

City of Keene



Capital Improvement Program *2019-2024*

Infrastructure and Asset Management

Strategic Planning For Long Term Financial Responsibility

City of Keene, New Hampshire

Capital Improvement Program

FY 2019-2024

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January 18, 2018

The Honorable Mayor Lane and members of the Keene City Council:

We are pleased to present this year's proposed Capital Improvement Plan (CIP) spanning the next six years, through June 30, 2024, including the proposed budget for FY 2019 capital projects. City staff and the City Council work very hard to produce Capital and Operating Budgets that meet and balance citizen and community needs and City Council Fiscal Policy. The Capital Improvement Program identifies and funds the Capital needs associated with the community identified by Citizens, the City Council and staff, recognizing that resources are limited, and priorities need to be established.

The proposed capital investment program is consistent with goals and priorities identified within the Comprehensive Master Plan (CMP) adopted in 2010 and Council Goals, including an emphasis on economic development. A critical component of those needs is the development, maintenance, and replacement of the infrastructure necessary to the health, wellbeing, and vitality of the community.

Budgeting and planning processes are never ending. At the micro level, there are many, many details that lend themselves to creating confusion for the average citizen. It is easy to lose sight of the forest for the trees at this level of budgeting. The trees are important, but the whole forest is what counts.

At the macro level, budgeting is less detail oriented and complex, but no less challenging. The community establishes goals and priorities through its elected officials (the City Council and Mayor), documents such as the CMP and City Council Goals and Policies, and through communications with the City Manager and City staff.

It is the job of City staff to implement the goals and priorities of the community, and also to identify and communicate additional opportunities and challenges to our elected officials and community. Oftentimes priorities can be in conflict. One set of priorities may reflect the desire to control government spending in order to limit property tax or utility rate increases. Another set of priorities may reflect a desire to fund ongoing preservation and maintenance of critical transportation and water / sewer infrastructure or to invest in other community infrastructure, programs, or amenities.

Budgeting and planning processes are used to identify priorities, explore alternative means or approaches to accomplish goals and priorities (such as the recently presented "Road Asset Management" approach which seeks to prioritize road preventative maintenance in order to improve road condition and reduce costly bond funded repaving), and most of all to prioritize and balance conflicting community goals and priorities to as great an extent as possible. In a time of limited resources and increasing competitiveness and demand for public investment in our community, the need to balance conflicting priorities and needs is paramount. Budgeting and planning processes are also used to communicate, share, and solicit feedback from the community with regard to implementation of community priorities as expressed through proposed budgets.

With that in mind, in FY 2017 the CIP document was reorganized in an effort to communicate more clearly with City elected officials and the community and to demystify the process and create greater clarity. Additional information and analysis was included based upon feedback about the CIP from elected officials and the public. Staff has continued in that direction in FY 2018.

The structure of the draft CIP begins that process by emphasizing specific subject areas to permit the City Council and the public to concentrate on direction. It is vital for the public, through their elected officials, to understand City budgetary processes, or tools, which adjust and direct priorities.

In recent years, the priorities articulated by the public, the City Council, and Comprehensive Master Plan clearly show an emphasis towards the city road and bridge systems, flood control, support for public safety services and a number of other initiatives (e.g. library, parks facilities). During upcoming CIP cycles and annual operating budget presentations staff will continue the effort that supports the vision of the Comprehensive Master Plan of strong citizenship and proactive leadership.

City staff has been careful to see that all newly identified projects deemed important to the realization of the goals and objectives of the City of Keene, Comprehensive Master Plan and V.O.I.C.E. (internal priorities) are incorporated into this plan that guides our community's future. Such projects are highlighted in the narrative portion of this message under DISCUSSION AND FUTURE INITIATIVES

The proposed CIP is modest when viewed in the context of actual use of property tax dollars and has been crafted with the Operating Budget in mind. With a reliance on grants, capital campaigns, and other revenue sources to offset city property taxes, much has been accomplished. These next few years with continued collaboration, and adherence to frugality, will provide opportunities for new projects and priorities to be advanced. Whether it is improvements to the Library, a community conversation with regards to the future of the downtown core, improvements to utility and storm water systems, sidewalks and roads, airport obstruction clearing, or city parks; this year's CIP with continuing collaboration includes them all.

In a geocentric world, Keene competes for investment, jobs, and resultant tax base with the world. Quality of life is huge in helping the City to remain competitive. The right balance between investment and affordability ensure the City will remain an attractive place to live, learn, work, and play.

CAPITAL IMPROVEMENT PLAN

The focus of the CIP process is planning for our City's future. The guiding principle of this planning effort is to advance the vision of the Comprehensive Master Plan (CMP) including;

- ❖ A quality built environment,
- ❖ Unique natural environment,
- ❖ A vibrant economy,
- ❖ Strong citizenship and proactive leadership,
- ❖ A creative and learning culture, and
- ❖ A healthy community.

Guided by fiscal policy, the CMP, input from the community and actions of the City Council, each year anticipated capital expenditures are identified in a six-year Capital Improvement Program (CIP). The CIP includes projects with an estimated cost in excess of \$20,000, and anticipated useful life of at least five years. Individual project requests are consolidated into a capital program that includes revenue and operating cost projections to provide estimated property tax and rate impacts. The capital planning process provides a framework to consider projects, over the time frame of the CIP, in the context of the community's vision, values, and goals, along with impact on property taxes, utility and other user rates. Following review by the City Council and Planning Board and a public hearing, the adopted program's first year is included in the next operating budget proposal as the capital budget.

This CIP includes capital expenditures planned for the six-year period starting July 1, 2018, and ending June 30, 2024 (FY 2019 - FY 2024). This program is fluid and will change from CIP to CIP, and can also be amended from time to time by action of the City Council. While the vast majority of capital activity advances through the CIP process, the CIP document is a planning tool. Occasionally projects are presented to and approved by the City Council outside of the formal CIP process, particularly when grant funding or community partnership becomes available. As a planning document, it also does not bind

any public body to undertaking any project but serves the City Council as a tool to identify and schedule needed improvements, and to forecast and plan for the impact of those improvements.

The CIP reflects continuation of the philosophy of seeking opportunity for strategic investments that leverage other resources and partnerships to advance the goals of the CMP as reflected in the recent courthouse, ice rink, ongoing Library Campus Development, and proposed skateboard park project. Through engagement with employers, the Chamber of Commerce, City/College Commission, social service agencies, other governmental partners and community groups, our organization, community, and City Council priorities advance.

FISCAL POLICY IMPACT

- A. Policy - The City of Keene will contain its General Fund debt service and current revenue capital outlay appropriations, on a five-year average, at or less than 15% of the General Fund operating budget.
 - 1. Discussion – The City has exceeded this cap by a small amount for several years due to the loss of state revenue sharing and other revenues sensitive to fluctuations during economic downturns which occurred after commitments had been made to fund or repay several large projects. As a ratio, this indicator is vulnerable to changes in operations budget growth assumptions, which are slightly lower than in previous years, as well as changes in debt service and capital spending. Recent years have seen increased spending on new programs, including Flood Management, that have increased this key ratio. The assumptions upon which projections are made are reviewed and adjusted annually.
 - 2. Projections based upon the proposed CIP indicate positive reductions in this critical ratio from 15.75% in FY 2019 to 14.64% in FY 2023, and 14.04% in FY 2024, the last year of the CIP. The ratio would decrease in each year covered by the CIP, and based upon longer term projections using currently available information, through FY 2029.
- B. Policy - Unassigned fund balance for the General Fund will be maintained at between 7% and 10% percent of the sum of the total of the General Fund annual operating budget and the property tax commitment for the school (both local and state) and the county.
 - 1. Discussion – projections based upon the proposed CIP and FY 18 budgets and projections, and tax commitments to the school and county, inflated by 3% per year, indicate that the City will remain in compliance with this policy throughout the life of the CIP (FY 2024) and through FY 2029. Over this period, unassigned fund balance is projected to range between 7.10% and 8.76%.

FUTURE INITIATIVES

Included in the Parks and Recreation project requests for FY 2017-2023 was a feasibility study to review various program opportunities, and options for space utilization, and possible renovation to the Recreation Center. Part of the study will focus on a potential partnership between the Parks, Recreation and Facilities Department and the Keene Senior Center. The partnership would focus on issues related the community's changing demographic and serving an aging population and future parks and recreation needs.

As of this writing, the City has hired BH+A, Inc., an architecture firm, to conduct the study with the primary goal of evaluating current programming opportunities at the Recreation Center and a potential collaboration with the Keene Senior Center to incorporate its operations into the building footprint. The study will provide a complete needs assessment, space utilization plan, conceptual plan, an economic analysis on operational cost, revenue generation and a cost recovery analysis. Upon completion, BH+A, Inc. will provide the City with a conceptual design and cost estimates for potential future capital improvement budgets.

In FY 2014, an appropriation from the Downtown Infrastructure Capital Reserve was authorized to provide for the predesign costs for the construction of a parking facility in the downtown area. No further action has been undertaken on that project. The proposed FY 2019-2024 CIP assumes that the FY 2014 appropriation will not be used for a parking garage, and redirects the funding towards the proposed Downtown Revitalization project.

The Downtown Revitalization project is included in the proposed CIP for planning purposes. The final extent and nature of the project is currently under discussion by the community. As the project planning matures, the scope, cost and nature of the project may increase or decrease based upon community discussion.

A new proposal for a downtown parking structure may be included in a future CIP at the direction of the City Council. It is anticipated that such a project would be funded through the Wells Street Tax Increment Financing District (TIFD). The “Wells Street TIFD Summary”, included in this document, models the financial impact of a new parking structure to be funded through a bond issue in FY 2025.

There have been discussions regarding the development of an Ashuelot River Greenspace Park expansion with major funding to come through private donations. Should that project come to pass, there may be the need to upgrade city drainage infrastructure crossing the property before the park is developed.

The concept of a Storm Water Management Utility has been raised as a discussion point. A storm water utility would have the purpose of funding capital improvements related to the storm water and storm runoff infrastructure system. The funding method would be user fees, in a manner similar to the existing water and sewer utility funds. The storm water drainage infrastructure system (managed by the Department of Public Works) is currently funded with property taxes. A storm water utility would be funded by all properties, including tax exempt properties.

Appendix A and B of this document contain supplemental information on various projects still in the planning or discussion stages, as noted in the following section.

FINANCIAL INFORMATION & PROJECT REQUESTS

Project requests are developed by City departments, after considering priorities identified in the Comprehensive Master Plan, council goals, department master plans, public demand for services or facilities, or by operational needs. Requests, in addition to articulating scope, justification, a financial plan and schedule, are aligned to a CMP focus area, strategy, and the values articulated by V.O.I.C.E., as follows:

- ❖ Value everyone
- ❖ Obtain public input
- ❖ Inform the public
- ❖ Continually assess facilities and infrastructure
- ❖ Establish priorities

When developing a project’s funding plan, the funding proposed (current revenue, debt, etc.) by staff take into consideration the capacity of the fund, timing relative to other projects within the fund, and the impact upon property taxes and user rates over a given time period.

Projects funded by long-term debt are repaid at a term that considers the anticipated useful life of that project. An amount appearing in the “Prior” column of the Financial Plan section of a project request indicates amounts from appropriations or other sources that have been determined to be available for future years’ work. An estimate of the anticipated impact of a project on a department’s operating budget and project status is also part of each project request.

The CIP document was reorganized and expanded in FY 2017 in an effort to develop a more user friendly and informative document. The document now contains the following sections:

- A. Letter of Introduction and City Managers' Message.
- B. Executive Summary – Several graphs and tables providing a broad overview of the proposed projects and funding included in the proposed CIP.
- C. Financial Section –
 - 1. FY 2019-2024 CIP Financial Discussion and Analysis – an analysis of the proposed CIP project and funding plans by fund. The analysis includes a specific look at revenue assumptions, tax and fee changes built into CIP projections, and outstanding debt.
 - 2. Fund basis financial information including detail on property tax, utility rate and fee projections, the impact of the proposed CIP on outstanding debt, and financial projections, for each fund, over the life of the CIP. Included are lists of individual project requests by fund, as well as detail on proposed funding source(s), and a summary debt service schedule providing information on existing and proposed levels of debt service through FY 2024 by fund.
- D. Capital Reserve Presentation – Includes a one page financial summary for each active capital reserve providing a projected balance at the beginning of FY 2018, proposed funding for each year of the CIP, and a list and schedule of projects to be funded from each reserve, and a projected ending balance of each reserve.
- E. Project Requests – Until FY 2016 projects were presented by fund, in department order. In the Proposed FY 2019-2024 CIP, the project requests are reorganized in the following manner :
 - 1. Public Health and Safety – programs, activities, and projects which are intended to protect the health and safety of individuals and the community. The primary goal of these activities is the protection of the public from dangers affecting health and safety from crime, disaster, fire, and disease. Included in this section are the Police and Fire Departments from the General Fund, and the Sewer, Water and Solid Waste Funds (Department of Public Works or DPW).
 - 2. Transportation – programs, activities, and projects which are intended to facilitate the safe and efficient movement of people and things within the City, and to connect the local community with Monadnock Region, the state, and the world. The primary goal of these activities is to provide that roads, bridges, sidewalks, bike paths, and other transportation infrastructure are in good condition and meet the needs of the community. Included in this section are project requests developed by the DPW, Highway and Engineering Divisions (General Fund).
 - 3. Economic Development and Vitality – programs, activities, and projects which are intended to promote the retention and expansion of existing businesses and to encourage and attract new business development in the City of Keene. The primary goal of these activities is enhance overall quality of life and the sustainability of the community. Projects included in this section were developed by the Airport and DPW from the General Fund, as well as the Parking Fund.
 - 4. Flood and Storm Water Management – programs, activities, and projects which are intended to prevent and remediate conditions leading to localized flooding due to more frequently occurring major precipitation events through preventative maintenance, drainage system improvements, and comprehensive storm water infrastructure planning. Projects in this section were developed by DPW Engineering Division and the Planning Department (General Fund).

5. Community Development - programs, activities, and projects which are intended to add to or significantly expand the capacity of community infrastructure or facilities. The primary goal of these activities is to improve the quality of life in the community and to meet the needs of a changing community. Included projects were developed by the Parks and Recreation and Fire Departments (General Fund)
 6. General Operations Facilities and Infrastructure - programs, activities, and projects which are intended to maintain and provide facilities, infrastructure, and equipment necessary for the provision of basic governmental services. The primary goal of these activities is to maintain City operational assets in good working order in an environmentally friendly and economically efficient manner. Included projects were developed by the Equipment Fund Division of the DPW, the Assessor's Office, the Facilities Division of Parks and Recreation, and the Information Technology Department, all within the General Fund.
- F. Appendix A – General Fund projects not included in the proposed FY 2019-2024 CIP which may appear in future CIP documents. These projects have not been included in the CIP for a variety of reasons, including limited resources and the need for additional project analysis and development.
- G. Appendix B – Water and Sewer Funds capital projects that are scheduled for FY 2025 and beyond. Also included is a brief discussion of recommendations for additional water main replacement funding. Due to the nature of aging utility infrastructure, and the scope of the proposed projects, this information is provided in an effort to better inform the long term discussion regarding utility fund infrastructure.
- H. Appendix C – Various projects by geographical distribution within the City.
- I. Appendix D – this is a new document section. This section provides detailed debt service schedules for all debt proposed to be issued between FY 2019 and FY 2024.

The remaining steps to be taken in the CIP process are:

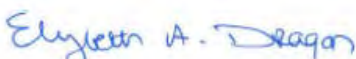
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|-------------------------------|--|
| • Thursday, January 18, 2018 | Documents distributed to City Council, Planning Board |
| • Thursday, January 25, 2018 | Finance, Organization & Personnel (FOP) Committee review |
| • Thursday, February 8, 2018 | FOP Committee review |
| • Thursday, February 22, 2018 | FOP Committee review |
| • Thursday, March 1, 2018 | Public Hearing |
| • Thursday, March 8, 2018 | FOP Committee develops recommendation |
| • Thursday, March 15, 2018 | Council vote |

The Planning Board will conduct its independent review at its February 2018 meeting, and will report the result of their review directly to the City Council.

An Executive Summary of the proposed FY 2019-2024 Capital Improvements Program follows this message.

Thank you for your careful consideration of this document and the various projects proposed to move toward a sustainable future for our community.

Respectfully Submitted,



Elizabeth A. Dragon
City Manager

EXECUTIVE SUMMARY

FY 19 - 24 Proposed CIP, By Year, Fund, and Funding Source

FY18/19	Current Revenues	City Bonds	Federal	State	Other	Total	% of program
General Fund	\$ 1,504,878	\$ 2,745,878	\$ 501,062	\$ 2,441,181	\$ 1,602,925	\$ 8,795,924	53.07%
Parking Fund	89,400					89,400	0.54%
Solid Waste Fund	65,000					65,000	0.39%
Sewer Fund	893,891	1,342,560			1,270,831	3,507,282	21.16%
Water Fund	1,148,833				1,551,637	2,700,470	16.29%
Equipment Fund	665,000				751,341	1,416,341	8.55%
TOTAL	\$ 4,367,002	\$ 4,088,438	\$ 501,062	\$ 2,441,181	\$ 5,176,734	\$ 16,574,417	
% of program	26.35%	24.67%	3.02%	14.73%	31.23%	100.00%	

FY19/20	Current Revenues	City Bonds	Federal	State	Other	Total	% of program
General Fund	\$ 1,484,901	\$ 2,817,133	\$ 2,160,000	\$ 2,222,719	\$ 1,856,678	\$ 10,541,431	59.56%
Parking Fund	90,300				50,000	140,300	0.79%
Solid Waste Fund	65,000	166,750			327,224	558,974	3.16%
Sewer Fund	914,108				840,661	1,754,769	9.92%
Water Fund	1,099,198	1,585,976			554,399	3,239,573	18.30%
Equipment Fund	665,000				797,743	1,462,743	8.27%
TOTAL	\$ 4,318,507	\$ 4,569,859	\$ 2,160,000	\$ 2,222,719	\$ 4,426,705	\$ 17,697,790	
% of program	24.40%	25.82%	12.20%	12.56%	25.01%	100.00%	

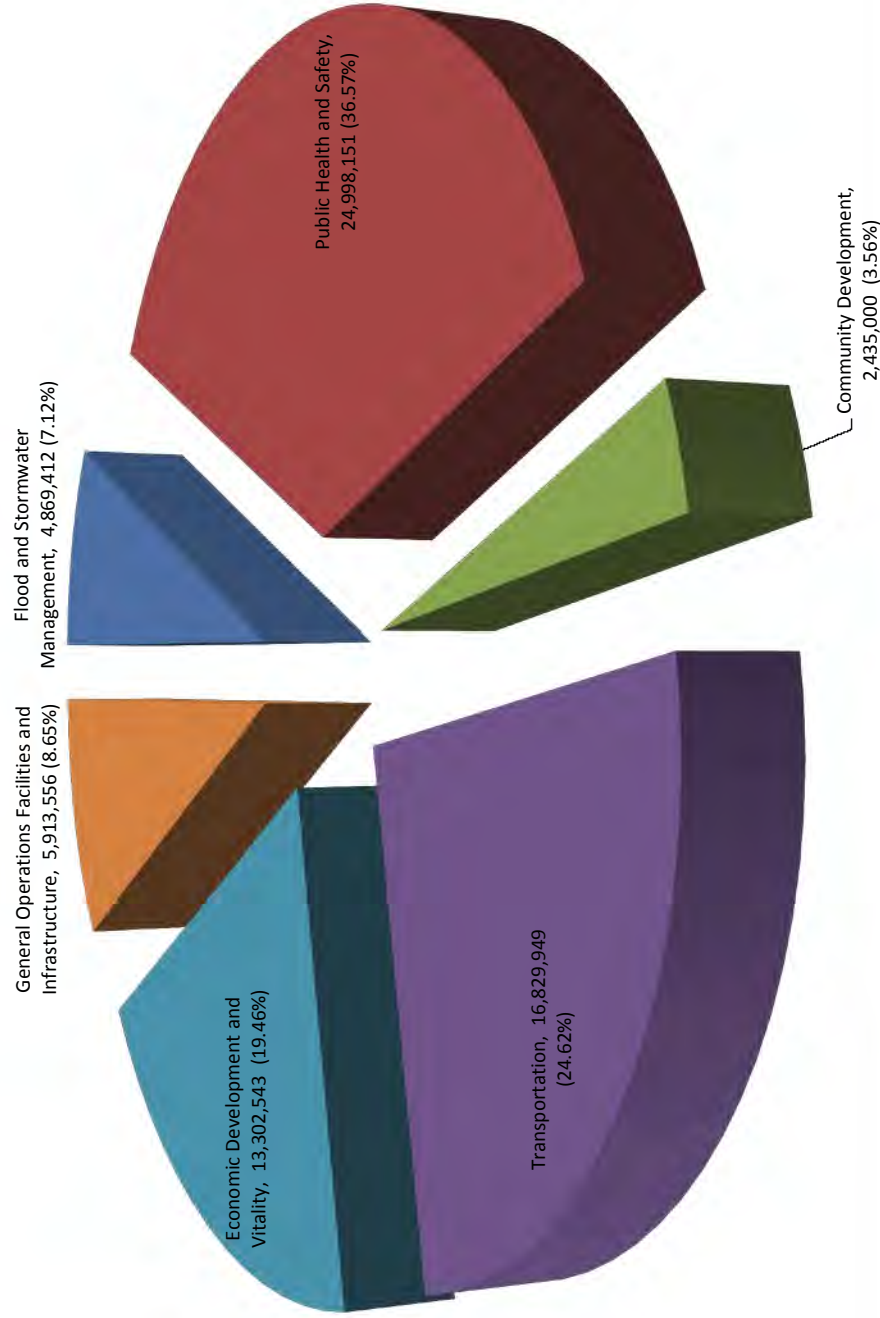
FY20/21	Current Revenues	City Bonds	Federal	State	Other	Total	% of program
General Fund	\$ 1,450,424	\$ 2,807,647	\$ 1,274,940	\$ 70,830	\$ 187,436	\$ 5,791,277	50.13%
Parking Fund	60,000					60,000	0.52%
Solid Waste Fund	65,000					65,000	0.56%
Sewer Fund	979,481	1,455,513			439,187	2,874,181	24.88%
Water Fund	1,175,820					1,175,820	10.18%
Equipment Fund	855,000				732,356	1,587,356	13.74%
TOTAL	\$ 4,585,725	\$ 4,263,160	\$ 1,274,940	\$ 70,830	\$ 1,358,979	\$ 11,553,634	
% of program	39.69%	36.90%	11.03%	0.61%	11.76%	100.00%	

FY21/22	Current Revenues	City Bonds	Federal	State	Other	Total	% of program
General Fund	\$ 1,440,769	\$ 3,509,650	\$ 1,713,740	\$ 996,370	\$ 1,932,290	\$ 9,592,819	62.71%
Parking Fund	111,300				50,000	161,300	1.05%
Solid Waste Fund	65,000					65,000	0.42%
Sewer Fund	1,053,684				506,708	1,560,392	10.20%
Water Fund	1,208,183				1,305,102	2,513,285	16.43%
Equipment Fund	735,000				668,685	1,403,685	9.18%
TOTAL	\$ 4,613,936	\$ 3,509,650	\$ 1,713,740	\$ 996,370	\$ 4,462,785	\$ 15,296,481	
% of program	30.16%	22.94%	11.20%	6.51%	29.18%	100.00%	

FY22/23	Current Revenues	City Bonds	Federal	State	Other	Total	% of program
General Fund	\$ 1,732,571	\$ 1,641,872	\$ 552,600	\$ 30,700	\$ 655,000	\$ 4,612,743	34.79%
Parking Fund	60,000				98,200	158,200	1.19%
Solid Waste Fund	65,000				169,000	234,000	1.77%
Sewer Fund	1,015,716				591,542	1,607,258	12.12%
Water Fund	1,259,568	2,275,882			1,757,003	5,292,453	39.92%
Equipment Fund	734,178				618,729	1,352,907	10.20%
TOTAL	\$ 4,867,033	\$ 3,917,754	\$ 552,600	\$ 30,700	\$ 3,889,474	\$ 13,257,561	
% of program	36.71%	29.55%	4.17%	0.23%	29.34%	100.00%	

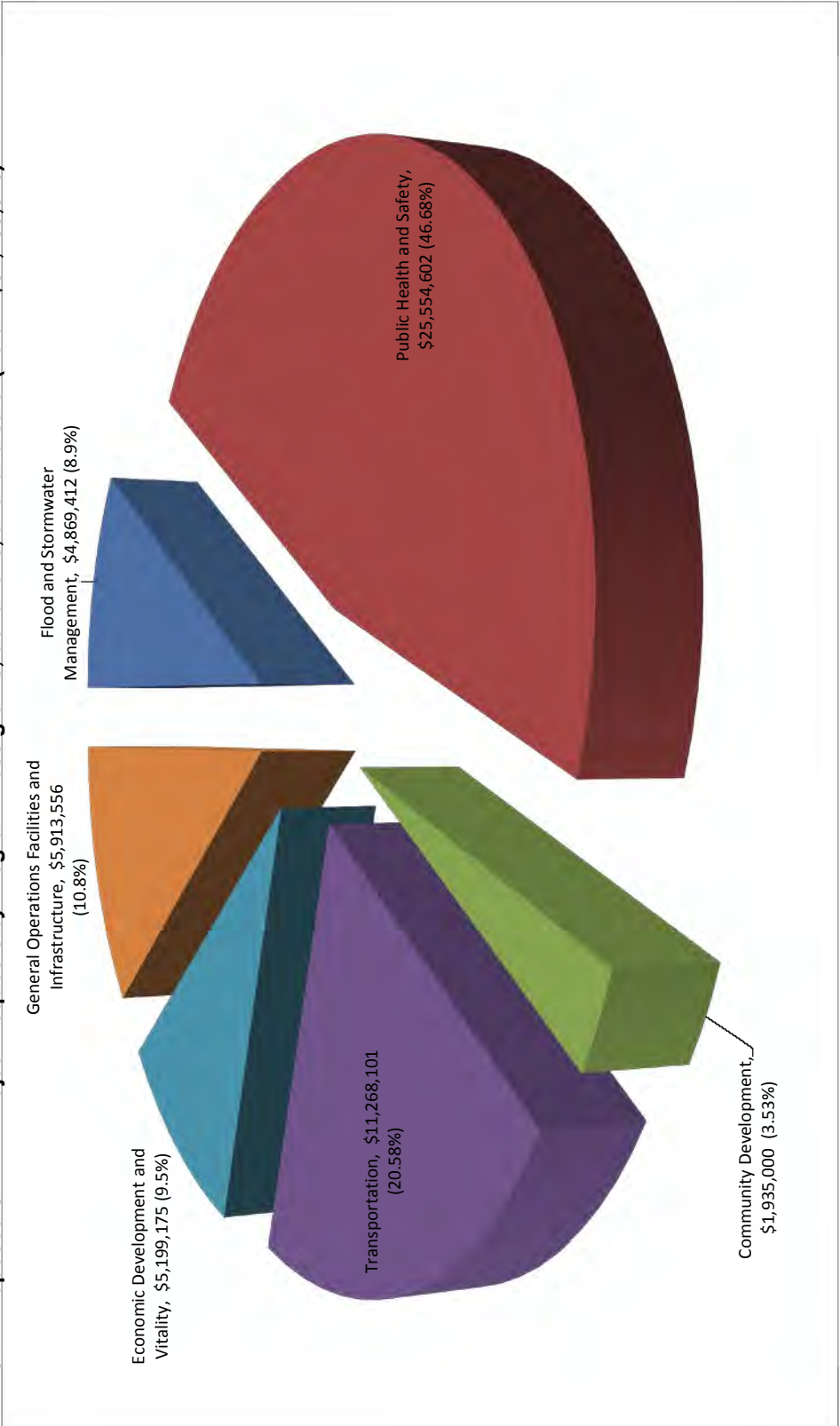
FY23/24	Current Revenues	City Bonds	Federal	State	Other	Total	% of program
General Fund	\$ 1,595,580	\$ 3,557,898	\$ -	\$ 144,623	\$ 1,296,156	\$ 6,594,257	50.77%
Parking Fund	310,000				57,400	367,400	2.83%
Solid Waste Fund	65,000				172,304	237,304	1.83%
Sewer Fund	1,146,587				945,012	2,091,599	16.10%
Water Fund	1,274,736				1,224,339	2,499,075	19.24%
Equipment Fund	625,000				574,093	1,199,093	9.23%
TOTAL	\$ 5,016,903	\$ 3,557,898	\$ -	\$ 144,623	\$ 4,269,304	\$ 12,988,728	
% of program	38.63%	27.39%	0.00%	1.11%	32.87%	100.00%	

FY 19-24 Proposed CIP: All Project Requests by Program (Total - \$68,348,611)



Does not include capital reserve appropriations totalling \$19,020,000.

FY 19-24 Proposed CIP: All Project Requests by Program - less grants, donations, and land sale (Total - \$54,739,846)



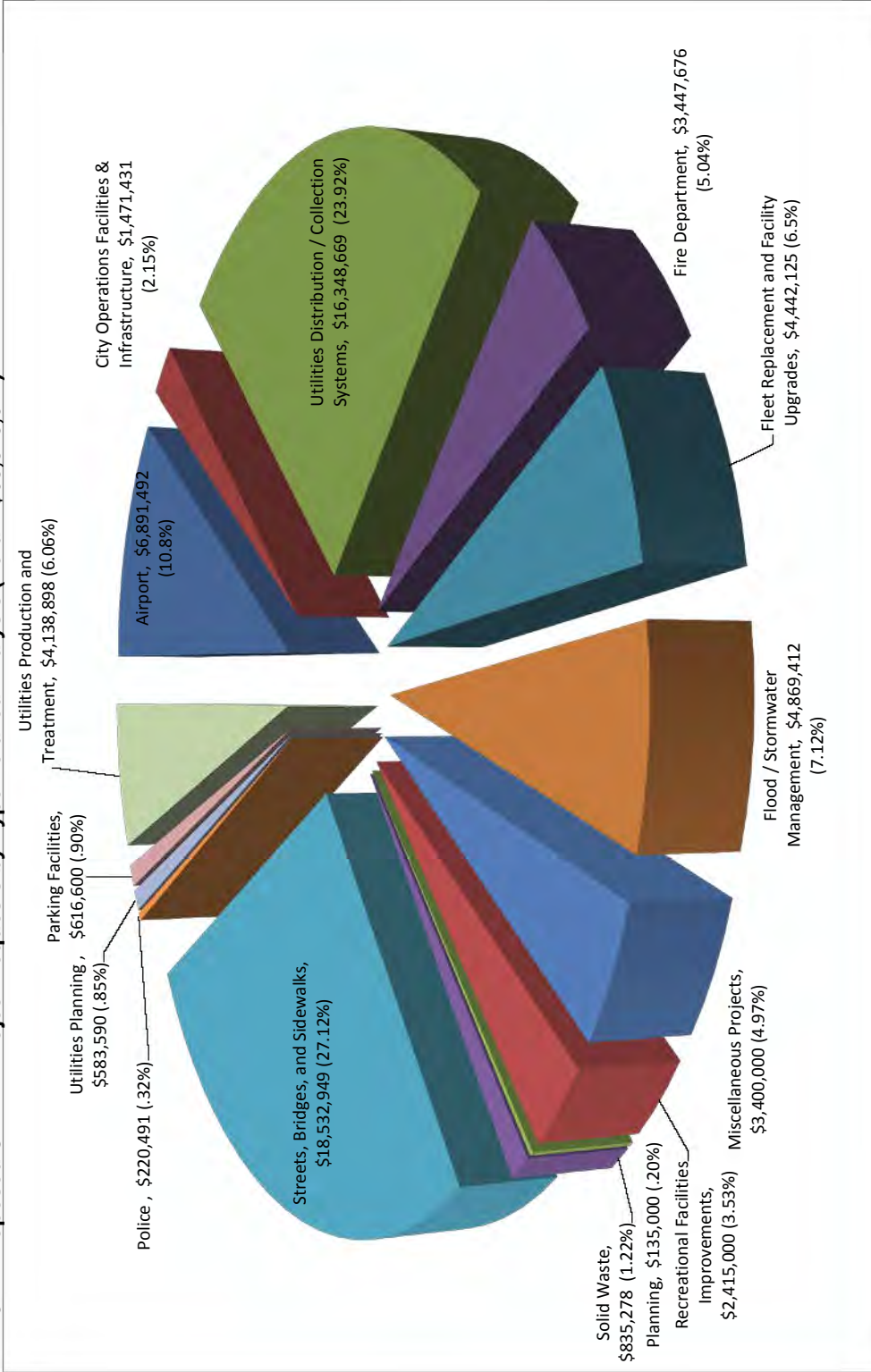
Does not include capital reserve appropriations totalling \$19,020,000.

This chart demonstrates the proposed allocation of locally generated funding (using current revenues) in the proposed CIP, including property taxes, rates, fees, and all other revenues and resources other than state and federal grants, donations, and the sale of 560 Main Street.

Grants, Donations, Sale of Property (not included in this presentation)

Airport Grants	6,546,917
Sale of 560 Main Street	1,000,000
Skate Park Capital Campaign	500,000
State By-Pass Grants	4,935,727
State Bridge Funding	626,121

FY 19-24 Proposed CIP: All Project Requests by Type Detailed Analysis (Total - \$68,348,611)



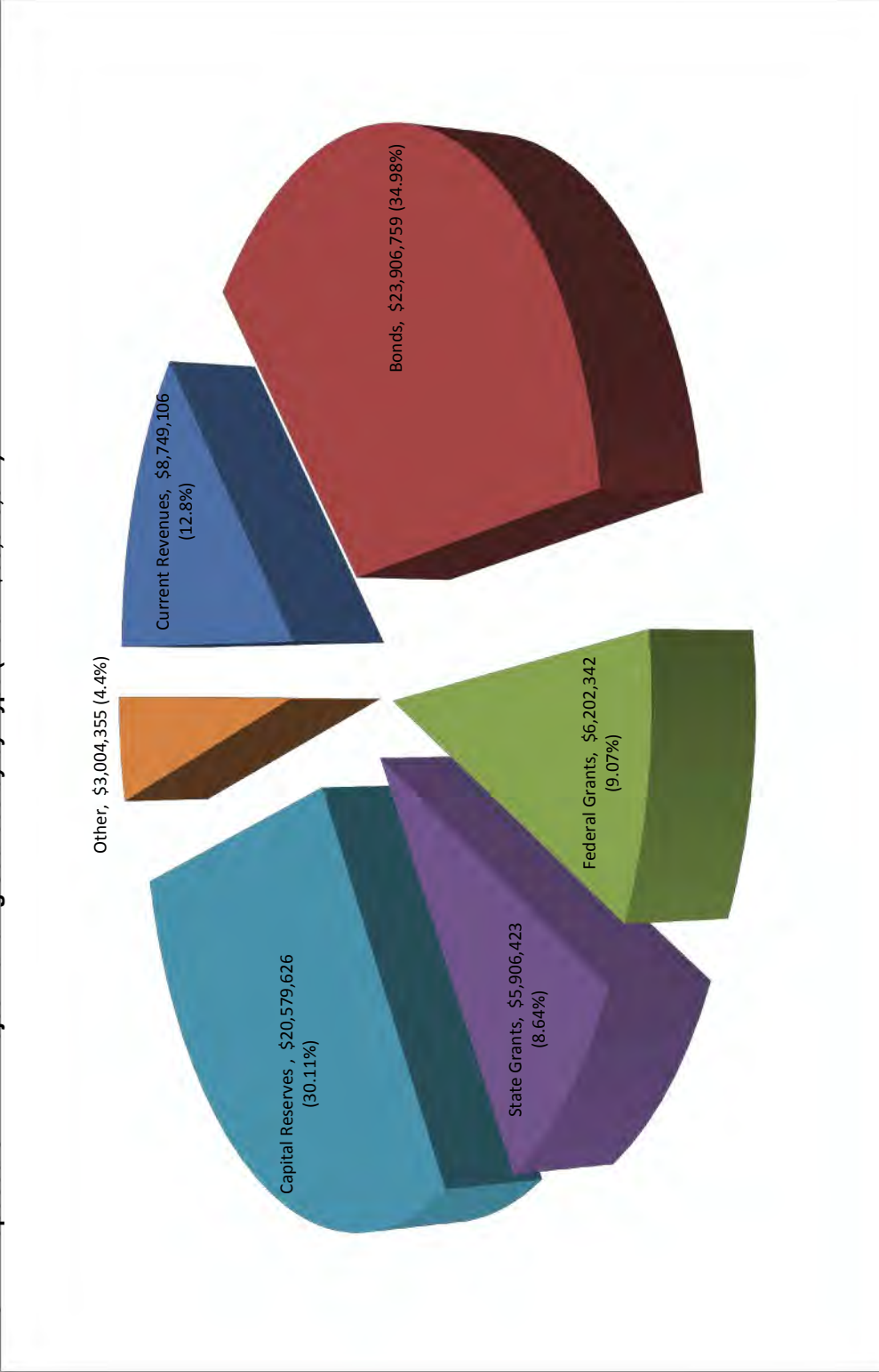
Does not include capital reserve appropriations totalling \$19,020,000.

Miscellaneous Projects:

Downtown Revitalization	2,400,000
560 Main Street Remediation	1,000,000
Total	3,400,000

This presentation provides a more detailed analysis of proposed projects by activity type.

FY 19-24 Proposed CIP: All Project Funding Sources by Type (Total - \$68,348,611)



This funding presentation includes withdrawals from capital reserves to fund projects, but does not include appropriations into capital reserves, which are also included in the proposed CIP.

Other Sources of Funding Additional Detail

Other Sources of Funding

<u>Funded Project</u>	<u>Year</u>	<u>Amount</u>	<u>Funding Source</u>
Parks Improvements	FY 19	40,000	Trust Funds
560 Main Street Site Remediation	FY 19	1,000,000	Proceeds from sale of 560 Main St
Water Distribution Improvements	FY 19	627,257	Use of Fund Balance - Water Fund
Blower Replacement - FY 2014	FY 19	61,076	Reserve Appropriation Carried Forward
Skate Park	FY 20	500,000	Capital campaign (donations)
Victoria Street Ext Utilities	FY 22	275,000	Use of Fund Balance - Water Fund
Water Main Cleaning & Lining	FY 22	100,000	Use of Fund Balance - Water Fund

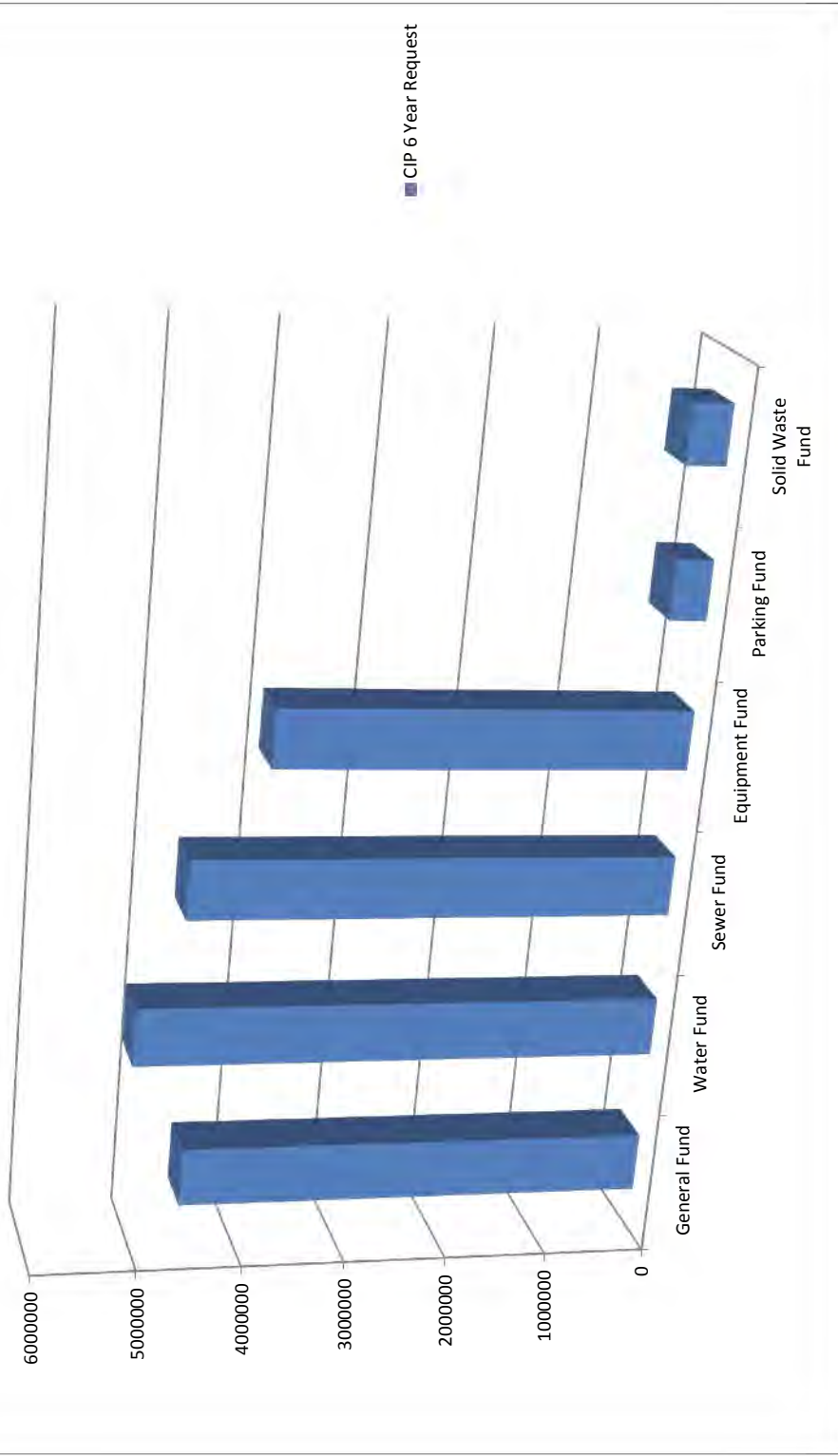
Reappropriation of Project Balances

<u>Funded Project</u>	<u>Year</u>	<u>Amount</u>	<u>Funding Source</u>
Pavement Maintenance - Airport	FY 19	8,337	Pavement Maintenance - Airport
SAN Replacement - IT	FY 19	40,000	San Replacement FY 17 appropriation
Drainage Repairs - DPW	FY 19	63,571	FY 13 Snow Event and Flood Control
Stormwater System Mngmt.	FY 19	40,000	Stormwater System Management
Drainage Repairs - DPW	FY 20	65,478	Flood Control
Stormwater System Mngmt.	FY 20	41,200	Flood Control
Water Supply Master Plan	FY 20	100,000	Water Supply Protection
Stormwater System Mngmt.	FY 21	42,436	Flood Control

Total

3,004,355

FY 19-24 Capital Reserve Appropriation by Fund



Capital Reserves are used to smooth tax and rate changes generated as a result of the replacement of equipment and systems in the various funds. Capital Reserves also provide emergency funding in the case of equipment or system failure. All uses of capital reserves are approved by vote of the City Council, either through the operating budget process, or by Council vote on a separate resolution.

Capital Reserve Appropriations total \$19,020,000 over the life of the proposed CIP across all funds. These funds will be used to fund projects over the life of the CIP, and in future CIPs. Over that same period, \$20,579,626 of capital reserve funds are programmed in the proposed CIP to be spent on capital projects. The anticipated capital reserve balances across all funds is anticipated to be about \$6.1 million on June 30, 2024, at the conclusion of the CIP planning period.

Capital Reserves are funded completely by current revenue by fund, either user rates, property taxes, or other revenue generated during each fiscal year.

Major Infrastructure Projects Consolidated Across Funds and Program

	<u>2019</u>	<u>2020</u>	<u>2021</u>	<u>2022</u>	<u>2023</u>	<u>2024</u>	<u>Total</u>
<u>Downtown Rehabilitation</u>							
Sewer Main Improvements				506,708			506,708
Water Main Improvements				107,812			107,812
Drainage - Flood Management				318,055			318,055
Downtown Rehabilitation		150,000	100,000	500,000	550,000	1,100,000	2,400,000
Total Downtown Rehabilitation	-	150,000	100,000	1,432,575	550,000	1,100,000	3,332,575
<u>Victoria Street Extension</u>							
Sewer Main Improvements				208,669			208,669
Water Main Improvements				347,782			347,782
Victoria Street Extension				1,703,000			1,703,000
Total Victoria Street Extension	-	-	-	2,259,451	-	-	2,259,451
<u>State By-Pass Projects</u>							
Sewer Bypass Utilities	360,291						360,291
Water Bypass Utilities	250,500						250,500
State Bypass Project	3,016,680	2,628,399		343,801		180,779	6,169,659
Total State Bypass Project	3,627,471	2,628,399	-	343,801	-	180,779	6,780,450
<u>Bridge Replacement*</u>							
Bridge Project				782,651			782,651
Water Main Improvements				47,530			47,530
Sewer Bridge Utilities	43,500						43,500
Water Bridge Utilities	38,300						38,300
Total Bridge Replacement	81,800	-	-	830,181	-	-	911,981

<u>Marlboro Street Improvements</u>	<u>2019</u>	<u>2020</u>	<u>2021</u>	<u>2022</u>	<u>2023</u>	<u>2024</u>	<u>Total</u>
Sewer Main Improvements	653,101						653,101
Water Main Improvements	1,127,257						1,127,257
Marlboro St Corridor Improvements	171,017						171,017
Total Marlboro St Improvements	1,951,375	-	-	-	-	-	1,951,375
<u>Travel Surface Improvements</u>	<u>2019</u>	<u>2020</u>	<u>2021</u>	<u>2022</u>	<u>2023</u>	<u>2024</u>	<u>Total</u>
Road Rehabilitation	1,245,642	1,370,073	1,267,647	1,451,270	1,454,872	1,497,722	8,287,226
Granite Curbs	63,571	65,478	68,752	70,815	72,939	75,128	416,683
Sidewalk Repair	63,571	65,478	68,752	70,815	72,939	75,128	416,683
Total Travel Surface Imp.	1,372,784	1,501,029	1,405,151	1,592,900	1,600,750	1,647,978	9,120,592

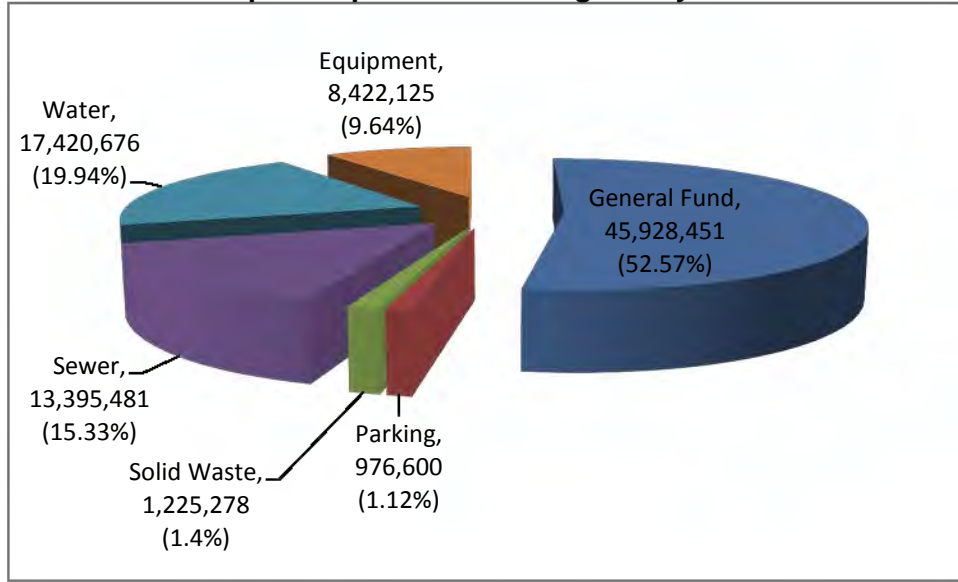
* FY 2019 - Winchester Street Bridge over Ash Brook

* FY 2022 - Church Street Bridge over Beaver Brook

FY 2019-2024 CIP – Fund Basis Financial Discussion and Summary

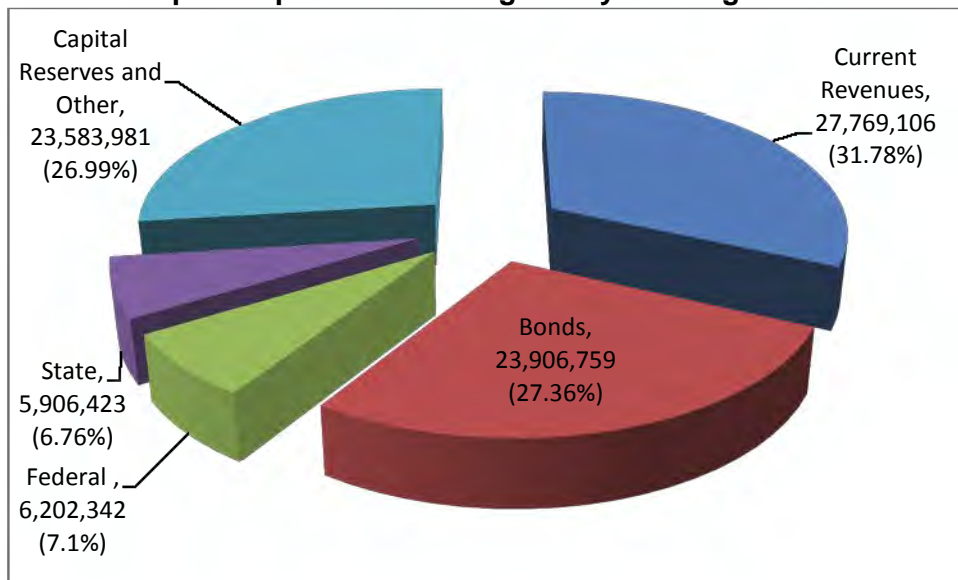
The following chart presents total requested appropriations (\$87.368 million, including appropriations into capital reserves) by fund for the program. About 87.84% of the six year program is directed towards activities in the General Fund and Water and Sewer Utility Funds. This represents a .86% increase from the FY 2018-2023 CIP figure of 86.98%.

Capital Improvements Program By Fund



The following graph summarizes proposed funding sources for the proposed CIP. Three major revenue types fund 86.13% of the CIP. These are current revenues (property taxes, other General Fund revenues, various fees and charges, utility rates), bonding, and capital reserves and other (donations, grants, and project balances). In the FY 2018-2023 CIP, that figure was 80.37%.

Capital Improvements Program By Funding Source



Current revenues include property taxes, water and sewer utility charges, motor vehicle registration fees, ambulance fees, parking fees and fines, rents, program fees, and all other fees and charges generated by the City in the ordinary course of business. Current revenues also include intergovernmental revenues such as intermunicipal agreements and state shared revenues. Current revenues are typically recurring revenues generated / raised / received by the City every year. Current revenues do not include the use of capital reserves (current revenues were allocated and put aside in prior years), donations, grants, and one time sales of property or other nonrecurring events.

State and Federal grant funding, as a proportion of proposed CIP funding has decreased by 6.11%. The decrease largely represents a smaller proposed FAA grant funded Airport CIP proposal. Two major projects (Runway 14/32 Reconstruction and Runway 20 Obstruction Removal) scheduled for FY 18 in the FY 2018-2023 CIP were funded with \$4,545,750 in State and Federal grants. Grant funding for the two projects represented 26.5% of all grant funding included in the FY 2018-2023 CIP.

The FY 2019-2024 proposed CIP invests \$87.368m in City infrastructure and equipment over next six years. The proposed CIP is approximately \$1.431m or 1.66% larger than the FY 2018-2023 CIP.

NEW PROJECTS

Although many cost estimates, project schedules, new projects, and funding changes are reflected in every CIP, the following projects are new to the program:

- a. Airport Beacon Replacement – replaces hazard beacons more than 20 years old. The beacons mark obstructions and hilltops which might be obstacles for aircraft. FY 2023 \$500,000 FAA partially funded.
- b. Airport Perimeter Fence - Guardrail Replacement – adds fencing around the perimeter of the airport to help keep animals off runways. FY 2021 \$1,350,000 FAA partially funded.
- c. Voting Booths – Replaces voting booths for elections. Current booths are over fifty years old. FY 2020 \$32,088.
- d. Business / Financial Software – funds city wide financial system needs analysis. The current financial software was implemented in FY 1998-99 and a review of current business practices and requirements is needed. FY 2023 \$35,000.
- e. Breathing Apparatus Replacement – Replaces Fire Department protective breathing apparatus. Current units will be at the end of useful life. FY 2024 \$847,676.
- f. Telephone System Replacement – Replaces telephone system at the anticipated end of the current systems' useful life. FY 2023 \$148,000.
- g. Comprehensive Master Plan Update – updates the Comprehensive Master Plan (CMP) to reflect current community priorities. The CMP was adopted in 2010. FY 2023 and 2024 \$60,000.
- h. Aerial Image Update – updates aerial imagery used by the GIS System and in understanding changes in land use patterns. FY 2024 \$75,000.

- i. Municipal Parks Improvements – a new ongoing project to provide funding for major repairs and upgrades to existing Parks system facilities and infrastructure. Proposed projects include playfield irrigation system replacements, pool improvements, restroom upgrades, and tennis and basketball court resurfacing.
- j. Beaver Brook Flood Management – extends the Beaver Brook Hydrologic Study by funding projects related to flooding in the Beaver Brook Water Shed, as identified in the study. FY 2024 \$500,000.
- k. Main Street Crosswalk Improvements – improvements to crosswalks at Main Street and Elliott Streets, and near the Westwood Center. FY 2023 \$187,000. Fleet Wash Bay – replaces truck wash. FY 2019 \$155,000.
- l. Storm Drainpipe Lining – new project which lines or replaces metal drainage pipes installed before 1980. The estimated time frame to repair or replace the pipes is estimated to be 30-40 years of annual work. FY 2023 and FY 2024 \$246,300.
- m. Traffic Signal Replacement – replaces older traffic signal technology to improve traffic flows and pedestrian safety. Anticipated to be the first year of a seven year project. FY 2024 \$160,000.
- n. Transfer Station Paving – repaves transfer station paved surfaces. FY 2024 \$172,304.
- o. Victoria Street Extension Sewer and Water Mains – installs water and sewer mains along the proposed extension of Victoria Street to Marlboro Street. FY 2022 \$556,451.
- p. Sewer Manhole Lining – lines brick manholes over a period of five years to reduce water infiltration and line blockages caused by falling bricks. FY 2023 and FY 2024 \$319,928.
- q. Water Supply Master Plan – updates 25 year old water supply master plan. FY 2020 \$100,000.

PROJECT DISCUSSION BY FUND

The charts indicate that the General Fund and Water and Sewer Funds fund nearly 88% of the proposed six year CIP. With that in mind, what follows is a discussion regarding these major components of the CIP, in both programmatic and departmental formats.

GENERAL FUND

The General Fund includes several departments with requests over the span of the CIP totaling \$45,928,451, or 52.57% of the proposed CIP. The General Fund is the City fund funded primarily by property taxes (approximately 51% in FY 2017-2018). Those requests, by program and activity, are highlighted in the following graph:

FY 2019 - 2024 General Fund Proposed CIP By Program

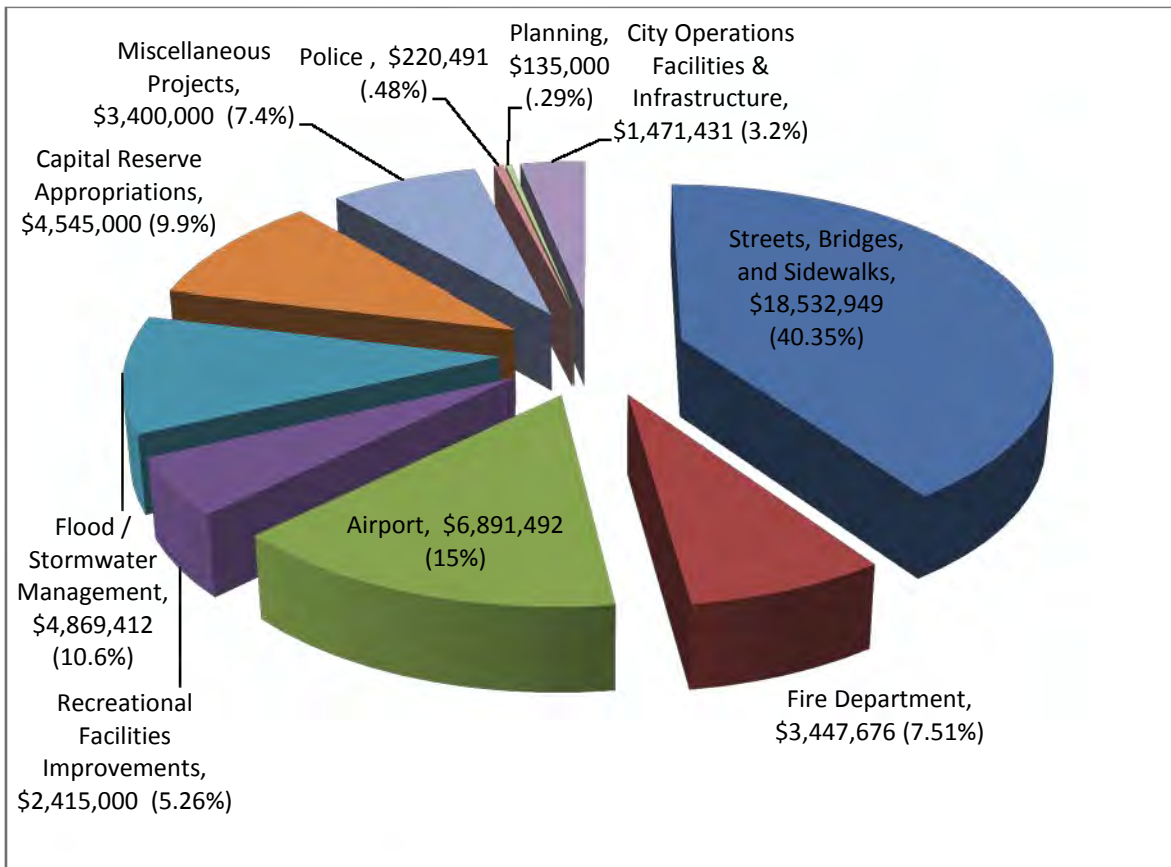
Transportation projects (streets, bridges and sidewalks) comprise 40.35% of proposed projects, up from 39.87% in the FY 2018-2023 CIP.

Flood and Stormwater Management projects total 10.6% of the proposed General Fund CIP, up from 10.1% in the prior CIP.

Airport Improvement Projects make up about 15% of the proposed General Fund CIP. These three programs combined account for about 66% of the proposed capital program.

The following chart summarizes the level of proposed spending on various activities and programs in the General Fund proposed CIP.

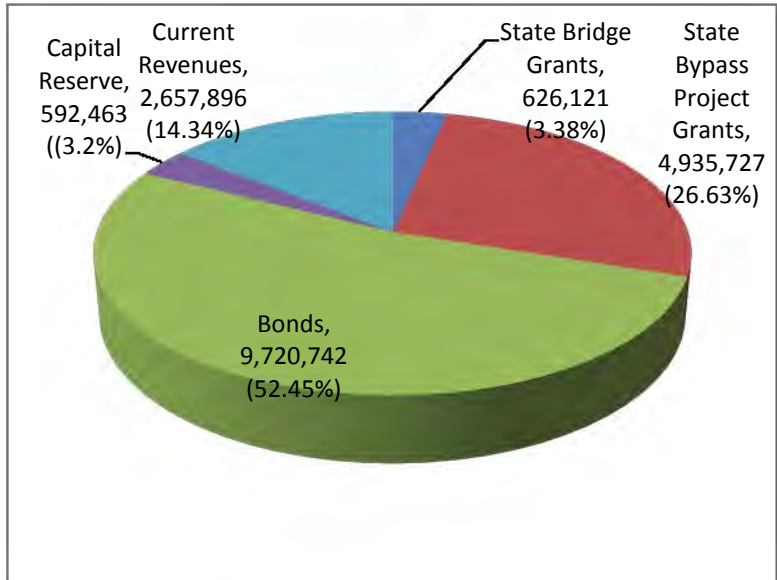
FY 2019-2024 General Fund Proposed CIP by Program



Streets, Bridges and Sidewalks - included projects include the \$8.4m Road Rehabilitation project which is directed at resurfacing and maintaining roads, along with \$834,000 for granite curbing and sidewalk repair. Included in this group of projects are improvements to Marlboro Street, and the extension of Victoria Street to Marlboro Street, as well as state by pass projects in the area of Winchester Street, Key Road, and Island Streets with proposed funding in the amount of \$6,169,000, including about \$4.9m in State grant funding. Replacement of the George Street Bridge at a cost of \$782,651 is scheduled for FY 2022.

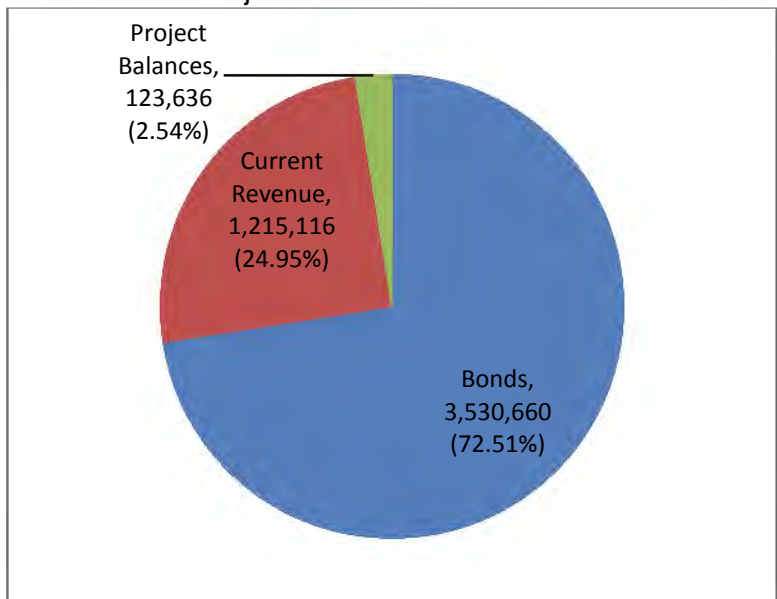
Two new programs include the replacement of city owned traffic signals and improvements to Main Street crosswalks near Keene State College. In FY 2024 and 2023, respectively.

The following graph highlights the funding profile of the Transportation Projects section of the proposed General Fund CIP:



Flood and Stormwater Management The FY 2018 budget included funding for the Climate Adaptation Vulnerability Assessment and Beaver Brook Hydrologic and Hydraulic Study. Funding to begin work on projects anticipated to be recommended through these studies is scheduled in FY 2024; the Beaver Brook Flood Management project. A new project, as noted above, to address the replacement and repair of older metal drainage pipes, is included in FY 2023 and FY 2024.

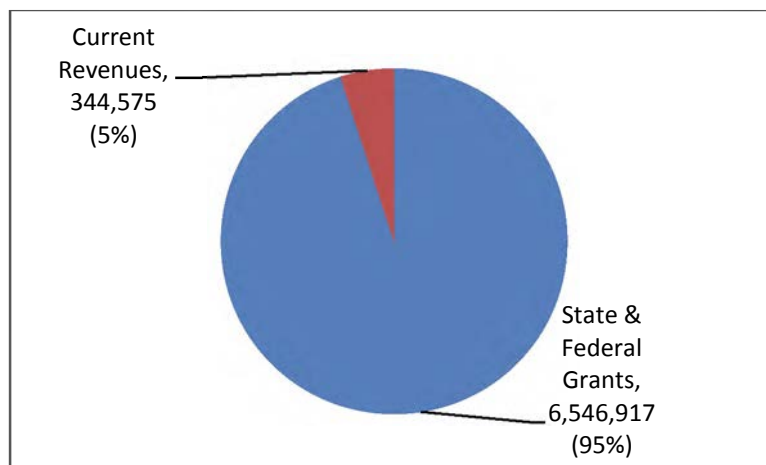
Funding is requested for the rehabilitation of Goose Pond Dam in response to an administrative order from the NH Department of Environmental Services, as well as a series of ongoing drainage system capital planning, maintenance, and repair projects. Major drain system capacity expansion projects are planned for Roxbury Street, Church Street, Central Square, Main Street, and Probate Street. Projects are funded as follows:



Fire Department CIP requests make up about 7.1% of the total program (up from 5.5% in the FY 18-23 CIP), with requested funding of about \$3,448,000 (*not including capital reserve appropriations*). The increase is due to the addition of a new project, Breathing Apparatus Replacement in FY 2024. The balance of the projects are largely the acquisition of fire apparatus and ambulances, along with radios and other small equipment.

Airport Development projects make up about 15% of the proposed General Fund CIP. All of the project requests included in the CIP (totalling \$6,891,492) have been approved for FAA and State Aeronautical Program funding which will cover 95% of the project costs. The Airport portion of the Economic Development program portion of the proposed CIP is about \$4.134m less than presented in the FY 2018-2023 CIP. Two large projects totalling \$4,785,000 were included in FY 2018, offset by two new projects (noted above) and various other project cost changes.

The following table highlights the funding profile of the proposed airport development projects:



Capital Reserve Appropriations the proposed CIP includes capital reserve appropriation requests totalling \$4,545,000, representing about 9.9% of the program.

Capital reserve funds included in the General Fund CIP presentation include the Ambulance Capital Reserve, Fire Apparatus Capital Reserve, Downtown Infrastructure Capital Reserve, Transportation Improvements Capital Reserve, and Bridge Capital Reserve.

Over the term of the proposed CIP, \$5,689,463 in capital reserve funds for equipment replacement and infrastructure improvements, including ambulance and fire apparatus replacement, replacement of the Church Street Bridge, rehabilitation of the downtown core area, and a variety of transportation related infrastructure improvements. These are detailed in the Capital Reserve Detail section of this document.

Capital reserves are used to level out the property tax impact of capital activity such as equipment replacement, emergency repairs, or even larger infrastructure projects. All uses of capital reserves are approved by vote of the City Council, either through the operating budget process, or by Council vote on a separate resolution.

Parks and Recreation Department requests include a major project to renovate Carpenter Field, add a pool slide (formerly a splash pad) at Robin Hood Park swimming pool, and build a skate park.

A new project designed to address a series of smaller infrastructure and facilities improvements is included in the CIP for the first time. The funding requests totals \$350,000 over six years. A proposed project list is included with the project request.

Total Parks and Recreation CIP requests total \$2,415,000 or 5.26% of the General Fund CIP proposal over six years.

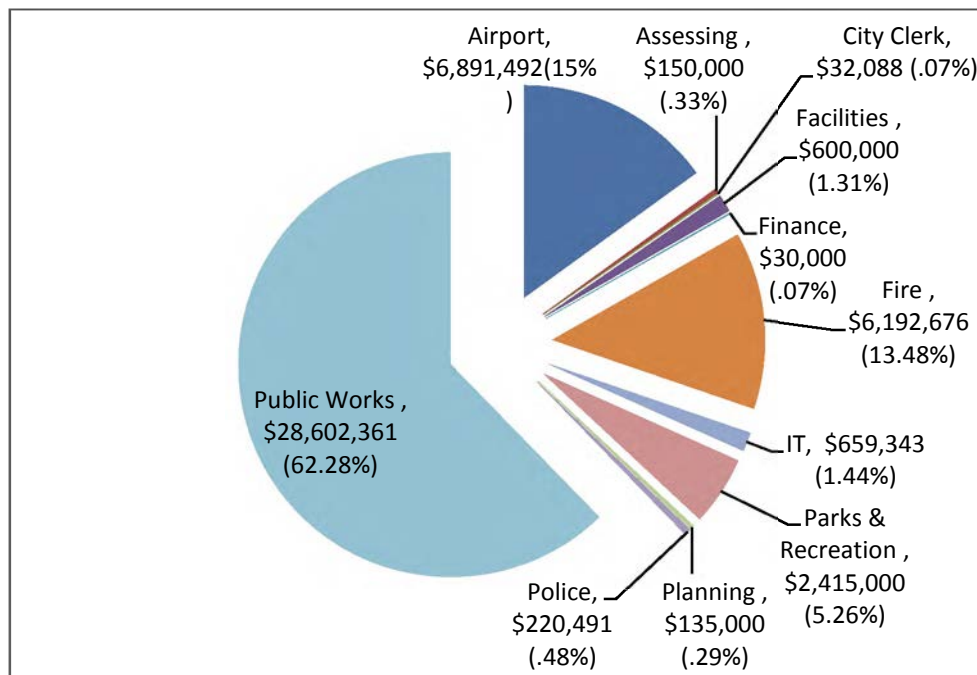
Miscellaneous Projects totalling \$3,400,000 are comprised of the 560 Main Street Landfill Remediation, Downtown Revitalization projects. The 560 Main Street project is expected to be funded through the sale of the property.

The balance of the General Fund proposed CIP includes project requests for ongoing municipal facility, communications, and technology systems, as well as smaller projects for community planning, financial management, and the replacement of voting booths.

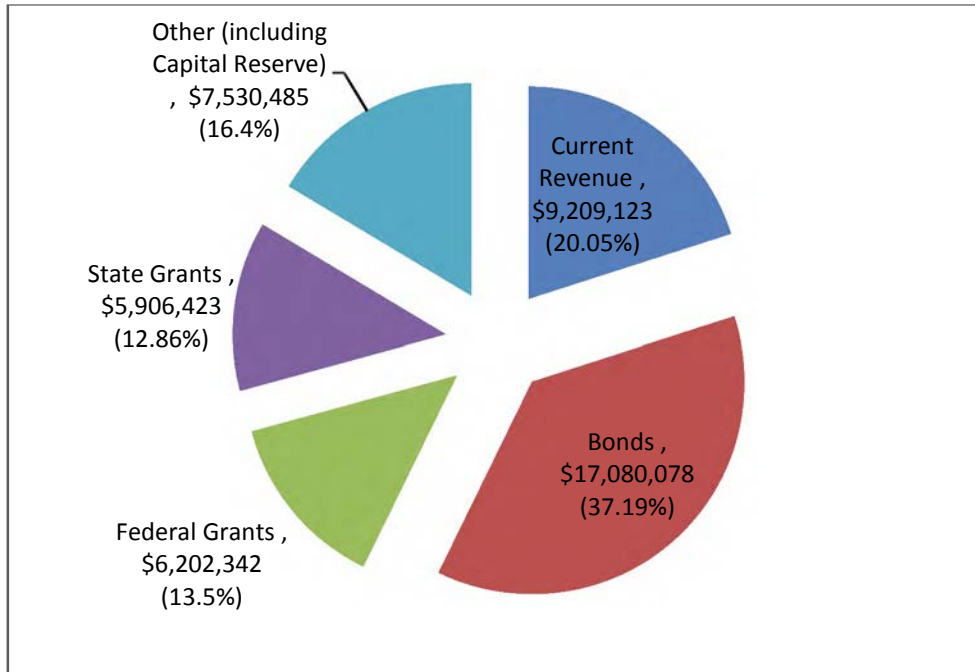
Additional General Fund Information

The following graphs highlight CIP project requests by department, and proposed funding sources:

General Fund Capital Improvements Program By Department



General Fund Capital Improvements Program Funding By Source



State and Federal grants totalling \$12,108,765, or 26.36% of total CIP funding will be used for airport projects, the state bypass projects, and a bridge replacement project.

