



DEPARTMENT OF PUBLIC WORKS: Department Update for FY18

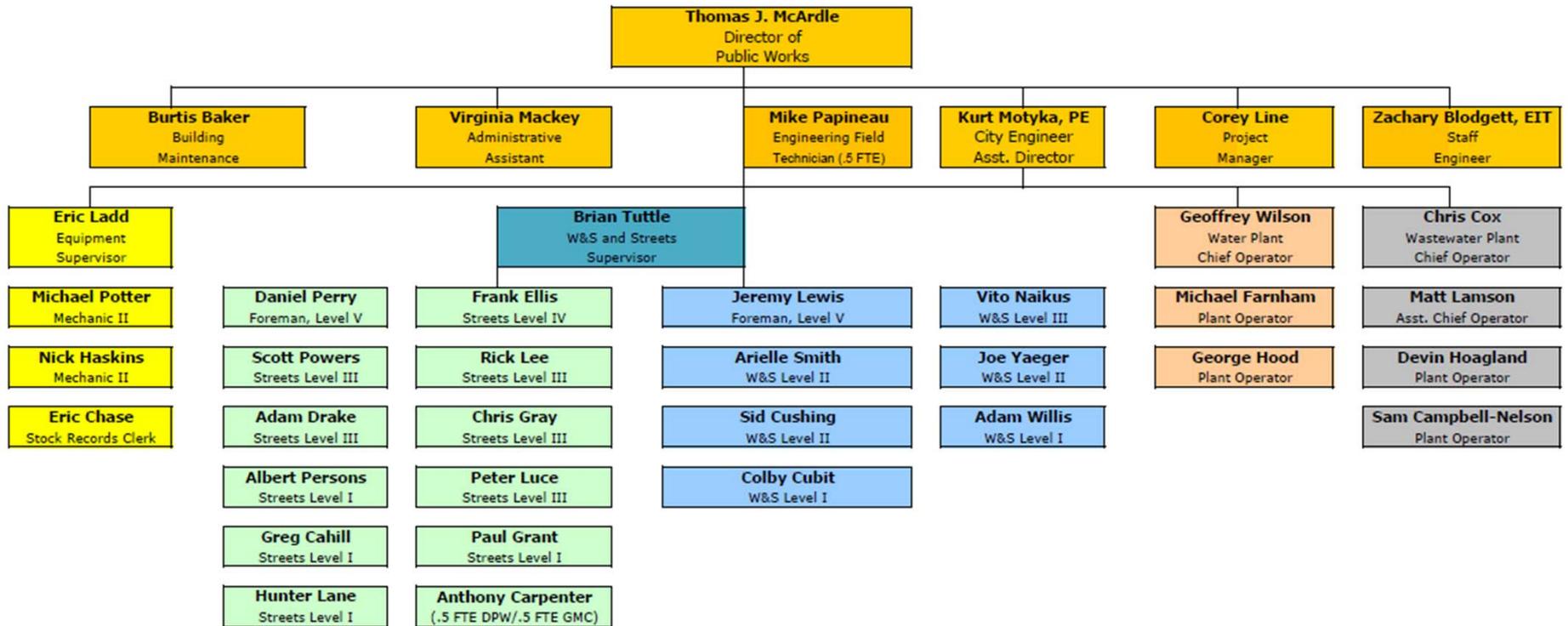


Thomas McArdle
Director
11/30/2016



Organizational Chart

CITY OF MONTPELIER
DEPARTMENT of PUBLIC WORKS
as of November 21, 2016



NOTES: Administration, Streets, and Equipment are funded through the General Fund (10).
 Water and Water Treatment Plant are funded through the Water Fund (11).
 Sewer, Stormwater Treatment and Wastewater Treatment Plant are funded through the Sewer Fund (12)
 District Heat is funded through the District Heat Fund (50)
 All Divisions' projects and equipment purchases are funded through the CIP (30).



Who Are We & What Do We Do?

As stated best by the American Public Works Association (APWA):

“Public Works is the combination of physical assets , management practices, policies, and personnel necessary for government to provide and sustain structures and services essential to the welfare and acceptable quality of life for its citizens. In each community, whatever its size, there are needs common to all human beings that must be met through the provision of public works services. These needs are met on a daily basis by visionary, values-driven, and hardworking men and women who provide and sustain public works services in the best interests of their communities.”

The APWA government affairs manager made this remark in a recent publication: “Public Works is a highly regulated profession with at least a dozen laws to comply with for just the environment alone. These regulations grow across the economy every year.”

