

City of Northampton Capital Plan FY18-FY22

PROJECT TITLE: Granular Activated Carbon

DATE SUBMITTED: 12/01/2016

DEPARTMENT PROJECT INFORMATION

Department: **Public Works**

Department Contact: **Donna LaScaleia**

Fiscal Year(s) Requested: **FY18** **FY19** **FY20** **FY21** **FY22**

Department Priority: **Critical** **High** **Medium** **Low**

Type of Project: **Vehicle** **Equipment** **Technology** **Facility** **Other**

PROJECT DESCRIPTION

Granular activated carbon in the filter beds at the Water Treatment Plant has a five year life cycle. A portion of the total replacement cost is set aside each year to allow for gradual accumulation of funds. Expected replacement schedule and cost is as follows:

FY20: \$225,000

FY21: \$225,000

See attached funding/spending projection.

PROJECT NEED

Impact on Department if Recommended or Not Recommended:

Gradual accumulation of funds allows costs to be amortized across several years, rather than a large expenditure in one year.

Cost to Maintain:

N/A

Describe all Benefits and/or Savings:

Ensure regulatory compliance and high quality drinking water to the City.

City of Northampton Capital Plan FY18-FY22

PROJECT TITLE: Water Line Replacement

DATE SUBMITTED: 12/01/2016

DEPARTMENT PROJECT INFORMATION

Department: **Public Works**

Department Contact: **Donna LaScaleia**

Fiscal Year(s) Requested: **FY18** **FY19** **FY20** **FY21** **FY22**

Department Priority: **Critical** **High** **Medium** **Low**

Type of Project: **Vehicle** **Equipment** **Technology** **Facility** **Other**

PROJECT DESCRIPTION

Public Works continues to work on the Water Asset Management Plan for water pipeline replacement projects. This is done in conjunction with sewer and stormwater utility improvements and is something the department incorporates into its decision making process when repaving City streets.

Recent water line projects include Pine Street Bridge Crossing, Riverbank Road, Bliss Street, Conz/Pleasant Street and Winslow Avenue. Pending water line projects to be completed include Hinckley Street, Audubon Road, North Maple and North Farms Rd, and Day Avenue.

This line item will fund water line replacement on Damon Road and Villone Drive.

PROJECT NEED

Impact on Department if Recommended or Not Recommended:

Water pipes fail predominately due to age. New infrastructure is a benefit for City residents and has lower future maintenance costs.

Cost to Maintain:

Accounts for in OM budget. New construction is typically maintenance free.

Describe all Benefits and/or Savings:

Service disruption is reduced, response efforts for water main breaks reduced, and under capacity systems are upgraded allowing for proper water flows.

PROJECT BUDGET AND FUNDING SOURCES

Project Cost Summary, Recommended Financing Sources, & Operating Budget Impact						
Project Cost Elements	FY 2018	FY 2019	FY2020	FY 2021	FY2022	TOTAL
Feasibility Study						\$ 0
Design - Engineering	\$ 100,000	\$ 100,000	\$ 75,000	\$ 75,000	\$ 75,000	\$ 425,000
Site Acquisition						\$ 0
Site Improvements						\$ 0
Construction	\$ 1,200,000	\$ 550,000	\$ 500,000	\$ 500,000	\$ 500,000	\$ 3,250,000
Inspection Services	\$ 100,000	\$ 25,000				\$ 125,000
Equipment & Furnishings						\$ 0
Vehicle Purchase						\$ 0
Other						\$ 0
Contingency						\$ 0
TOTALS	\$ 1,400,000	\$ 675,000	\$ 575,000	\$ 575,000	\$ 575,000	\$ 3,800,000
Financing Sources						
Lease-Purchase						\$ 0
Water Enterprise Funds	\$ 1,400,000	\$ 675,000	\$ 575,000	\$ 575,000	\$ 575,000	\$ 3,800,000
Sewer Enterprise Funds						\$ 0
Solid Waste Enterprise Funds						\$ 0
Storm Water Enterprise Funds						\$ 0
State / Federal Grants						\$ 0
Sale of Surplus Property						\$ 0
CPA						\$ 0
Other (specify)						\$ 0
City Appropriation						\$ 0
TOTALS	\$ 1,400,000	\$ 675,000	\$ 575,000	\$ 575,000	\$ 575,000	\$ 3,800,000

City of Northampton Capital Plan FY18-FY22

PROJECT TITLE: Reservoir Construction

DATE SUBMITTED: 12/01/2016

DEPARTMENT PROJECT INFORMATION

Department: **Public Works**

Department Contact: **Donna LaScaleia**

Fiscal Year(s) Requested: **FY18** **FY19** **FY20** **FY21** **FY22**

Department Priority: **Critical** **High** **Medium** **Low**

Type of Project: **Vehicle** **Equipment** **Technology** **Facility** **Other**

PROJECT DESCRIPTION

Engineering studies of the City's drinking water supply reservoirs are completed. The Ryan, West Whately and Mountain Street Reservoirs have noted spillway deficiencies that need to be corrected. Projected engineering and construction costs are roughly \$10,000,000.

Funding schedule as follows, using 3% annual adjustment:

FY18: RYAN engineering in full, 50% construction

FY19: RYAN 50% construction, WW engineering in full

FY20: WW 50% construction

FY21: WW 50% construction, MTN ST 50% engineering

FY22: MTN ST 50% engineering, 50% construction

PROJECT NEED

Impact on Department if Recommended or Not Recommended:

Dams currently do not meet Office of Dam Safety requirements and may fail during large storm events. At this time, work has not been mandated by the State.

Cost to Maintain:

Nominal inspection costs.

Describe all Benefits and/or Savings:

Solid infrastructure is key to a sustainable water supply.

PROJECT BUDGET AND FUNDING SOURCES

Project Cost Summary, Recommended Financing Sources, & Operating Budget Impact						
Project Cost Elements	FY 2018	FY 2019	FY2020	FY 2021	FY2022	TOTAL
Feasibility Study						\$ 0
Design - Engineering	\$ 530,000	\$ 605,000		\$ 650,000	\$ 650,000	\$ 2,435,000
Site Acquisition						\$ 0
Site Improvements	\$ 1,100,000	\$ 1,100,000	\$ 1,100,000	\$ 1,100,000	\$ 2,800,000	\$ 7,200,000
Construction						\$ 0
Inspection Services						\$ 0
Equipment & Furnishings						\$ 0
Vehicle Purchase						\$ 0
Other						\$ 0
Contingency						\$ 0
TOTALS	\$ 1,630,000	\$ 1,705,000	\$ 1,100,000	\$ 1,750,000	\$ 3,450,000	\$ 9,635,000
Financing Sources						
Lease-Purchase						\$ 0
Water Enterprise Funds	\$ 1,630,000	\$ 1,705,000	\$ 1,100,000	\$ 1,750,000	\$ 3,450,000	\$ 9,635,000
Sewer Enterprise Funds						\$ 0
Solid Waste Enterprise Funds						\$ 0
Storm Water Enterprise Funds						\$ 0
State / Federal Grants						\$ 0
Sale of Surplus Property						\$ 0
CPA						\$ 0
Other (specify)						\$ 0
City Appropriation						\$ 0
TOTALS	\$ 1,630,000	\$ 1,705,000	\$ 1,100,000	\$ 1,750,000	\$ 3,450,000	\$ 9,635,000

City of Northampton Capital Plan FY18-FY22

PROJECT TITLE: Upper Roberts Meadow Dam

DATE SUBMITTED: 12/01/2016

DEPARTMENT PROJECT INFORMATION

Department: **Public Works**

Department Contact: **Donna LaScaleia**

Fiscal Year(s) Requested: **FY18** **4** **FY19** **FY20** **FY21** **FY22**

Department Priority: **Critical** **4** **High** **Medium** **Low**

Type of Project: **Vehicle** **Equipment** **Technology** **Facility** **Other** **4**

PROJECT DESCRIPTION

The Office of Dam safety has mandated removal of the Upper Roberts Meadow Dam. Design work has been ongoing since 2012. A FEMA grant application was rejected in summer of 2016. An intensive archaeological survey is underway to determine if the design will need to be modified. Construction estimates are several years old at this time.

PROJECT NEED

Impact on Department if Recommended or Not Recommended:

Catastrophic failure.

Cost to Maintain:

N/A

Describe all Benefits and/or Savings:

A safe and orderly dam removal.