WATER AND SEWER FUNDS

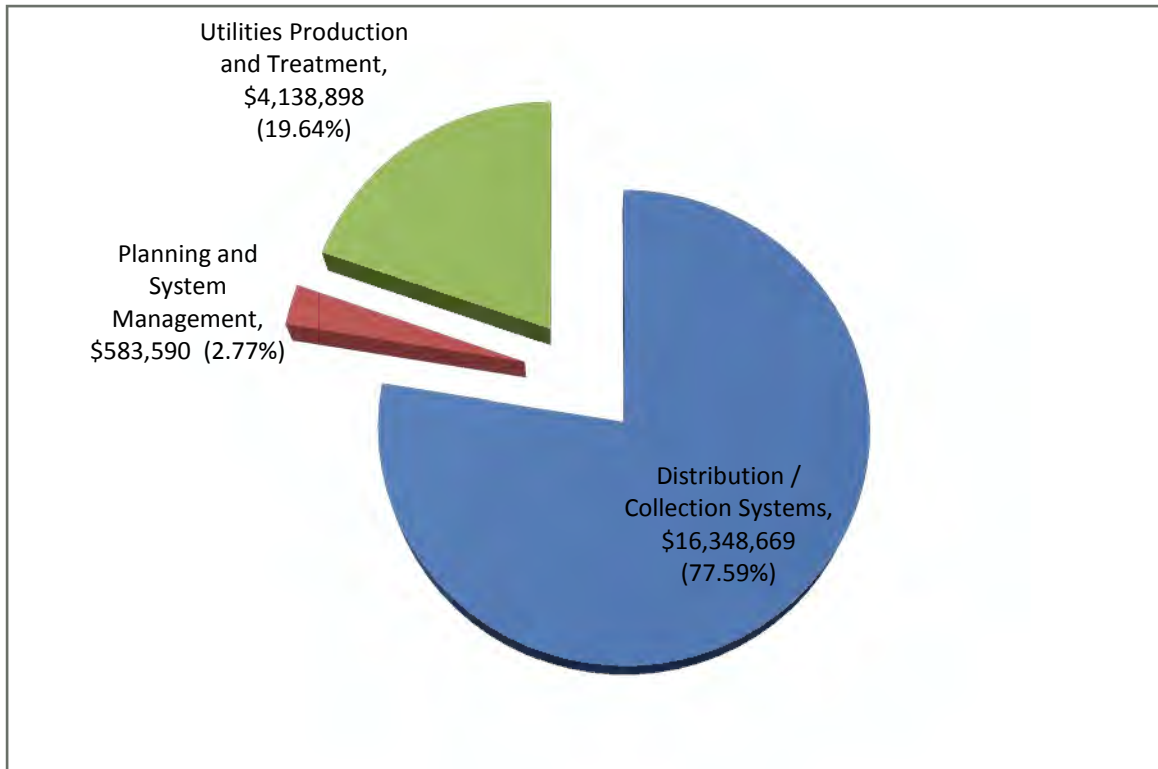
The Water and Sewer Funds combined CIP request totals approximately \$30,816,157 (35.27% of the proposed CIP). Of that, \$9,745,000, or 32.62% consists of appropriations to capital reserves. During the life of the proposed CIP, \$9,823,088 will be withdrawn from capital reserves to fund projects included in the proposed CIP.

The capital reserves are used to help manage and smooth the rate impacts of large capital outlays through setting aside funds over time to pay for those projects, and as noted in the General Fund discussion, all uses of capital reserves are approved by vote of the City Council, either through the operating budget process, or by Council vote on a separate resolution.

The balance of the Water and Sewer combined CIP (\$21,071,157) funds system improvements and equipment replacement as outlined in the proposed FY 2019-2024.

The following graphs and discussion provide consolidated information on major water and sewer utility projects by program, in terms of dollar value, and percent of the proposed program.

Proposed Water and Sewer Projects FY 2019 to 2024 by Program



Project Highlights By Activity and Fund

Water and Sewer Distribution and Collection Systems

Water and Sewer distribution and collection systems are a network of dams, reservoirs, wells, water tanks, pump and booster stations, and water and sewer mains (pipes) and related infrastructure. In the case of sewer, these systems collect and transport wastewater from throughout the City to the Wastewater Treatment Plant for treatment and disposal in a safe and environmentally healthy manner. In the case of water, these systems collect and transport water to the Water Treatment Facility (WTF) for treatment, and then transport clean and healthy drinking water throughout the City for use in homes and businesses.

Over six years, the combined project requests for the upgrades and maintenance of these systems totals \$16,348,669, with approximately \$8.05m requested for sewer system projects, and \$8.3m for water system projects.

A. Sewer System highlights

1. Sewer Main replacement, repair, and lining – the six year request for projects of this type total \$6.161m.
2. Martell Court Headworks – scheduled for FY 2019 at a cost of \$1,342,560, this project installs new equipment at the Martell Court Pump Station to remove solids (rags, plastic bags, sticks, silt, etc.) from wastewater before it is pumped to the Wastewater Treatment Plant. Project cost has been increased to include replacement of the pump station ventilation system to reduce corrosion.

3. Martell Court Pump Station improvements – a series of small projects including roof replacement and electrical systems upgrades at a cost of \$222,191.
4. Sewer manhole Lining – a new project to line failing manholes currently lined with brick at a cost of \$319,928 in FY 2023 and 2024.

B. Water System highlights

1. Water Main replacement, repair and lining – the six year request for projects of this nature total \$4.874m.
2. Water valve replacement – water valves provide the ability to stop or redirect water flows in the water distribution system. The requested six year funding is \$585,256.
3. Woodward Dam Improvements – reservoir dam rehabilitation \$1,585,976 This represents a cost increase of \$562,000 from the previous CIP to add safety features required due to the dams' designation as a high hazard dam.
4. System Upgrades - requested funding of \$1,256,857 for repairs and upgrades to booster stations, emergency generators, and the Drummer Hill, Chapman Road, and Black Brook water tanks.

Water and Sewer Production and Treatment Systems

Water production and treatment facilities include the Water Treatment Facility where water is treated for distribution to the public, and the nearby 1.5 and 3 million gallon (mg) water tanks. The sewer production and treatment facilities include the Wastewater Treatment Plant and related infrastructure and equipment, where wastewater is treated to remove bacteria, metals, and other pollutants providing for environmentally safe discharge into the Ashuelot River.

Over the life of the FY 2019-2024 CIP, these improvements total \$4,138,898, with \$678,901 requested for Wastewater Treatment Plant improvements, and \$3,459,997 for improvements to the Water Treatment Facility and water tanks.

A. Sewer System highlights

1. Equipment Replacement - blowers, emergency generator, and nonpotable water system. \$643,009
2. HVAC ductwork insulation replacement at the Wastewater Treatment Plant - \$35,892

B. Water System highlights

1. Water Tank replacement or repair - \$2,644,149
2. Filter Media replacement - \$610,088
3. Facilities and Equipment upgrades - pressure reduction valve, paving, and instrumentation - \$205,760

Water and Sewer Planning and System Management

Two planning projects are requested in the FY 2019-2024 CIP. The first project, with a requested budget of \$483,590 will evaluate the productivity and condition of the current well fields supplying water to the City's residents to determine whether current well fields should be rehabilitated, replaced, or supplemented with a new well field(s).

The second project is the Water Supply Master Plan, which will update a 25 year old plan guiding the management of the water system.

Additional Water and Sewer Fund Information

Total Water and Sewer project requests included in the FY 2019 – 2024 Proposed CIP are approximately \$3,818,000 more than those included in the FY 2018-2023 CIP. Two projects Dam Improvements and Headworks Treatment incorporate cost increases totalling \$764,000. New projects in FY 2019 through 2023 include Victoria Street water and sewer mains and Sewer Manhole Lining have a combined cost of \$714,000. Capital Reserve appropriations are \$295,000 greater in the proposed CIP. Finally, the costs of projects included in FY 2024 (the new year) of the proposed CIP are about \$2,067,000 greater than the total request in FY 2018.

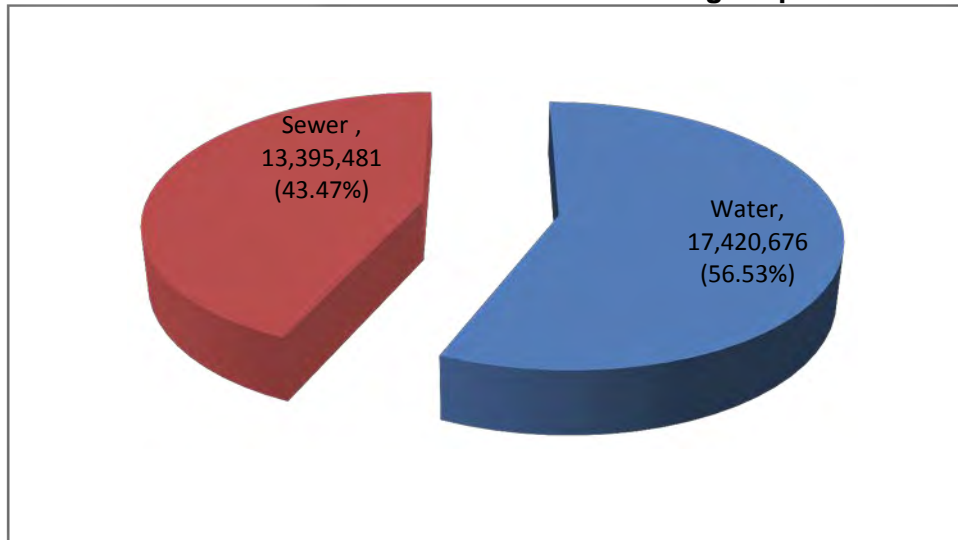
It is important to note that FY 2018 was a relatively small CIP year for the Water and Sewer Funds, as the following table demonstrates:

	<u>2015</u>	<u>2016</u>	<u>2017</u>	<u>2018</u>	<u>2024</u>
Sewer Fund	5,208,183	2,161,597	2,191,203	930,451	2,091,599
Water Fund	1,412,599	1,025,292	2,766,163	1,154,727	2,499,075
Total Projects	6,620,782	3,186,889	4,957,366	2,085,178	4,592,698
Less:					
Water Capital Reserve	(425,000)	(500,000)	(550,000)	(800,000)	(920,000)
Sewer Capital Reserve	(750,000)	700,000	(750,000)	(625,000)	(945,000)
Projects Funded	5,445,782	3,386,889	3,657,366	660,178	2,727,698
				Difference 2024 to 2018	2,067,520

While a casual glance might indicate a significant capital program increase, a closer look reveals that an outlier year sways the comparison in this case. Actual projects funded in FY 2024 are less than those funded in the years FY 2015 through FY 2016.

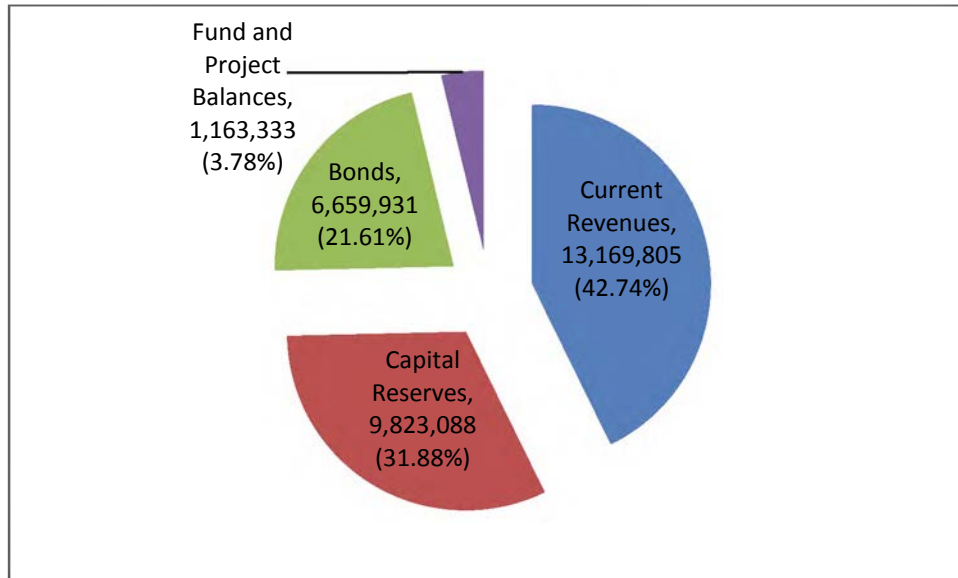
The following graph highlights the distribution of project requests between the Water and Sewer Funds in the FY 2019 through FY 2024 Proposed CIP:

Allocation of Water and Sewer CIP Funding Requests



The following graph provides information on the proposed funding of the Water and Sewer Funds FY 2019-2024 CIP:

Proposed Funding – FY 2019-2024 Water and Sewer Funds CIP



OTHER FUNDS

Equipment Fund activity represents 9.64% of the program, and its' purpose is to fund the replacement of worn out vehicles and accessories (police cars, dump trucks, sidewalk plows, staff vehicles, etc.). The proposed CIP also includes projects to replace the equipment wash bay, reroof the shop building, and replace the fuel island. Funding for the Equipment Fund is predominantly derived from user fees charged to other departments.

The Parking Fund and Solid Waste Funds represent 2.52% of the proposed CIP. Projects in these funds relate primarily to maintenance and improvement of facilities and the replacement of Parking and Solid waste infrastructure and equipment.

Discussion - Projected Impact on Property Taxes and User Fees

In addition to identifying capital projects needed to maintain or advance the community, determining the appropriate project scope and estimated project capital and operating costs, and identifying a method of paying for the project, the impact of the proposed CIP on property tax, and fee and rate payers are estimated and included in the CIP.

Each of the major funds has a primary funding source:

<u>Fund</u>	<u>Primary Revenue</u>	<u>Fund</u>	<u>Primary Revenue</u>
General Fund	Property Tax	Parking Fund	Meter Fees / Reserved Space Rents
Water Fund	Water User Fees	Solid Waste Fund	Landfill Tip Fee
Sewer Fund	Sewer User Fees	Equipment Fund	Fleet Rental Rates - internal charges

In order to project the impact of the proposed CIP on the budgets of future years, the annual direct costs of the proposed CIP are added to existing debt service obligations, and projections of operating costs such as payroll, utilities, supplies, and so on.

The current CIP includes operating budget projection factors ranging from 1.3% to 2.5%, depending on fund and department. Operating budget projection assumptions are reviewed and adjusted annually during CIP and operating budget development based upon historical trends, new information, Council and management initiatives, and results of operations.

Revenues other than the primary revenues for each fund are also reviewed and adjusted annually in the context of historical trends, new information, Council and management initiatives, and results of operations. Current non-primary revenue projection assumptions range from an annual growth rate of 0% to 1.8%. These revenues are also projected over the life of the CIP, and form part of the funding picture in future years.

The primary revenue funding source for each fund typically funds the difference between expenditure need, and the amount of revenue projected to be generated by other revenues in each fund. The further refinement of budget projections for years included in the Capital Budget and Capital Plan will take place before the Operating Budget is presented in May 2018.

Projections are made for each fund (General Fund, Water Fund, Sewer Fund, Parking Fund, Solid Waste Fund, and Equipment Fund) for each of the six years included in the CIP, and include adjustments to property taxes, utility rates, and fees, which are detailed in the following table. In the General, Water, Sewer, and Equipment Funds, the primary revenue source is reviewed and adjusted each year in the context of the adopted capital and operations budgets.

The primary revenues source for the General, Water, Sewer, and Equipment Funds are reviewed and adjusted each year in the context of the capital and operating budgets adopted by the City Council. The Parking Fund primary revenue requirements are also reviewed each year in the context of the capital and operations budgets, and when necessary, revenue adjustments are brought to the City Council for review and adoption.

The following table details all property tax and utility rate increases included in the proposed FY 2019 – FY 2024 CIP that would be needed to balance annual General Fund, Water Fund, and Sewer Fund budgets based upon operating budget projections, current revenue requirements of the proposed CIP, and debt service on all existing debt and new debt proposed in the CIP.

Increases in Parking Fund revenue needed to balance annual budgets as projected in the proposed CIP are also included in the table. Staff is currently developing a series of changes in operating practices which will be proposed to the City Council in the spring of 2018. It is anticipated that some of the proposals, if adopted, would increase revenue without corresponding rate changes. As a result of this effort, rate changes in this document are presented as revenue changes rather than specific rate changes.

In the Fleet Fund, annual increases of 3.5% in internal charges from 2019 through 2022 are anticipated, followed by 2% increases in FY 2023 and 2024. Over the last several years, the annual rate increase has been in the 4% to 4.5% range.

A discussion of Solid Waste tip fees follows the table.

Revenue Assumptions FY 2019-2024 CIP

	<u>2019</u>	<u>2020</u>	<u>2021</u>	<u>2022</u>	<u>2023</u>	<u>2024</u>
General Fund - Property Taxes						
Dollar change	500,511	740,919	776,222	810,035	806,712	830,038
Percent change	2.00%	2.90%	2.95%	2.99%	2.90%	2.90%

	<u>2018</u>	<u>2019</u>	<u>2020</u>	<u>2021</u>	<u>2022</u>	<u>2023</u>
Water and Sewer - Combined Utility Bill (full year)						
Dollar change	39.72	46.44	45.36	45.36	20.52	27.80
Percent change	3.09%	3.51%	3.31%	3.20%	1.40%	1.88%
<i>Residential user, 27 hundred cubic feet consumption / quarter</i>						

	<u>2019</u>	<u>2020</u>	<u>2021</u>	<u>2022</u>	<u>2023</u>	<u>2024</u>
Parking Fund						
Downtown meter / hr	\$ 0.75			\$ 0.83		\$ 0.87
Dollar change	\$ 0.08			\$ 0.04		\$ 0.04
Percent change	10.00%			5.00%		5.00%
Surface lot meter / hr	\$ 0.30			\$ 0.33		\$ 0.35
Dollar change	\$ 0.03			\$ 0.02		\$ 0.02
Percent change	10.00%			5.00%		5.00%
Surface lot / quarter	\$ 130.00			\$ 143.00		\$ 150.15
Dollar change	\$ 13.00			\$ 7.15		\$ 7.51
Percent change	10.00%			5.00%		5.00%
Covered lot / quarter	\$ 155.00			\$ 170.50		\$ 179.03
Dollar change	\$ 15.50			\$ 8.53		\$ 8.95
Percent change	10.00%			5.00%		5.00%

The reflected rate changes are not proposed rates, but are presented to provide a sense of the magnitude and timing of rate changes as reflected in projected revenues and operating results.

	<u>2019</u>	<u>2020</u>	<u>2021</u>	<u>2022</u>	<u>2023</u>	<u>2024</u>
Equipment Fund - Internal Service Charges						
Dollar change	79,692	82,481	85,368	88,356	52,256	53,301
Percent change	3.50%	3.50%	3.50%	3.50%	2.00%	2.00%

	<u>2019</u>	<u>2020</u>	<u>2021</u>	<u>2022</u>	<u>2023</u>	<u>2024</u>
Solid Waste Fund - Tip Fee per ton						
Dollar change	3	3	3	3	3	3
Percent change in tip fee	2.42%	2.36%	2.31%	2.26%	2.21%	2.16%

Due to reduced out of town waste flow tonnage projections, and fluctuating transport and disposal costs (T&D) well as changing out of town tip fee rates, the % change in tip fee will not generate a net operating revenue increase that correlates with the change in fee per to. Projected revenues indicate a decrease in operating revenue due to various market changes at work locally and in the solid waste industry in general. The percent change in tip fee is based upon the blended tip fee rate, determined by the relative tonnages of different types of refuse delivered to the Transfer Station.

In the Solid Waste Fund, under Chapter 78, Section 5, tipping fees (the primary revenue) have been established by the Public Works Director administratively.

Sec. 78-5. - Tipping fees; permit fees.

Tipping fees will be set by the operator. Waste that requires a tipping fee and the applicable fee will be determined by the operator on a yearly basis and will be effective beginning July 1 of each year. Tipping fees must be paid at the time of disposal unless prior agreement has been made upon such terms and conditions established by the public works director. Permit fees for private contractors will be set by the public works director beginning July 1 of each year. Permit fees shall be paid within 30 days of invoice. Permit fees shall not be prorated. (Ord. No. O-2010-13, 7-1-2010)

The recent history of the tip fees is as follows:

1999-2000	\$98/ton for MSW & C & D
2001-2004 this time)	\$117/ton for MSW & C & D (Waste Management ran the City's Transfer Station during
2004-2007	\$90/ton for MSW & C & D (Waste Management brought no waste to City- used Peterborough Transfer Station)
2007-2010	\$110/ton for MSW, \$115/ton for C & D (Waste Management contracted to transport and dispose of MSW & C & D)
2010-2016	\$120/ton for MSW, \$125/ton for C & D (Waste Management contracted to transport and dispose of MSW & C & D)
2016-2017	\$121/ ton for MSW, \$126/ton for C & D (Waste Management contracted to transport and dispose of MSW & C & D)
2017-present	\$124/ ton for MSW, \$129/ton for C & D (Waste Management contracted to transport and dispose of MSW & C & D)

Recent and ongoing changes in the solid waste market / industry regionally and nationally are leading to an understanding that our current business model is becoming less sustainable in the long term. City staff will be reviewing and analyzing alternatives and / or adjustments to the current business model to establish a sustainable solid waste handling and disposal operation.

Discussion - Projected Impact on Outstanding Debt

Long term borrowing is used to finance projects that have a significant cost and are of a lasting nature. While projects are often bundled together into one annual sale in order to minimize bond issuance costs, the time over which the bonds are repaid (the term) varies based on the financed improvement's expected useful life. The City's past practice to issue bonds with a term that is significantly less than the project's useful life in order to speed the payoff and to reduce interest cost is viewed favorably when the City goes to market.

The following two tables illustrate the impact of the proposed CIP on outstanding debt:

	Debt Balance	Debt Balance	Net Change	Percent Change
	<u>6/30/2018</u>	<u>6/30/2024</u>	<u>in Outstanding Debt</u>	<u>in Outstanding Debt</u>
General Fund	26,415,927	22,008,817	(4,407,110)	-16.68%
Sewer Fund	9,887,640	4,170,684	(5,716,956)	-57.82%
Water Fund	1,459,585	3,965,869	2,506,284	171.71%
Solid Waste Fund	434,000	277,283	(156,717)	-36.11%
Parking Fund	3,185,000	795,000	(2,390,000)	-75.04%
Totals	41,382,152	31,217,653	(10,164,499)	-24.56%

	New Debt	Maple Ave Bridge	Debt Service*	Net Change
	<u>FY 2019-2024</u>	<u>R-2014-14**</u>	<u>FY 2019-2024</u>	<u>in Outstanding Debt</u>
General Fund	17,080,078	135,000	(21,622,188)	(4,407,110)
Sewer Fund	2,798,073		(8,515,029)	(5,716,956)
Water Fund	3,861,858		(1,355,574)	2,506,284
Solid Waste Fund	166,750		(323,467)	(156,717)
Parking Fund			(2,390,000)	(2,390,000)
Totals	23,906,759	135,000	(34,206,258)	(10,164,499)

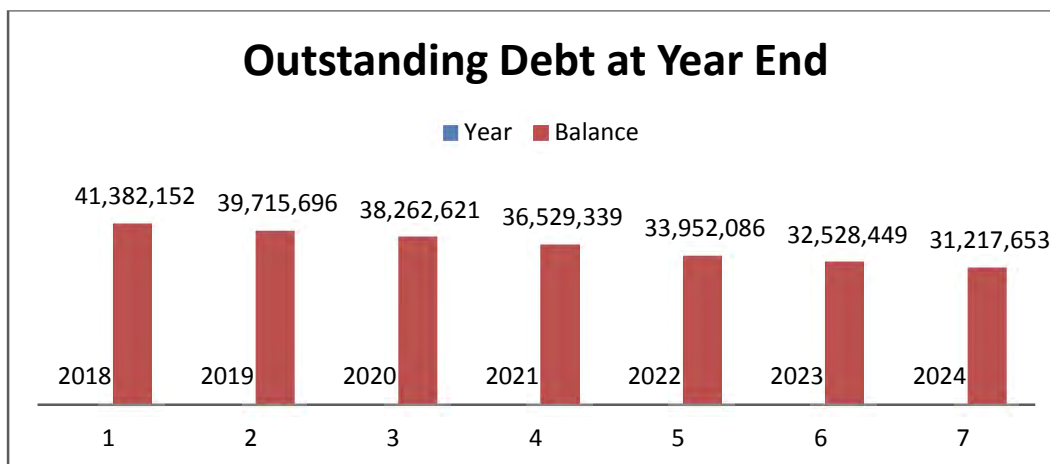
*Debt Service - Principal payments on outstanding debt

**Authorized in FY 2015, but unissued until needed to match state bridge funding.

As the above chart indicates, the proposed FY 2019-2024 CIP projects the issuance of \$23,906,759 in new bonded debt, and during that period, a previously authorized but unissued bond will be issued. Offsetting the newly issued debt would be projected debt service principal payments totaling \$34,206,258.

The projected impact on total outstanding debt from the end of FY 2018 through the end of FY 2024 would be a decrease of \$10,164,499 or 24.56%.

This graph highlights the decrease in outstanding debt based upon the proposed CIP:



A detailed presentation of proposed new debt included in the FY 2019-2024 CIP is presented in the table on the following page. Appendix D provides debt service schedules by year for each new bond issue included in the proposed CIP.

Of note in this presentation is that the Road Rehabilitation (repaving) largest single source of new bonded debt over the six year life of the CIP (\$8,404,726 or 35.16% of total new debt and 49.21% of General Fund new debt). The additional annual cash flow out due to funding this annually recurring project with debt every year is estimated to average about \$266,000 above and beyond the amount budgeted annually for Road Rehabilitation project work every year.

It is the recommendation of staff that the City Council consider, as funding permits and bearing in mind the impacts (both long and short term) on property tax payers, that this recurring project be slowly transitioned from debt as a funding source, to current revenue as a funding source.

Consolidated New Bond Schedule FY 2019 - 2024 Proposed Capital Improvement Program

Issue	Term	FY19	FY20	FY21	FY22	FY23	FY24
General Fund							
Road Rehabilitation / Paving	10	1,263,142	1,430,073	1,307,647	1,451,270	1,454,872	1,497,722
Flood Management	15		861,380		577,380		712,500
Beaver Brook Flood Mitigation	15						500,000
Lower Main Street Crosswalk	10					187,000	
Breathing Apparatus Replacement	7	847,676					847,676
Goose Pond Dam	20	879,400					
State Bypass Project	15	603,336	525,680				
Carpenter Field	20			1,500,000			
Victoria Street Extension	20				1,481,000		
General Fund Totals		2,745,878	2,817,133	2,807,647	3,509,650	1,641,872	3,557,898
Solid Waste Fund							
Transfer Station Roof Repair	15		166,750				
Sewer Fund							
Martell Court Headworks Replacement	15	1,342,560					
Colony Court -Bloomer Swamp Main	15			1,455,513			
Water Fund							
Woodward Pond Dam	20	1,585,976	1,585,976				
3 MG Water Tank Replacement / Repair	20	2,275,882				2,275,882	
Proposed Bond Issues FY 2019-2024		\$4,088,438	\$4,569,859	\$4,263,160	\$3,509,650	\$3,917,754	\$3,557,898

**CITY OF KEENE, NEW HAMPSHIRE
CAPITAL IMPROVEMENT PROGRAM FY19 - FY24
General Fund Multi-Year Projections**

	ACTUAL FY 16/17	BUDGET FY 17/18	PROJECTED FY 18/19	PROJECTED FY 19/20	PROJECTED FY 20/21	PROJECTED FY 21/22	PROJECTED FY 22/23	PROJECTED FY 23/24
REVENUES								
Property Tax	\$24,742,331	\$25,029,599	\$25,530,110	\$26,271,029	\$27,047,251	\$27,857,286	\$28,663,998	\$29,494,036
Other Local Taxes	454,648	446,900	449,135	451,380	453,637	455,905	458,185	460,476
Tax Increment Financing	66,109	463,270	401,114	850,666	852,099	852,821	858,759	862,855
Licenses, Permits & Fees	3,775,470	3,497,362	3,532,337	3,567,660	3,603,337	3,639,370	3,675,764	3,712,521
Intergovernmental	2,655,476	2,710,628	2,724,181	2,737,802	2,751,491	2,765,249	2,779,075	2,792,970
Charges for Services	1,854,651	1,759,402	1,790,543	1,822,236	1,854,490	1,887,314	1,920,720	1,954,716
Fines & Forfeits	85,640	86,746	87,613	88,490	89,374	90,268	91,171	92,083
Miscellaneous	1,656,158	1,322,533	1,319,096	1,325,691	1,332,320	1,338,981	1,345,676	1,352,404
Other Financing Sources (net capital financing- not current)	2,199,999	3,053,221	2,463,611	2,686,874	2,155,615	2,179,327	2,203,300	2,227,536
Noncurrent revenue sources to fund capital		(745,784)						
Use of Fund Balance		1,168,000	777,000	850,000	870,000	994,000	875,000	400,000
Use of Fund Balance - appropriations carried forward		436,301	0	0	0	0	0	0
SUBTOTAL - current revenues	\$37,490,483	\$39,228,178	\$39,074,740	\$40,651,928	\$41,009,614	\$42,060,521	\$42,871,648	\$43,349,597
Sale of Bonds	\$3,638,000	2,757,500	\$2,745,878	\$2,817,133	\$2,807,647	\$3,509,650	\$1,641,872	\$3,557,898
TOTAL REVENUES & OTHER FIN SOURCES	\$41,128,483	\$41,985,678	\$41,820,618	\$43,468,961	\$43,817,261	\$45,570,171	\$44,513,520	\$46,907,495
EXPENDITURES								
ELECTED/APPOINTED OFFICIALS:								
Mayor & City Council	\$159,500	\$163,554	\$146,049	\$148,458	\$150,908	\$153,398	\$155,929	\$158,502
City Manager	289,974	294,572	299,432	304,373	309,395	314,500	319,690	324,964
City Clerk & Elections	561,099	580,850	583,044	592,664	602,443	612,384	622,488	632,759
City Attorney	305,711	338,813	344,403	350,086	356,862	361,734	367,703	373,770
Outside Agencies	253,000	255,500	255,500	255,500	255,500	255,500	255,500	255,500
Unclassified	66,833	75,091	76,330	77,589	78,870	80,171	81,494	82,838
Employee Benefits	690,076	777,721	781,458	989,273	872,916	1,082,518	1,098,755	1,310,842
Risk Management	295,399	295,466	300,341	305,297	310,334	315,455	320,660	325,951
Total Elected/Appointed Officials	\$2,621,593	\$2,781,567	\$2,786,557	\$3,023,240	\$2,936,228	\$3,175,660	\$3,222,219	\$3,465,126
ADMINISTRATIVE SERVICES:								
Assessment	\$437,566	\$473,717	\$479,315	\$488,902	\$498,680	\$508,653	\$518,826	\$529,203
Finance	1,511,335	1,590,354	1,602,903	1,634,962	1,667,661	1,701,014	1,735,034	1,769,735
Human Resources	297,389	351,847	349,001	355,981	363,100	370,362	377,770	385,325
Information Technology	1,186,863	1,309,960	1,263,500	1,288,769	1,314,545	1,340,836	1,367,652	1,395,006
Total Administrative Services	\$3,433,153	\$3,725,878	\$3,694,719	\$3,768,614	\$3,843,986	\$3,920,865	\$3,999,282	\$4,079,269
COMMUNITY SERVICES:								
Fire & Ambulance	\$6,427,769	\$6,610,885	\$6,772,907	\$6,942,230	\$7,115,785	\$7,293,680	\$7,476,022	\$7,662,922
Human Services	702,670	721,521	739,559	758,048	776,999	796,424	816,335	836,743
Library	1,357,082	1,396,121	1,431,722	1,468,231	1,505,671	1,544,065	1,583,439	1,623,817
Parks, Recreation & Facilities	2,812,031	3,134,775	3,187,697	3,591,316	3,678,488	3,842,839	3,934,424	4,028,299
Police	6,821,337	7,421,470	7,592,619	7,782,434	7,976,995	8,176,420	8,380,831	8,590,351
Youth Services	114,903	127,566	126,816	129,987	133,236	136,567	139,981	143,481
Total Community Services	\$18,235,791	\$19,412,338	\$19,851,320	\$20,672,246	\$21,187,174	\$21,789,995	\$22,331,032	\$22,885,613

**CITY OF KEENE, NEW HAMPSHIRE
CAPITAL IMPROVEMENT PROGRAM FY19 - FY24
General Fund Multi-Year Projections**

	ACTUAL FY 16/17	BUDGET FY 17/18	PROJECTED FY 18/19	PROJECTED FY 19/20	PROJECTED FY 20/21	PROJECTED FY 21/22	PROJECTED FY 22/23	PROJECTED FY 23/24
MUNICIPAL DEVELOPMENT SERVICES:								
Airport	\$614,614	\$620,907	\$635,188	\$649,797	\$664,743	\$680,032	\$695,672	\$711,673
Health & Code Enforcement	844,551	1,118,273	1,057,948	1,082,281	1,107,173	1,132,638	1,158,689	1,185,338
Planning	503,593	585,783	617,238	631,434	645,957	660,814	676,013	691,561
Public Works	4,132,353	4,528,995	4,393,955	4,495,016	4,598,402	4,704,165	4,812,361	4,923,045
Total Mun. Development Services	\$6,095,110	\$6,853,957	\$6,704,329	\$6,858,528	\$7,016,275	\$7,177,649	\$7,342,735	\$7,511,617
CAPITAL:								
Debt Service (including repayment of interfund loan)	4,504,973	4,897,288	4,532,937	4,844,299	4,575,527	4,555,583	4,243,809	3,812,393
CAPITAL PROJECTS (funded by current revenues)	1,704,124	1,557,149	1,504,878	1,484,901	1,450,424	1,440,769	1,732,571	1,595,580
Total Capital	\$6,209,097	\$6,454,437	\$6,037,815	\$6,329,200	\$6,025,951	\$5,996,352	\$5,976,380	\$5,407,973
SUBTOTAL - current expenditures	\$36,594,745	\$39,228,178	\$39,074,740	\$40,651,828	\$41,009,614	\$42,060,521	\$42,871,648	\$43,349,598
CAPITAL PROJECTS (funded by bonds)	\$3,638,124	\$2,757,500	\$2,745,878	\$2,817,133	\$2,807,647	\$3,509,650	\$1,641,872	\$3,557,898
TOTAL EXPENDITURES	\$40,232,869	\$41,985,678	\$41,820,618	\$43,468,961	\$43,817,261	\$45,570,171	\$44,513,520	\$46,907,496
CITY PROPERTY TAX REVENUE INCREASE			\$ 500,511	\$ 740,919	\$ 776,222	\$ 810,035	\$ 806,712	\$ 830,038
CITY PROPERTY TAX REVENUE INCREASE (%)			2.00%	2.90%	2.95%	2.99%	2.90%	2.90%
Assessments (funded 0% per year)								
ADD: Overlay		1,796,036.3	1,796,036.3	1,796,036.3	1,796,036.3	1,796,036.3	1,796,036.3	1,796,036.3
ADD: War Service Credits		\$3,599	\$300,000	\$300,000	\$300,000	\$300,000	\$300,000	\$300,000
Property Tax Rate - City share		\$228,700	\$235,000	\$235,000	\$235,000	\$235,000	\$235,000	\$235,000
city tax rate increase (decrease)		\$14.06	\$14.51	\$14.93	\$15.36	\$15.81	\$16.26	\$16.72
			3.20%	2.89%	2.88%	2.93%	2.85%	2.83%
CAPITAL (current) & DEBT AS % OF BUDGET		16.40%	15.40%	15.50%	14.60%	14.20%	13.90%	12.40%
GENERAL FUND INCREASE (EXcluding bonds)			-0.4%	4.0%	0.9%	2.6%	1.9%	1.1%
GENERAL FUND INCREASE (Including bonds)			-0.4%	3.9%	0.8%	4.0%	-2.3%	5.4%

Noncurrent Revenue Sources Used to Fund Capital FY 2016-2017
 Capital Reserves 184,000
 Project Balances - various 551,784
 Donations - Recreation Center Feasibility Study 10,000

Total : Excluded from Budget to Emphasize Current Revenue Impact 745,784 Capital Expenditure

FY 20 increase reflective of a \$311,000 increase in debt service and the first of seven years of property tax and operating lease costs (funded through the Wells St TIFD) for the Library Campus Development Project New Markets Tax Credit funding (estimated increase of \$483,153).

CITY OF KEENE, NEW HAMPSHIRE

General Fund 2019 - 2024 Capital Improvement Program Summary

Dept.	Project Name	2018/2019	2019/2020	2020/2021	2021/2022	2022/2023	2023/2024	TOTAL
Airport	Beacon Replacement	-	-	-	-	500,000	-	500,000
Airport	Pavement Maintenance & Marking	166,736	-	66,600	48,600	54,000	-	335,936
Airport	Perimeter Fence	-	-	1,350,000	-	-	-	1,350,000
Airport	Runway 20 PAPI Replacement	-	-	-	-	60,000	-	60,000
Airport	Snow Removal Equipment	-	-	-	555,556	-	-	555,556
Airport	Taxiway A Relocation	390,000	2,400,000	-	-	-	-	2,790,000
Airport	Terminal Apron Expansion	-	-	-	1,300,000	-	-	1,300,000
	TOTAL AIRPORT	\$ 556,736	\$ 2,400,000	\$ 1,416,600	\$ 1,904,156	\$ 614,000	\$ -	\$ 6,891,492
Assessing	Revaluation	-	-	75,000	75,000	-	-	150,000
	TOTAL ASSESSING	\$ -	\$ -	\$ 75,000	\$ 75,000	\$ -	\$ -	\$ 150,000
City Clerk	Voting Booths	-	32,088	-	-	-	-	32,088
	TOTAL CITY CLERK	\$ -	\$ 32,088	\$ -	\$ -	\$ -	\$ -	\$ 32,088
Facilities	Municipal Buildings Improvements	100,000	100,000	100,000	100,000	100,000	100,000	600,000
	TOTAL FACILITIES	\$ 100,000	\$ 100,000	\$ 100,000	\$ 100,000	\$ 100,000	\$ 100,000	\$ 600,000
Finance	Business / Financial Software	-	-	-	-	30,000	-	30,000
	TOTAL FINANCE	\$ -	\$ -	\$ -	\$ -	\$ 30,000	\$ -	\$ 30,000
Fire	Ambulance Replacement	240,000	-	-	260,000	-	-	500,000
Fire	Apparatus Replacement	-	1,100,000	45,000	725,000	105,000	-	1,975,000
Fire	Breathing Apparatus	-	-	-	-	-	847,676	847,676
Fire	Capital Reserve Ambulance Replacement	35,000	80,000	90,000	90,000	90,000	90,000	475,000
Fire	Capital Reserve Apparatus Replacement	400,000	400,000	385,000	385,000	350,000	350,000	2,270,000
Fire	Portable Radio Replacement	52,500	52,500	-	-	-	-	105,000
Fire	West Keene Fire Station Study	20,000	-	-	-	-	-	20,000
	TOTAL FIRE	\$ 747,500	\$ 1,632,500	\$ 520,000	\$ 1,460,000	\$ 545,000	\$ 1,287,676	\$ 6,192,676
IT	Database Software	-	-	-	-	80,000	-	80,000
IT	Network Equipment Replacement	40,500	5,000	31,000	6,500	30,000	-	113,000
IT	Server Replacement	54,343	30,000	-	12,000	12,000	-	108,343
IT	Storage Area Network	105,000	-	-	-	-	105,000	210,000
IT	Telephone System Replacement	-	-	-	-	148,000	-	148,000
	TOTAL IT	\$ 199,843	\$ 35,000	\$ 31,000	\$ 18,500	\$ 270,000	\$ 105,000	\$ 659,343
Parks & Rec.	Carpenter Field Improvements	-	-	1,500,000	-	-	-	1,500,000
Parks & Rec.	Parks Improvements	90,000	50,000	50,000	50,000	75,000	75,000	390,000
Parks & Rec.	Robin Hood Park Swimming Pool Imp.	25,000	-	-	-	-	-	25,000
Parks & Rec.	Skate Park	-	500,000	-	-	-	-	500,000
	TOTAL PARKS & RECREATION	\$ 115,000	\$ 550,000	\$ 1,550,000	\$ 50,000	\$ 75,000	\$ 75,000	\$ 2,415,000
Planning	Master Plan Update	-	-	-	-	30,000	30,000	60,000
Planning	5-Year Aerial Image Update	-	-	-	-	-	75,000	75,000
	TOTAL PLANNING	\$ -	\$ -	\$ -	\$ -	\$ 30,000	\$ 105,000	\$ 135,000
Police	Mobile Radio Replacement	\$ 73,497	73,497	73,497	-	-	-	220,491
	TOTAL POLICE	\$ 73,497	\$ 73,497	\$ 73,497	\$ -	\$ -	\$ -	\$ 220,491
Public Works	Capital Reserve- Downtown Infrastructure	200,000	200,000	200,000	200,000	200,000	200,000	1,200,000
Public Works	Capital Reserve- Transportation Imp.	100,000	100,000	100,000	100,000	100,000	100,000	600,000
Public Works	560 Main Street Assessment	1,000,000	-	-	-	-	-	1,000,000
Public Works	Beaver Brook Flood Mitigation	-	-	-	-	-	500,000	500,000
Public Works	Bridge Program	-	-	-	782,651	-	-	782,651
Public Works	Curb Installation	63,571	65,478	68,752	70,815	72,939	75,128	416,683
Public Works	Downtown Rehabilitation	-	150,000	100,000	500,000	550,000	1,100,000	2,400,000
Public Works	Flood Management	-	861,380	-	577,380	-	712,500	2,151,260
Public Works	Goose Pond Dam Improvements	879,400	-	-	-	-	-	879,400
Public Works	Guardrail Replacement	77,506	44,024	-	-	-	-	121,530
Public Works	Main Street Crosswalk Improvements	-	-	-	-	187,000	-	187,000
Public Works	Marlboro Street Corridor Improvements	171,017	-	-	-	-	-	171,017
Public Works	Road Rehabilitation	1,263,142	1,430,073	1,307,647	1,451,270	1,454,872	1,497,722	8,404,726
Public Works	Sidewalks - New	-	-	-	-	-	-	-
Public Works	Sidewalks - Replacement/Repair	63,571	65,478	68,752	70,815	72,939	75,128	416,683
Public Works	State By-Pass Projects	3,016,680	2,628,399	-	343,801	-	180,779	6,169,659
Public Works	Storm Drainage Cleaning	64,890	66,836	68,841	70,907	73,034	75,225	419,733
Public Works	Storm Drainpipe Lining	-	-	-	-	120,000	123,600	243,600
Public Works	Stormwater Drainage Spot Repair Program	63,571	65,478	68,752	70,815	72,939	75,128	416,683
Public Works	Stormwater System Management	40,000	41,200	42,436	43,709	45,020	46,371	258,736
Public Works	Traffic Signal Replacement	-	-	-	-	-	160,000	160,000
Public Works	Victoria Street Extension	-	-	-	1,703,000	-	-	1,703,000
	TOTAL PUBLIC WORKS	\$ 7,003,348	\$ 5,718,346	\$ 2,025,180	\$ 5,985,163	\$ 2,948,743	\$ 4,921,581	\$ 28,602,361
GRAND TOTAL - ALL GENERAL FUND PROJECTS		\$ 8,795,924	\$ 10,541,431	\$ 5,791,277	\$ 9,592,819	\$ 4,612,743	\$ 6,594,257	\$ 45,928,451

General Fund 2019 Capital Improvement Program Detail

Dept.	Project Name	cur rev	bonds	federal	state	other	2018/2019
Airport	Pavement Maintenance & Marking			150,062	8,337	8,337	166,736
Airport	Taxiway A Relocation	19,500		351,000	19,500		390,000
Facilities	Municipal Buildings Improvements	100,000					100,000
Fire	Ambulance Replacement					240,000	240,000
Fire	Capital Reserve Ambulance Replacement	35,000					35,000
Fire	Capital Reserve Apparatus Replacement	400,000					400,000
Fire	Portable Radio Replacement	52,500					52,500
Fire	West Keene Fire Station Study	20,000					20,000
IT	Network Equipment Replacement	40,500					40,500
IT	Server Replacement	54,343					54,343
IT	Storage Area Network	65,000				40,000	105,000
Parks & Rec.	Parks Improvements	50,000				40,000	90,000
Parks & Rec.	Robin Hood Park Swimming Pool Imp.	25,000					25,000
Police	Mobile Radio Replacement	73,497					73,497
Public Works	560 Main Street Assessment					1,000,000	1,000,000
Public Works	Capital Reserve - Downtown Infrastructure	200,000					200,000
Public Works	Capital Reserve - Transportation Imp.	100,000					100,000
Public Works	Curb Installation	63,571					63,571
Public Works	Goose Pond Dam Improvements		879,400				879,400
Public Works	Guardrail Replacement	77,506					77,506
Public Works	Marlboro St Corridor Improvements					171,017	171,017
Public Works	Road Rehabilitation		1,263,142				1,263,142
Public Works	Sidewalks - Replacement/Repair	63,571					63,571
Public Works	State By-Pass Projects		603,336		2,413,344		3,016,680
Public Works	Storm Drainage Cleaning	64,890					64,890
Public Works	Stormwater Drainage Spot Repair Program					63,571	63,571
Public Works	Stormwater System Management	-				40,000	40,000
GRAND TOTAL - ALL GENERAL FUND PROJECTS		\$ 1,504,878	\$ 2,745,878	\$ 501,062	\$ 2,441,181	\$ 1,602,925	\$ 8,795,924

General Fund 2020 Capital Improvement Program Detail

Dept.	Project Name	cur rev	bonds	federal	state	other	2019/2020
Airport	Taxiway A Relocation	120,000		2,160,000	120,000		2,400,000
City Clerk	Voting Booths	32,088					32,088
Facilities	Municipal Buildings Improvements	100,000					100,000
Fire	Capital Reserve Ambulance Replacement	80,000					80,000
Fire	Capital Reserve Apparatus Replacement	400,000					400,000
Fire	Ladder 1 Replacement					1,100,000	1,100,000
Fire	Portable Radio Replacement	52,500					52,500
IT	Network Equipment Replacement	5,000					5,000
IT	Server Replacement	30,000					30,000
Parks & Rec	Parks Improvements	50,000					50,000
Parks & Rec.	Skate Park					500,000	500,000
Police	Mobile Radio Replacement	73,497					73,497
Public Works	Capital Reserve - Downtown Infrastructure	200,000					200,000
Public Works	Capital Reserve - Transportation Imp.	100,000					100,000
Public Works	Curb Installation	65,478					65,478
Public Works	Downtown Revitalization Study					150,000	150,000
Public Works	Flood Management		861,380				861,380
Public Works	Guardrail Replacement	44,024					44,024
Public Works	Road Rehabilitation		1,430,073				1,430,073
Public Works	Sidewalks - Replacement/Repair	65,478					65,478
Public Works	State By-Pass Projects		525,680		2,102,719		2,628,399
Public Works	Storm Drainage Cleaning	66,836					66,836
Public Works	Stormwater Drainage Spot Repair Program					65,478	65,478
Public Works	Stormwater System Management					41,200	41,200
GRAND TOTAL - ALL GENERAL FUND PROJECTS		\$ 1,484,901	\$ 2,817,133	\$ 2,160,000	\$ 2,222,719	\$ 1,856,678	\$ 10,541,431

General Fund 2021 Capital Improvement Program Detail

Dept.	Project Name	cur rev	bonds	federal	state	other	2020/2021
Airport	Pavement Maintenance & Marking	3,330		59,940	3,330		66,600
Airport	Perimeter Fence	67,500		1,215,000	67,500		1,350,000
Assessing	Revaluation	75,000					75,000
Facilities	Municipal Buildings Improvements	100,000					100,000
Fire	Apparatus Replacement					45,000	45,000
Fire	Capital Reserve Ambulance Replacement	90,000					90,000
Fire	Capital Reserve Apparatus Replacement	385,000					385,000
IT	Network Equipment Replacement	31,000					31,000
Parks & Rec	Parks Improvements	50,000					50,000
Parks & Rec.	Carpenter Field Improvements		1,500,000				1,500,000
Police	Mobile Radio Replacement	73,497					73,497
Public Works	Capital Reserve - Downtown Infrastructure	200,000					200,000
Public Works	Capital Reserve - Transportation Imp.	100,000					100,000
Public Works	Curb Installation	68,752					68,752
Public Works	Downtown Revitalization					100,000	100,000
Public Works	Road Rehabilitation		1,307,647				1,307,647
Public Works	Sidewalks - Replacement/Repair	68,752					68,752
Public Works	Storm Drainage Cleaning	68,841					68,841
Public Works	Stormwater Drainage Spot Repair Program	68,752					68,752
Public Works	Stormwater System Management					42,436	42,436
GRAND TOTAL - ALL GENERAL FUND PROJECTS		\$ 1,450,424	\$ 2,807,647	\$ 1,274,940	\$ 70,830	\$ 187,436	\$ 5,791,277

General Fund 2022 Capital Improvement Program Detail

Dept.	Project Name	cur rev	bonds	federal	state	other	2021/2022
Airport	Pavement Maintenance & Marking	2,430		43,740	2,430		48,600
Airport	Snow Removal Equipment	27,778		500,000	27,778		555,556
Airport	Terminal Apron Expansion	65,000		1,170,000	65,000		1,300,000
Assessing	Revaluation	75,000					75,000
Facilities	Municipal Buildings Improvements	100,000					100,000
Fire	Ambulance Replacement					260,000	260,000
Fire	Apparatus Replacement					725,000	725,000
Fire	Capital Reserve Ambulance Replacement	90,000					90,000
Fire	Capital Reserve Apparatus Replacement	385,000					385,000
IT	Network Equipment Replacement	6,500					6,500
IT	Server Replacement	12,000					12,000
Parks & Rec	Parks Improvements	50,000					50,000
Public Works	Bridge Program - George St over Beaver				626,121	156,530	782,651
Public Works	Capital Reserve - Downtown Infrastructure	200,000					200,000
Public Works	Capital Reserve - Transportation Imp.	100,000					100,000
Public Works	Curb Installation	70,815					70,815
Public Works	Downtown Revitalization					500,000	500,000
Public Works	Flood Management		577,380				577,380
Public Works	Road Rehabilitation		1,451,270				1,451,270
Public Works	Sidewalks - Replacement/Repair	70,815					70,815
Public Works	State By-Pass Projects				275,041	68,760	343,801
Public Works	Storm Drainage Cleaning	70,907					70,907
Public Works	Stormwater Drainage Spot Repair Program	70,815					70,815
Public Works	Stormwater System Management	43,709					43,709
Public Works	Victoria St. Extension		1,481,000			222,000	1,703,000
GRAND TOTAL - ALL GENERAL FUND PROJECTS		\$ 1,440,769	\$ 3,509,650	\$ 1,713,740	\$ 996,370	\$ 1,932,290	\$ 9,592,819

General Fund 2023 Capital Improvement Program Detail

Dept.	Project Name	cur rev	bonds	federal	state	other	2022/2023
Airport	Beacon Replacement	25,000		450,000	25,000		500,000
Airport	Pavement Maintenance & Marking	2,700		48,600	2,700		54,000
Airport	Runway 20 PAPI Replacement	3,000		54,000	3,000		60,000
Facilities	Municipal Buildings Improvements	100,000					100,000
Finance	Business / Financial Software	30,000					30,000
Fire	Apparatus Replacement					105,000	105,000
Fire	Capital Reserve Ambulance Replacement	90,000					90,000
Fire	Capital Reserve Apparatus Replacement	350,000					350,000
IT	Database Software	80,000					80,000
IT	Network Equipment Replacement	30,000					30,000
IT	Server Replacement	12,000					12,000
IT	Telephone System Replacement	148,000					148,000
Parks & Rec	Parks Improvements	75,000					75,000
Planning	Master Plan Update	30,000					30,000
Public Works	Capital Reserve - Downtown Infrastructure	200,000					200,000
Public Works	Capital Reserve - Transportation Imp.	100,000					100,000
Public Works	Curb Installation	72,939					72,939
Public Works	Downtown Revitalization					550,000	550,000
Public Works	Main Street Crosswalk Improvements		187,000				187,000
Public Works	Road Rehabilitation		1,454,872				1,454,872
Public Works	Sidewalks - Replacement/Repair	72,939					72,939
Public Works	Storm Drainage Cleaning	73,034					73,034
Public Works	Storm Drainpipe Lining	120,000					120,000
Public Works	Stormwater Drainage Spot Repair Program	72,939					72,939
Public Works	Stormwater System Management	45,020					45,020
GRAND TOTAL - ALL GENERAL FUND PROJECTS		\$ 1,732,571	\$ 1,641,872	\$ 552,600	\$ 30,700	\$ 655,000	\$ 4,612,743

General Fund 2024 Capital Improvement Program Detail

Dept.	Project Name	cur rev	bonds	federal	state	other	2023/2024
Facilities	Municipal Buildings Improvements	100,000					100,000
Fire	Breathing Apparatus Replacement		847,676				847,676
Fire	Capital Reserve Ambulance Replacement	90,000					90,000
Fire	Capital Reserve Apparatus Replacement	350,000					350,000
IT	Server Replacement						-
IT	Storage Area Network	105,000					105,000
Parks & Rec	Parks Improvements	75,000					75,000
Planning	5-Year Aerial Image Update	75,000					75,000
Planning	Master Plan Update	30,000					30,000
Public Works	Beaver Brook Flood Mitigation		500,000				500,000
Public Works	Capital Reserve - Downtown Infrastructure	200,000					200,000
Public Works	Capital Reserve - Transportation Imp.	100,000					100,000
Public Works	Curb Installation	75,128					75,128
Public Works	Downtown Revitalization					1,100,000	1,100,000
Public Works	Flood Management		712,500				712,500
Public Works	Road Rehabilitation		1,497,722				1,497,722
Public Works	Sidewalks - Replacement/Repair	75,128					75,128
Public Works	State By-Pass Projects				144,623	36,156	180,779
Public Works	Storm Drainage Cleaning	75,225					75,225
Public Works	Storm Drainpipe Lining	123,600					123,600
Public Works	Stormwater Drainage Spot Repair Program	75,128					75,128
Public Works	Stormwater System Management	46,371					46,371
Public Works	Traffic Signal Replacement					160,000	160,000
GRAND TOTAL - ALL GENERAL FUND PROJECTS		\$ 1,595,580	\$ 3,557,898	\$ -	\$ 144,623	\$ 1,296,156	\$ 6,594,257

General Fund 2019 - 2024 Capital Improvement Program Debt Summary

	<u>FY19</u>	<u>FY20</u>	<u>FY21</u>	<u>FY22</u>	<u>FY23</u>	<u>FY24</u>
Existing and Authorized Debt	\$26,415,927	\$25,478,810	\$24,459,228	\$23,536,273	\$23,319,556	\$21,507,642
New Issues Proposed	2,745,878	2,817,133	2,807,647	3,509,650	1,641,872	3,557,898
Maple Ave Bridge R-2014-14 -state aid match		135,000				
Principal Paid	(3,682,995)	(3,971,714)	(3,730,602)	(3,726,367)	(3,453,786)	(3,056,723)
Total Existing Debt & Issues Proposed	\$25,478,810	\$24,459,228	\$23,536,273	\$23,319,556	\$21,507,642	\$22,008,817

	<u>Issue</u>	<u>Term</u>	<u>FY19</u>	<u>FY20</u>	<u>FY21</u>	<u>FY22</u>	<u>FY23</u>	<u>FY24</u>
Existing & Authorized Debt Service (P & I)			\$4,484,884	\$4,492,070	\$3,900,876	\$3,583,825	\$2,951,551	\$2,299,654
<u>Proposed Debt Service CIP FY19</u>								
Consolidated Infrastructure	1,263,142	10	22,105	168,314	163,893	159,472	155,051	150,630
Goose Pond Dam	879,400	20	15,390	73,980	72,441	70,901	69,363	67,824
State Bypass Project	603,336	15	10,558	60,635	59,227	57,820	56,412	55,004
<u>Proposed Debt Service CIP FY20</u>								
Consolidated Infrastructure	1,430,073	10		25,026	190,557	185,552	180,547	175,541
Flood Management	861,380	15		15,074	86,569	84,559	82,549	80,539
State Bypass Project	525,680	15		9,199	52,831	51,604	50,378	49,151
<u>Proposed Debt Service CIP FY21</u>								
Consolidated Infrastructure	1,307,647	10			22,884	174,244	169,667	165,090
Carpenter Field	1,500,000	20			26,250	126,188	123,563	120,938
<u>Proposed Debt Service CIP FY22</u>								
Consolidated Infrastructure	1,451,270	10				25,397	193,382	188,302
Flood Management	577,380	15				10,104	58,027	56,679
Victoria Street Extension	1,481,000	20				25,918	124,589	121,997
<u>Proposed Debt Service CIP FY23</u>								
Consolidated Infrastructure	1,454,872	10					25,460	193,862
Lower Main Street Crosswalk	187,000	10					3,273	24,918
<u>Proposed Debt Service CIP FY24</u>								
Consolidated Infrastructure	1,497,722	10						26,210
Flood Management	712,500	15						12,469
Breathing Apparatus	847,676	7						14,834
Beaver Brook	500,000	15						8,750
Total CIP 19-24 Debt Service Proposed			48,053	352,228	674,651	971,758	1,292,259	1,512,738
Total Projected Debt Service: General Fund			\$4,532,937	\$4,844,299	\$4,575,527	\$4,555,583	\$4,243,809	\$3,812,392

GENERAL FUND - "Other" Project Financing Detail by Year

FY 18-19

Airport	Pavement Maintenance & Marking	8,337	Project Balance 90170 - Pavement Maintenance
Fire	Ambulance Replacement	240,000	Ambulance Capital Reserve
IT	Storage Area Network	40,000	Project Balance 90144 - SAN Replacement
Parks & Rec.	Parks Improvements	40,000	Trust Funds
Public Works	Marlboro St Corridor Improvements	171,017	Transportation Improvements Capital Reserve
Public Works	560 Main Street Assessment	1,000,000	Sale of 560 Main Street property
Public Works	Stormwater Drainage Spot Repair Program	63,571	Project Balance 90201 - FY 13 Snow Event; 90271 - Flood Control
Public Works	Stormwater System Management	40,000	Project Balance 90193 - Stormwater Management

Total 1,602,925

FY 19-20

Fire	Ladder 1 Replacement	1,100,000	Fire Apparatus Capital Reserve
Parks & Rec.	Skate Park	500,000	Donations
Public Works	Downtown Revitalization Study	150,000	Downtown Infrastructure Capital Reserve
Public Works	Stormwater Drainage Spot Repair Program	65,478	Project Balance 90271 - Flood Control
Public Works	Stormwater System Management	41,200	Project Balance 90271 - Flood Control

Total 1,856,678

FY 20-21

Fire	Apparatus Replacement	45,000	Fire Apparatus Capital Reserve
Public Works	Downtown Revitalization	100,000	Downtown Infrastructure Capital Reserve
Public Works	Stormwater System Management	42,436	Project Balance 90271 - Flood Control

Total 187,436

FY 21-22

Fire	Capital Reserve Apparatus Replacement	725,000	Fire Apparatus Capital Reserve
Fire	Ambulance Replacement	260,000	Ambulance Capital Reserve
Public Works	Bridge Program - George St over Beaver	156,530	Bridge Capital reserve
Public Works	Downtown Revitalization	500,000	Downtown Infrastructure Capital Reserve
Public Works	State By-Pass Projects	68,760	Tranportation Improvements Capital reserve
Public Works	Victoria St. Extension	222,000	Tranportation Improvements Capital reserve

Total 1,932,290

FY 22-23

Fire	Apparatus Replacement	105,000	Fire Apparatus Capital Reserve
Public Works	Downtown Revitalization	550,000	Downtown Infrastructure Capital Reserve

Total 655,000

FY 23-24

Public Works	Downtown Revitalization	1,100,000	Downtown Infrastructure Capital Reserve
Public Works	State By-Pass Projects	36,156	Tranportation Improvements Capital reserve
Public Works	Traffic Signal Replacement	160,000	Tranportation Improvements Capital reserve

Total 1,296,156

**CITY OF KEENE, NEW HAMPSHIRE
CAPITAL IMPROVEMENT PROGRAM FY19 - FY24
PARKING FUND MULTI-YEAR PROJECTIONS**

	ACTUAL FY 15/16	ACTUAL FY 16/17	BUDGET FY 17/18	PROJECTED FY18/19	PROJECTED FY19/20	PROJECTED FY20/21	PROJECTED FY21/22	PROJECTED FY22/23	PROJECTED FY23/24
REVENUES									
Taxes	\$1,167,250	\$1,146,740	\$1,028,163	\$ 852,111	\$ 847,549	\$ 604,975	\$ 589,975	\$ 214,700	\$ 209,900
Parking Meter Fees / Space Rentals	593,548	657,402	746,168	707,913	723,841	740,128	794,619	812,498	872,319
Fines & Forfeits	244,201	279,560	270,610	279,649	283,442	287,288	291,189	295,143	299,159
Miscellaneous	13,567	13,000	13,158	13,536	13,604	13,672	13,729	13,798	13,856
Capital reserve / Project Balances			25,000		50,000		50,000		57,400
Use of (Addition to) surplus	42,500	42,500	42,500	42,500					
Slate courthouse payment			93,750						
Bond issue			42,500						
TOTAL REVENUES	\$2,061,066	\$2,139,202	\$2,219,349	\$1,895,709	\$1,960,936	\$1,646,062	\$1,739,512	\$1,434,340	\$1,452,633
EXPENDITURES									
Lots & Meters	\$698,982	\$648,132	\$723,076	\$704,345	\$720,193	\$736,397	\$752,966	\$769,908	\$787,230
Outside Services	193,286	212,241	196,523	\$201,436	206,472	211,634	216,925	222,348	227,906
City Hall Parking Facility	36,081	19,265	20,636	\$20,739	20,843	20,947	21,052	21,157	21,263
Wells Street Parking Facility	38,254	26,559	34,743	\$30,938	31,557	32,188	32,832	33,488	34,158
Capital	150,000	255,209	203,708	89,400	140,300	60,000	161,300	158,200	367,400
Property Taxes: Courthouse	255,463	247,259	255,913	263,360	271,024				
Debt Service-TAX INC. FIN.	809,736	801,113	784,750	601,250	589,025	574,975	559,975	184,700	179,900
TOTAL EXPENDITURES	\$2,181,802	\$2,209,777	\$2,219,349	\$1,911,468	\$1,979,413	\$1,636,140	\$1,745,049	\$1,389,800	\$1,617,858
Addition to (use of) Surplus	(\$120,737)	(\$70,575)	\$0	(\$15,759)	(\$18,477)	\$9,922	(\$5,536)	\$44,539	(\$165,224)
CAPITAL & DEBT AS % OF BUDGET	55.7%	59.0%	56.1%	49.9%	50.5%	38.8%	41.3%	24.7%	33.8%
PARKING FUND INCREASE	5.1%	1.3%	0.4%	-13.9%	3.55%	-17.34%	6.66%	-20.36%	16.41%
Projected fund balance at year end									
			173,981	158,222	139,745	149,667	144,131	188,670	23,446
<i>Projected fund balance as a % of operating budget (total-capital)</i>									
			8.63%	8.68%	7.60%	9.50%	9.10%	15.32%	1.88%
Parking Fund Use of Property Tax Revenue									
			\$	601,250	589,025	574,975	559,975	184,700	179,900
				30,000	30,000	30,000	30,000	30,000	30,000
				263,361	271,024				
				(42,500)	(42,500)				
TIFD Taxes to be Raised for Parking Fund									
			\$	852,111	847,549	604,975	589,975	214,700	209,900

Parking Meter Fees / Space Rentals include allowances in FY 18/19 (10%), FY 21/22 (5.0%), and FY 23/24 (5.0%) for meter and parking space rental fees as planning allowances. City staff are currently reviewing Parking Division operations to identify opportunities to enhance revenue and reduce expenditure through changes in operating practices. It is anticipated that the changes, if approved by the City Council, will minimize the need for rate changes. The proposed changes are anticipated to be discussed with the City Council in Spring, 2018.

CITY OF KEENE, NEW HAMPSHIRE

Parking Fund 2019 - 2024 Capital Improvement Program Summary

<u>Dept.</u>	<u>Project Name</u>	<u>2018/2019</u>	<u>2019/2020</u>	<u>2020/2021</u>	<u>2021/2022</u>	<u>2022/2023</u>	<u>2023/2024</u>	<u>TOTAL</u>
Public Works	Capital Reserve - City Hall Parking Facility	\$ 30,000	\$ 30,000	\$ 30,000	\$ 30,000	\$ 30,000	\$ 30,000	\$ 180,000
Public Works	Capital Reserve - Wells Street Parking Facility	30,000	30,000	30,000	30,000	30,000	30,000	180,000
Police	Parking Smart Meter Technology						250,000	250,000
Public Works	Parking Structure Maintenance - City Hall		50,000	-	-	-	57,400	107,400
Public Works	Parking Structure Maintenance - Wells St	-	-		50,000	98,200		148,200
Public Works	Surface Parking Lot Maintenance	29,400	30,300	-	51,300			111,000
TOTAL CAPITAL PROGRAM		\$ 89,400	\$ 140,300	\$ 60,000	\$ 161,300	\$ 158,200	\$ 367,400	\$ 976,600

PROJECT FUNDING DETAIL

Reserve Funded Projects

Public Works	Parking Structure Maintenance - City Hall	\$ -	\$ 50,000	\$ -	\$ -	\$ -	\$ 57,400	\$ 107,400
Public Works	Parking Structure Maintenance - Wells St	-	-	-	50,000	98,200	-	148,200
Total: Reserve Funded Projects		\$ -	\$ 50,000	\$ -	\$ 50,000	\$ 98,200	\$ 57,400	\$ 255,600

Projects Funded with Debt

Public Works	N/A	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Total: Projects Funded with Debt		\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -

Capital Reserve Appropriations

Public Works	Capital Reserve - City Hall Parking Facility	\$ 30,000	\$ 30,000	\$ 30,000	\$ 30,000	\$ 30,000	\$ 30,000	\$ 180,000
Public Works	Capital Reserve - Wells Street Parking Facility	30,000	30,000	30,000	30,000	30,000	30,000	180,000
Total: Capital Reserve Appropriations		\$ 60,000	\$ 60,000	\$ 60,000	\$ 60,000	\$ 60,000	\$ 60,000	\$ 360,000

Projects Funded with Cash

Public Works	Parking Smart Meter Technology	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 250,000	\$ 250,000
Public Works	Surface Parking Lot Maintenance	29,400	30,300	-	51,300	-	-	111,000
Total: Projects Funded with Cash		\$ 29,400	\$ 30,300	\$ -	\$ 51,300	\$ -	\$ 250,000	\$ 361,000

Subtotal: Uses of Cash

(Capital Reserve Appropriations plus Projects Funded with Cash)

TOTAL CAPITAL PROGRAM

\$ 89,400	\$ 140,300	\$ 60,000	\$ 161,300	\$ 158,200	\$ 367,400	\$ 976,600
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New Cash Requirement FY 19-24: reconciliation

<u>Total: Uses of cash</u>	\$89,400	\$90,300	\$60,000	\$111,300	\$60,000	\$310,000	\$721,000
<u>New Funds needed</u>	\$ 89,400	\$ 90,300	\$ 60,000	\$ 111,300	\$60,000	\$310,000	\$721,000

Parking Fund 2019 - 2024 Capital Improvement Program Debt Summary

	<u>FY19</u>	<u>FY20</u>	<u>FY21</u>	<u>FY22</u>	<u>FY23</u>	<u>FY24</u>
Existing and Authorized Debt	\$3,185,000	\$2,665,000	\$2,145,000	\$1,625,000	\$1,105,000	\$950,000
New Issues Proposed	-	-	-	-	-	-
Principal Paid	(520,000)	(520,000)	(520,000)	(520,000)	(155,000)	(155,000)
Total Existing Debt & Issues Proposed	\$2,665,000	\$2,145,000	\$1,625,000	\$1,105,000	\$950,000	\$795,000

	<u>Issue</u>	<u>Term</u>	<u>FY19</u>	<u>FY20</u>	<u>FY21</u>	<u>FY22</u>	<u>FY23</u>	<u>FY24</u>
Existing & Authorized Debt Service (P & I)			\$601,250	\$589,025	\$574,975	\$559,975	\$184,700	\$179,900
<u>Proposed Debt Service CIP FY19</u>								
N/A								
<u>Proposed Debt Service CIP FY20</u>								
N/A								
<u>Proposed Debt Service CIP FY21</u>								
N/A								
<u>Proposed Debt Service CIP FY22</u>								
N/A								
<u>Proposed Debt Service CIP FY23</u>								
N/A								
<u>Proposed Debt Service CIP FY24</u>								
N/A								
Total CIP 19-24 Debt Service Proposed			0	0	0	0	0	0
Total Projected Debt Service: Parking Fund			\$601,250	\$589,025	\$574,975	\$559,975	\$184,700	\$179,900

**CITY OF KEENE, NEW HAMPSHIRE
CAPITAL IMPROVEMENT PROGRAM FY19-FY24
SOLID WASTE FUND MULTI-YEAR PROJECTIONS**

	ACTUAL FY 15/16	ACTUAL FY 16/17	BUDGET FY 17/18	PROJECTED FY18/19	PROJECTED FY19/20	PROJECTED FY20/21	PROJECTED FY21/22	PROJECTED FY22/23	PROJECTED FY23/24
REVENUES									
Charges for Services	\$ 4,691,177	\$ 4,707,424	\$ 4,366,289	\$ 4,420,199	\$ 4,559,905	\$ 4,605,040	\$ 4,654,700	\$ 4,696,703	\$ 4,743,242
Other Financing Sources	46,789	45,062	37,053	33,348	29,642	25,937	22,232	18,527	14,821
Use of Surplus			200,052						
Bond issue			250,000						
Capital Reserve									
Miscellaneous	30	18,092							
TOTAL REVENUES	\$ 4,737,996	\$ 4,770,577	\$ 4,853,394	\$ 4,453,547	\$ 4,589,547	\$ 4,630,977	\$ 4,676,932	\$ 4,715,230	\$ 4,758,063
EXPENDITURES									
Management/Admin.	\$ 627,291	\$ 627,253	\$ 601,463	\$ 609,357	\$ 617,376	\$ 625,524	\$ 633,802	\$ 642,214	\$ 650,762
Transfer/Recycling Facility	83,883	102,923	114,651	114,938	115,225	115,513	115,802	116,091	116,382
Landfill / Operations	3,012,246	2,978,825	2,786,209	2,913,407	2,941,875	2,970,628	2,999,668	3,028,997	3,058,619
Recycling	508,517	545,561	568,115	585,054	602,498	620,463	638,963	658,014	677,634
Household Hazardous Waste	27,462	27,283	96,183	42,556	42,981	43,411	43,845	44,284	44,726
Demolition Transfer/Disposal	139,042	158,166	142,363	153,993	155,743	157,514	159,305	161,118	162,952
Landfill Monitoring	10,321	24,817	84,195	35,000	35,350	35,704	36,061	36,421	36,785
Landfill Gas System	65,656	70,646	97,199	73,337	74,804	76,301	77,827	79,383	80,971
Debt Service	44,886	47,771	63,016	45,860	76,206	87,606	84,777	58,468	56,804
SUBTOTAL	\$ 4,519,304	\$ 4,583,244	\$ 4,553,394	\$ 4,573,502	\$ 4,662,060	\$ 4,732,662	\$ 4,790,049	\$ 4,824,990	\$ 4,885,634
CAPITAL	45,000	45,000	300,000	65,000	65,000	65,000	65,000	65,000	65,000
TOTAL EXPENDITURES	\$ 4,564,304	\$ 4,628,244	\$ 4,853,394	\$ 4,638,502	\$ 4,727,060	\$ 4,797,662	\$ 4,855,049	\$ 4,889,990	\$ 4,950,634
NET REVENUE (EXPENSE)	\$ 173,692	\$ 142,333	\$ (0)	\$ (184,954)	\$ (137,513)	\$ (166,686)	\$ (178,117)	\$ (174,760)	\$ (192,571)

SOLID WASTE FUND INCREASE	0.58%	1.40%	4.86%	-4.43%	1.91%	1.49%	1.20%	0.72%	1.24%
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Principal repayment on interfund loan	\$	\$	\$	\$	\$	\$	\$	\$	\$
Annual change in current resources(net rev + repmnt)	\$	\$	\$	\$	\$	\$	\$	\$	\$
Projected current resources at fiscal year end	\$	\$	\$	\$	\$	\$	\$	\$	\$
Current resources as a percentage of operating budget			25.38%	23.11%	21.57%	19.54%	17.39%	15.43%	13.06%

Note on Revenue Estimates - Charges for Services projections anticipate a \$3 per ton tip fee increase each year from 2019 through 2024. The increase represents a 2.42% increase in the blended tip fee rate in 2019, and a six year increase of 12.1%. City staff will be reviewing the current operating model for the Solid Waste Operation over the next several fiscal years, and developing sustainable alternative operating and funding models for the consideration of the City Council.

