



City of Rochester, New Hampshire
PUBLIC WORKS DEPARTMENT
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MEMO PUBLIC WORKS & BUILDING COMMITTEE AGENDA

TO: PUBLIC WORKS AND BUILDINGS COMMITTEE
FROM: PETER C. NOURSE, PE
DIRECTOR OF CITY SERVICES
DATE: April 14, 2022
SUBJECT: Public Works & Buildings Committee Meeting
Meeting Date *Thursday April 21, 2022 at 7PM*

There will be a Public Works and Buildings Committee Meeting held on Thursday April 21, 2022 at 7PM. This meeting will be at City Hall in City Council Chambers

AGENDA

1. Approval of the March 17, 2022 PWC Minutes
2. Public Input
3. Evans Road
4. Pavement Moratorium Waiver Request – Union Street
5. Potters House – Foot Bridge Request
6. Water / Sewer Work Force Study
7. DPW Management Optimization –Employee Retention & Succession Planning
8. Other

Public Works and Buildings Committee
City Hall Council Chambers
Meeting Minutes
March 17, 2022

MEMBERS PRESENT

Councilor Donald Hamann, Chairman
Councilor Jim Gray- Vice Chairman
Councilor John LaRochelle

MEMBERS ABSENT

Councilor Chris Rice
Councilor Steve Beaudoin

OTHERS PRESENT

Peter C. Nourse PE, Director of City Service
Lisa J. Clark, Administrative Supervisor
John Sykora, PE Weston & Sampson Engineers
Sarah Viola Weston & Sampson Engineers

MINUTES

Councilor Hamann called the Public Works and Building Committee to order at 7PM

1. Approval of February 17, 2022 Meeting Minutes

Councilor LaRochelle made a motion to accept the minutes as presented. Councilor Gray seconded the motion. The motion passed unanimously.

2. Public Input

No Public Input.

3. Sewer System Master Plan (SSMP) – Presentation by Weston & Sampson Engineers

Mr. Nourse stated that the Sewer System Master Plan development was an approved Capital Improvement Plan (CIP) budgeted project and he stated it is also a requirement of the Administrative Order of Consent in regards to the Great Bay General Permit for Nitrogen Reduction. He also explained that we are awaiting our WWTP NPDES Phosphorus Permit issuance and he noted that standard language in these permit does require a SSMP. Mr. Nourse briefly describe what a SSMP is and stated that it is a holistic process for a Community to grow its sewer system while complying with environmental law. Mr. Nourse explained that a large component of the SSMP involves investigation, quantification and the elimination of Inflow and Infiltration (I&I). Mr. Nourse introduced John Sykora and Sarah Viola as the City's Consultant for the SSMP Project. Mr. Sykora displayed a PowerPoint presentation on the monitors. The first screen defined all acronyms and several terms that would be in use during the slideshow presentation. He explained the term Infiltration in regards to the sewer system means groundwater entry via defective pipes and manholes and he explained Inflow as the surface run off into the sewer system via intentional storm water systems, roof leaders and sump pumps for example. Mr. Sykora explain that Weston & Sampson is working

on the initial part of the SSMP which is the investigations of sewer flows and determining how much Infiltration and Inflow (I/I) is occurring within Rochester's sewer system. Ms. Viola described CCTV, flow meters and other equipment as types of equipment in use for the investigation and she explained that they would be using die testing and smoke testing as well as completing residential surveys with homeowners. Mr. Sykora explained that the Sewer System Master Plans will determine the schedule for planning Capital Improvement Plans based on the areas of the Community that have the highest I/I rates. Eliminating the I/I in a system gains the City back Wastewater System Capacity, improves the Wastewater Treatment Plant control process and reduces unit process stressors. Mr. Sykora explained that Weston & Sampson has broken the sewer system down into 23 separate areas for metering and they are gathering data to support the SSMP. He stated that the Administrative Consent Order for Nitrogen Reduction requires this work and it will likely be requirement of the pending NPDES permit. He also stated it is a good practice for lowering treatment cost. Councilor LaRochelle asked if they could give a ball park dollar amount to the treatment of storm water and ground water entering the sewer system. Mr. Nourse stated that a preliminary estimate is \$500,000 annually in additional chemical and electrical cost. He stated that the pumping and use of other treatment plant equipment in regards increased use is harder to quantify so they do expect that this estimate might be low. Mr. Sykora stated that they are in the preliminary investigation phase and that they will be able to hone in on those costs and will be able to provide a better estimate. Mr. Sykora discussed the cost saving of being proactive to repair in advance of issues vs. the cost to repair if there are breaks and other issues. Councilor Hamann asked about the customer surveys. Ms. Viola explained that customers are given many forms of advance notice, such as door hangers and letters and she stated they would not push back on those that were against providing access. Mr. Nourse discussed the Woodman Area Reconstruction Project that is due to start up soon. He stated that this area has been found to have the highest Inflow concentration in the City and the project will address both groundwater penetrations into the sewer system and the rainwater penetrations from homeowner connections. Councilor Hamann asked for the PowerPoint Presentation to be attached to the minutes. (SEE ATTACHED)

4. Colonial Pines Sewer Extension Project – Phase 3 Update

Mr. Nourse stated we are currently in Phase 3 of the Sewer System Extension Project. He stated that Phase 1 brought sewer pipe under the Spaulding Turnpike to this neighborhood. Phase 2 installed sewer mains to a portion of the neighborhood streets and connected approximately 100 homes to the system. He stated that the current Phase 3 is in progress and includes installation of approximately 7300 feet of sewer main, 4000 feet of closed drainage pipes, and could connect up to 71 additional homes to the sewer system. He stated that the construction company has run into more ledge than expected, but the project is on schedule to be completed in March of 2023. Mr. Nourse briefly discussed Phase 4 of the project. He stated that the Phase 4 homes are newer and likely have working septic systems and approximately ½ are located outside the 100 feet mandate for connection. He stated that an updated survey will be conducted to determine the need and interest in the sewer system extension. Councilor LaRochelle asked when tie-in to the sewer system is mandated. Mr. Nourse stated that if homes are within 100 feet of the sewer main and have been notified to connect. He stated that those contacts are made when the sewer system is being installed to an area.

5. **Sandina Drive Pavement Conditions**

Mr. Nourse stated that last month the Sandina Drive roadway came up as one of the recommended streets for paving. He stated there was questions as to the age of roadway and about the documentation of the material of the original installation. Mr. Nourse explained that the road was accepted by the City in 1989, he also display pictures of the poor road conditions. Mr. Nourse stated that there is not documentation of the material underlying the street. Mr. Nourse did state that he believed this to be the original pavement and that it has held up for approximately 33 years. He also stated that the reclaim and pave will add a better base under the new pavement. Councilor Gray stated he did not need additional information but expressed he would like to know that we are learning as we go forward about the need for documentation of newly accept streets regarding the construction materials under the pavement. There was a brief discussion regarding the annual paving budget.

6. **Other:**

Four Rod Road New Pavement - Councilor Hamann discussed the conditions of new pavement at the intersection of Ten Rod and Four Rod Road and also at the intersection of Ian's Way and Four Rod Road. Mr. Nourse stated he would look at the conditions in the area.

Ten Rod Road Concrete Curbing – Councilor Hamann noted that he had been made award of rebar sticking out from the curbing and expressed his safety concerns. Ms. Clark stated she would complete a service request for the rebar to be addressed.

RT 202A Water Main Extension and Tank Project Update – Mr. Nourse stated that this is a 13.5 million dollar project to bring water mains to the Rt 202A corridor and its neighboring streets. He stated that the Winkley Farm Lane segment is nearly complete and service taps and hydrant valves are in progress. Mr. Nourse explained that the consultant is meeting with homeowners and working up estimates for cost to the individual homes. He stated that currently they have been in contact with approximately 84% of the abutters. He stated that those estimates will be delivered in mid-April and the homeowners will need to commit to the tie-ins by mid-May. Mr. Nourse stated that there is a ductile iron pipe shortage that is causing delivery issues and could delay the project. Mr. Nourse stated that the project called for trench patching only on Winkley Farm Lane, Fiddlehead Lane and the paved portion of Bickford Road. He stated that the pavement is in such poor conditions that he is recommending paving vs. trench patching. He displayed picture of the roadway that depicted the poor conditions. Mr. Nourse stated that the general contractor for the project has given us and estimate of \$208,000, which includes a trench patch credit, to reclaim and pave Winkley Farm Lane, \$71,000 for Fiddlehead Lane and \$18,000 for the paved portion of Bickford Road. He stated that this work would be scheduled for June 2022. Mr. Nourse explained that there is sufficient contingency budgeted in the project to cover the paving, but he expressed concern for expending the contingency this early in the project due to other possible needs for unforeseen conditions and the high cost of homeowner options. Mr. Nourse stated that an alternate to using the project contingency would be to wait until the FY 2023 Paving funds are appropriated and to pre-select this street vs. using the Paving Conditions Index (PCI) for street selection. He stated that waiting to use the paving funds retards the analytical process used to select streets, we will lose the trench patch credit, and we will pay the escalated cost of the pavement. Mr. Nourse stated that funding is not needed at

this time and he does recommend that we pave it now as we have the contingency, but he did want to consult with the Committee and make the Committee aware that about 1/3 of the contingency will be used early in the project and there could be unforeseen conditions that may require a supplemental appropriation later. Councilor Hamann stated that he agrees that it should be paved to get the road done right. Councilor Gray suggested that he could add the additional funds to FY2023 Paving appropriation to cover the cost or add a ½ million to the current paving account to be used for these roads and any remaining funds be used toward additional streets for paving based on the CPI.

Councilor LaRochelle stated that there is only ¼ of the City Council present and that he believes that Mr. Nourse can make this decision based on his judgement at this point if he is not requesting additional funds. Councilor Gray voice his preference for using the undedicated funds for paving vs. selecting some personnel items.

Councilor Gray made a motion to recommend that the full City Council approve a supplemental appropriation in the amount of \$500,000 from the General Fund Unassigned Fund Balance for the Paving Rehabilitation Program to include Winkley Farm Lane, Fiddlehead Lane, Bickford Road and other PCI selected streets with City Council approval. Councilor LaRochelle seconded the motion. The motion passed unanimously.

There was discussion regarding the full City Council sending the discussion to Finance Committee or if doing that would lengthen the process and prohibit the contractor's ability to get the funding approved in time for general contractor to get on the sub-contractor's June paving schedule. Mr. Nourse explained that he could commit to the contractor in advance as he does have the contingency funds available if the full City Council did not proceed with the supplemental appropriation. Mr. Nourse then discussed the progress on the temporary access through the Highfield Commons property. He stated that the road from Eisenhower Drive to the tank site is at the desired sub-base elevation and the water pipe is in place to the tanks site. He stated that the road should be completed in April so that the water pipe can be installed from the tank site down to Bickford Road.

Strafford Square Utility Relocation Project – Councilor Hamann asked if the Utility Relocation Project was to start up soon. Mr. Nourse stated that it was and that there is a meeting schedule for next week.

NHDOT Spaulding Turnpike Blasting – Mr. Nourse wanted to mention that blasting will be starting on this Turnpike Sound Wall Project and that there is more information posted on the City's website.

2022 Household Hazardous Waste Day (HHWD) – Mr. Nourse stated that the annual HHWD for Rochester and 9 surrounding communities will be held Saturday May 21, 2022 from 8:30 – 12:30 at the Waste Management Residential Drop off Center located at 18 Isinglass Road. He stated that the Residential Drop off will be closed for drop off of other trash related items.

Federal Budget & Congressional Delegated Funding – Mr. Nourse stated that the Federal Budget has been approved signed by the President. He stated that this budget does include some funding for the Congressional Delegated Spending Projects. He said for Rochester that includes the Wastewater Septage Receiving Facility Project in the amount of \$900,000 and Municipal Alliance for Adaptive Management (MAAM) has

received \$1,000,000 for Adaptive Management Projects.

Councilor Larochelle motioned to adjourn meeting at 8:14pm. The motion was seconded by Councilor Gray. The motion passed unanimously.

Minutes respectfully submitted by Lisa J. Clark, City of Rochester Administration and Utility Billing Supervisor.

DRAFT

Lisa Clark

From: Donald Hamann
Sent: Tuesday, April 12, 2022 9:08 AM
To: Ed Verge
Cc: Lisa Clark
Subject: RE: Evans Rd

Yes. Please send to me and Lisa Clark at: lisa.clark@rochesternh.net



Donald J Hamann
City Council Seat 5B
41 Ians Way
Rochester, NH 03867-4283
Donad.hamann@rochesternh.net
603-332-9246

*Not Received to make packet as of 4/14/2022
Rye*

From: Ed Verge <verge72466@protonmail.com>
Sent: Monday, April 11, 2022 6:02 PM
To: Donald Hamann <donald.hamann@rochesternh.net>
Subject: Re: Evans Rd

Caution: External email.

Don, thank you for any and all your efforts to help us resolve this.

Over this past weekend I printed out your email about the council meeting, and got it to everyone on the road. I'm hoping for a good turnout of people, if not I hope they reach out via email. 1 question, I have about a dozen pictures I think everyone should see before any discussion starts. If I send you the file can you make arrangements for them to be shown at the meeting.

Thanks again,

Ed and Christine

PS If your able take a ride up to Evans road Tues morning and see what we have to live with, I recommend using a truck.

----- Original Message -----

On Thursday, April 7th, 2022 at 10:00 AM, Donald Hamann <donald.hamann@rochesternh.net> wrote:

Mr Verge

Lisa Clark

From: Justin Gargiulo <justin.gargiulo@greatnorth.net>
Sent: Friday, April 8, 2022 2:03 PM
To: Peter Nourse; Lisa Clark
Cc: Jennifer Marsh; Michael Scala
Subject: 73-77 North Main Street Exemption

Importance: High

Caution: External email.

Hi Peter and Lisa,

My name is Justin Gargiulo. I am the owner of 73-77 North Main Street. As you may or may not know I am in the process of trying to get this building converted into residential units with commercial on the first floor.

At this time, I am seeking approval for an exemption from the Union Street moratorium as I need to be able to get water hooked up for my renovations. I have received an extension for the RSA 79E and without the exemption I will not have any chance of making my extended deadline of 3/31/2023 for substantial completion of this project. With contractors backed up as it is I am already at risk of a delay in completing this. I am asking that I be placed on the April 21st Public Works Committee agenda because time is of the essence to complete the project in time.

Tim Roy is the contractor I have chosen to do the work. He has been in touch with Tim Goldthwaite already about this project as recently as Monday of this week.

I look forward to hearing from you at your convenience.

Sincerely,

Justin Gargiulo
Sr. Vice President and Director of
Corporate Operations

e: justin.gargiulo@greatnorth.net

o: 800.639.7309

f: 603.766.6284

w: www.greatnorth.net



P.S. Don't forget about the Great North referral program. We pay 10% of the first year's management fee if you bring us a lead on a new association that's looking for management which results in new business for the company.



GREAT NORTH
PROPERTY MANAGEMENT, INC.

Lisa Clark

From: Blaine Cox
Sent: Tuesday, April 5, 2022 7:57 AM
To: Peter Nourse; Jennifer Marsh; Donald Hamann
Cc: Lisa Clark; Terence O'Rourke
Subject: RE: Footbridge - Potters House

Let's do both – place on PWC agenda and also check with Primex. Coordinate with Legal on checking with Primex and tailoring the existing lease with Revolution (Factory Court) to be used with Potters for the footbridge.