PROJECT BUDGET AND FUNDING SOURCES

Project Cost Summary, Recommended Financing Sources, & Operating Budget Impact						
Project Cost Elements	FY 2018	FY 2019	FY2020	FY 2021	FY2022	TOTAL
Feasibility Study						\$ 0
Design - Engineering						\$ 0
Site Acquisition						\$ 0
Site Improvements						\$ 0
Construction	\$ 250,000					\$ 250,000
Inspection Services						\$ 0
Equipment & Furnishings						\$ 0
Vehicle Purchase						\$ 0
Other						\$ 0
Contingency						\$ 0
TOTALS	\$ 250,000	\$ 0	\$ 0	\$ 0	\$ 0	\$ 250,000
Financing Sources						
Lease-Purchase						\$ 0
Water Enterprise Funds	\$ 250,000					\$ 250,000
Sewer Enterprise Funds						\$ 0
Solid Waste Enterprise Funds						\$ 0
Storm Water Enterprise Funds						\$ 0
State / Federal Grants						\$ 0
Sale of Surplus Property						\$ 0
CPA						\$ 0
Other (specify)						\$ 0
City Appropriation						\$ 0
TOTALS	\$ 250,000	\$ 0	\$ 0	\$ 0	\$ 0	\$ 250,000

City of Northampton Capital Plan FY18-FY22

PROJECT TITLE: Watershed Land Acquisition

DATE SUBMITTED: 12/012016

DEPARTMENT PROJECT INFORMATION

Department: **Public Works**

Department Contact: **Donna LaScaleia**

Fiscal Year(s) Requested: **FY18** **FY19** **FY20** **FY21** **FY22**

Department Priority: **Critical** **High** **Medium** **Low**

Type of Project: **Vehicle** **Equipment** **Technology** **Facility** **Other**

PROJECT DESCRIPTION

Land acquisition is an important part of the Northampton Watershed Resource Protection Plan (WRPP), which is designed to protect raw water quality within the watersheds of the active drinking water reservoirs.

All parcels that are targeted for acquisition by the City are based on proximity to the reservoirs and tributaries to these reservoirs, and proximity to surface water protection zones. This budget item is intended to fund acquisition of priority parcels as they become available. Additionally, DPW applies for 50% reimbursement grants from the State, and has received nearly \$500,000 since 2011.

PROJECT NEED

Impact on Department if Recommended or Not Recommended:

May impact the quality of the City's drinking water if not funded.

Cost to Maintain:

Nominal, as we currently maintain surrounding land.

Describe all Benefits and/or Savings:

Drinking water is a vital resource for the City. Public Works seeks to continue to maintain high water quality for future generations.

City of Northampton Capital Plan FY18-FY22

PROJECT TITLE: Water System Leak Detection

DATE SUBMITTED: 12/01/2016

DEPARTMENT PROJECT INFORMATION

Department: **Public Works**

Department Contact: **Donna LaScaleia**

Fiscal Year(s) Requested: **FY18** **FY19** **FY20** **FY21** **4** **FY22**

Department Priority: **Critical** **High** **Medium** **Low**

Type of Project: **Vehicle** **Equipment** **Technology** **Facility** **Other** **4**

PROJECT DESCRIPTION

DEP requires that the City test 17 miles of its water distribution system for leaks every three years. This line item is for contractor services for flow testing and sounding to comply with this mandate.

PROJECT NEED

Impact on Department if Recommended or Not Recommended:

This testing is part of maintaining the water distribution system in good working order.

Cost to Maintain:

N/A

Describe all Benefits and/or Savings:

Early leak detection and repair prevents more costly repairs in the future.

PROJECT BUDGET AND FUNDING SOURCES

Project Cost Summary, Recommended Financing Sources, & Operating Budget Impact						
Project Cost Elements	FY 2018	FY 2019	FY2020	FY 2021	FY2022	TOTAL
Feasibility Study						\$ 0
Design - Engineering						\$ 0
Site Acquisition						\$ 0
Site Improvements						\$ 0
Construction						\$ 0
Inspection Services				\$ 25,000		\$ 25,000
Equipment & Furnishings						\$ 0
Vehicle Purchase						\$ 0
Other						\$ 0
Contingency						\$ 0
TOTALS	\$ 0	\$ 0	\$ 0	\$ 25,000	\$ 0	\$ 25,000
Financing Sources						
Lease-Purchase						\$ 0
Water Enterprise Funds				\$ 25,000		\$ 25,000
Sewer Enterprise Funds						\$ 0
Solid Waste Enterprise Funds						\$ 0
Storm Water Enterprise Funds						\$ 0
State / Federal Grants						\$ 0
Sale of Surplus Property						\$ 0
CPA						\$ 0
Other (specify)						\$ 0
City Appropriation						\$ 0
TOTALS	\$ 0	\$ 0	\$ 0	\$ 25,000	\$ 0	\$ 25,000

City of Northampton Capital Plan FY18-FY22

PROJECT TITLE: Meter Replacement

DATE SUBMITTED: 12/01/2016

DEPARTMENT PROJECT INFORMATION

Department: **Public Works**

Department Contact: **Donna LaScaleia**

Fiscal Year(s) Requested: **FY18** **FY19** **FY20** **FY21** **FY22**

Department Priority: **Critical** **High** **Medium** **Low**

Type of Project: **Vehicle** **Equipment** **Technology** **Facility** **Other**

PROJECT DESCRIPTION

Annual funding for water meter replacement program to replace meters at the end of their service life.

PROJECT NEED

Impact on Department if Recommended or Not Recommended:

New meters are necessary to ensure accurate billing for water usage.

Cost to Maintain:

Nominal

Describe all Benefits and/or Savings:

Accuracy in billing is important.

City of Northampton Capital Plan FY18-FY22

PROJECT TITLE: Radio Read Program

DATE SUBMITTED: 12/01/2016

DEPARTMENT PROJECT INFORMATION

Department: **Public Works**

Department Contact: **Donna LaScaleia**

Fiscal Year(s) Requested: **FY18** **FY19** **FY20** **FY21** **FY22**

Department Priority: **Critical** **High** **Medium** **Low**

Type of Project: **Vehicle** **Equipment** **Technology** **Facility** **Other**

PROJECT DESCRIPTION

Annual funding required to continue the purchase of radio read devices for water meter reading.

PROJECT NEED

Impact on Department if Recommended or Not Recommended:

This program enables automated water meter reading.

Cost to Maintain:

Nominal.

Describe all Benefits and/or Savings:

Reduces cost to read water meters.

City of Northampton Capital Plan FY18-FY22

PROJECT TITLE: Hydrant Replacement

DATE SUBMITTED: 12/01/2016

DEPARTMENT PROJECT INFORMATION

Department: **Public Works**

Department Contact: **Donna LaScaleia**

Fiscal Year(s) Requested: **FY18** **FY19** **FY20** **FY21** **FY22**

Department Priority: **Critical** **High** **Medium** **Low**

Type of Project: **Vehicle** **Equipment** **Technology** **Facility** **Other**

PROJECT DESCRIPTION

Annual funding for hydrant replacements to replace old and non-functional hydrants.

PROJECT NEED

Impact on Department if Recommended or Not Recommended:

Hydrants are crucial for fire protection for the City.

Cost to Maintain:

Nominal.

Describe all Benefits and/or Savings:

Fire protection for the City.

City of Northampton Capital Plan FY18-FY22

PROJECT TITLE: WTP Storage Building

DATE SUBMITTED: 12/01/2016

DEPARTMENT PROJECT INFORMATION

Department: **Public Works**

Department Contact: **Donna LaScaleia**

Fiscal Year(s) Requested: **FY18** **4** **FY19** **FY20** **FY21** **FY22**

Department Priority: **Critical** **High** **Medium** **Low**

Type of Project: **Vehicle** **Equipment** **Technology** **Facility** **4** **Other**

PROJECT DESCRIPTION

City water operations will be consolidated at one location at the Water Treatment Plant in Haydenville. This will allow for the distribution and treatment divisions to work more closely together and will represent a substantial increase in operational efficiency.

Equipment and materials will need to be consolidated, and vehicles, mowers and chemicals need to be stored out of the weather. This line item, when combined with encumbered funds, will fund site work and infrastructure for the new building.

PROJECT NEED

Impact on Department if Recommended or Not Recommended:

Increased operational efficiency by consolidating water operations.

Cost to Maintain:

N/A

Describe all Benefits and/or Savings:

Organization of equipment and materials out of the weather.