There are regulations that apply to nearly everything Public Works does including construction activity (VOSHA), traffic systems & devices, solid waste, fuel storage & delivery systems, drinking water, accessibility (the ADA), electronics, motor vehicles (CDL), etc.



Our Public Works Department is charged with the following responsibilities:

- Provide responsive and effective management and maintenance of the city streets, bridges, sidewalks, retaining walls, storm drainage systems, & traffic operations.
- Produce & deliver safe & high quality drinking water to customers of the Montpelier water system by protecting our water source, operating our water treatment facility and distribution system and performing required routine & preventive maintenance.
- Compliance with our operations and discharge permit for the collection, transmission and treatment of wastewater and return treated water to the environment via our highly effective Water Resource Recovery Facility (WRRF). We meet and often exceed the requirements. This facility is the most expensive asset in the City's portfolio.
- The relatively new District Heat system has been integrated into DPW's range of operations and management obligations to deliver a locally renewable energy source to many of the downtown Montpelier properties with capacity to expand the service. (Note: Equipment Supervisor & Assistant Director / City Engineer are now responsible for operations)
- The DPW equipment division maintains the majority of the city's fleet of vehicles and equipment to provide reliable, safe, and functional equipment ensuring that operations across departments have the tools they need to perform their respective tasks and responsibilities. This division also provides maintenance and repair service support for the two treatment facilities and other city assets and operates a fueling station.
- Our building maintenance staff provides custodial duties for City Hall and the police station.
- Administration/Engineering provides oversight of all divisions, permitting, project management, staffing of committees, conducts studies, budgets and cost estimating, payroll, accounts receivable/payable, etc.



Department of Public Works: Funding Breakdown

FY16 Budget:

| | |
|-----------------------|----------------|
| ➤ General Fund: | \$2,016,215.00 |
| ➤ Water Fund: | \$2,477,189.00 |
| ➤ Sewer Fund: | \$3,971,056.00 |
| ➤ District Heat Fund: | \$495,000.00 |
| ➤ CIP Fund: | \$818,159.00 |
| <hr/> | |
| ➤ Total Funding: | \$9,777,619.00 |



General Fund:

| | FY16 Budget Spending: Planned vs Actual | | |
|---------------------|---|--------------------|------------------|
| General Fund: DPW | FY16 Budget Plan | FY16 Budget Actual | FY17 Budget Plan |
| Streets | \$1,370,961.00 | \$1,300,399.60 | \$1,367,140.00 |
| Fleet Operations | \$581,154.00 | \$432,048.51 | \$551,258.00 |
| Building Operations | \$64,100.00 | \$57,165.13 | \$60,774.00 |
| Totals | \$2,016,215.00 | \$1,789,613.24 | \$1,979,172.00 |
| Net Excess/Deficit | \$226,601.76 | | |



Water Fund:

| | FY16 Budget Spending: Planned vs Actual | | |
|----------------------|--|--------------------|-----------------------|
| Water Fund: | FY16 Budget Plan | FY16 Budget Actual | FY17 Budget Plan |
| Revenues | \$2,579,266.00 | \$2,763,413.53 | \$2,660,000.00 |
| Expenses | \$2,477,189.00 | \$2,396,834.95 | \$2,557,263.00 |
| Net Excess/(Deficit) | \$102,077.00 | \$366,578.58 | \$102,737.00 |



Sewer Fund:

| | FY16 Budget Spending: Planned vs Actual | | |
|----------------------|---|--------------------|------------------|
| Sewer Fund: | FY16 Budget Plan | FY16 Budget Actual | FY17 Budget Plan |
| Revenues | \$3,778,299.00 | \$3,848,438.19 | \$3,799,550.00 |
| Expenses | \$3,971,056.00 | \$4,034,887.60 | \$3,948,021.00 |
| Net Excess/(Deficit) | (\$192,757.00) | (\$186,449.41) | (\$148,471.00) |



District Heat Fund:

| | FY16 Budget Spending: Planned vs Actual | | |
|--------------------|---|--------------------|------------------|
| District Heat Fund | FY16 Budget Plan | FY16 Budget Actual | FY17 Budget Plan |
| Revenues | \$494,814.00 | \$480,538.31 | \$539,833.00 |
| Expenses | \$494,814.00 | \$469,538.18 | \$539,833.00 |
| Net Excess/Defecit | \$0.00 | \$11,000.13 | \$0.00 |