From: Peter Nourse <peter.nourse@rochesternh.net>
Sent: Tuesday, April 5, 2022 7:54 AM
To: Jennifer Marsh <jennifer.marsh@rochesternh.net>; Donald Hamann <donald.hamann@rochesternh.net>
Cc: Lisa Clark <lisa.clark@rochesternh.net>; Blaine Cox <blaine.cox@rochesternh.net>
Subject: RE: Footbridge - Potters House

My understanding is you were going to check with Primex first.

From: Jennifer Marsh <jennifer.marsh@rochesternh.net>
Sent: Monday, April 4, 2022 4:27 PM
To: Donald Hamann <donald.hamann@rochesternh.net>
Cc: Paul Callaghan <paul.callaghan@rochesternh.net>; Peter Nourse <peter.nourse@rochesternh.net>; Lisa Clark <lisa.clark@rochesternh.net>; Blaine Cox <blaine.cox@rochesternh.net>
Subject: RE: Footbridge - Potters House

Good Afternoon,

Just checking to see if this item should be added to the PWC this month. If so I can let the owners know so they can show up and present exactly what they would like to do.

Thanks,

Jenn

From: Donald Hamann <donald.hamann@rochesternh.net>
Sent: Wednesday, March 30, 2022 9:34 AM
To: Jennifer Marsh <jennifer.marsh@rochesternh.net>
Cc: Paul Callaghan <paul.callaghan@rochesternh.net>; Peter Nourse <peter.nourse@rochesternh.net>; Lisa Clark <lisa.clark@rochesternh.net>; Blaine Cox <blaine.cox@rochesternh.net>
Subject: RE: Footbridge - Potters House

I will discuss with City Manager and add to next PWC agenda.



Donald J Hamann
City Council Seat 5B

41 Ians Way
Rochester, NH 03867-4283
Donad.hamann@rochesternh.net
603-332-9246

From: Jennifer Marsh <jennifer.marsh@rochesternh.net>
Sent: Tuesday, March 29, 2022 12:49 PM
To: Donald Hamann <donald.hamann@rochesternh.net>
Subject: FW: Footbridge - Potters House

Councilor Hamann,

It was recommended I go to the PWC for the request below. Thoughts on this coming to your committee.

Thanks you and have a great week,

Jenn

Good Afternoon,

Here's a request I haven't had before: Potters House is looking to add a foot bridge/crossing over the wet area between them and the community center. They started by asking to add outdoor dining and then realized that the community center already has a few picnic tables outside. They are asking to build a footbridge that crosses the wet area and clear a better path to get back and forth from to their bakery to the community center.

I attached a photo of the location they want to build a bridge. They have people to construct the bridge but no plans or anything like that. Thoughts on if the city will allow this and what the process would be.

Thank you,

Jenn

From: Tim Willson <pottershousebakery@icloud.com>
Sent: Monday, March 28, 2022 4:33 PM
To: Jennifer Marsh <jennifer.marsh@rochesternh.net>
Subject: Fwd: Footbridge

Caution: External email.

Hi Jenn,

This is a picture of the area we would like to see the footbridge go.
Sent from my iPad

Begin forwarded message:

From: Sue Willson <uty0323@gmail.com>
Date: March 28, 2022 at 4:08:17 PM EDT
To: Tim Willson <pottershousebakery@icloud.com>





City of Rochester, New Hampshire

PUBLIC WORKS DEPARTMENT

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INTEROFFICE MEMORANDUM

TO: Katie Ambrose, Deputy City Manager
Kim Conley, Human Resources

FROM: Peter C. Nourse, Director of City Services

DATE: 30 March, 2022

SUBJECT: Rochester Workforce Study for Water and Sewer Departments:
Final; 01 February 2022

CC: Blaine Cox, City Manager

This report is the culmination of an approved FY21 CIP project to review the adequacy of Rochester's water and wastewater workforce resources given consistent, increasing environmental regulation. This final report follows on the draft that was submitted to you on 03 February. This report will be presented to the Public Works Committee this April.

Some salient highlights are:

- Rochester's water and wastewater workforce is understaffed in relation to the City's current and future needs.
- Management and operations can be better improved with some internal reorganization which would require the stand up of some new positions, and the conversion/realignment of some existing positions.
- Most new and realigned positions could be filled by current employees.
- Asset Management should be a greater focus area with direct leadership and management.
- Compensation for Rochester employees falls short of the regional average.

A five-year recommended master plan starting in FY23 is included in the study. The first personnel changes are recommended for FY23. I/O's have been submitted to HR in the FY23 budget process. This report supports those I/O's.

It is anticipated that compensation considerations for AFSCME personnel would be included in the calendar year 2023 contract negotiations.

Should you have questions regarding any aspect of the study, please do not hesitate to contact me. Thank you for your support on this initiative.

Enclosures:

1. Rochester Workforce Study for Water and Sewer Departments; Workforce Study Report: Final; 01 February 2022
2. DPW Workforce Master Plan



Rochester Workforce Study for Water and Sewer Departments

Workforce Study Report

February 1, 2022

Rochester, NH Department of Public Works



Rochester Workforce Study for Water and Sewer Departments

Project No: E2X91600
Document Title: Workforce Study Report
Revision: Final
Date: February 1, 2022
Client Name: Rochester, NH Department of Public Works
File Name: Rochester_Worforce_Study_Report_FINAL

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NOTE:

This document has been prepared on behalf of, and for the exclusive use of Rochester Department of Public Works, and is subject to, and issued in accordance with, the provisions of the contract between Jacobs and the Rochester Department of Public Works. Jacobs accepts no responsibility for the use of, or reliance upon, this document by any third party.

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Appendix A. Staffing Interviews Agenda

Appendix B. WERF Model Output

Appendix C. NEIWPCC Model Output

Appendix D. Jacobs Staffing Database Output

Appendix E. NACWA Salary Survey

Acronyms and Abbreviations

BOD	biochemical oxygen demand
CIP	Capital Improvement Plan
CMMS	computerized maintenance management system
DPW	Department of Public Works
ECI	Employment Cost Index
FTE	full-time equivalent
HEO	Heavy Equipment Operator
HR	Human Resources
IHS	Information Handling Services
IPP	Industrial Pretreatment Program
MGD	million gallons per day
NACWA	National Association of Clean Water Agencies
NEIWPCC	New England Interstate Water Pollution Control Commission
NHDES	New Hampshire Department of Environmental Services
O&M	operations and maintenance
SCADA	Supervisory Control and Data Acquisition
SOP	Standard Operating Procedure
WERF	Water Environment Research Foundation
WTP	Water Treatment Plant
WWTP	Wastewater Treatment Plant

1. Introduction

1.1 Project Overview

Driven by growth and changing regulations, the Rochester Department of Public Works (DPW) has engaged Jacobs Engineering to conduct a workforce study to address current and future needs for its water and sewer departments. The study is intended to address the structure, regulatory requirements, staff needs, job descriptions and equitable compensation practices. This report summarizes the process, findings, and recommendations for both the water and sewer department as a result of the study.

1.2 Approach and Methodology

The workforce study included a review of current practices and staffing for each department, staff interviews, and benchmarking relative to organizations of similar public utilities in the region. Working with DPW management and staff, the Jacobs team observed the management, operations, and maintenance of the DPW's water and sewer departments during their daily routines. Organizational effectiveness, as well as employee skills, training, and development of the staff were reviewed. The Jacobs team also considered the effectiveness of the processes that support the management, operations, and maintenance of the Wastewater Treatment Plant (WWTP), Water Treatment Plant (WTP), and centralized Utilities Department.

To identify potential opportunities in this effort, management and staffing interviews were performed during the week of September 20, 2021. The interviews included a total of 29 employees within the water and sewer departments of the DPW. Relevant data was also provided by the DPW to support in the analysis, such as staffing information, safety records, maintenance records, and operating data.

Following the collection of data from the DPW and the staff interviews, benchmarking and modeling efforts were also conducted to compare the organizational structure with other similar public utilities. The benchmarking included comparison against a variety of resources as well as Jacobs' in-house databases. The overall process, findings, and recommendations are summarized in further detail within this report.

2. Current Staffing and Organization

The Rochester Department of Public Works (DPW) serves the City's needs with the engineering division, a water and a wastewater utility, a buildings and grounds division, and the highways division. Focusing on the water and wastewater utilities, Table 2-1 depicts the current staffing levels by full-time equivalent (FTE) and pay grade for the employees assigned to the water and wastewater utilities. Figure 2-1 shows the current DPW organizational structure.

Table 2-1. Current Staffing Levels

Group	Position	FTE	Pay Grade
Management	Director of City Services	0.66	18
Engineering	City Engineer	0.66	15
	Assistant City Engineer ¹	1	12
	Inspector	0.5	Vacant
	GIS Technician ²	1	11
Billing/Admin	Administration/Utility Billing Supervisor	0.66	10
	Utility Billing Administrators	2	5
	Meter Reader	2	2
Water O&M	WTP Chief Operator	1	11
	Lead Operator (Water)	1	6
	Operator (Water)	3	5
	Laborer	1	1
Wastewater O&M	WWTP Chief Operator	1	11
	Lead Operator (WW)	1	6
	Operator (WW)	2	5
	Maintenance Lead (WW)	1	6
	Mechanic (WW)	1	5
Collection System and Distribution System	Pump Station Technician	3	4
	Municipal Services Supervisor Utilities	1	11
	Lead Heavy Equipment Operator	1	6
	Heavy Equipment Operator	1.66	4
	Medium Equipment Operator	1.66	2
	Light Equipment Operator	1	2
	Total	29.8	

¹ Assumes one Assistant City Engineer of the three positions is fully dedicated to the W/WW utility

² Assumes one GIS Technician of the two positions is fully dedicated to the W/WW utility

Source: Rochester DPW, September 2021

Organizational Chart for the Rochester Department of Public Works

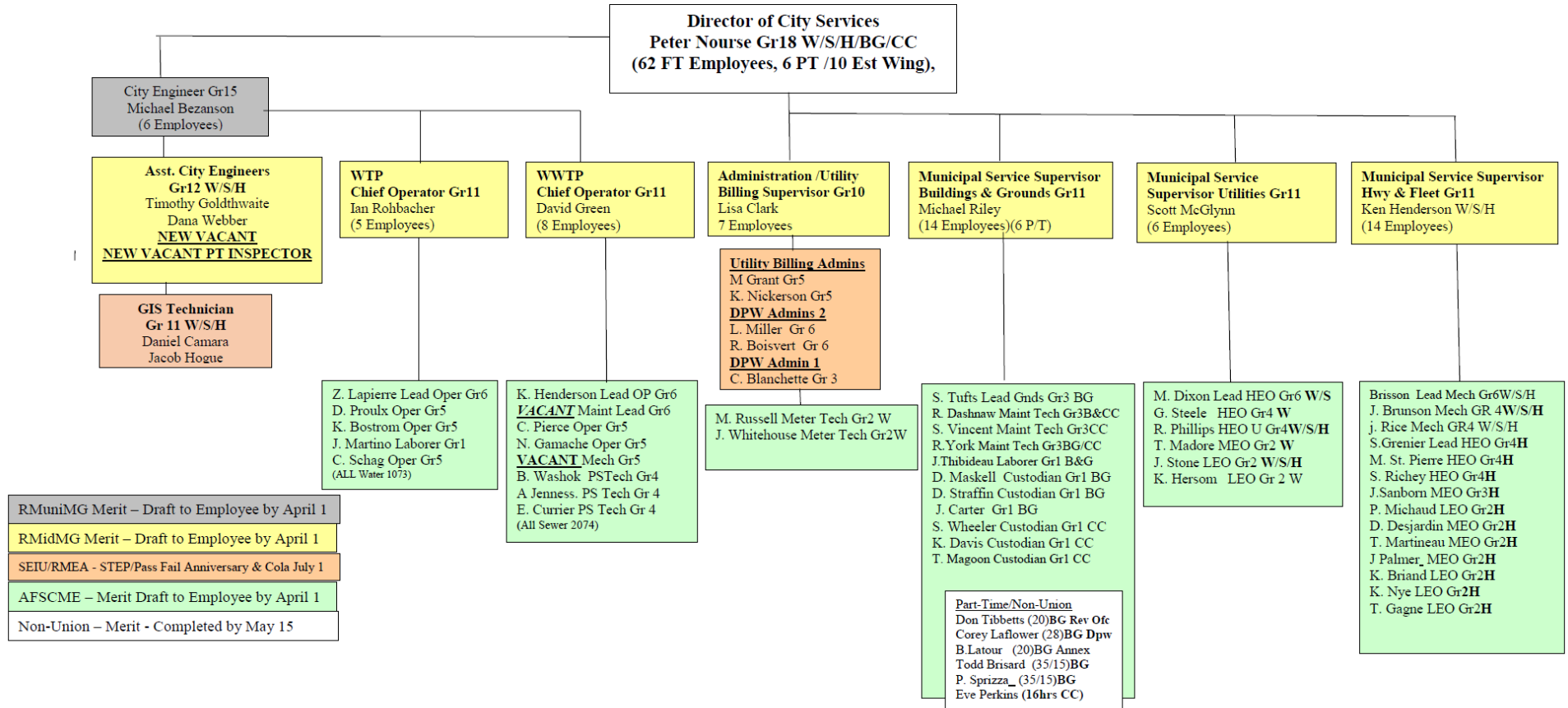


Figure 2-1. Rochester Department of Public Works Current Organizational Chart

Source: Rochester DPW, September 2021

3. Field Interviews Observations and Findings

Staff interviews were conducted with DPW management and staff during the week of September 20, 2021. A total of 29 employees within the water and sewer divisions of the DPW were individually interviewed by the Jacobs team. The discussions covered diverse topics and, in most cases, allowed the Jacobs staff to observe and understand the employee's daily routine. Appendix A includes a copy of the agenda for the staff interviews, which lists examples of topics covered during the discussions.

This section summarizes the key observations observed during the interviews.

3.1 Management

Many areas of water and wastewater utility work require administration by certified personnel – water treatment, water distribution, wastewater collection and backflow prevention are the most notable areas. This can be accomplished by either top-down organizational structure geometry (i.e., the certified person has direct supervision of all personnel working on certification-dependent tasks) or by “diagonal line” structures where job descriptions and less formal supervision is used. Currently, several such tasks are completed under a very informal process. As organizations are in development stages (improving communications, efficiencies, tracking, etc.) the more formal structure tends to be more effective. Organizations that have already achieved a high level of performance can often use the diagonal line / less formal structure. This should be kept in mind as the organizational structure is modified and must be considered as job descriptions are updated – to clearly show the authority of those holding required certifications.

The field management staff of the utilities seem well suited to their current jobs. It was apparent from the interviews that some reorganization is warranted. The current organization has the City Engineer as the party responsible for the utilities. Providing a senior utility-focused staff member with a high level of experience and knowledge would be a benefit to the city.

Technical knowledge of management staff was appropriate in most areas. The current organizational structure and management of staff is effective in terms of keeping the systems operating but is lacking in terms of tracking work completed, prioritizing work, safety, training, staff development, morale, communications and support of utility mission.

Currently there are few roles dedicated primarily to management of staff. Without a management focus on communication, training, employee development, safety and mission, these topics are left to be addressed by lower-level supervisors and lead workers. Thus, levels of effort in these areas vary significantly by work group. The water plant addresses these areas to a significant extent. These areas are less effective in the wastewater treatment and water distribution / sewer collection group.

