor control center and electrical substation evaluation and repair; and a comprehensive asset management evaluation of Metro's 1978 plant infrastructure addition (secondary system) - inclusive of planning level forecasts for capital improvements. Also included are design and replacement of the oxygen generation and storage systems at the Baldwinsville and Oak Orchard Wastewater treatment plants as an asset renewal and energy efficiency measure.

Included within the project is replacement of larger pieces of analytical equipment, various valves, HVAC improvements, pump installations, confined space improvements, various boiler systems, door replacement project, several building improvements, odor control measures and improvements, SCADA system enhancements, wastewater treatment plant clarifiers, fire and carbon monoxide monitoring and alarm systems, and other various infrastructure repair/renewal elements for civil, electrical, and mechanical infrastructure.

It is expected that legislative approval will be sought in September 2018 for approximately \$8,160,000 in cash for this project.

# GLOSSARY

## Section 4

## GLOSSARY OF TERMS

**Appropriation** An authorization made by the legislative body of a government that permits officials to incur obligations against and to make expenditures of governmental resources. Appropriations are usually made for fixed amounts and are typically granted for a one-year period.

**Assets** Property owned by the County that has a monetary value.

**Attributable Revenue** The revenue generated as a direct consequence of the provision of a specific governmental activity, such as fees for service, state or federal aid for programs, and income from sales. If the government no longer provided the service, the revenue would also stop.

**Bond** A written promise to pay a sum of money on a specific date at a specified interest rate. The interest payments and the repayment of the principal are detailed in a bond ordinance. The most common types of bonds are general obligation and revenue bonds. These are most frequently used for construction of large capital projects, such as buildings, streets and bridges.

**Bond Anticipation Notes (BANs)** Short-term interest bearing security issued in anticipation of a long-term bond issuance at a later date. The notes are retired with proceeds from the later related bond issue.

**Budget** A comprehensive financial plan of operation which allocates limited revenues among competing expenditure requirements for a given time period. Onondaga County has two types of budgets, the annual operating budget and the Capital Improvement Plan.

**Budget Calendar** The schedule of key dates or milestones, which the county follows in the preparation, adoption, and administration of the budget.

**Budget Document** The official written statement prepared by the Executive Department, which presents the proposed budget to the legislative body.

**Budget Message** A general discussion of the proposed budget presented in narrative form as a supplement to the budget document. The budget message explains principal budget issues against the background of financial experience in recent years and provides a general summary of the most important aspects of the budget, changes from the current and previous fiscal years, and the views and recommendations of the County Executive.

**Capital Assets** Assets of significant value and having a useful life of several years. Capital assets are also called fixed assets.

**Capital Fund** A fund established to account for all resources, principal and proceeds, which are used for planning, acquisition, and construction phases of capital projects.

**Capital Improvement Plan (CIP)** A plan for capital expenditures to be incurred each year over a period of six future years setting forth each capital project, identifying the expected beginning and ending date for each project, the amount to be expended in each year, and the method of financing those expenditures.

**Capital Improvements** Physical assets, constructed or purchased; the acquisition of land; or improvements to land or buildings. Capital improvements typically involve physical assets such as

## *Glossary*

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buildings, streets, water and sewage systems, recreational facilities, and major pieces of equipment.

*Capital Notes* On all borrowings, except WEP and Water Fund, where the P.P.U. exceeds five years the county is required, by Finance Law, to fund five percent of the total cost in the form of cash prior to the issuance of debt. The county is allowed to borrow this amount in the form of short-term notes known as Capital Notes. Capital Notes may be issued for up to twelve months and can be renewed once (by resolution). Capital Notes are also occasionally issued for emergency sewer repairs.

*Capital Outlay* Expenditures for equipment, vehicles, or machinery that results in the acquisition of or addition to fixed assets.

*Cash Capital* See County Tax Revenues.

*Cash On Hand* Direct financing available from either surplus monies from prior years' taxation, or unused balances in existing capital accounts, or earnings on temporary investments.

*County Tax Revenues (Cash Capital)* The cash financing of general fund projects by property taxes.

*Countywide Authorized Borrowing* The financing of a project by long or short term borrowing which has been authorized by the County Legislature.

*Countywide Borrowing to be Authorized* The financing of a project by long or short term borrowing that will require authorization by the County Legislature before the project can be undertaken.

*Debt Service* The payment of principal and interest on borrowed funds, according to a pre-determined payment schedule.

*Department* The highest organizational level for the provision and delivery of a specific governmental service or closely related services. A department may be comprised of subdepartment, agency, etc.

*Depreciation* Expiration in the service life of capital assets attributable to wear and tear, deterioration, action of the physical elements, inadequacy or obsolescence. That portion of the cost of a capital asset that is charged as an expense during a particular period. This represents the decrease in value of physical assets due to use and the passage of time.

*Enterprise Fund* A governmental accounting fund in which the services provided are financed and operated similarly to those of a private business. The rate schedules for these services are established to insure that revenues are adequate to meet all necessary expenditures.

*Equipment* One of the major expense codes used to categorize appropriations. Equipment includes county appropriations for office, construction, plant, laboratory, grounds, motor vehicles, safety, tools and shop equipment.

*Estimated Revenues* The amount of projected revenue to be collected during the current or ensuing fiscal year. The amount of revenue estimated is the budgeted amount approved by the Legislature.

*Expenses* Charges incurred for operations, maintenance, interest, travel, equipment, rentals, utilities, professional services, contracts and other charges.