PROJECT BUDGET AND FUNDING SOURCES

Project Cost Summary, Recommended Financing Sources, & Operating Budget Impact						
Project Cost Elements	FY 2018	FY 2019	FY2020	FY 2021	FY2022	TOTAL
Feasibility Study						\$ 0
Design - Engineering						\$ 0
Site Acquisition						\$ 0
Site Improvements						\$ 0
Construction	\$ 90,000					\$ 90,000
Inspection Services						\$ 0
Equipment & Furnishings						\$ 0
Vehicle Purchase						\$ 0
Other						\$ 0
Contingency						\$ 0
TOTALS	\$ 90,000	\$ 0	\$ 0	\$ 0	\$ 0	\$ 90,000
Financing Sources						
Lease-Purchase						\$ 0
Water Enterprise Funds	\$ 90,000					\$ 90,000
Sewer Enterprise Funds						\$ 0
Solid Waste Enterprise Funds						\$ 0
Storm Water Enterprise Funds						\$ 0
State / Federal Grants						\$ 0
Sale of Surplus Property						\$ 0
CPA						\$ 0
Other (specify)						\$ 0
City Appropriation						\$ 0
TOTALS	\$ 90,000	\$ 0	\$ 0	\$ 0	\$ 0	\$ 90,000

City of Northampton Capital Plan FY18-FY22

PROJECT TITLE: WTP-Replace Equipment

DATE SUBMITTED: 12/01/2016

DEPARTMENT PROJECT INFORMATION

Department: **Public Works**

Department Contact: **Donna LaScaleia**

Fiscal Year(s) Requested: **FY18** **FY19** **FY20** **FY21** **FY22**

Department Priority: **Critical** **High** **Medium** **Low**

Type of Project: **Vehicle** **Equipment** **Technology** **Facility** **Other**

PROJECT DESCRIPTION

Water Treatment Plant annual funding for planned and emergency work related to control and measuring equipment. FY17 projects included clarifier and turbidimeter replacement.

PROJECT NEED

Impact on Department if Recommended or Not Recommended:

Funding is needed to maintain the operation of the water treatment plant.

Cost to Maintain:

N/A

Describe all Benefits and/or Savings:

Successful operation of the water treatment plant.

City of Northampton Capital Plan FY18-FY22

PROJECT TITLE: Water Distribution System Equipment

DATE SUBMITTED: 12/01/2016

DEPARTMENT PROJECT INFORMATION

Department: **Public Works**

Department Contact: **Donna LaScaleia**

Fiscal Year(s) Requested: **FY18** **FY19** **FY20** **FY21** **FY22**

Department Priority: **Critical** **High** **Medium** **Low**

Type of Project: **Vehicle** **Equipment** **Technology** **Facility** **Other**

PROJECT DESCRIPTION

The Water distribution system has sophisticated equipment used in the control of the system, including pumps and motors at various remote facilities across the City. This budget item will allow for equipment replacement and replacement of control panels on pumps and motors, upgrades to SCADA equipment, and in FY18 and FY19, VFD installation on the City's Leeds pump station and wells.

FY18: \$50,000 for 2 VFD-Leeds pump station

FY19: \$50,000 for 1-VFD at Spring Street and 1-VFD at Clark Street

PROJECT NEED

Impact on Department if Recommended or Not Recommended:

Funding this item will allow for replacement of equipment integral to the water distribution system.

Cost to Maintain:

N/A

Describe all Benefits and/or Savings:

A comprehensive plan to maintain our water distribution equipment is important to the integrity of the system.

PROJECT BUDGET AND FUNDING SOURCES

Project Cost Summary, Recommended Financing Sources, & Operating Budget Impact						
Project Cost Elements	FY 2018	FY 2019	FY2020	FY 2021	FY2022	TOTAL
Feasibility Study						\$ 0
Design - Engineering						\$ 0
Site Acquisition						\$ 0
Site Improvements						\$ 0
Construction						\$ 0
Inspection Services						\$ 0
Equipment & Furnishings	\$ 125,000	\$ 125,000	\$ 75,000	\$ 75,000	\$ 75,000	\$ 475,000
Vehicle Purchase						\$ 0
Other						\$ 0
Contingency						\$ 0
TOTALS	\$ 125,000	\$ 125,000	\$ 75,000	\$ 75,000	\$ 75,000	\$ 475,000
Financing Sources						
Lease-Purchase						\$ 0
Water Enterprise Funds	\$ 125,000	\$ 125,000	\$ 75,000	\$ 75,000	\$ 75,000	\$ 475,000
Sewer Enterprise Funds						\$ 0
Solid Waste Enterprise Funds						\$ 0
Storm Water Enterprise Funds						\$ 0
State / Federal Grants						\$ 0
Sale of Surplus Property						\$ 0
CPA						\$ 0
Other (specify)						\$ 0
City Appropriation						\$ 0
TOTALS	\$ 125,000	\$ 125,000	\$ 75,000	\$ 75,000	\$ 75,000	\$ 475,000

City of Northampton Capital Plan FY18-FY22

PROJECT TITLE: Water System Building Roof and Masonry Repair **DATE SUBMITTED:** 12/01/2016

DEPARTMENT PROJECT INFORMATION

Department:	Public Works										
Department Contact:	Donna LaScaleia										
Fiscal Year(s) Requested:	FY18	<input type="checkbox"/>	FY19	<input type="checkbox"/>	FY20	<input type="checkbox"/>	FY21	<input type="checkbox"/>	FY22	<input type="checkbox"/>	
Department Priority:	Critical	<input type="checkbox"/>	High	<input checked="" type="checkbox"/>	Medium	<input type="checkbox"/>	Low	<input type="checkbox"/>			
Type of Project:	Vehicle	<input type="checkbox"/>	Equipment	<input type="checkbox"/>	Technology	<input type="checkbox"/>	Facility	<input type="checkbox"/>	4	Other	<input type="checkbox"/>

PROJECT DESCRIPTION

Roof repairs are needed on the Mountain Street and Whately Reservoir gate house roofs, and on the Leeds chlorinator station building. Masonry repairs are also needed on the two reservoir gate house buildings.

PROJECT NEED

Impact on Department if Recommended or Not Recommended:

It is advisable to maintain our remote buildings so that they do not leak and degrade.

Cost to Maintain:

N/A

Describe all Benefits and/or Savings:

Costly future repairs will not be needed if these buildings are maintained properly.

PROJECT BUDGET AND FUNDING SOURCES

Project Cost Summary, Recommended Financing Sources, & Operating Budget Impact						
Project Cost Elements	FY 2018	FY 2019	FY2020	FY 2021	FY2022	TOTAL
Feasibility Study						\$ 0
Design - Engineering						\$ 0
Site Acquisition						\$ 0
Site Improvements						\$ 0
Construction	\$ 100,000					\$ 100,000
Inspection Services						\$ 0
Equipment & Furnishings						\$ 0
Vehicle Purchase						\$ 0
Other						\$ 0
Contingency						\$ 0
TOTALS	\$ 100,000	\$ 0	\$ 0	\$ 0	\$ 0	\$ 100,000
Financing Sources						
Lease-Purchase						\$ 0
Water Enterprise Funds	\$ 100,000					\$ 100,000
Sewer Enterprise Funds						\$ 0
Solid Waste Enterprise Funds						\$ 0
Storm Water Enterprise Funds						\$ 0
State / Federal Grants						\$ 0
Sale of Surplus Property						\$ 0
CPA						\$ 0
Other (specify)						\$ 0
City Appropriation						\$ 0
TOTALS	\$ 100,000	\$ 0	\$ 0	\$ 0	\$ 0	\$ 100,000

City of Northampton Capital Plan FY18-FY22

PROJECT TITLE: Audubon Road Water Tank

DATE SUBMITTED: 12/01/2016

DEPARTMENT PROJECT INFORMATION

Department: **Public Works**

Department Contact: **Donna LaScaleia**

Fiscal Year(s) Requested: **FY18** **4** **FY19** **4** **FY20** **4** **FY21** **4** **FY22** **4**

Department Priority: **Critical** **4** **High** **Medium** **Low**

Type of Project: **Vehicle** **Equipment** **4** **Technology** **Facility** **Other**

PROJECT DESCRIPTION

The Audubon Road Tank is a 200,000 gallon water storage tank that is part of the Leeds Village High Pressure System. Constructed in 1935, the tank itself is in need of extensive rehabilitation, including sandblasting and painting. Additional improvements needed are security fencing, ladder guards, and electrical and electronic upgrades to control systems.

PROJECT NEED

Impact on Department if Recommended or Not Recommended:

The Audubon Tank is a key piece of the City's water distribution system.

Cost to Maintain:

N/A

Describe all Benefits and/or Savings:

Robust maintenance of the Audubon Tank will allow for many years of uninterrupted service.