The addition of management positions above the existing supervisory positions would allow certain higher-level responsibilities, such as regulatory issues/reporting, staff development, customer service/complaints/issues, and capital improvement planning, to be offset to the managerial role. With a role dedicated to these activities, these areas can be more effectively covered.

Our recommendations include a Deputy Public Works Director-Utilities to manage the water and wastewater systems. Reporting to the Deputy Director would be two new superintendent positions, one for the water utility and one for the wastewater utility. These new titles would be management positions.

The Engineering Department would support utilities with some of their staff dedicated to utility activities. One Assistant City Engineer and an Engineering Inspector would support the systems. Asset management and Geographic Information Systems (GIS) support from the Engineering Department is needed for both utilities.

We strongly encourage the management of all assets using a robust computerized maintenance management system (CMMS) and asset management. Maintenance management systems keep track of work orders, repair or preventive maintenance, costs of parts and repairs, basic data about each piece of equipment and vendors to support the equipment. Asset management supplements this to provide for longer term lifecycle cost optimization. To better manage workflow and asset management, it is recommended to elevate one of the existing GIS Technician roles to a leadership type position, such as GIS and Asset Management Coordinator. The intent would be to expand the responsibilities of this position to cover management and tracking of the City's asset management program. This position could be supported with implementation of a robust CMMS. The GIS (Beehive Industries) in use in the City should be continued to be used to manage the City's assets. This is a critical service to the City.

The current Chief Operators (water and wastewater) perform duties that align more closely with a Superintendent position duties. These include long range planning, regulatory issues, capital improvements, and personnel management. It is recommended that a new Superintendent position be added for each utility. This would be a management position. The roles and responsibilities for this new position are described in the following sections. The existing Chief Operator (water and wastewater) titles would remain in place. This would be a supervisory position.

To improve the skills of the staff, it is recommended that the following training be conducted:

- Leadership training and management training are needed to improve service delivery
- Culture of support and guidance will improve morale and staff commitment
- Safety training will promote a safety culture led from the top
- Technical training in specific areas – water distribution system disinfection and public notice requirements, process control for nitrification/denitrification, are two areas in particular

3.2 Water Treatment Plant and Storage / Pumping

The water system functions with a series of raw water reservoirs, a treatment facility, transmission lines, pumping/booster stations and storage tanks. The staff at the treatment plant manage the reservoir and treatment processes, storage tanks, and pump stations. The Municipal Services Supervisor Utilities team addresses the distribution system. There is no current process to have routine maintenance tracked. There is also no exercising of distribution system valves. Both of these processes could be implemented and tracked through a CMMS, which could also be linked to the GIS system.

The reservoirs and treatment facilities have had several improvements over the past several years, including reservoir structures, chemical feed equipment, filtration improvements, and pumping stations and transmission lines.

Several recommendations for this group are to consolidate the water utility under a single leader, a Superintendent (or manager). A position with the entire water utility as its focus would ensure regulatory issues, CIP, CMMS, training, and staff growth would occur. The backflow activities are best handled by existing metering staff as this is mostly an administrative function associated with customer accounts. Job descriptions should clearly call out overall responsibility for the backflow control program as the utility's certified operator. Additional observations from the interviews are noted below:

- No significant operational gaps were observed at the WTP.
- Staff are well trained for individual position tasks.
- Staff are cross trained to a large extent. The staffing headcount at the WTP appears sufficient for the current workload.
- Current position descriptions for this group appear appropriate, although some modifications in supervisory roles and responsibilities may be beneficial.
- The operations staff currently perform minor maintenance. A dedicated Maintenance Mechanic is recommended.

3.3 Wastewater Treatment Plant

Over the next year, a new dewatering facility and a new chemical feed system will be coming online at the plant. These new facilities will require additional staff. This staff should be hired and trained prior to the system start-up to provide for a smooth commissioning process. The NPDES permit upgrade will have phosphorus limits that will require additional processes and additional staff.

In keeping with our approach to consolidating all the wastewater utilities under one leader, we recommend a Superintendent of the Wastewater Utility. This person would be responsible for all facets of the utility. This position would report to the Deputy Director-Utilities.

The current arrangement of the staff and reporting includes the wastewater pumping stations staff reporting to the Chief Operator. We are recommending that the pumping stations be managed under a new Wastewater Collection System Supervisor. With the new dewatering equipment and chemical feed system coming into service soon, we recommend one additional treatment plant operator soon and another a few years into the future. Hiring this staff as well as training the existing staff to learn the new systems should occur as soon as possible. Along with this increase in the infrastructure and equipment, we recommend increasing the maintenance staff by one person in the near term and one in the future. We strongly recommend a CMMS for managing the assets in the utilities. This task would be managed by the maintenance supervisor (Lead Maintenance Mechanic) with the support of the Engineering group.

There are currently eight industries in the Industrial Pretreatment Program (IPP). We suggest a dedicated individual to manage this program. This role could also support the biosolids reporting and regulatory requirements. The title could be an IPP Inspector or Compliance Officer. This position could also support the backflow inspection program. These tasks may be assigned to the new superintendents and determine the need for the IPP coordinator after several years allowing for the evaluation of the situation.

Additional observations from the interviews are summarized below:

- Operators are performing current duties at a reasonable level for current treatment units.
- The facilities are in good condition and housekeeping is adequate. The facilities are maintained well, and equipment is replaced as needed.
- The high turnover rate within this group indicates issues that may be addressed through changes in communication style and/or compensation.
- Current staffing for pump station operations and maintenance appears inadequate.
- There are new wastewater processes coming online in the near term, including biosolids dewatering and chemical feed systems. This will require additional labor to effectively manage these systems. Additional testing and reporting will be needed to adhere to the regulatory requirements with the New Hampshire

Department of Environmental Services (NHDES). Staff should be added and assigned to these systems prior to completion of construction so they may learn how it was built and how to operate the equipment.

- The staff maintain certification training requirements in critical roles. There is an incentive system for certifications for water treatment, wastewater treatment, and collection/distribution staff. Outside of required certifications, there did not appear to be a process/procedure presented for staff to get training to improve their skills and grow professionally. More detailed training on the existing and proposed wastewater equipment would be beneficial.
- One area that could be adjusted is the lawn mowing and snow plowing of plant grounds and pumping stations. These tasks should be outsourced to either City Building and Grounds or a landscaping contractor. This will allow time for certified operators and other skilled workers to focus on their operations tasks and new processes.
- Housekeeping could also be outsourced with City Buildings and Grounds crews with light cleaning by the existing staff. This could also apply to painting and building maintenance tasks. This would relieve the existing staff for their operations tasks.

3.4 Distribution and Collection System

The organization of the current group serves two utilities, water and wastewater. We are concerned that adequate attention is not being given to each utility. A few areas for improvement include:

- The distribution system valve exercising program could be improved by having the work tracked in the CMMS (or other tracking system)
- Disinfection of water mains following repair could be streamlined; current process is quite limited and informal

One particular area of operation that is completed particularly well is hydrant flushing, which is performed twice per year and staff have begun implementation of uni-directional flushing on an as-needed basis.

We recommend splitting the current group into a water (distribution) group and a wastewater (collection system, including pumping stations) group. There could be cross training for support for one another. Each group leader (a supervisor) would report to the respective Superintendents proposed for each system in Section 3.2 and 3.3 (i.e., Water Superintendent and Wastewater Superintendent). Coordination with the treatment plants and leadership would be required.

3.5.1 Distribution System

To address the need for improved focus on the water distribution system, we recommend that a new group is formed addressing the distribution system. There would be a new position in the water group for the distribution system, Water Distribution Supervisor. This position would report to the Water Superintendent. The existing Heavy, Medium and Light Equipment Operators would be assigned to the new group as shown in the recommended organization chart in Section 5. The job titles could be revised to a title more representative of the work, such as "Water Distribution System Operator" (or "Technician"). The job description should call out areas of competency and work assignments in both water distribution and sewer collection. "Steps" or "I, II, III" levels should be provided to encourage staff development – so the positions would be based on certifications achieved (for instance, operator certification, driver license level) and competencies achieved. There would be one Lead Distribution Operator and three Distribution Operators.

The existing Meter Technicians (2) could report to Water Distribution Supervisor or remain in their current City organization reporting system under the Administration and Utility Billing Supervisor.

3.5.2 Collection System

To address the need for improved focus on the wastewater collection system, we recommend that a new group is formed addressing the collection system and pumping stations. There would be a new position in the wastewater group for the entire system, Wastewater Collection System Supervisor.

Reporting to this supervisor would be a Lead Wastewater Collection System Operator and six Collection System Operators, three focused on the pumping stations and three focused on the horizontal infrastructure. This group would attend to all wastewater pumping stations and the entire collection system. The job titles should be revised to a title more representative of the work, such as "Wastewater Collection System Operator" (or "Technician"). The job description should call out areas of competency and work assignments in both water distribution and sewer collection. "Steps" or "I, II, III" levels should be provided to encourage staff development – so the positions would be based on certifications achieved (for instance, operator certification, driver license level) and competencies achieved.

Additional observations from the interviews are outlined below:

- The total staffing headcount for this group appears appropriate for the current workload.
- Current position descriptions for this group require some modification. Specifically, the roles and responsibilities for the supervisor and lead person were unclear. The Lead Heavy Equipment Operator (HEO) performed some supervisory duties but was not able to complete these duties at a proficient level due to workload and training needs. Modifications to these position descriptions are recommended to properly delineate supervisory responsibilities.
- Operational gaps identified include work order management, staff priority setting, tracking, and improving performance.
- Staff training for this group is primarily on-the-job. Standard Operating Procedures (SOPs) are not commonly used. Thus, there is a large variation in competency, mostly along the lines of City tenure or from experience prior to joining the City.
- Development of SOPs or a formal training plan is recommended for improved staff development.
- Specific knowledge gap areas identified that should be prioritized in this plan include system distribution repair disinfection requirements and traffic control of staff. The new supervisor and lead position descriptions should prioritize improvement in these areas.
- Implementation of a CMMS should be considered to improve staff efficiency and effectiveness.

4. Benchmarking and Analysis

4.1 Staffing Level Benchmarking and Analysis

Field observations alone may be used to determine an appropriate staffing level, but they rely on the observations and experiences of the evaluators and staff. To verify this sense, the Jacobs team uses a variety of tools to determine what other utilities or industry benchmarks suggest is the appropriate staffing levels by team (operations, maintenance, management, etc.). The following subsections describe each, and the results they suggest from both water and wastewater utility benchmarking sources. Not every department or team within the scope of this study has a benchmark available, so we also included a limited comparison to other similar communities in the region for management and engineering teams.

4.1.1 WERF Benchmarking

The first wastewater treatment industry benchmark used in the analysis is from a staffing tool from the Water Environment Research Foundation (WERF). In this tool, both flow and influent loading (as BOD) are included.

For the City of Rochester wastewater treatment plant, the WERF model suggests a staffing level of 6 for the operation and maintenance (O&M) staff (4 FTE at the plant, plus another 2 FTE for biosolids management), at the current average annual flow of 3 million gallons per day (mgd), and an estimated influent BOD loading of 200 milligrams per liter (mg/L). Appendix B shows the model output for this method, and is derived from *Benchmarking Wastewater Operations - Collection, Treatment, and Biosolids Management*, WERF, Project 96-CTS-5.

4.1.2 NEIWPCC Model

The New England Interstate Water Pollution Control Commission (NEIWPCC) has prepared a manual and accompanying Excel-based model that evaluates the wastewater treatment plant processes for operators, maintenance, lab sampling, biosolids/sludge hauling and yardwork, and provides the estimated number of hours required for the plant processes inputted. It provides more granularity to the analysis than the WERF benchmark, since it can be tailored to specific unit processes, not just flow.

Like most benchmarking tools and models, it is limited by the inputs from the member organizations providing data, and many of which are much larger than the City of Rochester facilities. Still, as will be noted in the next method used, the relationship between flow and staffing is fairly linear for wastewater treatment (unlike water treatment, which has a more logarithmic relationship) so the level of confidence in this model is overall much higher than the WERF benchmark. The model output shows a total staffing estimate as 8.3 FTE. The model output is shown in Appendix C.

4.1.3 Regional Peer Utility Survey

For this project, Jacobs conducted a review of somewhat similar utilities to attempt to match more conditions not captured in the models or benchmarks discussed above. Based on interview comments, it was understood that this was of special interest to utility managers, so the survey sought out data from the nearby New Hampshire communities of Dover, Derry, Portsmouth, Salem, and Concord. Table 4-1 below shows details for each utility compared to the current City of Rochester staffing levels.

Table 4-1. Regional Peer Utility Survey Summary

Utility Data	Rochester	Dover	Derry	Portsmouth	Salem	Concord
Population	31,000	31,500	34,300	21,800	30,000	43,000
WTP	5.5 MGD	Groundwater	From Manchester	3.7 MGD	2.3 MGD	4.0 MGD
Distribution	120 miles	-	-	189 miles	140 miles	172 miles
Booster Stations	6	-	6	-	-	-
WWTP	5.0 MGD	4.6 MGD	2.5 MGD	6 MGD	From GLSD	6.2 MGD
Collections	150 miles	-	-	115 miles	75 miles	168 miles
Pump Stations	29	-	7	20	10	-
Staffing Level, FTE						
Management	0.66	3	3	2.7	-	2
Engineering	3.16	4	4	7	-	3
Billing/Admin	4.66	0	0	4	-	2
Laboratory	0	1	0	0	0	2
Wastewater O&M	6	12	7	17	N/A	7
Collection System	6.16	4	2	5.5	-	9
Water O&M	6	N/A	N/A	9	-	10
Distribution System	3.16	6	9	10.5	-	8
Total	29.8	30	25	55.7	20	43

After excluding data from utilities without similar systems (such as services from a neighboring town or utility district), an average total staffing count was calculated at 44.5 FTE total for all departments.

4.1.4 National Peer Utility Curves

Jacobs conducts similar staffing level studies nationally for water and wastewater treatment plants of all sizes and sophistication. By plotting the staffing levels (as full-time equivalents) vs. treatment size (in million gallons per day), we can compare a broader selection of sites from across the country to the City of Rochester.

For wastewater treatment plants, the linear relationship between flow and staffing count very clear, with a high degree of correlation ($R^2 = 0.959$) as shown in Figure 4-1, although at flows below 15 MGD the curve undercounts actual data somewhat. The lower end of this curve has a much wider range than the curve suggests. To account for this, a second curve is provided in Figure 4-2, which provides the linear relationship at flows below 15 MGD. The degree of correlation is less ($R^2=0.373$) but provides a more practical estimate for plants at this scale. Using this relationship and applying it to the current City of Rochester WWTP flow yields a suggested staffing count of 8 FTE for just the wastewater treatment plant.