CITY OF KEENE, NEW HAMPSHIRE

Solid Waste Fund 2019 - 2024 Capital Improvement Program Summary

<u>Dept.</u>	<u>Project Name</u>	<u>2018/2019</u>	<u>2019/2020</u>	<u>2020/2021</u>	<u>2021/2022</u>	<u>2022/2023</u>	<u>2023/2024</u>	<u>TOTAL</u>
Public Works	Capital Reserve - Recycling/Transfer Facility	\$ 65,000	\$ 65,000	\$ 65,000	\$ 65,000	\$ 65,000	\$ 65,000	\$ 390,000
Public Works	Recycling Equipment Replacement	-	327,224	-	-	-	-	327,224
Public Works	Scale System Replacement	-	-	-	-	92,000	-	92,000
Public Works	Transfer Station Interior Updates	-	-	-	-	77,000	-	77,000
Public Works	Pavement Replacement	-	-	-	-	-	172,304	172,304
Public Works	Transfer Station Roof Replacement	-	166,750	-	-	-	-	166,750
TOTAL CAPITAL PROGRAM		\$ 65,000	\$ 558,974	\$ 65,000	\$ 65,000	\$ 234,000	\$ 237,304	\$ 1,225,278

PROJECT FUNDING DETAIL

Reserve Funded Projects

Public Works	Recycling Equipment Replacement	\$ -	\$ 327,224	\$ -	\$ -	\$ -	\$ -	\$ 327,224
Public Works	Pavement Replacement	-	-	-	-	-	\$ 172,304	\$ 172,304
Public Works	Scale System Replacement	-	-	-	-	92,000	-	92,000
Public Works	Transfer Station Interior Updates	-	-	-	-	77,000	-	77,000
Total: Reserve Funded Projects		\$ -	\$ 327,224	\$ -	\$ -	\$ 169,000	\$ 172,304	\$ 668,528

Projects Funded with Debt

Public Works	Transfer Station Roof Replacement	\$ -	\$ 166,750	\$ -	\$ -	\$ -	\$ -	\$ 166,750
Total: Projects Funded with Debt		\$ -	\$ 166,750	\$ -	\$ -	\$ -	\$ -	\$ 166,750

Capital Reserve Appropriations

Public Works	Capital Reserve - Recycling/Transfer Facility	\$ 65,000	\$ 65,000	\$ 65,000	\$ 65,000	\$ 65,000	\$ 65,000	\$ 390,000
Total: Capital Reserve Appropriations		\$ 65,000	\$ 65,000	\$ 65,000	\$ 65,000	\$ 65,000	\$ 65,000	\$ 390,000

Projects Funded with State Grant

Public Works	N/A	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Total: Projects Funded with State Grant		\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -

Projects Funded with Cash

Public Works	N/A	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Total: Projects Funded with Cash		\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -

Subtotal: Uses of Cash

(Capital Reserve Appropriations plus Projects Funded with Cash)

TOTAL CAPITAL PROGRAM

\$ 65,000	\$ 558,974	\$ 65,000	\$ 65,000	\$ 234,000	\$ 237,304	\$ 1,225,278
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Solid Waste Fund 2019 - 2024 Capital Improvement Program Debt Summary

	<u>FY19</u>	<u>FY20</u>	<u>FY21</u>	<u>FY22</u>	<u>FY23</u>	<u>FY24</u>
Existing and Authorized Debt	\$434,000	\$400,500	\$508,750	\$439,133	\$369,517	\$323,400
New Issues Proposed	-	166,750	-	-	-	-
Principal Paid	(33,500)	(58,500)	(69,617)	(69,617)	(46,117)	(46,117)
Total Existing Debt & Issues Proposed	\$400,500	\$508,750	\$439,133	\$369,517	\$323,400	\$277,283

	<u>Issue</u>	<u>Term</u>	<u>FY19</u>	<u>FY20</u>	<u>FY21</u>	<u>FY22</u>	<u>FY23</u>	<u>FY24</u>
Existing & Authorized Debt Service (P & I)			\$45,860	\$73,288	\$70,848	\$68,408	\$42,488	\$41,213
<u>Proposed Debt Service CIP FY19</u>								
N/A								
<u>Proposed Debt Service CIP FY20</u>								
Transfer Station Roof Repair	166,750	15		2,918	16,758	16,369	15,980	15,591
<u>Proposed Debt Service CIP FY21</u>								
N/A								
<u>Proposed Debt Service CIP FY22</u>								
N/A								
<u>Proposed Debt Service CIP FY23</u>								
N/A								
<u>Proposed Debt Service CIP FY24</u>								
N/A								
Total CIP 19-24 Debt Service Proposed			0	2,918	16,758	16,369	15,980	15,591
Total Projected Debt Service: Solid Waste Fund			\$45,860	\$76,206	\$87,606	\$84,777	\$58,468	\$56,804

CITY OF KEENE, NEW HAMPSHIRE
CAPITAL IMPROVEMENT PROGRAM FY19-FY24
Sewer Fund Multi-Year Projections

	ACTUAL FY 15/16	ACTUAL FY 16/17	BUDGET FY 17/18	PROJECTED FY18/19	PROJECTED FY19/20	PROJECTED FY20/21	PROJECTED FY21/22	PROJECTED FY22/23	PROJECTED FY23/24
REVENUES									
Taxes	\$38,582	\$38,840	\$36,518	138,000	139,035	140,078	141,128	142,187	143,253
Intergovernmental	141,082	160,601	130,000	6,353,892	6,507,382	6,607,608	6,821,175	6,793,518	6,831,449
Charges for Services	6,268,835	6,612,353	6,147,611	9,571	9,643	9,715	9,788	9,862	9,936
Miscellaneous	28,993	39,940	9,500						
Use of Surplus			(625,501)						
TOTAL REVENUES	\$6,477,490	\$6,851,734	5,698,128	6,501,463	\$6,656,060	\$6,757,401	\$6,972,091	\$6,945,567	\$6,984,638
EXPENSES									
Sewer Administration	\$697,019	\$550,258	\$618,292	\$626,330	\$634,472	\$642,720	\$651,076	\$659,540	\$668,114
Mains & Manholes	284,347	289,299	330,921	335,223	339,581	343,995	348,467	352,997	357,586
Services	(78,126)	(11,371)	11,193	11,339	11,486	11,635	11,786	11,940	12,095
Martell Court pump stn	114,502	117,020	129,121	130,800	132,500	134,222	135,967	137,735	139,525
Laboratory	209,937	209,715	219,670	219,648	222,503	225,396	228,326	231,294	234,301
Maintenance	99,772	103,720	155,448	150,802	152,763	154,749	156,760	158,798	160,863
WWTP	2,489,076	2,546,310	2,599,372	2,603,643	2,637,490	2,671,778	2,706,511	2,741,695	2,777,338
Depreciation Expense	1,150,667	1,186,029	1,354,750	1,375,071	1,395,697	1,416,633	1,437,882	1,459,451	1,481,342
Debt Service	331,338	257,148	279,360	254,483	247,648	241,955	234,536	199,726	165,296
SUBTOTAL	5,298,532	5,248,129	5,698,128	5,707,339	5,774,140	5,843,083	5,911,312	5,953,176	5,996,460
MINOR CAPITAL	839,393	124,048	0	0	0	0	0	0	0
TOTAL EXPENSE	\$6,137,925	\$5,372,177	\$5,698,128	5,707,339	\$5,774,140	\$5,843,083	\$5,911,312	\$5,953,176	\$5,996,460
NET REVENUE (EXPENSE)	\$339,566	\$1,479,557	\$0	794,125	\$881,920	\$914,318	\$1,060,779	\$992,392	\$988,178
SEWER FUND INCREASE	16.23%	-12.48%	6.07%	0.16%	1.17%	1.19%	1.17%	0.71%	0.73%

CITY OF KEENE, NEW HAMPSHIRE
CAPITAL IMPROVEMENT PROGRAM FY19-FY24
Sewer Fund Multi-Year Projections

This section adjusts Net Revenue (Expense) to include uses of cash not recorded as expense, and to exclude expenses that do not require the use of cash. The purpose of the adjustment is to reflect the projected uses of cash from FY 19 thru FY 24:

Add Back: Depreciation	\$1,375,071	\$1,395,697	\$1,416,633	\$1,437,882	\$1,459,451	\$1,481,342
State Aid Grant Principal Receipts	57,078	55,628	54,257	52,784	51,135	49,828
Subtract: Debt Service Principal (Note 3)	(1,332,383)	(1,419,137)	(1,405,727)	(1,497,761)	(1,487,261)	(1,372,761)
Transfers to Capital Reserve (Note 2)	(720,000)	(735,000)	(795,000)	(655,000)	(820,000)	(945,000)
Capital Outlays Funded through Rates and Fund Resources (Note 2)	(173,891)	(179,108)	(184,481)	(398,684)	(195,716)	(201,587)
Projected Annual Cash Surplus (Deficit)	\$0	\$0	\$0	\$0	\$0	\$0

Note 1: Net Revenue (Expense) indicates the anticipated increase (decrease) in retained earnings at the end of the year.

Note 2: Net revenue is anticipated to pay for debt service and capital improvements.

Note 3: Debt Service principal, capital outlays, state aid grant principal receipts, and transfers to reserves are balance sheet transactions, and are not included in expenses.

Note 4: Budgeted revenues exclude Use of Surplus / Fund Balance.

Note 5: Additional revenue raised in FY 16-24 to cover capital outlays and debt service in FY 16-24 and future years.

Billing Projections

	<u>FY 18/19</u>	<u>FY 19/20</u>	<u>FY 20/21</u>	<u>FY 21/22</u>	<u>FY 22/23</u>	<u>FY 23/24</u>
Combined Water and Sewer Utility Billing Projections: Residential property with a 5/8" connection and consumption of 27 HCF (hundred cubic feet) per quarter	\$ 331.06 \$	342.67 \$	354.01 \$	365.35 \$	370.48 \$	377.43 \$
	\$ 9.93 \$	11.61 \$	11.34 \$	11.34 \$	5.13 \$	6.95 \$
	3.09%	3.51%	3.31%	3.20%	1.40%	1.88%

Sewer Utility Billing Projections: Residential property with a 5/8" connection and consumption of 27 HCF (hundred cubic feet) per quarter	\$ 198.22 \$	207.40 \$	210.91 \$	218.47 \$	220.09 \$	222.25 \$
	\$ 5.94 \$	9.18 \$	3.51 \$	7.56 \$	1.62 \$	2.16 \$
	3.09%	4.63%	1.69%	3.58%	0.74%	0.98%

CITY OF KEENE, NEW HAMPSHIRE

Sewer Fund 2019 - 2024 Capital Improvement Program Summary

<u>Dept.</u>	<u>Project Name</u>	<u>2018/2019</u>	<u>2019/2020</u>	<u>2020/2021</u>	<u>2021/2022</u>	<u>2022/2023</u>	<u>2023/2024</u>	<u>TOTAL</u>
Public Works	Capital Reserve: Martell Court	\$ -	\$ -		\$ 35,000	\$ 75,000	\$ 75,000	\$ 185,000
Public Works	Capital Reserve: Sewer Infrastructure	600,000	615,000	625,000	450,000	575,000	700,000	3,565,000
Public Works	Capital Reserve: Wastewater Treatment Plant	120,000	120,000	170,000	170,000	170,000	170,000	920,000
Public Works	Martell Court Headworks Treatment	1,342,560	-	-	-	-	-	1,342,560
Public Works	Martell Court Phase 2	58,667	-	130,810	-	-	-	189,477
Public Works	Martell Court Roof	-	-	-	-	32,714	-	32,714
Public Works	Sewer Main - State Bypass Project	360,291	-	-	-	-	-	360,291
Public Works	Sewer Main Improvements	653,101	661,301	1,455,513	506,708	365,336	782,684	4,424,643
Public Works	Sewer Mains - Bridges Improvements	43,500	-	-	-	-	-	43,500
Public Works	Sewer Manhole Lining	-	-	-	-	157,600	162,328	319,928
Public Works	Sewer Structural Repairs & Lining	173,891	179,108	184,481	190,015	195,716	201,587	1,124,798
Public Works	Victoria St Sewer Main	-	-	-	208,669	-	-	208,669
Public Works	WWTP Blower Replacement	68,741	179,360	184,741	-	-	-	432,842
Public Works	WWTP HVAC Ductwork Insulation	-	-	-	-	35,892	-	35,892
Public Works	WWTP Generator Replacement	21,131	-	123,636	-	-	-	144,767
Public Works	WWTP Non-Potable Water System	65,400	-	-	-	-	-	65,400
TOTAL CAPITAL PROGRAM		\$ 3,507,282	\$ 1,754,769	\$ 2,874,181	\$ 1,560,392	\$ 1,607,258	\$ 2,091,599	\$ 13,395,481

PROJECT FUNDING DETAIL

Reserve Funded Projects

Public Works	Martell Court Phase 2	58,667	-	130,810	-	-	-	189,477
Public Works	Martell Court Roof	-	-	-	-	32,714	-	32,714
Public Works	Sewer Main - State Bypass Project	360,291	-	-	-	-	-	360,291
Public Works	Sewer Main Improvements	653,101	661,301	-	506,708	365,336	782,684	2,969,130
Public Works	Sewer Mains - Bridges Improvements	43,500	-	-	-	-	-	43,500
Public Works	Sewer Manhole Lining	-	-	-	-	157,600	162,328	319,928
Public Works	WWTP Blower Replacement	7,665	179,360	184,741	-	-	-	371,766
Public Works	WWTP HVAC Ductwork Insulation	-	-	-	-	35,892	-	35,892
Public Works	WWTP Generator Replacement	21,131	-	123,636	-	-	-	144,767
Public Works	WWTP Non-Potable Water System	65,400	-	-	-	-	-	65,400
Total: Reserve Funded Projects		\$ 1,209,755	\$ 840,661	\$ 439,187	\$ 506,708	\$ 591,542	\$ 945,012	\$ 4,532,865

Projects Funded with Debt

Public Works	Martell Court Headworks Treatment	\$ 1,342,560	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 1,342,560
Public Works	Sewer Main Improvements	-	-	1,455,513	-	-	-	1,455,513
Total: Projects Funded with Debt		\$ 1,342,560	\$ -	\$ 1,455,513	\$ -	\$ -	\$ -	\$ 2,798,073

Projects Funded with Grants

Public Works	N/A	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Total: Projects Funded with State Grant		\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -

Capital Reserve Appropriations

Public Works	Capital Reserve: Martell Court	\$ -	\$ -	\$ -	\$ 35,000	\$ 75,000	\$ 75,000	\$ 185,000
Public Works	Capital Reserve: Sewer Infrastructure	600,000	615,000	625,000	450,000	575,000	700,000	3,565,000
Public Works	Capital Reserve: Wastewater Treatment Plant	120,000	120,000	170,000	170,000	170,000	170,000	920,000
Total: Capital Reserve Appropriations		\$ 720,000	\$ 735,000	\$ 795,000	\$ 655,000	\$ 820,000	\$ 945,000	\$ 4,670,000

CITY OF KEENE, NEW HAMPSHIRE

Sewer Fund 2019 - 2024 Capital Improvement Program Summary

<u>Dept.</u>	<u>Project Name</u>	<u>2018/2019</u>	<u>2019/2020</u>	<u>2020/2021</u>	<u>2021/2022</u>	<u>2022/2023</u>	<u>2023/2024</u>	<u>TOTAL</u>
<u>Projects Funded with Cash</u>								
Public Works	Sewer Structural Repairs & Lining	\$ 173,891	\$ 179,108	\$ 184,481	\$ 190,015	\$ 195,716	\$ 201,587	1,124,798
Public Works	Victoria St Sewer Main	-	-	-	208,669	-	-	208,669
Public Works	WWTP Blower Replacement	61,076	-	-	-	-	-	61,076
Total: Projects Funded with Cash		\$ 234,967	\$ 179,108	\$ 184,481	\$ 398,684	\$ 195,716	\$ 201,587	\$ 1,394,543
Subtotal: Uses of Current Cash		\$ 954,967	\$ 914,108	\$ 979,481	\$ 1,053,684	\$ 1,015,716	\$ 1,146,587	\$ 6,064,543
<i>(Capital Reserve Appropriations plus Projects Funded with Current Cash)</i>								
TOTAL: CAPITAL PROGRAM		\$ 3,507,282	\$ 1,754,769	\$ 2,874,181	\$ 1,560,392	\$ 1,607,258	\$ 2,091,599	\$ 13,395,481

New cash Requirement FY 19-24: reconciliation

<i>Total: Uses of cash</i>	\$954,967	\$914,108	\$979,481	\$1,053,684	\$1,015,716	\$1,146,587	\$6,064,543
<i>WWTP Blower Replace: FY 14 Authorization</i>	(\$61,076)	-	-	-	-	-	(\$61,076)
<i>New Funds needed</i>	\$ 893,891	\$ 914,108	\$ 979,481	\$ 1,053,684	\$1,015,716	\$1,146,587	\$6,003,467

Sewer Fund 2019 - 2024 Capital Improvement Program Debt Summary

	<u>FY19</u>	<u>FY20</u>	<u>FY21</u>	<u>FY22</u>	<u>FY23</u>	<u>FY24</u>
Existing and Authorized Debt	\$9,887,640	\$9,897,817	\$8,478,680	\$8,528,467	\$7,030,706	\$5,543,445
New Issues Proposed	1,342,560	-	1,455,513	-	-	-
Principal Paid	(1,332,383)	(1,419,137)	(1,405,727)	(1,497,761)	(1,487,261)	(1,372,761)
Total Existing Debt & Issues Proposed	\$9,897,817	\$8,478,680	\$8,528,467	\$7,030,706	\$5,543,445	\$4,170,684

	<u>Issue</u>	<u>Term</u>	<u>FY19</u>	<u>FY20</u>	<u>FY21</u>	<u>FY22</u>	<u>FY23</u>	<u>FY24</u>
Existing & Authorized Debt Service (P & I)			\$1,563,371	\$1,531,857	\$1,490,416	\$1,457,356	\$1,418,575	\$1,276,173
<u>Proposed Debt Service CIP FY19</u>								
Martell Court Headworks Replacement	1,342,560	15	23,495	134,927	131,795	128,662	125,529	122,397
<u>Proposed Debt Service CIP FY20</u>								
N/A								
<u>Proposed Debt Service CIP FY21</u>								
Colony Court -Bloomer Swamp Main	1,455,513	15			25,471	146,279	142,883	139,487
<u>Proposed Debt Service CIP FY22</u>								
N/A								
<u>Proposed Debt Service CIP FY23</u>								
N/A								
<u>Proposed Debt Service CIP FY24</u>								
N/A								
Total CIP 19-24 Debt Service Proposed			23,495	134,927	157,266	274,941	268,412	261,883
Total Projected Debt Service: Sewer Fund			\$1,586,866	\$1,666,785	\$1,647,682	\$1,732,297	\$1,686,987	\$1,538,057

**CITY OF KEENE, NEW HAMPSHIRE
CAPITAL IMPROVEMENT PROGRAM FY19-FY24
WATER FUND MULTI-YEAR PROJECTIONS**

	ACTUAL FY 15/16	ACTUAL FY 16/17	BUDGET FY 17/18	PROJECTED FY18/19	PROJECTED FY19/20	PROJECTED FY20/21	PROJECTED FY21/22	PROJECTED FY22/23	PROJECTED FY23/24
REVENUES									
Taxes	\$109,315	\$106,600	\$100,228						
Intergovernmental									
Charges for Services	3,620,085	3,510,359	4,076,173	4,139,480	4,156,229	4,377,507	4,446,677	4,498,656	4,627,269
Miscellaneous	1,567,832	30,253	9,787	20,572	20,752	20,935	21,120	21,306	21,493
Use of Surplus			(374,996)	627,257	100,000		375,000		
TOTAL REVENUES	\$5,297,232	\$3,647,212	\$3,811,192	\$4,787,309	\$4,276,982	\$4,398,442	\$4,842,797	\$4,519,962	\$4,648,762
EXPENSES									
Public Works Water	\$780,954	\$790,443	\$791,659	797,605	\$809,170	\$820,903	\$832,806	\$844,882	\$857,133
Water Main & Trench Repairs	191,789	199,827	202,917	205,555	208,535	211,559	214,627	217,739	220,896
Water Supply	144,852	155,936	170,316	172,530	175,032	177,570	180,145	182,757	185,407
Hydrants	89,710	128,225	115,831	117,337	119,038	120,764	122,515	124,292	126,094
Meters	388,933	386,269	384,789	386,960	392,571	398,263	404,038	409,896	415,840
Water Services	55,013	51,936	43,745	44,314	44,956	45,608	46,269	46,940	47,621
Water Treatment Facility	638,268	609,743	708,151	686,217	696,167	706,262	716,503	726,892	737,432
Laboratory	202,805	212,563	230,821	233,822	237,212	240,652	244,141	247,681	251,273
Maintenance	115,463	131,749	153,055	140,959	143,003	145,076	147,180	149,314	151,479
Depreciation Expense	944,906	1,009,154	964,000	1,205,000	1,227,895	1,251,225	1,274,998	1,299,223	1,323,908
Debt Service	16,097	46,634	45,908	39,904	63,516	85,469	78,231	110,772	142,760
Subtotal	3,568,789	3,722,480	3,811,192	4,030,202	4,117,096	4,203,351	4,261,453	4,360,388	4,459,842
MINOR CAPITAL	290,898	207,032	0	0	0	0	0	0	0
TOTAL EXPENSES	\$3,859,686	\$3,929,512	3,811,192	4,030,202	\$4,117,096	\$4,203,351	\$4,261,453	\$4,360,388	\$4,459,842
NET REVENUE (EXPENSE)	\$ 1,437,546	\$ (282,300)	\$ 0	\$ 757,106	\$ 159,886	\$ 195,091	\$ 581,344	\$ 159,573	\$ 188,920
WATER FUND INCREASE	3.95%	1.81%	-3.01%	5.75%	2.16%	2.10%	1.38%	2.32%	2.28%

CITY OF KEENE, NEW HAMPSHIRE
CAPITAL IMPROVEMENT PROGRAM FY19-FY24
WATER FUND MULTI-YEAR PROJECTIONS

This section adjusts Net Revenue (Expense) to include uses of cash not recorded as expense, and to exclude expenses that do not require the use of cash. The purpose of the adjustment is to reflect the projected uses of cash from FY 19 thru FY 24.

Add Back: Depreciation	\$1,205,000	\$1,227,895	\$1,251,225	\$1,274,999	\$1,299,223	\$1,323,909
State Aid Grant Principal Receipts	(186,016)	(188,583)	(270,496)	(273,159)	(199,228)	(238,093)
Subtract: Debt Svc Principal (Note 3)	(790,000)	(760,000)	(830,000)	(855,000)	(920,000)	(920,000)
Tfrs to Capital Reserve (Note 2)	(986,090)	(439,198)	(345,820)	(728,183)	(339,568)	(354,736)
Capital Outlays Funded through Rates and Fund Resources (Note 2)	\$0	\$0	\$0	\$0	\$0	\$0
Projected Annual Cash Surplus (Deficit)	\$0	\$0	\$0	\$0	\$0	\$0

Note 1: Net Revenue (Expense) indicates the anticipated increase (decrease) in retained earnings at the end of the year.

Note 2: Net revenue is anticipated to pay for operations and capital improvements in future and current years.

Note 3: Debt Service principal, capital outlays, state aid grant principal receipts, and transfers to reserves are balance sheet transactions, and are not included in expenses.

Note 4: Budgeted revenues exclude Use of Surplus / Fund Balance.

Note 5: Additional revenue raised in FY 16-24 to cover capital outlays and debt service in FY 16-24 and future years.

Note 6: In FY 2016, Miscellaneous revenue includes \$1,549,075 to recognize the addition of infrastructure assets funded through the Wells St TIFD in the Railroad Land and 93rd and Norway projects.

Billing Projections

	<u>FY 18/19</u>	<u>FY 19/20</u>	<u>FY 20/21</u>	<u>FY 21/22</u>	<u>FY 22/23</u>	<u>FY 23/24</u>
Combined Water and Sewer Utility Billing Projections: Residential property with a 5/8" connection and consumption of 27 HCF (hundred cubic feet) per quarter	\$ 331.06 \$ 342.67 \$ 354.01 \$ 365.35 \$ 370.48 \$ 377.43	\$ 9.93 \$ 11.61 \$ 11.34 \$ 11.34 \$ 5.13 \$ 6.95	3.09% 3.51% 3.31% 3.20% 1.40% 1.88%			
Water Utility Billing Projections: Residential property with a 5/8" connection and consumption of 27 HCF (hundred cubic feet) per quarter	\$ 132.84 \$ 135.27 \$ 143.10 \$ 146.88 \$ 150.39 \$ 155.18	\$ 3.99 \$ 2.43 \$ 7.83 \$ 3.78 \$ 3.51 \$ 4.79	3.10% 1.83% 5.79% 2.64% 2.39% 3.19%			

CITY OF KEENE, NEW HAMPSHIRE
Water Fund 2019 - 2024 Capital Improvement Program Summary

Dept.	Project Name	2018/2019	2019/2020	2020/2021	2021/2022	2022/2023	2023/2024	TOTAL
Public Works	Capital Reserve: Water Treatment Facility	\$ 115,000	\$ 85,000	\$ 155,000	\$ 155,000	\$ 220,000	\$ 220,000	\$ 950,000
Public Works	Capital Reserve: Water Infrastructure	675,000	675,000	675,000	700,000	700,000	700,000	4,125,000
Public Works	Black Brook Storage Tank Repairs	-	5,000	-	30,000	-	-	35,000
Public Works	Chapman Rd Water Tank Repairs	-	25,000	-	54,449	-	-	79,449
Public Works	Dam Improvements	-	1,585,976	-	-	-	-	1,585,976
Public Works	Drummer Hill Tank Replacement	-	25,000	-	208,959	-	614,764	848,723
Public Works	Emergency Generators Replacement / Upgrade	-	-	-	-	-	250,793	250,793
Public Works	Fox Ave & Glenn Rd Pump Station Upgrade	-	42,892	-	-	-	-	42,892
Public Works	Victoria Street Utilities	-	-	-	347,782	-	-	347,782
Public Works	Water Distribution Improvements	1,127,257	-	-	107,812	1,278,233	143,286	2,656,588
Public Works	Water Main - Bridge Improvements	38,300	-	-	47,530	-	-	85,830
Public Works	Water Main - State Bypass Project	250,500	-	-	-	-	-	250,500
Public Works	Water Main Cleaning and Lining	268,325	245,975	249,800	281,500	237,700	250,000	1,533,300
Public Works	Water Valve Replacement	90,508	93,223	96,020	98,901	101,868	104,736	585,256
Public Works	Well Field Evaluation Plan	-	75,000	-	-	408,590	-	483,590
Public Works	Water Supply Master Plan	-	100,000	-	-	-	-	100,000
Public Works	WTF 1.5 MG Storage Tank Repairs	-	90,041	-	278,226	-	-	368,267
Public Works	WTF 3 MG Storage Tank Repairs	-	-	-	-	2,275,882	-	2,275,882
Public Works	WTF Filter Media Replacement	-	191,466	-	203,126	-	215,496	610,088
Public Works	WTF Instrumentation Upgrade	49,522	-	-	-	-	-	49,522
Public Works	WTF Pavement Replacement	-	-	-	-	70,180	-	70,180
Public Works	WTF Pressure Reduction Valve Upgrade	86,058	-	-	-	-	-	86,058
TOTAL CAPITAL PROGRAM		\$ 2,700,470	\$ 3,239,573	\$ 1,175,820	\$ 2,513,285	\$ 5,292,453	\$ 2,499,075	\$ 17,420,676

PROJECT FUNDING DETAIL

Reserve Funded Projects

Public Works	Dam Improvements	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Public Works	Black Brook Storage Tank Repairs	-	5,000	-	30,000	-	-	35,000
Public Works	Chapman Rd Water Tank Repairs	-	25,000	-	54,449	-	-	79,449
Public Works	Drummer Hill Tank Replacement	-	25,000	-	208,959	-	614,764	848,723
Public Works	Emergency Generators Replacement / Upgrade	-	-	-	-	-	250,793	250,793
Public Works	Fox Ave & Glenn Rd Pump Station Upgrade	-	42,892	-	-	-	-	42,892
Public Works	Water Distribution Improvements	500,000	-	-	107,812	1,278,233	143,286	2,029,331
Public Works	Water Main - Bridge Improvements	38,300	-	-	47,530	-	-	85,830
Public Works	Water Main - State Bypass Project	250,500	-	-	-	-	-	250,500
Public Works	Well Field Evaluation Plan	-	75,000	-	-	408,590	-	483,590
Public Works	WTF 1.5 MG Storage Tank Repairs	-	90,041	-	278,226	-	-	368,267
Public Works	WTF 3 MG Storage Tank Repairs Study	-	-	-	-	-	-	-
Public Works	WTF Filter Media Replacement	-	191,466	-	203,126	-	215,496	610,088
Public Works	WTF Instrumentation Upgrade	49,522	-	-	-	-	-	49,522
Public Works	WTF Pavement Replacement	-	-	-	-	70,180	-	70,180
Public Works	WTF Pressure Reduction Valve Upgrade	86,058	-	-	-	-	-	86,058
Total: Reserve Funded Projects		\$ 924,380	\$ 454,399	\$ -	\$ 930,102	\$ 1,757,003	\$ 1,224,339	\$ 5,290,223

Projects Funded with Debt

Public Works	Dam Improvements	\$ -	\$ 1,585,976	\$ -	\$ -	\$ -	\$ -	\$ 1,585,976
Public Works	WTF 3 MG Storage Tank repairs	\$ -	\$ -	\$ -	\$ -	\$ 2,275,882	\$ -	\$ 2,275,882
Total: Projects Funded with Debt		\$ -	\$ 1,585,976	\$ -	\$ -	\$ 2,275,882	\$ -	\$ 3,861,858

Capital Reserve Appropriations

Public Works	Capital Reserve: Water Treatment Facility	\$ 115,000	\$ 85,000	\$ 155,000	\$ 155,000	\$ 220,000	\$ 220,000	\$ 950,000
Public Works	Capital Reserve: Water Infrastructure	675,000	675,000	675,000	700,000	700,000	700,000	4,125,000
Total: Capital Reserve Appropriations		\$ 790,000	\$ 760,000	\$ 830,000	\$ 855,000	\$ 920,000	\$ 920,000	\$ 5,075,000

Projects Funded with State Grant

Public Works	N/A	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Total: Projects Funded with State Grant		\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -

Projects Funded with Cash

Public Works	Dam Improvements	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Public Works	Victoria St Water Main	-	-	-	347,782	-	-	347,782
Public Works	Water Distribution Improvements	627,257	-	-	-	-	-	627,257
Public Works	Water Supply Master Plan	-	100,000	-	-	-	-	100,000
Public Works	Water Valve Replacement	90,508	93,223	96,020	98,901	101,868	104,736	585,256
Public Works	Water Main Cleaning and Lining	268,325	245,975	249,800	281,500	237,700	250,000	1,533,300
Total: Projects Funded with Cash		\$ 986,090	\$ 439,198	\$ 345,820	\$ 728,183	\$ 339,568	\$ 354,736	\$ 3,193,595
Subtotal: Uses of Cash		\$ 1,776,090	\$ 1,199,198	\$ 1,175,820	\$ 1,583,183	\$ 1,259,568	\$ 1,274,736	\$ 8,268,595
<i>(Capital Reserve Appropriations plus Projects Funded with Cash)</i>								
TOTAL CAPITAL PROGRAM		\$ 2,700,470	\$ 3,239,573	\$ 1,175,820	\$ 2,513,285	\$ 5,292,453	\$ 2,499,075	\$ 17,420,676

New cash Requirement FY 19-24: reconciliation

<i>Total: Uses of cash</i>	\$ 1,776,090	\$ 1,199,198	\$ 1,175,820	\$ 1,583,183	\$ 1,259,568	\$ 1,274,736	\$ 8,268,595
<i>Use of Retained Earnings/Project Balance</i>	(627,257)	(100,000)	-	(375,000)	-	-	(1,102,257)
<i>New Funds needed</i>	\$ 1,148,833	\$ 1,099,198	\$ 1,175,820	\$ 1,208,183	\$ 1,259,568	\$ 1,274,736	\$ 7,166,338

Water Fund 2019 - 2024 Capital Improvement Program Debt Summary

	<u>FY19</u>	<u>FY20</u>	<u>FY21</u>	<u>FY22</u>	<u>FY23</u>	<u>FY24</u>
Existing and Authorized Debt	\$1,459,585	\$1,273,569	\$2,670,962	\$2,400,466	\$2,127,307	\$4,203,962
New Issues Proposed	-	1,585,976	-	-	2,275,882	-
Principal Paid	(186,016)	(188,583)	(270,496)	(273,159)	(199,228)	(238,093)
Total Existing Debt & Issues Proposed	\$1,273,569	\$2,670,962	\$2,400,466	\$2,127,307	\$4,203,962	\$3,965,869

	<u>Issue</u>	<u>Term</u>	<u>FY19</u>	<u>FY20</u>	<u>FY21</u>	<u>FY22</u>	<u>FY23</u>	<u>FY24</u>
Existing & Authorized Debt Service (P & I)			\$225,920	\$224,345	\$222,545	\$220,745	\$142,303	\$64,300
<u>Proposed Debt Service CIP FY19</u>								
N/A								
<u>Proposed Debt Service CIP FY20</u>								
Woodward Pond Dam	1,585,976	20		27,755	133,420	130,645	127,869	125,094
<u>Proposed Debt Service CIP FY21</u>								
N/A								
<u>Proposed Debt Service CIP FY22</u>								
N/A								
<u>Proposed Debt Service CIP FY23</u>								
3 MG Water Tank	2,275,882	20					39,828	191,459
<u>Proposed Debt Service CIP FY24</u>								
N/A								
Total CIP 19-24 Debt Service Proposed			0	27,755	133,420	130,645	167,697	316,553
Total Projected Debt Service: Water Fund			\$225,920	\$252,099	\$355,965	\$351,390	\$310,000	\$380,853

**CITY OF KEENE, NEW HAMPSHIRE
CAPITAL IMPROVEMENT PROGRAM FY19-FY24
EQUIPMENT FUND MULTI-YEAR PROJECTIONS**

	ACTUAL FY 15/16	ACTUAL FY 16/17	BUDGET FY 17/18	PROJECTED FY18/19	PROJECTED FY19/20	PROJECTED FY20/21	PROJECTED FY21/22	PROJECTED FY22/23	PROJECTED FY23/24
REVENUES									
Charges for Services	\$2,217,249	\$2,311,293	\$2,385,093	\$2,466,408	\$2,550,536	\$2,637,575	\$2,727,062	\$2,780,461	\$2,834,916
Miscellaneous	32,580	21,486	4,450	4,495	4,539	4,585	4,631	4,677	4,724
Use of (Addition to) Surplus Equipment Sales	2,175	1,800	(133,671)	0	0	0	0	0	0
TOTAL REVENUES	\$2,252,004	\$2,334,579	\$2,255,873	\$2,470,902	\$2,555,075	\$2,642,160	\$2,731,693	\$2,785,138	\$2,839,640
EXPENSES									
Personnel & Benefits	\$516,975	\$529,863	\$577,834	\$596,036	\$614,811	\$621,881	\$629,033	\$636,266	\$643,584
Operating Costs	1,130,812	1,189,233	1,283,039	\$1,298,668	\$1,314,641	\$1,351,657	\$1,389,755	\$1,443,978	\$1,479,371
Depreciation	373,283	370,893	395,000	395,000	400,000	400,000	410,000	410,000	420,000
SUBTOTAL	2,021,070	2,089,989	2,255,872	2,289,704	2,329,452	2,373,538	2,428,787	2,490,245	2,542,954
MINOR CAPITAL		7,726	0	0	0	0	0	0	0
TOTAL EXPENSE	\$2,021,070	\$2,097,715	\$2,255,872	\$2,289,704	\$2,329,452	\$2,373,538	\$2,428,787	\$2,490,245	\$2,542,954
NET REVENUE (EXPENSE)	\$230,934	\$236,864	\$0	\$181,199	\$225,623	\$268,623	\$302,906	\$294,894	\$296,686
EQUIPMENT FUND INCREASE (DEC)	-8.24%		11.62%	1.50%	1.74%	1.89%	2.33%	2.53%	2.12%

This section adjusts Net Revenue (Expense) to include uses of cash not recorded as expense, and to exclude expenses that do not require the use of cash. The purpose of the adjustment is to reflect the projected uses of cash from FY 19 thru FY 24:

Add: Depreciation	\$395,000	\$400,000	\$400,000	\$400,000	\$410,000	\$410,000	\$410,000	\$410,000	\$420,000
Subtract: Tfrs to Capital Reserve (see Note 2)	(665,000)	(665,000)	(665,000)	(700,000)	(700,000)	(700,000)	(700,000)	(625,000)	(625,000)
Debt Service Principal (see Note 2)	0	0	0	(155,000)	(35,000)	(109,178)	(109,178)	(109,178)	(109,178)
Capital Outlays (see Note 2)	(\$88,801)	(\$39,377)	(\$39,377)	(\$186,377)	(\$22,094)	(\$29,284)	(\$29,284)	(\$29,284)	(\$29,284)
Projected Annual Cash Surplus (Deficit)	\$ 398,789	\$ 359,412	\$ 173,035	\$ 150,941	\$ 121,656	\$ 213,342	\$ 121,656	\$ 213,342	\$ 213,342

Projected cash balance at year end

	\$ 487,590	\$ 398,789	\$ 359,412	\$ 173,035	\$ 150,941	\$ 121,656	\$ 121,656	\$ 213,342	\$ 213,342
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Projected cash balance as a % of operations budget (total minus depreciation)

	21.05%	18.63%	8.77%	7.48%	5.85%	10.05%	5.85%	10.05%	10.05%
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Projected percentage increase - internal fleet charges

	3.50%	3.50%	3.50%	3.50%	3.50%	2.00%	2.00%	2.00%	2.00%
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Note 1: Net Revenue (Expense) indicates the anticipated increase (decrease) in retained earnings at the end of the year.

Note 2: Debt Service principal, capital outlays, and transfers to reserves are balance sheet transactions, and are not included in expenses.

Note 3: Budgeted revenues exclude Use of Surplus / Fund Balance in FY 19-24.

CITY OF KEENE, NEW HAMPSHIRE

Equipment Fund 2019 - 2024 Capital Improvement Program Summary

Dept.	Project Name	2018/2019	2019/2020	2020/2021	2021/2022	2022/2023	2023/2024	TOTAL
Public Works	Capital Reserve - Equipment Replacement	\$ 665,000	\$ 665,000	\$ 700,000	\$ 700,000	\$ 625,000	\$ 625,000	\$ 3,980,000
Public Works	Equipment Replacement	751,341	797,743	732,356	668,685	618,729	574,093	4,142,947
Public Works	Fleet Wash Bay	-	-	155,000	-	-	-	155,000
Public Works	Fuel Island	-	-	-	35,000	-	-	35,000
Public Works	Roof Replacement	-	-	-	-	109,178	-	109,178
TOTAL CAPITAL PROGRAM		\$ 1,416,341	\$ 1,462,743	\$ 1,587,356	\$ 1,403,685	\$ 1,352,907	\$ 1,199,093	\$ 8,422,125

PROJECT FUNDING DETAIL

Reserve Funded Projects

Public Works	Equipment Replacement	\$ 751,341	\$ 797,743	\$ 732,356	\$ 668,685	\$ 618,729	\$ 574,093	\$ 4,142,947
Total: Reserve Funded Projects		\$ 751,341	\$ 797,743	\$ 732,356	\$ 668,685	\$ 618,729	\$ 574,093	\$ 4,142,947

Projects Funded with Debt

Public Works	n/a	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Total: Projects Funded with Debt		\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -

Capital Reserve Appropriations

Public Works	Capital Reserve - Equipment Replacement	\$ 665,000	\$ 665,000	\$ 700,000	\$ 700,000	\$ 625,000	\$ 625,000	\$ 3,980,000
Total: Capital Reserve Appropriations		\$ 665,000	\$ 665,000	\$ 700,000	\$ 700,000	\$ 625,000	\$ 625,000	\$ 3,980,000

Projects Funded with State Grant

Public Works	n/a	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Total: Projects Funded with State Grant		\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -

Projects Funded with Cash

Public Works	Fuel Island	\$ -	\$ -	\$ -	\$ 35,000	\$ -	\$ -	\$ 35,000
Public Works	Roof Replacement	-	-	-	-	109,178	-	109,178
Public Works	Fleet Wash Bay	-	-	155,000	-	-	-	155,000
Total: Projects Funded with Cash		\$ -	\$ -	\$ 155,000	\$ 35,000	\$ 109,178	\$ -	\$ 299,178

Subtotal: Uses of Cash

(Capital Reserve Appropriations plus Projects Funded with Cash)

Subtotal: Uses of Cash		\$ 665,000	\$ 665,000	\$ 855,000	\$ 735,000	\$ 734,178	\$ 625,000	\$ 4,279,178
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TOTAL CAPITAL PROGRAM

TOTAL CAPITAL PROGRAM		\$ 1,416,341	\$ 1,462,743	\$ 1,587,356	\$ 1,403,685	\$ 1,352,907	\$ 1,199,093	\$ 8,422,125
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CITY OF KEENE, NEW HAMPSHIRE
Wells Street Tax Increment Financing District (TIFD)
Opportunities for Additional Public Infrastructure Improvements

FY 19 add annex value at designation \$882,600
 FY 20 add library as developed value \$8m (Note 4)

FY 21 Court House taken out of developed \$7,424,100
 FY 26 Library taken out of developed \$8m

	FY19	FY20	FY21	FY22	FY23	FY24	FY25	FY26	FY27	FY28
Value at designation	\$ 48,867,000	\$ 48,867,000	\$ 48,867,000	\$ 48,766,200	\$ 48,766,200	\$ 48,766,200	\$ 48,766,200	\$ 48,766,200	\$ 48,766,200	\$ 48,766,200
value, as developed	\$ 93,944,300	\$ 101,944,300	\$ 94,520,200	\$ 94,520,200	\$ 94,520,200	\$ 94,520,200	\$ 94,520,200	\$ 86,520,200	\$ 85,691,900	\$ 85,691,900
Captured Assessed Value -Total est available TIFD value increment	\$ 45,077,300	\$ 53,077,300	\$ 45,653,200	\$ 45,754,000	\$ 45,754,000	\$ 45,754,000	\$ 45,754,000	\$ 37,754,000	\$ 36,925,700	\$ 36,925,700

Sources Within TIFD

	FY 17-18 Tax Rate	FY 19	FY 20	FY 21	FY 22	FY 23	FY 24	FY 25	FY 26	FY 27	FY 28
taxes generated by TIFD increment	\$ 1,677,777	\$ 1,975,537	\$ 1,699,212	\$ 1,702,964	\$ 1,702,964	\$ 1,702,964	\$ 1,702,964	\$ 1,702,964	\$ 1,405,204	\$ 1,374,375	\$ 1,374,375
additional revenue - district court rents paid by State of N.H.	\$ 42,500	\$ 42,500									
additional revenue NMTC financing loan interest payment	\$ -	\$ 89,648	\$ 89,648	\$ 89,648	\$ 89,648	\$ 89,648	\$ 89,648	\$ 89,648	\$ 89,648		
Total Sources Within TIFD	\$ 1,720,277	\$ 2,107,685	\$ 1,788,860	\$ 1,792,612	\$ 1,792,612	\$ 1,792,612	\$ 1,792,612	\$ 1,792,612	\$ 1,494,852	\$ 1,374,375	\$ 1,374,375

Uses Within TIFD (As of Fiscal Year 2018)

Wells Street Parking Facility - debt service	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Railroad and Grove Streets, Cypress & Eagle Court - debt service	\$ 401,500	\$ 392,375	\$ 381,425	\$ 370,475	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Courthouse - debt service	\$ 109,000	\$ 107,400	\$ 105,800	\$ 104,000	\$ 102,200	\$ 100,400	\$ 98,600	\$ 96,800	\$ 95,000	\$ 93,200	
Courthouse Taxes (New Market Tax Credits - 7 years)	\$ 263,360	\$ 271,024	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	
Norway Avenue & 93rd Street - debt service	\$ 90,750	\$ 89,250	\$ 87,750	\$ 85,500	\$ 82,500	\$ 79,500	\$ 76,500	\$ 73,500	\$ 70,500	\$ 67,500	
Library Connector and Library Annex Renovation (2017)	\$ 171,188	\$ 167,513	\$ 161,353	\$ 154,293	\$ 152,253	\$ 148,173	\$ 143,113	\$ 139,073	\$ 135,033	\$ 130,988	
Library taxes (New Market tax Credits - 7 years)	\$ 33,672	\$ 303,715	\$ 311,308	\$ 319,091	\$ 327,068	\$ 335,245	\$ 343,626	\$ 352,217	\$ 360,000	\$ 368,000	
Library NMTC management fee	\$ 36,000	\$ 36,000	\$ 36,000	\$ 36,000	\$ 36,000	\$ 36,000	\$ 36,000	\$ 36,000	\$ 36,000	\$ 36,000	
NMTC Audit Fee	\$ 12,500	\$ 12,500	\$ 12,500	\$ 12,500	\$ 12,500	\$ 12,500	\$ 12,500	\$ 12,500	\$ 12,500	\$ 12,500	
NMTC Operating Lease	\$ -	\$ 220,586	\$ 220,586	\$ 220,586	\$ 220,586	\$ 220,586	\$ 220,586	\$ 220,586	\$ 220,586	\$ 220,586	
Wells Street Parking Facility Capital Reserve	\$ 30,000	\$ 30,000	\$ 30,000	\$ 30,000	\$ 30,000	\$ 30,000	\$ 30,000	\$ 30,000	\$ 30,000	\$ 30,000	
Downtown Public Infrastructure Capital Reserve	\$ 200,000	\$ 200,000	\$ 200,000	\$ 200,000	\$ 200,000	\$ 200,000	\$ 200,000	\$ 200,000	\$ 200,000	\$ 200,000	
Total Uses Within TIFD	\$ 1,347,969	\$ 1,830,363	\$ 1,546,722	\$ 1,532,444	\$ 1,163,107	\$ 1,162,403	\$ 1,015,924	\$ 942,175	\$ 320,033	\$ 313,588	

Available For Future Development	\$ 372,308	\$ 277,323	\$ 242,139	\$ 260,168	\$ 629,505	\$ 630,209	\$ 776,688	\$ 552,677	\$ 1,054,342	\$ 1,060,787	
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Future Development within TIFD	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	
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NEW -Parking Structure TBD - debt service (\$5.0m/3.5%/20years)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 87,500	\$ 420,625	\$ 411,875	\$ 403,125
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Total Future Uses Within TIFD	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 87,500	\$ 420,625	\$ 411,875	\$ 403,125
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Excess Sources Within TIFD	\$ 372,308	\$ 277,323	\$ 242,139	\$ 260,168	\$ 629,505	\$ 630,209	\$ 689,188	\$ 132,052	\$ 642,467	\$ 657,662	
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Unretained Assessed Value Within TIF District	\$ 10,002,899	\$ 7,450,902	\$ 6,505,602	\$ 6,989,995	\$ 16,913,093	\$ 16,931,989	\$ 18,516,591	\$ 3,547,874	\$ 17,261,339	\$ 17,669,588	
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Notes:

1. Projections assume no change in assessed value within the TIF District.
2. Taxes generated by TIFD increment utilize the Tax Year 2017 / 2018 Fiscal Year tax rate.
3. Elasticity Review - To test the ability of the TIFD to fund obligations as proposed, a 5% reduction in assessed value occurring in FY 23 was modelled. Under those conditions, the TIFD was able to fund all current and proposed obligations through 2034, except for FY 26. In FY 26, capital reserve appropriations would be eliminated (for one year) and reinstated in 2027 and future years. That model is not shown.
4. Library as developed - set conservatively at \$8m for TIF tax revenue projections value

General Fund 2019 - 2024 Ambulance Capital Reserve

By way of R-2017-26 Fiscal Policies the City confirms the establishment of Capital Reserves as identified under NH RSA 34. The purpose of the Ambulance Capital Reserve is for the aquisition or significant rehabilitation of ambulances.

Proposed Capital Reserve Activity Summary

	<u>FY19</u>	<u>FY20</u>	<u>FY21</u>	<u>FY22</u>	<u>FY23</u>	<u>FY24</u>
Projected Balance - beginning of year	\$206,944	\$2,549	\$82,755	\$173,187	\$3,845	\$94,080
Funding - Current Revenues	35,000	80,000	90,000	90,000	90,000	90,000
Investment Earnings	605	206	432	658	235	828
Proposed Expenditure	(240,000)	0	0	(260,000)	0	0
Projected Balance at End of Fiscal Year	\$2,549	\$82,755	\$173,187	\$3,845	\$94,080	\$184,908

Appropriation

<u>Total</u>	<u>FY19</u>	<u>FY20</u>	<u>FY21</u>	<u>FY22</u>	<u>FY23</u>	<u>FY24</u>
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Proposed Capital Reserve Appropriation (raises resources for use in future projects)

Current Revenues	475,000	35,000	80,000	90,000	90,000	90,000	90,000
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Proposed Projects to Be Funded from the Ambulance Capital Reserve

Ambulance Replacement	240,000	240,000				
Ambulance Replacement	260,000			260,000		

Total Proposed Projects Funded	\$500,000	\$240,000	\$0	\$0	\$260,000	\$0	\$0
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General Fund 2019 - 2024 Fire Apparatus Capital Reserve

By way of R-2017-26 Fiscal Policies the City confirms the establishment of Capital Reserves as identified under NH RSA 34. The purpose of the Fire Equipment Capital Reserve is for the aquisition or significant rehabilitation of fire apparatus.

Proposed Capital Reserve Activity Summary

	<u>FY19</u>	<u>FY20</u>	<u>FY21</u>	<u>FY22</u>	<u>FY23</u>	<u>FY24</u>
Projected Balance - beginning of year	\$300,080	\$701,830	\$4,585	\$345,559	\$7,385	\$253,278
Funding - Current Revenues	400,000	400,000	385,000	385,000	350,000	350,000
Investment Earnings	1,750	2,755	974	1,826	893	2,715
Proposed Expenditure	0	(1,100,000)	(45,000)	(725,000)	(105,000)	0
Projected Balance at End of Fiscal Year	\$701,830	\$4,585	\$345,559	\$7,385	\$253,278	\$605,993

Appropriation Total

	<u>FY19</u>	<u>FY20</u>	<u>FY21</u>	<u>FY22</u>	<u>FY23</u>	<u>FY24</u>
Proposed Capital Reserve Appropriation (raises resources for use in future projects)						
Current Revenues	2,270,000	400,000	400,000	385,000	385,000	350,000

Proposed Projects to Be Funded from the Fire Apparatus Capital Reserve

Ladder Truck	1,100,000	1,100,000				
Brush Truck	45,000		45,000			
Tanker Truck	725,000			725,000		
Brush Truck	45,000				45,000	
Utility Truck	60,000				60,000	

Total Proposed Projects Funded	\$1,975,000	\$0	\$1,100,000	\$45,000	\$725,000	\$105,000	\$0
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General Fund 2019 - 2024 Downtown Infrastructure Capital Reserve

By way of R-2017-26 Fiscal Policies the City confirms the establishment of Capital Reserves as identified under NH RSA 34. The purpose of the Downtown Infrastructure and Facility Improvement Capital Reserve is for infrastructure and facility improvements in the downtown.

Proposed Capital Reserve Activity Summary

	<u>FY19</u>	<u>FY20</u>	<u>FY21</u>	<u>FY22</u>	<u>FY23</u>	<u>FY24</u>
Projected Balance - beginning of year	\$1,212,533	\$1,416,064	\$1,470,104	\$1,574,279	\$1,278,715	\$932,412
Funding - Wells Street TIF District	200,000	200,000	200,000	200,000	200,000	200,000
Investment Earnings	3,531	4,040	4,175	4,436	3,697	2,831
Proposed Expenditure	0	(150,000)	(100,000)	(500,000)	(550,000)	(1,100,000)
Projected Balance at End of Fiscal Year	\$1,416,064	\$1,470,104	\$1,574,279	\$1,278,715	\$932,412	\$35,243

In FY 2013-2014, \$672,000 was appropriated for the predesign of a parking structure in the downtown area. There has been no activity on the project to date. The proposed Downtown Rehabilitation project funding as detailed would preclude use of the FY 2014 appropriation for a new parking deck. For planning purposes, debt service on a \$5 million parking structure project has been modelled in the Wells Street TIFD financial projections should the community decide that such a project is needed.

Appropriation	<u>Total</u>	<u>FY19</u>	<u>FY20</u>	<u>FY21</u>	<u>FY22</u>	<u>FY23</u>	<u>FY24</u>
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Proposed Capital Reserve Appropriation (raises resources for use in future projects)

Wells Street TIF District Appropriation	1,200,000	200,000	200,000	200,000	200,000	200,000	200,000
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Proposed Projects to Be Funded from the Downtown Infrastructure Capital Reserve

Downtown Revitalization	2,400,000	150,000	100,000	500,000	550,000	1,100,000
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Total Proposed Projects Funded	\$2,400,000	\$0	\$150,000	\$100,000	\$500,000	\$550,000	\$1,100,000
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General Fund 2019 - 2024 Transportation Improvements Capital Reserve

By way of R-2017-26 Fiscal Policies the City confirms the establishment of Capital Reserves as identified under NH RSA 34. The purpose of the Transportation Improvements Capital reserve is to fund, wholly or in part, improvements in the transportation system including roads, bridges, bicycle and pedestrian facilities, and intermodal facilities, except for parking.

Proposed Capital Reserve Activity Summary

	<u>FY19</u>	<u>FY20</u>	<u>FY21</u>	<u>FY22</u>	<u>FY23</u>	<u>FY24</u>
Projected Balance - beginning of year	\$101,670	\$31,157	\$131,485	\$232,064	\$42,134	\$142,489
Funding - Motor Vehicle Registration Surcharge (\$5)	100,000	100,000	100,000	100,000	100,000	100,000
Investment Earnings	504	328	579	830	355	606
Proposed Expenditure	(171,017)	0	0	(290,760)	0	(196,156)
Projected Balance at End of Fiscal Year	\$31,157	\$131,485	\$232,064	\$42,134	\$142,489	\$46,939

Appropriation

<u>Total</u>	<u>FY19</u>	<u>FY20</u>	<u>FY21</u>	<u>FY22</u>	<u>FY23</u>	<u>FY24</u>
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Proposed Capital Reserve Appropriation (raises resources for use in future projects)

Motor Vehicle Registration Surcharge	600,000	100,000	100,000	100,000	100,000	100,000	100,000
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Proposed Projects to Be Funded from the Transportation Improvements Capital Reserve

Marlboro Street Corridor Improvements	171,017	171,017					
Keene Bypass - Lower Winchester St.	104,916			68,760			36,156
Victoria Street Extension	222,000			222,000			
Traffic Signal Replacement	160,000						160,000

Total Proposed Projects Funded	\$657,933	\$171,017	\$0	\$0	\$290,760	\$0	\$196,156
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General Fund 2019 - 2024 Bridge Capital Reserve

By way of R-2017-26 Fiscal Policies the City confirms the establishment of Capital Reserves as identified under NH RSA 34. The purpose of the Bridge Capital Reserve is for the construction, reconstruction and rehabilitation of bridges.

Proposed Capital Reserve Activity Summary

	<u>FY19</u>	<u>FY20</u>	<u>FY21</u>	<u>FY22</u>	<u>FY23</u>	<u>FY24</u>
Projected Balance - beginning of year	\$419,096	\$420,144	\$421,194	\$422,247	\$266,773	\$267,440
Funding - Current Revenues	0	0	0	0	0	0
Investment Earnings	1,048	1,050	1,053	1,056	667	669
Proposed Expenditure	0	0	0	(156,530)	0	0
Projected Balance at End of Fiscal Year	\$420,144	\$421,194	\$422,247	\$266,773	\$267,440	\$268,109

Note on FY 19 beginning balance - the beginning balance of \$419,096 excludes an appropriation (R-2014-14) in the amount of \$135,000 for the local match for the Maple Avenue bridge replacement project. The bond has not yet been issued pending state funding.

Appropriation

<u>Total</u>	<u>FY19</u>	<u>FY20</u>	<u>FY21</u>	<u>FY22</u>	<u>FY23</u>	<u>FY24</u>
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Proposed Capital Reserve Appropriation (raises resources for use in future projects)

Current Revenues	0	0	0	0	0	0
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Proposed Projects to Be Funded from the Bridge Capital Reserve

George Street Over Beaver Brook	156,530			156,530		
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Total Proposed Projects Funded	\$156,530	\$0	\$0	\$0	\$156,530	\$0	\$0
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Parking Fund 2019 - 2024 City Hall Parking Deck Capital Reserve

By way of R-2017-26 Fiscal Policies the City confirms the establishment of Capital Reserves as identified under NH RSA 34. The purpose of the City Hall Parking Deck Capital Reserve is for the repair and replacement of existing infrastructure, systems and equipment.

Proposed Capital Reserve Activity Summary

	<u>FY19</u>	<u>FY20</u>	<u>FY21</u>	<u>FY22</u>	<u>FY23</u>	<u>FY24</u>
Projected Balance - beginning of year	\$108,195	\$138,540	\$118,961	\$149,333	\$179,781	\$210,305
Funding - Current Revenues	30,000	30,000	30,000	30,000	30,000	30,000
Investment Earnings	345	421	372	448	524	601
Proposed Expenditure	0	(50,000)	0	0	0	(57,400)
Projected Balance at End of Fiscal Year	\$138,540	\$118,961	\$149,333	\$179,781	\$210,305	\$183,506

Appropriation

Total FY19 FY20 FY21 FY22 FY23 FY24

Proposed Capital Reserve Appropriation (raises resources for use in future projects)

Current Revenues	180,000	30,000	30,000	30,000	30,000	30,000	30,000
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Proposed Projects to Be Funded from the City Hall Parking Deck Capital Reserve

Lower Deck Paving	57,400						57,400
Structural Repairs	50,000		50,000				

Total Proposed Projects Funded	\$107,400	\$0	\$50,000	\$0	\$0	\$0	\$57,400
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Parking Fund 2019 - 2024 Wells Street Parking Deck Capital Reserve

By way of R-2017-26 Fiscal Policies the City confirms the establishment of Capital Reserves as identified under NH RSA 34. The purpose of the Wells Street Parking Facility Capital Reserve is for the repair and replacement of existing infrastructure, systems and equipment.

Proposed Capital Reserve Activity Summary

	<u>FY19</u>	<u>FY20</u>	<u>FY21</u>	<u>FY22</u>	<u>FY23</u>	<u>FY24</u>
Projected Balance - beginning of year	\$163,649	\$194,133	\$224,693	\$255,330	\$236,043	\$168,508
Funding - Wells Street TIF District	30,000	30,000	30,000	30,000	30,000	30,000
Investment Earnings	484	560	637	713	665	496
Proposed Expenditure	0	0	0	(50,000)	(98,200)	0
Projected Balance at End of Fiscal Year	\$194,133	\$224,693	\$255,330	\$236,043	\$168,508	\$199,004

Appropriation

<u>Total</u>	<u>FY19</u>	<u>FY20</u>	<u>FY21</u>	<u>FY22</u>	<u>FY23</u>	<u>FY24</u>
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Proposed Capital Reserve Appropriation (raises resources for use in future projects)

Current Revenues	180,000	30,000	30,000	30,000	30,000	30,000	30,000
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Proposed Projects to Be Funded from the Wells Street Parking Deck Capital Reserve

Lower Deck Paving	98,200				98,200	
Structural Repairs	50,000			50,000		

Total Proposed Projects Funded	\$148,200	\$0	\$0	\$0	\$50,000	\$98,200	\$0
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Solid Waste Fund 2019 - 2024 SW Facility Capital Reserve

By way of R-2017-26 Fiscal Policies the City confirms the establishment of Capital Reserves as identified under NH RSA 34. The purpose of the Transfer/Recycling Center Capital Reserve is for the repair and replacement of existing infrastructure, systems and equipment.

Proposed Capital Reserve Activity Summary

	<u>FY19</u>	<u>FY20</u>	<u>FY21</u>	<u>FY22</u>	<u>FY23</u>	<u>FY24</u>
Projected Balance - beginning of year	\$297,768	\$363,675	\$102,523	\$167,942	\$233,524	\$130,270
Funding - Current Revenues	65,000	65,000	65,000	65,000	65,000	65,000
Investment Earnings	907	1,072	419	582	746	488
Proposed Expenditure	0	(327,224)	0	0	(169,000)	(172,304)
Projected Balance at End of Fiscal Year	\$363,675	\$102,523	\$167,942	\$233,524	\$130,270	\$23,454

Appropriation

<u>Total</u>	<u>FY19</u>	<u>FY20</u>	<u>FY21</u>	<u>FY22</u>	<u>FY23</u>	<u>FY24</u>
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Proposed Capital Reserve Appropriation (raises resources for use in future projects)

Current Revenues	390,000	65,000	65,000	65,000	65,000	65,000	65,000
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Proposed Projects to Be Funded from the Transfer Station Facility Capital Reserve

Recycling Equipment Replacement	327,224		327,224				
Scale System	92,000				92,000		
Facility Interior Improvements	77,000				77,000		
Facility Pavement Replacement	172,304						172,304

Total Proposed Projects Funded	\$668,528	\$0	\$327,224	\$0	\$0	\$169,000	\$172,304
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Sewer Fund 2019 - 2024 Wastewater Treatment Plant Capital Reserve

By way of R-2017-26 Fiscal Policies the City confirms the establishment of Capital Reserves as identified under NH RSA 34. The purpose of the Wastewater Treatment Plant Capital Reserve is for the repair and replacement of major components of the plant, including equipment and building.

Proposed Capital Reserve Activity Summary

	<u>FY19</u>	<u>FY20</u>	<u>FY21</u>	<u>FY22</u>	<u>FY23</u>	<u>FY24</u>
Projected Balance - beginning of year	\$615,931	\$643,575	\$586,124	\$449,637	\$621,186	\$757,272
Funding - Current Revenues	120,000	120,000	170,000	170,000	170,000	170,000
Investment Earnings	1,840	1,909	1,890	1,549	1,978	2,318
Proposed Expenditure	(94,196)	(179,360)	(308,377)	0	(35,892)	0
Projected Balance at End of Fiscal Year	\$643,575	\$586,124	\$449,637	\$621,186	\$757,272	\$929,590

Appropriation

<u>Total</u>	<u>FY19</u>	<u>FY20</u>	<u>FY21</u>	<u>FY22</u>	<u>FY23</u>	<u>FY24</u>
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Proposed Capital Reserve Appropriation (raises resources for use in future projects)

Current Revenues	920,000	120,000	120,000	170,000	170,000	170,000	170,000
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Proposed Projects to Be Funded from the Wastewater Treatment Plant Capital Reserve

Nonpotable water System	65,400	65,400				
Generator Replacement	144,767	21,131		123,636		
Tunnel HVAC Insulation Replacement	35,892				35,892	
Blower Replacement	371,766	7,665	179,360	184,741		

Total Proposed Projects Funded	\$617,825	\$94,196	\$179,360	\$308,377	\$0	\$35,892	\$0
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Sewer Fund 2019 - 2024 Martell Court Pump Station Capital Reserve

By way of R-2017-26 Fiscal Policies the City confirms the establishment of Capital Reserves as identified under NH RSA 34. The purpose of the Martell Court Pumping Station Capital Reserve is for the repair and replacement of major components of the plant, including equipment and building.

Proposed Capital Reserve Activity Summary

	<u>FY19</u>	<u>FY20</u>	<u>FY21</u>	<u>FY22</u>	<u>FY23</u>	<u>FY24</u>
Projected Balance - beginning of year	\$465,975	\$408,473	\$409,494	\$279,708	\$315,495	\$358,757
Funding - Current Revenues	0	0	0	35,000	75,000	75,000
Investment Earnings	1,165	1,021	1,024	787	976	1,084
Proposed Expenditure	(58,667)	0	(130,810)	0	(32,714)	0
Projected Balance at End of Fiscal Year	\$408,473	\$409,494	\$279,708	\$315,495	\$358,757	\$434,841

<u>Appropriation Total</u>	<u>FY19</u>	<u>FY20</u>	<u>FY21</u>	<u>FY22</u>	<u>FY23</u>	<u>FY24</u>
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Proposed Capital Reserve Appropriation (raises resources for use in future projects)

Current Revenues	185,000	0	0	0	35,000	75,000	75,000
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Proposed Projects to Be Funded from the Martell Court Pump Station Capital Reserve

Martell Court Phase 3	189,477	58,667	130,810			
Roof Replacement	32,714				32,714	

Total Proposed Projects Funded	\$222,191	\$58,667	\$0	\$130,810	\$0	\$32,714	\$0
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Sewer Fund 2019 - 2024 Sewer Infrastructure Capital Reserve

By way of R-2017-26 Fiscal Policies the City confirms the establishment of Capital Reserves as identified under NH RSA 34. The purpose of the Sewer Infrastructure Capital Reserve is for the repair and replacement of existing infrastructure, systems and equipment including pump stations and the collection systems.

Proposed Capital Reserve Activity Summary

	<u>FY19</u>	<u>FY20</u>	<u>FY21</u>	<u>FY22</u>	<u>FY23</u>	<u>FY24</u>
Projected Balance - beginning of year	\$1,039,491	\$586,698	\$543,401	\$1,171,322	\$1,118,667	\$1,174,965
Funding - Current Revenues	600,000	615,000	625,000	450,000	575,000	700,000
Investment Earnings	4,099	3,004	2,921	4,053	4,234	4,687
Proposed Expenditure	(1,056,892)	(661,301)	0	(506,708)	(522,936)	(945,012)
Projected Balance at End of Fiscal Year	\$586,698	\$543,401	\$1,171,322	\$1,118,667	\$1,174,965	\$934,640

Appropriation Total

	<u>FY19</u>	<u>FY20</u>	<u>FY21</u>	<u>FY22</u>	<u>FY23</u>	<u>FY24</u>
Proposed Capital Reserve Appropriation (raises resources for use in future projects)						
Current Revenues	3,565,000	600,000	615,000	625,000	450,000	700,000

Proposed Projects to Be Funded from the Sewer Infrastructure Capital Reserve

Sewer Main Improvements	2,969,130	653,101	661,301	506,708	365,336	782,684
Bridge Replacement Sewer Mains	43,500	43,500				
Winchester Street Bypass Sewer Main	360,291	360,291				
Sewer Manhole Lining	319,928				157,600	162,328

Total Proposed Projects Funded	\$3,692,849	\$1,056,892	\$661,301	\$0	\$506,708	\$522,936	\$945,012
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Water Fund 2019 - 2024 Water Infrastructure Capital Reserve

By way of R-2017-26 Fiscal Policies the City confirms the establishment of Capital Reserves as identified under NH RSA 34. The purpose of the Water Infrastructure Capital Reserve is for the repair and replacement of major components of existing infrastructure, systems and equipment including wells, lift stations, tanks etc., and the distribution system.

Proposed Capital Reserve Activity Summary

	<u>FY19</u>	<u>FY20</u>	<u>FY21</u>	<u>FY22</u>	<u>FY23</u>	<u>FY24</u>
Projected Balance - beginning of year	\$1,442,350	\$1,333,843	\$1,750,932	\$2,431,997	\$2,412,851	\$1,433,810
Funding - Current Revenues	675,000	675,000	675,000	700,000	700,000	700,000
Investment Earnings	5,293	5,022	6,065	7,830	7,782	5,335
Proposed Expenditure	(788,800)	(262,933)	0	(726,976)	(1,686,823)	(1,008,843)
Projected Balance at End of Fiscal Year	\$1,333,843	\$1,750,932	\$2,431,997	\$2,412,851	\$1,433,810	\$1,130,302

Appropriation

<u>Total</u>	<u>FY19</u>	<u>FY20</u>	<u>FY21</u>	<u>FY22</u>	<u>FY23</u>	<u>FY24</u>
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Proposed Capital Reserve Appropriation (raises resources for use in future projects)

Current Revenues	4,125,000	675,000	675,000	675,000	700,000	700,000	700,000
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Proposed Projects to Be Funded from the Water Infrastructure Capital Reserve

Water Distribution (Main) Improvements	2,029,331	500,000		107,812	1,278,233	143,286	
Bridge Replacement Water Mains	85,830	38,300		47,530			
Winchester Street Bypass Water Main	250,500	250,500					
Well Field Evaluation Plan	483,590		75,000		408,590		
Black Brook Water Tank	35,000		5,000	30,000			
Fox Avenue Booster Station Upgrade	21,446		21,446				
Glenn Road Booster Station Upgrade	21,446		21,446				
Drummer Hill Water Tank	848,723		25,000	208,959		614,764	
Chapman Road Water Tank	79,449		25,000	54,449			
1.5 MG Water Tank Upgrade	368,267		90,041	278,226			
Emergency Generators Replacement	250,793					250,793	
Total Proposed Projects Funded	\$4,474,375	\$788,800	\$262,933	\$0	\$726,976	\$1,686,823	\$1,008,843

Water Fund 2019 - 2024 Water Treatment Facility Infrastructure Capital Reserve

By way of R-2017-26 Fiscal Policies the City confirms the establishment of Capital Reserves as identified under NH RSA 34. The purpose of the Water Treatment Facility Capital Reserve is for the repair and replacement of major components of facility including pumps, controls, chemical systems, etc., and, building components.

Proposed Capital Reserve Activity Summary

	<u>FY19</u>	<u>FY20</u>	<u>FY21</u>	<u>FY22</u>	<u>FY23</u>	<u>FY24</u>
Projected Balance - beginning of year	\$726,132	\$707,655	\$603,171	\$760,066	\$714,228	\$866,384
Funding - Current Revenues	115,000	85,000	155,000	155,000	220,000	220,000
Investment Earnings	2,103	1,982	1,895	2,288	2,336	2,716
Proposed Expenditure	(135,580)	(191,466)	0	(203,126)	(70,180)	(215,496)
Projected Balance at End of Fiscal Year	\$707,655	\$603,171	\$760,066	\$714,228	\$866,384	\$873,604

Appropriation

<u>Total</u>	<u>FY19</u>	<u>FY20</u>	<u>FY21</u>	<u>FY22</u>	<u>FY23</u>	<u>FY24</u>
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Proposed Capital Reserve Appropriation (raises resources for use in future projects)

Current Revenues	950,000	115,000	85,000	155,000	155,000	240,000	200,000
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Proposed Projects to Be Funded from the Water Infrastructure Capital Reserve

Pressure Reduction Valve	86,058	86,058					
Instrumentation Upgrade	49,522	49,522					
Pavement Replacement	70,180					70,180	
Filter Media Replacement	610,088		191,466		203,126		215,496

Total Proposed Projects Funded	\$815,848	\$135,580	\$191,466	\$0	\$203,126	\$70,180	\$215,496
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Fleet Fund 2019 - 2024 Equipment Replacement Capital Reserve

By way of R-2017-26 Fiscal Policies the City confirms the establishment of Capital Reserves as identified under NH RSA 34. The purpose of the Fleet Equipment Capital Reserve is for the replacement of vehicles and equipment under the management of Fleet Services.