PROJECT BUDGET AND FUNDING SOURCES

Project Cost Summary, Recommended Financing Sources, & Operating Budget Impact						
Project Cost Elements	FY 2018	FY 2019	FY2020	FY 2021	FY2022	TOTAL
Feasibility Study						\$ 0
Design - Engineering		\$ 100,000	\$ 100,000			\$ 200,000
Site Acquisition						\$ 0
Site Improvements						\$ 0
Construction	\$ 250,000	\$ 250,000	\$ 250,000	\$ 250,000	\$ 250,000	\$ 1,250,000
Inspection Services						\$ 0
Equipment & Furnishings						\$ 0
Vehicle Purchase						\$ 0
Other						\$ 0
Contingency						\$ 0
TOTALS	\$ 250,000	\$ 350,000	\$ 350,000	\$ 250,000	\$ 250,000	\$ 1,450,000
Financing Sources						
Lease-Purchase						\$ 0
Water Enterprise Funds	\$ 250,000	\$ 350,000	\$ 350,000	\$ 250,000	\$ 250,000	\$ 1,450,000
Sewer Enterprise Funds						\$ 0
Solid Waste Enterprise Funds						\$ 0
Storm Water Enterprise Funds						\$ 0
State / Federal Grants						\$ 0
Sale of Surplus Property						\$ 0
CPA						\$ 0
Other (specify)						\$ 0
City Appropriation						\$ 0
TOTALS	\$ 250,000	\$ 350,000	\$ 350,000	\$ 250,000	\$ 250,000	\$ 1,450,000

City of Northampton Capital Plan FY18-FY22

PROJECT TITLE: Transmission Main Rehabilitation

DATE SUBMITTED: 12/01/2016

DEPARTMENT PROJECT INFORMATION

Department: **Public Works**

Department Contact: **Donna LaScaleia**

Fiscal Year(s) Requested: **FY18** **FY19** **FY20** **FY21** **FY22**

Department Priority: **Critical** **High** **Medium** **Low**

Type of Project: **Vehicle** **Equipment** **Technology** **Facility** **Other**

PROJECT DESCRIPTION

The City currently has two transmission mains (20" and 36") that provide water from the Water Treatment Plant in Williamsburg to the system. This line item seeks to fund the relocation and replacement of the 20" main, which is more than 100 years old and largely travels through an inaccessible wetland area near the Beaver Brook.

Initial work in FY18 for a program to exercise and repair valves on the existing main (i.e. a "valve exercising program") will need to be completed in order to establish better control of the main and to facilitate design for construction.

Total probable design and construction cost for 20,200 linear feet of new 24" ductile iron water main will be \$9,860,000. Set aside funding for this phased replacement project should begin now.

PROJECT NEED

Impact on Department if Recommended or Not Recommended:

The 20" transmission main is one of the most critical pieces of water infrastructure that the City owns and maintains.

Cost to Maintain:

N/A

Describe all Benefits and/or Savings:

A new transmission main will allow for many decades of maintenance free operation and provide reliable redundancy.

PROJECT BUDGET AND FUNDING SOURCES

Project Cost Summary, Recommended Financing Sources, & Operating Budget Impact						
Project Cost Elements	FY 2018	FY 2019	FY2020	FY 2021	FY2022	TOTAL
Feasibility Study						\$ 0
Design - Engineering	\$ 50,000	\$ 200,000	\$ 200,000	\$ 250,000	\$ 300,000	\$ 1,000,000
Site Acquisition						\$ 0
Site Improvements						\$ 0
Construction	\$ 200,000	\$ 1,000,000	\$ 1,000,000	\$ 2,000,000	\$ 1,500,000	\$ 5,700,000
Inspection Services						\$ 0
Equipment & Furnishings						\$ 0
Vehicle Purchase						\$ 0
Other						\$ 0
Contingency						\$ 0
TOTALS	\$ 250,000	\$ 1,200,000	\$ 1,200,000	\$ 2,250,000	\$ 1,800,000	\$ 6,700,000
Financing Sources						
Lease-Purchase						\$ 0
Water Enterprise Funds	\$ 250,000	\$ 1,200,000	\$ 1,200,000	\$ 2,250,000	\$ 1,800,000	\$ 6,700,000
Sewer Enterprise Funds						\$ 0
Solid Waste Enterprise Funds						\$ 0
Storm Water Enterprise Funds						\$ 0
State / Federal Grants						\$ 0
Sale of Surplus Property						\$ 0
CPA						\$ 0
Other (specify)						\$ 0
City Appropriation						\$ 0
TOTALS	\$ 250,000	\$ 1,200,000	\$ 1,200,000	\$ 2,250,000	\$ 1,800,000	\$ 6,700,000

City of Northampton Capital Plan FY18-FY22

PROJECT TITLE: WWTP Improvements

DATE SUBMITTED: 12/01/2016

DEPARTMENT PROJECT INFORMATION

Department: **Public Works**

Department Contact: **Donna LaScaleia**

Fiscal Year(s) Requested: **FY18** **FY19** **FY20** **FY21** **FY22**

Department Priority: **Critical** **High** **Medium** **Low**

Type of Project: **Vehicle** **Equipment** **Technology** **Facility** **Other**

PROJECT DESCRIPTION

The City's consultant has completed a comprehensive evaluation of needs for its wastewater collection system and wastewater treatment. This plan recommends a Capital Improvement Plan that is a guideline to investing in wastewater infrastructure over the next 20+ years. Acknowledging that change is likely, the preferred approach to long term planning is to be flexible to adapt the plan as priorities change or as the availability of funds is evaluated.

The City is currently engaged in the designing for construction of several projects, including sludge pump replacements and the conversion from chlorine gas to hypochlorite, a safer, more desirable method of disinfection. An Owner's Project Manager will be retained in the coming months, and the process for designer selection for complete overhauls of the plant's HVAC and electrical systems will begin.

PROJECT NEED

Impact on Department if Recommended or Not Recommended:

Failure of equipment at the wastewater treatment plant could lead to violations, penalties, and disruptions in service.

Cost to Maintain:

Accounted for in OM.

Describe all Benefits and/or Savings:

Upgrades will ensure compliance with federal and state regulations. Upgrades to certain equipment may have energy efficiencies. Worker safety issues will be addressed.

PROJECT BUDGET AND FUNDING SOURCES

Project Cost Summary, Recommended Financing Sources, & Operating Budget Impact						
Project Cost Elements	FY 2018	FY 2019	FY2020	FY 2021	FY2022	TOTAL
Feasibility Study						\$ 0
Design - Engineering						\$ 0
Site Acquisition						\$ 0
Site Improvements	\$ 0	\$ 3,984,000	\$ 4,606,000	\$ 15,270,000	\$ 5,803,000	\$ 29,663,000
Construction						\$ 0
Inspection Services						\$ 0
Equipment & Furnishings						\$ 0
Vehicle Purchase						\$ 0
Other						\$ 0
Contingency						\$ 0
TOTALS	\$ 0	\$ 3,984,000	\$ 4,606,000	\$ 15,270,000	\$ 5,803,000	\$ 29,663,000
Financing Sources						
Lease-Purchase						\$ 0
Water Enterprise Funds						\$ 0
Sewer Enterprise Funds		\$ 3,984,000	\$ 4,606,000	\$ 15,270,000	\$ 5,803,000	\$ 29,663,000
Solid Waste Enterprise Funds						\$ 0
Storm Water Enterprise Funds						\$ 0
State / Federal Grants						\$ 0
Sale of Surplus Property						\$ 0
CPA						\$ 0
Other (specify)						\$ 0
City Appropriation						\$ 0
TOTALS	\$ 0	\$ 3,984,000	\$ 4,606,000	\$ 15,270,000	\$ 5,803,000	\$ 29,663,000

City of Northampton Capital Plan FY18-FY22

PROJECT TITLE: Sewer System Studies

DATE SUBMITTED: 12/01/2016

DEPARTMENT PROJECT INFORMATION

Department: **Public Works**

Department Contact: **Donna LaScaleia**

Fiscal Year(s) Requested: **FY18** **4** **FY19** **4** **FY20** **FY21** **FY22**

Department Priority: **Critical** **4** **High** **Medium** **Low**

Type of Project: **Vehicle** **Equipment** **Technology** **Facility** **Other** **4**

PROJECT DESCRIPTION

Public Works continues to work on comprehensive asset management plans for wastewater planning. The improvements to be undertaken in this plan are the field study work necessary to further define areas identified with excessive inflow and infiltration issues. The wastewater treatment plant receives up to a five fold increase in flows during heavy rain events.

PROJECT NEED

Impact on Department if Recommended or Not Recommended:

The flow of stormwater into City sewer lines places the wastewater treatment plant at risk for violations.

Cost to Maintain:

Describe all Benefits and/or Savings:

Addressing inflow and infiltration will reduce the strain on pumping systems and lessen disruption to treatment processes during high flows.