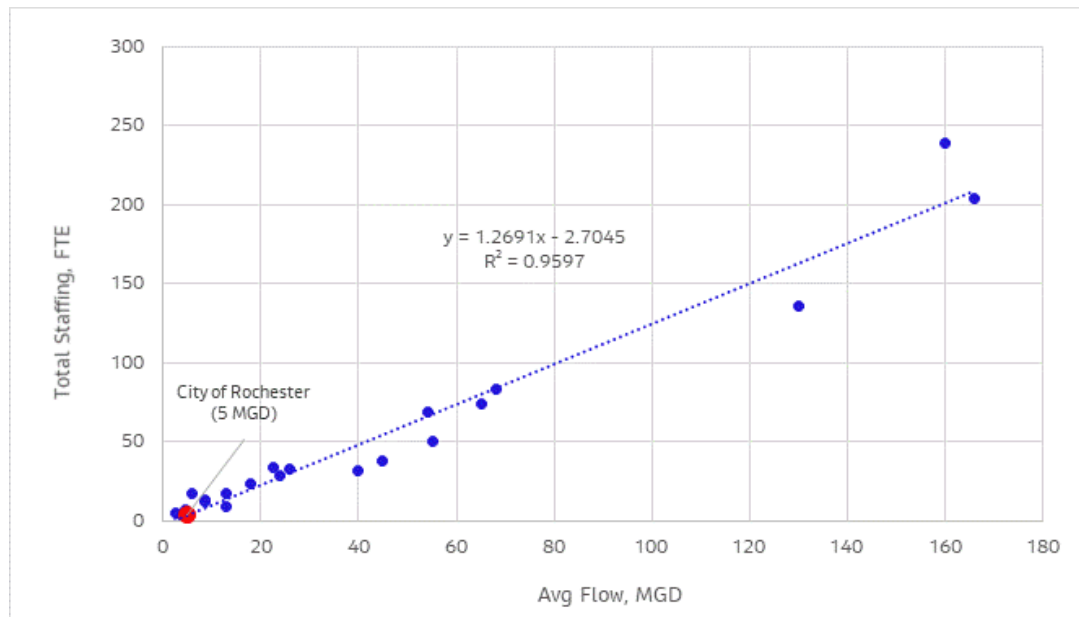


Figure 4-1. National Peer Utility Wastewater Plant Staffing, FTE vs. MGD

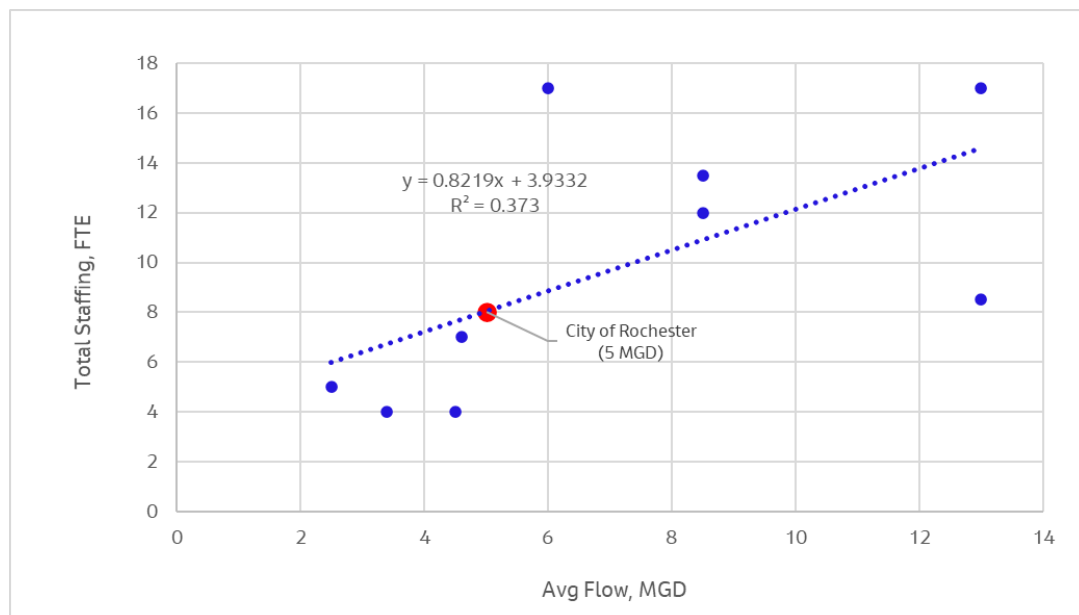


Figure 4-2. National Peer Utility Wastewater Plant Staffing, FTE vs. MGD (<15 MGD)

The distribution of WWTP staff among evaluated specialties (operations, maintenance, management, administration, lab) is also known from the source data, so that is reflected in the summary table below.

Table 4-2. National Peer Utility Wastewater Plant Staffing Allocations

	Operations	Maintenance	Management/ Admin	Laboratory	Total
WWTP Staffing Splits (% of total)	41%	41%	9%	9%	100%
City of Rochester WWTP, FTEs	3.3	3.3	0.7	0.7	8

A similar analysis was done on water treatment plants from our national O&M consulting work. It is interesting to note that for water treatment, the curve is logarithmic rather than linear, but also shows a useful correlation ($R^2 = 0.823$). This curve is shown in Figure 4-3.

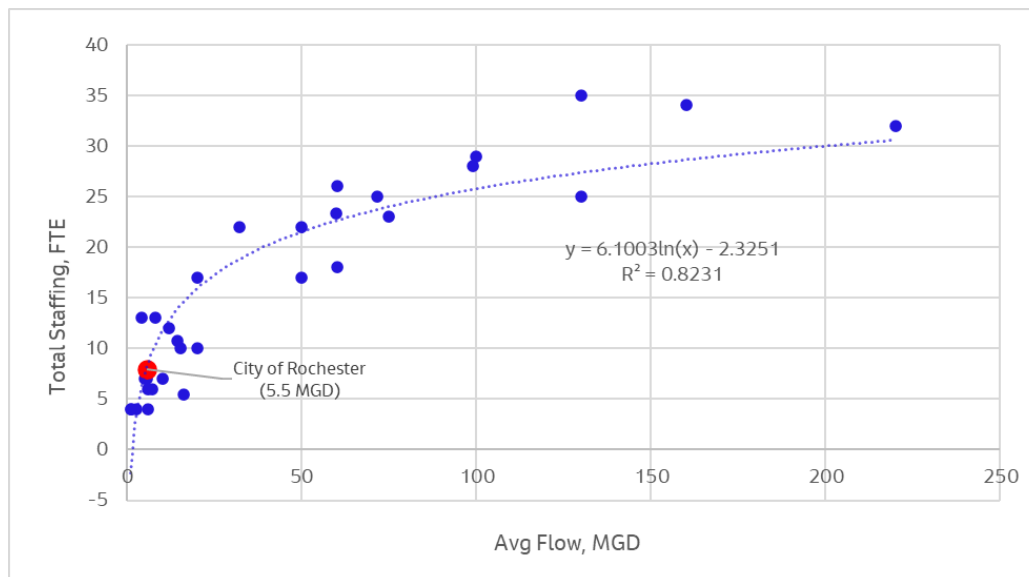


Figure 4-3. National Peer Utility Water Plant Staffing, FTE vs. MGD

Applying this curve to the City's water treatment plant capacity results in a suggested total staffing count for the water plant of 8 FTE. The distribution of staff among evaluated specialties (operations, maintenance, management, administration, lab) is also known from the source data, so that is reflected in the summary table below.

Table 4-3. National Peer Utility Water Plant Staffing Allocations

	Operations	Maintenance	Management/ Admin	Laboratory	Total
WTP Staffing Splits (% of total)	53%	29%	9%	9%	100%
City of Rochester WTP, FTEs	4.2	2.3	0.7	0.7	8

4.1.5 Jacobs Operating Database

Thanks to nearly 40 years of contract operating experience, Jacobs has built a substantial database of actual staffing levels for the 300+ treatment plants we have operated. While this information is of course very proprietary, it was readily mined to suggest a staffing count for the City of Rochester team based on flow, location, plant age, sophistication, and degree of automation. An abbreviated output from that database query is shown in Appendix D, which indicates a staffing level of 5.8 FTE at the wastewater plant, and 2.6 FTE for the water plant. It should be noted that contract operations staffing levels are not typically aligned with municipal staffing levels since the local count ignores the substantial regional and national management, administrative and technical support resources that are also available to those sites.

4.1.6 NACWA Benchmarking

The National Association of Clean Water Agencies (NACWA) publishes a comprehensive report periodically that summarized member utility information on wastewater treatment staffing counts, salaries, unit costs and much

more. We used this source to identify a benchmark staffing level for the collection system since the other methods did not include this metric, as well as some of the salary information provided later in this report.

According to NACWA's *Financial Survey* (August 2018), the average collection system team is 5.9 FTE per 100 miles of sewer system. For the City of Rochester, at 150 miles, this translates to a benchmark staffing count of 8.8 FTE.

4.2 Salary Benchmarking and Analysis

Determining an appropriate wage for staff is subject to a wide range of influences, including regional competition for skilled staff (such as a large factory or refinery), cost of living adjustments (usually by geography), utility funding resources (especially billing rates), experience levels (year of service in the industry), education or certification, union agreements, and clearly differentiating among a range of skill levels and responsibilities for otherwise similar sounding job descriptions. Given all these limitations, we defer to three sources: current wages at the client location, regional peer utilities of similar size/complexity, and national averages (this last being of very limited value, but often requested anyway).

While the wages by job title are somewhat valuable to see, access to the details of the duties and qualifications for these positions is extremely challenging to obtain (some utilities lack job descriptions at all), so comparing between utilities is often futile. However, a comparison of the average salary across an entire utility is very informative and can quickly highlight the overall competitiveness of the wages between municipalities. This is simply calculated by dividing the total department budget for the current fiscal year by the total headcount of that department.

Table 4-4 provides a summary of the peer utility average salary rates. Current wages by position were obtained from the City for the most current fiscal year. Next, we obtained wage information from several of the regional utilities discussed earlier in the staffing analysis, for both position-specific wage ranges, and also the utility average rate. Finally, NACWA produces the previously mentioned *Financial Survey* of their member agencies which provides one of the better national metrics by job title – the relevant table is included in Appendix E for reference. As shown in the table, Rochester's average utilities wages are currently 18% less than the regional average.

Table 4-4. Peer Utility Average Salary Rates

Town	Rochester	Dover	Derry	Portsmouth	Salem	Concord	Regional Average
Water Department Headcount ¹	19.3	0	11.5	25.35	10.5	19.5	-
Wastewater Department Headcount ¹	17.3	30	13.5	30.35	9.3	23.5	-
Water Department Labor Expenses FY22	\$1,079,300	-	\$575,000	\$1,968,000	\$777,509	\$1,476,038	-
Wastewater Department Labor Expenses FY22	\$1,072,500	\$2,164,000	\$645,000	\$2,344,900	\$688,009	\$1,712,311	-
Average Annual Utilities Salary	\$58,792	\$72,133	\$48,800	\$77,431	\$74,203	\$74,148	\$69,343

¹ Headcounts provided in this table indicate total staffing by department, including partial FTE's where funding has been allocated to other departments (e.g., HR, purchasing) to match how this data is published for regional peer utilities

5. Summary and Conclusions

5.1 Staffing Levels and Compensation

Table 5-1 presents a summary of all staffing benchmarks and comparisons, plus the current and proposed staffing levels for the City. As noted earlier, the field evaluations and opinions of the City staff are the primary drivers for our recommendations, but the benchmark information does provide ample support to them.

Table 5-1. Current and Recommended Staffing Levels by Benchmark/Source

Department, FTE	Rochester NH		Regional	NEIWPCC	WERF	NACWA	Jacobs	Clients
	Current	Proposed	Average	Model	Model	Average	Average	Curve Fit
Management	0.66	3.66	2.9					2
Engineering	3.16	3	5					
Billing/Admin	4.66	2.66	3					5
Laboratory	0	0	1					1
Wastewater O&M	6	10	11.3	8.3	5.8		5.8	8
Collection System	6.16	8	4.75			8.9		
Water O&M	6	7	9				2.6	8
Distribution System	3.16	7	7.5					7.8
Total	29.8	41.3	44.5					

By any measure per Table 5-1, additional hires are needed for the City of Rochester's water and wastewater O&M and support teams.

Compounding the challenge for the City is the apparently low average annual wage compared to other very similar utilities locally, which may necessitate up to a 25% increase in average pay rates. A suggested salary adjustment implementation plan is provided in Section 5.4.

5.2 Organizational Changes

The recommended organization chart for the City of Rochester, NH Department of Public Works, Utility Division is presented in Figure 5-1. Separate water and wastewater utility services are recommended for the Utility Division, with new Superintendents for each utility. The new position of Deputy Director of Public Works – Utilities, will report to the Director. The Deputy Director will have the support of the City Engineer and its staff as well as support from the administrative group for utility billing. Periodic support from other DPW divisions and other City departments are envisioned in this recommendation.

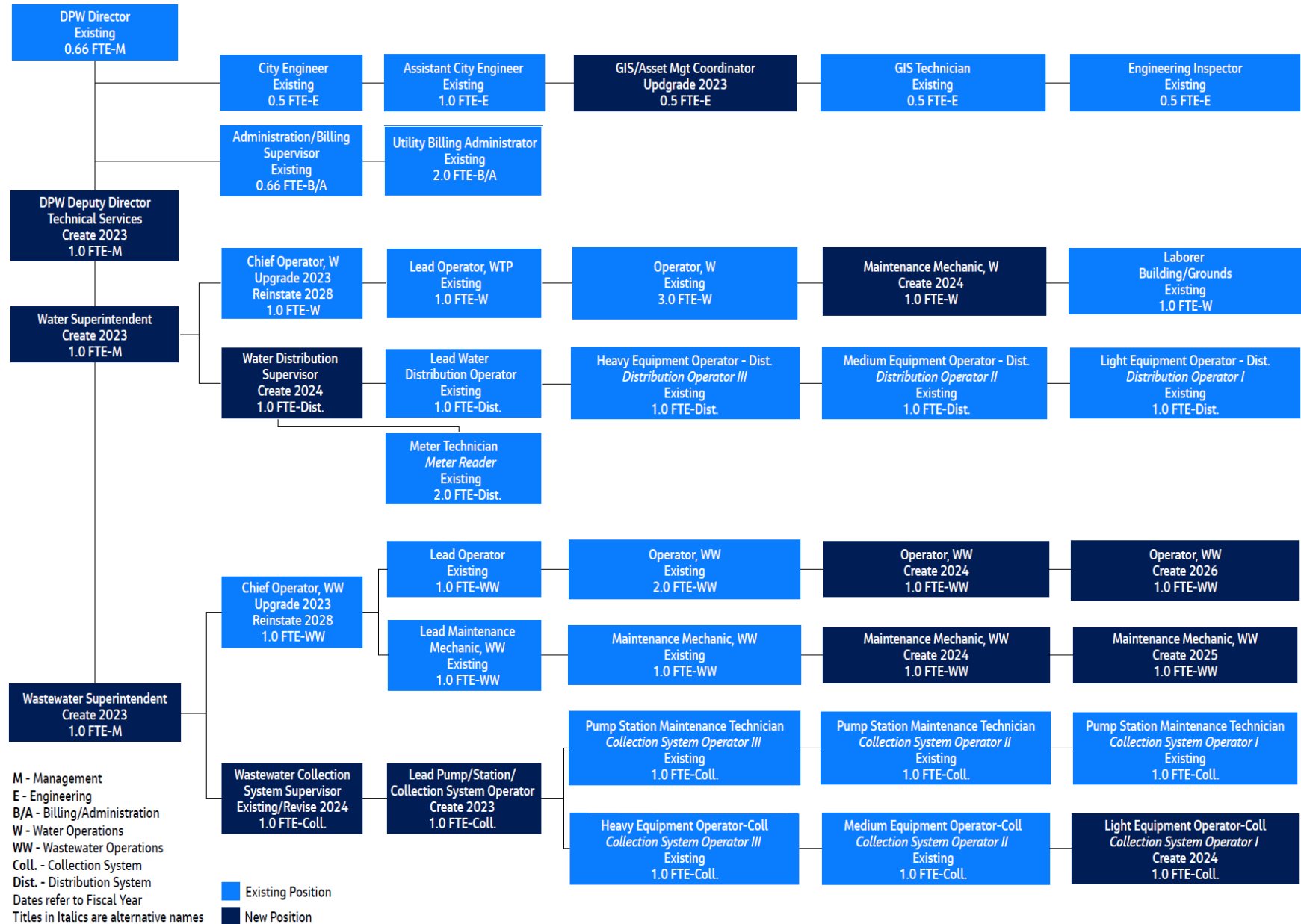


Figure 5-1. Recommended Organization Chart

Note: Some staff in administration/engineering support other departments in addition to the W/WW utility. Total FTEs listed above are based on the proposed level of effort dedicated to the W/WW utility.