Proposed Capital Reserve Activity Summary

	<u>FY19</u>	<u>FY20</u>	<u>FY21</u>	<u>FY22</u>	<u>FY23</u>	<u>FY24</u>
Projected Balance - beginning of year	\$469,219	\$383,835	\$251,720	\$219,913	\$251,856	\$258,772
Funding - Current Revenues	665,000	665,000	700,000	700,000	625,000	625,000
Investment Earnings	957	628	548	628	645	774
Proposed Expenditure	(751,341)	(797,743)	(732,356)	(668,685)	(618,729)	(574,093)
Projected Balance at End of Fiscal Year	<u>\$383,835</u>	<u>\$251,720</u>	<u>\$219,913</u>	<u>\$251,856</u>	<u>\$258,772</u>	<u>\$310,453</u>

Appropriation

<u>Total</u>	<u>FY19</u>	<u>FY20</u>	<u>FY21</u>	<u>FY22</u>	<u>FY23</u>	<u>FY24</u>
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Proposed Capital Reserve Appropriation (raises resources for use in future projects)

Current Revenues	3,980,000	665,000	665,000	700,000	700,000	625,000	625,000
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Proposed Projects to Be Funded from the Equipment Replacement Capital Reserve

Equipment Replacement	4,142,947	751,341	797,743	732,356	668,685	618,729	574,093
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Total Proposed Projects Funded	<u>\$4,142,947</u>	<u>\$751,341</u>	<u>\$797,743</u>	<u>\$732,356</u>	<u>\$668,685</u>	<u>\$618,729</u>	<u>\$574,093</u>
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Public Health and Safety – programs, activities, and projects which are intended to protect the health and safety of individuals and the community. The primary goal of these activities is the protection of the public from dangers affecting health and safety from crime, disaster, fire, and disease.

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FIRE & EMERGENCY MEDICAL SERVICE APPARATUS SCHEDULES

CITY OF KEENE AMBULANCE REPLACEMENT SCHEDULE										
2019 - 2024 Capital Improvement Program										
Vehicle #	Description	Year	Use	FY19	FY20	FY21	FY22	FY23	FY24	Later Years
19A3	Ambulance	2009	EMS	240,000						
19A2	Ambulance	2012	EMS				260,000			
			TOTAL	\$240,000	\$0	\$0	\$260,000	\$0	\$0	

Future CIP Programs: Anticipated Replacement Costs

FY25 Ambulance (19A1) Purchased 2016 \$275,000

CITY OF KEENE FIRE APPARATUS REPLACEMENT SCHEDULE										
2019 - 2024 Capital Improvement Program										
Vehicle #	Description	Year	Use	FY19	FY20	FY21	FY22	FY23	FY24	Later Years
19L1	Ladder Truck	1997	Fire		1,100,000					
19B1	Brush Truck	2002	Fire			45,000				
19B2	Brush Truck	2003	Fire					45,000		
19T1	Tanker	2005	Fire				725,000			
19U1	Utility	2006	Fire					60,000		
19R1	Rescue	2010	Fire							2025
19E2	Engine	2013	Fire							2028
			TOTAL	\$0	\$1,100,000	\$45,000	\$725,000	\$105,000	\$0	

Future CIP Programs: Anticipated Replacement Costs

FY25 Replacement of Rescue 1 (Purchased 2010) \$756,396
 FY28 Replacement of Engine 2 (Purchased 2013) \$738,386
 FY29 Fire Alarm Truck (Purchased 2015) \$198,104
 FY31 Replacement Engine 1 (Purchased 2015) \$856,000
 FY33 Quint 19L2 (Purchased 2017) \$1,550,000

CITY OF KEENE, NEW HAMPSHIRE

2019 - 2024 Capital Project Funding Request

GENERAL PROJECT DATA

Project Name: **Ambulance Replacement**
 Department: **Fire Department**
 Physical Location: **31 Vernon Street**
 Federal Mandate: **N/A**

State Regulation or Law: **Shall meet State requirement for licensing and DOT inspections**
 Master Plan (CMP) Focus Area: **Healthy Community**

CMP Vision/Strategy: **Emergency Preparedness**

Council Initiative: **N/A**

V.O.I.C.E.: **Establish Priorities**

Departmental Objective: **Ensure safety and reliability to staff and community with our fleet of ambulances**



PROJECT DESCRIPTION/JUSTIFICATION

The Ambulance Capital Reserve Fund is designed to provide adequate resources for the replacement of ambulances in accordance with a schedule that calls for replacement of one of the City's three ambulances every three years. The replacement schedule is reviewed annually and replacements advanced considering equipment condition. The regular planned replacement of ambulances minimizes on-going maintenance costs, down-time, and a need to rely on other back-up services. Vehicle costs are projected to continue to increase as national and state standards for ambulance requirements are updated. The replacement schedule for units during this CIP cycle includes replacement of 19A3 in FY19 and 19A2 in FY22.

FINANCIAL PLAN & PROJECT SCHEDULE

	PRIOR YR	FY19	FY20	FY21	FY22	FY23	FY24	TOTAL
EXPENDITURES								
Design								0
Construction/Implementation								0
Property/Equip. Acquisition		240,000			260,000			500,000
TOTAL	\$0	\$240,000	\$0	\$0	\$260,000	\$0	\$0	\$500,000
FUNDING								
Current Revenue								0
Capital Reserve		240,000			260,000			500,000
Debt Funded								0
Federal or State Grants								0
Other Sources								0
TOTAL	\$0	\$240,000	\$0	\$0	\$260,000	\$0	\$0	\$500,000

ANNUAL DEPARTMENT OPERATING BUDGET IMPACT: Reduce - will reduce operating costs
 Multi-year

PROJECT STATUS: Ongoing CIP

CITY OF KEENE, NEW HAMPSHIRE

2019 - 2024 Capital Project Funding Request

GENERAL PROJECT DATA

Project Name: **Apparatus Replacement**
 Department: **Fire Department**
 Physical Location: **31 Vernon Street**
 Federal Mandate: **Annual Certifications**
 State Regulation or Law: **Annual DOT Inspections**
 Master Plan (CMP) Focus Area: **Healthy Community**
 CMP Vision/Strategy: **Emergency Preparedness**
 Council Initiative: **N/A**
 V.O.I.C.E.: **Establish Priorities**
 Departmental Objective: **Ensure Safety and Reliability to Staff and Community**



PROJECT DESCRIPTION/JUSTIFICATION

The Fire Equipment Reserve is designed to provide adequate funds to replace or rebuild fire apparatus as scheduled in the replacement plan. The fund can also be used periodically for major repairs to fire apparatus including the replacement of engines and transmissions. This fund has been used successfully for many years to ensure the availability of funds when the purchase of fire apparatus is required. Current and proposed funding rates will provide resources sufficient for all purchases including the replacement of Ladder 1 currently scheduled for FY20.

Fire service responsibilities and equipment carried to meet our mission continue to evolve. To ensure a timely replacement of fire apparatus the current schedule was developed. The replacement schedule allows for new safety technology, ergonomics, structural integrity of vehicles, compliance with NFPA standards, and new innovations to be incorporated into the apparatus. This schedule also assures reliability to provide the best service to the community and the safety of our personnel. The need for reliable apparatus is a critical component of fire protection within the City. This reserve provides funding that will allow the City to replace all apparatus at the appropriate time assuring a reliable fleet.

FINANCIAL PLAN & PROJECT SCHEDULE

	PRIOR YR	FY19	FY20	FY21	FY22	FY23	FY24	TOTAL
EXPENDITURES								
Design								0
Construction/Implementation								0
Property/Equip. Acquisition			1,100,000	45,000	725,000	105,000		1,975,000
TOTAL	\$0	\$0	\$1,100,000	\$45,000	\$725,000	\$105,000	\$0	\$1,975,000
FUNDING								
Current Revenue								0
Capital Reserve			1,100,000	45,000	725,000	105,000		1,975,000
Debt Funded								0
Federal or State Grants								0
Other Sources								0
TOTAL	\$0	\$0	\$1,100,000	\$45,000	\$725,000	\$105,000	\$0	\$1,975,000

ANNUAL DEPARTMENT OPERATING BUDGET IMPACT: Create efficiencies
Multi-year

PROJECT STATUS: Ongoing CIP

CITY OF KEENE, NEW HAMPSHIRE

2019 - 2024 Capital Project Funding Request

GENERAL PROJECT DATA

Project Name: **Portable Radio Replacement**
 Department: **Fire Department**
 Physical Location: **31 Vernon Street**
 Federal Mandate: **N/A**
 State Regulation or Law: **N/A**
 Master Plan (CMP) Focus Area: **Healthy Community**
 CMP Vision/Strategy: **Emergency Preparedness**
 Council Initiative: **N/A**
 V.O.I.C.E.: **Establish Priorities**
 Departmental Objective: **Emergency Preparedness and Personnel Safety**



PROJECT DESCRIPTION/JUSTIFICATION

This portable radio communications project will replace portable radios that are used daily by Fire/EMS personnel during emergency and non-emergency operations to manage incidents, communicate with other City departments, request needed resources, and provide accountability and safety for our personnel and the public. The project for replacement of all units started in FY17 and will continue through FY19-FY20.

As part of the New Hampshire Radio Interoperability Program all portable radios were replaced by grant funded radios in 2006. The units for Keene were delivered in 2006. This replacement program will allow us to maintain emergency preparedness and personnel safety by having units that are reliable and serviceable as needed for at least the next ten years. The Department currently operates and maintains sixty-five portable radios. The goal is to replace remaining units over a two year period unless grants or other funding becomes available to accelerate replacement.

FINANCIAL PLAN & PROJECT SCHEDULE

	PRIOR YR	FY19	FY20	FY21	FY22	FY23	FY24	TOTAL
EXPENDITURES								
Design								0
Construction/Implementation								0
Property/Equip. Acquisition		52,500	52,500					105,000
TOTAL	\$0	\$52,500	\$52,500	\$0	\$0	\$0	\$0	\$105,000
FUNDING								
Current Revenue		52,500	52,500					105,000
Capital Reserve								0
Debt Funded								0
Federal or State Grants								0
Other Sources								0
TOTAL	\$0	\$52,500	\$52,500	\$0	\$0	\$0	\$0	\$105,000

ANNUAL DEPARTMENT OPERATING BUDGET IMPACT: Create efficiencies Multi-year **PROJECT STATUS:** Ongoing CIP

CITY OF KEENE, NEW HAMPSHIRE

2019 - 2024 Capital Project Funding Request

GENERAL PROJECT DATA

Project Name: **Self Contained Breathing Apparatus**
 Department: **Fire Department**
 Physical Location:
 Federal Mandate: **OSHA 42 CFR Respiratory Protection Devices**
 State Regulation or Law:
 Master Plan (CMP) Focus Area: **Healthy Community**
 CMP Vision/Strategy: **Emergency Preparedness**
 Council Initiative: **N/A**
 V.O.I.C.E.: **Establish Priorities**
 Departmental Objective: **Emergency Preparedness and Personnel Safety**



PROJECT DESCRIPTION/JUSTIFICATION

Firefighter respiratory protection is critical for firefighters to be able to enter toxic atmospheres for the protection of life and property. Toxic atmospheres related to building fires, hazardous materials incidents and oxygen deficient atmospheres are all times when self contained breathing apparatus are used to protect our staff. The current useful life span of our units expires in FY24 at which time the units will be 15 years old. This project is required to maintain compliance and certification with National Institute for Occupational Safety and Health (NIOSH) and Occupational Safety and Health Administration (OSHA) Code of Federal Regulations 42 CFR Part 84 Respiratory Protective Devices.

The Self Contained Breathing Apparatus (SCBA) Project will replace 58- SCBA's, 134- face pieces, 93- SCBA bottles (30 minute), 10- SCBA bottles (60 minute), and 4- Rapid Intervention SCBA. The units will meet the NFPA 1981 Standards for Breathing Apparatus.

FINANCIAL PLAN & PROJECT SCHEDULE

	PRIOR YR	FY19	FY20	FY21	FY22	FY23	FY24	TOTAL
EXPENDITURES								
Design								0
Construction/Implementation								0
Property/Equip. Acquisition							847,676	847,676
TOTAL	\$0	\$0	\$0	\$0	\$0	\$0	\$847,676	\$847,676
FUNDING								
Current Revenue								0
Capital Reserve								0
Debt Funded							847,676	847,676
Federal or State Grants								0
Other Sources								0
TOTAL	\$0	\$0	\$0	\$0	\$0	\$0	\$847,676	\$847,676

ANNUAL DEPARTMENT OPERATING BUDGET IMPACT: Create efficiencies
Multi-year

PROJECT STATUS: New Project

CITY OF KEENE, NEW HAMPSHIRE

2019 - 2024 Capital Project Funding Request

GENERAL PROJECT DATA

Project Name: **Portable Radios**
 Department: **Police**
 Physical Location: **400 Marlboro Street**
 Federal Mandate: **N/A**

State Regulation or Law: **N/A**

Master Plan (CMP) Focus Area: **Strong Citizenship and Proactive Leadership**

CMP Vision/Strategy: **Emergency Preparedness**

Council Initiative: **N/A**

V.O.I.C.E.: **Continually Assess Facilities and Infrastructure**

Departmental Objective: **To improve emergency and non-emergency operations for our first responders.**



PROJECT DESCRIPTION/JUSTIFICATION

As part of the New Hampshire Radio Interoperability Program all portable radios were replaced by grant funded radios in 2006. The units for Keene were delivered in 2006. This replacement program would allow us to maintain emergency preparedness and personnel safety by having units that are reliable and serviceable as needed for at least the next ten years. The Department currently operates and maintains sixty-three (63) portable radios. The goal would be to replace all units over a three year period unless grants or other funding becomes available to accelerate replacement.

FINANCIAL PLAN & PROJECT SCHEDULE

	PRIOR YR	FY19	FY20	FY21	FY22	FY23	FY24	TOTAL
EXPENDITURES								
Design								0
Construction/Implementation								0
Property/Equip. Acquisition		73,497	73,497	73,497				220,491
TOTAL	\$0	\$73,497	\$73,497	\$73,497	\$0	\$0	\$0	\$220,491
FUNDING								
Current Revenue		73,497	73,497	73,497				220,491
Capital Reserve								0
Debt Funded								0
Federal or State Grants								0
Other Sources								0
TOTAL	\$0	\$73,497	\$73,497	\$73,497	\$0	\$0	\$0	\$220,491

ANNUAL DEPARTMENT OPERATING BUDGET IMPACT:

Multi-year

PROJECT STATUS:

Ongoing CIP

Solid Waste

The Keene Solid Waste Division is focused on protection of human health and the environment through the activities and actions required to manage waste from its inception to its final disposal. This includes collection, transport, treatment, and disposal of waste together with monitoring and regulation. Proper management of waste prevents the spread of disease and reduces air and water pollution associated with disposal of waste material.

The City of Keene Solid Waste Division operates under a public/private partnership. The Solid Waste Division employs 7 full time and 4 part-time employees to manage the operations of the Transfer Station and Recycling Center. The Solid Waste Division sub-contracts the transportation and disposal of refuse from the Transfer Station and transportation of commodities from Recycling Center. Residential collection service is performed by private contractors under a permit system administered by the City. Commercial collection service is performed by private contractors, but the City does not have a permit system for commercial collection.

The City of Keene Solid Waste Division is structured as a special revenue fund where fees for services and revenue from the sale of commodities cover the majority of the expenses. The Solid Waste Division is able to continue operating in this manner due to a combination of a flow control ordinance which directs all waste generated in Keene to the Solid Waste Facility, a business relationship with Waste Management of New Hampshire to transport and dispose of the refuse from the Transfer Station in addition to a contracted tonnage brought to the facility by Waste Management of New Hampshire from outside Keene at a set tipping fee. The sale of commodities has generated over \$400,000 of income each year as well as avoiding the cost of disposing these commodities. No property tax revenue supports the Solid Waste Division. The Solid Waste Division operates 8 cost centers with revenues and expenses in excess of \$4.1M.

The Keene Transfer Station processes over 30,000 tons of solid waste and the Keene Recycling Center sorts over 6,000 tons of recyclable material per year. The mission of the City of Keene Solid Waste Division is to provide solid waste facilities that maximize diversion of the waste stream in an efficient, economical, and environmentally sensitive manner. To support that mission, City Council voted to support a hierarchy of disposal practices to guide future solid waste operations in Keene by emphasizing diversion of waste to the greatest extent possible.

The Solid Waste Division operations supports a quality built environment for our future by fostering renewable energy and efficient use of resources through reduction, reuse, recycling, and composting as well as promoting recycling services for both commercial and residential users. The City's waste diversion efforts also support a unique natural environment by being a leader in promoting and supporting initiatives that work toward community sustainability through reducing community greenhouse gas emissions through waste reduction promotion, recycling, management of landfill gas, and installation of a biofuel generator for electricity at the Solid Waste Facility to meet climate action plan targets, and moving towards a carbon neutral community.

CITY OF KEENE, NEW HAMPSHIRE

2019 - 2024 Capital Project Funding Request

GENERAL PROJECT DATA

Project Name: **Recycling Equipment Replacement**
 Department: **Public Works - Solid Waste Fund**
 Physical Location: **55 Old Summit Road**
 Federal Mandate: **N/A**
 State Regulation or Law: **N/A**
 Master Plan (CMP) Focus Area: **Quality Built Environment**
 CMP Vision/Strategy: **Renewable Energy and Efficient Use of Resources**
 Council Initiative: **N/A**
 V.O.I.C.E.: **Continually Assess Facilities and Infrastructure**
 Departmental Objective: **Allows for continued diversion of waste stream through recycling**



PROJECT DESCRIPTION/JUSTIFICATION

In 2018 the Keene Recycling Center will be 24 years old and each piece of original equipment will have over 26,744 hours of use. All of the original equipment has a manufacturer expected life span of 10 years. The Solid Waste Division currently contracts scheduled/preventative maintenance on all equipment to extend the life of the equipment where possible. Only equipment that no longer functions properly, affects facility efficiency, or represents a safety hazard would be replaced. Equipment expected to be replaced over the next several years includes the eddy current separator (for aluminum cans) and cross belt magnet (for steel cans), and horizontal baler.

The following equipment will be replaced in 2020 the cost listed includes installation: eddy current separator \$34,873, cross belt magnet \$42,351, and horizontal baler \$250,000. The Solid Waste Division conducts an annual assessment of equipment to determine if the replacement can be delayed or needs replacement sooner. An established capital reserve account funds the repair/replacement of major pieces of equipment at the Recycling Center.

FINANCIAL PLAN & PROJECT SCHEDULE

	PRIOR YR	FY19	FY20	FY21	FY22	FY23	FY24	TOTAL
EXPENDITURES								
Design								0
Construction/Implementation								0
Property/Equip. Acquisition			327,224					327,224
TOTAL	\$0	\$0	\$327,224	\$0	\$0	\$0	\$0	\$327,224
FUNDING								
Current Revenue								0
Capital Reserve			327,224					327,224
Debt Funded								0
Federal or State Grants								0
Other Sources								0
TOTAL	\$0	\$0	\$327,224	\$0	\$0	\$0	\$0	\$327,224

ANNUAL DEPARTMENT OPERATING BUDGET IMPACT: Negligible<\$5,001
Multi-year

PROJECT STATUS: Ongoing CIP

CITY OF KEENE, NEW HAMPSHIRE

2019 - 2024 Capital Project Funding Request

GENERAL PROJECT DATA

Project Name: **Weight Scale Replacement**
 Department: **Public Works - Solid Waste Fund**
 Physical Location: **55 Old Summit Road**
 Federal Mandate: **N/A**
 State Regulation or Law: **N/A**
 Master Plan (CMP) Focus Area: **Quality Built Environment**
 CMP Vision/Strategy: **Infrastructure**
 Council Initiative: **N/A**
 V.O.I.C.E.: **Continually Assess Facilities and Infrastructure**
 Departmental Objective: **Accurately weigh inbound and outbound material to ensure cost of services are properly accounted**



PROJECT DESCRIPTION/JUSTIFICATION

A properly functioning scale is critical to the Solid Waste Division operation. The existing in-ground weight scale will have over 20 years of service in 2023. While the scale is regularly serviced there are components that simply wear out over time. All inbound and outbound material is weighed including waste and recycling. It is these weights that determine the revenue the City receives from customers as well as the expenses the City pays to vendors. The State of New Hampshire Bureau of Weights and Measures provides the City its certifications that the scale is operating properly and consistently calibrated to ensure accuracy. Replacement of the scale will ensure continued certification and accuracy in weighing material.

FINANCIAL PLAN & PROJECT SCHEDULE

	PRIOR YR	FY19	FY12	FY21	FY22	FY23	FY24	TOTAL
EXPENDITURES								
Design						5,000		5,000
Construction/Implementation						87,000		87,000
Property/Equip. Acquisition								0
TOTAL	\$0	\$0	\$0	\$0	\$0	\$92,000	\$0	\$92,000
FUNDING								
Current Revenue								0
Capital Reserve						92,000		92,000
Debt Funded								0
Federal or State Grants								0
Other Sources								0
TOTAL	\$0	\$0	\$0	\$0	\$0	\$92,000	\$0	\$92,000

ANNUAL DEPARTMENT OPERATING BUDGET IMPACT: Minimal \$5,001 to \$25,000
One time

PROJECT STATUS: Ongoing CIP

CITY OF KEENE, NEW HAMPSHIRE

2019 - 2024 Capital Project Funding Request

GENERAL PROJECT DATA

Project Name: **Refurbish Interior Facility**
 Department: **Public Works - Solid Waste Fund**
 Physical Location: **55 Old Summit Road**
 Federal Mandate: **N/A**
 State Regulation or Law: **N/A**
 Master Plan (CMP) Focus Area: **Quality Built Environment**
 CMP Vision/Strategy: **Infrastructure**
 Council Initiative: **N/A**
 V.O.I.C.E.: **Continually Assess Facilities and Infrastructure**
 Departmental Objective: **Provide clean, safe facilities for employees to perform their duties**



PROJECT DESCRIPTION/JUSTIFICATION

The Keene Recycling Center was built in 1994. In 2023 it will be 29 years old. In its existence there have been no interior updates. The facility is in need of flooring replacement, along with updates to the entire office layout, sanitary facilities, locker rooms, and break rooms to include the installation of shower facilities for staff. The operations control center located above the existing balers also needs to be re-worked to reflect the administrative services required.

FINANCIAL PLAN & PROJECT SCHEDULE

	PRIOR YR	FY19	FY20	FY21	FY22	FY23	FY24	TOTAL
EXPENDITURES								
Design						7,000		7,000
Construction/Implementation						70,000		70,000
Property/Equip. Acquisition								0
TOTAL	\$0	\$0	\$0	\$0	\$0	\$77,000	\$0	\$77,000
FUNDING								
Current Revenue								0
Capital Reserve						77,000		77,000
Debt Funded								0
Federal or State Grants								0
Other Sources								0
TOTAL	\$0	\$0	\$0	\$0	\$0	\$77,000	\$0	\$77,000

ANNUAL DEPARTMENT OPERATING BUDGET IMPACT: Negligible<\$5,001
One time

PROJECT STATUS: Ongoing CIP

CITY OF KEENE, NEW HAMPSHIRE

2019 - 2024 Capital Project Funding Request

GENERAL PROJECT DATA

Project Name: **Transfer Station Roof Repair**
 Department: **Public Works - Solid Waste Fund**
 Physical Location: **55 Old Summit Road**
 Federal Mandate: **N/A**
 State Regulation or Law: **N/A**
 Master Plan (CMP) Focus Area: **Quality Built Environment**
 CMP Vision/Strategy: **Infrastructure**
 Council Initiative: **N/A**
 V.O.I.C.E.: **Continually Assess Facilities and Infrastructure**
 Departmental Objective: **Maintain recycling facility to enable continued processing of recyclables**



PROJECT DESCRIPTION/JUSTIFICATION

The Solid Waste Facility was built in 1994. The Solid Waste Division, through CMA Engineers, the original designers of the facility, conducted an evaluation of the site in 2013 to review drainage systems, building condition, and road systems. The evaluation resulted in recommendations for short and long term capital needs to maintain the facility. The facility has undergone some short term improvements including removal of sediment in the detention pond, and re-setting and cleaning catch basins to provide adequate drainage. One of the pressing long term capital needs identified is a replacement of the roof on the solid waste facility building. Small leaks are beginning to appear in the roof which are patched as necessary, but the overall integrity of the roof, which was designed to last 20 years, is expected to become compromised. The roof would be 26 years old at the scheduled time of replacement. The roof will be evaluated every year to determine if the project needs to be accelerated or can be deferred.

FINANCIAL PLAN & PROJECT SCHEDULE

	PRIOR YR	FY19	FY20	FY21	FY22	FY23	FY24	TOTAL
EXPENDITURES								
Design								0
Construction/Implementation			166,750					166,750
Property/Equip. Acquisition								0
TOTAL	\$0	\$0	\$166,750	\$0	\$0	\$0	\$0	\$166,750
FUNDING								
Current Revenue								0
Capital Reserve								0
Debt Funded			166,750					166,750
Federal or State Grants								0
Other Sources								0
TOTAL	\$0	\$0	\$166,750	\$0	\$0	\$0	\$0	\$166,750

ANNUAL DEPARTMENT OPERATING BUDGET IMPACT: Negligible<\$5,001
One time

PROJECT STATUS: Ongoing CIP

CITY OF KEENE, NEW HAMPSHIRE

2019 - 2024 Capital Project Funding Request

GENERAL PROJECT DATA

Project Name: **Pavement Replacement**
 Department: **Public Works - Solid Waste Fund**
 Physical Location: **55 Old Summit Road**
 Federal Mandate: **No**
 State Regulation or Law: **No**
 Master Plan (CMP) Focus Area: **Quality Built Environment**
 CMP Vision/Strategy: **Infrastructure**
 Council Initiative: **N/A**
 V.O.I.C.E.: **Continually Assess Facilities and Infrastructure**
 Departmental Objective: **Maintain safe access to Solid Waste facilities**



PROJECT DESCRIPTION/JUSTIFICATION

The 89,000 square feet of asphalt surfaced areas at the Solid Waste facility will be 30 years old in 2024 and is already showing signs of deterioration. Spot repair has been effective to date, however, the wear and tear placed on the paved surfaces continues to further deteriorate the paved surfaces to the point where spot repair is no longer feasible. This project proposes to mill, shim and overlay the paved surfaces at the Solid Waste Facility to provide safe access to the public using the facility. Projections are based on a \$1.60 per square foot cost for 2" mill, shim and overlay in 2017. This figure is inflated 3% per year for the 2024 project.

FINANCIAL PLAN & PROJECT SCHEDULE

	PRIOR YR	FY19	FY20	FY21	FY22	FY23	FY24	TOTAL
EXPENDITURES								
Design								0
Construction/Implementation							172,304	172,304
Property/Equip. Acquisition								0
TOTAL	\$0	\$0	\$0	\$0	\$0	\$0	\$172,304	\$172,304
FUNDING								
Current Revenue								0
Capital Reserve							172,304	172,304
Debt Funded								0
Federal or State Grants								0
Other Sources								0
TOTAL	\$0	\$0	\$0	\$0	\$0	\$0	\$172,304	\$172,304

ANNUAL DEPARTMENT OPERATING BUDGET IMPACT: Create efficiencies
One time

PROJECT STATUS: New Project

Water Fund

The residents, businesses, and industries in Keene use an average of 2 million gallons of clean, potable water every day for everything from tooth brushing, washing, food preparation, cleaning, fire protection, landscape watering, commercial uses, and industrial processes. In the summer that volume almost doubles.

To meet this water demand, the City's has three separate water supplies – none of which can meet the City's daily needs alone. Combined though, the supplies are adequate for current demand under average precipitation conditions. Two surface water reservoirs, located in Roxbury, can store 600 million gallons of water and the City owns approximately 2,400 acres of their watershed land. The water in the wellfields on West and Court Streets are re-supplied by more than 300 square miles of watershed.

Previous CIP budgets included funding for a major rehabilitation to the 1931-era dam at Babbidge Reservoir that began in the fall of calendar year 2017 and will be completed by the fall of calendar year 2018. Design work to address deficiencies to the 1910-era Woodward dam began in the spring of 2017 and construction is expected to begin in the summer of 2020. A failure of one or both of these dams would cause a significant community-wide water shortage because they provide more than half of the City's daily water supply.

Although the raw water from all of the City's sources is very clean, regulations require treatment to destroy illness-causing bacteria and to make the water less acidic to prevent the dissolution of copper pipe and lead solder. The well buildings were constructed in an era with fewer treatment requirements so current treatment options are limited because the facilities are small. The buildings are in need of repair and this CIP includes an evaluation of the buildings and equipment at both wellfields. The evaluation will include recommendations that will improve the future reliability and flexibility as the City responds to water quality regulations and plans for the likelihood of frequent periods of regional drought as the result of climate change. Future CIP programs will include upgrades and replacements that are identified through the evaluation process.

The City's "new" Drinking Water Treatment Facility turns 25 in 2018 and this CIP includes some routine filter media changes, pavement repair, and equipment replacement. Changes in water quality regulations have forced changes in treatment techniques that results in more costly process operations and future CIP will include an evaluation of upgrades at the Facility.

Although the water sources are separate and each receives onsite chemical treatment, the water is comingled in one large water distribution system where more than 100 miles of water main deliver water to homes and businesses. The water mains range in age from brand new (less than a year old) to more than 100 years old.

When a water main reaches the end of its useful life it is more likely to crack or break and its capacity is reduced through the accumulation of hard mineral deposits. When a main breaks, entire neighborhoods are suddenly without water, fire protection is affected, and large volumes of clean water are wasted into the ground, can undermine roads, flood basements, and create other hazards.

The goal of the water main rehabilitation and replacement project to minimize main failures and to improve customers' water quality and pressure by systematically and cost effectively rehabilitating or replacing the most critical water mains.

To prioritize the main improvements, the Public Works Department developed a Water Main Asset Management Plan in 2016 that numerically rates each section of main based on its criticality, history of breaks, and the potential environmental impact of a failure. The plan includes a 100-year schedule designed to keep pace with the aging infrastructure and allow staff to address the highest risk mains first. The current CIP addresses 1.8 miles of the three highest-priority water main improvement projects identified by this plan: Marlboro Street, a portion of Main Street, and a portion of Court Street.

The current 6-year CIP includes cleaning and lining 1.4 miles of mains that are in the top 15 percent of at risk mains. Meadow Road and sections of Roxbury and West Street will be cleaned and lined between FY20 and 23.

The current CIP funds improvement of water mains at the rate of about half a mile per year. With no changes to this rate, all of the City's water mains will be replaced or lined over the next 200 years. The 33 highest risk mains represent about 13 miles of pipe and, without deviation to the list to align with road reconstruction or an increased level of funding, will all be repaired by FY50.

This CIP includes funding for the ongoing gate valve replacement project. Gate valves are required to facilitate water main operation and maintenance and to control water loss during a main break. Valve failure results in an increased number of affected customers and can limit the water supply to critical assets in an emergency. Some of Keene's existing valves have been in operation for more than 100 years and cannot be relied on to function in an emergency because the functional life of a water valve is around 50 years. The current rate of funding valve replacement results in a 154 year replacement cycle therefore, over the long term additional investment should be made to keep pace with the rate of valve failure.

The City's water supply is also used for fire protection, and to meet that need, our mains and storage tanks are oversized compared to the community's daily demand for water and the system has more than 850 fire hydrants. Previous CIP programs included funding to bring most of the hydrants up to current standards and stragglers continue to be replaced through ongoing water main projects and with in-house personnel using operating budget funds.

Storing more than 5 million gallons of water, there are six water storage tanks in the distribution system. The two largest tanks, with a combined capacity of 4.5 million gallons, are located on Beech Hill – one built in 1924 the other in 1962. Because the tanks provide water pressure and fire protection for most of the community, preserving their reliable function is a department priority. They have had routine repairs and painting over the years, but they do not meet current standards and both need maintenance. If one or both become unusable, the community's water supply and fire protection will be significantly impacted. This CIP includes funds to correct some deficiencies and make evaluations of both tanks including options to repair or replace the tanks.

The current CIP includes funding for projects at three of the other storage tanks, including a significant evaluation and future recommendation report for the Drummer Hill tank and repairs at the Black Brook and Chapman Road storage tanks.

The City's water assets have an estimated value of more than \$115 million and an ongoing investment into their maintenance, repair, and replacement will assure that future generations enjoy safe, high quality drinking water. The current CIP request of \$15.8M over 6 years represents an average of 2.2% of the asset value per year.

CITY OF KEENE, NEW HAMPSHIRE

2019 - 2024 Capital Project Funding Request

GENERAL PROJECT DATA

Project Name: **Black Brook Storage Tank Repairs**
 Department: **Public Works - Water Fund**
 Physical Location: **Black Brook Storage Tank**
 Federal Mandate: **N/A**
 State Regulation or Law: **N/A**
 Master Plan (CMP) Focus Area: **Healthy Community**
 CMP Vision/Strategy: **Infrastructure**
 Council Initiative: **N/A**
 V.O.I.C.E.: **Continually Assess Facilities and Infrastructure**
 Departmental Objective: **Make repairs and improvements in accordance with current standards for water storage tanks.**



PROJECT DESCRIPTION/JUSTIFICATION

This 380,000 gallon, pre-cast concrete water storage tank, constructed in 1996, provides water for fire suppression and helps maintain stable water pressure in the Black Brook pressure zone. The 2013 tank evaluation recommended the existing tank vault be discontinued and all underground utilities be re-located above ground. The electrical panels are in good condition and relocating them to an above ground station will extend their useful life by providing a drier environment. An above ground station would have the added benefit of allowing a single staff member to check critical components without the hazards, equipment, and additional personnel of a confined space entry.

This project coincides with the Chapman tank and Drummer Hill tank repairs. The evaluation, design, and construction work on the three tanks will be performed at the same time to take advantage of the cost and administrative efficiencies associated with having one larger project versus several smaller projects. The scope of this project is smaller than described in previously published CIPs because in September 2017, the City Council approved moving ahead with the tank repairs to address the tank deterioration on an accelerated schedule, leaving the electrical upgrade to be performed in FY22 as scheduled. The FY22 budget was adjusted accordingly.

FINANCIAL PLAN & PROJECT SCHEDULE

	PRIOR YR	FY19	FY20	FY21	FY22	FY23	FY24	TOTAL
EXPENDITURES								
Design								0
Construction/Implementation			5,000.00		30,000.00			35,000
Property/Equip. Acquisition								0
TOTAL	\$0	\$0	\$5,000	\$0	\$30,000	\$0	\$0	\$35,000
FUNDING								
Current Revenue								0
Capital Reserve			5,000.00		30,000.00			35,000
Debt Funded								0
Federal or State Grants								0
Other Sources								0
TOTAL	\$0	\$0	\$5,000	\$0	\$30,000	\$0	\$0	\$35,000

ANNUAL DEPARTMENT OPERATING BUDGET IMPACT: Negligible<\$5,001
One time

PROJECT STATUS: Ongoing CIP

CITY OF KEENE, NEW HAMPSHIRE

2019 - 2024 Capital Project Funding Request

GENERAL PROJECT DATA

Project Name: **Chapman Water Tank repairs**
 Department: **Public Works - Water Fund**
 Physical Location: **Chapman Water Tank**
 Federal Mandate: **N/A**
 State Regulation or Law: **N/A**
 Master Plan (CMP) Focus Area: **Healthy Community**
 CMP Vision/Strategy: **Infrastructure**
 Council Initiative: **N/A**
 V.O.I.C.E.: **Continually Assess Facilities and Infrastructure**
 Departmental Objective: **Make repairs and improvements in accordance with current standards for water storage tanks.**



PROJECT DESCRIPTION/JUSTIFICATION

This 200,000 gallon, pre-cast concrete water storage tank was constructed in 1993. This project includes tank repairs identified in the November 2013 Tighe and Bond "Water Facilities Evaluation" including pressure washing the tank roof, sealing the roof panel joints, installing sealant between the access hatch, and mounting flange and moving the electrical equipment above ground in a new building. This tank is equipped with a below grade, precast concrete vault that houses an electrical panel board and level instrumentation for the tank. The 2013 evaluation recommended discontinuing the existing vault and relocating all existing underground utilities above ground to provide a drier environment for the electrical and analytical equipment. An above ground station would also allow a single staff member to inspect critical components without the hazards, assistance, and equipment associated with a regulated confined space entry.

FY20 funds a detailed evaluation of the tank, development of repair specifications and electrical upgrade design. FY22 funds the tank repairs and electrical work. This project coincides with the Blackbrook tank and Drummer Hill tank evaluations and repairs to take advantage of the cost and administrative efficiencies associated with having one larger project versus several smaller projects.

FINANCIAL PLAN & PROJECT SCHEDULE

	PRIOR YR	FY19	FY20	FY21	FY22	FY23	FY24	TOTAL
EXPENDITURES								
Design			25,000					25,000
Construction/Implementation					54,449			54,449
Property/Equip. Acquisition								0
TOTAL	\$0	\$0	\$25,000	\$0	\$54,449	\$0	\$0	\$79,449
FUNDING								
Current Revenue								0
Capital Reserve			25,000		54,449			79,449
Debt Funded								0
Federal or State Grants								0
Other Sources								0
TOTAL	\$0	\$0	\$25,000	\$0	\$54,449	\$0	\$0	\$79,449

ANNUAL DEPARTMENT OPERATING BUDGET IMPACT: Negligible<\$5,001
One time

PROJECT STATUS: Ongoing CIP

CITY OF KEENE, NEW HAMPSHIRE

2019 - 2024 Capital Project Funding Request

GENERAL PROJECT DATA

Project Name: **Dam Improvements**
 Department: **Public Works - Water Fund**
 Physical Location: **Roxbury, NH**
 Federal Mandate: **No**
 State Regulation or Law: **Yes - letter of deficiency (admin rule)**
 Master Plan (CMP) Focus Area: **Healthy Community**
 CMP Vision/Strategy: **Infrastructure**
 Council Initiative: **N/A**
 V.O.I.C.E.: **Continually Assess Facilities and Infrastructure**
 Departmental Objective: **Protection of the City's main water supply and compliance with the State Dam Safety regulations.**



PROJECT DESCRIPTION/JUSTIFICATION

In 2012, the City completed a *Dam Master Plan* to address the deficiencies identified by the NH Department of Environmental Services (NHDES) concerning our dams' ability to withstand severe flood events. The Master Plan also included discussion about the importance of the dams as the City's primary water supplies. Both of the City's water supply dams (i.e., Babbidge and Woodard) are classified as "high hazard", indicating that their failure could result in the loss of life downstream. Between them, the dams store more than 600 million gallons of water, equivalent to a 6-month supply for the City. The failure of one or both of these dams would cause a significant impact to the City's water supply because the existing wells cannot meet the City's entire water demand.

Funding for the upgrades to 86-year old Babbidge Dam were provided in prior CIPs. Construction of these improvements began in the fall of 2017 and will be completed by the fall of 2018.

Design of the improvements required at the 107-year old Woodward dam began during the summer of 2017. Construction is scheduled for the Spring of 2020. The cost increase from the prior CIP (\$563,951) is required to meet the requirements for a high hazard dam, the outlet channel will be enlarged, straightened, and armored to protect against erosion during extreme flows. In addition, the height of the dam will be raised approximately 2 feet to prevent overtopping. The work will also include new pipes and valves to manage the flow of water from Woodward Pond to the Babbidge Reservoir.

FINANCIAL PLAN & PROJECT SCHEDULE

	PRIOR YR	FY19	FY20	FY21	FY22	FY23	FY24	TOTAL
EXPENDITURES								
Design								0
Construction/Implementation			1,585,976					1,585,976
Property/Equip. Acquisition								0
TOTAL	\$0	\$0	\$1,585,976	\$0	\$0	\$0	\$0	\$1,585,976
FUNDING								
Current Revenue								0
Capital Reserve								0
Debt Funded			1,585,976					1,585,976
Federal or State Grants								0
Other Sources								0
TOTAL	\$0	\$0	\$1,585,976	\$0	\$0	\$0	\$0	\$1,585,976

ANNUAL DEPARTMENT OPERATING BUDGET IMPACT: High \$50,001 or more
One time

PROJECT STATUS: Ongoing CIP

CITY OF KEENE, NEW HAMPSHIRE

2019 - 2024 Capital Project Funding Request

GENERAL PROJECT DATA

Project Name: **Drummer Hill Tank Replacement**
 Department: **Public Works - Water Fund**
 Physical Location: **Drummer Hill Tank**
 Federal Mandate: **N/A**
 State Regulation or Law: **N/A**
 Master Plan (CMP) Focus Area: **Healthy Community**
 CMP Vision/Strategy: **Infrastructure**
 Council Initiative: **N/A**
 V.O.I.C.E.: **Continually Assess Facilities and Infrastructure**
 Departmental Objective: **Improve water quality and provide improved water pressure and volume for fire suppression**



PROJECT DESCRIPTION/JUSTIFICATION

FY20 of this project funds an evaluation of the options to bring the Drummer Hill water tank into compliance with current standards either through significant repair or complete replacement. This 100,000 gallon, pre-cast concrete water storage tank with an interior liner and aluminum dome roof was constructed in 1987 to provide fire suppression and potable water for residential customers. This tank was evaluated by Tighe and Bond in the November 2013 "Water Facilities Evaluation" and Underwood Engineers in the June 2013 "Low Pressure Zone Study". The studies indicate the tank should be upgraded to improve pressure and address the significant number of improvements needed to bring the tank into compliance with public health standards, including the 10 State Standards guidelines for water storage tanks.

The tank's deficiencies include: leaking seals, lack of intrusion protection, a gap of approximately 1 inch between the walls and the domed roof, the presence of seams, absence of a watertight gasketed cover, and lack of a sample site. In addition, the tank is partially buried, and it is recommended that seamed tanks be located above grade to allow regular sanitary inspections. The tank does not provide the recommended 35 psi minimum static pressure to existing customers because the tank overflow elevation is too low and the tank itself is smaller than recommended for fire suppression by the Insurance Services Office. FY22 funds the design work required for repair or replacement construction in FY24.

FINANCIAL PLAN & PROJECT SCHEDULE

	PRIOR YR	FY19	FY20	FY21	FY22	FY23	FY24	TOTAL
EXPENDITURES								
Design			25,000		208,959			233,959
Construction/Implementation							614,764	614,764
Property/Equip. Acquisition								0
TOTAL	\$0	\$0	\$25,000	\$0	\$208,959	\$0	\$614,764	\$848,723
FUNDING								
Current Revenue								0
Capital Reserve			25,000		208,959		614,764	848,723
Debt Funded								0
Federal or State Grants								0
Other Sources								0
TOTAL	\$0	\$0	\$25,000	\$0	\$208,959	\$0	\$614,764	\$848,723

ANNUAL DEPARTMENT OPERATING BUDGET IMPACT: Negligible<\$5,001
One time

PROJECT STATUS: Ongoing CIP

CITY OF KEENE, NEW HAMPSHIRE

2019 - 2024 Capital Project Funding Request

GENERAL PROJECT DATA

Project Name: **Water Booster Stations**
 Department: **Public Works - Water Fund**
 Physical Location: **Fox Ave & Glen Road**
 Federal Mandate: **N/A**
 State Regulation or Law: **N/A**
 Master Plan (CMP) Focus Area: **Healthy Community**
 CMP Vision/Strategy: **Infrastructure**
 Council Initiative: **N/A**
 V.O.I.C.E.: **Continually Assess Facilities and Infrastructure**
 Departmental Objective: **To maintain water quality monitoring capability and replace aging electrical components.**



PROJECT DESCRIPTION/JUSTIFICATION

The Fox Avenue and Glen Road water booster stations were constructed in 1983 and are below grade, pre-cast concrete, water pumping stations. The stations are equipped with online monitoring instrumentation that continuously monitor and trend water quality parameters using the plant's Supervisory Control and Data Acquisition System (SCADA). This project funds the FY20 replacement of the turbidity, chlorine, and pH online analyzers in both stations. The equipment is in fair condition and, as of 2017, some parts are still available.

FINANCIAL PLAN & PROJECT SCHEDULE

	PRIOR YR	FY19	FY20	FY21	FY22	FY23	FY24	TOTAL
EXPENDITURES								
Design								0
Construction/Implementation								0
Property/Equip. Acquisition			42,892					42,892
TOTAL	\$0	\$0	\$42,892	\$0	\$0	\$0	\$0	\$42,892
FUNDING								
Current Revenue								0
Capital Reserve			42,892					42,892
Debt Funded								0
Federal or State Grants								0
Other Sources								0
TOTAL	\$0	\$0	\$42,892	\$0	\$0	\$0	\$0	\$42,892

ANNUAL DEPARTMENT OPERATING BUDGET IMPACT: Negligible<\$5,001
One time

PROJECT STATUS: Ongoing CIP

Water and Sewer Improvements

The City's strategy for identifying and prioritizing water and sewer improvements in conjunction with roadwork for this Capital Improvement Program is a combination of the sewer condition and the Road Overlay Program. It has evolved from its "Dig the Road Once" philosophy as the City's obligation under the 2004 Administrative Order requiring the replacement of specific sewers is complete. Sewer improvements in FY16-19 reflect condition-driven projects and are not associated with road rehabilitation projects.

A 2012 assessment of the City's paved streets used the pavement condition and traffic volume to develop a numeric rating. This rating was used to prioritize streets for overlay and streets were grouped into neighborhoods to gain efficiency in construction services and to improve the overall aesthetics of an area.

Before a street is overlaid, its water, sewer, and drain infrastructure are evaluated and repairs/improvements are planned for the year before the overlay is scheduled to avoid digging up a freshly paved road. The water, sewer, and drain evaluations are performed in different ways.

- *Sewers are evaluated according to their condition and capacity.*
 - Condition ratings were generated as part of the Priority Inspection Program that was performed between FY06 and FY11. The results of these inspections have been cataloged and deficiencies that require spot repair, short length lining, or complete lining have been identified.
 - Capacity issues have been identified using the computer model of the collection system. Inflow and infiltration was evaluated in FY14 and is an additional factor in evaluations.

- *Water main evaluations are based on age, pressure/volume, and repair frequency.*
 - While no video is available that shows the condition of the water mains, the age and material are often used as clues to their conditions. As an example, mains that were constructed between 1930 and the 1970's were made of bituminous cast iron pipe (universal pipe) and are prone to leaks. Mains that do not have a cement lining can build up a hard layer of minerals that cannot be removed through the normal flushing programs.
 - The Department's operational records are used to identify mains that have experienced a number of breaks.
 - The volume of water a main can transport and what the relationship is of a given section of main to the rest of the system is evaluated using the water distribution model. If a section does not provide the anticipated volume or pressure, a piece can be cut out and visually inspected to determine the amount of material buildup.

- *The capacity of storm drains is evaluated by the contributing storm drainage area.*
 - If capacity is not adequate the drains are upsized by excavating and replacing the drain with a larger size pipe.
 - A storm drain model that will assist the evaluation of capacity is currently being developed.

Separate programs for the replacement of mainline water valves and the repair of sewers that are not associated with other road work have been created to keep the focus on this catch-up repair work.

WATER DISTRIBUTION IMPROVEMENTS

In 2015 The Public Works Department hired a consultant to prepare a Water Mains Asset Management Plan (AMP). The Plan was completed in June of 2016. The AMP prioritizes water mains that should be replaced or rehabilitated over the next century. Each length of water main throughout the City was evaluated for both probability and consequence of failure. Criteria used to identify probability of failure include age, material, and breakage history. Criteria used to determine the consequence of failure include regulatory compliance, social cost, collateral damage, and environmental cost. A weighted calculation was used to combine these ratings into a risk score for each water main throughout the City. Mains with the highest risk score are prioritized for replacement or rehabilitation in the CIP. Mains with lower risk scores will be identified for replacement or rehabilitation in future years.

Street	Scope of work	Length (feet)	2017 estimated cost**	Construction year	Inflation adjust. (3% per year)	Construction year estimated cost**
Marlboro Street	Replace 14" cast iron pipe with 14" ductile iron pipe from Dartmouth Street to Baker Street	790	\$330,373	2019	\$20,120	\$350,492
Marlboro Street	Replace 6" cast iron pipe with 8" ductile iron pipe from the bridge over Beaver Brook to Tiffin Street	2,031	\$732,176		\$44,589	\$776,765
-	No work planned to allow adequate funding for FY19 projects	-	-	2020	-	-
-	No work planned to allow adequate funding for FY22 & FY23 projects	-	-	2021	-	-
Main Street	Replace 6" cast iron pipe with 8" ductile iron pipe from Central Square to Church Street	372	\$93,000	2022	\$14,812	\$107,812
Court Street	Replace 10" cast iron pipe with 10" ductile iron pipe from East Surry Road to Maple Avenue	2,832	\$1,102,615	2023	\$175,618	\$1,278,233
Hastings Avenue	Prepare designs for FY25 project.	-	\$120,000	2024	\$23,286	\$143,286
Hastings Avenue	Replace 8" cast iron pipe with 12" ductile iron pipe from Hurricane Road to Summit Road to improve available fire flows	3,388	\$967,266	2025	\$258,038	\$1,225,304

** All costs include 10% for construction contingencies, 10% for engineering design, 10% for construction administration, and 1% for supervision

CITY OF KEENE, NEW HAMPSHIRE

2019 - 2024 Capital Project Funding Request

GENERAL PROJECT DATA

Project Name: **Water Distribution Improvements**
 Department: **Public Works - Water Fund**
 Physical Location: **Various**
 Federal Mandate: **No**
 State Regulation or Law: **No**
 Master Plan (CMP) Focus Area: **Healthy Community**
 CMP Vision/Strategy: **Infrastructure**
 Council Initiative: **Policy**
 V.O.I.C.E.: **Continually Assess Facilities and Infrastructure**
 Departmental Objective: **Improve water quality and system reliability**



PROJECT DESCRIPTION/JUSTIFICATION

In 2015 The Public Works Department hired a consultant to prepare a Water Mains Asset Management Plan (AMP). The Plan was completed in June of 2016. The AMP outlines an informed process to identify water mains that should be replaced or rehabilitated over the next century. Each length of water main throughout the City was evaluated for both probability and consequence of failure. Criteria used to identify probability of failure include age, material, and breakage history. Criteria used to determine the consequence of failure include regulatory compliance, social cost, collateral damage, and environmental cost. A weighted calculation was used to combine these ratings into a risk score for each water main throughout the City. The current CIP addresses the three highest-priority water main segments for replacement. Mains with lower risk scores will be identified for replacement or rehabilitation in future years.

FY19 funds water main replacement work on Marlboro Street. Future years address portions of Main Street and Court Street. In FY24, funds are requested to prepare the designs for the anticipated FY25 replacement of an undersized main on Hastings Avenue.

FINANCIAL PLAN & PROJECT SCHEDULE

	PRIOR YR	FY19	FY20	FY21	FY22	FY23	FY24	TOTAL
EXPENDITURES								
Design		169,088				191,735	143,286	504,109
Construction/Implementation		958,169			107,812	1,086,498		2,152,479
Property/Equip. Acquisition								0
TOTAL		\$1,127,257	\$0	\$0	\$107,812	\$1,278,233	\$143,286	\$2,656,588
FUNDING								
Current Revenue								0
Capital Reserve		500,000			107,812	1,278,233	143,286	2,029,331
Debt Funded								0
Federal or State Grants								0
Use of Surplus / Retained Earnings		627,257						627,257
TOTAL	\$0	\$1,127,257	\$0	\$0	\$107,812	\$1,278,233	\$143,286	\$2,656,588

ANNUAL DEPARTMENT OPERATING BUDGET IMPACT: Reduce - will reduce operating costs
 N/A

PROJECT STATUS: Ongoing CIP

CITY OF KEENE, NEW HAMPSHIRE

2019 - 2024 Capital Project Funding Request

GENERAL PROJECT DATA

Project Name: **Water Utility Work - Bridges**
 Department: **Public Works - Water Fund**
 Physical Location: **Various**
 Federal Mandate: **No**
 State Regulation or Law: **No**
 Master Plan (CMP) Focus Area: **Healthy Community**
 CMP Vision/Strategy: **Infrastructure**
 Council Initiative: **Policy**
 V.O.I.C.E.: **Continually Assess Facilities and Infrastructure**
 Departmental Objective: **Improve water quality and system reliability**



PROJECT DESCRIPTION/JUSTIFICATION

The work funded by this project includes the replacement of water mains that are affected by the City's Bridge Replacement program. The State of NH Department of Transportation's bridge program does not provide funds for water utilities that are damaged or need to be replaced due to a bridge project. This project funds the time and materials required for the water main replacement and does not include road or surface replacement because that portion is covered by the corresponding bridge project.

FY19: Winchester Street bridge over Ash Swamp Brook.
 FY22: George Street over Beaver Brook

FINANCIAL PLAN & PROJECT SCHEDULE

	PRIOR YR	FY19	FY20	FY21	FY22	FY23	FY24	TOTAL
EXPENDITURES								
Design								0
Construction/Implementation		38,300			47,530			85,830
Property/Equip. Acquisition								0
TOTAL	\$0	\$38,300	\$0	\$0	\$47,530	\$0	\$0	\$85,830
FUNDING								
Current Revenue								0
Capital Reserve		38,300			47,530			85,830
Debt Funded								0
Federal or State Grants								0
Other Sources								0
TOTAL	\$0	\$38,300	\$0	\$0	\$47,530	\$0	\$0	\$85,830

ANNUAL DEPARTMENT OPERATING BUDGET IMPACT:

N/A

PROJECT STATUS:

Ongoing CIP

CITY OF KEENE, NEW HAMPSHIRE

2019 - 2024 Capital Project Funding Request

GENERAL PROJECT DATA

Project Name: **State Bypass Utilities**
 Department: **Public Works - Water Fund**
 Physical Location: **Various**
 Federal Mandate: **No**
 State Regulation or Law: **No**
 Master Plan (CMP) Focus Area: **Healthy Community**
 CMP Vision/Strategy: **Infrastructure**
 Council Initiative: **Policy**
 V.O.I.C.E.: **Continually Assess Facilities and Infrastructure**
 Departmental Objective: **Improve water quality and system reliability**



PROJECT DESCRIPTION/JUSTIFICATION

This project funds the replacement of water mains that are affected by the NH Department of Transportation's construction on Winchester Street between Island Street and the roundabout. The NH Department of Transportation's project does not include funds for water utilities that are damaged or need to be replaced due to a state road project. This project funds the time and materials required for the water main replacement and does not include road or surface replacement because that work is covered by the corresponding State road project.

FINANCIAL PLAN & PROJECT SCHEDULE

	PRIOR YR	FY19	FY20	FY21	FY22	FY23	FY24	TOTAL
EXPENDITURES								
Design								0
Construction/Implementation		250,500						250,500
Property/Equip. Acquisition								0
TOTAL		\$250,500	\$0	\$0	\$0	\$0	\$0	\$250,500
FUNDING								
Current Revenue								0
Capital Reserve		250,500						250,500
Debt Funded								0
Federal or State Grants								0
Other Sources								0
TOTAL		\$250,500	\$0	\$0	\$0	\$0	\$0	\$250,500

ANNUAL DEPARTMENT OPERATING BUDGET IMPACT:

N/A

PROJECT STATUS:

Ongoing CIP

CITY OF KEENE, NEW HAMPSHIRE

2019 - 2024 Capital Project Funding Request

GENERAL PROJECT DATA

Project Name: **Water Main Cleaning and Lining**
 Department: **Public Works - Water Fund**
 Physical Location: **Various**
 Federal Mandate: **No**
 State Regulation or Law: **No**
 Master Plan (CMP) Focus Area: **Healthy Community**
 CMP Vision/Strategy: **Infrastructure**
 Council Initiative: **N/A**
 V.O.I.C.E.: **Continually Assess Facilities and Infrastructure**
 Departmental Objective: **Improve water quality and system reliability**



PROJECT DESCRIPTION/JUSTIFICATION

This project will renew water mains through cleaning and lining to extend their life and improve water quality. It will occur in areas where water mains are adequately sized but need attention, and the other utilities do not require replacement.

Prior Capital Improvement Programs have budgeted for Cleaning and Lining based on the price for spray-applied cement lining. An analysis of recent water main breaks indicates that our most critical need is structural lining of Cast Iron Universal (CIU) pipes. This type of pipe has joints held together by two bolts. Over time, these bolts corrode and cause the pipe to separate at the joint. Unfortunately, cement lining does not address this type of deficiency. The anticipated scope of work for FY19-FY24 have been adjusted to reflect the more expensive lining methods used to address these issues. Specific projects currently planned include:

- FY20: West St (from Symonds Place to Bradford Road - 3,030 LF of 12" main) - Funding split over FY19 and FY 20 to moderate rate impact.
- FY21: Roxbury St (Reservoir St to Oak St - 1,000 LF of 12" main);
- FY22: Main Street from Eagle Court to Winter Street - 1,922 LF of 12" main) - Funding split over FY21 and FY22 to moderate rate impact.
- FY23: Meadow Rd (1,320 LF of 12" main)

FINANCIAL PLAN & PROJECT SCHEDULE

	PRIOR YR	FY19	FY20	FY21	FY22	FY23	FY24	TOTAL
EXPENDITURES								
Design								0
Construction/Implementation			514,300	174,800	356,500	237,700	250,000	1,533,300
Property/Equip. Acquisition								0
TOTAL			\$514,300	\$174,800	\$356,500	\$237,700	\$250,000	\$1,533,300
FUNDING								
Current Revenue		268,325	245,975	249,800	181,500	237,700	250,000	1,433,300
Capital Reserve								0
Debt Funded								0
Federal or State Grants								0
Use of Surplus / Retained Earnings					100,000			100,000
TOTAL		\$268,325	\$245,975	\$249,800	\$281,500	\$237,700	\$250,000	\$1,533,300

ANNUAL DEPARTMENT OPERATING BUDGET IMPACT: Negligible<\$5,001
Ongoing

PROJECT STATUS: Ongoing CIP

CITY OF KEENE, NEW HAMPSHIRE

2019 - 2024 Capital Project Funding Request

GENERAL PROJECT DATA

Project Name: **Water Gate Valve Replacement**
 Department: **Public Works - Water Fund**
 Physical Location: **Various**
 Federal Mandate: **No**
 State Regulation or Law: **No**
 Master Plan (CMP) Focus Area: **Healthy Community**
 CMP Vision/Strategy: **Infrastructure**
 Council Initiative: **N/A**
 V.O.I.C.E.: **Continually Assess Facilities and Infrastructure**
 Departmental Objective: **Improve Water distribution system reliability**



PROJECT DESCRIPTION/JUSTIFICATION

This project replaces gate valves in water mains that are not scheduled for replacement through other infrastructure improvement projects. Properly functioning gate valves are required to isolate water mains in the event of a break, routine repair, or system contamination. More than one third of the City's water gate valves are sixty years or older and present maintenance issues because they are difficult to open and close, or cannot be operated at all. Problems include leaky valve packing and/or complete valve failure. This project will be designed by in-house engineering staff and includes funds for an outside contractor to complete the work.

The City has more than 2,000 gate valves – some more than 100 years old. Current funding levels allow for the replacement of approximately 10-12 valves per year (depending on size and location). In years when an infrastructure project is funded, an additional 8-10 valves per year are replaced during the replacement or lining of water mains. This implies that the valves will be replaced, on average, after 135 years in service. Although some of the existing valves are still in use after 100 years, this is longer than their expected useful life and their reliability score is low. To reduce the average valve age and increase the system reliability, an investment of approximately \$135,000 per year (in 2017 dollars) -- or an increase of about 33% over the current funding level -- is required.

FINANCIAL PLAN & PROJECT SCHEDULE

	PRIOR YR	FY19	FY20	FY21	FY22	FY23	FY24	TOTAL
EXPENDITURES								
Design								0
Construction/Implementation		90,508	93,223	96,020	98,901	101,868	104,736	585,256
Property/Equip. Acquisition								0
TOTAL		\$90,508	\$93,223	\$96,020	\$98,901	\$101,868	\$104,736	\$585,256
FUNDING								
Current Revenue		90,508	93,223	96,020	98,901	101,868	104,736	585,256
Capital Reserve								0
Debt Funded								0
Federal or State Grants								0
Other Sources								0
TOTAL		\$90,508	\$93,223	\$96,020	\$98,901	\$101,868	\$104,736	\$585,256

ANNUAL DEPARTMENT OPERATING BUDGET IMPACT:

Ongoing

PROJECT STATUS:

Ongoing CIP

CITY OF KEENE, NEW HAMPSHIRE

2019 - 2024 Capital Project Funding Request

GENERAL PROJECT DATA

Project Name: **Well Field Upgrades**
 Department: **Public Works - Water Fund**
 Physical Location: **West and Court St Well Facilities**
 Federal Mandate: **N/A**
 State Regulation or Law: **N/A**
 Master Plan (CMP) Focus Area: **Healthy Community**
 CMP Vision/Strategy: **Infrastructure**
 Council Initiative: **N/A**
 V.O.I.C.E.: **Continually Assess Facilities and Infrastructure**
 Departmental Objective: **Continually support and maintain infrastructure.**



PROJECT DESCRIPTION/JUSTIFICATION

The City's surface water supply is supplemented by 4 groundwater wells located on West and Court Streets. The West Street and Court Street well facilities include three well buildings that were constructed between 1965 and 1977 and two corrosion control buildings, constructed in 1988, to house chemical feed equipment. The November 2013 " Water Facilities Evaluation" performed by Tighe and Bond cited many deficiencies for the facilities including replacement of chemical storage tanks, chemical feed pumps, well pumps, electrical circuit breaker and panel boards, Parco valves, building heaters, structural improvements, and addition of electrical generators to provide emergency power.

This project funds an in-depth detailed evaluation of these facilities in FY20. It will provide recommendations for repair/replace/relocation of the City's well facilities and will assist the City Council to determine the best approach to move forward with well resource improvements. The evaluation will also consider the City's current and future water demands and provide financially-based recommendations for the rehabilitation of current facilities compared to the development and construction of a new groundwater supply. FY23 funds the design for either rehabilitation of current assets or construction of a new well facility.

FINANCIAL PLAN & PROJECT SCHEDULE

	PRIOR YR	FY19	FY20	FY21	FY22	FY23	FY24	TOTAL
EXPENDITURES								
Design			75,000			408,590		483,590
Construction/Implementation								0
Property/Equip. Acquisition								0
TOTAL	\$0	\$0	\$75,000	\$0	\$0	\$408,590	\$0	\$483,590
FUNDING								
Current Revenue								0
Capital Reserve			75,000			408,590		483,590
Debt Funded								0
Federal or State Grants								0
Other Sources								0
TOTAL	\$0	\$0	\$75,000	\$0	\$0	\$408,590	\$0	\$483,590

ANNUAL DEPARTMENT OPERATING BUDGET IMPACT: Negligible<\$5,001
Multi-year

PROJECT STATUS: Ongoing CIP

CITY OF KEENE, NEW HAMPSHIRE

2019 - 2024 Capital Project Funding Request

GENERAL PROJECT DATA

Project Name: **1.5 MG Storage Tank Repairs**
 Department: **Public Works - Water Fund**
 Physical Location: **Roxbury Street**
 Federal Mandate: **N/A**
 State Regulation or Law: **N/A**
 Master Plan (CMP) Focus Area: **Healthy Community**
 CMP Vision/Strategy: **Infrastructure**
 Council Initiative: **N/A**
 V.O.I.C.E.: **Continually Assess Facilities and Infrastructure**
 Departmental Objective: **Continually support and maintain infrastructure.**



Tank is underground, inside the fence line

PROJECT DESCRIPTION/JUSTIFICATION

The 1.5 million gallon water storage tank located on Roxbury Street is a buried, cast-in-place concrete tank that was built in 1924, and is in generally good condition. Improvements recommended by the November 2013 Tighe and Bond "Water Facilities Evaluation" report will extend its useful life and bring it up to current water storage tank standards. This project funds design to correct deficiencies including a new membrane roof cover, re-grading the soil over the tank, and installing a separate vent.

This tank is covered by approximately 6 inches of topsoil with several low areas that allow water to pond on the tank's flat roof. Tighe and Bond recommended that the buried tank should be equipped with an impermeable membrane roof cover and that the topsoil be graded to divert water away from the tank roof. The report also indicated the existing tank overflow currently acts as both an overflow and a vent for the tank, which does not conform with current standards for water storage tanks.

FINANCIAL PLAN & PROJECT SCHEDULE

	PRIOR YR	FY19	FY20	FY21	FY22	FY23	FY24	TOTAL
EXPENDITURES								
Design			90,041					90,041
Construction/Implementation					278,226			278,226
Property/Equip. Acquisition								0
TOTAL	\$0	\$0	\$90,041	\$0	\$278,226	\$0	\$0	\$368,267
FUNDING								
Current Revenue								0
Capital Reserve			90,041		278,226			368,267
Debt Funded								0
Federal or State Grants								0
Other Sources								0
TOTAL	\$0	\$0	\$90,041	\$0	\$278,226	\$0	\$0	\$368,267

ANNUAL DEPARTMENT OPERATING BUDGET IMPACT: Negligible<\$5,001
One time

PROJECT STATUS: Ongoing CIP

CITY OF KEENE, NEW HAMPSHIRE

2019 - 2024 Capital Project Funding Request

GENERAL PROJECT DATA

Project Name: **3 MG Water Storage Tank Repairs**
 Department: **Public Works - Water Fund**
 Physical Location: **Roxbury Street**
 Federal Mandate: **N/A**
 State Regulation or Law: **N/A**
 Master Plan (CMP) Focus Area: **Healthy Community**
 CMP Vision/Strategy: **Infrastructure**
 Council Initiative: **N/A**
 V.O.I.C.E.: **Continually Assess Facilities and Infrastructure**
 Departmental Objective: **Extend the useful life of the water storage tank through repairs and maintenance.**



PROJECT DESCRIPTION/JUSTIFICATION

The City's 3.0 million gallon water storage tank is an above grade welded steel tank that was constructed in 1962. The November 2013 " Water Facilities Evaluation" performed by Tighe and Bond included an interior and exterior inspection that noted several deficiencies. FY18 funds a more detailed evaluation of current and future water storage requirements and will help the City Council determine whether it is more economical to construct a new tank or perform the necessary tank repairs.

The deficiencies noted by Tighe and Bond include failure of isolated areas of the interior and exterior coating systems and corrosion on the tank wall, interior rust nodules on the floor of the tank and holes and delamination on the roof of the tank, visible signs of corrosion on the ladder rails and replacement of the tank vent. Tighe and Bond also recommend installing cathodic protection and a guard rail at the top of the tank for safe walking along the dome. Structural concerns noted include the joint sealant between the tank flange and the top of the concrete is discontinuous and should be replaced with new sealant and exposed surfaces of concrete foundation should also be repaired. Preliminary costs for tank repairs and painting have been estimated at \$2.3 million and is scheduled for FY23.

FINANCIAL PLAN & PROJECT SCHEDULE

	PRIOR YR	FY19	FY20	FY21	FY22	FY23	FY24	TOTAL
EXPENDITURES								
Design								0
Construction/Implementation						2,275,882		2,275,882
Property/Equip. Acquisition								0
TOTAL	\$0	\$0	\$0	\$0	\$0	\$2,275,882	\$0	\$2,275,882
FUNDING								
Current Revenue								0
Capital Reserve								0
Debt Funded						2,275,882	0	2,275,882
Federal or State Grants								0
Other Sources								0
TOTAL	\$0	\$0	\$0	\$0	\$0	\$2,275,882	\$0	\$2,275,882

ANNUAL DEPARTMENT OPERATING BUDGET IMPACT: No impact
Ongoing

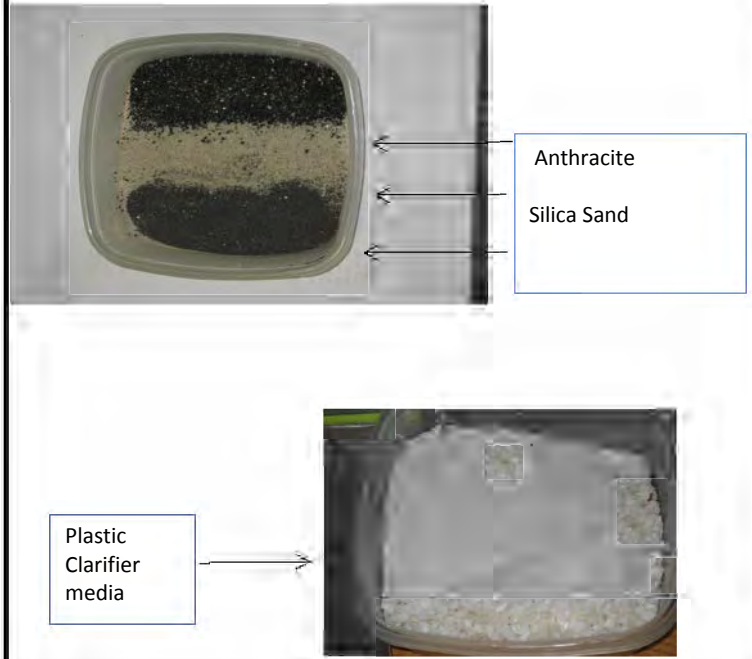
PROJECT STATUS: Ongoing CIP

CITY OF KEENE, NEW HAMPSHIRE

2019 - 2024 Capital Project Funding Request

GENERAL PROJECT DATA

Project Name: **WTF Filter Media and Underdrain Replacement**
 Department: **Public Works - Water Fund**
 Physical Location: **WTF**
 Federal Mandate: **N/A**
 State Regulation or Law: **N/A**
 Master Plan (CMP) Focus Area: **Healthy Community**
 CMP Vision/Strategy: **Infrastructure**
 Council Initiative: **N/A**
 V.O.I.C.E.: **Continually Assess Facilities and Infrastructure**
 Departmental Objective: **Maintain compliance with drinking water standards through filter maintenance.**



PROJECT DESCRIPTION/JUSTIFICATION

The City's water treatment facility has three treatment units, each with three layers of filter media. Since its installation in 1993, the media has been renewed, but not replaced and show signs of wear. The City contracted with Tighe and Bond Consulting Engineers in 2013 to perform an evaluation of the filters and media. The visible parts of the filter units were found to be in good repair but the underdrain components cannot be inspected while the units are filled with media. The evaluation found the anthracite media does not meet specifications and recommends its replacement to improve filter performance and efficiency. Tighe and Bond recommend removing and discarding the existing media to perform the underdrain evaluation and repair. When the underdrain work is complete, all 3 layers of media will be replaced with fresh material.

This project funds the inspection and repair and of the underdrain system and filter media for each unit on a phased schedule to minimize operational and budget impacts. This CIP includes funding for one unit every two years beginning in FY20.