PROJECT BUDGET AND FUNDING SOURCES

Project Cost Summary, Recommended Financing Sources, & Operating Budget Impact						
Project Cost Elements	FY 2018	FY 2019	FY2020	FY 2021	FY2022	TOTAL
Feasibility Study						\$ 0
Design - Engineering	\$ 200,000	\$ 165,000				\$ 365,000
Site Acquisition						\$ 0
Site Improvements						\$ 0
Construction						\$ 0
Inspection Services						\$ 0
Equipment & Furnishings						\$ 0
Vehicle Purchase						\$ 0
Other						\$ 0
Contingency						\$ 0
TOTALS	\$ 200,000	\$ 165,000	\$ 0	\$ 0	\$ 0	\$ 365,000
Financing Sources						
Lease-Purchase						\$ 0
Water Enterprise Funds						\$ 0
Sewer Enterprise Funds	\$ 200,000	\$ 165,000				\$ 365,000
Solid Waste Enterprise Funds						\$ 0
Storm Water Enterprise Funds						\$ 0
State / Federal Grants						\$ 0
Sale of Surplus Property						\$ 0
CPA						\$ 0
Other (specify)						\$ 0
City Appropriation						\$ 0
TOTALS	\$ 200,000	\$ 165,000	\$ 0	\$ 0	\$ 0	\$ 365,000

City of Northampton Capital Plan FY18-FY22

PROJECT TITLE: Sewer Line Replacement

DATE SUBMITTED: 12/01/2016

DEPARTMENT PROJECT INFORMATION

Department: **Public Works**

Department Contact: **Donna LaScaleia**

Fiscal Year(s) Requested: **FY18** **FY19** **FY20** **FY21** **FY22**

Department Priority: **Critical** **High** **Medium** **Low**

Type of Project: **Vehicle** **Equipment** **Technology** **Facility** **Other**

PROJECT DESCRIPTION

Public Works continues to work on the Comprehensive Wastewater Management Plan (CWMP) for sewer pipeline projects. The improvements undertaken include new construction, replacements or upgrades identified each year.

New sewer line projects to be completed with this funding include Day Avenue, Hinckley Street and Damon Road.

Recent projects funded include the Industrial Park Interceptor, Isabella Street, Warner Street, Woodmont Road and North Street sewer lines.

PROJECT NEED

Impact on Department if Recommended or Not Recommended:

Failure of existing systems are predominantly due to age. Replacement provides for the next generations of City residents, businesses and Public Works staff with low future maintenance costs.

Cost to Maintain:

New construction and replacement should provide several decades of maintenance free uninterrupted service.

Describe all Benefits and/or Savings:

Service disruption is reduced. Systems that are under capacity are upgraded reducing sewer overflows. The need for costly emergency repairs is greatly reduced.

City of Northampton Capital Plan FY18-FY22

PROJECT TITLE: WWTP Equipment Replacement

DATE SUBMITTED: 12/01/2016

DEPARTMENT PROJECT INFORMATION

Department: **Public Works**

Department Contact: **Donna LaScaleia**

Fiscal Year(s) Requested: **FY18** **FY19** **FY20** **FY21** **FY22**

Department Priority: **Critical** **High** **Medium** **Low**

Type of Project: **Vehicle** **Equipment** **Technology** **Facility** **Other**

PROJECT DESCRIPTION

Annual funding for replacement of equipment at the wastewater treatment plant. May be used for expenses such as replacing motors, pumps, blowers, and related treatment equipment.

PROJECT NEED

Impact on Department if Recommended or Not Recommended:

Needed for the continued operation of the wastewater treatment plant.

Cost to Maintain:

N/A

Describe all Benefits and/or Savings:

Needed for the continued operation of the wastewater treatment plant.

City of Northampton Capital Plan FY18-FY22

PROJECT TITLE: Sewer System Equipment

DATE SUBMITTED: 12/01/2016

DEPARTMENT PROJECT INFORMATION

Department: **Public Works**

Department Contact: **Donna LaScaleia**

Fiscal Year(s) Requested: **FY18** **FY19** **FY20** **FY21** **FY22**

Department Priority: **Critical** **High** **Medium** **Low**

Type of Project: **Vehicle** **Equipment** **Technology** **Facility** **Other**

PROJECT DESCRIPTION

Annual funding for equipment needed to maintain and operate the sewer system. The types of expenditures include CCTV camera equipment, trench shoring boxes, and confined space entry safety equipment.

PROJECT NEED

Impact on Department if Recommended or Not Recommended:

Needed to maintain sewer system.

Cost to Maintain:

N/A

Describe all Benefits and/or Savings:

Needed to maintain sewer system.

City of Northampton Capital Plan FY18-FY22

PROJECT TITLE: DPW New Storage Facility

DATE SUBMITTED: 12/01/2106

DEPARTMENT PROJECT INFORMATION

Department: **Public Works**

Department Contact: **Donna LaScaleia**

Fiscal Year(s) Requested: **FY18** **4** **FY19** **FY20** **FY21** **FY22**

Department Priority: **Critical** **High** **Medium** **Low**

Type of Project: **Vehicle** **Equipment** **Technology** **Facility** **4** **Other**

PROJECT DESCRIPTION

Additional funding is needed to construct a cold storage facility for vehicles and equipment in the DPW yard at 125 Locust Street. The storage facility will house heavy trucks and equipment for the sewer and highway divisions. These funds will be added to encumbered funds from previous years to pay for site work, an oil/water separator, stormwater mitigation, and all aspects of building construction.

Equipment and vehicles are currently stored outside, in the weather, contributing to rust and premature wear and tear.

PROJECT NEED

Impact on Department if Recommended or Not Recommended:

Vehicles and equipment will be easier to maintain if stored out of the weather.

Cost to Maintain:

N/A

Describe all Benefits and/or Savings:

PROJECT BUDGET AND FUNDING SOURCES

Project Cost Summary, Recommended Financing Sources, & Operating Budget Impact						
Project Cost Elements	FY 2018	FY 2019	FY2020	FY 2021	FY2022	TOTAL
Feasibility Study						\$ 0
Design - Engineering						\$ 0
Site Acquisition						\$ 0
Site Improvements						\$ 0
Construction	\$ 75,000					\$ 75,000
Inspection Services						\$ 0
Equipment & Furnishings						\$ 0
Vehicle Purchase						\$ 0
Other						\$ 0
Contingency						\$ 0
TOTALS	\$ 75,000	\$ 0	\$ 0	\$ 0	\$ 0	\$ 75,000
Financing Sources						
Lease-Purchase						\$ 0
Water Enterprise Funds						\$ 0
Sewer Enterprise Funds						\$ 0
Solid Waste Enterprise Funds						\$ 0
Storm Water Enterprise Funds						\$ 0
State / Federal Grants						\$ 0
Sale of Surplus Property						\$ 0
CPA						\$ 0
Other (specify)						\$ 0
City Appropriation						\$ 0
TOTALS	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0

City of Northampton Capital Plan FY18-FY22

PROJECT TITLE: Storm Line Replacement

DATE SUBMITTED: 12/01/2016

DEPARTMENT PROJECT INFORMATION

Department: **Public Works**

Department Contact: **Donna LaScaleia**

Fiscal Year(s) Requested: **FY18** **FY19** **FY20** **FY21** **FY22**

Department Priority: **Critical** **High** **Medium** **Low**

Type of Project: **Vehicle** **Equipment** **Technology** **Facility** **Other**

PROJECT DESCRIPTION

Public Works continues to work on comprehensive management plans for stormwater pipeline, culvert and outfall projects. Stormwater infrastructure will be upgraded in conjunction with water and sewer assets when appropriate.

Pending projects include Hinckley Street, Audubon Road and Day Avenue.

PROJECT NEED

Impact on Department if Recommended or Not Recommended:

Existing systems fail due to age or capacity deficiencies. New construction and replacement provides for the next generations of City residents.

Cost to Maintain:

New construction and replacement should provide for numerous decades of maintenance free uninterrupted service.

Describe all Benefits and/or Savings:

Disruption in services is reduced. Systems that are under capacity are to be upgraded reducing street flooding.