*Federal Aid* The financing of eligible projects through the use of Federal funds other than Federal Revenue Sharing.

## *Glossary*

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*Federal Revenue Sharing*     The financing of eligible projects through the use of Revenue Sharing funds.

*Fiscal Agent Fees*     These are fees charged by institutions for record keeping of registered (Serial) Bondholders and for the semi annual distribution of principal and interest payments to those bondholders. The purchaser pays Fiscal Agent Fees on Capital Notes and Bond Anticipation Notes.

*Fiscal Year (FY)*     A twelve-month period designated as the operating year for an entity. For the county, the fiscal year is the same as the calendar year - January 1 to December 31 - also called the Budget Year. The fiscal year for the State of New York is April 1 - March 31. The Federal fiscal year is October 1 to September 30.

*Fixed Assets*     Assets of long-term character, which are intended to continue to be held or used, such as land, buildings, machinery, furniture and other equipment.

*Full Faith and Credit*     A pledge of the general taxing power of a government to repay debt obligations, typically used in reference to bonds.

*Fund*     An independent fiscal and accounting entity with a self-balancing set of accounts recording cash and/or other resources together with all related liabilities, obligations, reserves, and equities which are segregated for the purpose of carrying on specific activities or attaining certain objectives (see General Fund).

*General Fund*     The largest fund within the county, the General Fund accounts for most of the county's financial resources. General Fund revenues include property taxes, licenses and permits, local and sales taxes, service charges, and other types of revenue. This fund usually includes most of the basic operating services, such as public safety, finance, data processing, parks and recreation, highway, long term care, community college, library and other direct operating support.

*General Obligation Bonds*     When a government pledges its full faith and credit to the repayment of the bonds it issues, then those bonds are general obligation (GO) bonds. Sometimes the term is also used to refer to bonds that are to be repaid from taxes and other general revenues.

*Grant*     A contribution of assets (usually cash) by one governmental unit or other organization to another. Typically, these contributions are made to local governments from the state and federal governments. Grants are usually made for specified purposes.

*Interest*     The price paid for the use of money, or the return on investment obtained from investing or lending money.

*Liability*     Debt or other legal obligations arising out of transactions in the past that must be liquidated renewed or refunded at some future date. The term does not include encumbrances.

*Local Dollars*     The difference between appropriations and revenues which must be raised through the property tax levy.

*Long Term Debt*     Debt with a maturity of more than one year after the date of issuance.

*Mandate*     Any responsibility, action or procedure that is imposed by one sphere of government on another through constitutional, legislative, administrative, executive, or judicial action as a direct order or that is required as a condition for reimbursement of expenditures.

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*Maturity Date* The date at which full and/or final payment of principal and interest is due on debt obligations.

*Onondaga County Legislature* The County Legislature consists of seventeen elected members and constitutes the legislative, appropriating, policy determining, and governing body of the County of Onondaga.

*Operating Budget* The portion of the budget that pertains to daily operations and provides basic governmental services. The operating budget contains appropriations for such expenditures as personnel, supplies, utilities, materials, travel, and fuel.

*Other Sources* The financing of projects from sources other than tax supported, Federal and/or State Aid (i.e. private funds, fees).

*Pay-As-You-Go* The strategic use of tax revenues to finance projects in an effort to reduce the issuance of debt and the related interest costs, i.e. use of tax revenues to finance annually recurring projects.

*Period of Probable Usefulness (PPU)* The maximum period of time available, by law, to repay indebtedness. PPU's for various types of projects are mandated by Local Finance Law, and range between 3 and 40 years.

*Principal* The par value or face value of a bond, note, or other fixed amount security, excluding accrued interest.

*Renewals* Bond Anticipation Notes (BANs) and Capital Notes are short-term borrowings, one year or less, that have to be renewed or paid off at maturity. A renewal is the re-borrowing of the debt, less any scheduled principal payment.

*Reserve* An account used to indicate that a portion of a fund's balance is legally restricted for a specific purpose and is, therefore, not available for general appropriation.

*Revenue* Funds that the government receives as income. It includes such items as tax payments, fees from specific services, receipts from other governments (state and federal aid), fines, forfeitures, grants, shared revenues and interest income.

*Revenue Anticipation Notes (RANs)* RANs are issued in anticipation of the receipt of specific revenues, generally non-tax revenues. RANs are typically used for cash flow borrowings. The specific revenues are set-aside on receipt, for payment of the RAN and interest upon its maturity. The debt cannot extend beyond twelve months and must be paid in full at maturity.

*Revenue Estimate* A formal estimate of how much revenue will be earned from a specific revenue source for a current or future period; typically, a future fiscal year.

*Revenue Source* A category of revenue, such as local source, state aid, or federal aid.

*Serial Bond* A written promise to pay a specified sum of money (principal face value) at a specified future date (maturity date[s]) along with periodic interest paid at a specified percentage of the principal (interest rate). Serial bonds are typically used for long-term debt.

*Special Districts Authorized Borrowing* The financing of a project by long or short term borrowing which has been authorized by the County Legislature for special districts such as Drainage Districts.

## *Glossary*

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*Special Districts Borrowing To Be Authorized* The financing of a project by long or short-term borrowing that will require authorization by the County Legislature before the project can be undertaken.

*State Aid* The financing of eligible projects through the use of state funds.

*Tax Levy* The total amount to be raised by property taxes for the purpose stated in the county's financial plan for various funds.

*User Fees* The payment of a fee for direct receipt of a public service by the party benefiting from the service.