FINANCIAL PLAN & PROJECT SCHEDULE

	PRIOR YR	FY19	FY20	FY21	FY22	FY23	FY24	TOTAL
EXPENDITURES								
Design/construction oversight			17,575					17,575
Construction/Implementation			173,891		203,126		215,496	592,513
Property/Equip. Acquisition								0
TOTAL	\$0	\$0	\$191,466	\$0	\$203,126	\$0	\$215,496	\$610,088
FUNDING								
Current Revenue								0
Capital Reserve			191,466		203,126	0	215,496	610,088
Debt Funded								0
Federal or State Grants								0
Other Sources								0
TOTAL	\$0	\$0	\$191,466	\$0	\$203,126	\$0	\$215,496	\$610,088

ANNUAL DEPARTMENT OPERATING BUDGET IMPACT: Negligible<\$5,001
One time

PROJECT STATUS: Ongoing CIP

CITY OF KEENE, NEW HAMPSHIRE

2019 - 2024 Capital Project Funding Request

GENERAL PROJECT DATA

Project Name: **Instrumentation Upgrade WTF**
 Department: **Public Works - Water Fund**
 Physical Location: **555 Roxbury Road**
 Federal Mandate: **No**
 State Regulation or Law: **No**
 Master Plan (CMP) Focus Area: **Healthy Community**
 CMP Vision/Strategy: **Infrastructure**
 Council Initiative: **N/A**
 V.O.I.C.E.: **Continually Assess Facilities and Infrastructure**
 Departmental Objective: **Monitor plant performance and make process changes to optimize water quality.**



PROJECT DESCRIPTION/JUSTIFICATION

The Water Treatment Facility (WTF) is equipped with online monitoring equipment that allows operations staff the ability to monitor and trend the performance of the WTF through the plant's Supervisory Control and Data Acquisition System (SCADA). The data generated by this equipment allows staff to make process changes and optimize the water treatment process. This project included the replacement of 8 online turbidity analyzers in FY14 and the replacement of an online total organic carbon (TOC) analyzer in FY15. FY19 includes the replacement of a chlorine analyzer and 6 level transmitters at the filter units, clear well, and waste tanks. Installation of the equipment is performed by in-house personnel.

FINANCIAL PLAN & PROJECT SCHEDULE

	PRIOR YR	FY19	FY20	FY21	FY22	FY23	FY24	TOTAL
EXPENDITURES								
Design								0
Construction/Implementation								0
Property/Equip. Acquisition		49,522						49,522
TOTAL	\$0	\$49,522	\$0	\$0	\$0	\$0	\$0	\$49,522
FUNDING								
Current Revenue								0
Capital Reserve		49,522						49,522
Debt Funded								0
Federal or State Grants								0
Other Sources								0
TOTAL	\$0	\$49,522	\$0	\$0	\$0	\$0	\$0	\$49,522

ANNUAL DEPARTMENT OPERATING BUDGET IMPACT: Negligible<\$5,001
N/A

PROJECT STATUS: Ongoing CIP

CITY OF KEENE, NEW HAMPSHIRE

2019 - 2024 Capital Project Funding Request

GENERAL PROJECT DATA

Project Name: **WTF Pavement Replacement**
 Department: **Public Works - Water Fund**
 Physical Location: **555 Roxbury Road**
 Federal Mandate: **No**
 State Regulation or Law: **No**
 Master Plan (CMP) Focus Area: **Healthy Community**
 CMP Vision/Strategy: **Infrastructure**
 Council Initiative: **N/A**
 V.O.I.C.E.: **Continually Assess Facilities and Infrastructure**
 Departmental Objective: **Maintain Infrastructure**



PROJECT DESCRIPTION/JUSTIFICATION

The Water Treatment Facility (WTF) became operational in 1993 and will be 30 years old in 2023. Since 1993 the City has performed repairs on the access road and parking lot areas to maintain and extend the useful life of the pavement. The November 2013 " Water Facilities Evaluation" performed by Tighe and Bond describes the bituminous pavement of having a lifespan of 20 years. The report noted that the access road and parking area were in fair condition, but many spider cracks, longitudinal cracks and spalled areas were observed. The overall pavement condition and type of cracking indicate that crack sealing will no longer prolong the pavement life. This project funds repaving the access road and parking areas including adjustments to manhole covers, rims and catch basin frames and grates. This work is scheduled for FY23 because the 2013 Tighe and Bond evaluation recommended the deficiencies be corrected by 2019 to prevent the need for additional repairs and further degradation of the pavement. Further pavement degradation can result in a more extensive and expensive project in the future. This project will provide an access road and parking areas that, with proper maintenance, will have a useful life of 20 to 30 years.

FINANCIAL PLAN & PROJECT SCHEDULE

	PRIOR YR	FY19	FY20	FY21	FY22	FY23	FY24	TOTAL
EXPENDITURES								
Design								0
Construction/Implementation						70,180		70,180
Property/Equip. Acquisition								0
TOTAL	\$0	\$0	\$0	\$0	\$0	\$70,180	\$0	\$70,180
FUNDING								
Current Revenue								0
Capital Reserve						70,180		70,180
Debt Funded								0
Federal or State Grants								0
Other Sources								0
TOTAL	\$0	\$0	\$0	\$0	\$0	\$70,180	\$0	\$70,180

ANNUAL DEPARTMENT OPERATING BUDGET IMPACT: Negligible<\$5,001
N/A

PROJECT STATUS: Ongoing CIP

CITY OF KEENE, NEW HAMPSHIRE

2019 - 2024 Capital Project Funding Request

GENERAL PROJECT DATA

Project Name: **WTF Pressure Reducing Valve**
 Department: **Public Works - Water Fund**
 Physical Location: **Water Treatment Facility**
 Federal Mandate: **N/A**
 State Regulation or Law: **N/A**
 Master Plan (CMP) Focus Area: **Healthy Community**
 CMP Vision/Strategy: **Energy Efficiency**
 Council Initiative: **Policy**
 V.O.I.C.E.: **Continually Assess Facilities and Infrastructure**
 Departmental Objective: **Improve flow balance between the hydro-turbines and the process filters.**



PROJECT DESCRIPTION/JUSTIFICATION

The existing pressure reducing valve (PRV) was installed when the Water Treatment Facility was constructed in 1993 and is recommended for replacement in 2020 by the November 2013 "Water Facilities Evaluation" performed by Tighe and Bond. However, operational issues have occurred that require its replacement be moved ahead to FY19. The PRV works in conjunction with the hydro turbine system by handling any water that does not pass through the turbines when there is flow fluctuation. Operational issues occur because the overflow volume is much smaller than the design point of the PRV and the resulting water surges created by the oversized PRV cause increased water turbidity and affects the turbine operation. Staff made modifications recommended by the manufacturer but, because the valve remains too large for the application, did not completely address the problems.

The proposed system could consist of two PRVs sized to match the turbines' design flows. They would operate in parallel, with a smaller valve to handle the transition for lower flows and a larger valve for higher flows. FY17 funded an evaluation and design for the new system with construction in FY19.

FINANCIAL PLAN & PROJECT SCHEDULE

	PRIOR YR	FY19	FY20	FY21	FY22	FY23	FY24	TOTAL
EXPENDITURES								
Design								0
Construction/Implementation		17,100						17,100
Property/Equip. Acquisition		68,958						68,958
TOTAL	\$0	\$86,058	\$0	\$0	\$0	\$0	\$0	\$86,058
FUNDING								
Current Revenue								0
Capital Reserve		86,058						86,058
Debt Funded								0
Federal or State Grants								0
Other Sources								0
TOTAL	\$0	\$86,058	\$0	\$0	\$0	\$0	\$0	\$86,058

ANNUAL DEPARTMENT OPERATING BUDGET IMPACT: Create efficiencies
One time

PROJECT STATUS: Ongoing CIP

CITY OF KEENE, NEW HAMPSHIRE

2019 - 2024 Capital Project Funding Request

GENERAL PROJECT DATA

Project Name: **Water Supply Master Plan**
 Department: **Public Works - Water Fund**
 Physical Location: **Various**
 Federal Mandate: **N/A**
 State Regulation or Law: **N/A**
 Master Plan (CMP) Focus Area: **Quality Built Environment**
 CMP Vision/Strategy: **Infrastructure**
 Council Initiative: **Policy**
 V.O.I.C.E.: **Continually Assess Facilities and Infrastructure**
 Departmental Objective: **Map out a plan to assure the community's current and future water needs are met.**



PROJECT DESCRIPTION/JUSTIFICATION

The current water supply master plan is based on work performed more than 25 years ago. Changes in climate, property ownership, and drinking water regulations indicate the benefit of an update. The City updated its groundwater model in 2016-2017 when the Monadnock region experienced moderate drought conditions. That update showed the future White Brook well site is supplied by the same watershed as the existing well fields, suggesting it is a redundant, not an additional supply. Other potential well sites exist and a new planning document would evaluate their capacity and quality. This work is scheduled in FY20 using existing funding in the water supply protection project.

FINANCIAL PLAN & PROJECT SCHEDULE

	PRIOR YR	FY19	FY20	FY21	FY22	FY23	FY24	TOTAL
EXPENDITURES								
Design			100,000					100,000
Construction/Implementation								0
Property/Equip. Acquisition								0
TOTAL	\$0	\$0	\$100,000	\$0	\$0	\$0	\$0	\$100,000
FUNDING								
Current Revenue								0
Capital Reserve								0
Debt Funded								0
Federal or State Grants								0
Project Balance	100,000							100,000
TOTAL	\$100,000	\$0	\$0	\$0	\$0	\$0	\$0	\$100,000

ANNUAL DEPARTMENT OPERATING BUDGET IMPACT: Create efficiencies
 One time XX

PROJECT STATUS: New Project

CITY OF KEENE, NEW HAMPSHIRE

2019 - 2024 Capital Project Funding Request

GENERAL PROJECT DATA

Project Name: **Emergency Generators**
 Department: **Public Works - Water Fund**
 Physical Location: **Chapman Rd, Wells 2, 3 and 4**
 Federal Mandate: **No**
 State Regulation or Law: **No**
 Master Plan (CMP) Focus Area: **Healthy Community**
 CMP Vision/Strategy: **Emergency Preparedness**
 Council Initiative: **N/A**
 V.O.I.C.E.: **Continually Assess Facilities and Infrastructure**
 Departmental Objective: **To have a reliable supply of emergency power that will allow to remain in operation in the event of a power outage.**



Steep Chapman Rd driveway



Steep Chapman Rd Driveway and curve at top of the hill.



Water Treatment Facility generator

PROJECT DESCRIPTION/JUSTIFICATION

This project will purchase 3 new generators: a 100 KW generator and automatic transfer switch at the Chapman Road Water Booster Station, a 200 KW generator and transfer switch for Wells 2,3 and 4, and replacement of the 1985 30 KW portable generator that is used at remote stations as needed. The City has seven other sites without generators, including Well 1, where the new portable equipment will be used in conjunction with an existing 200 KW portable generator when line power fails.

Backup power generators are of paramount importance for a public water system. Two of Keene's key sites do not have permanently located, automatic generators that allow continued water service when line power is lost. Seven others sites rely solely on portable generators. The Court Street well field, capable of producing up to 1,700 gallons of water per minute, and the water booster station, that fills the 200,000 gallon Chapman Road water storage tank, both rely on the ability of staff to shuffle around 2 portable generators, shared with 7 other remote sites, to allow uninterrupted water service during a power outage. A 200 KW generator located at the Court Street well field, sized to operate two wells at a time, would allow consistent production and treatment of up to 1.6 million gallons of portable water a day for drinking and fire protection. A permanently located generator at the Chapman Road water booster station would allow the Chapman Road area and the Branch Road neighborhoods to continue to receive water during a power outage. Using a portable generator at Chapman Road is challenging because it is a steep, curving driveway that is difficult to maneuver in good weather and dangerous or impossible during storm conditions. The 7 other sites do not have space or need for onsite emergency power generation.

FINANCIAL PLAN & PROJECT SCHEDULE

	PRIOR YR	FY19	FY20	FY21	FY22	FY23	FY24	TOTAL
EXPENDITURES								
Design							25,000	25,000
Construction/Implementation								0
Property/Equip. Acquisition							225,793	225,793
TOTAL	\$0	\$0	\$0	\$0	\$0	\$0	\$250,793	\$250,793
FUNDING								
Current Revenue								0
Capital Reserve							250,793	250,793
Debt Funded								0
Federal or State Grants								0
Other Sources								0
TOTAL	\$0	\$0	\$0	\$0	\$0	\$0	\$250,793	\$250,793

ANNUAL DEPARTMENT OPERATING BUDGET IMPACT: Create efficiencies
One time

PROJECT STATUS: New Project

Sewer Fund

Every day the City of Keene transports and treats about 3 million gallons of sewage from homes, businesses, and industries. The sewer system and wastewater treatment plant (WWTP) are intended to treat wastewater from sinks, toilets, showers, washers, and industrial processes, but it is not large enough to collect and treat rain or groundwater. However, the system handles an average of a million more gallons a day than is produced through the drinking water sources; so it clearly receives groundwater that infiltrates through joints or cracks in sewer mains and from illegal roof drain and sump pump connections.

Whatever its source, all of the City's wastewater drains through more than 90 miles of sewer mains and must pass through the City's main pump station located on Martell Court before it reaches the WWTP, located on Airport Road in Swanzey. The WWTP removes more than 99% of the pollutants from the wastewater before discharging it to the Ashuelot River where it must be safe for aquatic life and recreational uses.

Like any asset, Keene's sewer system requires maintenance, upgrade, and replacement to keep it functioning properly and in compliance with environmental regulations. This CIP contains projects funded by sewer rate payers that are designed to keep the wastewater flowing reliably and adequately treated.

Collection System: sewer mains and manholes

The City's oldest sewer mains date back to the late 1800's – when the community first decided to install a set of pipes to collect and remove sewage. Over time, mains were installed as the community grew. These mains reflect a variety of different materials, most intended to last 50-75 years. A snapshot of the age of sewer mains shows that 25% of Keene's sewer mains are older than 75 years and past the point of reliability.

When a main reaches the end of its useful life, it can leak through breaks or cracks and collapse. Cracks allow roots to grow inside the sewer mains and create a blockage, and turn into holes that provide a path for the surrounding soil to enter, creating a sinkhole above and blockage in the main. When that happens, sewage backs up into homes and businesses and spills out on to the ground.

In response to an EPA Order in 2004, the City increased its sewer main repair and replacement program and has seen a decrease in the amount of groundwater entering the sewers and a decrease in the number of sewer main failures and emergency repairs. This CIP contains funds to continue to replace, repair, and rehabilitate the old mains and the more than 2,100 access points called manholes.

Sewer improvements included in this CIP are on Baker and Marlboro Street in coordination with the Marlboro Street improvements initiative, and to correct significant deficiencies in sewers on Blossom Street and Colony Court where overflows occurred in 2016 and 2017.

Shorter lengths of main replacement, in conjunction with State of NH infrastructure projects on the bypass and the Winchester Street bridge are also included. A new sewer main for the Victoria Street Extension project is included in FY22.

The CIP program continues to fund the ongoing project to repair deficiencies identified through video inspection of the sewer system performed between 2008 and 2010. Deficiencies in sewer mains can allow solids to build up and create a blockage or allow so much groundwater to infiltrate that the capacity of the main is reduced – both scenarios lead to sewage overflowing into the street and may result in sewage backing up in homes or businesses.

Sewage may pass through one of three smaller pump stations enroute to the treatment plant, but it all ultimately passes through the main pump station located at the end of Martell Court on the bank of the Ashuelot River. This building houses 4 large pumps that pump the wastewater almost 2 miles to the WWTP through a 30” ductile iron Force Main that was installed over 30 years ago.

The average flow at Martell Court pump station is about 2,100 gallons per minute, with peaks up to 7,000 gallons per minute in severe storm events. At those rates of flow, a breakdown at the pump station or a blockage in the force main would quickly result in sewage backing up in the mains, in the streets, in homes and businesses, and ultimately into the Ashuelot River. In FY23, funds are requested to complete a detailed inspection of the force main. It is anticipated that some repairs will be necessary, but the scope of those repairs will be determined through the detailed inspection. Previous estimates for the complete replacement of the force main ranged as high as \$6 million.

Previous CIP installed energy efficient pumps and controls at Martell Court to assure equipment reliability. The FY19-24 CIP funds several projects that continue to increase the reliability of this most critical step of the sewage transportation process, including a new backup emergency generator and a screen to remove items that clog pumps and pipes. This CIP also includes general maintenance on the 33 year old building – a new roof and repairs to insulation that protects interior ductwork.

The final chapter in the story of sewage in Keene takes place at the WWTP, located at the end of Airport Road in Swanzey, where advanced chemical and biological treatment techniques are used to remove materials that are harmful to the environment. Built in the early 1980’s, and subject to increasingly stringent EPA regulations, the WWTP completed its first major upgrade in 2015.

The upgrade included two new chemical buildings that allow the plant to meet strict effluent limits for phosphorus and copper by using a cost-effective and novel technique developed and fine-tuned by City staff. It also included replacement of the existing and under-sized clarifier scum boxes and disinfection system with new equipment that can treat the WWTP’s design flow of 10 million gallons a day and are not subject to flooding when the river level rises during major flooding events. The upgrade also replaced five of the Plant’s ten 30 year old sludge pumps and upgraded the electrical system to accommodate the new equipment and remove the electric room from the corrosive atmosphere in the sludge dewatering room.

To support the equipment added as part of the major upgrade, the FY19-24 CIP includes an upgrade/upsized to the emergency generator, replacing ductwork insulation, and replacement of blowers and plant water systems.

CITY OF KEENE, NEW HAMPSHIRE

2019 - 2024 Capital Project Funding Request

GENERAL PROJECT DATA

Project Name: **Head Works Treatment**
 Department: **Public Works - Sewer Fund**
 Physical Location: **176 Martell Court**
 Federal Mandate: **N/A**
 State Regulation or Law: **N/A**
 Master Plan (CMP) Focus Area: **Healthy Community**
 CMP Vision/Strategy: **Infrastructure**
 Council Initiative: **N/A**
 V.O.I.C.E.: **N/A**
 Departmental Objective: **Protect downstream equipment from damage by removing rags, wipes, and plastics from the waste stream**



Example of screening equipment

PROJECT DESCRIPTION/JUSTIFICATION

More than 3 million gallons of raw wastewater are pumped through the Martell Court Pump Station every day. Solids, including plastics, wipes, and other non-degradable materials currently pass through a grinder. The current grinding technology results in material that recombines at the WWTP and creates pump and process pipe blockages, mats of trash, and winds around rotating equipment where it must be removed by hand creating many hours of manual labor. New screening technology is available that can screen, wash, and compact these solids at the pump station before they cause maintenance issues at the WWTP. Funding this project in FY19 will allow it to be operational in 2020 when the existing grinding equipment will no longer be supported by the manufacturer. It is expected that staff will be able to keep the existing equipment operational until then. Technology selection and engineering design for replacement of the grinding equipment at the Martell Court Pump Station will be completed by Spring of 2018 and construction is funded in FY19.

Evaluations performed through the equipment selection process identified that pump station's heating, ventilation and air conditioning system (HVAC) will require upgrading to prevent corrosion of the new equipment. To accommodate that, the scope of this project in FY19 has been expanded to include an upgrade of the existing HVAC system. Funding from a previously published CIP to replace this station's duct insulation has been incorporated into this project and was eliminated from FY23.

FINANCIAL PLAN & PROJECT SCHEDULE

	PRIOR YR	FY19	FY20	FY21	FY22	FY23	FY24	TOTAL
EXPENDITURES								
Design								0
Construction/Implementation		1,342,560						1,342,560
Property/Equip. Acquisition								0
TOTAL	\$0	\$1,342,560	\$0	\$0	\$0	\$0	\$0	\$1,342,560
FUNDING								
Current Revenue								
Capital Reserve								0
Debt Funded		1,342,560						1,342,560
Federal or State Grants								0
Other Sources								0
TOTAL	\$0	\$1,342,560	\$0	\$0	\$0	\$0	\$0	\$1,342,560

ANNUAL DEPARTMENT OPERATING BUDGET IMPACT: Create efficiencies
One time

PROJECT STATUS: Re-introduced

CITY OF KEENE, NEW HAMPSHIRE

2019 - 2024 Capital Project Funding Request

GENERAL PROJECT DATA

Project Name: **Martell Court Upgrade Phase 2**
 Department: **Public Works - Sewer Fund**
 Physical Location: **176 Martell Court**
 Federal Mandate: **The City's NPDES permit requires the City to have back up power.**
 State Regulation or Law: **No**
 Master Plan (CMP) Focus Area: **Healthy Community**
 CMP Vision/Strategy: **Infrastructure**
 Council Initiative: **N/A**
 V.O.I.C.E.: **Continually Assess Facilities and Infrastructure**
 Departmental Objective: **Reliable operation of the City's main sewage pumping station during power outages**



PROJECT DESCRIPTION/JUSTIFICATION

Phase 2 of the Martell Court Pump Station upgrade consists of the replacement of the transformer and emergency back up generator that were installed when the Station was built in 1985. The generator provides power to keep the station's four large raw sewage pumps operating when line power is interrupted and a generator failure would result in significant sewage overflows. The pump station would flood, sewage would back up into buildings, into Beaver Brook, the Ashuelot River, and City streets within several hours of losing line power. The transformer converts high voltage power from the emergency generator to the lower voltage power that the pump station's equipment requires to operate when line power is interrupted.

In FY19, the transformer will be 34 years old and approaching the end of its reliable life. FY18 funded the design of the 15 KVA transformer replacement and FY19 funds the purchase and installation of a new transformer. FY19 also funds electrical design to replace the station's emergency generator and FY21 funds the purchase and installation of a new backup generator. By FY21 the generator will be 36 years old and replacement parts will be difficult to procure. Phase 1 of the Pump Station upgrade was completed in FY14 and included the replacement of four raw sewage pumps, seven gates, and their associated controls.

FINANCIAL PLAN & PROJECT SCHEDULE

	PRIOR YR	FY19	FY20	FY21	FY22	FY23	FY24	TOTAL
EXPENDITURES								
Design		21,131						21,131
Construction/Implementation		37,536		130,810				168,346
Property/Equip. Acquisition								0
TOTAL	\$0	\$58,667	\$0	\$130,810	\$0	\$0	\$0	\$189,477
FUNDING								
Current Revenue								0
Capital Reserve		58,667		130,810				189,477
Debt Funded								0
Federal or State Grants								0
Other Sources								0
TOTAL	\$0	\$58,667	\$0	\$130,810	\$0	\$0	\$0	\$189,477

ANNUAL DEPARTMENT OPERATING BUDGET IMPACT: Negligible<\$5,001
One time

PROJECT STATUS: Ongoing CIP

CITY OF KEENE, NEW HAMPSHIRE

2019 - 2024 Capital Project Funding Request

GENERAL PROJECT DATA

Project Name: **Martell Court Roof Replacement**
 Department: **Public Works - Sewer Fund**
 Physical Location: **420 Airport Road**
 Federal Mandate: **No**
 State Regulation or Law: **No**
 Master Plan (CMP) Focus Area: **Healthy Community**
 CMP Vision/Strategy: **Infrastructure**
 Council Initiative: **N/A**
 V.O.I.C.E.: **Continually Assess Facilities and Infrastructure**
 Departmental Objective: **Prevent costly repairs to roof surface in the future**



PROJECT DESCRIPTION/JUSTIFICATION

This project replaces the original asphalt roof at the Martell Court Pump Station. A local roofing contractor evaluated the roof and determined that it may last another 5 years, or longer. Because asphalt roofs are no longer an industry-accepted roof material, the roof will be replaced with a rubber membrane. The integrity of the roof will be evaluated each year to determine if this project needs to be accelerated or pushed out.

FINANCIAL PLAN & PROJECT SCHEDULE

	PRIOR YR	FY19	FY20	FY21	FY22	FY23	FY24	TOTAL
EXPENDITURES								
Design								0
Construction/Implementation						32,714		32,714
Property/Equip. Acquisition								0
TOTAL	\$0	\$0	\$0	\$0	\$0	\$32,714	\$0	\$32,714
FUNDING								
Current Revenue								0
Capital Reserve						32,714		32,714
Debt Funded								0
Federal or State Grants								0
Other Sources								0
TOTAL	\$0	\$0	\$0	\$0	\$0	\$32,714	\$0	\$32,714

ANNUAL DEPARTMENT OPERATING BUDGET IMPACT:

N/A

PROJECT STATUS:

Ongoing CIP

Water and Sewer Improvements

The City's strategy for identifying and prioritizing water and sewer improvements in conjunction with roadwork for this Capital Improvement Program is a combination of the sewer condition and the Road Overlay Program. It has evolved from its "Dig the Road Once" philosophy as the City's obligation under the 2004 Administrative Order requiring the replacement of specific sewers is complete. Sewer improvements in FY16-19 reflect condition-driven projects and are not associated with road rehabilitation projects.

A 2012 assessment of the City's paved streets used the pavement condition and traffic volume to develop a numeric rating. This rating was used to prioritize streets for overlay and streets were grouped into neighborhoods to gain efficiency in construction services and to improve the overall aesthetics of an area.

Before a street is overlaid, its water, sewer, and drain infrastructure are evaluated and repairs/improvements are planned for the year before the overlay is scheduled to avoid digging up a freshly paved road. The water, sewer, and drain evaluations are performed in different ways.

- *Sewers are evaluated according to their condition and capacity.*
 - Condition ratings were generated as part of the Priority Inspection Program that was performed between FY06 and FY11. The results of these inspections have been cataloged and deficiencies that require spot repair, short length lining, or complete lining have been identified.
 - Capacity issues have been identified using the computer model of the collection system. Inflow and infiltration was evaluated in FY14 and is an additional factor in evaluations.

- *Water main evaluations are based on age, pressure/volume, and repair frequency.*
 - While no video is available that shows the condition of the water mains, the age and material are often used as clues to their conditions. As an example, mains that were constructed between 1930 and the 1970's were made of bituminous cast iron pipe (universal pipe) and are prone to leaks. Mains that do not have a cement lining can build up a hard layer of minerals that cannot be removed through the normal flushing programs.
 - The Department's operational records are used to identify mains that have experienced a number of breaks.
 - The volume of water a main can transport and what the relationship is of a given section of main to the rest of the system is evaluated using the water distribution model. If a section does not provide the anticipated volume or pressure, a piece can be cut out and visually inspected to determine the amount of material buildup.

- *The capacity of storm drains is evaluated by the contributing storm drainage area.*
 - If capacity is not adequate the drains are upsized by excavating and replacing the drain with a larger size pipe.
 - A storm drain model that will assist the evaluation of capacity is currently being developed.

Separate programs for the replacement of mainline water valves and the repair of sewers that are not associated with other road work have been created to keep the focus on this catch-up repair work.

CITY OF KEENE, NEW HAMPSHIRE

2019 - 2024 Capital Project Funding Request

GENERAL PROJECT DATA

Project Name: **State Bypass Utilities**
 Department: **Public Works - Sewer Fund**
 Physical Location: **Various**
 Federal Mandate: **No**
 State Regulation or Law: **No**
 Master Plan (CMP) Focus Area: **Healthy Community**
 CMP Vision/Strategy: **Infrastructure**
 Council Initiative: **Policy**
 V.O.I.C.E.: **Continually Assess Facilities and Infrastructure**
 Departmental Objective: **Improve sewer collection system capacity and reliability.**



PROJECT DESCRIPTION/JUSTIFICATION

This project funds the replacement of sewer mains that are affected by the NH Department of Transportation's construction on Winchester Street between Island Street and the roundabout. The NH Department of Transportation's project does not include funds for sewer utilities that are damaged or need to be replaced during a State road project. This project funds the time and materials required for the sewer main replacement only; it does not include road or surface replacement because that work is covered by the corresponding State road project.

FINANCIAL PLAN & PROJECT SCHEDULE

	PRIOR YR	FY19	FY20	FY21	FY22	FY23	FY24	TOTAL
EXPENDITURES								
Design								0
Construction/Implementation		360,291						360,291
Property/Equip. Acquisition								0
TOTAL	\$0	\$360,291	\$0	\$0	\$0	\$0	\$0	\$360,291
FUNDING								
Current Revenue								0
Capital Reserve		360,291	0					360,291
Debt Funded								0
Federal or State Grants								0
Other Sources								0
TOTAL	\$0	\$360,291	\$0	\$0	\$0	\$0	\$0	\$360,291

ANNUAL DEPARTMENT OPERATING BUDGET IMPACT:

N/A

PROJECT STATUS:

Ongoing CIP

SEWER IMPROVEMENTS

The Sewer Improvement program is used to fund replacement or upgrade of sanitary sewer mains that are not suitable candidates for lining or spot repairs. Generally, this includes sewer mains that are undersized for current flow, do not have adequate slope, or are prone to freezing due to shallow depth. Sewers may be replaced in conjunction with other infrastructure work or as stand-alone projects.

Street	Scope of work	2017 estimated cost ⁽¹⁾	Construction year	Inflation adjust.	Construction year estimated cost ⁽¹⁾
Marlboro Street	Remove small diameter sewer sub-mains to improve flow characteristics and reduce maintenance costs. Project costs include removal of existing concrete roadway base.	\$563,371	2019	\$89,730	\$653,101
Blossom Street	Reconstruct a shallow 10-inch sewer main to improve flow characteristics.	\$553,829	2020	\$107,472	\$661,301
Colony Court	Replace sewer with adverse slope that causes backups. Costs include reconstruction of roadway and sidewalk.	\$1,183,465	2021	\$272,048	\$1,455,513
Main Street	Sewer replacements and upgrades required as part of the Downtown Revitalization Project ⁽²⁾	\$400,000	2022	\$106,708	\$506,708
	Sewer force main inspection	\$280,000	2023	\$85,336	\$365,336
	Sewer force main rehabilitation ⁽³⁾	\$600,000	2024	\$182,664	\$782,664

Notes:

1) All costs include 10% for construction contingencies, 10% for engineering design, 10% for construction administration, and 1% for supervision. Future year construction assumes 3% inflation per year.

2) The exact scope of work has not been determined. It is anticipated that some relocations / replacements will be required. However, many of the mains in this area were lined in 2004 and are currently in good condition.

3) The scope of work for this project will be developed through the detailed inspection planned for FY23. It is anticipated that repair or replacement of some deteriorated segments will be required.

CITY OF KEENE, NEW HAMPSHIRE

2019 - 2024 Capital Project Funding Request

GENERAL PROJECT DATA

Project Name: **Sewer Improvements**
 Department: **Public Works - Sewer Fund**
 Physical Location: **Various**
 Federal Mandate: **No**
 State Regulation or Law: **No**
 Master Plan (CMP) Focus Area: **Healthy Community**
 CMP Vision/Strategy: **Infrastructure**
 Council Initiative: **Policy**
 V.O.I.C.E.: **Continually Assess Facilities and Infrastructure**
 Departmental Objective: **Improvement in collection system carrying capacity and reliable operation through upgrade of existing mains and elimination of infiltration**



PROJECT DESCRIPTION/JUSTIFICATION

The Sewer Improvement program is used to fund replacement or upgrade of sanitary sewer mains that are not suitable candidates for lining or spot repairs. Generally, this includes sewer mains that are undersized for current needs, do not have adequate slope or are prone to freezing due to shallow depth.

In FY22, funds are requested to address sewer system needs in conjunction with the ongoing Downtown Revitalization project. Although the scope of this work cannot be determined until the current planning work progresses, some improvements and/or relocations of the sewer main are anticipated due to the age and condition of the mains.

In FY23, the Public Works Department will undertake a detailed inspection of the City's 2-mile long force main that conveys raw sewerage under pressure to the wastewater treatment plant. This 30-inch diameter ductile iron pipe was installed in 1985. Because there is no redundant system for conveying wastewater, it is not possible to interrupt flows for the inspection. A consultant will use a variety of remote sensing technologies to evaluate the pipeline for leaks, corrosion, gas pockets, and other defects while the pipeline remains in service.

FINANCIAL PLAN & PROJECT SCHEDULE

	PRIOR YR	FY19	FY20	FY21	FY22	FY23	FY24	TOTAL
EXPENDITURES								
Design		46,560	45,771	205,395				297,726
Construction/Implementation		606,541	615,530	1,250,118	506,708	365,336	782,664	4,126,898
Property/Equip. Acquisition								0
TOTAL	\$0	\$653,101	\$661,301	\$1,455,513	\$506,708	\$365,336	\$782,664	\$4,424,624
FUNDING								
Current Revenue								0
Capital Reserve		653,101	661,301		506,708	365,336	782,664	2,969,111
Debt Funded				1,455,513				1,455,513
Federal or State Grants								0
Other Sources								0
TOTAL	\$0	\$653,101	\$661,301	\$1,455,513	\$506,708	\$365,336	\$782,664	\$4,424,624

ANNUAL DEPARTMENT OPERATING BUDGET IMPACT:

Multi-year

PROJECT STATUS:

Ongoing CIP

CITY OF KEENE, NEW HAMPSHIRE

2019 - 2024 Capital Project Funding Request

GENERAL PROJECT DATA

Project Name: **Sewer Utility Work - Bridges**
 Department: **Public Works - Sewer Fund**
 Physical Location: **Various**
 Federal Mandate: **No**
 State Regulation or Law: **No**
 Master Plan (CMP) Focus Area: **Healthy Community**
 CMP Vision/Strategy: **Infrastructure**
 Council Initiative: **Policy**
 V.O.I.C.E.: **Continually Assess Facilities and Infrastructure**
 Departmental Objective: **Improve sewer collection system capacity and reliability.**



PROJECT DESCRIPTION/JUSTIFICATION

The work funded by this project includes the replacement of sewer mains that are affected by the City's Bridge Replacement program. The State of NH Department of Transportation's bridge program does not provide funds for sewer utilities that are damaged or need to be replaced due to a bridge project. This project funds the time and materials required for the sewer main replacement and does not include road or surface replacement because that portion is covered by the corresponding bridge project.

FY19: Winchester Street Bridge over Ash Swamp Brook.

FINANCIAL PLAN & PROJECT SCHEDULE

	PRIOR YR	FY19	FY20	FY21	FY22	FY23	FY24	TOTAL
EXPENDITURES								
Design								0
Construction/Implementation		43,500						43,500
Property/Equip. Acquisition								0
TOTAL	\$0	\$43,500	\$0	\$0	\$0	\$0	\$0	\$43,500
FUNDING								
Current Revenue								0
Capital Reserve		43,500						43,500
Debt Funded								0
Federal or State Grants								0
Other Sources								0
TOTAL	\$0	\$43,500	\$0	\$0	\$0	\$0	\$0	\$43,500

ANNUAL DEPARTMENT OPERATING BUDGET IMPACT:

N/A

PROJECT STATUS:

Ongoing CIP

CITY OF KEENE, NEW HAMPSHIRE

2019 - 2024 Capital Project Funding Request

GENERAL PROJECT DATA

Project Name: **Sewer Structural Repair/Lining**
 Department: **Public Works - Sewer Fund**
 Physical Location: **Various**
 Federal Mandate: **Clean Water Act; NPDES permit**
 State Regulation or Law: **RSA 485-A:13**
 Master Plan (CMP) Focus Area: **Healthy Community**
 CMP Vision/Strategy: **Infrastructure**
 Council Initiative: **N/A**
 V.O.I.C.E.: **Continually Assess Facilities and Infrastructure**
 Departmental Objective: **Improvement in collection system carrying capacity and reliable operation through small repairs to existing mains and elimination of infiltration and deferring the complete main replacement**



PROJECT DESCRIPTION/JUSTIFICATION

This project funds an outside contractor to make spot repairs to correct minor deficiencies to sewer mains. The project includes funds for engineering, construction, and inspection of the construction. In addition to the spot repairs, this project also funds lining in locations on roads that have very old sewers and are scheduled to be rehabilitated.

In previous years, spot repairs were prioritized based on the findings of the Priority Inspection Program (PIP) completed in 2011. Many of the highest ranking deficiencies have now been corrected and this project continues to make repairs to reduce infiltration.

In the summer of 2017, the City hired Hazen and Sawyer to perform a study of inflow and infiltration into the City's sanitary sewers using a "Smoke Test" procedure. Preliminary results indicate that the system has very few storm drains connected directly to the sanitary sewer. However, a large number of indirect connections (e.g., cracked sewer pipes near deteriorated storm drains) were identified. The results of this study, along with the remaining defects found during the PIP, will be used to prioritize sewer structural repair / lining projects in the future CIP.

FINANCIAL PLAN & PROJECT SCHEDULE

	PRIOR YR	FY19	FY20	FY21	FY22	FY23	FY24	TOTAL
EXPENDITURES								
Design								0
Construction/Implementation		173,891	179,108	184,481	190,015	195,716	201,587	1,124,798
Property/Equip. Acquisition								0
TOTAL	\$0	\$173,891	\$179,108	\$184,481	\$190,015	\$195,716	\$201,587	\$1,124,798
FUNDING								
Current Revenue		173,891	179,108	184,481	190,015	195,716	201,587	1,124,798
Capital Reserve								0
Debt Funded								0
Federal or State Grants								0
Other Sources								0
TOTAL	\$0	\$173,891	\$179,108	\$184,481	\$190,015	\$195,716	\$201,587	\$1,124,798

ANNUAL DEPARTMENT OPERATING BUDGET IMPACT: Negligible<\$5,001 Ongoing

PROJECT STATUS: Ongoing CIP

CITY OF KEENE, NEW HAMPSHIRE

2019 - 2024 Capital Project Funding Request

GENERAL PROJECT DATA

Project Name: **Sewer Manhole Lining**
 Department: **Public Works - Sewer Fund**
 Physical Location: **Various**
 Federal Mandate: **Clean Water Act; NPDES permit**
 State Regulation or Law: **RSA 485-A:13**
 Master Plan (CMP) Focus Area: **Healthy Community**
 CMP Vision/Strategy: **Infrastructure**
 Council Initiative: **N/A**
 V.O.I.C.E.: **Continually Assess Facilities and Infrastructure**
 Departmental Objective: **Eliminate groundwater infiltration into the treatment system and wastewater exfiltration through defects in deteriorated brick manholes.**



PROJECT DESCRIPTION/JUSTIFICATION

The City has an inventory of over 200 brick manholes. Typically, the bricks retain their structural integrity for many years; however, the mortar in between can deteriorate and create pathways for groundwater to infiltrate into the system and allows bricks to fall into the mains creating a source of blockage. Infiltration results in increased costs for pumping and treating clean water and blockages result in sanitary sewer overflows where untreated waste is released into the environment.

This project will provide funding to rehabilitate the structures by lining the interior surface with an epoxy-based mortar. Funding levels assume that all brick manholes will be lined over a period of 5 years, beginning on FY23. The requested funds assume that an estimated 20% of the manholes will not be in suitable condition for lining and will be replaced with new pre-cast concrete structures.

FINANCIAL PLAN & PROJECT SCHEDULE

	PRIOR YR	FY19	FY20	FY21	FY22	FY23	FY24	TOTAL
EXPENDITURES								
Design								0
Construction/Implementation						157,600	162,328	319,928
Property/Equip. Acquisition								0
TOTAL	\$0	\$0	\$0	\$0	\$0	\$157,600	\$162,328	\$319,928
FUNDING								
Current Revenue								0
Capital Reserve						157,600	162,328	319,928
Debt Funded								0
Federal or State Grants								0
Other Sources								0
TOTAL	\$0	\$0	\$0	\$0	\$0	\$157,600	\$162,328	\$319,928

ANNUAL DEPARTMENT OPERATING BUDGET IMPACT:

N/A

PROJECT STATUS:

New Project

CITY OF KEENE, NEW HAMPSHIRE

2019 - 2024 Capital Project Funding Request

GENERAL PROJECT DATA

Project Name: **Blower Replacement**
 Department: **Public Works - Sewer Fund**
 Physical Location: **420 Airport Road**
 Federal Mandate: **No**
 State Regulation or Law: **No**
 Master Plan (CMP) Focus Area: **Healthy Community**
 CMP Vision/Strategy: **Community Sustainability**
 Council Initiative: **N/A**
 V.O.I.C.E.: **Continually Assess Facilities and Infrastructure**
 Departmental Objective: **Appropriately timed replacement of obsolete equipment with energy efficient models**



PROJECT DESCRIPTION/JUSTIFICATION

This project includes the replacement of four blowers, originally installed in 1985, with more energy efficient equipment. These four blowers include two 75 horse power (HP) blowers (pictured above) that aerate the septage holding tanks, grit chamber, and final effluent and two 40 HP blowers that aerate the sludge storage tank.

FY20 funds the replacement of the two 40HP blowers and FY21 funds the replacement of the two 75 HP blowers. The replacement blowers are expected to be more energy efficient than the existing equipment. Installing more efficient equipment is in line with the City's Vision Focus Areas, specifically Focus Area 1 "Fostering Renewable Energy and Efficient use of Resources". The blowers had been scheduled for replacement in FY15 and FY16, but were pushed out because they are in good repair as routine preventative maintenance has been performed and motors and controls were upgraded previously. It is expected the blower condition will dictate their replacement in FY20 and FY21.

FINANCIAL PLAN & PROJECT SCHEDULE

	PRIOR YR	FY19	FY20	FY21	FY22	FY23	FY24	TOTAL
EXPENDITURES								
Design		68,741						68,741
Construction/Implementation			179,360	184,741				364,101
Property/Equip. Acquisition								
TOTAL	\$0	\$68,741	\$179,360	\$184,741	\$0	\$0	\$0	\$432,842
FUNDING								
Current Revenue								
Capital Reserve	61,076	7,665	179,360	184,741				432,842
Debt Funded								
Federal or State Grants								
Other Sources								
TOTAL	\$61,076	\$7,665	\$179,360	\$184,741	\$0	\$0	\$0	\$432,842

ANNUAL DEPARTMENT OPERATING BUDGET IMPACT: Reduce - will reduce operating costs
Ongoing

PROJECT STATUS: Ongoing CIP

CITY OF KEENE, NEW HAMPSHIRE

2019 - 2024 Capital Project Funding Request

GENERAL PROJECT DATA

Project Name: **Duct Insulation Replacement**
 Department: **Public Works - Sewer Fund**
 Physical Location: **Wastewater Plant**
 Federal Mandate: **N/A**
 State Regulation or Law: **N/A**
 Master Plan (CMP) Focus Area: **Healthy Community**
 CMP Vision/Strategy: **Infrastructure**
 Council Initiative: **N/A**
 V.O.I.C.E.: **Continually Assess Facilities and Infrastructure**
 Departmental Objective: **Refurbish old equipment to maintain current level of operation and defer replacement cost**



Duct insulation in WWTP Grit chamber over the influent flow

PROJECT DESCRIPTION/JUSTIFICATION

This project will replace the heating, ventilation, and air conditioning (HVAC) ductwork insulation at the Wastewater Treatment Plant (WWTP). The ductwork is important for fresh air exchange for equipment and personnel safety and the insulation protects the metal ductwork from corrosion resulting from the hydrogen sulfide gas present in wastewater. The ductwork is located directly over the raw wastewater as it first enters the plant and so, access for repair or cleaning is difficult. The ductwork insulation will be 38 years old at the time of replacement and is already beginning to fail as shown in the photo.

FINANCIAL PLAN & PROJECT SCHEDULE

	PRIOR YR	FY19	FY20	FY21	FY22	FY23	FY24	TOTAL
EXPENDITURES								
Design								0
Construction/Implementation						35,892		35,892
Property/Equip. Acquisition								0
TOTAL	\$0	\$0	\$0	\$0	\$0	\$35,892	\$0	\$35,892
FUNDING								
Current Revenue								0
Capital Reserve						35,892		35,892
Debt Funded								0
Federal or State Grants								0
Other Sources								0
TOTAL	\$0	\$0	\$0	\$0	\$0	\$35,892	\$0	\$35,892

ANNUAL DEPARTMENT OPERATING BUDGET IMPACT: Create efficiencies
One time

PROJECT STATUS: Ongoing CIP

CITY OF KEENE, NEW HAMPSHIRE

2019 - 2024 Capital Project Funding Request

GENERAL PROJECT DATA

Project Name: **WWTP Generator Replacement**
 Department: **Public Works - Sewer Fund**
 Physical Location: **420 Airport Road**
 Federal Mandate: **The City's NPDES permit requires back up power be available.**
 State Regulation or Law: **N/A**
 Master Plan (CMP) Focus Area: **Healthy Community**
 CMP Vision/Strategy: **Emergency Preparedness**
 Council Initiative: **N/A**
 V.O.I.C.E.: **Continually Assess Facilities and Infrastructure**
 Departmental Objective: **To have a reliable supply of emergency power that will allow the treatment process to remain in operation when there is a power outage. Backup power is required by the City's NPDES permit**



PROJECT DESCRIPTION/JUSTIFICATION

This project replaces the wastewater treatment plant's (WWTP) standby generator that was installed in 1985. The generator was designed to provide backup power to the WWTP's critical equipment to allow treatment to continue when line power is interrupted. Generator replacement is recommended to retain reliability in FY20 when it is 35 years old because component failure is more likely and replacement parts are becoming harder to procure. The new generator will be larger than the current one because the existing generator is too small to handle the full equipment loading and currently some equipment must be either turned off or turned down to prevent overloading its capacity.

The WWTP's federal discharge permit requires backup power because electricity is required to maintain biological treatment and disinfection. A failure of either of these systems would result in significant violations of the discharge permit, exposing the City to legal actions and economic penalties. FY19 funds the design and FY21 funds the purchase and installation of a new, adequately sized, generator.

FINANCIAL PLAN & PROJECT SCHEDULE

	PRIOR YR	FY19	FY20	FY21	FY22	FY23	FY24	TOTAL
EXPENDITURES								
Design		21,131						21,131
Construction/Implementation				123,636				123,636
Property/Equip. Acquisition								0
TOTAL	\$0	\$21,131	\$0	\$123,636	\$0	\$0	\$0	\$144,767
FUNDING								
Current Revenue								0
Capital Reserve		21,131		123,636				144,767
Debt Funded								0
Federal or State Grants								0
Other Sources								0
TOTAL	\$0	\$21,131	\$0	\$123,636	\$0	\$0	\$0	\$144,767

ANNUAL DEPARTMENT OPERATING BUDGET IMPACT: Negligible<\$5,001
One time

PROJECT STATUS: Ongoing CIP

CITY OF KEENE, NEW HAMPSHIRE

2019 - 2024 Capital Project Funding Request

GENERAL PROJECT DATA

Project Name: **Nonpotable Water System**
 Department: **Public Works - Sewer Fund**
 Physical Location: **420 Airport Road**
 Federal Mandate: **No**
 State Regulation or Law: **No**
 Master Plan (CMP) Focus Area: **Healthy Community**
 CMP Vision/Strategy: **Infrastructure**
 Council Initiative: **N/A**
 V.O.I.C.E.: **Continually Assess Facilities and Infrastructure**
 Departmental Objective: **Refurbish old equipment to maintain current level of operation and defer replacement costs**



PROJECT DESCRIPTION/JUSTIFICATION

Non-potable service water is wastewater that has received complete treatment and is suitable for discharge into the river, but not suitable for drinking. To conserve drinking water resources, service water is filtered then recycled for use in applications when drinking quality water is not required. Heat from the treated water is recovered through heat pumps located in-line before the service water system and the recovered energy is used to heat the UV disinfection and septage buildings. This project refurbishes, but does not replace, the existing non-potable service water system. It allows the heat recovery system to remain operational and defers a \$131K service water system replacement previously scheduled for FY17. Eventually, the service water system will require replacement, estimated to be after FY26 or when replacement parts are no longer available.

FINANCIAL PLAN & PROJECT SCHEDULE

	PRIOR YR	FY19	FY20	FY21	FY22	FY23	FY24	TOTAL
EXPENDITURES								
Design								0
Construction/Implementation		65,400						65,400
Property/Equip. Acquisition								0
TOTAL	\$0	\$65,400	\$0	\$0	\$0	\$0	\$0	\$65,400
FUNDING								
Current Revenue								0
Capital Reserve		65,400						65,400
Debt Funded								0
Federal or State Grants								0
Other Sources								0
TOTAL	\$0	\$65,400	\$0	\$0	\$0	\$0	\$0	\$65,400

ANNUAL DEPARTMENT OPERATING BUDGET IMPACT:

N/A

PROJECT STATUS:

Ongoing CIP

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Transportation – programs, activities, and projects which are intended to facilitate the safe and efficient movement of people and things within the City, and to connect the local community with Monadnock Region, the state, and the world. The primary goal of these activities is to provide that roads, bridges, sidewalks, bike paths, and other transportation infrastructure are in good condition and meet the needs of the community.

Project Name	Page
Consolidated Infrastructure- All Years	131-133
Bridge Repair/Replacement	135
Curb Repair/Replacement	136
Roadway Rehabilitation/Reconstruction	139
Guardrail Replacement	140
Sidewalk Repair/Replacement	141
State Bypass Improvement Program	143
Traffic Signal Replacement Program	144
Main Street Crosswalk Improvements	146
Marlboro Street Corridor Improvements	147

Transportation

The City's transportation system is comprised of 126 centerline miles of streets, 32 bridges, over 52 miles of sidewalks, 14,900 linear feet of guard rail, 8 traffic control signals, 5 flashing traffic signals and over 10 miles of multi-use trails. The transportation system provides critical links within the City, to the region, to the State, and ultimately to the world. The transportation system is how people get to work and school, buy groceries, and access recreational activities. For businesses it is their lifeline to receive and provide goods and services. A strong transportation system will set a positive tone and drives a community to success and a failing or struggling system will retard a community's ability flourish and compete.

The assets of the City's transportation system have been in place from the founding of the City, the 1750's, up to current times. This has resulted in components that were designed and built for very different needs, horse drawn carriages and wagons, but are expected to meet the demands of today; multi-generational pedestrians, vehicle, and bicycle operators; multi-passenger vehicles, tractor trailer trucks, electric cars, and autonomous vehicles in the near future.

The City invests in its transportation system through different ways. The City works to maintain and keep components functioning through its maintenance and repair projects. Through the Capital Improvement Program and this is accomplished through the Bridge Replacement, Road Rehabilitation, Curbing, Sidewalk, Traffic Signals, and Guard Rail Repair Projects. To determine the needs for these projects the Public Works Department performs inventory and condition surveys of the various assets. The surveys collect information on the condition (how much cracking, potholing, deterioration to components), on use (vehicle trips), and types of uses (is it a school route, residential collector or pathway to commercial centers). This information is reviewed to determine the types and methods of repair strategies, priority, and timing. Also layered into the review is the timing and need for work on other infrastructure components (water and sewer), work by private utilities, and larger developments within the community.

The City also invests in its transportation system through projects that improve functionality and/or capacity to meet increased demands or changes in function. Through the Capital Improvement Program this is accomplished through the Street Reconstruction Program, Upper and Lower Winchester Street Reconstruction, and Marlboro Street Corridor Improvements. These projects are identified through various avenues including the City's Comprehensive Master Plan, special commissions or review committees, development changes, and evaluation of data collected during the street survey.

Overall the City works to balance the need to maintain the functionality and operations of its transportation system and the cost of the system to the property owners.

CONSOLIDATED INFRASTRUCTURE REPORT							FY19	
STREET	Roadway	Curbing	Sidewalk	Drainage	Sewer	Water	Other	Total
Bridge Court	\$ 10,146							\$ 10,146
Carpenter Street	44,054							44,054
Court Street (Central Sq. to Westview)	181,300							181,300
Ellis Court (Wright to Woodbury)	27,000							27,000
Fowler Street	23,789							23,789
Gilsum Street (North to end)	160,900			21,000				181,900
Harmony Lane	13,752							13,752
Kingsbury Street	20,250							20,250
Marlboro Street	79,500	63,571	63,571	21,000	653,101	1,127,257		2,008,000
North Street (Elm to Gilsum)	93,000							93,000
Perham Street	11,200							11,200
Richardson Court	10,986							10,986
Valley Street	48,459							48,459
Village Drive	56,121							56,121
Winchester Street (Rt. 101 to Island St.)	3,016,680				360,291	250,500		3,627,471
Woodburn Street	27,918							27,918
Woodbury Street	164,000			21,571				185,571
Wright Street	28,000							28,000
Preservation (various locations)	87,700							87,700
Drain Cleaning (various locations)				64,890				64,890
Winchester St. Bridge over Ash Swamp					43,500	38,300		81,800
Sewer Repair & Lining (various locations)					173,891			173,891
Martel Court Pump Station					58,667			58,667
Wastewater Treatment Facility Upgrades					1,297,832			1,297,832
Gate Valves (various locations)						90,508		90,508
Water Treatment Facility Upgrades						135,580		135,580
Guardrails (various locations)							77,506	77,506
Goose Pond Dam							879,400	879,400
Gilbo East Parking Lot							29,400	29,400
Detail: FY 2019 Projects	4,104,755	63,571	63,571	128,461	2,587,282	1,642,145	986,306	9,576,091
Contingency, Design, Admin. & Inflation	175,067							175,067
Program Funding Request: 2019	\$ 4,279,822	\$ 63,571	\$ 63,571	\$ 128,461	\$ 2,587,282	\$ 1,642,145	\$ 986,306	\$ 9,751,158

CONSOLIDATED INFRASTRUCTURE REPORT							FY20	
STREET	Rehab	Curbing	Sidewalk	Drainage	Sewer	Water	Other	Total
Adams Court	\$ 9,321							\$ 9,321
Adams Street	68,492			10,000				78,492
Arch Street - (Park to Hurricane)	139,300			15,478				154,778
Avalon Place	15,450							15,450
Blossom Street				10,000	661,301			671,301
Elliot Street	29,307			10,000				39,307
Gates Street	21,946			5,000				26,946
Main Street (Route 101 to Marlboro St)	199,200			5,000				204,200
Moore Farm Road	30,900							30,900
No Name Road	15,450							15,450
Proctor Court	20,600							20,600
South Street	25,103			10,000				35,103
Sullivan Road (Route 9 to town line)	89,237							89,237
River Street	66,893							66,893
Roxbury Street	398,100	65,478	65,478	861,380				1,390,436
Winchester Street (Rt. 101 to Island St.)	2,628,399							2,628,399
Preservation (various locations)	30,000							30,000
Drain Cleaning (various locations)				66,836				66,836
Sewer Repair & Lining (various locations)					179,108			179,108
Wastewater Treatment Facility Upgrades					179,360			179,360
Water Main Cleaning & Lining (various locations)						514,300		514,300
Gate Valves (various locations)						93,223		93,223
Guardrails (various locations)							44,024	44,024
Water Storage Tanks						145,041		145,041
Fox Ave. Booster Station						42,892		42,892
Water Treatment Facility Upgrades						191,466		191,466
Wellfield Upgrades						75,000		75,000
Woodward Dam Improvements						1,585,976		1,585,976
Parking Improvements							80,300	80,300
Detail: FY 2019 Projects	3,787,698	65,478	65,478	993,694	1,019,769	2,647,898	124,324	8,704,339
Contingency, Design & Admin. & Inflation	270,774							270,774
Program Funding Request: 2020	\$ 4,058,472	\$ 65,478	\$ 65,478	\$ 993,694	\$ 1,019,769	\$ 2,647,898	\$ 124,324	\$ 8,975,113

CONSOLIDATED INFRASTRUCTURE REPORT							FY21	
STREET	Roadway	Curbing	Sidewalk	Drainage	Sewer	Water	Other	Total
Cady Street	\$ 25,750							25,750
Cobb Street	15,450							15,450
Colony Court					1,455,513			1,455,513
Concord Road	258,530			10,000				268,530
Hooper Street	26,533							26,533
Lamson Street	26,790			10,000				36,790
Main Street (Rt. 101 to Silent Way)	97,600		22,000	10,000				129,600
Martin Street	33,086							33,086
Park Avenue	389,340	68,752	24,752	18,752				501,596
Salisbury Road	54,739							54,739
School Street (West to Emerald)	46,350		22,000	10,000				78,350
Speaker Street	20,600							20,600
St. James Street	46,350			10,000				56,350
Drain Cleaning (various locations)				68,841				68,841
Sewer Repair & Lining (various locations)					184,481			184,481
Martel Court Pump Station					130,810			130,810
Wastewater Treatment Facility Upgrades					308,377			308,377
Water Main Lining (various locations)						174,800		174,800
Gate Valves (various locations)						96,020		96,020
Parking Improvements								-
Detail: FY 2021 Projects	1,041,118	68,752	68,752	137,593	2,079,181	270,820	-	3,666,216
Contingency, Design & Admin. & Inflation	266,529							266,529
Program Funding Request: 2021	\$ 1,307,647	\$ 68,752	\$ 68,752	\$ 137,593	\$ 2,079,181	\$ 270,820	\$ -	\$ 3,932,745

CONSOLIDATED INFRASTRUCTURE REPORT							FY22	
STREET	Roadway	Curbing	Sidewalk	Drainage	Sewer	Water	Other	Total
Chapman Road	97,462							97,461.69
Church Street				259,325				259,325.00
Darling Road	151,128							151,127.78
Dickinson Road	124,137							124,136.63
Main Street / Downtown				318,055	506,708	107,812		932,575.00
Maple Avenue	185,000							185,000.00
Meetinghouse Road	167,000							167,000.00
Old Walpole Road	92,416							\$ 92,416
Park Avenue (Maple to Summit)	4,200							4,200.00
Pearl Street	7,164							7,164.00
Timberlane Drive	242,200							242,200.00
Victoria Street Extension	1,703,000				208,669	347,782		2,259,451.00
West Street (West of Park)	89,900							89,900.00
Winchester Street (South of Rt. 101)	343,801							343,801.00
Curb Installation (location TBD)		70,815						70,815.00
Sidewalk Replacement (location TBD)			70,815					70,815.00
Stormwater Spot Repairs (location TBD)				70,815				70,815.00
George Street Bridge over Beaver Brook						47,530	782,651	830,181.00
Drain Cleaning (various locations)				70,907				70,907
Sewer Repair & Lining (various locations)					190,015			190,015
Water Main Lining (various locations)						356,500		356,500
Gate Valves (various locations)						98,901		98,901
Water Treatment Facility Upgrades						203,126		203,126
Water Storage Tank Upgrades						571,634		571,634
Parking Improvements							101,300	101,300.00
Detail: FY 2022 Projects	3,207,407	70,815	70,815	719,102	905,392	1,733,285	883,951	7,590,767
Contingency, Design & Admin. & Inflation	290,663							290,663
Program Funding Request: 2022	\$ 3,498,070	\$ 70,815	\$ 70,815	\$ 719,102	\$ 905,392	\$ 1,733,285	\$ 883,951	\$ 7,881,430

CONSOLIDATED INFRASTRUCTURE REPORT							FY23	
STREET	Roadway	Curbing	Sidewalk	Drainage	Sewer	Water	Other	Total
Court Street (Westview to Maple)	\$ 462,000					1,278,233		\$1,740,233
Maple Avenue (#90 to Pako)	154,800							154,800.00
Summit Road (Hastings to Park)	109,200							109,200.00
North Lincoln Street	202,500							202,500.00
Main Street (Silent Way to City limit)	128,600							128,600.00
Washington Street	44,100							44,100.00
Preservation (various locations)	28,400							28,400.00
Curb Installation (location TBD)		72,939						72,939.00
Sidewalk Replacement (location TBD)			72,939					72,939.00
Stormwater Spot Repairs (location TBD)				72,939				72,939.00
Drain Cleaning (various locations)				73,034				73,034
Sewer Repairs & Lining (various locations)					353,316			353,316
Wastewater Treatment Facility Upgrades					35,892			35,892
Martel Court Pump Station					32,714			32,714
Sewer Force Main Rehab					365,336			365,336
Water Main Lining (various locations)						237,700		237,700
Gate Valves (various locations)						101,868		101,868
Water Treatment Facility Upgrades						70,180		70,180
Water Storage Tank Upgrades						2,275,882		2,275,882
Well Field Upgrades						408,590		408,590
Parking Improvements							98,200	98,200
Detail: FY 2023 Projects	1,129,600	72,939	72,939	145,973	787,258	4,372,453	98,200	6,679,362
Contingency, Design & Administration	325,273							325,273
Program Funding Request: 2023	\$ 1,454,873	\$ 72,939	\$ 72,939	\$ 145,973	\$ 787,258	\$ 4,372,453	\$ 98,200	\$ 7,004,635

CONSOLIDATED INFRASTRUCTURE REPORT							FY24	
STREET	Roadway	Curbing	Sidewalk	Drainage	Sewer	Water	Other	Total
Central Square							\$ 160,000	\$ 160,000
Church Street / Probate Street				712,500				\$ 712,500
Elm Street (Mechanic to Cross)	117,400							\$ 117,400
Hastings Avenue						143,286		\$ 143,286
Marlboro Street (East of Eastern)	203,900							\$ 203,900
West Street (School to Park)	649,000							\$ 649,000
Winchester Street (South of Rt. 101)	180,779							\$ 180,779
Preservation (various locations)	158,700							\$ 158,700
Curb Installation (location TBD)		75,128						\$ 75,128
Sidewalk Replacement (location TBD)			75,128					\$ 75,128
Stormwater Spot Repairs (location TBD)				75,128				\$ 75,128
Drain Cleaning (various locations)				75,225				\$ 75,225
Sewer Repair & Lining (various locations)					363,915			\$ 363,915
Sewer Force Main Rehab					782,864			\$ 782,864
Water Main Lining (various locations)						250,000		250,000
Gate Valves (various locations)						104,736		104,736
Water Treatment Facility Upgrades						466,289		466,289
Water Storage Tank Upgrades						614,764		614,764
Beaver Brook Flood Mitigation				500,000				500,000
Parking Lot Maintenance							57,400	57,400
Detail: FY 2024 Projects	1,309,779	75,128	75,128	1,362,853	1,146,779	1,579,075	217,400	5,766,142
Contingency, Design & Administration	368,722							368,722
Program Funding Request: 2024	\$ 1,678,501	\$ 75,128	\$ 75,128	\$ 1,362,853	\$ 1,146,779	\$ 1,579,075	\$ 217,400	\$ 6,134,864

Bridge Rehabilitation and Replacement Program

The City is responsible for thirty-two (32) active bridges which provide critical transportation links through out the City. The bridges range in age from new to nearly 100 years old. The New Hampshire Department of Transportation (NHDOT) inspects these bridges on a bi-annual basis. Each bridge subsystem (deck, superstructure, substructure, railing, approaches, etc.) are reviewed and their condition is rated. The ratings ranges from 9 – Excellent Condition to 1 – Imminent Failure. Bridges that are identified with significant deficiencies (ratings of 5 or less) are classified as “Red Listed” and inspected annually. The type of deficiencies on City bridges include insufficient lane width and deterioration of deck surfaces and supporting members. The City has 13 bridges that are on the State’s Red List⁽¹⁾. They are the following:

Baker Street over Beaver Brook	Winchester Street/Rte.10 over Ash Swamp Brook
Main Street/Rte. 12 over Beaver Brook	Maple Avenue over Black Brook
Roxbury Street over Beaver Brook	Beaver Street over Beaver Brook
Island Street over Ashuelot River	Church Street over Beaver Brook
George Street over Beaver Brook	Whitcomb Mills Road over White Brook
Spring Street over Beaver Brook	Ferry Brook Road over Ferry Brook
Summit Road over Black Brook	

City bridge projects are eligible to participate in the State’s Municipal Bridge Aid Program. This program shares the cost of bridge repair/replacement between the community and the State with 80% of the funding from the State and 20% from the City. To be considered for funding the City must prove that it has appropriated its 20% share.

To prioritize the City’s Red Listed Bridges the City uses the condition assessment, the type of deficiencies, the amount of traffic that uses the bridge, the impacts if weight restrictions or closure occurs, and if there is a reasonable way around the bridge. The Main Street / Route 12 and Winchester Street / Route 10 bridges both have over 20,000 vehicles per day crossing them with no easy detours. If weight restriction or closure occurs on either of these bridges, there would be significant economic and social impacts to the City and the region. For these reasons these two bridges are at the top for repair/replacement. The next priority bridges include the Island Street Bridge over the Ashuelot River; Roxbury Street, George Street, and Beaver Street over Beaver Brook, and the Maple Avenue bridge .

Roadway	Waterway	Description	Design Year	Anticipated Construction Year	Construction Cost Estimate
Main Street / Route 12	Beaver Brook	Construction contract awarded in the fall of 2017. Construction will begin in the spring of 2018	2015	2018	\$2,096,000
Winchester Street / Route 10	Ash Swamp Brook	Design is underway for the replacement structure.	2015	2019	\$580,000
Roxbury Street	Beaver Brook	The estimated bridge replacement cost is \$920,000 requiring a local match of \$184,000. The City has previously appropriated \$134,000. This bridge is programmed in the States' proposed 2017-2026 TIP for FY18. To have sufficient funds for the implementation available in FY18 funds designated for the East Surry Road Bridge were reprogrammed. The East Surry Road Bridge was reconstructed as part of the City's May 2012 flood response receiving FEMA funds. Construction expected in FY19.	2018	2019	\$920,000
George Street	Beaver Brook	The State accepted this bridge into the NH DOT Ten Year Transportation Improvement Plan, date June 2016.	2021	2022	\$782,651
Island Street	Ashuelot River	The bridge is scheduled to be replaced as part of the Winchester Street Upgrade Project (10309B) programmed for construction in FY19 and FY20.	2017	2019 - 2020	*See costs for State Bypass Program
Maple Avenue	Black Brook	City Council authorized \$130K in FY15 for the City's 20% match which will allow the City to request consideration for State Municipal Bridge Aid for this project in the 2019-2028 Transportation Improvement Plan.	-	-	\$650,000
Beaver Street	Beaver Brook	The estimated replacement cost is \$460K. The City previously appropriated \$92K for the City's 20% match which will allow the City to request consideration for State Municipal Bridge Aid for this project in the 2019-2028 TYP. .	-	-	\$460,000

Notes:

1) City Council, on February 18, 2010, voted to close the Harrison Street Bridge when Railroad Street was discontinued.

CITY OF KEENE, NEW HAMPSHIRE

2019 - 2024 Capital Project Funding Request

GENERAL PROJECT DATA

Project Name: **Bridge Repair/Replacement**
 Department: **Public Works - General Fund**
 Physical Location: **Various**
 Federal Mandate: **NO**
 State Regulation or Law: **NO**
 Master Plan (CMP) Focus Area: **Quality Built Environment**
 CMP Vision/Strategy: **Infrastructure**
 Council Initiative: **Policy**
 V.O.I.C.E.: **Continually Assess Facilities and Infrastructure**
 Departmental Objective: **Maintain critical infrastructure.**



PROJECT DESCRIPTION/JUSTIFICATION

This project provides funding for the City to rehabilitate and replace red-listed bridges. The City participates in the Municipal Bridge Aid Program through the New Hampshire Department of Transportation (NHDOT). The program provides 80% State funding with a local 20% match. For consideration in the program the City must prove that it has appropriated the local match.

The project schedule below has been updated from previous years based on the draft NHDOT Ten Year Plan published on August 23, 2017. The state plan provides funding for George Street in FY22.

FINANCIAL PLAN & PROJECT SCHEDULE

	PRIOR YR	FY19	FY20	FY21	FY22	FY23	FY24	TOTAL
EXPENDITURES								
Design					127,186			127,186
Construction/Implementation					649,935			649,935
Property/Equip. Acquisition					5,530			5,530
TOTAL	\$0	\$0	\$0	\$0	\$782,651	\$0	\$0	\$782,651
FUNDING								
Current Revenue								0
Capital Reserve					156,530			156,530
Debt Funded								0
Federal or State Grants					626,121			626,121
Other Sources								0
TOTAL	\$0	\$0	\$0	\$0	\$782,651	\$0	\$0	\$782,651

ANNUAL DEPARTMENT OPERATING BUDGET IMPACT:

Reduce - will reduce operating costs
Ongoing

PROJECT STATUS:

Ongoing CIP

CITY OF KEENE, NEW HAMPSHIRE

2019 - 2024 Capital Project Funding Request

GENERAL PROJECT DATA

Project Name: **Curb Repair / Replacement**
 Department: **Public Works - General Fund**
 Physical Location: **Various**
 Federal Mandate: **NO**
 State Regulation or Law: **NO**
 Master Plan (CMP) Focus Area: **Quality Built Environment**
 CMP Vision/Strategy: **Infrastructure**
 Council Initiative: **Policy**
 V.O.I.C.E.: **Continually Assess Facilities and Infrastructure**
 Departmental Objective: **Maintain critical infrastructure.**



PROJECT DESCRIPTION/JUSTIFICATION

This project provides funds for repair or replacement of curb throughout the City. The City coordinates this work with roadway rehabilitation projects. Projects are designed by in-house staff when appropriate. The 2017 cost to install granite curb is approximately \$39 per linear foot

Granite curb will be installed for complete street reconstruction projects. The City adopted granite as the standard material for all new curbs. Section 70-126 of the City Code states that granite type A curbs shall be required on the public ways of all new developments and in conjunction with the replacement of existing sidewalks and curbs in the commerce, central business, industrial, and medium and high density residential zones. Granite curb is more costly than asphalt but has a longer life expectancy. Bituminous curb will be installed on roadway rehabilitation projects where existing bituminous curb has deteriorated and requires replacement. The Public Works Department anticipates that the FY 19 funding will be used primarily for the replacement of deteriorated curbing along Marlboro Street. In FY20, we anticipate that the majority of these funds will be used as part of the Roxbury Street Rehabilitation Project.