Each of the titles/positions referenced in Figure 5.1 are described below. New titles/positions are indicated in blue.

Administration and Engineering

- **Director of City Services:** No change in responsibilities or authority.
- **Deputy Director of Utilities:** New title with the express responsibilities and authority for the water and wastewater utilities.
- **City Engineer:** This title had former responsibilities and authority for the water and wastewater utilities, however, in the new organization, the City Engineer will support the Deputy Director of Utilities as needed. Several engineering staff will be dedicated to the utilities.
- **Assistant City Engineer:** This title has three positions in the Engineering group. One Assistant City Engineer will be dedicated to the support of the utilities.
- **Engineering Inspector:** This is an existing title for the inspection of utility construction activities and new connections. In addition if time permits, support condition assessment, backflow devices, and the Industrial Pretreatment Program (IPP).
- **GIS/Asset Management Coordinator:** This is a new title. The intent is to have an elevated GIS position that is also in charge of the City's asset management program.
- **GIS Technician:** This title has performed support for the water and wastewater utility and this effort will continue.
- **Administration/Utility Billing Supervisor:** This is an existing title. The role will not change.
- **Utility Billing Administration:** This is an existing title. The role will not change.

Water Utility

- **Superintendent of Water Utility:** This is a new title. The intent is to have this position responsible for the entire water utility, from source to tap. This would include regulatory issues and reporting, staff development, customer service/complaints/issues, utility-wide capital improvement planning, etc. This is a management position.
- **Chief Operator Water Treatment:** This is an existing role, reporting to the Superintendent of Water Utility. This is a supervisory position.
- **Lead Water Operator:** This is an existing role, still reporting to the Chief Operator Water Treatment.
- **Water Operator:** This is an existing role, still reporting to the Chief Operator Water Treatment.
- **Maintenance Mechanic:** This new position would be dedicated to supporting the water utility.
- **Laborer-Building & Grounds:** This is an existing position.
- **Water Distribution Supervisor:** This is a new supervisory title. This position will report to the Superintendent Water Utility. The scope will include supervising the staff and coordinating field activities as directed by the Superintendent. The scope is similar to half of the role of the existing Municipal Service Supervisor Utilities, focused only on the water utility, infrastructure off the treatment plant site, tanks, pumping stations, force mains and customer taps. This position would fill in for the Wastewater Collection Supervisor as needed.
- **Lead Distribution Operator:** This is a revised title. This position will report to the Water Distribution Supervisor. It is a similar role to the Lead Heavy Equipment Operator (HEO) W/S, but focus is on the water distribution system - repairs, maintenance, and construction. This position would fill in for the Lead Collection System Operator as needed.

- **Distribution Operator(s):** This is a revised title. This position will report to the Water Distribution Supervisor. It has a similar role to the Heavy Equipment Operator (HEO) W/S, the Medium Equipment Operator (MEO) W/S, and the Light Equipment Operator (LEO) W/S but focus is on the water distribution system - repairs, maintenance, and construction. This position can be assigned to support work in wastewater collection as needed. The titles would have a progression such as: Distribution Operator III, II & I as needed.
- **Meter Technician:** This is an existing role, now reporting to the Water Distribution Supervisor or remaining within their current City organization reporting system under the Administration and Utility Billing Supervisor. The position will still perform the same tasks and provide information for billing, upgrade meters, etc.

Wastewater Utility

- **Superintendent of Wastewater Utility:** This is a new title. The intent is to have this position responsible for the entire wastewater utility, from source to receiving water. This would include regulatory issues and reporting, staff development, customer service/complaints/issues, utility-wide capital improvement planning, etc. This is a management position.
- **Chief Operator Wastewater Treatment:** This is an existing role, reporting to the Superintendent of Wastewater Utility. This is a supervisory position.
- **Lead Wastewater Operator:** This is an existing role, still reporting to the Chief Operator Wastewater Treatment.
- **Wastewater Operator:** This is an existing role, still reporting to the Chief Operator Wastewater Treatment. A new position is recommended as soon as possible to address the new chemical feed system and dewatering processes. An additional operator would be needed as the workload increases with these new facilities and requirements.
- **Lead Maintenance Mechanic:** This is an existing position. This title reports to the Chief Operator Wastewater Treatment. The tasks include supporting the wastewater and water utility needs, including distribution and collection facilities. It is intended that this title would manage the Computerized Maintenance Management System (CMMS) when needed.
- **Maintenance Mechanic:** This is an existing role, still reporting to the Chief Operator Wastewater Treatment. With the new equipment and aging existing equipment, two additional Maintenance Mechanics are needed. One added in the near future and the second a couple of years later.
- **Wastewater Collection System Supervisor:** This is a new supervisory title. This position will report to the Superintendent Wastewater Utility. The scope will include supervising the staff and coordinating field activities as directed by the Superintendent. The scope is similar to half of the role of the existing Municipal Service Supervisor Utilities, focused only on the wastewater utility, infrastructure off the treatment plant site, pumping stations, gravity lines and force mains and customer connections and issues.
- **Lead Pump Station and Collection System Operator:** This is a new title. This position will report to the Wastewater Collection System Supervisor. It is a similar role to the Lead Heavy Equipment Operator (HEO) W/S, but focus is on the pump stations and wastewater collection system - repairs, maintenance, and construction. This position would fill in for the Lead Water Distribution System operator as needed.
- **Collection System Operator:** This is a revised title. This position will report to the Wastewater Collection System Supervisor. It is a similar role to the Heavy Equipment Operator (HEO) W/S, the Medium Equipment Operator (MEO) W/S, and the Light Equipment Operator (LEO) W/S but focus is on the wastewater collection system - repairs, maintenance, and construction. This position could fill in for a Water Distribution System Operator as needed.
- **[OPTIONAL:** Note this position is not included in the proposed organization chart but could be incorporated into the Superintendent's job duties initially and determine the need after a few years.] **Industrial**

Pretreatment Program (IPP) Inspector or Compliance Officer: This is a new title. This position would report to the Superintendent Wastewater Utility. This position would work closely with the Chief Operator Wastewater Treatment and the Wastewater Collection System Supervisor. Their focus would be the industrial pretreatment program, regulatory reporting and regulatory compliance for the IPP, perhaps the biosolids issues and other compliance concerns. They may also be able to assist in the Back Flow processes and new connections.

5.3 Additional Recommendations

As discussed in Section 3, other initiatives recommended to assist with the organizational transition and improve culture and employee retention are described below.

- **Training:** Recommended training for this new structure should include teamwork dynamics, management and leadership issues and of course safety. If courses and subject matter suggestions are desired, we can provide that information.
- **Employee Development:** A process or program to allow staff training to improve their knowledge and skills for existing job performance and personal growth is encouraged. The job descriptions could call out areas of competency; For example, "Steps" or "I, II, III" levels should be provided to encourage staff development, where the positions would be based on certifications achieved (for instance, operator certification, driver license level) and competencies achieved.
 - **CMMS:** Implementation of a robust CMMS and asset management is recommended. Maintenance management systems keep track of work orders, repair or preventive maintenance, costs of parts and repairs, basic data about each piece of equipment and vendors to support the equipment. Asset management supplements this to provide for longer term lifecycle cost optimization. The City's current system, Beehive, does have asset management capabilities, but may not be deployed adequately for its intended purpose. Follow up and training may improve the use of this system.

5.4 Implementation Plan

For both staffing and salary adjustments, we suggest an incremental approach over as much as a 5 to 6 year period. This will allow for smoother transitions to the workforce organizational structure. Establishing a firm leadership role within the utility is paramount. Therefore, these titles will be established first with staffing positions to follow. Recommended staffing adjustments per year are described below, prioritized by considering both criticality and feasibility of the organizational changes.

- **FY 2023:** Add Deputy Director, upgrade current Chief Operators (water and wastewater) to Superintendent positions, upgrade 1 GIS Technician to GIS/Asset Management Coordinator, add Lead Pump Station/Collections Operator
- **FY 2024:** Add Water Distribution Supervisor, add Wastewater Collection System Supervisor (rename/reassigned position from Municipal Services Supervisor Utilities), add Water Maintenance Mechanic, add Wastewater Maintenance Mechanic, add Collection System Light Equipment Operator, add WWTP Operator
- **FY 2025:** Add Wastewater Maintenance Mechanic
- **FY 2026:** Add WWTP Operator
- **FY 2027:** No updates
- **FY 2028:** Reinstate Chief Operators at WTP and WWTP

A suggested salary adjustment implementation plan is provided in Table 5-2.

Table 5-2. Suggested Salary Adjustment Implementation Plan

Year	2022	2023	2024	2025	2026	2027
Average Rochester NH Salary	\$58,792	\$63,025	\$67,752	\$72,224	\$77,063	\$82,072
Average Regional Salary	\$69,343	\$71,909	\$74,785	\$77,103	\$79,571	\$82,037
Employment Cost Index, % ¹	3.7	4.0	3.1	3.2	3.1	-
Additional Equity Adjustment, %	3.5	3.5	3.5	3.5	3.4	-

¹ From Information Handling Services (IHS) Global Insight Employment Cost Index (ECI) Forecast

Appendix A. Staffing Interviews Agenda

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www.jacobs.com

Subject	Rochester DPW Staff Interviews
Project	Rochester Workforce Study for Water and Sewer Departments
Attention	Designated DPW Staff
From	Jacobs
Date	September 20-22, 2021

Driven by growth and changing regulations, the Rochester Department of Public Works (DPW) is conducting a workforce study to address current and future needs for its water and sewer departments. The study will address the structure, regulatory requirements, staff needs, job descriptions, union contracts and equitable compensation practices.

For the study, the Jacobs team is conducting interviews with a cross section of DPW employees to help determine if the team has enough resources in training and manpower to meet the Department's needs. The staffing study will also look at industry benchmarks and other similar public utilities for comparison but talking with onsite staff is always the best source of information.

Interview Process

The O&M group within Jacobs has been conducting studies like this for decades, and we know our approach works extremely well. It is also fairly simple:

- Meetings are conducted by one to three Jacobs O&M experts (licensed operators, mechanics or plant managers) who have been doing this for many years and have walked in your shoes.
- Meetings are with only one DPW employee at a time. However, if any DPW employee feels uncomfortable for whatever reason, then another employee of their choosing can also accompany them.
- Meetings are STRICTLY CONFIDENTIAL. Our reporting and analysis never names the source of the information, and frankly it is unnecessary since we almost always find that people are seeing the same things as you are.
- Meetings cover a broad range of viewpoints by talking with staff at all levels, and in as many disciplines (lab, operations, maintenance, administration, management, etc.) as possible.
- Meetings are informal and can be held anywhere and at any time that works for the employee – in a truck doing pump station rounds, in the maintenance shop, in an office, and during any shift.
- Meetings are up to one (1) hour in duration. We seldom run out of things to ask but will respect your time.

- Discussion topics are just suggestions and used as reminders so we can cover some basic issues. We encourage a free and open discussion that does not have to follow a script.

Discussion Topics

Job Functions:

- What do you do? Describe your “typical” day
- For how long, and with what training?
- Who else supports that work?
- Who do you report up to, and who do you supervise?

Resources:

- Do you have what you need to get the job done right? Training, tools, computers, support, etc.
- What would make your job easier or more effective?
- Is there enough staff or skills available in your opinion? Why/why not?
- Is your team organized the right way? Roadblocks, approvals, delays, expertise, etc.

Closing Discussion:

- What changes would help you or the team be more successful?
- What does your team do that you think is working great?
- Who else do you think we should be sure to interview so they are heard?

Appendix B. WERF Model Output

Collection Systems Costs Model

from Benchmarking Wastewater Operations - Collection, Treatment, and Biosolids Management, WERF, Project 96-CTS-5, 1997.

THIS MODEL IS FOR GROSS ESTIMATION PURPOSES AND SHOULD NEVER BE THE BASIS OF A BINDING BID FOR O&M SERVICES

$$OPSTCOL = e^{0.898} \times (MILES^{0.539}) \times [(PCINSP/100)+1]^{-0.084} \times (PUMP+1)^{0.285} \times (COLWAGE^{0.897}) \times (100 \cdot KWH)^{0.15}$$

where:

OPSTCOL = Total cost of collections operations, excluding depreciation

MILES = Miles of sewers

PCINSP = Percentage of sewers inspected each year

PUMP = Number of pumping stations

COLWAGE = Average annual wage of a collection worker (\$)

KWH = Cost per kWh of electricity (cents)

From Table 9-20, Percentage Distribution of Operating Costs for Collections Systems Operations (Excluding Depreciation)

Variable	Mean
Labor	51.8%
Fringes	16.1%
Other	
Chemicals	2.8%
Power	8.0%
Office Supplies	1.5%
Equipment/Materials	5.8%
Shared Services	8.0%
Outsourced Services	6.0%
Total Other	32.1%

Calculated From Table 9-16, Staffing Collections System Operations

Average OT percentage by Wages 4.2%

Model Calculations and Cost Allocation

Scenario Description	Example from WERF manual		Average Utility used to develop model		Rochester NH		
Input Variables							
MILES	1,077		1,013		150		
PCINSP	2.3		6.5		5.0		
PUMP	102		49.8		29.0		
COLWAGE	\$	25,000	\$	31,825	\$	50,000	
KWH	\$	0.033	\$	0.059	\$	0.100	
Output Variables							
OPSTCOL	\$	4,167,917	\$	4,450,299	\$	2,223,747	\$ -
Labor	\$	2,158,981	\$	2,305,255	\$	1,151,901	\$ -
Fringes	\$	671,035	\$	716,498	\$	358,023	\$ -
Chemicals	\$	116,059	\$	123,922	\$	61,922	\$ -
Power	\$	332,057	\$	354,555	\$	177,166	\$ -
Office Supplies	\$	64,477	\$	68,846	\$	34,401	\$ -
Equipment/Materials	\$	241,789	\$	258,171	\$	129,004	\$ -
Shared Services	\$	335,281	\$	357,997	\$	178,886	\$ -
Outsourced Services	\$	248,237	\$	265,056	\$	132,444	\$ -
Labor FTEs	82.7		69.4		22.1		

Wastewater and Biosolids Costs Model

from Benchmarking Wastewater Operations - Collection, Treatment, and Biosolids Management, WERF, Project 96-CTS-5, 1997.