PROJECT BUDGET AND FUNDING SOURCES

Project Cost Summary, Recommended Financing Sources, & Operating Budget Impact						
Project Cost Elements	FY 2018	FY 2019	FY2020	FY 2021	FY2022	TOTAL
Feasibility Study						\$ 0
Design - Engineering						\$ 0
Site Acquisition						\$ 0
Site Improvements						\$ 0
Construction	\$ 500,000	\$ 500,000	\$ 500,000	\$ 500,000	\$ 500,000	\$ 2,500,000
Inspection Services						\$ 0
Equipment & Furnishings						\$ 0
Vehicle Purchase						\$ 0
Other						\$ 0
Contingency						\$ 0
TOTALS	\$ 500,000	\$ 500,000	\$ 500,000	\$ 500,000	\$ 500,000	\$ 2,500,000
Financing Sources						
Lease-Purchase						\$ 0
Water Enterprise Funds						\$ 0
Sewer Enterprise Funds						\$ 0
Solid Waste Enterprise Funds						\$ 0
Storm Water Enterprise Funds						\$ 0
State / Federal Grants						\$ 0
Sale of Surplus Property						\$ 0
CPA						\$ 0
Other (specify)						\$ 0
City Appropriation						\$ 0
TOTALS	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0

City of Northampton Capital Plan FY18-FY22

PROJECT TITLE: Levee Assessment and Repair

DATE SUBMITTED: 12/01/2016

DEPARTMENT PROJECT INFORMATION

Department: **Public Works**

Department Contact: **Donna LaScaleia**

Fiscal Year(s) Requested: **FY18** **FY19** **FY20** **FY21** **FY22**

Department Priority: **Critical** **High** **Medium** **Low**

Type of Project: **Vehicle** **Equipment** **Technology** **Facility** **Other**

PROJECT DESCRIPTION

Army Corps of Engineers required assessment work has been completed on the Mill River Diversion Channel and the Connecticut River Levee system. Projects will need to be developed per this assessment for the following flood control related items: levee toe drains, concrete flood wall, free board height, encroachments/penetrations, South Street drop structure and an underwater structure near the Oxbow.

PROJECT NEED

Impact on Department if Recommended or Not Recommended:

Defined assessment work not performed may cause decertification of the flood control system.

Cost to Maintain:

Accounted for in operations and maintenance budget.

Describe all Benefits and/or Savings:

A flood control system in good working order.

PROJECT BUDGET AND FUNDING SOURCES

Project Cost Summary, Recommended Financing Sources, & Operating Budget Impact						
Project Cost Elements	FY 2018	FY 2019	FY2020	FY 2021	FY2022	TOTAL
Feasibility Study						\$ 0
Design - Engineering						\$ 0
Site Acquisition						\$ 0
Site Improvements						\$ 0
Construction	\$ 200,000	\$ 250,000	\$ 250,000	\$ 250,000	\$ 250,000	\$ 1,200,000
Inspection Services						\$ 0
Equipment & Furnishings						\$ 0
Vehicle Purchase						\$ 0
Other						\$ 0
Contingency						\$ 0
TOTALS	\$ 200,000	\$ 250,000	\$ 250,000	\$ 250,000	\$ 250,000	\$ 1,200,000
Financing Sources						
Lease-Purchase						\$ 0
Water Enterprise Funds						\$ 0
Sewer Enterprise Funds						\$ 0
Solid Waste Enterprise Funds						\$ 0
Storm Water Enterprise Funds	\$ 200,000	\$ 250,000	\$ 250,000	\$ 250,000	\$ 250,000	\$ 1,200,000
State / Federal Grants						\$ 0
Sale of Surplus Property						\$ 0
CPA						\$ 0
Other (specify)						\$ 0
City Appropriation						\$ 0
TOTALS	\$ 200,000	\$ 250,000	\$ 250,000	\$ 250,000	\$ 250,000	\$ 1,200,000

City of Northampton Capital Plan FY18-FY22

PROJECT TITLE: DPW Storage Building Roof Repair

DATE SUBMITTED: 12/01/2016

DEPARTMENT PROJECT INFORMATION

Department: **Public Works**

Department Contact: **Donna LaScaleia**

Fiscal Year(s) Requested: **FY18** **4** **FY19** **FY20** **FY21** **FY22**

Department Priority: **Critical** **High** **Medium** **Low**

Type of Project: **Vehicle** **Equipment** **Technology** **Facility** **4** **Other**

PROJECT DESCRIPTION

DPW has a storage building on Locust Street for the West Street stop logs and reclaimed blacktop material for winter patching. The storage building needs a new metal roof due to age. Temporary repairs were made in FY17.

Funding 50% stormwater/50% general. Projected cost \$40,000.

PROJECT NEED

Impact on Department if Recommended or Not Recommended:

The storage building requires a new roof to continue to be usable.

Cost to Maintain:

N/A

Describe all Benefits and/or Savings:

Safe, dry storage.

PROJECT BUDGET AND FUNDING SOURCES

Project Cost Summary, Recommended Financing Sources, & Operating Budget Impact						
Project Cost Elements	FY 2018	FY 2019	FY2020	FY 2021	FY2022	TOTAL
Feasibility Study						\$ 0
Design - Engineering						\$ 0
Site Acquisition						\$ 0
Site Improvements						\$ 0
Construction						\$ 0
Inspection Services						\$ 0
Equipment & Furnishings						\$ 0
Vehicle Purchase						\$ 0
Other						\$ 0
Contingency						\$ 0
TOTALS	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0
Financing Sources						
Lease-Purchase						\$ 0
Water Enterprise Funds						\$ 0
Sewer Enterprise Funds						\$ 0
Solid Waste Enterprise Funds						\$ 0
Storm Water Enterprise Funds	\$ 20,000					\$ 20,000
State / Federal Grants						\$ 0
Sale of Surplus Property						\$ 0
CPA						\$ 0
Other (specify)						\$ 0
City Appropriation						\$ 0
TOTALS	\$ 20,000	\$ 0	\$ 0	\$ 0	\$ 0	\$ 20,000

City of Northampton Capital Plan FY18-FY22

PROJECT TITLE: Wood Waste Disposal

DATE SUBMITTED: 12/01/2016

DEPARTMENT PROJECT INFORMATION

Department: **Public Works**

Department Contact: **Donna LaScaleia**

Fiscal Year(s) Requested: **FY18** **4** **FY19** **4** **FY20** **4** **FY21** **4** **FY22** **4**

Department Priority: **Critical** **High** **Medium** **Low**

Type of Project: **Vehicle** **Equipment** **Technology** **Facility** **Other** **4**

PROJECT DESCRIPTION

Public Works maintains a wood waste stockpiling site on Sylvester Road that serves as a processing area for City trees that have been removed due to storm damage or routine tree work. Wood is sorted by size, butt logs and brush are separated out, and the waste is ground for chips by the City's vendor.

PROJECT NEED

Impact on Department if Recommended or Not Recommended:

Wood waste must be disposed of in an orderly and timely manner.

Cost to Maintain:

N/A

Describe all Benefits and/or Savings:

Wood waste must be disposed of in an orderly and timely manner.

City of Northampton Capital Plan FY18-FY22

PROJECT TITLE: Sidewalks

DATE SUBMITTED: 12/01/2016

DEPARTMENT PROJECT INFORMATION

Department: **Public Works**

Department Contact: **Donna LaScaleia**

Fiscal Year(s) Requested: **FY18** **FY19** **FY20** **FY21** **FY22**

Department Priority: **Critical** **High** **Medium** **Low**

Type of Project: **Vehicle** **Equipment** **Technology** **Facility** **Other**

PROJECT DESCRIPTION

A City-wide sidewalk assessment will be completed in early 2017, and a replacement and repair schedule will be implemented based upon the recommendations in the assessment.

PROJECT NEED

Impact on Department if Recommended or Not Recommended:

The City's sidewalks are deteriorating and need repair and/or upgrades.

Cost to Maintain:

Sidewalks have a 20-30 year life cycle with minor maintenance.

Describe all Benefits and/or Savings:

Provides safe passage for City residents.

PROJECT BUDGET AND FUNDING SOURCES

Project Cost Summary, Recommended Financing Sources, & Operating Budget Impact						
Project Cost Elements	FY 2018	FY 2019	FY2020	FY 2021	FY2022	TOTAL
Feasibility Study						\$ 0
Design - Engineering						\$ 0
Site Acquisition						\$ 0
Site Improvements						\$ 0
Construction	\$ 50,000	\$ 100,000	\$ 100,000	\$ 100,000	\$ 100,000	\$ 450,000
Inspection Services						\$ 0
Equipment & Furnishings						\$ 0
Vehicle Purchase						\$ 0
Other						\$ 0
Contingency						\$ 0
TOTALS	\$ 50,000	\$ 100,000	\$ 100,000	\$ 100,000	\$ 100,000	\$ 450,000
Financing Sources						
Lease-Purchase						\$ 0
Water Enterprise Funds						\$ 0
Sewer Enterprise Funds						\$ 0
Solid Waste Enterprise Funds						\$ 0
Storm Water Enterprise Funds						\$ 0
State / Federal Grants						\$ 0
Sale of Surplus Property						\$ 0
CPA						\$ 0
Other (specify)						\$ 0
City Appropriation	\$ 50,000	\$ 100,000	\$ 100,000	\$ 100,000	\$ 100,000	\$ 450,000
TOTALS	\$ 50,000	\$ 100,000	\$ 100,000	\$ 100,000	\$ 100,000	\$ 450,000

City of Northampton Capital Plan FY18-FY22

PROJECT TITLE: Street Resurfacing

DATE SUBMITTED: 12/01/2016

DEPARTMENT PROJECT INFORMATION

Department: **Public Works**

Department Contact: **Donna LaScaleia**

Fiscal Year(s) Requested: **FY18** **FY19** **FY20** **FY21** **FY22**

Department Priority: **Critical** **High** **Medium** **Low**

Type of Project: **Vehicle** **Equipment** **Technology** **Facility** **Other**

PROJECT DESCRIPTION

The City has 150 miles of roadway to maintain. Resurfacing can prevent deterioration that will delay costly full reconstruction in future years. There is a multi-million dollar backlog to bring City streets up to optimum levels.