FINANCIAL PLAN & PROJECT SCHEDULE

	PRIOR YR	FY19	FY20	FY21	FY22	FY23	FY24	TOTAL
EXPENDITURES								
Design								0
Construction/Implementation		63,571	65,478	68,752	70,815	72,939	75,128	416,683
Property/Equip. Acquisition								0
TOTAL	\$0	\$63,571	\$65,478	\$68,752	\$70,815	\$72,939	\$75,128	\$416,683
FUNDING								
Current Revenue		63,571	65,478	68,752	70,815	72,939	75,128	416,683
Capital Reserve								0
Debt Funded								0
Federal or State Grants								0
Other Sources								0
TOTAL	\$0	\$63,571	\$65,478	\$68,752	\$70,815	\$72,939	\$75,128	\$416,683

ANNUAL DEPARTMENT OPERATING BUDGET IMPACT: No impact
N/A

PROJECT STATUS: Ongoing CIP

ROAD PRESERVATION AND REHABILITATION LIST

2019

2020

2021

PRESERVATION	EST. COST
Carrol Street	\$ 12,900
Cross Street	\$ 11,200
High Street	\$ 11,900
Kelleher Street	\$ 9,000
Belmont Avenue	\$ 9,900
Monadnock Street	\$ 8,100
Congress Street	\$ 9,700
Crack Seal - Various Locations	\$ 15,000
Subtotal - Preservation	\$87,700

PRESERVATION	EST. COST
Grant	\$ 6,200
Douglas	\$ 6,800
Franklin	\$ 5,900
Brook	\$ 4,100
Gurnsey	\$ 3,300
Edwards	\$ 3,700
Subtotal - Preservation	\$30,000

PRESERVATION	EST. COST
Subtotal - Preservation	\$0

MINOR REHABILITAION	EST. COST
Marlboro Street (Main to Bridge)	\$ 79,500
Court Street (Central Sq. to Westview)	\$ 181,300
Subtotal - Minor Rehab.	\$ 260,800

MINOR REHABILITAION	EST. COST
Main Street (Route 101 to Marlboro)	\$ 199,200
Arch Street - (Park to Hurricane)	\$ 139,300
Subtotal - Minor Rehab.	\$ 338,500

MINOR REHABILITAION	EST. COST
Main Street (101 to Silent)	\$ 97,600
Subtotal - Minor Rehab.	\$ 97,600

MAJOR REHABILITAION	EST. COST
Bridge Court	\$ 10,146
Carpenter Street	\$ 44,054
Ellis Court (Wright to Woodbury)	\$ 27,000
Fowler Street	\$ 23,789
Gilsum Street (North to end)	\$ 160,900
Harmony Lane	\$ 13,752
Kingsbury Street	\$ 20,250
North Street (Elm to Gilsum)	\$ 93,000
Perham Street	\$ 11,200
Richardson Court	\$ 10,986
Valley Street	\$ 48,459
Village Drive	\$ 56,121
Woodburn Street	\$ 27,918
Woodbury Street	\$ 164,000
Wright Street	\$ 28,000
Subtotal - Major Rehab.	\$ 739,575

MAJOR REHABILITAION	EST. COST
Adams Court	\$ 9,321
Adams Street	\$ 68,492
Avalon Place	\$ 15,450
Elliot Street	\$ 29,307
Gates Street	\$ 21,946
Moore Farm Road	\$ 30,900
No Name Road	\$ 15,450
Proctor Court	\$ 20,600
South Street	\$ 25,103
Sullivan Road (Route 9 to town line)	\$ 89,237
River Street	\$ 66,893
Roxbury Street	\$ 398,100
Subtotal - Major Rehab.	\$ 790,799

MAJOR REHABILITAION	EST. COST
Cady Street	\$ 25,750
Cobb Street	\$ 15,450
Concord Road	\$ 258,530
Hooper Street	\$ 26,533
Lamson Street	\$ 26,790
Martin Street	\$ 33,086
Park Avenue	\$ 389,340
Salisbury Road	\$ 54,739
School Street (West to Emerald)	\$ 46,350
Speaker Street	\$ 20,600
St. James Street	\$ 46,350
Subtotal - Major Rehab.	\$ 943,518

Subtotal - All Methods	\$ 1,088,075
10% Contingency	\$ 108,808
Construction Total	\$ 1,196,883
Design, Construction, Administration	\$ 29,469
2017 Cost	\$ 1,226,351
Inflation adjustment (1 years x 3% x project total)	\$ 36,791
Total Rehabilitation Cost	\$ 1,263,142

Subtotal	\$ 1,159,299
10% Contingency	\$ 115,930
Construction Total	\$ 1,275,229
Design, Construction, Administration	\$ 72,752
2017 Cost	\$ 1,347,981
Inflation adjustment (2 years x 3% x project total)	\$ 82,092
Total Rehabilitation Cost	\$ 1,430,073

Subtotal	\$ 1,041,118
10% Contingency	\$ 104,112
Construction Total	\$ 1,145,230
Design, Construction, Administration	\$ 51,452
2017 Cost	\$ 1,196,682
Inflation adjustment (3 years x 3% x project total)	\$ 110,965
Total Overlay Cost	\$ 1,307,647

ROAD PRESERVATION AND REHABILITATION LIST

2022

2023

2024

PRESERVATION	EST. COST
Park Avenue (Maple to Summit)	\$ 4,200
West Street (West of Park)	\$ 89,900
Pearl	\$ 7,164
Subtotal - Preservation	\$ 101,264

PRESERVATION	EST. COST
Hurricane Road (Arch to Dickinson)	\$ 19,600
Washington Street	\$ 44,100
Center	\$ 1,200
Middle	\$ 1,200
Summer	\$ 2,700
Winter	\$ 3,700
Subtotal - Preservation	\$ 72,500

PRESERVATION	EST. COST
Swanzy Factory Road	\$ 7,700
Grove Street	\$ 24,300
Ralston Street	\$ 23,000
School Street	\$ 76,700
Pearl Street	\$ 6,000
Roxbury Road	\$ 21,000
Subtotal - Preservation	\$158,700

MINOR REHABILITAION	EST. COST
Maple Avenue	\$ 185,000
Subtotal - Minor Rehab.	\$ 185,000

MINOR REHABILITAION	EST. COST
Main Street (Silent Way to City Limit)	\$ 128,600
Subtotal - Minor Rehab.	\$ 128,600

MINOR REHABILITAION	EST. COST
Elm Street	\$ 66,500
Subtotal - Minor Rehab.	\$ 66,500

MAJOR REHABILITAION	EST. COST
Chapman Road	\$ 97,462
Old Walpole Road	\$ 92,416
Darling Road	\$ 151,128
Dickinson Road	\$ 124,137
Meetinghouse Road	\$ 167,000
Timberlane Drive	\$ 242,200
Subtotal - Major Rehab.	\$ 874,343

MAJOR REHABILITAION	EST. COST
Court Street (Westview to Maple)	\$ 462,000
Maple Avenue (#90 to Pako Ave)	\$ 154,800
Summit (Hastings to Park)	\$ 109,200
North Lincoln Street	\$ 202,500
Subtotal - Major Rehab.	\$ 928,500

MAJOR REHABILITAION	EST. COST
Elm Street (Mechanic to Cross)	\$ 50,900
Marlboro (East of Eastern)	\$ 203,900
West Street (School to Park)	\$ 649,000
Subtotal - Major Rehab.	\$ 903,800

Subtotal - All Methods	\$ 1,160,607
10% Contingency	\$ 116,061
Construction Total	\$ 1,276,668
Design, Construction, S&OH	\$ 12,767
2017 Cost	\$ 1,289,434
Inflation adjustment (4 years x 3% x project total)	\$ 161,835
Total Rehabilitation Cost	\$ 1,451,270

Subtotal	\$ 1,129,600
10% Contingency	\$ 112,960
Construction Total	\$ 1,242,560
Design, Construction, S&OH	\$ 12,426
2017 Cost	\$ 1,254,986
Inflation adjustment (5 years x 3% x project total)	\$ 199,887
Total Rehabilitation Cost	\$ 1,454,872

Subtotal	\$ 1,129,000
10% Contingency	\$ 112,900
Construction Total	\$ 1,241,900
Design, Construction, S&OH	\$ 12,419
2017 Cost	\$ 1,254,319
Inflation adjustment (6 years x 3% x project total)	\$ 243,403
Total Overlay Cost	\$ 1,497,722

CITY OF KEENE, NEW HAMPSHIRE
2019 - 2024 Capital Project Funding Request

GENERAL PROJECT DATA

Project Name: **Roadway Preservation & Rehabilitation**
 Department: **Public Works - General Fund**
 Physical Location: **City Roadways**
 Federal Mandate: **NO**

State Regulation or Law: **NO**

Master Plan (CMP) Focus Area: **Quality Built Environment**
 CMP Vision/Strategy: **Maintaining a Safe Community**

Council Initiative: **Policy**

V.O.I.C.E.: **Continually Assess Facilities and Infrastructure**
 Departmental Objective: **Maintain critical infrastructure.**



PROJECT DESCRIPTION/JUSTIFICATION

The City maintains 127 miles of roads, of which 125 miles are paved. These roads are in various states of repair. Based on an assessment of roadway conditions and traffic volumes the roadways were ranked on conditions from good to poor. Roadway conditions include cracks, potholes, delamination of pavement, and roughness. Roadways scheduled for improvements are selected based upon roadway condition. As appropriate, other required infrastructure improvements such as drainage, curbing, and sidewalk repairs are coordinated to take advantage of contractor mobilization costs.

The road program for FY19-24 continues to invest the majority of funds into roadway rehabilitation. This includes traditional "major rehabilitation" methods (e.g., mill/shim/overlay) as well as some lower-cost "minor rehabilitation" approaches (e.g., in-place recycling, ultra-thin wearing surfaces, etc.). No complete reconstruction projects are proposed during the FY19-24 CIP. As detailed on the preceding pages, an additional category of work has been added to the program: Preservation. These are low cost maintenance tasks performed on roads that are in good condition with the intention of extending the useful life of the pavement at the lowest life-cycle cost.

In FY19, funds are requested to purchase a field compaction testing system. Engineering Division staff will use this equipment to perform quality control testing of trench and patch repairs for both outside agencies (e.g., utility providers, construction contractors, etc.) and City utility work. We anticipate that greater QA/QC testing will result in better trench patch performance.

In FY20, funds are requested to replace department survey total station. This equipment, used extensively in the design and construction of road improvement projects, was purchased in 1999. Finally, funds are requested to perform a detailed road condition survey in FY21.

FINANCIAL PLAN & PROJECT SCHEDULE

	PRIOR YR	FY19	FY20	FY21	FY22	FY23	FY24	TOTAL
EXPENDITURES								
Design				40,000				40,000
Construction/Implementation		1,245,642	1,370,073	1,267,647	1,451,270	1,454,872	1,497,722	8,287,226
Property/Equip. Acquisition		17,500	60,000					77,500
TOTAL	\$0	\$1,263,142	\$1,430,073	\$1,307,647	\$1,451,270	\$1,454,872	\$1,497,722	\$8,404,726
FUNDING								
Current Revenue								0
Capital Reserve								0
Debt Funded		1,263,142	1,430,073	1,307,647	1,451,270	1,454,872	1,497,722	8,404,726
Federal or State Grants								0
Other Sources								0
TOTAL	\$0	\$1,263,142	\$1,430,073	\$1,307,647	\$1,451,270	\$1,454,872	\$1,497,722	\$8,404,726

ANNUAL DEPARTMENT OPERATING BUDGET IMPACT: Negligible<\$5,001 Ongoing

PROJECT STATUS: Ongoing CIP

CITY OF KEENE, NEW HAMPSHIRE
2019 - 2024 Capital Project Funding Request

GENERAL PROJECT DATA

Project Name: **Guardrail Replacement**
 Department: **Public Works - General Fund**
 Physical Location: **City Roadways**
 Federal Mandate: **NO**
 State Regulation or Law: **NO**
 Master Plan (CMP) Focus Area: **Quality Built Environment**
 CMP Vision/Strategy: **Maintaining a Safe Community**
 Council Initiative: **N/A**
 V.O.I.C.E.: **Continually Assess Facilities and Infrastructure**
 Departmental Objective: **Necessary safety maintenance**



PROJECT DESCRIPTION/JUSTIFICATION

The City owns and maintains approximately 14,900 linear feet of guardrail along its roadways. Guardrail is used to protect traveling vehicles from obstacles such as utility poles, streams, drainage structures, and steep slopes. Over time wet weather, erosion, and vehicular impacts compromise the ability of the guardrail to function and protect as intended. In 2016 the Highway Division conducted a survey of the guardrails throughout the City to determine their condition. Approximately 33% of the guardrail is in poor condition, 38% in fair condition, and 29% in good condition.

This project provides funding for the Highway Division to replace all guardrail in poor condition in FY18 and FY19. In FY20 the Division will begin to replace guardrail in fair condition. The 2016 estimated cost of replacement is approximately \$18.50 per linear foot. A crash attenuator is required on the ends of most guardrails to further protect vehicles. These cost approximately \$1,850 per unit. Costs are inflated 3% per year to the date of construction.

Once all City guardrails are rated in good condition, maintenance will shift to the operating budget.

FINANCIAL PLAN & PROJECT SCHEDULE

	PRIOR YR	FY19	FY20	FY21	FY22	FY23	FY24	TOTAL
EXPENDITURES								
Design								0
Construction/Implementation		77,506	44,024					121,530
Property/Equip. Acquisition								0
TOTAL	\$0	\$77,506	\$44,024	\$0	\$0	\$0	\$0	\$121,530
FUNDING								
Current Revenue		77,506	44,024					121,530
Capital Reserve								0
Debt Funded						0	0	0
Federal or State Grants								0
Other Sources								0
TOTAL	\$0	\$77,506	\$44,024	\$0	\$0	\$0	\$0	\$121,530

ANNUAL DEPARTMENT OPERATING BUDGET IMPACT: Negligible<\$5,001
Ongoing

PROJECT STATUS: Ongoing CIP

CITY OF KEENE, NEW HAMPSHIRE

2019 - 2024 Capital Project Funding Request

GENERAL PROJECT DATA

Project Name: **Sidewalk Repair / Replacement**
 Department: **Public Works - General Fund**
 Physical Location: **Various**
 Federal Mandate: **NO**
 State Regulation or Law: **NO**
 Master Plan (CMP) Focus Area: **Quality Built Environment**
 CMP Vision/Strategy: **Infrastructure**
 Council Initiative: **Policy**
 V.O.I.C.E.: **Continually Assess Facilities and Infrastructure**
 Departmental Objective: **Maintain critical infrastructure.**



PROJECT DESCRIPTION/JUSTIFICATION

This project provides funds for repair or replacement of sidewalks throughout the City. For repair projects, concrete sidewalks will be installed where there are existing concrete sidewalks. Asphalt sidewalks will be installed where there are existing asphalt sidewalks. Work includes complete replacement of the concrete sidewalk, or milling the existing asphalt and providing an asphalt overlay. The City generally coordinates this work with roadway rehabilitation projects. In FY19 The City expects most of the requested funding to be used as part of the Marlboro Street Improvement Project.

In 2017, Engineering Division staff completed an updated survey of sidewalk conditions throughout the City. As funds allow, the results of the condition survey will be used to prioritize spot repairs in areas where no road rehabilitation project is pending.

The need for maintaining and replacing existing sidewalks exceeds available resources. The 2017 cost to install five-foot wide concrete sidewalk (including design, construction administration and project overhead) was approximately \$47 per linear foot. Asphalt sidewalk costs approximately \$23 per linear foot. At current funding levels, the City can replace approximately 1,400 feet of concrete sidewalk or 2,800 feet of asphalt sidewalk.

FINANCIAL PLAN & PROJECT SCHEDULE

	PRIOR YR	FY19	FY20	FY21	FY22	FY23	FY24	TOTAL
EXPENDITURES								
Design								0
Construction/Implementation		63,571	65,478	68,752	70,815	72,939	75,128	416,683
Property/Equip. Acquisition								0
TOTAL	\$0	\$63,571	\$65,478	\$68,752	\$70,815	\$72,939	\$75,128	\$416,683
FUNDING								
Current Revenue		63,571	65,478	68,752	70,815	72,939	75,128	416,683
Capital Reserve								0
Debt Funded								0
Federal or State Grants								0
Other Sources								0
TOTAL	\$0	\$63,571	\$65,478	\$68,752	\$70,815	\$72,939	\$75,128	\$416,683

ANNUAL DEPARTMENT OPERATING BUDGET IMPACT: No impact
Ongoing

PROJECT STATUS: Ongoing CIP

KEENE/SWANZEY BY-PASS IMPROVEMENT PROGRAM SCHEDULE

This project includes the reconstruction of Winchester Street from the NH route 101 roundabout to the bridge over the Ashuelot River. It includes reconstruction of the Winchester Street intersections with Key Road, Pearl Street, Island Street, and replacement of the red-listed Island Street Bridge. The City entered into an Local Public Agency project agreement with NHDOT in 2014 to begin the design process for this complicated project. This project is in the NHDOT August 2017 proposed 2019-2028 Ten Year Plan. Preliminary Engineering is underway, with construction scheduled for FY19 and FY20. The reconstruction of Lower Winchester Street from the NH route 101 Roundabout to the Swanzey Town line is also in the NHDOT Ten Year Plan. Preliminary Engineering is scheduled for FY22, Right-of-Way acquisition for FY24, and Construction for FY25. Both projects require a 20% cost match from the City.

Description	Phase	Amount	Program Year (FY)
Reconstruction of Winchester Street from NH route 101 to the bridge over the Ashuelot River. Includes reconstruction of the Winchester Street intersections with Key Road, Pearl Street, Island Street, and replacement of the Island Street Bridge.	R	\$368,500	2014
	P	\$261,800	2017
	C	\$5,645,080	2019-2020
Reconstruction of Winchester Street from NH route 101 to the Swanzey Town Line	P	\$343,801	2022
	R	\$180,779	2024
	C	\$3,151,617	2025

Phase: C = Construction P = Preliminary Engineering R = Right-of-Way Acquisition

CITY OF KEENE, NEW HAMPSHIRE

2019 - 2024 Capital Project Funding Request

GENERAL PROJECT DATA

Project Name: **State Bypass Improvement Program**
 Department: **Public Works - General Fund**
 Physical Location: **Various**
 Federal Mandate: **NO**
 State Regulation or Law: **NO**
 Master Plan (CMP) Focus Area: **Quality Built Environment**
 CMP Vision/Strategy: **Transportation**
 Council Initiative: **Resolution**
 V.O.I.C.E.: **Continually Assess Facilities and Infrastructure**
 Departmental Objective: **Improve gateway/cooridor into the City.**



PROJECT DESCRIPTION/JUSTIFICATION

A traffic analysis performed by the State identified the need to alleviate increased traffic congestion at key intersections along the Keene-Swanzey bypass. These projects will allow traffic to flow smoothly into and out of the City, minimizing the impacts of through traffic on the local street network. There were a number of projects identified to improve capacity and efficiency along the State bypass network (NH 9/10/12/101). The State has completed a number of interim improvements including the widening of NH Route 9 from the T-intersection to Base Hill Road, widening of NH Route 9/10/12 at the T-intersection, and the construction of a multi-lane roundabout at Winchester Street and NH Route 101.

In the State's proposed 2019-2028 Ten Year Plan, the Winchester Street Reconstruction Project is being pushed to FY19 and FY 20 for construction from FY17 and FY18. The project begins at the State NH Route 101 roundabout and extends up Winchester Street to the Winchester Street Bridge over the Ashuelot River. This project will involve the reconstruction of Winchester Street and two critical intersections; Key Road and Island St/Pearl Street. It will also replace the red-listed Island Street Bridge. This is a locally-managed project through the Local Public Agency Program which has a 20% local match. Funding for design of this project was approved and appropriated in FY14 with funding for construction in FY19 and FY20. The second component of the Keene-Swanzey bypass project is the reconstruction of Lower Winchester Street from NH Route 101 Roundabout to the Swanzey Town Line. This project appears in FY22 for Engineering, FY24 for Right-of-Way, and Construction in FY25.

FINANCIAL PLAN & PROJECT SCHEDULE

	PRIOR YR	FY19	FY20	FY21	FY22	FY23	FY24	TOTAL
EXPENDITURES								
Design								0
Construction/Implementation		3,016,680	2,628,399		343,801		180,779	6,169,659
Property/Equip. Acquisition								0
TOTAL	\$0	\$3,016,680	\$2,628,399	\$0	\$343,801	\$0	\$180,779	\$6,169,659
FUNDING								
Current Revenue								0
Capital Reserve					68,760		36,156	104,916
Debt Funded		603,336	525,680					1,129,016
Federal or State Grants		2,413,344	2,102,719		275,041		144,623	4,935,727
Other Sources								0
TOTAL	\$0	\$3,016,680	\$2,628,399	\$0	\$343,801	\$0	\$180,779	\$6,169,659

ANNUAL DEPARTMENT OPERATING BUDGET IMPACT: Minimal \$5,001 to \$50,000 Ongoing

PROJECT STATUS: Ongoing CIP

CITY OF KEENE, NEW HAMPSHIRE

2019 - 2024 Capital Project Funding Request

GENERAL PROJECT DATA

Project Name: **Traffic Signal Replacement Program**
 Department: **Public Works - General Fund**
 Physical Location: **Various**
 Federal Mandate: **Manual of Uniform Traffic Control Devices**

State Regulation or Law: **Yes -RSA 47:17, VIII(a)**

Master Plan (CMP) Focus Area: **Quality Built Environment**

CMP Vision/Strategy: **Transportation**

Council Initiative: **N/A**

V.O.I.C.E.: **Continually Assess Facilities and Infrastructure**

Departmental Objective: **Maintain critical infrastructure.**



PROJECT DESCRIPTION/JUSTIFICATION

The City owns and operates 8 traffic signals and 5 flashing traffic signals. These signals are critical to the safe, efficient, and effective operation of the City's transportation network. The signals range in age from approximately 8 years old to over 30 years old. The current components (signal heads, cross arms, pedestrian crossing signals, etc.) are not in compliance with the latest edition of the Manual of Uniform Traffic Control Devices (MUTCD). The signal controllers use old technology (such as wire loops for detection), only allow for basic timing programming, do not allow for connectivity between signals, or they allow for the efficient collection of data. The City's transportation system sees a higher volume of traffic at different periods and experiences a greater mix of users (older operators, higher levels of pedestrians, and bicyclist) than was originally envisioned when many of these signals were installed. Today's traffic control technology allows signals to communicate with each other, for the establishment of different time settings for different hours of the day, days of the week, and times of year. These controllers use wireless technologies (such as optical, blue tooth, WIFI, and radio) to control signal operations and relay information. Signals systems can now be remotely accessed for diagnostics or adjustments. The signals can be programmed to send their own reports when problems occur, resulting in more efficient response and higher levels of availability. It is proposed that the City embark on a replacement program over time. This will allow for the City to establish the technology it wants to use and spread the cost out. It is estimated that the cost for the replacement of a full traffic signal system is between \$140,000 - \$160,000 in calendar year 2017 cost. It is anticipated that signal replacement would start with Central Square.

FINANCIAL PLAN & PROJECT SCHEDULE

	PRIOR YR	FY19	FY20	FY21	FY22	FY23	FY24	TOTAL
EXPENDITURES								
Design							20,000	20,000
Construction/Implementation							140,000	140,000
Property/Equip. Acquisition								0
TOTAL	\$0	\$0	\$0	\$0	\$0	\$0	\$160,000	\$160,000
FUNDING								
Current Revenue								0
Capital Reserve							160,000	160,000
Debt Funded								0
Federal or State Grants								0
Other Sources								0
TOTAL	\$0	\$0	\$0	\$0	\$0	\$0	\$160,000	\$160,000

ANNUAL DEPARTMENT OPERATING BUDGET IMPACT: Minimal \$5,001 to \$50,000 Ongoing

PROJECT STATUS: New Project

Traffic Signal and Flashing Signal Replacement Program

Location	Fiscal Years							Total
	24	25	26	27	28	29	30	
Traffic Signals								
Central Square	\$160,000	\$160,000						
West St @ School St			\$140,000					
West St @ Gilbo Ave/Ashuelot St					\$145,000			
West St @ Island St								
West St @ West St Plaza						\$145,000		
School St @ Gilbo								
Winchester St @ Key Rd*								
Ashbrook Rd @ Asbrook Ct							\$145,000	
Flashing Signals								
Court St @ Vernon St		\$35,000						
Washington St @ Vermont St**		\$5,000						
Washington St @ Gilsum St				\$40,000				
Park Ave @ Arch St				\$40,000				
Maple Ave @ Melody Ave						\$40,000		
Total	\$160,000	\$200,000	\$140,000	\$80,000	\$145,000	\$185,000	\$145,000	\$1,055,000

Notes: * Winchester Street @ Key Road will be replaced with a roundabout during the reconstruction of Winchester Street in FY20-21

** Winchester Street @Vernon Street was replaced in 2010 and may only need the controllers to be upgraded.

CITY OF KEENE, NEW HAMPSHIRE

2019 - 2024 Capital Project Funding Request

GENERAL PROJECT DATA

Project Name: **Main Street Crosswalk Improvements**
 Department: **Public Works - General Fund**
 Physical Location: **Main Street**
 Federal Mandate: **N/A**
 State Regulation or Law: **N/A**
 Master Plan (CMP) Focus Area: **Quality Built Environment**
 CMP Vision/Strategy: **Maintaining a Safe Community**
 Council Initiative: **N/A**
 V.O.I.C.E.: **Continually Assess Facilities and Infrastructure**
 Departmental Objective: **Improve safety.**



PROJECT DESCRIPTION/JUSTIFICATION

In the fall of calendar 2016, the City installed additional crosswalk markings and signage to improve pedestrian safety at the existing crosswalks located at Elliot Street and near the Westwood Center. These measures were intended as interim improvements.

The primary concerns at these crossing locations is the overall length of the crosswalks, approximately 60', and pedestrian visibility. To address these concerns, the Public Work Department proposes to "harden" the existing features placed as interim measures by installing raised traffic islands and curb extensions. This reduce the long crossings to two shorter crossings with a refuge island in the center of the street. The requested include the cost the installation of pedestrian-activated signals at these mid-block crossings.

FINANCIAL PLAN & PROJECT SCHEDULE

	PRIOR YR	FY19	FY20	FY21	FY22	FY23	FY24	TOTAL
EXPENDITURES								
Design								0
Construction/Implementation						187,000		187,000
Property/Equip. Acquisition								0
TOTAL	\$0	\$0	\$0	\$0	\$0	\$187,000	\$0	\$187,000
FUNDING								
Current Revenue								0
Capital Reserve								0
Debt Funded						187,000		187,000
Federal or State Grants								0
Other Sources								0
TOTAL	\$0	\$0	\$0	\$0	\$0	\$187,000	\$0	\$187,000

ANNUAL DEPARTMENT OPERATING BUDGET IMPACT: Minimal \$5,001 to \$50,000 Ongoing

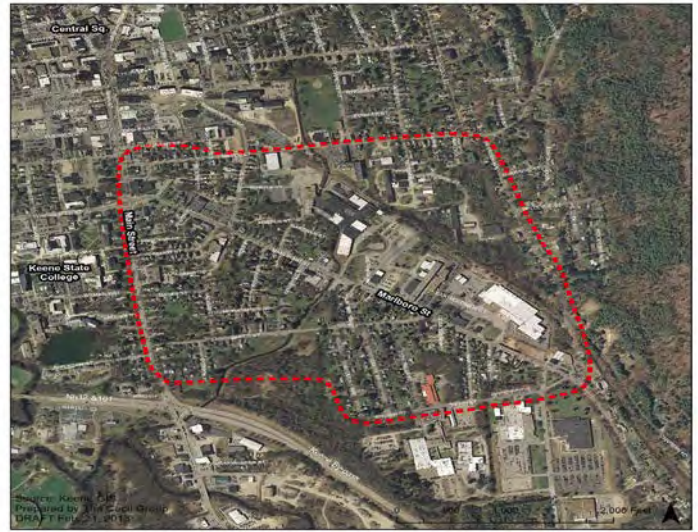
PROJECT STATUS: New Project

CITY OF KEENE, NEW HAMPSHIRE

2019 - 2024 Capital Project Funding Request

GENERAL PROJECT DATA

Project Name: **Marlboro Street Corridor Improvements**
 Department: **Public Works - General Fund**
 Physical Location: **Marlboro Street**
 Federal Mandate: **N/A**
 State Regulation or Law: **N/A**
 Master Plan (CMP) Focus Area: **Quality Built Environment**
 CMP Vision/Strategy: **Maintaining Neighborhoods**
 Council Initiative: **Policy**
 V.O.I.C.E.: **Continually Assess Facilities and Infrastructure**
 Departmental Objective:



Aerial
 City of Keene
 Prepared by the City of Keene
 Date: 7/1/2019

PROJECT DESCRIPTION/JUSTIFICATION

In 2015 the City completed the Marlboro Street Zoning and Land Use Study. This study explored innovative approaches to encourage redevelopment along Marlboro Street and Southeast Keene. The study recommended changes to zoning and other regulations that will promote redevelopment of underutilized properties, improve stormwater management practices, preserve residential neighborhoods, and strengthen the area as a vibrant, walkable, mixed-use district. It identified improvements to Marlboro Street and adjacent neighborhoods to improve connectivity, walkability, pedestrian use, traffic flow, and enhance the appearance of the street.

This project provides funds to construct the interim Complete Streets concepts outlined in the 2015 Study. These concepts are tailored to three distinct segments of Marlboro Street based on street width and adjacent uses. The interim design calls for painted lane markings, crosswalks, and landscaping. FY17 provided funds to develop construction documents for the interim improvements. FY 19 provides funds for the construction of the proposed interim work. Once this work is completed the operating budget will be adjusted to maintain the pavement markings and other improvements.

It should be noted that the City applied for a NHDOT Transportation Alternatives Program (TAP) grant in the summer of 2016. The grant application proposes leveraging the funds requested under this CIP initiative as a 20% local match for a project with an expanded scope. If the City's application is accepted, the requested funds will be combined with the grant funds for a total project budget of approximately \$980,000. The grant application included conceptual plans for streetscape improvements at selected nodes along Marlboro Street, as well as consistent complete street treatments between the nodes.

FINANCIAL PLAN & PROJECT SCHEDULE

	PRIOR YR	FY19	FY20	FY21	FY22	FY23	FY24	TOTAL
EXPENDITURES								
Design		171,017						171,017
Construction/Implementation								0
Property/Equip. Acquisition								0
TOTAL	\$0	\$171,017	\$0	\$0	\$0	\$0	\$0	\$171,017
FUNDING								
Current Revenue								0
Capital Reserve		171,017						171,017
Debt Funded								0
Federal or State Grants								0
Other Sources								0
TOTAL	\$0	\$171,017	\$0	\$0	\$0	\$0	\$0	\$171,017

ANNUAL DEPARTMENT OPERATING BUDGET IMPACT: Minimal \$5,001 to \$50,000 Ongoing

PROJECT STATUS: Ongoing CIP

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Economic Development and Vitality – programs, activities, and projects which are intended to promote the retention and expansion of existing businesses and to encourage and attract new business development in the City of Keene. The primary goal of these activities is enhance overall quality of life and sustainability of the community.

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CITY OF KEENE, NEW HAMPSHIRE

2019 - 2024 Capital Project Funding Request

GENERAL PROJECT DATA

Project Name: **Downtown Revitalization**
 Department: **Public Works - General Fund**
 Physical Location: **560 Main Street**
 Federal Mandate: **N/A**
 State Regulation or Law: **N/A**
 Master Plan (CMP) Focus Area: **Quality Built Environment**
 CMP Vision/Strategy: **Economic Development**
 Council Initiative: **N/A**
 V.O.I.C.E.: **Continually Assess Facilities and Infrastructure**
 Departmental Objective: **Review the downtown area and develop long term plans for updating and providing space for desired activities for the next 30 years along with necessary downtown infrastructure improvements.**



PROJECT DESCRIPTION/JUSTIFICATION

The downtown area is an economic engine for the community and represents the spirit and place of Keene it is important to continue investment to keep the downtown relevant and vibrant. The last major downtown revitalization occurred in 1988. Downtown has expanded into the Railroad Square area and is projected to expand into Roxbury Street and Gilbo Avenue. The features that give the downtown its unique spirit need to be considered when expanding the downtown areas. This project has provided funding to hire a consultant to assess function, aesthetics, and infrastructure needs. The work of the consultants through Phase I and II provided the Mayor's Ad-Hoc Downtown Committee and community decision makers with options and alternatives to meet the needs of the citizens and visitors to Keene. Funding is requested in FY 20 for a preliminary design to be considered prior to performing the detailed design and construction in FY 22, 23 and 24. Funding of the downtown revitalization in FY 22, 23 and 24 will allow implementation to be completed concurrently with the proposed flood management project in Central Square. The estimated cost for improvements will be adjusted based on the outcome of the planning study.

Funding also includes implementing the improvements beyond Central Square. In addition to infrastructure replacement and other improvements, the funding may also include improvements to existing treatments along Main Street or expanding the "Downtown Vibe" into new areas, as well as infrastructure replacement and improvements. The specific scope and cost of these improvements will be determined through the Downtown Revitalization Study and the Mayor's Ad-Hoc Committee recommendations. Dependent upon the scope of the selected project, it may be necessary to request additional resources to fund the approved project, with funding anticipated to be raised (if necessary) through a bond issue not included in the proposed CIP.

FINANCIAL PLAN & PROJECT SCHEDULE

	PRIOR YR	FY19	FY20	FY21	FY22	FY23	FY24	TOTAL
EXPENDITURES								
Design			150,000	100,000		50,000	100,000	400,000
Construction/Implementation					500,000	500,000	1,000,000	2,000,000
Property/Equip. Acquisition								0
TOTAL	\$0	\$0	\$150,000	\$100,000	\$500,000	\$550,000	\$1,100,000	\$2,400,000
FUNDING								
Current Revenue								0
Capital Reserve			150,000	100,000	500,000	550,000	1,100,000	2,400,000
Debt Funded								
Federal or State Grants								0
Other Sources								0
TOTAL	\$0	\$0	\$150,000	\$100,000	\$500,000	\$550,000	\$1,100,000	\$2,400,000

ANNUAL DEPARTMENT OPERATING BUDGET IMPACT: Minimal \$5,001 to \$50,000 Ongoing

PROJECT STATUS: Ongoing CIP

CITY OF KEENE, NEW HAMPSHIRE

2019 - 2024 Capital Project Funding Request

GENERAL PROJECT DATA

Project Name: **560 Main Street Assessment**
 Department: **Public Works - General Fund**
 Physical Location: **560 Main Street**
 Federal Mandate: **N/A**
 State Regulation or Law: **N/A**
 Master Plan (CMP) Focus Area: **N/A**
 CMP Vision/Strategy: **Economic Development**
 Council Initiative: **N/A**
 V.O.I.C.E.: **Continually Assess Facilities and Infrastructure**
 Departmental Objective: **Make the City owned property available for potential development.**



PROJECT DESCRIPTION/JUSTIFICATION

Until 1976, 560 Main Street was the site of a number of waste disposal activities for the City. The presence of polychlorinated biphenyl compounds (PCBs) and chlorinated solvents in the soil at the liquid disposal area defines this area as a hazardous waste site. Work performed in 2012 and 2013 delineated the three dimensional footprint of soil contamination. The prior year project funds provided for the creation of a remedial action plan (RAP). This included a preliminary cost estimate for the remediation of approximately 100,000 tons of material. The final cost of remediation will be determined once the RAP is complete and City Council determines an ultimate goal for the site. Funds previously appropriated evaluated the limits and concentration of soil contamination. This can be used to reduce the remediation area and its associated cost. The FY19 estimate is based on the treatment and removal of approximately 100,000 tons of soil.

FINANCIAL PLAN & PROJECT SCHEDULE

	PRIOR YR	FY19	FY20	FY21	FY22	FY23	FY24	TOTAL
EXPENDITURES								
Design	65,000							65,000
Construction/Implementation		1,000,000						1,000,000
Property/Equip. Acquisition								0
TOTAL	\$65,000	\$1,000,000	\$0	\$0	\$0	\$0	\$0	\$1,065,000
FUNDING								
Current Revenue	65,000							65,000
Capital Reserve								0
Debt Funded								0
Federal or State Grants								0
Other Sources		1,000,000						1,000,000
TOTAL	\$65,000	\$1,000,000	\$0	\$0	\$0	\$0	\$0	\$1,065,000

ANNUAL DEPARTMENT OPERATING BUDGET IMPACT: No impact
One time

PROJECT STATUS: Ongoing CIP

CITY OF KEENE, NEW HAMPSHIRE

2019 - 2024 Capital Project Funding Request

GENERAL PROJECT DATA

Project Name: **Victoria Street Extension**
 Department: **PUBLIC WORKS**
 Physical Location: **Marlboro St/Victoria St**
 Federal Mandate: **N/A**
 State Regulation or Law: **N/A**
 Master Plan (CMP) Focus Area: **Vibrant Economy**
 CMP Vision/Strategy: **Infrastructure**
 Council Initiative: **Policy**
 V.O.I.C.E.: **Continually Assess Facilities and Infrastructure**
 Departmental Objective: **Support the revitalization of the Victoria Street area and Marlboro Street Corridor.**



PROJECT DESCRIPTION/JUSTIFICATION

This project proposes to extend Victoria Street south from Water Street to connect to Marlboro Street. Work will include property acquisition, engineering design, and construction of approximately 1,200 linear feet of roadway. The 2004 Traffic Committee reviewed various traffic improvements throughout the City. The committee identified extension of Victoria Street as a critical piece of the Marlboro Street Zoning/Redevelopment evaluation that was completed in 2014. This extension will open up a large parcel for redevelopment. It will also improve access for truck traffic to the businesses located on Victoria Street and reduce the amount of truck traffic in residential neighborhoods.

In 2008 a total of \$163,000 was allocated for preliminary design. The project was suspended after spending limited funds for a topographic survey. In 2016 Council voted to reallocate \$155,755 of bond funds previously issued for this project. This project seeks to re-establish design funds in FY22.

FINANCIAL PLAN & PROJECT SCHEDULE

	PRIOR YR	FY19	FY20	FY21	FY22	FY23	FY24	TOTAL
EXPENDITURES								
Design					222,000			222,000
Construction/Implementation					1,481,000			1,481,000
Property/Equip. Acquisition								0
TOTAL	\$0	\$0	\$0	\$0	1,703,000	\$0	\$0	\$1,703,000
FUNDING								
Current Revenue								0
Capital Reserve					222,000			222,000
Debt Funded					1,481,000			1,481,000
Federal or State Grants								0
Other Sources								0
TOTAL	\$0	\$0	\$0	\$0	\$1,703,000	\$0	\$0	\$1,703,000

ANNUAL DEPARTMENT OPERATING BUDGET IMPACT: Minimal \$5,001 to \$50,000 Ongoing

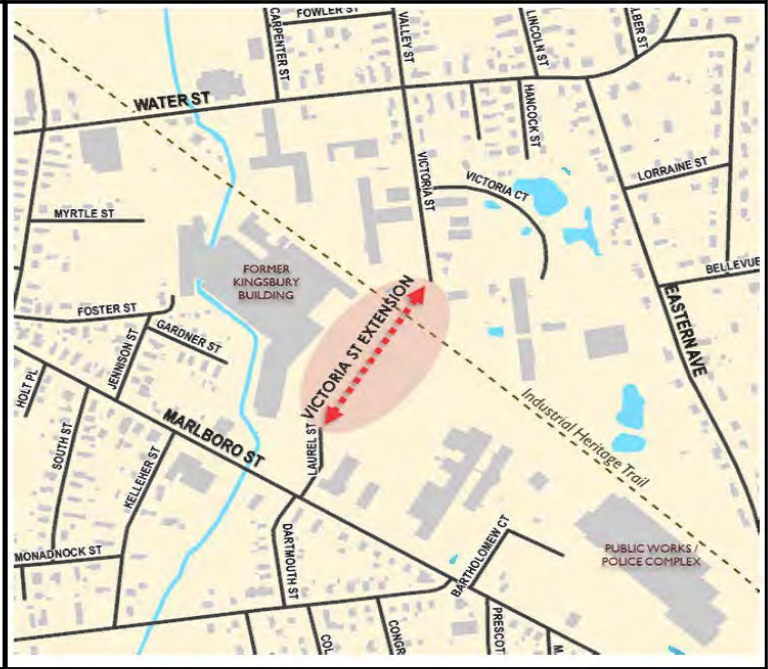
PROJECT STATUS: Ongoing CIP

CITY OF KEENE, NEW HAMPSHIRE

2019 - 2024 Capital Project Funding Request

GENERAL PROJECT DATA

Project Name: **Victoria Street Utilities - Sewer**
 Department: **Public Works - Sewer Fund**
 Physical Location: **Victoria Street Extension**
 Federal Mandate: **N/A**
 State Regulation or Law: **N/A**
 Master Plan (CMP) Focus Area: **Healthy Community**
 CMP Vision/Strategy: **Infrastructure**
 Council Initiative: **N/A**
 V.O.I.C.E.: **Continually Assess Facilities and Infrastructure**
 Departmental Objective: **Facilitate redevelopment of Marlboro Street corridor**



PROJECT DESCRIPTION/JUSTIFICATION

The 2004 Traffic Committee recommended the extension of Victoria Street from its current terminus southerly to Marlboro Street. That project is described elsewhere in this Capital Improvement Program.

This request will provide funding to install a Sewer main along the 1,200 feet of new road. The new sewer main will support the redevelopment of the adjacent properties..

FINANCIAL PLAN & PROJECT SCHEDULE

	PRIOR YR	FY19	FY20	FY21	FY22	FY23	FY24	TOTAL
EXPENDITURES								
Design								0
Construction/Implementation					208,669			208,669
Property/Equip. Acquisition								0
TOTAL	\$0	\$0	\$0	\$0	\$208,669	\$0	\$0	\$208,669
FUNDING								
Current Revenue					208,669			208,669
Capital Reserve								0
Debt Funded								0
Federal or State Grants								0
Other Sources								0
TOTAL	\$0	\$0	\$0	\$0	\$208,669	\$0	\$0	\$208,669

ANNUAL DEPARTMENT OPERATING BUDGET IMPACT: Negligible < \$5,001
One time

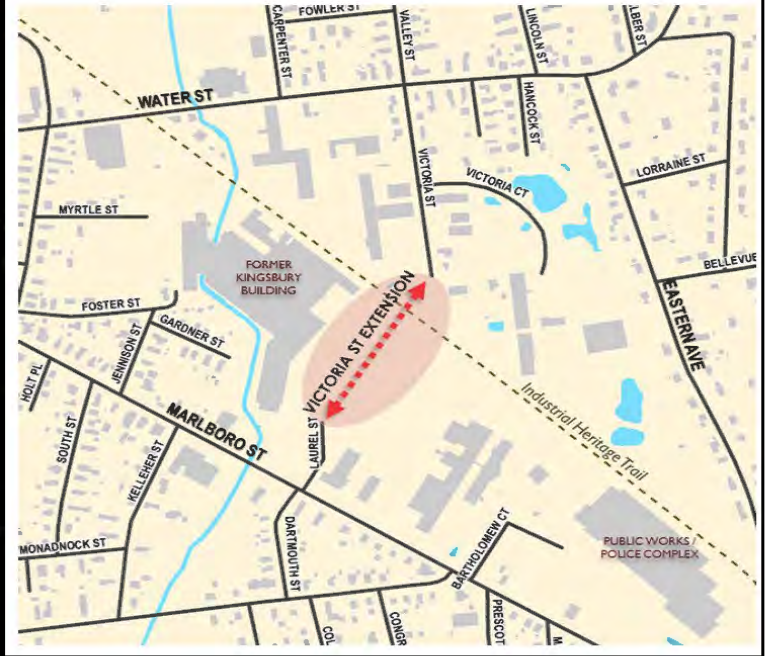
PROJECT STATUS: New Project

CITY OF KEENE, NEW HAMPSHIRE

2019 - 2024 Capital Project Funding Request

GENERAL PROJECT DATA

Project Name: **Victoria Street Utilities - Water**
 Department: **Public Works - Water Fund**
 Physical Location: **Victoria Street Extension**
 Federal Mandate: **N/A**
 State Regulation or Law: **N/A**
 Master Plan (CMP) Focus Area: **Healthy Community**
 CMP Vision/Strategy: **Infrastructure**
 Council Initiative: **N/A**
 V.O.I.C.E.: **Continually Assess Facilities and Infrastructure**
 Departmental Objective: **Improve distribution system reliability**



PROJECT DESCRIPTION/JUSTIFICATION

The 2004 Traffic Committee recommended the extension of Victoria Street from its current terminus southerly to Marlboro Street. That project is described elsewhere in this Capital Improvement Program.

This request will provide funding to install a water main along the 1,200 feet of new road. The new water main will support the redevelopment of the adjacent properties and improve the resiliency of the system overall.

FINANCIAL PLAN & PROJECT SCHEDULE

	PRIOR YR	FY19	FY20	FY21	FY22	FY23	FY24	TOTAL
EXPENDITURES								
Design								0
Construction/Implementation					347,782			347,782
Property/Equip. Acquisition								0
TOTAL	\$0	\$0	\$0	\$0	\$347,782	\$0	\$0	\$347,782
FUNDING								
Current Revenue					72,782			72,782
Capital Reserve								0
Debt Funded								0
Federal or State Grants								0
Retained Earnings					275,000			275,000
TOTAL	\$0	\$0	\$0	\$0	\$347,782	\$0	\$0	\$347,782

ANNUAL DEPARTMENT OPERATING BUDGET IMPACT: Negligible < \$5,001
One time

PROJECT STATUS: New Project

CITY OF KEENE, NEW HAMPSHIRE

2019 - 2024 Capital Project Funding Request

GENERAL PROJECT DATA

Project Name: **Comprehensive Master Plan Update**
 Department: **Planning**
 Physical Location: **City Wide**
 Federal Mandate: **N/A**

State Regulation or Law: **RSA 674:1-5**

Master Plan (CMP) Focus Area: **Vibrant Economy**

CMP Vision/Strategy: **Collaborative Community Planning**

Council Initiative: **Resolution**

V.O.I.C.E.: **Continually Assess Facilities and Infrastructure**

Departmental Objective: **Development and implementation of the City's Master Plan is the highest priority. These plans set forth the community's vision for the future and lay the groundwork for the policies and programs intended to achieve that vision.**



PROJECT DESCRIPTION/JUSTIFICATION

Keene's Comprehensive Master Plan (CMP) adopted in 2010, began in 2008 with an award winning "Community Vision". The CMP embodies the community's vision of how the City and Region could and should be for future generations. This Plan is a guide to assist the community and City government in making decisions to move the community forward toward a more sustainable Keene. The 2010 CMP covers a broad scope of twenty-one topic areas, which range from "Community Sustainability" to "Economic Development", "Community Health & Wellness" to "Climate Change". The process to develop this Plan involved extensive public outreach and engagement, through which over 2,000 people participated in community forums, focus groups, and/or study circles.

It is now nine years later and many aspects of our economic, environmental and social context have changed. It is time to revisit and update this Plan, which provides a guide for our community's collective efforts. Per NH RSA 674:3(II) revisions to the plan are recommended every 5 to 10 years.

This update will focus on strategic areas. An initial renewal and/or update of Keene's Community Vision will be conducted following a series of facilitated community meetings and period of public input and engagement. An update of the Community Snapshot section of the Plan, will provide an overview of Keene's socioeconomic and demographic profile through the use of current data and trend analysis. Each of the Plan's multiple topic-oriented chapters will be examined and updated to reflect current community priorities. Throughout the process, citizens and community partners will be asked to join with the City to identify priorities and establish a list of action steps for implementation. This input will inform the development of an Implementation Section that will outline and prioritize strategies for achieving the Plan's updated goals and objectives.

FINANCIAL PLAN & PROJECT SCHEDULE

	PRIOR YR	FY19	FY20	FY21	FY22	FY23	FY24	TOTAL
EXPENDITURES								
Design						30,000		30,000
Construction/Implementation							30,000	30,000
Property/Equip. Acquisition								0
TOTAL	\$0		\$0	\$0	\$0	\$30,000	\$30,000	\$60,000
FUNDING								
Current Revenue						30,000	30,000	60,000
Capital Reserve								0
Debt Funded								0
Federal or State Grants								0
Other Sources								0
TOTAL	\$0	\$0	\$0	\$0	\$0	\$30,000	\$30,000	\$60,000

ANNUAL DEPARTMENT OPERATING BUDGET IMPACT: Minimal \$5,001 to \$50,000
Multi-year

PROJECT STATUS: New Project

CITY OF KEENE, NEW HAMPSHIRE

2019 - 2024 Capital Project Funding Request

GENERAL PROJECT DATA

Project Name: **Five Year Aerial Imagery Update**
 Department: **Planning**
 Physical Location: **City Wide**
 Federal Mandate: **N/A**
 State Regulation or Law: **N/A**
 Master Plan (CMP) Focus Area: **Vibrant Economy**
 CMP Vision/Strategy: **Emergency Preparedness**
 Council Initiative: **Policy**
 V.O.I.C.E.: **Continually Assess Facilities and Infrastructure**
 Departmental Objective: **Keep upto date geographic data available for informed organizational decision making, emergency services and assistance as well as quality asset management practices.**



PROJECT DESCRIPTION/JUSTIFICATION

Updated Aerial Imagery is key to keeping other associated GIS data up to par and useful for Emergency and First Responders as well as Asset Management and Collection for the City's utilities managed by the Department of Public Works. This project is an imagery update and not a full data interpretation project. City Staff will be able to utilize the imagery collected to observe and update changes to data in house. This project will also help the Assessing Department complete their re-valuations of the entire city by allowing them to pre evaluate properties across the city based on current imagery.

FINANCIAL PLAN & PROJECT SCHEDULE

	PRIOR YR	FY19	FY20	FY21	FY22	FY23	FY24	TOTAL
EXPENDITURES								
Design								0
Construction/Implementation							75,000	75,000
Property/Equip. Acquisition								0
TOTAL	\$0	\$0	\$0	\$0	\$0	\$0	\$75,000	\$75,000
FUNDING								
Current Revenue							75,000	75,000
Capital Reserve								0
Debt Funded								0
Federal or State Grants								0
Other Sources								0
TOTAL	\$0	\$0	\$0	\$0	\$0	\$0	\$75,000	\$75,000

ANNUAL DEPARTMENT OPERATING BUDGET IMPACT: Minimal \$5,001 to \$50,000
One time

PROJECT STATUS: New Project

CITY OF KEENE, NEW HAMPSHIRE

2019 - 2024 Capital Project Funding Request

GENERAL PROJECT DATA

Project Name: **Surface Parking Lot Maintenance**
 Department: **Public Works - Parking Fund**
 Physical Location: **Various**
 Federal Mandate: **No**
 State Regulation or Law: **No**
 Master Plan (CMP) Focus Area: **Vibrant Economy**
 CMP Vision/Strategy: **Vibrant Downtown**
 Council Initiative: **N/A**
 V.O.I.C.E.: **Continually Assess Facilities and Infrastructure**
 Departmental Objective: **Investing maintenance funds and providing adequate maintenance to City parking facilities.**



PROJECT DESCRIPTION/JUSTIFICATION

The City of Keene owns five surface parking lots. These are located at Gilbo Avenue (East and West), Wells Street, Commercial Street, and the Library Annex. These lots are continually assessed for their condition. This project provides rehabilitation of these lots to maintain their function. The Gilbo East lot is scheduled for rehabilitation in 2018 (prior year funding). Work in this lot will include the following:

- Mill, shim, and overlay pavement to restore the surface
- Adjust drainage and utility structures to the proper elevation
- Re-establish pavement markings and striping
- Replace existing sidewalk with concrete sidewalk
- Replace existing curb with granite curb
- Construct and install concrete islands (along with trees with grates) to separate parking lanes.
- Add four new parking spaces along the street

Not included in the previous budget for Gilbo East is the conversion of this lot to parking kiosks. Additional funds are requested in FY19 to purchase 4 kiosks for this lot. In FY20, the Elm Street and Library lots will be converted to kiosks. The budget assumes a total of 4 kiosks for these 2 lots.

Funds are budgeted to perform crack sealing and surface sealing on the Gilbo West and Commercial Street lots in FY22. At that time, the pavement in Gilbo West will be 11 years old and Commercial Street lot will be 7 years old.

FINANCIAL PLAN & PROJECT SCHEDULE

	PRIOR YR	FY19	FY20	FY21	FY22	FY23	FY24	TOTAL
EXPENDITURES								
Design								0
Construction/Implementation					51,300			51,300
Property/Equip. Acquisition		29,400	30,300					59,700
TOTAL	\$0	\$29,400	\$30,300	\$0	\$51,300	\$0	\$0	\$111,000
FUNDING								
Current Revenue		29,400	30,300		51,300			111,000
Capital Reserve								0
Debt Funded								0
Federal or State Grants								0
Other Sources								0
TOTAL	\$0	\$29,400	\$30,300	\$0	\$51,300	\$0	\$0	\$111,000

ANNUAL DEPARTMENT OPERATING BUDGET IMPACT: Negligible<\$5,001
Multi-year

PROJECT STATUS: Ongoing CIP

CITY OF KEENE, NEW HAMPSHIRE

2019 - 2024 Capital Project Funding Request

GENERAL PROJECT DATA

Project Name: **City Hall Parking Structure Maint.**
 Department: **Public Works - Parking Fund**
 Physical Location: **Various**
 Federal Mandate: **No**
 State Regulation or Law: **No**
 Master Plan (CMP) Focus Area: **Vibrant Economy**
 CMP Vision/Strategy: **Vibrant Downtown**
 Council Initiative: **N/A**
 V.O.I.C.E.: **Continually Assess Facilities and Infrastructure**
 Departmental Objective: **Investing maintenance funds and providing adequate maintenance to City parking facilities**



PROJECT DESCRIPTION/JUSTIFICATION

Experience over time has shown that capital improvements beyond normal maintenance are required approximately every four years in order to maintain the structures in good condition. This project provides periodic maintenance to extend the life of the City Hall Parking Structure.

Prior CIP funding provided a structural evaluation of the City Hall Parking Structure and preparation of an Asset Management Plan. That analysis is anticipated to be completed by the Spring of 2018. The results of the structural evaluation will be used to update and refine the budget for the City Hall Parking Structure improvements programmed for FY20. The budget below is based on the anticipated "typical" recommended repairs, such as protective re-surfacing and crack and joint repair.

In FY24, the City proposes to resurface the asphalt pavement on the lower deck of the City Hall Parking Structure.

FINANCIAL PLAN & PROJECT SCHEDULE

	PRIOR YR	FY19	FY20	FY21	FY22	FY23	FY24	TOTAL
EXPENDITURES								
Design								0
Construction/Implementation			50,000				57,400	107,400
Property/Equip. Acquisition								0
TOTAL	\$0	\$0	\$50,000	\$0	\$0	\$0	\$57,400	\$107,400
FUNDING								
Current Revenue								0
Capital Reserve			50,000				57,400	107,400
Debt Funded								0
Federal or State Grants								0
Other Sources								0
TOTAL	\$0	\$0	\$50,000	\$0	\$0	\$0	\$57,400	\$107,400

ANNUAL DEPARTMENT OPERATING BUDGET IMPACT: Negligible<\$5,001
Multi-year

PROJECT STATUS: Ongoing CIP

CITY OF KEENE, NEW HAMPSHIRE

2019 - 2024 Capital Project Funding Request

GENERAL PROJECT DATA

Project Name: **Wells St. Parking Structure Maint.**
 Department: **Public Works - Parking Fund**
 Physical Location: **Various**
 Federal Mandate: **No**
 State Regulation or Law: **No**
 Master Plan (CMP) Focus Area: **Vibrant Economy**
 CMP Vision/Strategy: **Vibrant Downtown**
 Council Initiative: **N/A**
 V.O.I.C.E.: **Continually Assess Facilities and Infrastructure**
 Departmental Objective: **Investing maintenance funds and providing adequate maintenance on City parking facilities.**



PROJECT DESCRIPTION/JUSTIFICATION

Experience over time has shown that capital improvements beyond normal maintenance are required approximately every four years in order to maintain the structures in good condition. This project provides periodic maintenance to extend the life of the Wells Street Parking Structure

Prior CIP funding provided for the preparation of an Asset Management Plans for the Wells Street Parking Structure. That analysis is anticipated to be completed by the Spring of 2018. The results of the structural evaluation will be used to update and refine the budget for the Wells Street Parking Structure improvements programmed for FY22. The budget below is based on the anticipated "typical" recommended repairs, such as protective re-surfacing and crack and joint repair.

In FY23, the City proposes to resurface the asphalt pavement on the lower deck of the Wells Street Parking Structure

FINANCIAL PLAN & PROJECT SCHEDULE

	PRIOR YR	FY19	FY20	FY21	FY22	FY23	FY24	TOTAL
EXPENDITURES								
Design								0
Construction/Implementation					50,000	98,200		148,200
Property/Equip. Acquisition								0
TOTAL	\$0	\$0	\$0	\$0	\$50,000	\$98,200	\$0	\$148,200
FUNDING								
Current Revenue								0
Capital Reserve					50,000	98,200		148,200
Debt Funded								0
Federal or State Grants								0
Other Sources								0
TOTAL	\$0	\$0	\$0	\$0	\$50,000	\$98,200	\$0	\$148,200

ANNUAL DEPARTMENT OPERATING BUDGET IMPACT: Negligible<\$5,001
Multi-year

PROJECT STATUS: Ongoing CIP

CITY OF KEENE, NEW HAMPSHIRE

2019- 2024 Capital Project Funding Request

GENERAL PROJECT DATA

Project Name: **Smart Meters**
 Department: **Public Works - Parking Fund**
 Physical Location: **Various**
 Federal Mandate: **N/A**
 State Regulation or Law: **N/A**
 Master Plan (CMP) Focus Area: **Quality Built Environment**
 CMP Vision/Strategy: **Infrastructure**
 Council Initiative: **N/A**
 V.O.I.C.E.: **N/A**
 Departmental Objective: **Investing maintenance funds to City parking facilities**



PROJECT DESCRIPTION/JUSTIFICATION

Technology, combined with convenience and efficiency, is rapidly changing the way municipalities conduct business. In FY24 the replacement of coin only parking with smart parking meters will allow the public to use either credit cards or coins to pay for parking. Advanced technology through wireless communication will report each meter activity to a central back office terminal. This will provide the City with financial information by meter as well as sending alerts for meter malfunctions minimizing meter repair down time and lost revenue. The projected cost of replacing the estimated 470 coin fed meters with smart meters is between \$225,000 and \$250,000. The next parking meter rate increase is will be forwarded to City Council for consideration in FY19. Taking into consideration this project with the next rate increase the City will be able to anticipate the costs and plan accordingly to avoid revenue shortfalls.

At the present time, City staff is investigating various technologies to determine what type of smart meter will fit the needs of the City. Once staff has completed their research, the results will be brought forward to the City Council for consideration.

FINANCIAL PLAN & PROJECT SCHEDULE

	PRIOR YR	FY19	FY20	FY21	FY22	FY23	FY24	TOTAL
EXPENDITURES								
Design								0
Construction/Implementation								0
Property/Equip. Acquisition							250,000	250,000
TOTAL	\$0	\$0	\$0	\$0	\$0	\$0	\$250,000	\$250,000
FUNDING								
Current Revenue							250,000	250,000
Capital Reserve								0
Debt Funded								0
Federal or State Grants								0
Other Sources								0
TOTAL	\$0	\$0	\$0	\$0	\$0	\$0	\$250,000	\$250,000

ANNUAL DEPARTMENT OPERATING BUDGET IMPACT: No impact
N/A

PROJECT STATUS: Ongoing CIP

Airport

The Dillant-Hopkins Airport was dedicated on October 31, 1943 and had its first jet land in 1948. In 1963, instrument landing systems were installed as well as other airplane guidance systems and today, the airport is home to 80 aircraft and more than 28,000 aircraft operations annually; from small aircraft to corporate and charter jets. Keene airport has the third longest runway in the state (Pease International and Manchester-Boston Regional are first and second in runway length, respectively) and through landing fees, services, land leases and airplane hangar rentals raises approximately \$500,000 in revenue for the City. The airport is required by federal regulation to be open at all times, day or night. Keene is one of two airports defined by the government as a National airport in the future airport system that provides the highest level of air access for aviation users. The airport is a key transportation facility for the City of Keene and the region.

Marketing and developing the airport has been a part of the City of Keene Comprehensive Master Plan for more than a decade. As a result of new management and new broad public and political support, there is a consistent effort at the airport to improve the tax base for the Town of Swanzey as well as provide revenue for the City of Keene from land leases, utilities and perhaps other services. In the past year, nearly 30 companies have received focused marketing information about the airport in an effort to draw them to this region as they create their corporate strategies for short and long-term growth. Development does happen quickly. Our development efforts will continue to make the attributes of the region known throughout the country.

The airport has approximately 50 acres available for development for either aviation or non-aviation purposes. An additional 300 acres is available on adjacent land. In calendar year 2017-2018, we expect to break ground on two new hangars, privately financed, and a third entity has expressed interest in building a hangar and locating a private/corporate jet in Keene. Virtually every day corporate and private jets land in Keene to conduct business and extend economic roots into this region. The Fixed Based Operator, Monadnock Aviation has hired yet another flight instructor and has acquired an additional plane for her fleet of planes.

In 2015, the NH Department of Transportation estimated that between the direct and indirect airport-related activities, the Keene airport creates \$7.3 million in regional payroll and a regional economic benefit of \$21.44 million. This employment base is made up of restaurant workers, airplane mechanics, private corporate pilots and aviation support staff and employees that work at local companies, such as C&S Wholesalers, who are in this region **because of** the airport. The convenience and capacity of this airport makes this region unique in the State of New Hampshire. We hope that the City Council will join the development efforts by funding economic development outreach efforts in the coming years. It is an investment worth making.

CITY OF KEENE, NEW HAMPSHIRE

2019 - 2024 Capital Project Funding Request

GENERAL PROJECT DATA

Project Name: **Beacon Replacement**
 Department: **Airport**
 Physical Location: **Keene Dillant-Hopkins Airport**
 Federal Mandate: **N/A**
 State Regulation or Law: **N/A**
 Master Plan (CMP) Focus Area: **Vibrant Economy**
 CMP Vision/Strategy: **Infrastructure**
 Council Initiative: **N/A**
 V.O.I.C.E.: **Continually Assess Facilities and Infrastructure**
 Departmental Objective: **To maintain compliance with FAA safety regulations regarding the maintenance and operation of Aviation Hazard Beacons**



PROJECT DESCRIPTION/JUSTIFICATION

The airport infrastructure includes at least 12 hazard beacons whose purpose is to mark obstructions and hilltops for planes arriving at and departing the airport. We are embarking on a plan to replace two beacons over the next 6 to 8 years so that no beacon is more than 20 years old. In 2011 we replaced two beacons; in 2012 we replaced one beacon. The remainder are at or beyond 20 years of age. Federal/state cost sharing is available for this and the City will have a 5% match for funding.

FINANCIAL PLAN & PROJECT SCHEDULE

	PRIOR YR	FY19	FY20	FY21	FY22	FY23	FY24	TOTAL
EXPENDITURES								
Design								0
Construction/Implementation						500,000		500,000
Property/Equip. Acquisition								0
TOTAL	\$0	\$0	\$0	\$0	\$0	\$500,000	\$0	\$500,000
FUNDING								
Current Revenue						25,000		25,000
Capital Reserve								0
Debt Funded								0
Federal or State Grants						475,000		475,000
Other Sources								0
TOTAL	\$0	\$0	\$0	\$0	\$0	\$500,000	\$0	\$500,000

ANNUAL DEPARTMENT OPERATING BUDGET IMPACT: Negligible<\$5,001
One time

PROJECT STATUS: New Project

CITY OF KEENE, NEW HAMPSHIRE

2019 - 2024 Capital Project Funding Request

GENERAL PROJECT DATA

Project Name: **Pavement Maintenance & Marking**
 Department: **Airport**
 Physical Location: **Keene Dillant-Hopkins Airport**
 Federal Mandate: **N/A**
 State Regulation or Law: **N/A**
 Master Plan (CMP) Focus Area: **Vibrant Economy**
 CMP Vision/Strategy: **Infrastructure**
 Council Initiative: **N/A**
 V.O.I.C.E.: **Continually Assess Facilities and Infrastructure**
 Departmental Objective: **To maintain the integrity and safety of the facilities for the good of the airport users.**



PROJECT DESCRIPTION/JUSTIFICATION

MAINTENANCE: Nearly all pavement at the airport was constructed with the assistance of various federal grant programs. These grants historically provided up to 95% of the cost of construction. The City agreed to maintain the pavement to Federal standards for safety as a condition of accepting these grants. Through regular pavement maintenance the City can assure maximum pavement life. Maintenance includes the routine repair of defective, deteriorated, or otherwise failing pavement on aircraft movement areas. Defects include cracks of varying widths. Estimated costs (2016) are provided below. Costs are adjusted 3% per year for inflation. Small cracks between 1/4" and 3/4" wide can be filled with sealant. Estimated costs are \$0.30 per linear foot (LF). Cracks larger than 3/4" wide can be filled with backing rod or sealant or filled with a mixture of emulsified asphalt and aggregate. Estimated costs are \$3 per LF. For larger cracks or areas of pavement failure, the existing pavement must be saw-cut and removed. The pavement is reconstructed to the full depth along the length of the crack or failure. Estimated costs are \$30 per LF.

MARKING: Pavement markings communicate important information to a pilot using the airport. Over time these markings become obliterated due to weather fading, failing paint, and rubber debris from landing aircraft tires. Routine repainting of these markings is essential for safety. It is recommended that the Airport perform this maintenance every four years. The project includes the repainting of airfield paved surfaces. This includes touch down points, runway and taxiway centerlines, aircraft hold position lines, aircraft parking areas, runway threshold bars, and other critical pavement markings. In total there are approximately 75,000 square feet of pavement markings. Estimated costs per square foot (SF) for 2016 are provided below. Costs are adjusted 3% per year for inflation. Scrub rubber and debris from existing pavement markings to prepare surface for painting: \$1.60 per SF. Paint new pavement markings to meet FAA guidelines: \$1.20 per SF. Total estimated cost = \$2.80 per SF. This project is eligible for FAA and NH DOT funding pursuant to 49 USC § 47102(3)(H).

FINANCIAL PLAN & PROJECT SCHEDULE

	PRIOR YR	FY19	FY20	FY21	FY22	FY23	FY24	TOTAL
EXPENDITURES								
Design								0
Construction		166,736		66,600	48,600	54,000		335,936
Property/Equip. Acquisition								0
TOTAL	\$0	\$166,736	\$0	\$66,600	\$48,600	\$54,000	\$0	\$335,936
FUNDING								
Current Revenue	8,337			3,330	2,430	2,700		16,797
Capital Reserve								0
Debt Funded								0
Federal or State Grants		158,399	0	63,270	46,170	51,300	0	319,139
Other Sources								0
TOTAL	\$8,337	\$158,399	\$0	\$66,600	\$48,600	\$54,000	\$0	\$335,936

ANNUAL DEPARTMENT OPERATING BUDGET IMPACT: Negligible<\$5,001
Ongoing

PROJECT STATUS: Ongoing CIP

CITY OF KEENE, NEW HAMPSHIRE

2019 - 2024 Capital Project Funding Request

GENERAL PROJECT DATA

Project Name: **Perimeter Fence**
 Department: **Airport**
 Physical Location: **Keene Dillant-Hopkins Airport**
 Federal Mandate: **n/a**
 State Regulation or Law: **n/a**
 Master Plan (CMP) Focus Area: **N/A**
 CMP Vision/Strategy: **Infrastructure**
 Council Initiative: **N/A**
 V.O.I.C.E.: **Continually Assess Facilities and Infrastructure**
 Departmental Objective: **To reduce the potential for accidents involving wildlife, increasing runways safety.**



PROJECT DESCRIPTION/JUSTIFICATION

This project is intended to add perimeter fencing to fully enclose the entire airport. Presently only the northern, eastern and partial southern boundaries are fenced. The presence of wildlife on the runways creates the most significant safety issues because of the unexpected behavior of animals when startled. Wildlife enter the safety zones of the runways daily and staff must make multiple wildlife inspections checking for deer, moose, turtles, fox and coyote. In 2016 two deer on one of the runways caused an airplane to crash. The plane was destroyed and over \$15,000 of damage was done to the airport equipment and landing lights. The funding for the fencing project will be covered by 90% Federal Government, 5% State Government, and 5% City government funds.

FINANCIAL PLAN & PROJECT SCHEDULE

	PRIOR YR	FY19	FY20	FY21	FY22	FY23	FY24	TOTAL
EXPENDITURES								
Design								0
Construction/Implementation				1,350,000				1,350,000
Property/Equip. Acquisition								0
TOTAL	\$0	\$0	\$0	\$1,350,000	\$0	\$0	\$0	\$1,350,000
FUNDING								
Current Revenue				67,500				67,500
Capital Reserve								0
Debt Funded								0
Federal or State Grants				1,282,500				1,282,500
Other Sources								0
TOTAL	\$0	\$0	\$0	\$1,350,000	\$0	\$0	\$0	\$1,350,000

ANNUAL DEPARTMENT OPERATING BUDGET IMPACT: Negligible < \$5,001 Ongoing

PROJECT STATUS: New Project

CITY OF KEENE, NEW HAMPSHIRE

2019 - 2024 Capital Project Funding Request

GENERAL PROJECT DATA

Project Name: **Runway 20 PAPI Replacement**
 Department: **Airport**
 Physical Location: **Keene Dillant-Hopkins Airport**
 Federal Mandate: **Title 49, US Code, Subtitle VII**
 State Regulation or Law: **Title XXXI, RSA Chapter 424:2**
 Master Plan (CMP) Focus Area: **Vibrant Economy**
 CMP Vision/Strategy: **Infrastructure**
 Council Initiative: **N/A**
 V.O.I.C.E.: **Continually Assess Facilities and Infrastructure**
 Departmental Objective: **To provide a precision landing aid to those using the Runway 20 approach, improving airport safety.**

Precision Approach Path Indicator Runway 20 Navigational Aide



PROJECT DESCRIPTION/JUSTIFICATION

This project includes the replacement of the Precision Approach Path Indicator (PAPI) system at the end of Runway 20 (similar to the Runway 2 installation pictured above). This equipment is used by pilots to help them stay on the correct approach angle as they land on Runway 20. The existing system is more than 24 years old and in need of replacement. Completion of this project is subject to receipt of grants from the FAA and the NHDOT Bureau of Aeronautics equal to 90% and 5% respectively. The final 5% of the project will be the responsibility of the City.

FINANCIAL PLAN & PROJECT SCHEDULE

	PRIOR YR	FY19	FY20	FY21	FY22	FY23	FY24	TOTAL
EXPENDITURES								
Design						20,000		20,000
Construction/Implementation								0
Property/Equip. Acquisition						40,000		40,000
TOTAL	\$0	\$0	\$0	\$0	\$0	\$60,000	\$0	\$60,000
FUNDING								
Current Revenue						3,000		3,000
Capital Reserve								0
Debt Funded								0
Federal or State Grants						57,000		57,000
Other Sources								0
TOTAL	\$0	\$0	\$0	\$0	\$0	\$60,000	\$0	\$60,000

ANNUAL DEPARTMENT OPERATING BUDGET IMPACT:

N/A

PROJECT STATUS:

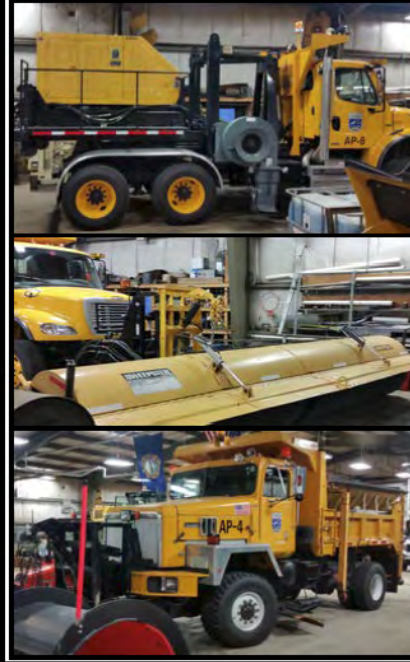
Ongoing CIP

CITY OF KEENE, NEW HAMPSHIRE

2019 - 2024 Capital Project Funding Request

GENERAL PROJECT DATA

Project Name: **Snow Removal Equipment**
 Department: **Airport**
 Physical Location: **Dillant-Hopkins Airport**
 Federal Mandate: **Title 49, US Code, Subtitle VII**
 State Regulation or Law: **FAA AC-5200-30C**
 Master Plan (CMP) Focus Area: **Vibrant Economy**
 CMP Vision/Strategy: **Infrastructure**
 Council Initiative: **N/A**
 V.O.I.C.E.: **Continually Assess Facilities and Infrastructure**
 Departmental Objective: **To keep the Airport operational and safe during winter operations.**



Truck-mounted engine for

Sweepster broom

6-wheeled

PROJECT DESCRIPTION/JUSTIFICATION

The Dillant-Hopkins Airport is part of the National Plan of Integrated Airport Systems. As such, the City of Keene receives Federal and State assistance for use in maintaining the safety, security, and operational readiness of the Airport. This includes the winter maintenance of the runways, taxiways, and aprons. The equipment used at the Airport for snow and ice removal is specialized for large surfaces and operational considerations. This project includes replacement of "AP 4", the Airport's 1995 6-wheeled dump truck and the 1995 Sweepster broom with attachments. In FY 22, both of these pieces of equipment will be 27 years old.

Completion of this project is subject to receipt of grants from the FAA and the NHDOT Bureau of Aeronautics. These equal to 90% and 5% respectively. The final 5% funding will be the responsibility of the City.