THIS MODEL IS FOR GROSS ESTIMATION PURPOSES AND SHOULD NEVER BE THE BASIS OF A BINDING BID FOR O&M SERVICES

$$OPCSTWET = e^{6.43} \times (MGD^{1.354}) \times (WBPLA^{-0.493}) \times \{[(ASOXY/100)+1]^{0.442}\} \times \{[(ASMEC/100)+1]^{0.404}\} \times (BIOPROD^{0.408}) \times (WBWAGE^{0.499}) \times (KWH^{0.342})$$

where:

OPCSTWET =	Total cost of wastewater and biosolids operations, excluding depreciation
MGD =	Average daily flow (Mgal/day)
WBPLA =	Average Daily flow per plant* a operated, both wastewater and biosolids (Mgal/day)
ASOXY =	Percentage of influent treated by the activated sludge process using an oxygenation aeration device (pure oxygen)
ASMEC =	Percentage of influent treated by the activated sludge process using a mechanical aeration device
BIOPROD =	Quantity of biosolids produced per unit of influent (dry ton/Mgal/day)
WBWAGE =	Average annual wage of a worker in wastewater and biosolids operations (\$)
KWH =	Cost per kWh of electricity (cents)

* - For all cases, biosolids treatment, even if conducted at the same site as wastewater treatment, is counted as an additional plant. Therefore the minimum number of plants per utility is two.

From Table 9-10, Total Costs For Wastewater Treatment and Biosolids Operations

Variable	Mean	
Total Operating Costs:		
Wastewater Treatment	\$ 9,984,105	65%
Biosolids	\$ 5,476,833	35%

From Table 9-12, Percentage Distribution of Costs, % of Average Operating Costs for Wastewater Treatment and Biosolids Operations (Excluding Depreciation)

Variable	Mean	Mean
	Wastewater Treatment	Biosolids
Labor	43.1%	36.2%
Fringes	13.7%	11.5%
Other		
Chemicals	5.3%	8.5%
Power	16.9%	11.2%
Office Supplies	1.9%	1.7%
Equipment/Materials	6.2%	5.7%
Shared Services	6.5%	5.5%
Outsourced Services	6.4%	19.8%
Total Other	43.2%	52.3%

Calculated From Table 9-4, Staffing the Wastewater Treatment Operations

Average Wastewater Treatment OT percentage by Wages 4.8%


Calculated From Table 9-6, Staffing the Biosolids Operations

Average Wastewater Treatment OT percentage by Wages 0.2%

Model Calculations and Cost Allocation

Scenario Description	Example from WERF manual	Average Utility used to develop model	Rochester NH
Input Variables			
MGD	35.0	79.5	3.0
WBPLA	17.5	28.7	3.0
ASOXY	0	16.9	0
ASMEC	0	21.2	100
BIOPROD	0.5	0.818	0.5
WBWAGE	\$ 24,273	\$ 37,256	\$ 55,000
KWH	\$ 0.033	\$ 0.056	\$ 0.100
Output Variables			
OPSTCOL	\$ 3,258,757	\$ 16,289,002	\$ 811,992
Wastewater Treatment and Biosolids			
Total, \$/yr	\$ 3,258,757	\$ 16,289,002	\$ 811,992
Total \$/kgal	\$ 0.255	\$ 0.561	\$ 0.741
Labor	\$ 1,324,873	\$ 6,622,419	\$ 330,122
Fringes	\$ 421,054	\$ 2,104,650	\$ 104,915
Chemicals	\$ 209,128	\$ 1,045,334	\$ 52,109
Power	\$ 484,588	\$ 2,422,230	\$ 120,746
Office Supplies	\$ 60,052	\$ 300,170	\$ 14,963
Equipment/Materials	\$ 195,799	\$ 978,710	\$ 48,788
Shared Services	\$ 201,412	\$ 1,006,763	\$ 50,186
Outsourced Services	\$ 361,852	\$ 1,808,726	\$ 90,163
Labor FTEs	52.7	171.8	5.8
Wastewater Treatment Only			
Total, \$/yr	\$ 2,104,386	\$ 10,518,838	\$ 524,355
Total \$/kgal	\$ 0.165	\$ 0.362	\$ 0.479
Labor	\$ 906,990	\$ 4,533,619	\$ 225,997
Fringes	\$ 288,301	\$ 1,441,081	\$ 71,837
Chemicals	\$ 111,545	\$ 557,563	\$ 27,794
Power	\$ 355,086	\$ 1,774,909	\$ 88,478
Office Supplies	\$ 40,900	\$ 204,440	\$ 10,191
Equipment/Materials	\$ 130,136	\$ 650,490	\$ 32,426
Shared Services	\$ 137,573	\$ 687,661	\$ 34,279
Outsourced Services	\$ 133,854	\$ 669,076	\$ 33,353
Labor FTEs	35.6	115.8	3.9
Biosolids Only			
Total, \$/yr	\$ 1,154,372	\$ 5,770,164	\$ 287,637
Total \$/kgal	\$ 0.090	\$ 0.199	\$ 0.263
Labor	\$ 417,883	\$ 2,088,799	\$ 104,125
Fringes	\$ 132,753	\$ 663,569	\$ 33,078
Chemicals	\$ 97,583	\$ 487,771	\$ 24,315
Power	\$ 129,502	\$ 647,322	\$ 32,268
Office Supplies	\$ 19,152	\$ 95,731	\$ 4,772
Equipment/Materials	\$ 65,663	\$ 328,219	\$ 16,361
Shared Services	\$ 63,839	\$ 319,102	\$ 15,907
Outsourced Services	\$ 227,997	\$ 1,139,651	\$ 56,811
Labor FTEs	17.2	56.0	1.9

Appendix C. NEIWPCC Model Output

	
THE NORTHEAST GUIDE FOR ESTIMATING STAFFING AT PUBLICLY AND PRIVATELY OWNED WASTEWATER TREATMENT PLANTS (One Shift)	
Plant Name: Rochester NH	
Design Flow: >20 mgd	Actual Flow: 5.5 MGD
FINAL ESTIMATES	
Chart #	Annual Hours
Chart 1 – Basic and Advanced Operations and Processes	9360.00
Chart 2 – Maintenance	3094.00
Chart 3 – Laboratory Operations	0.00
Chart 4 – Biosolids/Sludge Handling	0.00
Chart 5 – Yardwork	0.00
Estimated Operation and Maintenance Hours	12454.00
Estimated Operation and Maintenance Staff	8.30
Estimated Additional Staff from Chart 7	
TOTAL STAFFING ESTIMATE	8.30
<i>Note: The Total Staff estimate from Charts 1-5 will not be the final amount of staff necessary to run the facility. Please review Chart 7 for additional staffing needs.</i>	
Chart 6 - Automation/SCADA	
Chart 7 - Considerations for Additional Plant Staffing	
<i>Note: The user should attach supporting information to justify additional staffing needs from Chart 7.</i>	
Final Comments:	

Appendix D. Jacobs Staffing Database Output

Jacobs Database - Operations and Maintenance Cost Estimating Tool									
THIS MODEL IS FOR GROSS ESTIMATION PURPOSES AND SHOULD NEVER BE THE BASIS OF A BINDING BID FOR O&M SERVICES									
WATER									
Data Input									
	Influent Flow	MGD		5.5					
	Influent Flow	MG/yr		2,009					
	Installed Capital Cost	\$		\$ 5,000,000					
	Annual R&M Spending	%		5.0%	Percent of Installed Capital Cost spent annually on MR&R				
	Local Labor Productivity Factor			1.00	local FTE/Avg OMI FTE				
	Local Labor Rate	\$/hr		\$ 33.00	including direct labor and benefits				
	Local Electrical Rate	\$/kWh		\$ 0.100	including all Time Of Use and Demand charges				
	Local Chemical Cost Factor			1.00	Chemical Unit Cost Adjustment Factor (unit cost/OMI Avg unit cost)				
	General and Administrative	% total O&M Cost		13.0%	Includes cost for HR, payroll, accounting, etc.				
Operations Cost Estimate									
Adjustment For Local Operations									
				Flow Based					
	Labor	local adj hr/yr		5,444					
	Labor	local adj FTEs		2.6					
	Labor	local adj \$/hr		\$ 33.00					
	Labor	local adj \$/yr		\$ 179,642					
	Electrical	local adj \$/kWh		\$ 0.100					
	Electrical	local adj \$/yr		\$ 316,119					
	Chemical	local adj \$/yr		\$ 138,895					
	Solids	\$/yr		\$ 25,855					
	Other	\$/yr		\$ 212,404					
	Total	local adj \$/yr		\$ 872,916					
	Flow Unit Cost	local adj \$/kgal		\$ 0.43					

WASTEWATER									
Data Input									
	Influent Flow	MGD		3.0					
	Influent Flow	MG/yr		1,096					
	Influent BOD	mg/L		200					
	Influent BOD	lb/d		5,004					
	Influent BOD	lb/yr		1,827,711					
	Local Labor Productivity Factor			1.00	local FTE/Avg OMI FTE				
	Local Labor Rate	\$/hr		\$ 33.00	including direct labor and benefits				
	General and Administrative	% total O&M Cost		13.0%	Includes cost for HR, payroll, accounting, etc.				
US Operations									
				Flow Based	BOD Based	Maximum			
	Labor	hrs/MG, hr/lb-BOD		11.09	5.741E-03				
	Labor	hrs/yr		12,155	10,493	12,155			
	Labor	FTEs		5.8	5.0	5.8			
	Labor	\$/hr		\$ 28.77	\$ 28.77	\$ 28.77			
	Labor	\$/yr		\$ 349,724	\$ 301,891	\$ 349,724			

Appendix E. NACWA Salary Survey

National Utility Salary Data – NACWA *Financial Survey*, August 2018

Table D.9 - Salary information, 2016 (all respondents)

POSITION	AGENCY RESPONSES	MINIMUM (\$/YEAR)	AVERAGE (\$/YEAR)	25TH PCTILE (\$/YEAR)	MEDIAN (\$/YEAR)	75TH PCTILE (\$/YEAR)	MAXIMUM (\$/YEAR)
Chief Engineer- Entry Level	39	39,998	101,035	81,478	91,135	120,016	183,420
Chief Engineer - Senior Level	46	62,088	142,253	115,560	132,271	160,247	299,104
Civil Engineer- Entry Level	87	39,252	70,173	56,748	65,497	76,840	166,418
Civil Engineer - Senior Level	89	56,452	103,840	85,876	96,699	116,334	203,348
Electrical Engineer- Entry Level	37	31,262	67,490	58,642	67,668	76,474	119,184
Electrical Engineer - Senior Level	35	48,214	102,974	91,495	101,900	112,561	146,988
Mechanical Engineer- Entry Level	34	36,213	66,430	57,844	65,220	76,207	105,496
Mechanical Engineer - Senior Level	32	55,890	100,474	86,739	98,316	111,505	146,988
Process Engineer- Entry Level	36	36,213	70,42	54,846	69,102	79,919	121,311
Process Engineer - Senior Level	38	55,890	101,929	89,847	102,450	117,180	146,988
Customer Service Representative- Entry Level	37	25,383	39,177	31,011	37,336	43,555	62,712
Customer Service Representative - Senior Level	33	32,621	56,693	47,337	54,246	59,738	93,413
Accountant/Bookkeeper- Entry Level	77	31,667	53,820	42,938	50,180	61,526	110,799
Accountant/Bookkeeper - Senior Level	76	40,646	79,474	65,519	74,000	87,378	147,713
Budget Analyst- Entry Level	60	37,500	61,060	51,842	59,120	69,120	99,972
Budget Analyst - Senior Level	55	57,500	89,750	78,165	87,079	96,860	144,396
Operator (Non-Superintendent)- Entry Level	101	21,940	46,710	37,336	45,146	53,484	99,089
Operator (Non-Superintendent) - Senior Level	101	40,314	70,343	56,852	66,535	74,842	135,299
Plant Superintendent- Entry Level	79	43,826	85,202	64,772	78,403	94,861	161,858
Plant Superintendent - Senior Level	85	65,520	113,407	89,211	109,550	133,000	229,118
Biologist, Chemist, Lab Technician- Entry Level	96	27,140	50,748	41,082	48,622	57,697	85,000
Biologist, Chemist, Lab Technician - Senior Level	99	40,177	74,690	59,576	72,675	85,017	139,686
Industrial Waste Inspector- Entry Level	69	30,450	53,563	43,401	51,896	61,914	97,706
Industrial Waste Inspector - Senior Level	76	40,900	75,431	61,010	73,369	86,990	139,686
Mechanic- Entry Level	91	21,939	49,240	37,440	48,838	56,199	95,342
Mechanic - Senior Level	94	35,947	68,084	56,026	64,642	75,171	120,684
Electrician- Entry Level	88	33,100	55,617	42,860	51,416	66,982	101,563
Electrician - Senior Level	88	43,201	74,880	59,664	73,823	85,036	133,666
General Laborer- Entry Level	74	21,939	39,685	30,615	38,205	46,205	74,204
General Laborer - Senior Level	69	26,812	53,039	41,834	52,085	62,864	90,600
Field Crew (Pipeline Maintenance)- Entry Level	80	23,587	41,653	33,001	39,527	48,129	85,470
Field Crew (Pipeline Maintenance) - Senior Level	76	33,280	59,748	47,063	55,008	70,671	126,149
Truck Driver- Entry Level	36	28,260	44,747	34,636	41,377	51,448	84,615
Truck Driver - Senior Level	32	35,841	56,323	44,629	53,200	66,048	89,414
Backhoe Operator- Entry Level	18	28,918	44,738	36,433	40,793	48,168	98,228
Backhoe Operator - Senior Level	19	38,980	55,308	45,517	50,779	57,976	119,392



From the desk of the Director of City Services
City of Rochester, New Hampshire

INTEROFFICE MEMORANDUM

TO: Katie Ambrose, Deputy City Manager
FROM: Peter C. Nourse, Director of City Services *Peter C. Nourse*
DATE: 05 November 2021
SUBJECT: Management Optimization/Succession Planning/Employee Retention
CC:

During my evaluation review for this previous period with the City Manager, I presented a goal for this current period 2021-2022 to establish of Deputy Director of City Services authority. In addition to establishing this position I proposed an adjustment to existing administrative staff. The purpose of this initiative is to:

- Enhance management and operation of the department
- Enhance succession planning
- Enhance employee retention

The City Manager approved this initiative as an evaluation goal for both myself and for his evaluation.

Background:

The ideal deputy authority for the Department of Public Works incorporates two Deputy Director positions. I have selected "Deputy" vs. "Assistant" as a deputy refers to a position having full authority to execute tasks in the absence of its superior position.



From the desk of the Director of City Services
City of Rochester, New Hampshire

The Public Works Department is the largest in the City at 65 full time employees and 6 part-time, year around employees, yet it is the only department without an Assistant or Deputy Director. There are currently 11 Assistant or Deputy Directors/Chiefs in 10 other City departments.

The Public Works Department has a broad horizontal organizational structure with five direct reports to the Director. The structure is largely composed of two functional parts which largely run in parallel, but require keen leadership to coordinate efforts. One part is highly technical in nature: Engineering (infrastructure), Utilities, Plant Operations and GIS/Asset Management. The other part is a more high-paced operational element: Highways, Administration, Public Buildings and Grounds. Both have strategic elements that are best overseen by the department head. This is a natural dichotomy for a full-service public works department and is a common organizational structure. It is not uncommon for similar size NH communities to have deputy director positions in public works departments.