The City currently relies on both Chapter 90 funds and CIP for this work. The proposed budget assumes Chapter 90 funding remains unchanged at approximately one million dollars. Resurfacing projects for FY17 included segments of Park Hill Road, Park Street, Bridge Street, Burts Pit Road and Locust Street.

PROJECT NEED

Impact on Department if Recommended or Not Recommended:

The DPW currently budgets up to \$150,000 annually for materials for pothole repair. Street resurfacing reduces pothole expenses and labor.

Cost to Maintain:

The first five years requires crack sealing as cracks appear. Depending on numerous environmental factors, pavement can last between 12-20 years.

Describe all Benefits and/or Savings:

Decrease in claims for vehicle damage. As part of resurfacing projects, DPW also evaluates traffic calming opportunities, bike lanes, and ADA accessibility.

PROJECT BUDGET AND FUNDING SOURCES

Project Cost Summary, Recommended Financing Sources, & Operating Budget Impact						
Project Cost Elements	FY 2018	FY 2019	FY2020	FY 2021	FY2022	TOTAL
Feasibility Study						\$ 0
Design - Engineering						\$ 0
Site Acquisition						\$ 0
Site Improvements						\$ 0
Construction	\$ 500,000	\$ 750,000	\$ 1,000,000	\$ 1,000,000	\$ 1,000,000	\$ 4,250,000
Inspection Services						\$ 0
Equipment & Furnishings						\$ 0
Vehicle Purchase						\$ 0
Other						\$ 0
Contingency						\$ 0
TOTALS	\$ 500,000	\$ 750,000	\$ 1,000,000	\$ 1,000,000	\$ 1,000,000	\$ 4,250,000
Financing Sources						
Lease-Purchase						\$ 0
Water Enterprise Funds						\$ 0
Sewer Enterprise Funds						\$ 0
Solid Waste Enterprise Funds						\$ 0
Storm Water Enterprise Funds						\$ 0
State / Federal Grants						\$ 0
Sale of Surplus Property						\$ 0
CPA						\$ 0
Other (specify)						\$ 0
City Appropriation	\$ 500,000	\$ 750,000	\$ 1,000,000	\$ 1,000,000	\$ 1,000,000	\$ 4,250,000
TOTALS	\$ 500,000	\$ 750,000	\$ 1,000,000	\$ 1,000,000	\$ 1,000,000	\$ 4,250,000

City of Northampton Capital Plan FY18-FY22

PROJECT TITLE: Clement Street Bridge

DATE SUBMITTED: 12/01/2016

DEPARTMENT PROJECT INFORMATION

Department: **Public Works**

Department Contact: **Donna LaScaleia**

Fiscal Year(s) Requested: **FY18** **FY19** **FY20** **FY21** **FY22**

Department Priority: **Critical** **High** **Medium** **Low**

Type of Project: **Vehicle** **Equipment** **Technology** **Facility** **Other**

PROJECT DESCRIPTION

The Clement Street Bridge is on a six month inspection schedule instead of the standard two year cycle due to its rating downgrade. The supporting eyebar trusses and pinning components need repair/replacement, rust removal and painting. In addition, the polymer deck is in need of replacement.

An engineering contract has been signed with Greenman-Pederson for design work needed for temporary repairs. This line item looks to fund these temporary repairs in FY18, at an anticipated value of \$175,000. Additionally, this line item will fund \$200,000 in design expenses to address a more permanent solution. Anticipated construction cost to be determined upon completion of design study.

PROJECT NEED

Impact on Department if Recommended or Not Recommended:

The bridge may need to be closed if repairs are not undertaken.

Cost to Maintain:

N/A

Describe all Benefits and/or Savings:

This bridge serves nearly 3,000 vehicles per day.

PROJECT BUDGET AND FUNDING SOURCES

Project Cost Summary, Recommended Financing Sources, & Operating Budget Impact						
Project Cost Elements	FY 2018	FY 2019	FY2020	FY 2021	FY2022	TOTAL
Feasibility Study						\$ 0
Design - Engineering	\$ 200,000					\$ 200,000
Site Acquisition						\$ 0
Site Improvements						\$ 0
Construction	\$ 175,000					\$ 175,000
Inspection Services						\$ 0
Equipment & Furnishings						\$ 0
Vehicle Purchase						\$ 0
Other						\$ 0
Contingency						\$ 0
TOTALS	\$ 375,000	\$ 0	\$ 0	\$ 0	\$ 0	\$ 375,000
Financing Sources						
Lease-Purchase						\$ 0
Water Enterprise Funds						\$ 0
Sewer Enterprise Funds						\$ 0
Solid Waste Enterprise Funds						\$ 0
Storm Water Enterprise Funds						\$ 0
State / Federal Grants						\$ 0
Sale of Surplus Property						\$ 0
CPA						\$ 0
Other (specify)						\$ 0
City Appropriation	\$ 375,000					\$ 375,000
TOTALS	\$ 375,000	\$ 0	\$ 0	\$ 0	\$ 0	\$ 375,000

City of Northampton Capital Plan FY18-FY22

PROJECT TITLE: DPW Storage Building Roof Repair

DATE SUBMITTED: 12/01/2016

DEPARTMENT PROJECT INFORMATION

Department: **Public Works**

Department Contact: **Donna LaScaleia**

Fiscal Year(s) Requested: **FY18** **4** **FY19** **FY20** **FY21** **FY22**

Department Priority: **Critical** **High** **Medium** **Low**

Type of Project: **Vehicle** **Equipment** **Technology** **Facility** **4** **Other**

PROJECT DESCRIPTION

DPW has a storage building on Locust Street for the West Street stop logs and reclaimed blacktop material for winter patching. The storage building needs a new metal roof due to age. Temporary repairs were made in FY17.

Funding 50% stormwater/50% general. Projected cost \$40,000.

PROJECT NEED

Impact on Department if Recommended or Not Recommended:

The storage building requires a new roof to continue to be usable.

Cost to Maintain:

N/A

Describe all Benefits and/or Savings:

Safe, dry storage.

PROJECT BUDGET AND FUNDING SOURCES

Project Cost Summary, Recommended Financing Sources, & Operating Budget Impact						
Project Cost Elements	FY 2018	FY 2019	FY2020	FY 2021	FY2022	TOTAL
Feasibility Study						\$ 0
Design - Engineering						\$ 0
Site Acquisition						\$ 0
Site Improvements						\$ 0
Construction	\$ 20,000					\$ 20,000
Inspection Services						\$ 0
Equipment & Furnishings						\$ 0
Vehicle Purchase						\$ 0
Other						\$ 0
Contingency						\$ 0
TOTALS	\$ 20,000	\$ 0	\$ 0	\$ 0	\$ 0	\$ 20,000
Financing Sources						
Lease-Purchase						\$ 0
Water Enterprise Funds						\$ 0
Sewer Enterprise Funds						\$ 0
Solid Waste Enterprise Funds						\$ 0
Storm Water Enterprise Funds						\$ 0
State / Federal Grants						\$ 0
Sale of Surplus Property						\$ 0
CPA						\$ 0
Other (specify)						\$ 0
City Appropriation						\$ 0
TOTALS	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0

City of Northampton Capital Plan FY18-FY22

PROJECT TITLE: DPW New Storage Facility

DATE SUBMITTED: 12/01/2016

DEPARTMENT PROJECT INFORMATION

Department: **Public Works**

Department Contact: **Donna LaScaleia**

Fiscal Year(s) Requested: **FY18** **4** **FY19** **FY20** **FY21** **FY22**

Department Priority: **Critical** **High** **Medium** **Low**

Type of Project: **Vehicle** **Equipment** **Technology** **Facility** **4** **Other**

PROJECT DESCRIPTION

Additional funding is needed to construct a cold storage facility for vehicles and equipment in the DPW yard at 125 Locust Street. The storage facility will house heavy trucks and equipment for the sewer and highway divisions. These funds will be added to encumbered funds from previous years to pay for site work, an oil/water separator, stormwater mitigation, and all aspects of building construction.

Equipment and vehicles are currently stored outside, in the weather, contributing to rust and premature wear and tear.

PROJECT NEED

Impact on Department if Recommended or Not Recommended:

Safe, dry storage.