FINANCIAL PLAN & PROJECT SCHEDULE

	PRIOR YR	FY19	FY20	FY21	FY22	FY23	FY24	TOTAL
EXPENDITURES								
Design/Administration								0
Construction/Implementation								0
Property/Equip. Acquisition					555,556			555,556
TOTAL	\$0	\$0	\$0	\$0	\$555,556	\$0	\$0	\$555,556
FUNDING								
Current Revenue					27,778			27,778
Capital Reserve								0
Debt Funded								0
Federal or State Grants					527,778			527,778
Other Sources								0
TOTAL	\$0	\$0	\$0	\$0	\$555,556	\$0	\$0	\$555,556

ANNUAL DEPARTMENT OPERATING BUDGET IMPACT:

N/A

PROJECT STATUS:

Ongoing CIP

CITY OF KEENE, NEW HAMPSHIRE

2019 - 2024 Capital Project Funding Request

GENERAL PROJECT DATA

Project Name: **Taxiway A Reconstruction/Extension**
 Department: **Airport**
 Physical Location: **Keene Dillant-Hopkins Airport**
 Federal Mandate: **Title 49, US Code, Subtitle VII**
 State Regulation or Law: **FAA AC 150/5380-6B**
 Master Plan (CMP) Focus Area: **Vibrant Economy**
 CMP Vision/Strategy: **Infrastructure**
 Council Initiative: **N/A**
 V.O.I.C.E.: **Continually Assess Facilities and Infrastructure**
 Departmental Objective: **To replace deteriorating pavement, improve airport safety and to comply with FAA runway/taxiway separation requirements.**



PROJECT DESCRIPTION/JUSTIFICATION

This project includes a study to determine the best location for the Automated Weather Observation System (AWOS), the engineering, design and permitting for the extension of Taxiway A, and, the construction of a new, longer Taxiway A. It will be approximately 3,500 feet long and 60 feet wide. The extension will add approximately 1,390 feet. Taxiway A serves the airport's primary runway 2/20. The current taxiway was constructed in 1989. The Airport performed routine maintenance and repair over the years, but the Taxiway has deteriorated and needs to be replaced. The new taxiway can remain in the same location or be moved 110 feet closer to the runway to better align with FAA guidelines. The extension of this taxiway will provide a path to the end of runway 2. It will eliminate the dangerous practice of planes backing up (back-taxiing) in order to take off. Completion of this project is subject to the receipt of grants from the FAA and the NHDOT. These are equal to 90% and 5%, respectively. The final 5% of funding is the responsibility of the City. This will be accomplished in three phases: 1. The AWOS Study 2. Design and Permitting and 3. Construction.

FINANCIAL PLAN & PROJECT SCHEDULE

	PRIOR YR	FY19	FY20	FY21	FY22	FY23	FY24	TOTAL
EXPENDITURES								
AWOS Study	98,000							
Design & Permitting		390,000						390,000
Construction			2,400,000					2,400,000
TOTAL	\$98,000	\$390,000	\$2,400,000	\$0	\$0	\$0	\$0	\$2,790,000
FUNDING								
Current Revenue	4,900	19,500	120,000					139,500
Capital Reserve								
Debt Funded								
Federal or State Grants	93,100	370,500	2,280,000					2,650,500
Other Sources								
TOTAL	\$98,000	\$390,000	\$2,400,000	\$0	\$0	\$0	\$0	\$2,790,000

ANNUAL DEPARTMENT OPERATING BUDGET IMPACT:

N/A

PROJECT STATUS:

Ongoing CIP

CITY OF KEENE, NEW HAMPSHIRE

2019 - 2024 Capital Project Funding Request

GENERAL PROJECT DATA

Project Name: **Terminal Apron Expansion**
 Department: **Airport**
 Physical Location: **Keene Dillant-Hopkins Airport**
 Federal Mandate: **Title 49, US Code, Subtitle VII**
 State Regulation or Law:
 Master Plan (CMP) Focus Area: **Vibrant Economy**
 CMP Vision/Strategy: **Infrastructure**
 Council Initiative: **N/A**
 V.O.I.C.E.: **Continually Assess Facilities and Infrastructure**
 Departmental Objective: **To expand airside capacity at the airport terminal**



PROJECT DESCRIPTION/JUSTIFICATION

The Airport terminal parking apron, covering an area of approximately 8,200 square yards, has, depending on size, the capacity to hold 15 to 19 aircraft. The larger the aircraft the more difficult to maneuver and park causing challenges for the fixed base operator (FBO) as well as pilots. The area is frequently congested and is projected to get more congested as air traffic increases due to airport marketing efforts. The airport owns ample space to expand the apron by adding pavement and tie downs in the area between the current apron and the unused taxi lane. This expansion will double the area available for use. Completion of this project is subject to receipt of grants from the FAA and the NHDOT Bureau of Aeronautics. These are equal to 90% and 5%, respectively. The final 5% of funding will be the responsibility of the City.

FINANCIAL PLAN & PROJECT SCHEDULE

	PRIOR YR	FY19	FY20	FY21	FY22	FY23	FY24	TOTAL
EXPENDITURES								
Design								0
Construction/Implementation					1,300,000			1,300,000
Property/Equip. Acquisition								0
TOTAL	\$0	\$0	\$0	\$0	\$1,300,000	\$0	\$0	\$1,300,000
FUNDING								
Current Revenue					65,000			65,000
Capital Reserve								0
Debt Funded								0
Federal or State Grants					1,235,000			1,235,000
Other Sources								0
TOTAL	\$0	\$0	\$0	\$0	\$1,300,000	\$0	\$0	\$1,300,000

ANNUAL DEPARTMENT OPERATING BUDGET IMPACT: Negligible <\$5,001 Ongoing

PROJECT STATUS: Ongoing CIP

Flood and Stormwater Management – programs, activities, and projects which are intended to prevent and remediate conditions leading to localized flooding due to more frequently occurring major precipitation events through preventative maintenance, drainage system improvements, and comprehensive storm water infrastructure planning.

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Drainage Cleaning	175
Stormwater Spot Repairs	176
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Flooding and Stormwater Management

The City of Keene sits on the valley floor at the bottom of a glacial lakebed. There are 5 watersheds and numerous brooks and streams that flow through the City. These bodies of water are used by the community to receive stormwater from City streets and private properties. The City has been attempting to manage stormwater and flood waters since the mid 1800's. As the City developed, open ditches were first constructed to convey this stormwater and over time these open ditches were enclosed and additional receptors and pipes were installed creating a complex network of pipes and open ditches that merge with streams to move stormwater through the City. Today this equates to over 5,000 stormwater basins, over 80 miles of stormwater mains and lines, over 10 miles of open ditches, and the maintenance and management of three (3) high hazard dams. The community has modified numerous waterways (Ash Swamp Brook, Beaver Brook, and Black Brook) to improve the drainage characteristics of these streams to allow for additional use and development of land. The City and State of New Hampshire has been subject to changing weather patterns. Intense wet weather events are occurring at higher frequency with higher amounts of precipitation. This has stressed the City's 175+ year old stormwater system.

The City approaches the management of the stormwater system and flooding through the maintenance, evaluation, and improvement of existing components and the construction of new components to provide increased capacity and functionality. To accomplish maintenance of the functionality and capacity of the existing components this is accomplished through the Capital Improvement Program(CIP) by the Stormwater Drainage Cleaning Project, the Stormwater Spot Repairs, the Stormwater System Management, and Flood Management Projects. These projects address the maintenance of the catch basins and storm lines to ensure that the system is operating as best it can along with projects that review problem areas and develop localized solutions to flood and stormwater management issues.

The City also develops projects that review and develop options to increase capacity and functionality to address stormwater and flooding problems. Through the CIP this is accomplished through the Beaver Brook Hydrologic and Hydraulic Analysis, and the Goose Pond Dam Improvement Projects which provide analysis of, and direction for, changes in the City's stormwater system.

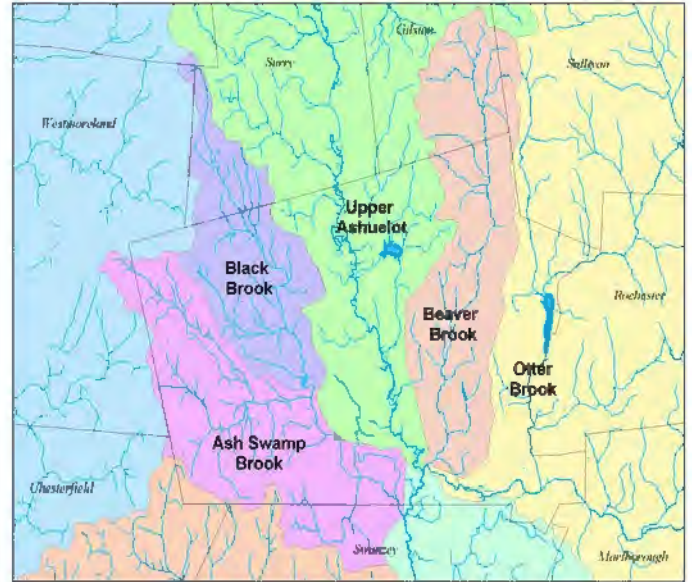
Priority for projects is based on the review of impacts, goals within the City's Comprehensive Master Plan, and input from the community. Overall the City works to balance the need to maintain the function and operations of the existing stormwater system, review and address problem areas, and develop future solutions to address flooding and the cost of these needs to the property owners.

CITY OF KEENE, NEW HAMPSHIRE

2019 - 2024 Capital Project Funding Request

GENERAL PROJECT DATA

Project Name: **Beaver Brook Flood Mitigation**
 Department: **Public Works - General Fund**
 Physical Location: **Various**
 Federal Mandate: **N/A**
 State Regulation or Law: **N/A**
 Master Plan (CMP) Focus Area: **Quality Built Environment**
 CMP Vision/Strategy: **Infrastructure**
 Council Initiative: **N/A**
 V.O.I.C.E.: **Continually Assess Facilities and Infrastructure**
 Departmental Objective: **Maintain critical infrastructure.**



PROJECT DESCRIPTION/JUSTIFICATION

The Beaver Brook flows along the east side of the City through residential neighborhoods. It then empties into the Ashuelot River near the intersection of Main Street and Route 101. This brook has a history of overflowing its banks and causing significant flood damage. In 2005, 2012, and 2013 large areas of the City along the brook were impacted by flood waters. The City also experiences impacts from climate change with more intense and more frequent rain events. This project will perform a hydrologic and hydraulic analysis of the Beaver Brook watershed for various storm events (5, 10, 50, 100, and 500 year). The City will use the latest rain data to perform this analysis. This project will allow the City to develop a flood management master plan for Beaver Brook. Strategies within this plan may include the creation of flood water storage areas, identification of obstructions that need to be removed, and upgrade of properties that could be considered for flood proofing or removal to address flooding. This will also support a number of high-priority projects in the City's 2013 Hazard Mitigation Plan.

In 2016, City staff met with the Army Corps of Engineers(USACE) to discuss a collaborative project. Under this arrangement, the USACE will perform this analysis with the City being responsible for a 50% match in consulting fees after the first \$100,000. The City will benefit from a more detailed analysis and recommendations for future flood mitigation projects.

Prior CIP's have authorized funds for the detailed Hydrologic and Hydraulic analysis. This work is expected to be completed by the end of 2018. The City anticipates that the project will result in recommendations for projects designed to decrease the frequency and severity of flooding along Beaver Brook. Funds are requested in FY24 to begin implementing the recommended projects.

FINANCIAL PLAN & PROJECT SCHEDULE

	PRIOR YR	FY19	FY20	FY21	FY22	FY23	FY24	TOTAL
EXPENDITURES								
Design								0
Construction/Implementation							500,000	500,000
Property/Equip. Acquisition								0
TOTAL	\$0	\$0	\$0	\$0	\$0	\$0	\$500,000	\$500,000
FUNDING								
Current Revenue								0
Capital Reserve								0
Debt Funded							500,000	500,000
Federal or State Grants								0
Other Sources								0
TOTAL	\$0	\$0	\$0	\$0	\$0	\$0	\$500,000	\$500,000

ANNUAL DEPARTMENT OPERATING BUDGET IMPACT: No impact
Ongoing

PROJECT STATUS: Ongoing CIP

Flood Management Projects

PROJECT	DESCRIPTION	OBJECTIVE	FY	CONSTRUCTION ESTIMATE
Roxbury Street	Construct 60" drain line from Beaver Brook to existing 48" drain. Construct 36" drain from existing 48" drain to Town Brook outlet. Replaces the existing 36" brick arch on Roxbury Street	Manage increased flow and reduce localized street flooding in the Vernon Street / Elm Street area	20	\$861,380
Church Street	Construct 48" drain line from Church Street to Beaver Brook. Supplements existing 30" tile drain	Manage increased flow in system and reduce localized street flooding in the Church St., Roxbury St. area. Phase 1 of several phases in this area.	22	\$259,325
Central Square	Construct 30" drain from Court Street thru Central Square, down Roxbury Street to the Town Brook outlet Replaces existing 12" tile drain	Manage increased runoff, improve flows, and reduce localized street flooding on Court Street and side Streets from Central Square to Mechanic Street.	22	\$191,455
Main Street	Construct 24" drain on Main Street from Eagle Court to Water Street Replaces existing 8" tile drain	Manage increased runoff, improve flows, and reduce localized street flooding of Main Street	22	\$126,600
Church Street / Probate Street	Construct 36" drain line, Church Street from Carpenter Street to Probate Street, Probate Street to Roxbury Street Replaces existing 12" tile line	Manage increased runoff, improve flows, and to reduce localized street flooding in the Church Street, Roxbury Street area Phase 2 of several phases in this area	24	\$712,500
Edwards Street	Construct 30" drain line from Church Street to Roxbury Street Replaces existing 12" tile drain	Manage increased runoff, improve flows, and reduce localized street flooding in the Church Street, Roxbury Street area. Phase 3 of several phases in this area	26	\$300,000
Charles Street	Extend drainage line from George Street to low area on Charles Street	To reduce drainage issues to properties west and down gradient, of Charles Street	26	\$100,000
Key Road	Replace existing 48" CMP drain pipe crossing Key Road	Replace existing deteriorated and failing pipe	26	\$120,000
Colonial Drive	Replace existing 15"-24" CMP drain pipes from Colonial Drive to outfall near Tenant Swamp	Reduce repetitive local flooding	28	\$350,000
CONSTRUCTION ESTIMATE TOTAL				\$3,021,260

CITY OF KEENE, NEW HAMPSHIRE 2019 - 2024 Capital Project Funding Request

GENERAL PROJECT DATA

Project Name: **Flood Management Projects**
 Department: **Public Works - General Fund**
 Physical Location: **Various**
 Federal Mandate: **N/A**
 State Regulation or Law: **N/A**
 Master Plan (CMP) Focus Area: **Quality Built Environment**
 CMP Vision/Strategy: **Infrastructure**
 Council Initiative: **N/A**
 V.O.I.C.E.: **Continually Assess Facilities and Infrastructure**
 Departmental Objective: **Maintain critical infrastructure.**



PROJECT DESCRIPTION/JUSTIFICATION

The City is experiencing changes in its weather patterns. Severe weather events are occurring at a higher frequency. Keene is experiencing rainfall events that are of short duration and high intensity. The storm water system was constructed over the last 100 years with different design standards. As a result of these more intense rain events, the City's storm water system cannot handle the resulting flows. This causes localized street flooding that impacts the community and individual properties. The City is addressing the changing patterns and its impacts through a series of short-term and long-term goals. These include ongoing maintenance and inspection of the storm water system, identification of small improvements, and watershed analysis. The City has identified areas that have repetitive localized flooding issues.

FINANCIAL PLAN & PROJECT SCHEDULE

	PRIOR YR	FY19	FY20	FY21	FY22	FY23	FY24	TOTAL
EXPENDITURES								
Design			129,207		86,607		106,875	322,689
Construction/Implementation			732,173		490,773		605,625	1,828,571
Property/Equip. Acquisition								0
TOTAL	\$0	\$0	\$861,380	\$0	\$577,380	\$0	\$712,500	\$2,151,260
FUNDING								
Current Revenue								0
Capital Reserve								0
Debt Funded			861,380		577,380		712,500	2,151,260
Federal or State Grants								0
Other Sources								0
TOTAL	\$0	\$0	\$861,380	\$0	\$577,380	\$0	\$712,500	\$2,151,260

ANNUAL DEPARTMENT OPERATING BUDGET IMPACT: No impact
Multi-year

PROJECT STATUS: Ongoing CIP

CITY OF KEENE, NEW HAMPSHIRE

2019 - 2024 Capital Project Funding Request

GENERAL PROJECT DATA

Project Name: **Goose Pond Dam Improvements**
 Department: **Public Works - General Fund**
 Physical Location: **Goose Pond**
 Federal Mandate: **NO**
 State Regulation or Law: **YES**
 Master Plan (CMP) Focus Area: **Quality Built Environment**
 CMP Vision/Strategy: **Healthy Living**
 Council Initiative: **Policy**
 V.O.I.C.E.: **Continually Assess Facilities and Infrastructure**
 Departmental Objective: **Maintain critical infrastructure.**



PROJECT DESCRIPTION/JUSTIFICATION

This project began in FY11 with funds to complete a Dam Master Plan for all City dams including the 1868 Goose Pond Dam and Berm. The Dam Master Plan addresses concerns expressed in Letters of Deficiencies (LOD) from NH Department of Environmental Services related to this dam's inoperable outlet drain and embankments (berm) requiring the City to submit a plan to address these deficiencies. The Goose Pond Dam structure, which includes its berm, is classified as "high hazard" indicating its failure could result in the loss of life downstream. Because the dam and berm provide a recreation benefit, it is in the City's interest to strengthen them.

FY17 allocated funds for evaluation, design, and permitting of improvements. Construction is proposed for FY19. Requested funds have been adjusted based on preliminary design estimates prepared by the City's Consultant in the fall of 2017.

FINANCIAL PLAN & PROJECT SCHEDULE

	PRIOR YR	FY19	FY20	FY21	FY22	FY23	FY24	TOTAL
EXPENDITURES								
Design								0
Construction/Implementation		879,400						879,400
Property/Equip. Acquisition								0
TOTAL	\$0	\$879,400	\$0	\$0	\$0	\$0	\$0	\$879,400
FUNDING								
Current Revenue								0
Capital Reserve								0
Debt Funded		879,400						879,400
Federal or State Grants								0
Other Sources								0
TOTAL	\$0	\$879,400	\$0	\$0	\$0	\$0	\$0	\$879,400

ANNUAL DEPARTMENT OPERATING BUDGET IMPACT: Negligible<\$5,001
Ongoing

PROJECT STATUS: Ongoing CIP

CITY OF KEENE, NEW HAMPSHIRE

2019 - 2024 Capital Project Funding Request

GENERAL PROJECT DATA

Project Name: **Drainage Cleaning**
 Department: **PUBLIC WORKS**
 Physical Location: **Various**
 Federal Mandate: **N/A**
 State Regulation or Law: **N/A**
 Master Plan (CMP) Focus Area: **Quality Built Environment**
 CMP Vision/Strategy: **Infrastructure**
 Council Initiative: **N/A**
 V.O.I.C.E.: **Continually Assess Facilities and Infrastructure**
 Departmental Objective: **Maintain transportation network and manage storm water to reduce potential for flooding.**



PROJECT DESCRIPTION/JUSTIFICATION

The capturing, removal, and treatment of stormwater is critical to maintaining the condition of the City's streets and other impervious systems. The Highway Division oversees an ongoing drain cleaning program. The daily average for cleaning catch basin sumps (using a private contractor) is 30 per day. This ongoing program will maintain the 5,000 basins located in the City. Approximately 1,250 catch basin sumps are maintained per year. A private contractor will also provide services for drain line cleaning/flushing on the City's 80 mile network of drain lines. Funding levels provide for approximately 16 miles of drain lines to be inspected each year resulting in all drain lines being inspected and cleaned as necessary every 3 years. Design costs include 10 days each year to record video and identify areas where blockages are backing up the system or to identify areas needing spot repair (costs for spot repair are on a separate CIP page). Note: Costs have been inflated 3% per year.

FINANCIAL PLAN & PROJECT SCHEDULE

	PRIOR YR	FY19	FY20	FY21	FY22	FY23	FY24	TOTAL
EXPENDITURES								
Design		15,450	15,913	16,390	16,882	17,389	17,911	99,934
Construction/Implementation		49,440	50,923	52,451	54,025	55,645	57,315	319,799
Property/Equip. Acquisition								0
TOTAL	\$0	\$64,890	\$66,836	\$68,841	\$70,907	\$73,034	\$75,225	\$419,733
FUNDING								
Current Revenue		64,890	66,836	68,841	70,907	73,034	75,225	419,733
Capital Reserve								0
Debt Funded								0
Federal or State Grants								0
Other Sources								0
TOTAL	\$0	\$64,890	\$66,836	\$68,841	\$70,907	\$73,034	\$75,225	\$419,733

ANNUAL DEPARTMENT OPERATING BUDGET IMPACT: Reduce - will reduce operating costs Ongoing
PROJECT STATUS: Ongoing CIP

CITY OF KEENE, NEW HAMPSHIRE

2019 - 2024 Capital Project Funding Request

GENERAL PROJECT DATA

Project Name: **Stormwater Spot Repairs**
 Department: **PUBLIC WORKS**
 Physical Location: **Various**
 Federal Mandate: **N/A**
 State Regulation or Law: **N/A**
 Master Plan (CMP) Focus Area: **Quality Built Environment**
 CMP Vision/Strategy: **Infrastructure**
 Council Initiative: **N/A**
 V.O.I.C.E.: **Continually Assess Facilities and Infrastructure**
 Departmental Objective: **Maintain transportation network and manage storm water to reduce potential for flooding.**



PROJECT DESCRIPTION/JUSTIFICATION

The Public Works Department uses a multi-pronged approach to sustaining the City's stormwater drainage system. The capturing, removal, and treatment of stormwater is critical to maintaining the condition of the City's streets and other impervious systems. The City maintains over 80 miles of storm drains and over 5,000 catch basins. This project sets aside funding for spot repairs to the storm water system based, in part, from the camera inspection program funded in the drainage cleaning funding request. This includes removing blockages and addressing isolated deficiencies to ensure the system works at capacity.

Work under this program is typically coordinated with roadway rehabilitation projects in order to correct problems with the drains before the road is resurfaced. In FY 19, we anticipate funding to be used primarily on Gilsum, Marlboro and Woodbury Streets.

FINANCIAL PLAN & PROJECT SCHEDULE

	PRIOR YR	FY19	FY20	FY21	FY22	FY23	FY24	TOTAL
EXPENDITURES								
Design								0
Construction/Implementation		63,571	65,478	68,752	70,815	72,939	75,128	416,683
Property/Equip. Acquisition								0
TOTAL	\$0	\$63,571	\$65,478	\$68,752	70,815	\$72,939	\$75,128	\$416,683
FUNDING								
Current Revenue	129,049	0	0	68,752	70,815	72,939	75,128	416,683
Capital Reserve								0
Debt Funded								0
Federal or State Grants								0
Other Sources								0
TOTAL	\$129,049	\$0	\$0	\$68,752	\$70,815	\$72,939	\$75,128	\$416,683

ANNUAL DEPARTMENT OPERATING BUDGET IMPACT: Negligible<\$5,001
Ongoing

PROJECT STATUS: Ongoing CIP

CITY OF KEENE, NEW HAMPSHIRE

2019 - 2024 Capital Project Funding Request

GENERAL PROJECT DATA

Project Name: Stormwater Management System Analysis
Department: PUBLIC WORKS
Physical Location: Various
Federal Mandate: N/A
State Regulation or Law: N/A
Master Plan (CMP) Focus Area: Quality Built Environment
CMP Vision/Strategy: Infrastructure
Council Initiative: N/A
V.O.I.C.E.: Continually Assess Facilities and Infrastructure
Departmental Objective: Maintain critical infrastructure.



PROJECT DESCRIPTION/JUSTIFICATION

This project provides funds to perform hydraulic analysis of the various watersheds throughout the City. It also provides funding for analysis of flood-prone areas. The analysis will provide information to help identify potential mitigation projects. It is proposed to start reviews within the Beaver Brook watershed. A component of this project is to review areas that are prone to street flooding (Roxbury and Gurnsey Streets, Church and Carpenter Streets, Winchester and Ralston Streets, etc.) to determine if there are low impact, low cost changes or improvements that can be completed to relieve the flooding. Results from this work will be incorporated into future CIP requests for operating budgets depending on the scope of the improvement.

FINANCIAL PLAN & PROJECT SCHEDULE

	PRIOR YR	FY19	FY20	FY21	FY22	FY23	FY24	TOTAL
EXPENDITURES								
Design		40,000	41,200	42,436	43,709	45,020	46,371	258,736
Construction/Implementation								0
Property/Equip. Acquisition								0
TOTAL	\$0	\$40,000	\$41,200	\$42,436	\$43,709	\$45,020	\$46,371	\$258,736
FUNDING								
Current Revenue	123,636				43,709	45,020	46,371	258,736
Capital Reserve								0
Debt Funded								0
Federal or State Grants								0
Other Sources								0
TOTAL	\$123,636	\$0	\$0	\$0	\$43,709	\$45,020	\$46,371	\$258,736

ANNUAL DEPARTMENT OPERATING BUDGET IMPACT: No impact
N/A

PROJECT STATUS: Ongoing CIP

CITY OF KEENE, NEW HAMPSHIRE

2019 - 2024 Capital Project Funding Request

GENERAL PROJECT DATA

Project Name: **Drainage Pipe Lining**
 Department: **PUBLIC WORKS**
 Physical Location: **Various**
 Federal Mandate: **N/A**
 State Regulation or Law: **N/A**
 Master Plan (CMP) Focus Area: **Quality Built Environment**
 CMP Vision/Strategy: **Infrastructure**
 Council Initiative: **N/A**
 V.O.I.C.E.: **Continually Assess Facilities and Infrastructure**
 Departmental Objective: **Maintain critical infrastructure.**



PROJECT DESCRIPTION/JUSTIFICATION

The City currently has an inventory of approximately 20.2 miles of metal drainage pipes. Over 17 miles were installed before 1980. The majority of these pipes have now exceeded their anticipated 30 year service life and will need to be replaced or repaired. The total cost to replace these pipes exceeds \$3.2 million

In the summer of 2017, a short section of metal drainage pipe near the Baker Street bridge over Beaver Brook collapsed, causing the closure of the west-bound lane for several months. We can expect this type of disruptive failure to continue.

The proposed funding would allow the pre-1980 pipes to be lined in place over a period of 30 years. It is likely that some segments will be unsuitable for lining due to advanced deterioration. In these cases, more costly replacement or spot repairs will be needed. Therefore, the actual time to complete this work will likely exceed 40 years.

FINANCIAL PLAN & PROJECT SCHEDULE

	PRIOR YR	FY19	FY20	FY21	FY22	FY23	FY24	TOTAL
EXPENDITURES								
Design								
Construction/Implementation						120,000	123,600	243,600
Property/Equip. Acquisition								0
TOTAL	\$0	\$0	\$0	\$0	\$0	\$120,000	\$123,600	\$243,600
FUNDING								
Current Revenue				0	0	120,000	123,600	243,600
Capital Reserve								0
Debt Funded								0
Federal or State Grants								0
Other Sources								0
TOTAL	\$0	\$0	\$0	\$0	\$0	\$120,000	\$123,600	\$243,600

ANNUAL DEPARTMENT OPERATING BUDGET IMPACT: Negligible<\$5,001
N/A

PROJECT STATUS: New Project

Community Development - programs, activities, and projects which are intended to add to or significantly expand the capacity of community infrastructure or facilities. The primary goal of these activities is to improve the quality of life in the community and to meet the needs of a changing community.

Project Name	Page
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CITY OF KEENE, NEW HAMPSHIRE

2019 - 2024 Capital Project Funding Request

GENERAL PROJECT DATA

Project Name: **Carpenter Field**
 Department: **Parks & Recreation**
 Physical Location: **Carpenter Street**
 Federal Mandate: **N/A**
 State Regulation or Law: **N/A**
 Master Plan (CMP) Focus Area: **Quality Built Environment**
 CMP Vision/Strategy: **Healthy Living**
 Council Initiative: **N/A**
 V.O.I.C.E.: **Continually Assess Facilities and Infrastructure**
 Departmental Objective: **Master Plan Recommendation #3 Determine the best and most appropriate uses of each park and whether they should be repurposed or reconfigured to maximize their service to the community**

FINAL DESIGN: A DESTINATION FOR ALL

CLIENT (CITY OF KEENE) GOALS

- Create additional uses while maintaining existing uses
- Develop multi-generational attractions and uses
- Improve access from downtown
- Improve the aesthetics of the field
- Create a more vibrant presence within the neighborhood
- Explore flood storage potential
- Improve drainage for the playing field

PUBLIC GOALS

- Create a walking circuit
- Provide easier and safer access from downtown and Cheshire Rail Trail
- Install bollards
- Improve the quality of the athletic field
- Improve seating
- Acquire adjacent vacant properties
- Provide for universal accessibility
- Provide lighting
- Increase vegetation
- Improve the playground
- Designate a parking area

PROJECT DESCRIPTION/JUSTIFICATION

Carpenter Street Field located outside the downtown footprint along Beaver Brook and the Cheshire Rail Trail, plays a significant role in restoring recreational opportunities to the east side of the City. Through a public process of meetings and online discussion boards with the Conway School of Landscape Design, a definitive statement from the community highlighted that the park needs to be developed for multi-generational use to create a safe place for recreation. Specific design elements were to include a playground, multiple seating opportunities, walking trail, parking, pavilion, vegetated buffer along the brook, connection to the rail trail, and an athletic field. The field would remain the centerpiece of the park, which would require a delineated pitch to improve the storm drainage back to Beaver Brook. These enhancements to the field will provide a quality turf experience for the multiple user groups that currently utilize the field.

The vision for this project will create a valuable asset for the east side and the entire community, in addition to City support, funding through grants will be sought utilizing the Building a Spirit of Place initiative.

FINANCIAL PLAN & PROJECT SCHEDULE

	PRIOR YR	FY19	FY20	FY21	FY22	FY23	FY24	TOTAL
EXPENDITURES								
Design								0
Construction/Implementation				1,500,000				1,500,000
Property/Equip. Acquisition								0
TOTAL	\$0	\$0	\$0	\$1,500,000	\$0	\$0	\$0	\$1,500,000
FUNDING								
Current Revenue								0
Capital Reserve								0
Debt Funded				1,500,000				1,500,000
Federal or State Grants								0
Other Sources								0
TOTAL	\$0	\$0	\$0	\$1,500,000	\$0	\$0	\$0	\$1,500,000

ANNUAL DEPARTMENT OPERATING BUDGET IMPACT: Negligible < \$5,001 Ongoing

PROJECT STATUS: Ongoing CIP

CITY OF KEENE, NEW HAMPSHIRE

2019 - 2024 Capital Project Funding Request

GENERAL PROJECT DATA

Project Name: **Robin Hood Pool Improvements**
 Department: **Parks & Recreation**
 Physical Location: **Robin Hood Park**
 Federal Mandate: **N/A**
 State Regulation or Law: **N/A**
 Master Plan (CMP) Focus Area: **Healthy Community**
 CMP Vision/Strategy: **Maintaining Neighborhoods**
 Council Initiative: **N/A**
 V.O.I.C.E.: **Continually Assess Facilities and Infrastructure**
 Departmental Objective: **Master Plan Recommendation #11 Provide equal access and adequate mix of facilities, trails and open space throughout the City.**



PROJECT DESCRIPTION/JUSTIFICATION

The City has two outdoor summer facilities: Robin Hood Park Pool, located on the east side, and Wheelock Park Pool on the west side. Both pools were installed in 1967 as a gift from the Keene Lions Club. The additional development of water activities to Robin Hood Park on the east side is a focus on social equity and facility improvements. Along with adding a slide, public umbrellas will be installed for sun protection enhancing the pool area for family enjoyment.

FINANCIAL PLAN & PROJECT SCHEDULE

	PRIOR YR	FY19	FY20	FY21	FY22	FY23	FY24	TOTAL
EXPENDITURES								
Design								0
Construction/Implementation		25,000						25,000
Property/Equip. Acquisition								0
TOTAL	\$0	\$25,000	\$0	\$0	\$0	\$0	\$0	\$25,000
FUNDING								
Current Revenue		25,000						25,000
Capital Reserve								0
Debt Funded								0
Federal or State Grants								0
Other Sources								0
TOTAL	\$0	\$25,000	\$0	\$0	\$0	\$0	\$0	\$25,000

ANNUAL DEPARTMENT OPERATING BUDGET IMPACT: Negligible<\$5,001 Ongoing

PROJECT STATUS: Ongoing CIP

CITY OF KEENE, NEW HAMPSHIRE

2019 - 2024 Capital Project Funding Request

GENERAL PROJECT DATA

Project Name: **Skate Park**
 Department: **Parks & Recreation**
 Physical Location: **Wheelock Park**
 Federal Mandate: **N/A**
 State Regulation or Law: **N/A**
 Master Plan (CMP) Focus Area: **Healthy Community**
 CMP Vision/Strategy: **Collaborative Community Planning**
 Council Initiative: **N/A**
 V.O.I.C.E.: **Continually Assess Facilities and Infrastructure**
 Departmental Objective: **Master Plan Recommendation # 4 - Develop a comprehensive capital equipment and park asset replacement plan**



PROJECT DESCRIPTION/JUSTIFICATION

In 2015, the City matched a community fundraising effort to hire a company to develop a conceptual design and cost estimate for the proposed skate park in Wheelock Park. Spohn Ranch Skateparks delivered a proposal in collaboration with two public meetings and was able to design and refine the various elements of a successful park to meet the needs of our community. A 12,000 square foot concrete facility was developed as a park for users of every age and ability, and to create a destination for generations to come. The recommendations of the Ad-Hoc Skateboard Park Relocation Committee were considered in conjunction with those advanced by the Active and Passive Recreation Management Plan throughout the design process. Advocates for the new facility will need to begin a capital campaign for anticipation of construction in 2020.

FINANCIAL PLAN & PROJECT SCHEDULE

	PRIOR YR	FY19	FY20	FY21	FY22	FY23	FY24	TOTAL
EXPENDITURES								
Design								0
Construction/Implementation			500,000					500,000
Property/Equip. Acquisition								0
TOTAL	\$0	\$0	\$500,000	\$0	\$0	\$0	\$0	\$500,000
FUNDING								
Current Revenue								0
Capital Reserve								0
Debt Funded								0
Federal or State Grants								0
Other Sources			500,000					500,000
TOTAL	\$0	\$0	\$500,000	\$0	\$0	\$0	\$0	\$500,000

ANNUAL DEPARTMENT OPERATING BUDGET IMPACT: Negligible<\$5,001
Ongoing

PROJECT STATUS: Ongoing CIP

CITY OF KEENE, NEW HAMPSHIRE

2019 - 2024 Capital Project Funding Request

GENERAL PROJECT DATA

Project Name: **Municipal Park Improvements**
 Department: **Parks & Recreation**
 Physical Location: **Various**
 Federal Mandate: **N/A**
 State Regulation or Law: **N/A**
 Master Plan (CMP) Focus Area: **Healthy Community**
 CMP Vision/Strategy: **Healthy Living**
 Council Initiative: **N/A**
 V.O.I.C.E.: **Continually Assess Facilities and Infrastructure**
 Departmental Objective: **Master Plan Recommendation # 4 - Develop a comprehensive capital equipment and park asset replacement plan**



PROJECT DESCRIPTION/JUSTIFICATION

The parks system within the City of Keene has aged well with a high level of attentive maintenance. Now, almost 60 years later, most of the facilities need attention beyond routine maintenance or need to be replaced. In 2012, the City adopted the Active and Passive Recreation Management Plan which outlined the need to create a comprehensive capital improvement plan. This plan resulted in specific focuses including the Carpenter Street project, the skate park, pool filters, and pool and tennis court resurfacing. These projects have been planned or implemented. However, the need for routine maintenance on many park features is not only recommended, but needed, especially in the climate of New Hampshire.

The City of Keene identifies itself as having well maintained parks and trails for all ages to enjoy. In order to continue this level of service, necessary improvements need to be met for the purpose of maintaining a community that is attractive for those who want to live, work and play in the city. A prioritization plan has been put forth based on routine and needed maintenance. In addition to the 2012 Management Plan, in 2013 the EMG report provided a blueprint for park and cemetery facilities. These recommendations were also considered into the project schedule.

FINANCIAL PLAN & PROJECT SCHEDULE

	PRIOR YR	FY19	FY20	FY21	FY22	FY23	FY24	TOTAL
EXPENDITURES								
Design								0
Construction/Implementation		90,000	50,000	50,000	50,000	75,000	75,000	390,000
Property/Equip. Acquisition								0
TOTAL	\$0	\$90,000	\$50,000	\$50,000	\$50,000	\$75,000	\$75,000	\$390,000
FUNDING								
Current Revenue		50,000	50,000	50,000	50,000	75,000	75,000	350,000
Capital Reserve								0
Debt Funded								0
Federal or State Grants								0
Trust Funds		40,000						40,000
TOTAL	\$0	\$90,000	\$50,000	\$50,000	\$50,000	\$75,000	\$75,000	\$390,000

ANNUAL DEPARTMENT OPERATING BUDGET IMPACT: Negligible<\$5,001
Ongoing

PROJECT STATUS: New Project

CITY OF KEENE, NEW HAMPSHIRE

2019 - 2024 Capital Project Funding Request

GENERAL PROJECT DATA

Project Name: **West Keene Fire Station Study**
 Department: **Fire Department**
 Physical Location: **110 Hastings Avenue**
 Federal Mandate: **N/A**
 State Regulation or Law: **N/A**
 Master Plan (CMP) Focus Area: **Healthy Community**
 CMP Vision/Strategy: **Emergency Preparedness**
 Council Initiative: **N/A**
 V.O.I.C.E.: **Continually Assess Facilities and Infrastructure**
 Departmental Objective: **Provide Emergency Response**



PROJECT DESCRIPTION/JUSTIFICATION

The West Keene Fire Station is currently located at 110 Hastings Avenue. The State of NH is currently in the process of transferring this property and building back to the City of Keene as they have determined the building is no longer needed for the NH National Guard. It is expected that the ownership will be transferred by Dec. 31, 2017. The requested funds will allow us to review the needs of the facility and to determine if this location and building is the best location and most economical to provide the Fire/EMS services to the West Keene area.

FINANCIAL PLAN & PROJECT SCHEDULE

	PRIOR YR	FY19	FY20	FY21	FY22	FY23	FY24	TOTAL
EXPENDITURES								
Design		20,000						20,000
Construction/Implementation								0
Property/Equip. Acquisition								0
TOTAL	\$0	\$20,000	\$0	\$0	\$0	\$0	\$0	\$20,000
FUNDING								
Current Revenue		20,000						20,000
Capital Reserve								0
Debt Funded								0
Federal or State Grants								0
Other Sources								0
TOTAL	\$0	\$20,000	\$0	\$0	\$0	\$0	\$0	\$20,000

ANNUAL DEPARTMENT OPERATING BUDGET IMPACT:

N/A

PROJECT STATUS:

Ongoing CIP

General Operations Facilities and Infrastructure - programs, activities, and projects which are intended to maintain and provide facilities, infrastructure, and equipment necessary for the provision of basic governmental services. The primary goal of these activities is to maintain City operational assets in good working order in an environmentally friendly and economically efficient manner.

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MUNICIPAL BUILDING IMPROVEMENTS

In 2013 The City hired EMG Corporation to perform a survey of all City facilities. The survey provides an organized management tool for the City to maintain and improve its facilities. The report reflects the present condition and the expected life of various system components. The City prioritized the following projects for the current CIP cycle:

Year	Location	Scope of Work	Estimated Cost	Total Cost for Fiscal Year
2019	IT area City Hall / EOC	Add fresh air make up unit with reheat unit	\$10,000	\$100,000
	Parks and Recreation Center	Paint interior Gym walls. Coordinate with gym floor refinish.	\$20,000	
	Public Works Building	Prep and paint rear exterior of building.	\$20,000	
	City hall	Replace Carpet 4 th floor main area, New flooring Conference room,	\$25,000	
		Held in reserve for new priorities	\$25,000	
2020	Multiple Facilities	Replace carpet and flooring.	\$20,000	\$100,000
	City Hall and Marlboro St. complex	Replace obsolete fire alarm panels.	\$12,500	
	City Hall	Upgrade elevator.	\$20,000	
	Revenue City Hall	Add fresh air make up unit with reheat unit	\$10,000	
	Parks and Recreation Center	Bathroom renovations 1 st floor.	\$15,000	
		Held in reserve for new priorities	\$22,500	
2021	Multiple Facilities	Replace carpet and flooring.	\$20,000	\$100,000
	City Hall	2nd and 4 th floor bathroom renovations	\$20,000	
	City Hall	Prep and paint exterior of building trim work	\$30,000	
		Held in reserve for new priorities	\$30,000	
2022	Public Works building	Replace VCT flooring.	\$25,000	\$100,000
	Central fire station	Overhaul garage doors	\$30,000	
	Parks and Recreation Center	Replace generator	\$20,000	
		Held in reserve for new priorities	\$25,000	
2023	Public Works building	Replace EPDM roof over Admin	\$66,000	\$100,000
		Held in reserve for new priorities	\$34,000	
2024	Parks and Recreation	Replace Boilers two (2) with 2 condensing high efficiency gas boilers	\$80,000	\$100,000
		Held in reserve for new priorities	\$20,000	
2025	City Hall	Asbestos removal 1 st floor IT in ceilings new ceiling grid	\$40,000	\$100,000
	Central Fire Station	Resurface apparatus floors	\$30,000	
		Held in reserve for new priorities.	\$30,000	
2026	Library	Prep and Paint trim	\$30,000	\$100,000
	City Hall	Replace ballasted EPDM roof 4 th floor with PVC	\$65,000	
		Held in reserve for new priorities.	\$5,000	
2027	City Hall	Repoint Brickwork	\$62,000	\$100,000
	Public works building	Replace Hot water tank/pumps	\$12,000	
		Held in reserve for new priorities.	\$16,000	
2028	City Hall	Replace 4 th floor rooftop package unit HVAC system gas	\$15,000	\$100,000
	Parks and Recreation Center	Replace PVC roof system over Multipurpose room	\$35,000	
		Held in reserve for new priorities.	\$50,000	
2028	Central Fire Station	Repoint brickwork	\$30,000	\$100,000
	Police department	Replace rooftop package HVAC unit gas Heat, 20 ton cooling	\$35,000	
		Held in reserve for new priorities.		

CITY OF KEENE, NEW HAMPSHIRE

2019 - 2024 Capital Project Funding Request

GENERAL PROJECT DATA

Project Name: **Municipal Building Improvements**
 Department: **Facilities**
 Physical Location: **Administration**
 Federal Mandate: **Some**
 State Regulation or Law: **Some**
 Master Plan (CMP) Focus Area: **Quality Built Environment**
 CMP Vision/Strategy: **Community Sustainability**
 Council Initiative: **N/A**
 V.O.I.C.E.: **Continually Assess Facilities and Infrastructure**
 Departmental Objective: **Maintain safe buildings**



PROJECT DESCRIPTION/JUSTIFICATION

The Facilities Survey conducted by EMG Corporation in 2013 has provided an organized management tool for the division to utilize in an effort to maintain and address principal systems. The report reflects the present condition and the expected life of the systems components. Through an annual review of the process of the EMG report, the identification of the project life cycles can be resolved. The process will constantly alter and reprioritize the improvements among all City facilities. Projects already identified at City Hall, the Municipal Services Complex, the Recreation Center, and the Police Department will focus on updates that improve efficiencies in the energy and heating consumption. In the future the Municipal Services Complex will need heat pumps replaced and the Recreation Center will need a new boiler system.

Therefore, in FY 2019 the priority will be the interior (Recreation Center) and exterior (Public Works) wall painting, and a new make up air unit for the IT area of City Hall.

FINANCIAL PLAN & PROJECT SCHEDULE

	PRIOR YR	FY19	FY20	FY21	FY22	FY23	FY24	TOTAL
EXPENDITURES								
Design								0
Construction/Implementation		100,000	100,000	100,000	100,000	100,000	100,000	600,000
Property/Equip. Acquisition								0
TOTAL	\$0	\$100,000	\$100,000	\$100,000	\$100,000	\$100,000	\$100,000	\$600,000
FUNDING								
Current Revenue		100,000	100,000	100,000	100,000	100,000	100,000	600,000
Capital Reserve								0
Debt Funded								0
Federal or State Grants								0
Other Sources								0
TOTAL	\$0	\$100,000	\$100,000	\$100,000	\$100,000	\$100,000	\$100,000	\$600,000

ANNUAL DEPARTMENT OPERATING BUDGET IMPACT:

Ongoing

PROJECT STATUS:

Ongoing CIP

CITY OF KEENE, NEW HAMPSHIRE

2019 - 2024 Capital Project Funding Request

GENERAL PROJECT DATA

Project Name: **Revaluation**
 Department: **Assessing**
 Physical Location:
 Federal Mandate: **N/A**
 State Regulation or Law: **RSA 75:8-a**
 Master Plan (CMP) Focus Area: **Vibrant Economy**
 CMP Vision/Strategy: **Municipal Governance & Financial Stability**
 Council Initiative: **N/A**
 V.O.I.C.E.: **N/A**
 Departmental Objective: **To ensure the fair and equitable taxation of all property within the City of Keene in accordance with New Hampshire law.**



PROJECT DESCRIPTION/JUSTIFICATION

A revaluation of all property in the City is required by State law at least once every five years. The City was last revalued in 2016 which means that it will be required again in 2021. The project will begin in 2020 and will be completed by the fall of 2021. The new assessments will be used to determine the final 2021 tax bills.

A revaluation involves a number of steps and processes in order to develop valuation models and assessed values. These include, but are not limited to, extensive market research, reviewing and analyzing property transactions, reviewing building construction costs, and reviewing all property data on file. Additionally, for income producing properties, research and analysis is done on rental income, typical expenses, and investment rates. Upon completion many valuation variables will be developed, calibrated, and applied to all properties before finalizing the valuation process. The new assessed values will be statistically tested for accuracy and equity.

FINANCIAL PLAN & PROJECT SCHEDULE

	PRIOR YR	FY19	FY20	FY21	FY22	FY23	FY24	TOTAL
EXPENDITURES								
Revaluation				75,000	75,000			150,000
Construction/Implementation								0
Property/Equip. Acquisition								0
TOTAL	\$0	\$0	\$0	\$75,000	\$75,000	\$0	\$0	\$150,000
FUNDING								
Current Revenue				75,000	75,000			150,000
Capital Reserve								0
Debt Funded								0
Federal or State Grants								0
Other Sources								0
TOTAL	\$0	\$0	\$0	\$75,000	\$75,000	\$0	\$0	\$150,000

ANNUAL DEPARTMENT OPERATING BUDGET IMPACT:

N/A

PROJECT STATUS:

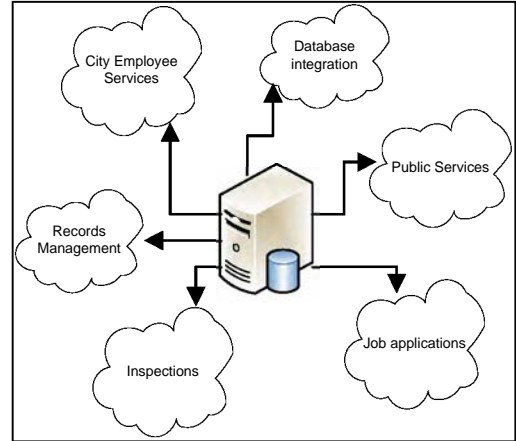
Ongoing CIP

CITY OF KEENE, NEW HAMPSHIRE

2019 - 2024 Capital Project Funding Request

GENERAL PROJECT DATA

Project Name: **Database Software**
 Department: **IT**
 Physical Location: **IT Data Center**
 Federal Mandate: **N/A**
 State Regulation or Law: **N/A**
 Master Plan (CMP) Focus Area: **N/A**
 CMP Vision/Strategy: **Infrastructure**
 Council Initiative: **N/A**
 V.O.I.C.E.: **Continually Assess Facilities and Infrastructure**
 Departmental Objective: **Required to maintain database integration, integrity, and availability in accordance with department mission.**



PROJECT DESCRIPTION/JUSTIFICATION

This project provides funding to upgrade and migrate database platforms as necessary to meet minimum licensing requirements and/or adopt new platforms to sustainably accommodate operational and financial requirements into the long term. In particular, the database platform(s) supporting financial, property assessment, and work order management information systems that drive functions such as tax billing, fund accounting, payroll, infrastructure management, etc. require consistent upgrades over time to avoid costly obsolescence. These systems also provide foundational property information to other City systems and broad reporting and business intelligence information necessary to drive management decisions.

FINANCIAL PLAN & PROJECT SCHEDULE

	PRIOR YR	FY19	FY20	FY21	FY22	FY23	FY24	TOTAL
EXPENDITURES								
Design								0
Construction/Implementation						5,000		5,000
Property/Equip. Acquisition						75,000		75,000
TOTAL	\$0	\$0	\$0	\$0	\$0	\$80,000	\$0	\$80,000
FUNDING								
Current Revenue						80,000		80,000
Capital Reserve								0
Debt Funded								0
Federal or State Grants								0
Other Sources								0
TOTAL	\$0	\$0	\$0	\$0	\$0	\$80,000	\$0	\$80,000

ANNUAL DEPARTMENT OPERATING BUDGET IMPACT: Negligible<\$5,001
Ongoing

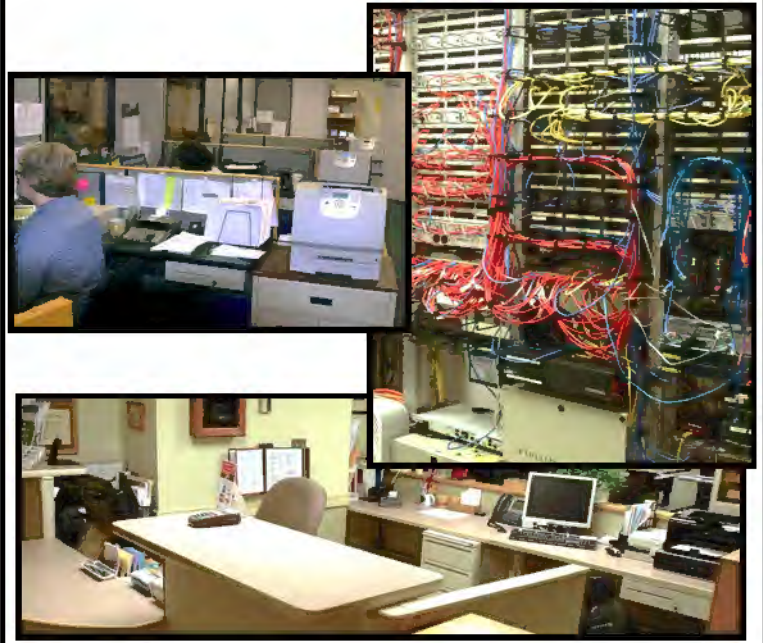
PROJECT STATUS: Ongoing CIP

CITY OF KEENE, NEW HAMPSHIRE

2019 - 2024 Capital Project Funding Request

GENERAL PROJECT DATA

Project Name: **Network Equipment Replacement**
 Department: **IT**
 Physical Location: **Multiple Facilities**
 Federal Mandate: **N/A**
 State Regulation or Law: **N/A**
 Master Plan (CMP) Focus Area: **N/A**
 CMP Vision/Strategy: **Infrastructure**
 Council Initiative: **N/A**
 V.O.I.C.E.: **Continually Assess Facilities and Infrastructure**
 Departmental Objective: **Required to provide network, phone, and computing services for all City departments.**



PROJECT DESCRIPTION/JUSTIFICATION

The network infrastructure presently enables City information systems to be centralized to maximize security and accessibility and minimize maintenance efforts. This involves wireless access points, cabling, and switches within each building, core equipment in the IT datacenters, and firewalls that secure traffic in and out of the City network. This equipment has a limited useful life. It is important that a plan be in place for the replacement of the equipment to ensure reliable operation and security. This plan calls for the replacement of the network equipment in the year the manufacturer will no longer provide maintenance and support services which typically ranges from five to ten years after purchase.

The City computer information systems are a mission critical asset supporting essential business operations. The availability of these systems including our phone system, depends upon reliable network availability and performance. In addition, the network must be protected for the purposes of confidentiality and intrusion prevention. In order to meet the evolving requirements of the organizational use of information systems, the network equipment will require replacement when it reaches the manufacturer's end-of-service schedule. This will provide current security and control features that are necessary to keep up with minimum industry standards, and will minimize costly down-time in the case of equipment failure.

FINANCIAL PLAN & PROJECT SCHEDULE

	PRIOR YR	FY19	FY20	FY21	FY22	FY23	FY24	TOTAL
EXPENDITURES								
Design								0
Construction/Implementation								0
Property/Equip. Acquisition		40,500	5,000	31,000	6,500	30,000	0	113,000
TOTAL	\$0	\$40,500	\$5,000	\$31,000	\$6,500	\$30,000	\$0	\$113,000
FUNDING								
Current Revenue		40,500	5,000	31,000	6,500	30,000	0	113,000
Capital Reserve								0
Debt Funded								0
Federal or State Grants								0
Other Sources								0
TOTAL	\$0	\$40,500	\$5,000	\$31,000	\$6,500	\$30,000	\$0	\$113,000.00

ANNUAL DEPARTMENT OPERATING BUDGET IMPACT: Negligible<\$5,001
N/A

PROJECT STATUS: Ongoing CIP

Schedule of Network Equipment Replacement

Building	Type	End of life(sale)	End of Maintenance	End of Support	Replacement Cost	FY Subtotal
City Hall	Firewall	Sep-13	Sep-14	Sep-18	\$8,000	FY19
City Hall	Firewall	Sep-13	Sep-14	Sep-18	\$8,000	
Library	Firewall	Jul-13	Jul-14	Jul-18	\$2,500	
Police		Sep-13	Sep-14	Sep-18	\$8,000	
Wireless	Access Points	Jan-13	Jul-14	Jul-18	\$14,000	
Fire	24	Oct-12	Jul-15	Oct-19	\$2,500	FY20
Library	48	Oct-12	Jul-15	Oct-19	\$2,500	\$5,000
Airport	24	Oct-12	Jul-15	Oct-19	\$3,500	FY21
Fire	N/A	Jan-13	Oct-14	N/A	\$2,500	
Library	48	Oct-12	Jul-15	Oct-19	\$3,500	
Library	48	Oct-12	Jul-15	Oct-19	\$3,500	
Parks and Rec	48	Oct-12	Jul-15	Oct-19	\$3,500	
Public Works	24	Oct-12	Jul-15	Oct-19	\$2,500	
Public Works	24	Oct-12	Jul-15	Oct-19	\$2,500	
Public Works	24	Oct-12	Jul-15	Oct-19	\$2,500	
Public Works	48	Oct-12	Jul-15	Oct-19	\$3,500	
Public Works	48	Oct-12	Jul-15	Oct-19	\$3,500	
Public Works	48	Oct-15	Oct-17	Oct-21	\$6,500	FY22
						\$6,500
Parks and Rec	Router	Sep-16	Dec-20	Dec-22	\$3,000	FY23
Public Works	Router	Sep-16	Dec-20	Dec-22	\$3,000	
Public Works	Router	Sep-16	Dec-20	Dec-22	\$3,000	
Public Works	Router	Sep-16	Dec-20	Dec-22	\$3,000	
City Hall	Router	Sep-16	Dec-20	Dec-22	\$3,000	
Airport	Router	Sep-16	Dec-20	Dec-22	\$3,000	
Library	Router	Sep-16	Dec-20	Dec-22	\$3,000	
Fire	Router	Sep-16	Dec-20	Dec-22	\$3,000	
Police	Router	Sep-16	Dec-20	Dec-22	\$3,000	
Fire	Router	Sep-16	Dec-20	Dec-22	\$3,000	
City Hall	48	N/A	N/A	N/A	N/A	FY24
City Hall	48	N/A	N/A	N/A	N/A	
City Hall	48	N/A	N/A	N/A	N/A	
City Hall	48	N/A	N/A	N/A	N/A	
DPW	24	N/A	N/A	N/A	N/A	
DPW	24	N/A	N/A	N/A	N/A	
DPW	24	N/A	N/A	N/A	N/A	
DPW	24	N/A	N/A	N/A	N/A	
Fire	24	N/A	N/A	N/A	N/A	TBD
KPD	24	N/A	N/A	N/A	N/A	

\$113,000

CITY OF KEENE, NEW HAMPSHIRE

2019 - 2024 Capital Project Funding Request

GENERAL PROJECT DATA

Project Name: **Server Replacement**
 Department: **IT**
 Physical Location: **City Hall & Remote Data Center**
 Federal Mandate: **N/A**
 State Regulation or Law: **N/A**
 Master Plan (CMP) Focus Area: **N/A**
 CMP Vision/Strategy: **Infrastructure**
 Council Initiative: **N/A**
 V.O.I.C.E.: **Continually Assess Facilities and Infrastructure**
 Departmental Objective: **Required to provide software and computing services for all departments.**



PROJECT DESCRIPTION/JUSTIFICATION

Information systems are utilized by every City department in the process of providing services to the public. From email to database and GIS systems, all require that core server equipment run reliably. This project provides funding for the replacement of existing host servers every three to five years, an upgrade to the Microsoft Exchange Server platform, server operating system upgrades, and required Client Access License (CAL) upgrades. This replacement schedule ensures that the processing capabilities of the server hardware and software are sufficient to support City operations.

FINANCIAL PLAN & PROJECT SCHEDULE

	PRIOR YR	FY19	FY20	FY21	FY22	FY23	FY24	TOTAL
EXPENDITURES								
Design								0
Construction/Implementation								0
Property/Equip. Acquisition		54,343	30,000		12,000	12,000		108,343
TOTAL	\$0	\$54,343	\$30,000	\$0	\$12,000	\$12,000	\$0	\$108,343
FUNDING								
Current Revenue		54,343	30,000		12,000	12,000	0	108,343
Capital Reserve								0
Debt Funded								0
Federal or State Grants								0
Other Sources								0
TOTAL	\$0	\$54,343	\$30,000	\$0	\$12,000	\$12,000	\$0	\$108,343

ANNUAL DEPARTMENT OPERATING BUDGET IMPACT: Negligible<\$5,001 Ongoing

PROJECT STATUS: Ongoing CIP

Server Replacement Costs

Server Function	1st Replacement Date	Fiscal Year	Replacement Cost
Server OS & Client Licensing	7/1/2018	FY19	\$51,343
Virtual Server - Host	7/1/2019	FY20	\$9,000
Virtual Server - Host	7/1/2019	FY20	\$9,000
Virtual Server - Host	7/1/2019	FY20	\$9,000
Virtual Server - Host - Finance	7/1/2021	FY22	\$9,000
Virtual Server - Host	7/1/2022	FY23	\$9,000
			\$96,343

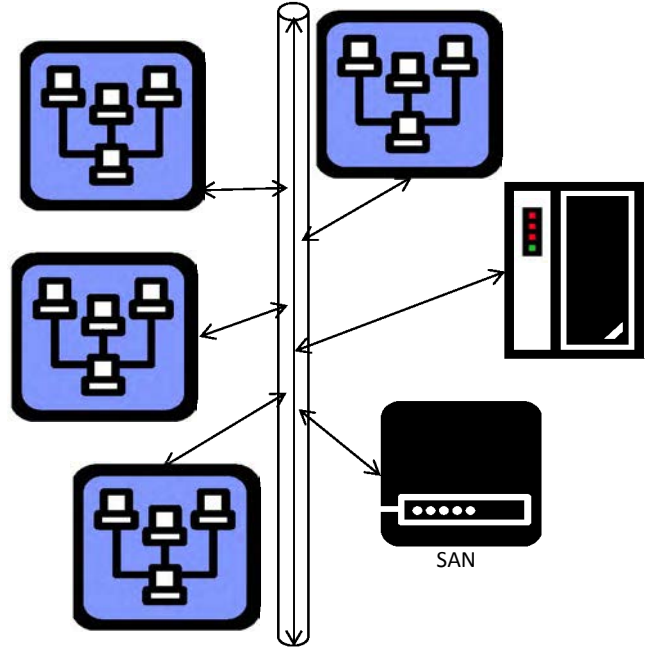
**Add \$3,000 annually to cover the cost of server OS upgrades.*

CITY OF KEENE, NEW HAMPSHIRE

2019 - 2024 Capital Project Funding Request

GENERAL PROJECT DATA

Project Name: **Storage Area Network**
 Department: **IT**
 Physical Location: **IT Data Center**
 Federal Mandate: **N/A**
 State Regulation or Law: **N/A**
 Master Plan (CMP) Focus Area: **N/A**
 CMP Vision/Strategy: **Infrastructure**
 Council Initiative: **N/A**
 V.O.I.C.E.: **Continually Assess Facilities and Infrastructure**
 Departmental Objective: **Provide reliable file storage solution for all City departments.**



PROJECT DESCRIPTION/JUSTIFICATION

The network utilized by City staff across all departments provides a path between the end users (computer users) and the databases on the servers. These databases and other electronic files such as documents, maps, and system backups are stored on storage area network (SAN) devices. The SANs enable more than one server to access a single system of physical disks, allowing allocation of space to each server as needed, thus reducing the total cost of server equipment. They are integral to our virtual environment and provide high availability and disaster recovery for all production servers we currently run. The typical life of a storage area network solution is about five years.

FINANCIAL PLAN & PROJECT SCHEDULE

	PRIOR YR	FY19	FY20	FY21	FY22	FY23	FY24	TOTAL
EXPENDITURES								
Design								0
Construction/Implementation		5,000					5,000	10,000
Property/Equip. Acquisition		100,000					100,000	200,000
TOTAL	\$0	\$105,000	\$0	\$0	\$0	\$0	\$105,000	\$210,000
FUNDING								
Current Revenue	40,000	65,000					105,000	210,000
Capital Reserve								0
Debt Funded								0
Federal or State Grants								0
Other Sources								0
TOTAL	\$40,000	\$65,000	\$0	\$0	\$0	\$0	\$105,000	\$210,000

ANNUAL DEPARTMENT OPERATING BUDGET IMPACT: Negligible<\$5,001
Ongoing

PROJECT STATUS: Ongoing CIP

CITY OF KEENE, NEW HAMPSHIRE

2019 - 2024 Capital Project Funding Request

GENERAL PROJECT DATA

Project Name: **Phone System Replacement**
 Department: **IT**
 Physical Location: **Organization Wide**
 Federal Mandate: **N/A**
 State Regulation or Law: **N/A**
 Master Plan (CMP) Focus Area: **N/A**
 CMP Vision/Strategy: **Infrastructure**
 Council Initiative: **N/A**
 V.O.I.C.E.: **Continually Assess Facilities and Infrastructure**
 Departmental Objective: **Provide telecommunications services for all City departments.**



PROJECT DESCRIPTION/JUSTIFICATION

Phones and the systems that run them provide the backbone to City communications. There are 270 phones in regular use at the City of Keene and 5 separate paging systems. The importance of which cannot be understated as there is a phone on almost every City desk as well as in Police Dispatch and booking areas, Emergency Operations Center, laboratories, out-buildings, lobbies, and elevators. The servers and central phone system software that run all phone operations as well as building paging functions at multiple facilities including emergency services are on a five-year replacement cycle. The phones themselves also have a finite useful life and are scheduled for replacement every seven to ten years depending on vendor life span predictions. This replacement schedule ensures that our phone system is up and running 24X7 and does not jeopardize emergency services nor the day to day communications essential to City operations.

FINANCIAL PLAN & PROJECT SCHEDULE

	PRIOR YR	FY19	FY20	FY21	FY22	FY23	FY24	TOTAL
EXPENDITURES								
Design								0
Construction/Implementation						23,000		23,000
Property/Equip. Acquisition						125,000		125,000
TOTAL	\$0	\$0	\$0	\$0	\$0	\$148,000	\$0	\$148,000
FUNDING								
Current Revenue						148,000		148,000
Capital Reserve								0
Debt Funded								0
Federal or State Grants								0
Other Sources								0
TOTAL	\$0	\$0	\$0	\$0	\$0	\$148,000	\$0	\$148,000

ANNUAL DEPARTMENT OPERATING BUDGET IMPACT: Negligible<\$5,001 Ongoing

PROJECT STATUS: New Project

CITY OF KEENE, NEW HAMPSHIRE

2019 - 2024 Capital Project Funding Request

GENERAL PROJECT DATA

Project Name: **Financial Software Replacement**
 Department: **Finance**
 Physical Location: **City Hall**
 Federal Mandate: **N/A**

State Regulation or Law:

Master Plan (CMP) Focus Area: **Strong Citizenship and Proactive Leadership**
 CMP Vision/Strategy: **Municipal Governance & Financial Stability**

Council Initiative: **N/A**
 V.O.I.C.E.: **N/A**

Departmental Objective: **Maintain, update or replace financial management technology to current standards.**



PROJECT DESCRIPTION/JUSTIFICATION

The financial accounting and reporting package used by the City was implemented in FY 1998-1999. The package covers many basic municipal financial functions, including general ledger accounting, payroll, accounts payable, accounts receivable, purchasing, project accounting, utility (water and sewer) billing, property tax billing, cash receipting, personnel budgeting and budget preparation. In FY 2015, funds (\$190,000) were budgeted for a new property tax billing module and finance system upgrade which was completed in FY 2017.

The current financial software was purchased in 1997-98 and has served the City well for nearly 20 years. While the package has been upgraded over time to add new functionality, a review of City business practices and needs, as well as a review of financial software to meet those needs should be scheduled. Funding is requested in FY 2023 for an organization wide financial system needs analysis, with software selection, acquisition, and implementation scheduled for FY 2025, should replacement be the chosen course of action. A preliminary cost estimate of \$615,000 has been developed for planning purposes. The estimate is based upon various informal quotes received by the City Finance Department during a review of options to replace or upgrade the current financial software conducted before the 2017 upgrade, inflated at 2% per year.

FINANCIAL PLAN & PROJECT SCHEDULE

	PRIOR YR	FY19	FY20	FY21	FY22	FY23	FY24	TOTAL
EXPENDITURES								
Software review						30,000		30,000
Acquisition/ Impementation								0
								0
TOTAL	\$0	\$0	\$0	\$0	\$0	\$30,000	\$0	\$30,000
FUNDING								
Current Revenue						30,000		30,000
Capital Reserve								0
Debt Funded								0
Federal or State Grants								0
Other Sources								0
TOTAL	\$0	\$0	\$0	\$0	\$0	\$30,000	\$0	\$30,000

ANNUAL DEPARTMENT OPERATING BUDGET IMPACT:

N/A

PROJECT STATUS:

New Project

CITY OF KEENE, NEW HAMPSHIRE

2019 - 2024 Capital Project Funding Request

GENERAL PROJECT DATA

Project Name: **Voting Booths**
 Department: **City Clerk**
 Physical Location: **Wards 2, 3, 4 & 5**
 Federal Mandate: **N/A**
 State Regulation or Law: **RSA 658:9 (V)(a)(2)**
 Master Plan (CMP) Focus Area: **N/A**
 CMP Vision/Strategy: **N/A**
 Council Initiative: **N/A**
 V.O.I.C.E.: **N/A**
 Departmental Objective: **To be in compliance with the State RSA 658:9 (V)(a)(2), which identifies the number of voting booths required for local, state and national elections.**



PROJECT DESCRIPTION/JUSTIFICATION

Recent voter statistics indicate that voter participation in New Hampshire and Nationally is increasing. Keene has seen current voter registration rising. The current voting booths used by the City are over 50 years old, made of metal parts that require many man hours of maintenance or repair, and are cumbersome to transport, set up, take down, and store. Recently the State approved a new style booth that is made of lighter materials, has a compact design making transportation to and from polling places more efficient, allows for quick set up and take down, and uses less storage space. The purchase of these new booths will save man hours, give Keene voters an up to date polling location at which to vote and be in compliance with State recommendations.

FINANCIAL PLAN & PROJECT SCHEDULE

	PRIOR YR	FY19	FY20	FY21	FY22	FY23	FY24	TOTAL
EXPENDITURES								
Revaluation								0
Construction/Implementation								0
Property/Equip. Acquisition			32,088					32,088
TOTAL	\$0	\$0	\$32,088	\$0	\$0	\$0	\$0	\$32,088
FUNDING								
Current Revenue			32,088					32,088
Capital Reserve								0
Debt Funded								0
Federal or State Grants								0
Other Sources								0
TOTAL	\$0	\$0	\$32,088	\$0	\$0	\$0	\$0	\$32,088

ANNUAL DEPARTMENT OPERATING BUDGET IMPACT: Moderate \$25,001 to \$50,000
One time

PROJECT STATUS: New Project

Fleet Services

The rolling stock supplied and serviced by the Fleet Division is a fundamental component of the necessary infrastructure in the provision of government services. Without the basic ability to transport people and access to equipment there would be no ambulance service, police response, streets plowed, water and sewer services, and most every other city service. Because the City has a Fleet Services Division, City personnel are able to respond to the variety of needs of the citizens in an efficient and effective manner with appropriate vehicles and equipment.

The Fleet Services Division, located at 330 Marlboro Street, maintains all City vehicles and equipment including Police, Fire and Rescue, Public Works, Parks and Recreation, Cemetery as well as the City of Keene Airport. There are 157 vehicles in the City's replacement program serviced by the Fleet Division along with an additional 99 vehicles/equipment serviced by the Fleet Division, which are not part of the capital replacement program. The Fleet Services team includes an Operations Manager, Administrative Coordinator, and four Mechanics.

When vehicles or equipment are scheduled to be replaced every purchase is evaluated by the Fleet Services Division and recommendations are made to the City's Equipment and Vehicle Committee. The goal of the equipment replacement program is to provide City personnel with the most efficient and functional vehicle or equipment at the lowest cost. Some of the City's recent equipment purchases will allow City personnel to do more work without additional human resources. Several years ago the City instituted a "new/used" vehicle and equipment purchasing policy that allows consideration of demo equipment or used equipment for certain applications. Recent purchases of used equipment such as a grader and a brush chipper will supply the Public Works Department with the critical tools necessary for efficient drainage maintenance and forestry management. A new piece of equipment, an asphalt reclaimer was purchased in 2017. The asphalt reclaimer is an example of a piece of equipment that will transform how the City has traditionally addressed small pavement repair. For example, in winter months cold patch provides a temporary, inadequate repair of pot holes or small tranches. Replacing the patch with hot mix asphalt makes the small repairs permanent thus providing a dramatically improved transportation experience for the traveling public.

In addition, the Fleet Services Division maintains a diesel fuel station as well as a vehicle wash bay to help preserve the life of vehicles and equipment by reducing the corrosive effects of salt.

CITY OF KEENE, NEW HAMPSHIRE

2019 - 2024 Capital Project Funding Request

GENERAL PROJECT DATA

Project Name: **Equipment Replacement**
 Department: **Public Works - Equipment Fund**
 Physical Location: **330 Marlboro St.**
 Federal Mandate: **No**
 State Regulation or Law: **No**
 Master Plan (CMP) Focus Area: **Strong Citizenship and Proactive Leadership**
 CMP Vision/Strategy: **Infrastructure**
 Council Initiative: **N/A**
 V.O.I.C.E.: **Continually Assess Facilities and Infrastructure**
 Departmental Objective: **Invest resources to maintain City fleet operations**



PROJECT DESCRIPTION/JUSTIFICATION

The City of Keene Fleet has 157 vehicles and pieces of equipment in the replacement program. The age of the fleet ranges from one year to more than 15 years. This project sets aside funds for the orderly and timely replacement of vehicles and equipment when they reach the end of their useful life which is determined through a complete evaluation process. Operating vehicles beyond their service life results in increased maintenance costs, poor customer service, and lost production time due to a vehicle or equipment being out of service for extensive repairs. The replacement program is based on equipment age, condition, trade-in value, and operational needs of the user. When practical, emphasis is put on purchasing fuel efficient "green" vehicles as replacements are being evaluated. This replacement program list is reviewed extensively by the Fleet Services Administrative Review Committee before any piece of equipment is replaced. Vehicles are not replaced just because they are on the schedule.