Proposed Positions:

Two Deputy Director positions are proposed:

- *Deputy Director of Operations and Administration*, to be a position to which the high-tempo Highways and Fleet, Administration, and Public Buildings and Grounds functions would report directly to. Additionally, this position would serve collaterally as a departmental Safety Officer.
- *Deputy Director of Technical Services*, to oversee the Engineering (infrastructure), Utilities, Plant Operations, GIS/Asset Management side of the department. It is likely that environmental regulation will drive such



From the desk of the Director of City Services
City of Rochester, New Hampshire

Technical Services to eventually expand to include a storm water utility function.

The dual deputy model is ideal as it narrows the management chain, Director-down, from a flat, broad one to a pyramidal organization. Each Deputy Director position can provide Director authority regarding assigned duties, in a temporary absence of the Director of City Services.

Additionally, each Deputy Director position provides a mechanism for retention of quality employees, a City goal, by providing an ascension path for employees in subordinate positions. The new positions also provide a succession path for quality deputy employees to ascend to the Director of City Services position.

A draft position description of each position is attached. These draft descriptions are the product of an extensive review of deputy public works director position descriptions from other communities, and with existing City position descriptions.

Organizational Mechanics:

For context, the Director of City Services position is Grade 18; no bargaining group. Proposed grade for both deputy positions is Grade 16, RmuMG. Grade 16 places the *Deputy Director of Technical Services* above the Grade 15, RmuniMG City Engineer position. There are no other Grade 16, RmuMG employees in the department.

Proposed is to remove the current Administration/Utility Billing Supervisor, Grade 10, RmidMG. from the organizational structure. The introduction of the new established position: *Deputy Director of Operations and Administration* will allow the former position to be removed as the duties of the latter will eclipse those of the former and are completely included in the draft deputy position description.



From the desk of the Director of City Services
City of Rochester, New Hampshire

The new *Deputy Director of Operations and Administration* position, like the Administration/Utility Billing Supervisor position would be a three-way general fund-water-sewer split.

Proposed is to stand up a new established position: *Deputy Director of Technical Services*. The draft position description attached. This position would be a three-way general fund-water-sewer split.

The other part of my evaluation goal is to adjust existing staff. This was discussed with the City Manager. Proposed is:

Remove current Secretary II, Grade 6, RMEA position from the organizational structure and replace with an existing and reinstated RmidMG *Office Manager* position, Grade 9, RmidMG. This position would report to the new *Deputy Director of Operations and Administration* position.

Move a current Secretary II, Grade 6, RMEA into this position. This employee is a high performing, 22 year employee. This adjustment would be positive towards the City's retention goals. The other two Secretary II's which perform general administration and the two Utility Billing Secretary II's would report to the reinstated Office Manager position vs. to the current Administration/Utility Billing position.

Costs:

The wage range of a Grade 16 RmunMG position is \$83,232 to \$111,555. The proposed changes above can be implemented for modest cost.

Establish *Deputy Director of Operations and Administration*, position, Grade 16, RmunMG:



From the desk of the Director of City Services
City of Rochester, New Hampshire

The current employee in the Administration/Utility Billing Supervisor position is an ideal candidate for this new position and if selected, current wages of \$82,000 approach closely the Grade 16 range. Proposed wages in the range: \$90,000+/- . These proposed wages allow the Deputy to have a slightly higher wage than those for which it would supervise. Net change: \$8,000+/- annually. Or \$2,700/GF; \$2,700 Water Fund; \$2,700 Sewer Fund.

Establish *Deputy Director of Technical Services*, position, Grade 16, RmunMG: No cost change. The current City Engineer is a high performing employee and is qualified for this position. Current wages of the City Engineer fall well within the Grade 16 range. The transfer allows a long-standing, high performing employee a higher wage ceiling, enhancing retention. *The higher wage ceiling is very important as this employee will exceed the current wage ceiling with one further merit evaluation.* The City Engineer position becomes vacated by this opportunity which allows an existing Assistant City Engineer position, Grade 12 RmidMG employee to ascend to the City Engineer position, when and if qualified. If ascension into the City Engineer position does not occur for some time, there remains no degradation to departmental effectiveness.

Remove current Secretary II, Grade 6, RMEA position from organizational structure, and replace with the former RmidMG Office Manager position, Grade 9; range: \$51,777.03 - \$69,391.21. Current Secretary II employee current wages are \$53,684, which fit well within this range. Propose a modest increase to say \$55,000. Net change: \$1,500+/- annually. Or \$500 GF; \$500 Water Fund; \$500 Sewer Fund

Total impact for these proposals would be approximately \$9,500 annually or about \$3,200 for GF; Water Fund and Sewer Fund.



From the desk of the Director of City Services
City of Rochester, New Hampshire

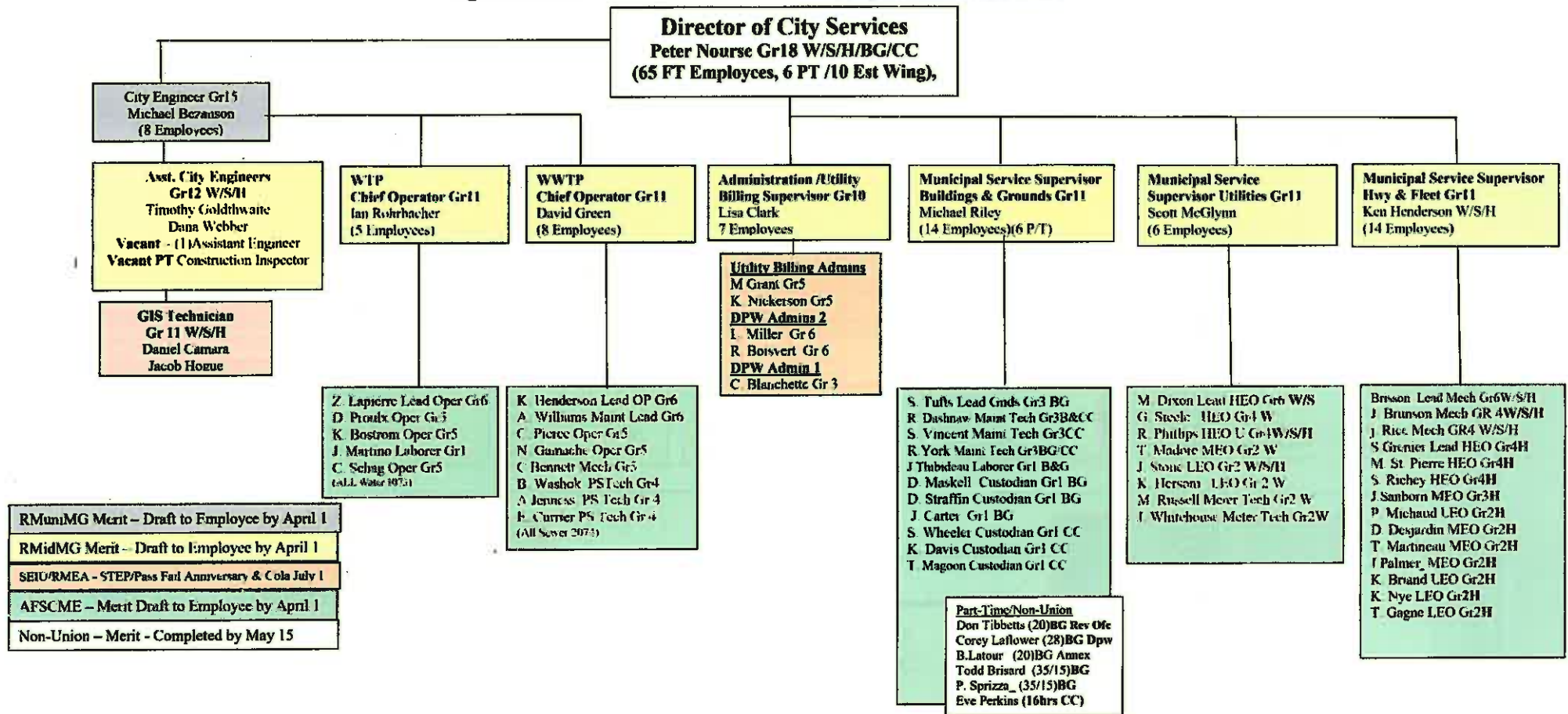
I respectfully request serious consideration for these proposed changes and preparation for Personnel Advisory Board. With such changes the Department will operate more effectively, retain and provide an ascension path for quality employees and make the Director of City Services duties more manageable.

Enclosures:

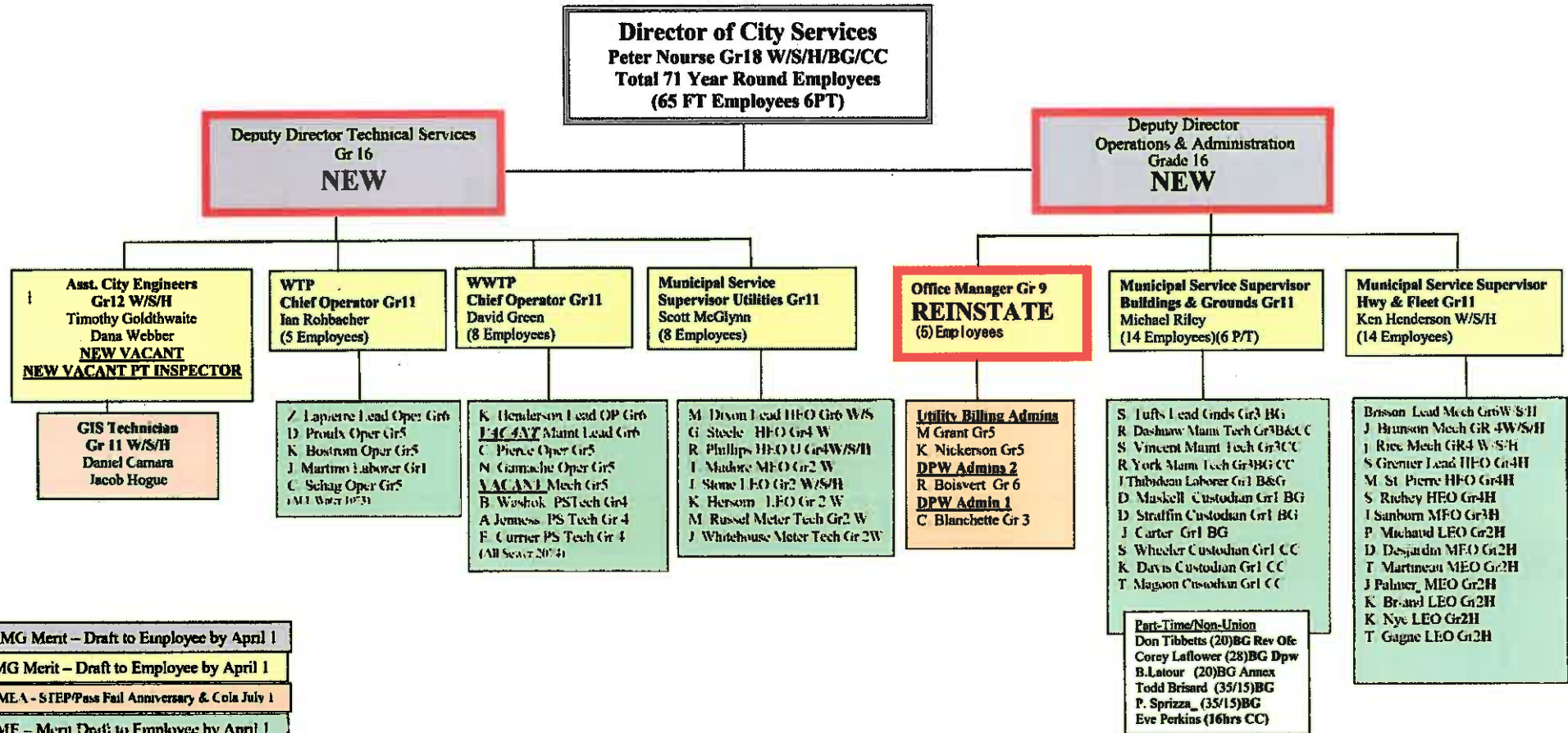
- (1) Public Works Department – Existing Organizational Chart
- (2) Public Works Department – Proposed Organizational Chart
- (3) Position Description (draft) Deputy Director for Operations and Administration
- (4) Position Description (draft) Deputy Director for Technical Services.

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Organizational Chart for the Rochester Department of Public Works



Organizational Chart for the Rochester Department of Public Works



RMuniMG Merit – Draft to Employee by April 1
RMidMG Merit – Draft to Employee by April 1
SEIU/RMEA – STEP/Pass Fail Anniversary & Cola July 1
AFSCME – Merit Draft to Employee by April 1
Non-Union – Merit - Completed by May 15

DEPUTY DIRECTOR OF CITY SERVICES – OPERATIONS AND ADMINISTRATION

DRAFT 05 NOV 21

Statement of Duties

Performs highly skilled and responsible administrative and operational professional work in assisting Director of City Services in managing various assigned activities and programs of the Department. Assumes the responsibilities of the Director of City Services in their absence in such functions as assigned.

Supervision

Reports directly to the Director of City Services.

Performs responsible work of a specialized and technical nature regarding finance, customer service and administration. Requires the exercise of a sophisticated degree of professional judgment in analyzing facts and circumstances to determine the appropriate course of action.

Oversees and directs the work of Roadway & Fleet Maintenance, Utilities Maintenance, Buildings and Grounds Maintenance and Administration and other Duties as assigned. Direct Reports include Municipal Service Supervisors for Highway & Fleet, Utilities, and Buildings and Grounds and the Office Manager.

Job Environment

Work is generally performed under typical office conditions; occasionally required to work outdoors with exposure to variable weather conditions, hazards associated with construction sites, moving vehicular traffic, fumes, or airborne particles.

Operates computers and standard office equipment; operates light truck and an automobile.

Makes regular contacts with the general public involving complex information requiring accuracy, tact and discretion; makes frequent contact with all other city departments, utilities, businesses contractors, consultants, political leaders, and local and state agencies.

Errors may result in time and monetary loss, poor public relations, reduced services to citizens, damage to buildings, equipment, and facilities, personal injury, injury to colleagues, danger to public health and safety, environmental damage, and legal repercussions.

May have access to some department-related confidential information, including personnel records, bid documents, and lawsuits.

Work is performed in an office and outdoors, where the employee is exposed to noise, dust, dirt, grease, machinery with moving parts, irritating chemicals, and occasional cold or inclement weather.

Essential Functions

The essential functions or duties listed below are intended only as illustrations of the various types of work that may be performed. The omission of specific statements of duties does not exclude them from the position if the work is similar, related, or a logical assignment to the position.

Oversees the execution of the missions, goals and culture set by the Director of City Services for the organization. Acts with full authority of Director of City Services in their absence on matters pertaining to the duties herein.

Plans, organizes, and provides operational management guidance to assigned employees and resources.

Oversees the Department's administrative functions to include timekeeping, customer service, safety program/loss minimization, drug and alcohol and other Federal Motor Carrier programs, records, correspondence, new employee processing, employee evaluations, counselling and career development, uniform management, utility and fuel management, departmental communications, budgets, utility billing, bargaining unit contracts, vendor contracts, community engagement, departmental staff and project progress meetings.