Cost to Maintain:

N/A

Describe all Benefits and/or Savings:

Equipment and vehicles stored out of the weather.

PROJECT BUDGET AND FUNDING SOURCES

Project Cost Summary, Recommended Financing Sources, & Operating Budget Impact						
Project Cost Elements	FY 2018	FY 2019	FY2020	FY 2021	FY2022	TOTAL
Feasibility Study						\$ 0
Design - Engineering						\$ 0
Site Acquisition						\$ 0
Site Improvements						\$ 0
Construction	\$ 75,000					\$ 75,000
Inspection Services						\$ 0
Equipment & Furnishings						\$ 0
Vehicle Purchase						\$ 0
Other						\$ 0
Contingency						\$ 0
TOTALS	\$ 75,000	\$ 0	\$ 0	\$ 0	\$ 0	\$ 75,000
Financing Sources						
Lease-Purchase						\$ 0
Water Enterprise Funds						\$ 0
Sewer Enterprise Funds	\$ 75,000					\$ 75,000
Solid Waste Enterprise Funds						\$ 0
Storm Water Enterprise Funds						\$ 0
State / Federal Grants						\$ 0
Sale of Surplus Property						\$ 0
CPA						\$ 0
Other (specify)						\$ 0
City Appropriation						\$ 0
TOTALS	\$ 75,000	\$ 0	\$ 0	\$ 0	\$ 0	\$ 75,000

City of Northampton Capital Plan FY18-FY22

PROJECT TITLE: Cemetery Improvements

DATE SUBMITTED: 12/01/2016

DEPARTMENT PROJECT INFORMATION

Department: **Public Works**

Department Contact: **Donna LaScaleia**

Fiscal Year(s) Requested: **FY18** **FY19** **FY20** **FY21** **FY22**

Department Priority: **Critical** **High** **Medium** **Low**

Type of Project: **Vehicle** **Equipment** **Technology** **Facility** **Other**

PROJECT DESCRIPTION

A Preservation Master Plan has been completed for Bridge Street Cemetery. The plan contains a listing of improvements including gravestone restoration, signage, fence upgrades and water line and roadway upgrades.

The City has recently signed a contract for Preservation Master Plans for West Farms Road Cemetery and Park Street Cemetery. These documents, once completed, will provide a comprehensive look at three of the Cities' cemeteries, their assets and deficiencies, and provide a plan for detailed restorative efforts.

PROJECT NEED

Impact on Department if Recommended or Not Recommended:

Our cemeteries have significant historical value, and preserving them for future generations is of importance.

Cost to Maintain:

Paid for in OM budget.

Describe all Benefits and/or Savings:

City facilities of all kinds should be well maintained.

City of Northampton Capital Plan FY18-FY22

PROJECT TITLE: Traffic Calming

DATE SUBMITTED: 12/01/2016

DEPARTMENT PROJECT INFORMATION

Department: **Public Works**

Department Contact: **Donna LaScaleia**

Fiscal Year(s) Requested: **FY18** **4** **FY19** **4** **FY20** **4** **FY21** **4** **FY22** **4**

Department Priority: **Critical** **High** **Medium** **Low**

Type of Project: **Vehicle** **Equipment** **Technology** **Facility** **Other** **4**

PROJECT DESCRIPTION

Traffic calming funds are used for roadway enhancements to reduce vehicle speeds. Speed hump/table installation, crosswalk upgrades and line striping are examples of traffic calming measures that have been shown to be effective. Recent upgrades include speed table installation on Florence Road, and DPW will be looking to fund Traffic Calming Applications from past years.

PROJECT NEED

Impact on Department if Recommended or Not Recommended:

City neighborhoods will be negatively impacted by speeding vehicles if recommendations do not move forward.

Cost to Maintain:

Pavement markings must be maintained. Covered in OM.

Describe all Benefits and/or Savings:

Benefits to the neighborhood include reduced traffic speeds, and safer streets for pedestrians and bicyclists.

City of Northampton Capital Plan FY18-FY22

PROJECT TITLE: Bridge Road Traffic Signal

DATE SUBMITTED: 12/01/2016

DEPARTMENT PROJECT INFORMATION

Department: **Public Works**

Department Contact: **Donna LaScaleia**

Fiscal Year(s) Requested: **FY18** **4** **FY19** **FY20** **FY21** **FY22**

Department Priority: **Critical** **High** **Medium** **Low**

Type of Project: **Vehicle** **Equipment** **4** **Technology** **Facility** **Other**

PROJECT DESCRIPTION

The traffic signal controls and cabinet at the corner of Bridge Road and Jackson Street needs to be replaced.

PROJECT NEED

Impact on Department if Recommended or Not Recommended:

Obsolete technology needs to be replaced, and replacement parts are increasingly difficult to obtain.

Cost to Maintain:

Accounted for in OM.

Describe all Benefits and/or Savings:

New and high functioning traffic signals.

PROJECT BUDGET AND FUNDING SOURCES

Project Cost Summary, Recommended Financing Sources, & Operating Budget Impact						
Project Cost Elements	FY 2018	FY 2019	FY2020	FY 2021	FY2022	TOTAL
Feasibility Study						\$ 0
Design - Engineering						\$ 0
Site Acquisition						\$ 0
Site Improvements						\$ 0
Construction						\$ 0
Inspection Services						\$ 0
Equipment & Furnishings	\$ 100,000					\$ 100,000
Vehicle Purchase						\$ 0
Other						\$ 0
Contingency						\$ 0
TOTALS	\$ 100,000	\$ 0	\$ 0	\$ 0	\$ 0	\$ 100,000
Financing Sources						
Lease-Purchase						\$ 0
Water Enterprise Funds						\$ 0
Sewer Enterprise Funds						\$ 0
Solid Waste Enterprise Funds						\$ 0
Storm Water Enterprise Funds						\$ 0
State / Federal Grants						\$ 0
Sale of Surplus Property						\$ 0
CPA						\$ 0
Other (specify)						\$ 0
City Appropriation						\$ 0
TOTALS	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0



CITY OF NORTHAMPTON, MASSACHUSETTS
DEPARTMENT OF PUBLIC WORKS

125 Locust Street
Northampton, MA 01060

413-587-1570
Fax 413-587-1576

Donna LaScaleia
Director

Memorandum

To: Susan Wright, Finance Director

From: Donna LaScaleia, DPW Director

Date: December 16, 2016

Re: CIP Vehicles and Equipment

This memo will explain the rationale for vehicle and equipment replacement within The Department of Public Works (DPW). As part of the five year Capital Improvement Plan (CIP), DPW proposes annual expenditures across all divisions to maintain a reasonable replacement schedule so as to ensure a reliable fleet.

DPW has over 170 vehicles and pieces of equipment. These include light, medium and heavy duty trucks, loaders, excavators, backhoes, and highly specialized utility equipment like a catch basin cleaner and jetrodding and vactor trucks. The Vehicle Maintenance Division is overseen by the Highway Superintendent and Vehicle Maintenance Foreman, and employs four full time staff. Nearly all vehicle maintenance is done by this Division, including mechanical repairs and rebuilds, metal fabrication, body restoration, and state vehicle inspections.

DPW uses the following replacement schedule as a guide when proposing vehicle and equipment purchases:

Type of Equipment	Example	Replacement Range
Light duty trucks	Pickups	7-10 years
Medium duty trucks	F550	10-15 years
Heavy Duty trucks	Six/ten wheel dump trucks	15-20 years
Street Sweepers		15 years
Loaders		15-20 years
Grader		25 years
Specialty	Jetrodder, sidearm mower	15-20 years

The Vehicle Maintenance Division assesses the condition of all vehicles as they approach the end of their useful lives. Though the range of years is used as a guide, many factors are considered when determining the need to replace equipment. These factors include:

- Mileage/engine hours;
- Driveline condition (chassis, differential, driveshaft);
- Body and/or dump body condition, if applicable;
- Mechanical systems condition;
- Repair history.

Oftentimes, vehicles can be kept beyond the noted timeframes if an analysis of the above factors indicates it is cost effective and reasonable to do so. It is imperative to have a safe and reliable fleet, and that necessity is carefully considered as well.

The DPW, recognizing the sizeable and consistent investment needed in maintaining its fleet, has instituted a series of measures to ensure that this investment is managed and protected to the greatest extent possible. These measures include:

- Writing vehicle specifications with an eye towards future maintenance;
- Upgrading body selection to stainless steel;
- Power washing and fluid filming equipment before commissioning, and then at least once annually (loaders are done twice);
- Painting drive shafts and steering components on equipment before commissioning to prevent rust and deterioration;
- Adhering to an aggressive vehicle maintenance schedule that accounts for both mileage and engine hours.