FINANCIAL PLAN & PROJECT SCHEDULE

	PRIOR YR	FY19	FY20	FY21	FY22	FY23	FY24	TOTAL
EXPENDITURES								
Design								0
Construction/Implementation								0
Property/Equip. Acquisition		751,341	797,743	732,356	668,685	618,729	574,093	4,142,947
TOTAL	\$0	\$751,341	\$797,743	\$732,356	\$668,685	\$618,729	\$574,093	\$4,142,947
FUNDING								
Current Revenue								0
Capital Reserve		751,341	797,743	732,356	668,685	618,729	574,093	4,142,947
Debt Funded								0
Federal or State Grants								0
Other Sources								0
TOTAL	\$0	\$751,341	\$797,743	\$732,356	\$668,685	\$618,729	\$574,093	\$4,142,947

ANNUAL DEPARTMENT OPERATING BUDGET IMPACT: Negligible<\$5,001
Ongoing

PROJECT STATUS: Ongoing CIP

CITY OF KEENE, NEW HAMPSHIRE

2019 - 2024 Capital Project Funding Request

GENERAL PROJECT DATA

Project Name: **Fleet Services Wash Bay**
 Department: **PUBLIC WORKS**
 Physical Location: **330 Marlboro St.**
 Federal Mandate: **No**
 State Regulation or Law: **No**
 Master Plan (CMP) Focus Area: **Strong Citizenship and Proactive Leadership**
 CMP Vision/Strategy: **Infrastructure**
 Council Initiative: **N/A**
 V.O.I.C.E.: **Continually Assess Facilities and Infrastructure**
 Departmental Objective: **Invest resources to maintain City fleet operations**



PROJECT DESCRIPTION/JUSTIFICATION

The equipment on the wash bay is deteriorating to the point where it will not be able to be kept in service due to unavailability of parts and outmoded equipment. The Fleet Division has been able to perform some required maintenance through the operating budget to keep the wash bay functioning on a temporary basis. A refurbished wash bay will result in a more efficient brushless cleaning system providing longer service life to vehicles as a result of a lower incident of rust.

FINANCIAL PLAN & PROJECT SCHEDULE

	PRIOR YR	FY19	FY20	FY21	FY22	FY23	FY24	TOTAL
EXPENDITURES								
Design								0
Construction/Implementation				155,000				155,000
Property/Equip. Acquisition								0
TOTAL	\$0	\$0	\$0	\$155,000	\$0	\$0	\$0	\$155,000
FUNDING								
Current Revenue				155,000				155,000
Capital Reserve								0
Debt Funded								0
Federal or State Grants								0
Other Sources								0
TOTAL	\$0	\$0	\$0	\$155,000	\$0	\$0	\$0	\$155,000

ANNUAL DEPARTMENT OPERATING BUDGET IMPACT: Negligible<\$5,001
Ongoing

PROJECT STATUS: Ongoing CIP

CITY OF KEENE, NEW HAMPSHIRE

2019 - 2024 Capital Project Funding Request

GENERAL PROJECT DATA

Project Name: **Fleet Services Fuel Island**
 Department: **Public Works - Equipment Fund**
 Physical Location: **330 Marlboro St.**
 Federal Mandate: **No**
 State Regulation or Law: **No**
 Master Plan (CMP) Focus Area: **Strong Citizenship and Proactive Leadership**
 CMP Vision/Strategy: **Infrastructure**
 Council Initiative: **N/A**
 V.O.I.C.E.: **Continually Assess Facilities and Infrastructure**
 Departmental Objective: **Invest resources to maintain City fleet operations**



PROJECT DESCRIPTION/JUSTIFICATION

The entire diesel fuel island needs to be updated to include complying with the required fire extinguishing system, island lighting, replacement of the fuel pumps, and repainting the canopy.

FINANCIAL PLAN & PROJECT SCHEDULE

	PRIOR YR	FY19	FY20	FY21	FY22	FY23	FY24	TOTAL
EXPENDITURES								
Design								0
Construction/Implementation					35,000			35,000
Property/Equip. Acquisition								0
TOTAL	\$0	\$0	\$0	\$0	\$35,000	\$0	\$0	\$35,000
FUNDING								
Current Revenue					35,000			35,000
Capital Reserve								0
Debt Funded								0
Federal or State Grants								0
Other Sources								0
TOTAL	\$0	\$0	\$0	\$0	\$35,000	\$0	\$0	\$35,000

ANNUAL DEPARTMENT OPERATING BUDGET IMPACT: Negligible<\$5,001
Ongoing

PROJECT STATUS: Ongoing CIP

CITY OF KEENE, NEW HAMPSHIRE

2019 - 2024 Capital Project Funding Request

GENERAL PROJECT DATA

Project Name: **Fleet Services Roof Replacement**
 Department: **Public Works - Equipment Fund**
 Physical Location: **330 Marlboro St.**
 Federal Mandate: **No**
 State Regulation or Law: **No**
 Master Plan (CMP) Focus Area: **Quality Built Environment**
 CMP Vision/Strategy: **Infrastructure**
 Council Initiative: **N/A**
 V.O.I.C.E.: **Continually Assess Facilities and Infrastructure**
 Departmental Objective: **Invest resources to maintain City fleet operations**



PROJECT DESCRIPTION/JUSTIFICATION

One of the pressing long term capital needs is a replacement of the roof on the Fleet Services facility building. Small leaks are beginning to appear in the roof and are patched as necessary. The overall integrity of the roof of the 20 year old facility is starting to become compromised. The roof will be evaluated every year to determine if the project needs to be accelerated or can be deferred. The original estimated replacement cost of \$90,230 done in 2016 has been inflated by 3% per year to reflected expected cost at the time of replacement.

FINANCIAL PLAN & PROJECT SCHEDULE

	PRIOR YR	FY19	FY20	FY21	FY22	FY23	FY24	TOTAL
EXPENDITURES								
Design								0
Construction/Implementation						109,178		109,178
Property/Equip. Acquisition								0
TOTAL	\$0	\$0	\$0	\$0	\$0	\$109,178	\$0	\$109,178
FUNDING								
Current Revenue						109,178		109,178
Capital Reserve								0
Debt Funded								0
Federal or State Grants								0
Other Sources								0
TOTAL	\$0	\$0	\$0	\$0	\$0	\$109,178	\$0	\$109,178

ANNUAL DEPARTMENT OPERATING BUDGET IMPACT: Negligible<\$5,001
Ongoing

PROJECT STATUS: Ongoing CIP

VEHICLE AND EQUIPMENT 6 YEAR REPLACEMENT SCHEDULE

VEHICLE NUMBER	MODEL YEAR	Purchase Price	DESCRIPTION	VEHICLE DEPT. NO	USING DEPT/DIV	FY 2018/2019	FY 2019/2020	FY 2020/2021	FY 2021/2022	FY 2022/2023	FY 2023/2024
STAFF CARS											
			REPLACE AT								
			7 Yrs./60,000								
0901	2009	\$23,080	Honda Civic Hybrid	P3	Pool car		\$28,765				
0903	2009	\$23,080	Honda Civic Hybrid	P1	Pool Car		\$28,765				
1702	2017	\$22,995	Ford Fusion	P2	Pool car				\$21,560		
2110	2012	\$16,585	Ford Focus	110	Assessing				\$38,842		
3118	2014	\$18,559	Ford Fusion	118	PW						\$24,126
1001	2009	\$29,879	Ford Escape Hybrid	1							
7114	2017	\$22,995	Ford Fusion	114	Code						
19C2	2009	\$37,336	Suburban	19C2	Fire						
19C1	2009	\$21,927	Explorer	19C1	Fire						
0606	2006	\$35,132	Suburban	19C3	Fire				\$51,304		
19U3	2012	\$34,970	Ford Interceptor		Fire				\$45,461		
0973	2009	\$29,879	Ford Escape	57	Engineering				\$38,842		\$38,843
0014	2000	Rental	Ford Taurus		Fleet						
1144	2011	\$18,989	Ford Transit connect	21	Wastewater						
1243	2012	\$22,374	Ford Transit Connect	1143	PD Parking						
0037	2000	\$2,900	Lexus 300 ES	0037	Fleet						
VANS											
			REPLACE AT								
			10 YEARS/70,000								
			(8 YEARS/70,000 old)								
1370	2013	\$16,353	Ford E150	70	Water Meter					\$23,596	
1108	2011	\$17,392	Ford E150	8	Water Meter				\$22,610		
1258	2012	\$16,491	Ford E150	58	Engineering				\$30,000		
0907	2009	\$22,232	Ford E-250	101	Parks & Rec						
1545	2015	\$16,807	GMC Savannah	1145	PD Parking						
0908	2009	\$22,232	Ford E-250	102	Parks & Rec	\$57,803					
1259	2012	\$16,491	Ford E-150	59	WWTP			\$29,000			
0313	2003	\$14,250	Ford E-250	125	Records					\$32,227	
AMBULANCE											
			(Funding by separate Fire Department Capital Reserve Program)								
1601	2016		Ford	19A1	Fire						
19A2	2013		International	19A2	Fire						
19A3	2009		C-4500 Chevy	19A3	Fire						
MARKED POLICE											
			REPLACE AT								
			60,000/3 YEARS								
1436	2014	\$34,970	Ford Interceptor	1136	Cruiser				\$122,850		\$86,888
1537	2015	\$34,970	Ford Interceptor	1137	Cruiser						
1333	2013	\$34,970	Ford Interceptor	1133	Cruiser						
1334	2013	\$34,970	Ford Interceptor	1134	Cruiser						
1435	2014	\$34,970	Ford Interceptor	1135	Cruiser						
1640	2016	\$34,970	Ford Interceptor	1140	Cruiser						
1630	2016	\$34,970	Ford Interceptor	1130	Cruiser						
1538	2015	\$34,970	Ford Interceptor	1138	Cruiser						
1439	2014	\$34,970	Ford Interceptor	1139	Cruiser						

VEHICLE AND EQUIPMENT 6 YEAR REPLACEMENT SCHEDULE

VEHICLE NUMBER	MODEL YEAR	Purchase Price	DESCRIPTION	VEHICLE DEPT. NO	USING DEPT/DIV	FY 2018/2019	FY 2019/2020	FY 2020/2021	FY 2021/2022	FY 2022/2023	FY 2023/2024
PD UNMARKED/ STAFF CARS											
			REPLACE AT 80,000/ 6 YEARS								
4121	2014	\$20,595	Ford Fusion	1121	Unmarked					\$26,773	
2111	2012	\$27,570	Ford Interceptor Util.	1129	Unmarked	\$35,558				\$26,773	
0929	2010	\$41,000	Tahoe	1111	Shift Commander						
0637	2006	\$2,900	Lexus 300 ES	1120	PD Staff						
1110	2012	\$26,423	Ford Taurus	1110	PD Staff						
0923	2009	\$17,859	VW Jetta	1123	PD Staff	\$20,895					
1222	2012	\$20,528	Dodge Caravan	1122	PD Staff				\$24,018		
0924	2009	\$20,910	Dodge Caravan	1124	PD Staff	\$24,465					
DUMP TRUCKS											
			REPLACE AT 17 YEARS								
0202	2002	\$112,143	Freightliner	6	Highway		\$192,857				
0526	2005	\$133,600	Ford Dump (lrg)	26	Highway					\$216,876	
0527	2005	\$133,600	Freightliner	27	Water				\$210,560		
0965	2009	\$151,000	Freightliner	65	Highway						
9406	1994	\$80,463	Inter. Dump	3	Highway						
1405	2014	\$80,463	Inter. Dump	5	Highway						
9508	1995	\$80,463	Inter. Dump	AP5	Airport						
1412	2014	\$80,463	Inter. Dump	12	Highway						
1607	2016	\$142,000	Inter. Dump	7	Highway						
0312	2003	\$120,000	Freightliner	2	Highway			\$198,642			
9901	1999	\$88,000	Inter. Dump	4	Highway	\$187,240					
9906	1999	\$88,000	Inter. Dump	10	Highway						
0201	2002	\$112,143	Freightliner	22	Highway	\$192,857					
09AP8	2009	Grant	Freightliner	AP8	Airport						
0001	2001	\$76,644	Sterling	72	Highway	\$134,000					
1 TON TRUCKS											
			REPLACE AT 60,000/10 YEARS								
0611	2006	\$44,888	Ford Dump (sml)	11	Highway						
0724	2007	\$44,888	Ford F450	24	Highway						
1113	2011	\$23,967	Ford F350 Dump	13	Water						\$54,147
0874	2008	\$44,888	Ford F450	74	Highway	\$64,584					
0823	2008	\$29,956	Ford F350	23	WWTP	\$38,943					
4134	2014	\$33,562	GMC K3500	134	Cemetery				\$43,631		
0105	2001	\$25,000	Ford E350	54	Water						
1445	2013	\$37,806	Dodge 3500	45	Highway					\$49,148	
1275	2012	\$49,681	Ford F450	75	Highway						
4107	2014	\$26,411	Ford F350	107	Parks & Rec						
1214	2012	\$31,623	Ford F350	14	Water				\$41,110		
0815	2008	\$29,956	Ford F350	15	Water						
9820	1998	\$52,000	Ford F350	20	Fleet				\$67,600		
0205	2002	\$25,749	Ford F350	19B1	Fire						
0308	2003	\$25,749	Ford F250	19B2	Fire						
1119	2011	\$27,659	Ford F-350	19	Fleet				\$31,200		
3/4 TON TRUCKS											
			REPLACE AT 80,000/10 YEARS								
6130	2016	\$30,000	Ford F250	130	Parks						
9821	1998	\$21,805	Ford F250	131	Parks						

VEHICLE AND EQUIPMENT 6 YEAR REPLACEMENT SCHEDULE

VEHICLE NUMBER	MODEL YEAR	Purchase Price	DESCRIPTION	VEHICLE DEPT. NO	USING DEPT/DIV	FY 2018/2019	FY 2019/2020	FY 2020/2021	FY 2021/2022	FY 2022/2023	FY 2023/2024
1301	2000	\$22,232	GMC 2500	AP1	Airport						
0103	2001	\$23,597	Ford F250	32	Parks						\$28,902
06AP3	2006	\$22,232	Ford F250	AP3	Airport						
0904	2009	\$22,232	Ford F250	104	Parks				\$33,902		
1116	2011	\$20,483	Ford F250	16	Water						\$28,600
1/2 TON TRUCKS											
REPLACE AT 70,000/10 YEARS											
4103	2014	\$31,348	GMC 1500 Crew	103	Parks						
0818	2008	\$36,000	Ford F150	18	Highway	\$24,000					
1425	2014	\$19,828	GMC 1500	25	Highway						
1/4 TON TRUCKS											
REPLACE AT 70,000/10 YEARS											
0314	2003	\$15,496	Ford Ranger	112	Code					\$20,145	
0502	2005	\$14,707	Ford Ranger	120	Inspections						\$19,481
SIDE WALK PLOWS											
REPLACE AT 10 YEARS											
1350	2013	\$54,000	Wacker WL 30	50	Highway						
1551	2015	\$63,159	Bocat Toolcat	51	Highway						
0653	1999	\$52,000	Trackless (sidewalk plow)	53	Highway						
0752	2007	\$82,357	Trackless (sidewalk plow)	52	Highway						
0649	2006	\$110,000	Trackless (sidewalk plow)	49	Highway						
BACKHOE											
REPLACE AT 12 YEARS											
1541	2015	\$76,000	John Deere 310SK	41	Highway						
9608	1996	\$81,100	John Deere 710D	39	Water						
PAYLOADERS											
REPLACE AT 15 YEARS											
0115	2001	\$148,964	John Deere Payloader	17	Transfer Station		\$140,000				
0634	2006	\$126,667	Komatsu	34	Highway			\$150,000			
1431	2014	\$142,000	SDLG Payloader	33	Highway						
0306	2003	\$161,802	Case Payloader	AP5	Airport						
0607	2006	\$61,595	409 Loader	JCB	Recycle			\$60,000			
TRACTORS											
REPLACE AT 10 YEARS											
0407	2004	\$106,472	Ford Versatile Tractor	40	Highway						
066AP	2006	\$106,472	Ford Versatile Tractor	60	Airport			\$135,000			
0905	2009	\$31,000	New Holland Tractor	105	Parks & Rec	\$40,300					
932	2009	\$20,125	Cub Cadet	132	Cemetery		\$26,163				
1429	2014	\$61,000	Kubota Tractor	29	WWTP						
1410	2014	\$23,400	Toyota Forklift		Recycle						
0513	2005	\$6,190	John Deere 1300	113	Parks & Rec						
0909	2009	\$8,000	John Deere X700	109	Parks & Rec	\$10,400					
1117	2011	\$32,250	Volvo MC115C skidsteer	skidsteer	Highway					\$41,925	
0108	2001	\$33,020	NewHolland LS190 skidsteer	skidsteer	Solid Waste						
0706	2007	\$70,588	Toro Mower	Mower	Cemetery			\$80,000			

VEHICLE AND EQUIPMENT 6 YEAR REPLACEMENT SCHEDULE

VEHICLE NUMBER	MODEL YEAR	Purchase Price	DESCRIPTION	VEHICLE DEPT. NO	USING DEPT/DIV	FY 2018/2019	FY 2019/2020	FY 2020/2021	FY 2021/2022	FY 2022/2023	FY 2023/2024
6135	2016	\$10,600	Kubota Tractor	135	Cemetery						
SPECIALTY EQUIPMENT			REPLACE AT 10 YEARS								
1528	2015	\$307,000	Freightliner VacCon	28	Water/Sewer	\$65,000					
0317	2003	\$204,638	Sterling VacCon	36	Highway						
9408	1994		Oshkosh Snow Blower	AP4	Airport						
AIR COMPRESSORS			REPLACE AT 10 YEARS								
9503	1990	\$10,000	Ingersoll Compressor	133	Cemetery						
9714	1997	\$10,000	Lindsay Compressor	88	Highway	\$24,000					
1586	2015	\$13,730	Atlas Compressor	86	Water						
0589	2000	\$10,000	Air Compressor	89	Highway						
CONSTRUCTION EQUIPMENT			REPLACE AT 10 YEARS								
0704	2007	\$4,499	Graco Paintner	80	Highway						
9012	1990	\$6,000	Snow Blower attach.	80	Highway	\$7,800					
9823	1998	\$10,000	Chipper		Highway						
0912	2009	\$1,788	Woods Brush Hog		Highway						
9912	2000	\$7,155	Rosco Roller		Highway						\$24,310
9410	1994	\$18,700	Forklift		Fleet Services						
9818	1998	\$3,000	Trailer for Cemetery		Cemetery	\$3,900					
9924	1999	\$8,200	Hydro Tek Steamer		Highway	\$10,660					
0113	2001	\$21,208	Asphalt Reclaimer		Highway				\$53,530		
9301	1993	\$21,208	Asphalt Reclaimer		Highway				\$53,530		
8210	1982	\$20,000	Trailer		Highway				\$25,960		
0010	2000	\$5,800	Miller Curber		Highway						
0022	2000	\$33,000	Cimline Crack Sealer		Highway						
0520	2005	\$9,260	Welder/Generator on Trailer		Fleet Services				\$25,960		
0408	2004	\$38,000	USA Mower Attach		Highway						
0011	2000	\$5,225	Stowe Roller		Parks & Rec						
9014	1990	\$20,000	Sno-go Blower		Highway						\$25,960
0663AP	2006		Salsco/Chipper		Airport						
0409	2004		Pronovost Snowblower		Highway						
0036	2000	\$9,995	Vibromax Roller		Highway						\$25,960
Total						\$751,341	\$797,743	\$732,356	\$668,685	\$618,729	\$574,093

APPENDIX A

This appendix includes General Fund projects that are NOT included in the proposed FY 2019-2024 CIP but may appear in future CIP documents. These projects have not been included in the CIP for a variety of reasons, including limited resources and the need for additional project analysis and development.

AIRPORT (ECONOMIC DEVELOPMENT AND VITALITY)

Aviation Easements and Obstruction Removal

Aviation easement acquisition and obstruction removal have, are and will be constant topics. The City will generally be eligible for FAA/State funding to around \$500,000 per year with a City matching amount of 5% (\$25,000). There is no immediate funding as of this date due to the use of previously appropriated funds combined with more than a dozen property owners who have voluntarily consented to obstruction removal. Going forward, our airport consultants will be asked to perform new obstruction studies to determine with exactness, where new obstructions are and new budgetary estimates will be advanced.

Dean Memorial Airport Funds

Dean Memorial Airport in N. Haverhill NH has \$300,000 of unused Federal/State funds that is available for use by Keene and which we intend to acquire (with City Council approval) to continue to implement the Airport Master Plan projects. Acquiring these funds will cost an additional 5% so that the City expense to access and expend these funds is 10% or \$30,000. There may be existing capital funds to offset this cost but depending upon the timing, this request may come before City Council.

Estimated Cost = \$30,000

Fuel Farm (City-Owned)

The fuel farm owned by the City of Keene consists of an underground fuel storage tank that is 30+ years old. This tank is beyond the normal age for a tank to be insurable for liability. However, because we have enrolled this tank into a regular testing program to measure and assure its integrity, we have been able to insure this tank. That said, at any renewal point, this tank may require immediate replacement if its integrity declines or insurance coverage is cancelled due to age. Current estimates for replacement cost are \$630,000 and while fundable by FAA, this project scores a mere 19 out of 100. Hence the City may have to fund this project entirely if there is a tank failure or insurance cancellation.

Estimated Cost = \$630,000

Hangar Construction

While the airport has not used tax dollars to construct new hangars, this is a possibility depending upon development trends going forward. Hangars are fundable with FAA/state money and score around 32 out of 100. By comparison, the runway reconstruction project scored 70. Hangar cost estimates are based on the size/capacity. There would be revenue generated from a city-owned hangar project.

Municipal Water and Sewer at Terminal Locus

The terminal building, SRE building and C&S hangar are all served by individual septic systems. The water supply comes through Edgewood but is not connected via a loop to the Swanzey Water Company lines on Rt. 32. The ultimate development interests for this part of the airport would be well-served if municipal sewer service and a continuous water line were installed. Successful development will require an appropriate infrastructure

Estimated Cost = \$700,000 - \$900,000

Real Estate Acquisition

While the land owned by the City for airport purposes is currently adequate, properties are available adjacent to the airport and consideration should be given to acquiring more property. For example, land immediately south of Airport Road is presently available and could be used to re-develop the road into the airport. The listed price for this property is \$275,000 for 1.9 acres of land. There are two other properties for sale that are wedged in-between City-owned airport land.

Utility Task Vehicle

I recommend that the City evaluate and plan for the acquisition of a UTV (Utility Task Vehicle) for use at the airport. A UTV, which costs approximately half of a new pick-up truck, would be used on many airport projects as a vehicle is necessary to cover the near 1,000 acres of property. This UTV would also be used to travel to the dozen safety beacon locations scattered in the hills surrounding the airport. In the past, we have rented an all-terrain vehicle. The correct UTV could have sufficient space capacity to carry tools and staff to airport locations vs. using a large pick-up that frequently must sit, with strobes on, while maintenance tasks are underway. A UTV is just more economical in all ways.

Estimated Cost = \$15,000 (used)

CITY MANAGER (ECONOMIC DEVELOPMENT AND VITALITY)

Broadband

The City is conducting a broadband study in FY18 that will gauge current broadband services, estimate the costs, and identify a recommended process to expand services. Upon completion of the study it is possible that a future CIP project will be proposed. Though Keene has modern broadband options in many locations there are numerous locations with limited or no broadband, and where it is available there is limited provider competition. It is priced higher, therefore, than other areas in and out of the New Hampshire. In many cases the pricing in bordering states for similar services is far less than half what Keene businesses and residents pay. This influences where people choose to buy homes and where businesses choose to locate.

New Hampshire is one of few States that does not provide financial or legislative support for broadband expansion unlike Vermont, Maine, Massachusetts and New York, to name a few. IT staff will continue to work with the legislative delegation to support broadband expansion as an economic development priority.

**FIRE DEPARTMENT
(PUBLIC HEALTH AND SAFETY)**

Cardiac Monitors

Currently the department has 4- advanced life support defibrillator and 6 AED defibrillator monitors. The advanced life support defibrillators are used on the ambulances to monitor the patient's heart rhythm and have the ability to pace and shock the patient heart when warranted. The AED units are units that are carried on our front line response units and have the ability only to shock the patient that presents in cardiac arrest. The 4 advanced life support units were replaced starting in FY16 and completed in FY17. It is expected that between FY26-FY30 these units will require replacement. The cost to replace the units today without trade in value is \$26,000 per unit for the advanced life support unit and \$1,500 for the AED units with an overall replacement cost of \$107,000.

Replacement Life Span = 10 – 15 years

Gear Washer/Extractor and Drying System

Currently we have two gear washer/extractor systems and one drying system. The Central Station has the newest washer/extractor and a drying system that was purchased in 2012 when we moved into the new Central Station. The gear washer/extractor at Station 2 was purchased in 2002. Department regulations require all structural firefighter gear to be washed after every fire or when contaminated with bodily fluids, etc. to remove harmful containments. This not only extends the life of the gear but also is required to make sure that our employees are not absorbing harmful products into their bodies. The projected replacement for the Station 2 washer with dryer system would be FY22 and the Central Station washer/drying system in FY26-31.

Replacement Life Span = 15-20 years

Estimated Cost = \$15,000

Hydraulic Rescue Tools

The department currently has one main brand of hydraulic rescue tools used for vehicle extrication, building collapse and machinery incidents. This equipment was purchased on 2009 when Rescue 1 was purchased. There are also two sets of older equipment carried on Ladder 1 and Ladder 2. The equipment is currently under review to determine when and what cost this equipment will need to be replaced.

Replacement Life Span = 15-20 years

Estimated Cost = \$50,000

Mobile Radios

The current mobile radios were recently replaced over a three years starting in the FY15 and completed in FY17. The department currently has 23 of these units that are used daily to provide communications on all response apparatus. The units have an expected 10 year life cycle. Parts for the units are also not available 2-3 years after the model has stopped production. It is expected that by FY25 we will need to start to replace these units once again over a 2-3 period before they are not operable. The current cost of the mobile units is \$4,500 per unit and a total replacement cost today that would exceed \$103,000.

Replacement Life Span = 10 years

Portable Radios

The current mobile radios are being replaced over a four year program that started in FY17 and will be complete in FY20. For the same reasons as the mobile radio replacement project listed above the replacement of these radios is expected for FY27-FY30 if we were to purchase over a multi-year period as we are now. I caution the purchasing of equipment like this over multi years as I did with the current project as it potentially limits the life span and parts availability if the units are purchased near the end of the model years of the radios being produced. We try to make sure that the equipment purchased is “state of the art” and new model at the time so we are able to get the longest life span and service availability as possible but we don’t have control over that when models are discontinued. Currently we have sixty five portable radios at a cost of \$3,700.

Replacement Life Span = 10 years

Estimated Cost = \$240,500

Self-Contained Breathing Apparatus Compressor Fill Station

Currently the department has two different fill stations, one located at the Central Station and the second located at Station 2. The units are used to fill our SCBA bottles on a daily basis. The SCBA units are used to enter toxic areas and also during training required to remain proficient and competent with the equipment. The compressor/fill station and cascade system at the Central Station is used not only to fill bottles but also to fill our mobile bottle systems on the two of our apparatus. The system located at the Central Station was purchased late 2012 through a grant when we moved into the new Central Station. The unit at Station 2 was also purchased through a grant in January of 2005. The Central Station system is valued at \$50,000 with a replacement projected for FY26-31 and the Station 2 system is valued at \$15,000 with a replacement projected in FY 20-25.

Replacement Life Span = 15-20 years

Station Generator/ Emergency Power Systems

The Central Station system was new in 2012. The Station 2 system was replaced by the State between 2010 and 2012. Both systems will be projected for replacement in FY30 depending on their condition and availability of parts. Cost of the units is not known but the Central Station system is projected over \$75,000 due to its size.

Replacement Life Span = 20-25 years

Station 2: Upgrades/Renovations

Station 2 is in process of being turned back over to the City of Keene from the State of New Hampshire National Guard. It is expected that full ownership will occur in the first quarter of 2018. The FY19 CIP budget presented has \$20,000 for a study of the property and building location. Moving forward if this was to be the long term location and building to house our current Fire/EMS resources for West Keene it will require some form of renovations to bring the building up to efficiency levels and today's needs for the services being provided out of the current building. It is unknown at this time what the cost and upgrades to the building would be but the study planned for would help us determine that moving forward.

LIBRARY
(GENERAL OPERATIONS FACILITIES AND INFRASTRUCTURE)

Catalog Software

A major operational component of the library is Keene-Link, the partnership with the Keene State College library, which provides a shared catalog (Keene-Link) and reciprocal borrowing privileges. Keene-Link currently uses the Innovative Interfaces software called Millennium which is no longer being upgraded and for which support will not continue after two years. A committee made up of public and college library staff has reviewed the options available for a next generation library system and are recommending upgrading to Innovative Interfaces Sierra software.

PARKS & RECREATION AND FACILITIES
(GENERAL OPERATIONS FACILITIES AND INFRASTRUCTURE)

City Hall Generator and Transfer Switch

The City Hall emergency backup generator is approximately 27 years old with a lifespan of 25 years. City Hall is home to the Emergency Operating Center and the City Data Center; both are required to have a backup power source. The EMG report identified the need and recommends replacement of the unit. Further evaluations agreed with the report findings and the overall condition of the emergency backup generator. The backup generator is at best in fair condition and should be replaced. The recommended lifespan of an emergency backup generator is 20-30 years. Given this is a critical location, facilities recommends upgrading immediately. It is also recommended to replace the automatic transfer switch at this time. The switch is also in functional condition, but is showing its age and it would be cost effective to be replaced along with the generator. Alternative funding sources to fund this project through grant opportunities are being explored.

Estimated Cost = \$49,000

Municipal Building Improvements

The current condition of the Heating, Ventilation and Air Conditioning (HVAC) units at the Marlboro Street municipal complex have been determined to be past their useful lives. As the facilities staff continues to observe system failures, the cost of maintaining and repairing the units continues to increase as the necessary parts become obsolete. Technologies have changed, resulting in higher energy efficiencies and reductions in cost and greenhouse gas emissions. We will move toward our greener footprint by replacing the existing units. Utilizing the EMG report, these units are past their useful life and should be replaced as these units are now 12-16 years old in 2016. The ASHRAE (ASHRAE is the industry origination that set standards and guidelines for HVAC equipment) life expectancy of these units is 15 years. In addition to the HVAC units, there are 4 Make up Air units located in the equipment bay of public works; they are in functional condition, but will be past useful life in the immediate future and should be replaced. They are recommended for replacement by the EMG report in FY2019. An engineering study is recommended to determine the proper replacement needs which could potentially reduce cost through energy saving incentives.

- 2- 3 ton HVAC systems for server room KPD \$5,000 each unit total \$10,000 (redundant system)
- 2-7.5 ton HVAC units at \$11,000 each total \$22,000
- 1- 20 ton package gas heating –cooling unit \$32,750
- Engineering study for make-up air units located in equipment garage DPW = \$3,500
- Replacement of 4 Make up Air units at \$38,540 each or \$154,160

Paving of Parking Lots

The City of Keene owns many facilities and associated parking lots used by various departments. Over the years a combination of vehicular use, cold and wet weather, and snow plows have resulted in the deteriorated condition of the lots. The damages are accelerated once moisture is able to enter the pavement base through cracks and then freeze. In order to improve the function of the lots and reduce the long-term maintenance costs for patching and crack sealing, rehabilitation is necessary. Rehabilitation of the lots will include milling the existing asphalt surface, performing spot repairs as needed, leveling low points, overlaying with new asphalt, and re-striping. Existing bituminous curb will be placed. The existing sidewalks will be evaluated and rehabilitated in kind.

Recreation Center Boilers

Installed in 1987, the recreation center boilers have been well maintained; however, they have served their useful life and are approximately 81% efficient at best. New technologies will bring energy and fuel efficient boilers to an improved 97% rating. To better understand the efficiency rating, this would represent 2200 gallons of propane savings. Translate the current cost of propane (City contract is \$1.155 per gallon) that represents \$2,500 per year savings in energy cost, and in addition this will eliminate approximately 27,940 pounds of CO2 per year. Recent boiler replacement projects have demonstrated the City's ability to potentially reduce the purchase cost through energy saving incentives should they still be available through local energy providers.

Estimated Cost = \$80,000

Recreation Center Multipurpose Floor

The multipurpose room at the Recreation Center is the most used floor in the building. A VCT tile floor was installed over the existing gym floor when the remodel occurred in 1987. The floor has been replaced in various sections, but due to the nature of the degrees of use, the floor has become brittle and has deteriorated to a point that it can no longer be properly maintained. This floor needs to be replaced with an alternative flooring material that will move with the existing floors. Existing tiles are no longer able to be matched and currently there are several different types of tile within the surface area. This project scope would be expanded once the true condition of the floor is discovered.

Estimated Cost = \$45,000

Repaving Appel Way

Appel Way was last paved in the 1980's when the bike path was created, to connect Court Street to Wheelock Park. This heavily used trail connects with the Jonathan Daniels Trails, and plays a role in many events from the Clarence DeMar Marathon, to local road races. Many sections of the path have become heaved and cracked and deterioration accelerates due to the various weather conditions experienced in the region. Rehabilitation of the path will include milling the existing asphalt surface, performing spot repairs as needed, leveling low points, overlaying with new asphalt.

Estimated Cost = \$84,300

Robin Hood Playground Building

Built in the 1960's, the Robin Hood playground building is a small cement block building used for the summer playground with a seasonal restroom facility. Additionally, the building also hosts an oil fueled furnace to maintain warm temperatures in the winter for ice making operations and to keep the hoses from freezing. The 8 week summer program hosts about 90 children who enjoy the many activities the department has to offer. With a new building to accommodate the program, the department would create a revenue stream similar to the Wheelock playground building.

Estimated Cost = \$250,000

Solar Rail Trail Lights

Through collaboration with local non-profit organizations, the City will continue to participate in providing additional trail amenities. In 2017, Pathways for Keene donated 40 light fixtures and poles to be installed along the Cheshire Rail Trail between Island and Pitcher Streets. The success of this project will create the need for additional installed solar lights along various sections of the trail.

Swimming Pool

In fiscal years 2011 and 2012, both Robin Hood and Wheelock Pool were resurfaced respectively. The surface for each pool needs to be completed every 10 years in an effort to maintain a quality pool surface. Overtime, small chips and cracks occur and leaks can go undetected. Proper maintenance will keep the pools in operation for future generations to come.

Estimated Cost = \$90,000

Wheelock Park Lights

Working with City Engineering Department, and reviewing the Active and Passive Recreation Management Plan, recreation lighting in Wheelock Park will need to be addressed. Current electric and pole infrastructure is failing on O'Neal and Durling fields, horseshoe pits, tennis courts, and skating rink as they were all installed in the early to mid-1980's. The youth ball fields were installed as recently as the early 2000's. Technologies have changed; creating a greener footprint and reducing our energy bill with LED lighting is a mission of the City. Through collaboration with park user groups, and local light providers the department will create a capital campaign, seek grants, and utilize alternative revenue sources— such as crowdfunding—to fund this project.

Estimated Cost = \$310,000

PLANNING

(GENERAL OPERATIONS FACILITIES AND INFRASTRUCTURE)

Aerial Wetland Identification and Mapping

Using 2015 aerial imagery consultant will be selected to interpret high precision wetland information as well as additional land cover data. This project will have specific bearing in assisting with the Surface Water Protection ordinance and making better data available to both the City and the public.

Estimated Cost = \$30,000

**PLANNING
(COMMUNITY DEVELOPMENT)**

Cheshire Rail Trail (V)

This CIP is a design and construction project to complete a segment of Rail Trail from Eastern Ave to Route 101 at the old abutments of the Old Stone Arch Bridge with a pocket park. The proposal is to apply for matching funds through the Recreational Trails Grant offered through NH Parks to supplement costs.

Estimated Cost = \$100,000

**PUBLIC WORKS
(ECONOMIC DEVELOPMENT AND VITALITY)**

Gilbo East Lighting

The City's FY18 CIP included funds for the rehabilitation of the Gilbo East Parking Lot. The current CIP requests funds in FY19 to convert this lot to kiosks in lieu of meters. Funds have not been requested for the conversion of the existing pole-mounted street lights to the decorative style of lights found elsewhere in the Downtown and recently installed in the Commercial Street lot.

Estimated Cost = \$153,000

**PUBLIC WORKS
(FLOOD AND STORM WATER MANAGEMENT)**

Beaver Brook Flood Mitigation

Beaver Brook has a history of overflowing its banks during severe weather events. Flooding in 2005 and 2012 resulted in significant property damage in some of the most densely developed neighborhoods in the City. Prior CIP's have authorized funds for a detailed Hydrologic and Hydraulic analysis. The City is teaming with the United States Army Corps of Engineers to complete this analysis using both federal and local funds. This work is expected to be completed by the end of 2018. The City anticipates that the project will result in recommendations for projects designed to decrease the frequency and severity of flooding along Beaver Brook. Concepts under consideration include (but are not limited to) Increasing the size of the Three Mile Dam, creating storage capacity within the Woodland Cemetery wetlands complex and installing floodgates near Rt. 101. Staff anticipates that any recommendations developed by this study would be eligible for funding through the US Army Corps of Engineers "Section 205 – Small Flood Damage Reduction" program. That program provides 65% federal funding for projects up to approximately \$10 Million.

**PUBLIC WORKS
(GENERAL OPERATIONS FACILITIES AND INFRASTRUCTURE)**

Access Road Bridge Replacement

The City owns and maintains a number of bridges that allow access to portions of City-owned property. These include the bridge on the access road to Goose Pond Dam, the access bridge for the Three Mile Dam, a bridge over Ash Swamp Brook near the end of Bent Court, etc. Many of these are nearing the end of their useful life and will require repairs or replacement in the future. Since these are private bridges and used for City operations, they are not eligible for New Hampshire Department of Transportation funding.

PUBLIC WORKS (TRANSPORTATION)

Main Street Rehabilitation (Rt. 101 to Marlboro Street)

The current CIP requests funds to advance the rehabilitation of the City's downtown. Although the exact scope of those improvements will be determined through the public engagement process over the coming years, the focus is expected to be on that portion of Main Street north of Marlboro Street. In future years, the City may wish to expand this investment on the portion of Main Street south of Marlboro. Of particular interest, based on resident feedback, are improved bicycle facilities and crosswalks.

Swanzy Factory Road Intersection Improvements

The New Hampshire Department of Transportation's draft Ten Year Plan for FY 19-28 includes approximately \$3.6 Million in FY 27 for the reconfiguration of the Swanzy Factory Road / Route 101 intersection. At this time, it is not clear what, if any, costs may be incurred by the City as a result of this project. It is possible that costs associated with water and sewer utility relocations will be imposed.

Traffic Signal Replacement

The FY19 CIP includes a request to begin the phased replacement of the City's 13 traffic signals. Due to their age, the current signals do not meet all applicable federal guidelines. The proposal begins with replacement of signals in Central Square. The full replacement program will be phased over seven years at a total estimated project cost (2017 dollars) of \$1,055,000.

West Street Corridor Improvements

Recently completed City projects on Court, Washington and Water Streets along with planned work on Main, Winchester, Marlboro and Roxbury Streets will address the majority of the City's gateway corridors. Conspicuously absent from this list is West Street. There are no current plans for rehabilitation of this corridor. However, during the development of the City's Comprehensive Master Plan in 2010, residents and business owners frequently mentioned this corridor as presenting a significant opportunity for reinvestment and economic development.

APPENDIX B

This appendix includes the Water and Sewer Funds (PUBLIC HEALTH AND SAFETY) capital projects that are scheduled for FY 2025 and beyond. Also included is a brief discussion of water main replacement funding. Due to the nature of aging utility infrastructure, and the scope of the proposed projects, this information is provided in an effort to better inform the long term discussion regarding utility fund infrastructure.

SEWER AND WATER INFRASTRUCTURE

Sewer Main Infrastructure

In the fall of 2017, the City applied for and received funding for the development of an Asset Management Plan for our sewer collection system through the Clean Water State Revolving Fund. The plan is expected to be completed by the summer of 2018. The recently completed inflow and infiltration work is providing the data needed to complete a rating similar to the risk and consequence analysis performed for water mains. This CIP includes replacing sewers in conjunction with Marlboro Street improvements and sewers on Blossom Street and Colony Court that have capacity deficiencies. The average cost of these projects is \$729,000 and represents a sewer main replacement rate of 1,650/feet per year. With more than 90 miles of sewer main, this rate of work sees replacement of the entire sewer system over 288 years. Sewer mains have an expected life of 50-100 years depending on the material and the risks of operating a main past its expected life include collapse, blockage, and overflows – all of which lead to unexpected disruption of customer service. The Administrative Order and associated fine levied to the City in 2004 by the federal Environmental Protection Agency was focused on the functionality, operation, and maintenance of the sewer system. The City responded by replacing and upgrading many of the oldest mains, but extending the replacement/rehabilitation of the remainder of the sewer mains may lead to increased failures over time.

Water Main Infrastructure

In 2016 a Water Mains Asset Management Plan was developed to provide a qualitative roadmap for prioritizing the replacement or rehabilitation of the City's drinking water mains. Based on the probability and consequences of failure, the four highest ranking mains are scheduled for replacement over the 6 years in this CIP. Due to budget constraints, the recommended annual work is planned for alternate years, FY 2019, 2021 and 2023. The City owns more than 100 miles of water mains and, over the 6 years of the current CIP, is scheduled to replace approximately 1.2 miles. While this pace maintains level funding, it does not keep pace with the recommended rehabilitation/replacement rate. At the rate of replacement reflected in the current CIP, the City's water mains will be replaced in approximately 500 years. While many of our existing mains have been in service for more than 100 years, it is not reasonable to expect a 500-year service life.

The Water Mains Asset Management Plan as presented to City Council in May of 2016 recommends an average annual funding cost of approximately \$830,000 (in 2016 dollars) to replace 3,280 feet per year between 2017 and 2069. Thereafter, the recommended spending is \$1.57 million (in 2016 dollars) to replace 5,707 feet per year through 2120. This level of spending replaces most of the City's water mains over 110 years.

While failure to replace water mains at this rate doesn't guarantee there will be catastrophic main breaks and severe consequences it certainly increases that risk. It is recommended the City use the pace of replacement in the Asset Management Plan as a guide for water main infrastructure improvements while understanding the potential risks associated with underfunding as it strikes a balance between project funding, operating budgets, competing projects, reliable and predictable water service and supply, and water rates.

	Replaced Length (average feet per year)	Funding (average \$ per year)
Proposed Water Main Replacement	1,004'	\$475,633
Proposed Water Main Lining	1,212'	\$255,550
Total CIP FY19-24	2,216'	\$731,183
Asset Management Plan Recommendations	3,280'	\$830,000

Public Works recommends the rate of replacement and lining be increased to approximately \$830,000 per year in FY 2025 and beyond in order to keep pace with the aging pipe network.

SEWER

WWTP Grit Removal System

This project replaces the grit removal equipment at the Wastewater Treatment Plant which came online in 1985. The grit system consists of two 40,000 gallon chambers intended to remove sand and other inorganic material as part of the treatment process. It is equipped with a clamshell style bucket, mounted to an overhead hoist in the grit chamber. This system is original to the plant and was designed to have an employee operate the crane one scoop at a time to remove the grit and inorganics that settles into the two chambers. It has a low level of functionality as the operator cannot see what is going on below the water surface and operates the clamshell blindly. The process takes a few days to clean one chamber and once the material is removed, it carries high odors and disposal costs because it contains organic material and water. The upgraded system will automatically remove the material daily and wash out the organic material, and dry it for disposal while creating little odor.

This project was originally budgeted in the FY17 CIP at an estimated cost of \$1.9 million, but was moved out because the Advanced Treatment Upgrade became priority and capital project funds were limited. A newer and more functional system for removing grit remains a valid project, but in recognition of budget limitations and competing projects, this project has been moved out approximately 13 years when the system will be approximately 45 years old. The estimated costs are shown in the table below.

Evaluation	Design	Construction
Estimated Cost = \$25,000 in FY2025	Estimated Cost = \$190,016 in FY2027	Estimated Cost = \$2,423,931 in FY2030

WWTP Service Water System

This project replaces the original 1985 non-potable service water system at the Wastewater Treatment Plant. Non-potable service water is wastewater that has received complete treatment and can be discharge into the river, but is not suitable for drinking. To conserve resources, treated water is filtered then recycled for use in applications when drinking quality water is not required. Originally scheduled for replacement in FY17, budgetary restrictions have required the work and schedule to be changed. The controls, motors, and filters will be refurbished in FY19 to extend their use and to defer total replacement by at least 8 years. The eventual replacement should be considered for FY 2026 when the system is 41 years old, or when the replacement parts are no longer available. Technology for replacement equipment includes energy efficient, vertical multi-stage pumps with variable frequency drives, and a filter backwash system for removing fine particles, resulting in lower electric use and a cleaner product.

Estimated Cost = \$159,884 in FY2026

WWTP Sludge Pump Replacement

In 1985, the WWTP's original equipment included five piston and bucket pumps for pumping the sludge that settles out of the primary clarifiers, scum wells and RV pump station. These systems were designed to run on a timer or by mechanical/human interface. Based on age and technology, these pumps were scheduled for replacement in FY18, but due to budgetary restrictions they are being refurbished with new parts in FY17 to extend their operational abilities to FY 2026. The pumps should be replaced by 2026 when they are 41 years old. The new system will be enclosed, will not create a corrosive atmosphere and will be fully automated into the plant SCADA system.

Estimated Cost = \$772,426 in FY2025

WATER

Blowers and Backwash Pump Replacement – Water Treatment Facility

The Water Treatment Facility (WTF) became operational in 1993 and most of the process equipment is original to the plant. The November 2013 "Water Facilities Evaluation" performed by Tighe and Bond describes the average lifespan for this type of equipment being approximately 20 to 30 years.

The existing blowers that provide air for filters cleanings are original equipment and were re-built in 2003. The backwash pumps provide water for the filter cleanings and are also original equipment. The equipment is in good condition and has been properly maintained however based on the age of the equipment Tighe and Bond recommends they be replaced within 12 to 16 years of their evaluation, or when they are about 32 years old. Newer equipment will be more energy efficient and designed to minimize impact on water quality.

Estimated Cost = \$407,594 in FY2025

Booster Station Electrical Equipment Upgrade - Glen Road

The Glen Road Pump Station is a below grade precast concrete pump station that was constructed in 1983. The pump station has three pumps ranging in size from 25 gallons per minute (gpm) to 100 gpm. The majority of the equipment was upgraded in 2002 and is in good condition. However, the electrical equipment including the electrical distribution system that consists of a 240 volt main disconnect switch, manual transfer switch, generator plug and load center are original and according to the 2013 Tighe and Bond evaluation have reached the end of their useful life and should be replaced to avoid unexpected service interruptions. This project was originally scheduled for FY24, but has been rescheduled for FY25 based on its maintenance history and equipment condition.

Estimated Cost = \$20,159 in FY2025

Chlorine Injection Stations – Drummer Hill and Blackbrook

To maintain water quality in water storage tanks, operators strike a balance between the residual chlorine concentration and the level of disinfection byproducts that are created as water is stored. Because the water tanks are sized for fire protection, water can remain in the tank for several days before it is used and during this time the residual chlorine can dissipate or form regulated byproducts. Today, in order to increase the chlorine concentration, water treatment operators scale the tank and drop in chlorine tablets. This results in an uneven chlorine dose and residual; higher after the tablets are first dropped in and lower as they dissolve. Chlorine injection stations would result in a more consistent dose and predictable water quality.

This project included a study performed by Underwood Engineers in 2014 that evaluated the water quality impacts, risks, and benefits of injecting chlorine directly into the water storage tanks. The construction of these booster stations were scheduled for FY 2016 and FY 2017, but were moved back due to tank and booster station replacement/improvements at Drummer Hill. Originally scheduled for FY24, these improvements are scheduled for FY25 to allow the tank improvement projects to be completed.

The injection stations would include a small building that houses a chlorine tank, pump, electrical equipment and online monitoring equipment that would be tied into the SCADA system. This system would allow the water operator to be able to meter and trend the residual chlorine levels on SCADA and remotely increase or decrease the chlorine dose to respond to water quality issues.

Drummer Hill	Black Brook
Estimated Cost = \$152,225 in FY2025	Estimated Cost = \$157,842 in FY2026

Generator and Switchgear – Water Treatment Facility

The Water Treatment Facility's 250 KW generator was installed in 1997 to provide backup power to the plant's critical equipment so that treatment is able to continue when line power is interrupted. A facilities evaluation done in 2013 by Tighe and Bond Engineers recommended replacing the generator in FY 2024 when it will be 27 years old. Originally scheduled for replacement in FY24, this project is now scheduled in FY25 based on the condition and operating history of the generator. The transfer switch will be replaced in FY18 because of recent operational failures. Due to its age, reliability may be compromised as replacement parts for the generator and switch gear become harder to procure. If the generator does not operate correctly when the plant loses line power, the plant's ability to provide clean, safe drinking water and fire protection for the City would be impacted.

Estimated Cost = \$327,900 in FY2025

Liquid Propane Tank Replacement – Water Treatment Facility

The Water Treatment Facility (WTF) went on line in 1993, and its present two 1000 gallon liquid propane tanks that provide fuel for heating are buried underground on site. A facilities evaluation performed in 2013 by Tighe and Bond Engineers, recommends replacement of the tanks in FY 2024, they will be 31 years old. Over time and normal aging, corrosion creates pits or holes in the tank and lines. Leaking propane increases the potential for fires or explosions resulting in personal injuries and property damage. Originally scheduled for FY24, the replacement of this tank is now scheduled in FY25 based on its condition and maintenance history.

Estimated Cost = \$85,476 in FY2025

Total Organic Carbon Analyzer - Water Treatment Facility

The Water Treatment Facility (WTF) is equipped with continuously online monitoring equipment that is relied on to provide accurate and reliable data for the Plant’s Supervisory Control and Data Acquisition System (SCADA) to allow the plant to operate autonomously and to allow trending, electronic record-keeping and lets staff make process changes to optimize water treatment. Over time this equipment requires replacement due to condition, the ability of the manufacturer to provide support, or simple obsolescence.

The online TOC analyzer continuously measures levels of organic carbon in the raw and treated water which vary according to season, water level, temperature, or rainfall. Compliance with the stage 2, disinfection by-product rule requires changes to chemical dosing and treatment strategies in response to changing TOC level changes – so the data provided by the TOC analyzer is an important part of the feedback system for chemical dosing and operations. The current TOC analyzer was installed in FY 2015 and has a useful life of approximately 10 years.

Estimated Cost = \$36,337 in FY2025

Water Booster Station Upgrade - Drummer Hill

The Drummer Hill Booster Station is a small below grade pre-cast concrete pump station that was constructed in 1987. The pump station includes two 47 gallon per minute pumps that pump water to the Drummer Hill tank. The 2013 “Low pressure Zone Solutions Study” prepared by Underwood Engineers recommends replacing the underground station with an above ground station with larger pumps that can potentially supply the Fox Avenue area.

The 2013 Tighe and Bond evaluation also recommends replacing the underground station with an above ground station to allow for adequate space for the equipment and eliminate the need for staff to perform confined space entries. The electrical equipment including control panels and the transfer switch is original and is also below grade and should be replaced and moved above ground. The two pumps are original to the pump station, have been re-built several times and are approaching the end of their useful life. This pumping station is not equipped with an emergency power. Tighe and Bond recommend installing a generator and automatic transfer switch to provide continuous operation during a power outage.

An evaluation of this station was scheduled for FY 2024 to help staff determine the best course of action for addressing the deficiencies at this station and allows replacement when it is 40 years old, but has been rescheduled for FY25 due to the maintenance history and overall condition.

Evaluation	Design	Construction
Estimated Cost = \$25,000 in FY2025	Estimated Cost = \$236,490 in FY2026	Estimated Cost = \$709,471 in FY2028

Well Field and Corrosion Control Upgrades – West and Court Street Well Fields

The City's surface water supply is supplemented by 4 groundwater wells located on West and Court Streets. The FY 2020 evaluation will consider the City's current and future water demands and provide financially-based recommendations for the rehabilitation of current facilities compared to the development and construction of a new groundwater supply.

The West Street and Court Street well facilities include three well buildings that were constructed in the mid 1960's, one well building that was constructed in 1977 and two corrosion control buildings that house chemical feed equipment that were constructed in 1988. The November 2013 "Water Facilities Evaluation" performed by Tighe and Bond included many action items for both facilities. The current FY 2020 project funds a more in-depth detailed evaluation of these facilities.

The proposed evaluation will provide recommendations for repair/replace/relocation of the City's groundwater facilities and will assist the City in determining the best approach to addressing the deficiencies identified in the Tighe and Bond report. The study will evaluate the process, mechanical, civil, electrical, structural and architectural components of the system.

Court Street	West Street
Estimated Design Cost = \$446,478 in FY2027	Design = \$408,590 funded in FY2023
Estimated Construction Cost = \$2.2 million in FY2027	Estimated Construction Cost = \$1.2 million in FY2025

APPENDIX C

This appendix is a grouping of FY 2019 – 2024 CIP projects by geographical distribution within the City. Projects identified are related to Parks, Recreations, & Cemetery, Parking, and Public Works.

EAST

FY19

- 560 Main Street Assessment
- Bridge Rehabilitation/Replacement – Roxbury Street
- Marlboro Street Corridor Improvements
- Parking Structure Maintenance – City Hall
- Road Rehabilitation - Carpenter Street, Ellis Court (Wright to Woodbury), Fowler Street, Kingsbury Street, Marlboro Street, Valley Street, Village Drive, Wright Street
- Robin Hood Park Pool - Water Slide
- Sewer Improvements – Marlboro Street
- Water Distribution Improvements – Marlboro Street
- Water Treatment Facility Instrumentation Upgrade
- Water Treatment Facility Pressure Reducing Valve Replacement

FY20

- Chapman Road Tank Repairs – Design
- City Hall Parking Structure Maintenance
- Flood Management Project – Roxbury Street
- Main Street (Rte. 101 to Marlboro Street), Proctor Court, South Street
- Parking Structure Maintenance – Wells Street
- Road Rehabilitation - Adams Street, Adams Court, Avalon Place, Elliot Street, Gates Street, Moore Farm Road, No Name Road, Proctor Court, Roxbury Street, South Street, Sullivan Road (Rte. 9 to town line)
- Water Booster Station Repair – Fox Circle
- Water Main Cleaning and Lining – Roxbury Street (Reservoir Street to Oak Drive)
- Water Treatment Facility Media and Filter Replacement

FY21

- Bridge Repair and Replacement Program – George Street
- Carpenter Field Improvements
- Road Rehabilitation – Concord Road, Martin Street
- Sewer Main Replacement – Colony Court
- Water Main Cleaning and Lining – Roxbury Street (Reservoir – Oak)

FY22

- 1.5 MG Storage Tank Repairs
- Bridge Replacement/Rehabilitation – George Street
- Chapman Road Tank Repairs
- Road Rehabilitation - Chapman Road
- Flood Management Project – Church Street, Main Street
- Road Rehabilitation – Chapman Road
- Victoria Street Extension
- Water Distribution Improvements – Main Street (Central Square to Church Street)
- Water Main Cleaning and Lining – Main Street (Eagle to Winter) Water Treatment Facility Media and Filter Replacement
- Wells Street Parking Structure Maintenance

FY23

- 3 MG Storage Tank Repairs
- Main Street Crosswalk Improvements
- Road Rehabilitation - Main Street (Silent Way to City Limits)
- Sewer Manhole Lining
- Water Treatment Facility Pavement Repair
- Wells Street Parking Structure Maintenance

FY24

- Beaver Brook Flood Mitigation Project
- Flood Management Project – Church and Probate Streets
- Road Rehabilitation – Marlboro Street (Eastern Avenue to dead end)
- Sewer Manhole Lining
- Emergency Generator Installation – Chapman Road Pump/Tank

CENTRAL

FY19

- Goose Pond Repair Project
- Surface Parking Lot Maintenance – Kiosk for Gilbo Lot
- Road Rehabilitation – Court Street (Central Square to Westview), Gilsum Street, North Street (Elm to Gilsum), Woodburn Street

FY20

- Downtown Revitalization Improvements – Design
- Drummer Hill Tank Repair – Design
- Surface Parking Lot Maintenance - Kiosk for Elm Street and Library Lot
- Water Booster Stations Repairs – Glen Road

FY21

- Downtown Revitalization Improvements – Design
- Sewer Improvements – Colony Court

FY22

- Downtown Revitalization Improvements
- Drummer Hill Tank Repair
- Flood Management Project – Central Square
- Road Rehabilitation - Darling Road, Meetinghouse Road, Timberlane Drive
- Sewer Improvements – Conjunction with Downtown Revitalization work.

FY23

- Downtown Revitalization Improvements
- Road Rehabilitation – Court Street (Westview to Maple), Maple Avenue, North Lincoln Street
- Water Distribution Improvements – Court Street (East Surry Road to Maple Avenue)
- Well Field Upgrades – Court Street

FY24

- Downtown Revitalization Improvements
- Road Rehabilitation – Elm Street
- Traffic Signal Replacement Program – Central Square

WEST

FY19

- Bridge Rehabilitation/Replacement – Winchester Street/Rt. 10 over Ashswamp Brook
- Road Rehabilitation – Bridge Court, Harmony Lane, Perham Street, Richardson Court, Woodburn Street
- Surface Parking Lot Maintenance – Gilbo East Parking Lot
- Winchester Street Reconstruction (Rte. 101 to Ashuelot River) and Island Street Bridge Replacement
- Water Main Cleaning and Lining – West Street (Symonds Place to Mutli-Use Trail Crossing)

FY20

- Black Brook Tank Repairs
- Road Rehabilitation – Arch Street (Park to Hurricane), Main Street (Route 101 to Marlboro), River Street
- Skate Park
- Sewer Improvements – Blossom Street
- Water Main Cleaning and Lining – West Street (Symonds Place to Bradford Road)

FY21

- Road Rehabilitation - Cady Street, Cobb Street, Hooper Street, Lamson Street, Park Avenue, Salisbury Road, School Street (West to Emerald), Speaker Street, St. James Street
- Water Main Cleaning and Lining – Meadow Road

FY22

- Black Brook Tank Repairs
- Road Rehabilitation – Dickinson Road, Old Walpole Road
- Surface Parking Lot Maintenance – Surface and crack sealing in Gilbo West and Commercial Street
- Water Main Cleaning and Lining – Meadow Road

FY23

- Road Rehabilitation – Summit Road (Hastings to Park Avenue)
- Water Main Cleaning and Lining – Meadow Road
- Well Field Upgrades – West Street

FY24

- Emergency Generator Installation – Water Wells 2,3, and 4
- Road Rehabilitation – West Street (School to Park)
- Water Distribution Improvements – Design, Hasting Avenue
- Winchester Street Reconstruction PH II (NH Rte. 101 to Swanzey Town Line) - Design

FY 2019-2024 CIP - Proposed New Debt Service

Assumed Interest Rate 3.50%

FY 2018-2019

Consolidated Infrastructure	Amount 2019	Term (Years) 2020	Fund General 2021	2022	2023	2024	2025	2026	2027	2028	2029	Total
				2022	2023	2024	2025	2026	2027	2028	2029	
Principal	1,263,142	10	General	126,314	126,314	126,314	126,314	126,314	126,314	126,314	126,314	1,263,142
Interest	22,105	168,314	163,893	159,472	155,051	150,630	146,209	141,788	137,340	132,946	128,525	1,506,270

Goose Pond Dam	Amount 2019	Term (Years) 2020	Fund General 2021	2022	2023	2024	2025	2026	2027	2028	2029	Total
				2022	2023	2024	2025	2026	2027	2028	2029	
Principal	879,400	20	General	43,970	43,970	43,970	43,970	43,970	43,970	43,970	43,970	879,400
Interest	15,390	73,980	72,441	70,902	69,363	67,824	66,285	64,746	63,207	61,668	60,129	1,202,580

State By-Pass Project	Amount 2019	Term (Years) 2020	Fund General 2021	2022	2023	2024	2025	2026	2027	2028	2029	Total
				2022	2023	2024	2025	2026	2027	2028	2029	
Principal	603,336	15	General	40,222	40,222	40,222	40,222	40,222	40,222	40,222	40,222	603,336
Interest	10,558	60,635	59,227	57,820	56,412	55,004	53,596	52,189	50,781	49,373	47,965	772,270

Martell Court Headworks	Amount 2019	Term (Years) 2020	Fund Sewer 2021	2022	2023	2024	2025	2026	2027	2028	2029	Total
				2022	2023	2024	2025	2026	2027	2028	2029	
Principal	1,342,560	15	Sewer	89,504	89,504	89,504	89,504	89,504	89,504	89,504	89,504	1,342,560
Interest	23,495	134,927	131,795	128,662	125,529	122,397	119,264	116,131	112,999	109,866	106,734	1,712,212

FY 2019-2024 CIP - Proposed New Debt Service

Assumed Interest Rate 3.50%

FY 2019-2020

Consolidated Infrastructure	Amount 2020	Term (Years) 2021	Fund General 2022	2023	2024	2025	2026	2027	2028	2029	2030	Total
				2023	2024	2025	2026	2027	2028	2029	2030	
Principal	1,430,073	10	143,007	143,007	143,007	143,007	143,007	143,007	143,007	143,007	143,007	1,430,073
Interest	25,026		42,545	37,539	32,534	27,529	22,524	17,518	12,513	7,508	2,503	275,289
Total	25,026	190,557	185,552	180,547	175,541	170,536	165,531	160,526	155,520	150,515	145,510	1,705,362

Flood Management	Amount 2020	Term (Years) 2021	Fund General 2022	2023	2024	2025	2026	2027	2028	2029	2030	Total
				2023	2024	2025	2026	2027	2028	2029	2030	
Principal	861,380	15	57,425	57,425	57,425	57,425	57,425	57,425	57,425	57,425	57,425	861,380
Interest	15,074		27,133	25,124	23,114	21,104	19,094	17,084	15,074	13,064	11,054	241,186
Total	15,074	86,569	84,559	82,549	80,539	78,529	76,519	74,509	72,499	70,490	68,480	1,102,566

State By-Pass Project	Amount 2020	Term (Years) 2021	Fund General 2022	2023	2024	2025	2026	2027	2028	2029	2030	Total
				2023	2024	2025	2026	2027	2028	2029	2030	
Principal	525,680	15	35,045	35,045	35,045	35,045	35,045	35,045	35,045	35,045	35,045	525,680
Interest	9,199		16,559	15,332	14,106	12,879	11,652	10,426	9,199	7,973	6,746	147,190
Total	9,199	52,831	51,604	50,378	49,151	47,924	46,698	45,471	44,245	43,018	41,792	672,870

Dam Improvements	Amount 2020	Term (Years) 2021	Fund Water 2022	2023	2024	2025	2026	2027	2028	2029	2030	Total
				2023	2024	2025	2026	2027	2028	2029	2030	
Principal	1,585,976	20	79,299	79,299	79,299	79,299	79,299	79,299	79,299	79,299	79,299	1,585,976
Interest	27,755		51,346	48,571	45,795	43,020	40,244	37,469	34,693	31,918	29,142	582,846
Total	27,755	133,420	130,645	127,869	125,094	122,318	119,543	116,767	113,992	111,217	108,441	2,168,822

Transfer Station Roof	Amount 2020	Term (Years) 2021	Fund SolidWaste 2022	2023	2024	2025	2026	2027	2028	2029	2030	Total
				2023	2024	2025	2026	2027	2028	2029	2030	
Principal	166,750	15	11,117	11,117	11,117	11,117	11,117	11,117	11,117	11,117	11,117	166,750
Interest	2,918		5,253	4,864	4,474	4,085	3,696	3,307	2,918	2,529	2,140	46,690
Total	2,918	16,758	16,369	15,980	15,591	15,202	14,813	14,424	14,035	13,646	13,257	213,440

FY 2019-2024 CIP - Proposed New Debt Service

Assumed Interest Rate 3.50%

FY 2020-2021

Consolidated Infrastructure	Amount 2021	Term (Years) 2022	Fund General 2023	2024	2025	2026	2027	2028	2029	2030	2031	Total
				2024	2025	2026	2027	2028	2029	2030	2031	
Principal		130,765	130,765	130,765	130,765	130,765	130,765	130,765	130,765	130,765	130,765	1,307,647
Interest	22,884	43,479	38,903	34,326	29,749	25,172	20,595	16,019	11,442	6,865	2,288	251,722
Total	22,884	174,244	169,667	165,090	160,514	155,937	151,360	146,783	142,207	137,630	133,053	1,559,369

Carpenter Field	Amount 2021	Term (Years) 2022	Fund General 2023	2024	2025	2026	2027	2028	2029	2030	2031	Total
				2024	2025	2026	2027	2028	2029	2030	2031	
Principal		75,000	75,000	75,000	75,000	75,000	75,000	75,000	75,000	75,000	75,000	1,500,000
Interest	26,250	51,188	48,563	45,938	43,313	40,688	38,063	35,438	32,813	30,188	27,563	551,250
Total	26,250	126,188	123,563	120,938	118,313	115,688	113,063	110,438	107,813	105,188	102,563	2,051,250

Sewer Main Improvements	Amount 2021	Term (Years) 2022	Fund Sewer 2023	2024	2025	2026	2027	2028	2029	2030	2031	Total
				2024	2025	2026	2027	2028	2029	2030	2031	
Principal		97,034	97,034	97,034	97,034	97,034	97,034	97,034	97,034	97,034	97,034	1,455,513
Interest	25,471	49,245	45,849	42,452	39,057	35,660	32,264	28,868	25,471	22,075	18,679	407,544
Total	25,471	146,279	142,883	139,487	136,091	132,694	129,298	125,902	122,506	119,109	115,713	1,863,057

FY 2019-2024 CIP - Proposed New Debt Service

Assumed Interest Rate 3.50%

FY 2021-2022

Consolidated Infrastructure

	Amount 2022	Term (Years) 2023	Fund General 2024	2025	2026	2027	2028	2029	2030	2031	2032	Total
				2025	2026	2027	2028	2029	2030	2031	2032	
Principal	1,451,270	145,127	145,127	145,127	145,127	145,127	145,127	145,127	145,127	145,127	145,127	1,451,270
Interest	25,397	48,255	43,175	38,096	33,016	27,937	22,858	17,778	12,699	7,619	2,540	279,369
Total	25,397	193,382	188,302	183,223	178,143	173,064	167,985	162,905	157,826	152,746	147,667	1,730,639

Flood Management

	Amount 2022	Term (Years) 2023	Fund General 2024	2025	2026	2027	2028	2029	2030	2031	2032	Balance	Total
				2025	2026	2027	2028	2029	2030	2031	2032		
Principal	577,380	38,492	38,492	38,492	38,492	38,492	38,492	38,492	38,492	38,492	38,492	192,460	577,380
Interest	10,104	19,535	18,187	16,840	15,493	14,146	12,799	11,451	10,104	8,757	7,410	16,840	161,666
Total	10,104	58,027	56,679	55,332	53,985	52,638	51,291	49,943	48,596	47,249	45,902	209,300	739,046

Victoria St. Extension

	Amount 2022	Term (Years) 2023	Fund General 2024	2025	2026	2027	2028	2029	2030	2031	2032	Balance	Total
				2025	2026	2027	2028	2029	2030	2031	2032		
Principal	1,481,000	74,050	74,050	74,050	74,050	74,050	74,050	74,050	74,050	74,050	74,050	740,500	1,481,000
Interest	25,918	50,539	47,947	45,356	42,764	40,172	37,580	34,989	32,397	29,805	27,213	129,587	544,268
Total	25,918	124,589	121,997	119,406	116,814	114,222	111,630	109,039	106,447	103,855	101,263	870,087	2,025,268

FY 2019-2024 CIP - Proposed New Debt Service

Assumed Interest Rate 3.50%

FY 2022-2023

Consolidated Infrastructure

Amount	Term (Years)	Fund	Assumed Interest Rate 3.50%															
			2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	Total				
1,454,872	10	General																
25,460	145,587	145,587	145,587	145,587	145,587	145,587	145,587	145,587	145,587	145,587	145,587	145,587	145,587	145,587	145,587	145,587	145,587	1,455,872
	48,374	43,282	38,190	33,098	28,006	22,914	17,822	12,730	7,638	2,546								280,063
25,460	193,962	188,870	183,778	178,686	173,593	168,501	163,409	158,317	153,225	148,133								1,735,935

Main Street Crosswalk

Amount	Term (Years)	Fund	Assumed Interest Rate 3.50%															
			2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	Total				
187,000	10	General																
3,273	18,700	18,700	18,700	18,700	18,700	18,700	18,700	18,700	18,700	18,700	18,700	18,700	18,700	18,700	18,700	18,700	18,700	187,000
	6,218	5,563	4,909	4,254	3,600	2,945	2,291	1,636	982	327								35,998
3,273	24,918	24,263	23,609	22,954	22,300	21,645	20,991	20,336	19,682	19,027								222,998

3.5 MG Water Tank

Amount	Term (Years)	Fund	Assumed Interest Rate 3.50%															
			2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	Total				
2,275,882	20	Water																
39,828	113,794	113,794	113,794	113,794	113,794	113,794	113,794	113,794	113,794	113,794	113,794	113,794	113,794	113,794	113,794	113,794	113,794	2,275,882
	77,664	73,682	69,699	65,716	61,733	57,751	53,768	49,785	45,802	41,819								836,387
39,828	191,459	187,476	183,493	179,510	175,527	171,545	167,562	163,579	159,596	155,613								3,112,269

FY 2019-2024 CIP - Proposed New Debt Service

Assumed Interest Rate 3.50%

FY 2023-2024

Consolidated Infrastructure	Amount 2024	Term (Years) 2025	Fund General	2026	2027	2028	2029	2030	2031	2032	2033	2034	Total
Principal	1,497,722	10	General	149,772	149,772	149,772	149,772	149,772	149,772	149,772	149,772	149,772	1,497,722
Interest	26,210			44,557	39,315	34,073	28,831	23,589	18,347	13,105	7,863	2,621	288,311
Total	26,210	199,571	194,329	189,087	183,845	178,603	173,361	168,119	162,877	157,635	152,393		1,786,033

Flood Management	Amount 2024	Term (Years) 2025	Fund General	2026	2027	2028	2029	2030	2031	2032	2033	2034	Balance	Total
Principal	712,500	15	General	47,500	47,500	47,500	47,500	47,500	47,500	47,500	47,500	47,500	237,500	712,500
Interest	12,469			22,444	20,781	19,119	17,456	15,794	14,131	12,469	10,806	9,144	20,781	199,500
Total	12,469	71,606	69,944	68,281	66,619	64,956	63,294	61,631	59,969	58,306	56,644		258,281	912,000

Breathing Apparatus	Amount 2024	Term (Years) 2025	Fund General	2026	2027	2028	2029	2030	2031	2032	2033	2034	Balance	Total
Principal	847,676	7	General	121,097	121,097	121,097	121,097	121,097	121,097	121,097	121,097	121,097	847,676	847,676
Interest	14,834			23,311	19,073	14,834	10,596	6,368	2,119	-	-	-	118,675	118,675
Total	14,834	148,646	144,408	140,169	135,931	131,693	127,454	123,216	-	-	-		966,351	

Beaver Brook Mitigation	Amount 2024	Term (Years) 2025	Fund General	2026	2027	2028	2029	2030	2031	2032	2033	2034	Balance	Total
Principal	500,000	15	General	33,333	33,333	33,333	33,333	33,333	33,333	33,333	33,333	33,333	166,667	500,000
Interest	8,750			15,750	14,583	13,417	12,250	11,083	9,917	8,750	7,583	6,417	14,583	140,000
Total	8,750	50,250	49,083	47,917	46,750	45,583	44,417	43,250	42,083	40,917	39,750		181,250	640,000