Oversees operational duties of the Highway and Fleet, Public Buildings and Grounds and Administration divisions of the Department. Determines problem statements, establishes solutions, milestones and goals; aligns and coordinates the functions of such divisions with other Department divisions and functions.

Directly oversees the critical winter operations of Highway and Fleet forces. Emergency services and resident mobility rely on these critical, high-profile operations.

Plans and implements short-term and longer-term administrative and operational goals, objectives, and strategies for the Department, including projects and programs, to ensure Department-wide operations complement each other resulting in efficient and effective operations

Administers, coordinates and encourages participation in a Department-wide professional training program for employees to maintain professional licensure accreditation and/or strive for training certificates or educational programs.

Department Safety Officer. Establishes and maintains a safety training program for employees Department-wide. Oversees divisional training programs ensuring program requirements are met and compiles all required records.

Plans, coordinates, assigns, monitors performance, coaches, counsels, mentors, and advises assigned employees.

Directly manages Department funding including operations and maintenance and capital budgets. Develops, recommends, and monitors Department-wide in consultation with all division heads and deputies the annual operating and capital budgets, including the Capital Improvement Plan and Operations and Maintenance budget and assists the Director of City Services with the budget presentations to City Council.

Confers with and informs the Director of City Services, City Manager, and Finance Department

on key issues and progress toward objectives and to gain support and approval; makes recommendations to assist in making needed improvements.

Prepares documents for competitive bidding; oversees bid evaluations. Monitors professional services for cost control and executes progress payments for construction and professional services.

Participates in selection of professional services consultants and vendors. Administers design and construction contracts.

Liaises with local, state and federal agencies and City Finance Department to manage multiple funding sources and mechanisms such as grants and loans to support capital and operational projects and their budgets. Seeks opportunities to secure external funding sources for projects.

Performs special assignments as requested by the Director of City Services, to include researching and preparing reports, conducting and overseeing projects, planning and executing public information meetings, consultant qualifications review, developing and implementing programs and presenting technical data to City Manager, elected officials, and others.

Represents the Director in their absence to the City Manager, City Staff and City Council at venues such as staff meetings, City Council meetings; and various City Boards and committees; meets with Federal and State officials, citizens, representatives of the press, and influential persons within the community to establish goodwill and resolve/respond to issues.

Reviews and prepares City Council agenda action items and ensures execution. Prepares agenda bills for the Department.

Supervises and coordinates all department-wide communications and customer service programs, including developing and implementing policies and specific projects and schedules for implementation, reviewing reports and analyses from consultants, and evaluating effectiveness of community outreach and engagement.

Leads department management in developing long-range strategic plans; confers and informs Director of City Services on key issues; provides progress reports toward objectives; seeks to gain support and approval of Department programs and initiatives;

Carries out supervisory responsibility in accordance with city policies, procedures, and applicable laws, including training in job skills, appraising performance, addressing complaints, resolving problems, and planning, assigning, and directing work.

Maintains continuous communication with the Director of City Services on events and activities that affect the positive delivery of Department services to the community.

Develops, recommends, and implements broad organizational strategies to positively improve the Department's services to the community.

Coordinates all efforts with other Department deputy positions.

Acts on behalf of the Director of City Services in his or her absence. Performs other related duties as assigned by the Director.

Recommended Minimum Qualifications

Education and Experience:

Batchelor's degree in finance, business administration, accounting, construction science or engineering. Ideal candidate will show minimum ten (10) years of progressively responsible experience in municipal public works management, private construction or utility management or any combination of education, training and experience which provides the required knowledge, skills and abilities required for the job.

Valid New Hampshire Operators License

Knowledge, Ability and Skill

Knowledge:

Knowledge in the technical principles of municipal public works functions including water, wastewater, transportation, solid waste collection, public facilities, and municipal fleet management.

Keen knowledge in municipal public works administration and management, including budgeting, municipal budgeting procedures and multi-funded financing operations, employee relations, bargaining units, loss management, grant and loan mechanics and automated management information systems.

Ability:

Ability to mentally manage high volumes of technical information and data, focusing on root issues, prioritizing problems and developing solution strategies.

Ability to grasp complex, technical issues in finance and infrastructure. Ability to Transform abstract ideas into problem statements and furnish solution strategies.

Understanding trends, and developments in municipal administration. Specific divisional procedures and policies, and city operations and functions, community relations and public engagement via multiple media platforms.

City, state, and federal laws applicable to environmental health and sanitation, building, plumbing, electrical, and/or mechanical codes.

Skill:

Using tact, discretion, and initiative. Critical thinking and independent judgment.

Effective communication skills with various media to effectively engage the public. Analyzing and resolving various situations and problems. Solving abstract problems.

Solid mathematical skills; emphasis on project finance.

- Using a personal computer to accurately and rapidly enter and retrieve data and information. Selecting and motivating staff and provide for their training and professional development.

Physical Requirements

Minimal physical effort generally required in performing duties under typical office conditions. Position requires the ability to operate computer keyboard and standard office equipment. The employee is frequently required to sit, talk and hear and is required to use hands to finger, handle or feel projects, tools or controls and to reach with arms and hands. Must be able to maneuver over uneven terrain under various weather conditions. Normal vision requirements. The incumbent occasionally lifts up to 75 lbs.

This job description does not constitute an employment agreement between the employer and employee, and is subject to change by the employer, as the needs of the employer and requirements of the job change.

DEPUTY DIRECTOR FOR TECHNICAL SERVICES

Statement of Duties

Performs highly skilled supervisory, management, technical and professional work relating to in assisting Director for City Services in managing the design, construction, and maintenance of all city infrastructure engineering projects and City environmental operations; all other related work, as required.

Supervision

Reports directly to the Director of City Services.

Performs responsible work of a specialized and technical nature planning, organizing and coordinating a municipal service; requires the exercise of a sophisticated degree of professional judgment in analyzing facts and circumstances of highly technical projects to determine the appropriate course of action.

Oversees and directs the work of water treatment operations, wastewater treatment operations, Engineering Division, Utilities Division, transportation, GIS/Asset Management and other duties as assigned. Direct reports include City Engineer, GIS/Asset Manager Coordinator, Chief Operator of Drinking Water Treatment, Chief Operator of Wastewater Treatment, Utilities Division Supervisor,

Job Environment

Work is generally performed under typical office conditions; frequently required to work outdoors with exposure to variable weather conditions, hazards associated with construction sites, moving vehicular traffic, fumes, or airborne particles.

Operates computers and standard office equipment; operates light truck and an automobile.

Makes regular contacts with the general public involving complex information requiring accuracy, tact and discretion; makes frequent contact with all other city departments, utilities, businesses contractors, consultants, political leaders, and local and state agencies.

Errors may result in time and monetary loss, poor public relations, reduced services to citizens, damage to buildings, equipment, and facilities, personal injury, injury to colleagues, danger to public health and safety, environmental damage, and legal repercussions.

May have access to some department-related confidential information, including personnel records, bid documents, and lawsuits.

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Deputy Director of Technical
Services
Adopted
Amended

Essential Functions

The essential functions or duties listed below are intended only as illustrations of the various types of work that may be performed. The omission of specific statements of duties does not exclude them from the position if the work is similar, related, or a logical assignment to the position.

Oversees the execution of the missions, goals and culture set by the Director of City Services for the organization. Acts with full authority of Director of City Services in their absence on matters pertaining to the duties herein.

Aligns and coordinates the technical functions of multiple department divisions including drinking water, wastewater, storm water, engineering, GIS/Asset Management, transportation, and utilities to ensure a congruent work force of high effectiveness. Coordinates all efforts to ensure harmony of work and unity of effort to set and achieve departmental and City goals.

Oversees overall design and administration of all municipal engineering-related capital and operational infrastructure projects. Reviews the preparation of plans and working drawings, and directs construction, inspection, and quality assurance of engineering elements of city projects.

Oversees the operation and capital infrastructure programs of the City's water and wastewater treatment plants, ensuring that both facilities operate in a safe, effective and efficient manner and in compliance with all federal and state laws and regulations. Identifies the strategic capital needs and goals of treatment facilities, distribution and collections infrastructure and leads efforts to achieve goals.

Reviews City planning projects for congruence with City infrastructure goals. Liaises directly with Planning Department frequently. Identifies stressors to City infrastructure due to private development and formulates solutions that support development while ensuring City services are optimal. Reviews field inspections, project progress and technical reports and makes determinations for the Director on recommendations for the approval and acceptance of all privately constructed infrastructure projects for public ownership and maintenance.

Identifies a holistic strategic program to maintain and improve the City's transportation infrastructure system and oversees the implementation of such program. Regularly liaises with NH Department of Transportation and ensures routine staff interaction with Strafford Regional Planning Commission.

Oversees the City's environmental affairs and programs. Ensures that all city owned entities comply with all applicable federal and state environmental laws and regulations. Oversees the City's storm water program (MS4) and any National Pollution Discharge Elimination System (NPDES) permit programs. Sets performance goals with milestones and ensures departmental

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forces and contract engineering services work towards achievement of such goals. Regularly liaises with environmental agencies and contracted environmental professionals to stay abreast of potential environmental regulations, determine potential impacts and formulates compliance strategies as required.

Oversees the preparation of documents for competitive bidding; oversees bid evaluations; reviews and endorses recommendation for contract award. Participates in selection of consultants; oversees the administration of design and construction contracts; cost control and processing of progress payments.

Stays abreast of funding from external public agencies. Seeks opportunities for external funding towards infrastructure projects. Oversees the preparation of grant and loan applications for grants and loans. Oversees and directs the mechanics of project funding elements to include City and external funding sources such as loans and grants, ensuring adequacy and coordination to meet project needs.

Directly oversees the execution of the safety programs of the water, sewer programs.

Ensures maintenance of municipal technical standards for public infrastructure to reflect best current technology and practices. Prioritizes the funding and planning requirements of municipal capital infrastructure projects.

Oversees the preparation and administration of divisional capital and operating budgets for assigned divisions. Assists the Director of City Services with the preparation and presentation of the Department's capital and operational and maintenance budgets to the City Manager, staff and City Council.

Oversees and directs the leveraging of contracted professional engineering/architectural services. Ensures coordination of efforts amongst such services and with those of City staff. Builds greater multi-firm and staff technical teams to establish congruent, effective solutions to infrastructure problems to include identifying goals, milestones and required resources. Reviews performance of contracted professional engineering/architectural services and participates in selection panels.

Provides technical support to all divisions of the Department of Public Works and other city departments, as needed; conducts reviews and submits reports on infrastructure proposals to other city agencies; reviews proposals for impact on the community, including construction requirements, transportation, public safety and municipal service delivery. Attends various city board meetings including City Council subcommittees. Schedules, prepares for and leads public hearings conducted on construction projects, easement acquisitions and other capital projects. Represents city on various committees and at public hearings or court proceedings.

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Oversees the permitting and licensing program for public works related projects (public and private). Ensures all aspects of program to include technical platforms, inter-departmental work flow processes and customer service is executed efficiently for developers and City staff.

In the absence of the Director of City Services, provides reports, presentations and participates in discussions with the public, City staff, City Council in public settings as required.

Responds to inquiries and complaints with appropriate professional courtesy, information, research and/or referral.

Serves as technical resource to the Public Works Committee and Public Safety Committee.

Supervises the maintenance of various city maps including the City's MIS/Planning Office, street, atlas, city properties, easement, record drawings, etc. Organizes, oversees and updates division's record keeping program and acceptance listings. Participates in or supervises employees involved in the research, data collection, plotting, calculations, plan preparations, public meetings, record keeping, and recording processes required to map the City's infrastructure.

Upgrades and maintains knowledge and expertise in the field through continuing education.

Performs similar or related work as required, directed, or as situation dictates.

Recommended Minimum Qualifications

Education and Experience

Bachelor of Science degree in Civil Engineering required from a college or university accredited by the Accreditation Board in Engineering and Technology. Ten years of full-time civil engineering design and supervision experience on a variety of engineering projects, especially those involving public works construction; or an equivalent combination of education and experience. Experience in responsible management of subordinate employees and contracted technical services.

Special Requirements

Licensure as a Professional Engineer in New Hampshire
New Hampshire Class D Driver's license.

Preferred Licenses:

Registered Land Surveyor or Surveyor-In-training;
Septic System Designer in New Hampshire;
Water and/or Wastewater Treatment Plant Operator Level II.

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Water Distribution Operator Level II
Collections Operator Level III

Knowledge, Ability and Skill

Knowledge: Extensive knowledge of the application of civil engineering skills including technical management to public works projects including transportation systems, water and wastewater utilities and treatment.

Thorough knowledge of local, state, and federal laws and regulations governing the municipal infrastructure and relating to public works functions.

Thorough knowledge of public bidding laws as they relate to public works and construction projects.

Knowledge of the financial mechanics and administration of multiple funding sources for municipal infrastructure such as State Revolving Loans, grants and other state and federal programs.

Considerable knowledge of structural design, specifications, and applicable codes and safety standards and related engineering, environmental, and land surveying practices.

Keen knowledge with GIS and Asset Management as applied to infrastructure.

Ability: Requires keen ability to identify strategic goals as related to complex infrastructure needs, and direct multiple technical resources to establish systematic programs with milestones to realize positive outcomes.

Ability to analyze and identify complex, strategic infrastructure problems, identify solutions and establish short and long-term programs to achieve positive outcomes.

Ability to make timely decisions when faced with multiple potential solutions to complex engineering problems. Ability to formulate contingency plans to optimize outcomes.

Ability to identify, organize, coordinate and encourage City employees and multiple contracted professional engineering/architectural resources towards establishing goals, solutions and achieving positive outcomes.

Ability to perform engineering calculations to check the work of employees and contracted professionals. Ability to keep accurate and detailed notes and records. Ability

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to read and interpret plans, specifications, and codes and other engineering instruction documents.

Ability to monitor, critique, and encourage work of subordinate employees and contracted resources. Ability to channel the abilities of subordinate employees, contracted services and other City employees towards achieving set goals. Ability to provide detailed written evaluations of subordinate employees. Ability to influence high employee effectiveness through routine performance review.

Ability to prepare and manage and present budgets.

Ability to make public presentations on complex, technical matters to the public, City staff, City Council, professional services and other agencies/organizations. Ability to communicate such complex, technical matters in lay terms.

Ability to provide thoughtful intelligent responses in public forums.

Skill: Premier universal, core leadership skills as applied to a technical environment.

Excellent communication skills, both oral and written.

Must be sensitive to and have acute public relations awareness.

Innovative skills in the application of engineering principles to design, construction and maintenance to obtain economically acceptable solutions on public works projects.

Skill with computers and drafting applications, Including but not limited to Computer Aid Design software (e.g. AutoCAD) and Geographical Information Software (e.g. ArcVIEW).

Physical Requirements

Minimal physical effort generally required in performing duties under typical office conditions. Position requires the ability to operate computer keyboard and standard office equipment. The employee is frequently required to sit, talk and hear and is required to use hands to finger, handle or feel projects, tools or controls and to reach with arms and hands. Must be able to maneuver over uneven terrain under various weather conditions. Normal vision requirements. The incumbent occasionally lifts up to 75 lbs.

This job description does not constitute an employment agreement between the employer and employee, and is subject to change by the employer, as the needs of the employer and requirements of the job change.

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