CIP Fund:

| | FY16 Budget Spending: Planned vs Actual | | |
|-------------------------|---|--------------------|------------------|
| CIP Fund: DPW | FY16 Budget Plan | FY16 Budget Actual | FY17 Budget Plan |
| Street Rehab and Paving | \$554,759.00 | \$563,284.12 | \$489,000.00 |
| Bridges | \$125,000.00 | \$78,170.57 | \$0.00 |
| Traffic Improvements | \$12,500.00 | \$12,798.13 | \$15,000.00 |
| Retaining Walls | \$8,000.00 | \$34,250.00 | \$0.00 |
| Sidewalks & Bike Paths | \$40,000.00 | \$120,754.96 | \$201,000.00 |
| Drains & Culverts | \$10,000.00 | \$157,357.64 | \$58,000.00 |
| Project Management | \$67,900.00 | \$62,240.01 | \$69,300.00 |
| Totals | \$818,159.00 | \$1,028,855.43 | \$832,300.00 |
| Net Excess/Deficit | (\$210,696.43) | | |



Contributions to Council’s goals

City Council Goals related to DPW:

Goal A: Keep Montpelier affordable for all residents

- Continue to maintain infrastructure within the adopted budget
- Keep user fees sustainable for Water/Sewer/ District Heat payers

Goal B: Maintain excellent services

- Acquiring asset management capabilities (Beehive)
- Seek opportunities for efficiencies-(NetZero, FOG, De-Icing Improvements)

Goal C: Maintain a safe community

- Compliance with New CSO Rules
- Updated Water Source Protection Plan – continue work to regain control

Goal D: Create and maintain healthy environment for housing & economic growth

- Working with planning & manager’s office to determine infrastructure support

Goal E: Maintain a healthy community for people

- Continue to implement Montpelier in Motion

Goal F: Maintain a vibrant downtown

- 2017 Project Public Relations for significant projects planned (survey complete, public meeting planned)
- Continue to maintain downtown amenities (benches, bike parking, planters)

Goal G: Achieve a steady state for infrastructure maintenance and improvements, facilities, and equipment

- Completed 2016 CIP Projects (on target to achieve 70 PCI)
- Maintain bike & pedestrian facilities (Montpelier in Motion)
- Developed water/sewer steady state financing plan
- Final design underway for Taylor Street reconstruction
- Right-of-Way being secured for bike path project

Goal H: Maintain a clean and healthy natural environment

- Completed Stormwater Master Plan
- Maintain high quality wastewater effluent

Council Goal FTE Breakdown:

| | |
|-------------------------|------|
| Operational Maintenance | 18.5 |
| Regulations | 6.0 |
| Requests | 6.0 |

Total FTEs for Goals B,C,H 30.5

TOTAL FTEs for all other goals 6.5

DPW is at capacity with planned projects through FY18. New DPW-related Council goals will need to consider which other projects to eliminate or how to identify new funding for staff.



Performance Measures

| FY18: Budget - Performance Management | | | | | | | |
|---|---|--------------|-------------|-------------|--------------|-------------|-------------|
| Public Works | | | | | | | |
| Departmental Goals and Performance Measures | | | | | | | |
| Goal or Outcome | Performance Measure | FY15 Target | FY15 Actual | FY16 Target | FY 16 Actual | FY17 Target | FY18 Target |
| City roads and sidewalks are well maintained | | | | | | | |
| | Pavement Condition Index: progress for min 70 PCI goal | New for FY17 | | | 67 | 68 | |
| | Frequency of streets swept as recommended by VT DEC | 100% | 100% | 100% | 100% | 100% | 100% |
| | % of planned project objectives accomplished | New for FY17 | | | 100% | 100% | |
| | % of summer maintenance goals completed | New for FY16 | | 100% | 100% | 100% | 100% |
| The City's fleet is well maintained and fully functional | | | | | | | |
| | # of days fleet vehicles are off-line due to maintenance issues | | | 50 | 39 | 30 | 30 |
| | Maximum time (days) to complete equipment repairs for non-routine work (break down). | | | 2 | 3 | 2 | 2 |
| Met the Maximum Contaminated Level for drinking water quality | | | | | | | |
| | % of regular inspections of the water source completed according to the schedule | 100% | 100% | 100% | 100% | 100% | 100% |
| | % of unidirection flushing performed to remove sediment according to the schedule | 100% | 75% | 100% | 100% | 100% | 100% |
| | % of valves operated and repair/ replacement schedule determined | 25% | 10% | 50% | 50% | 25% | 25% |
| | % of time met the discharge limit reportable parameters for Wastewater effluent | 100% | 100% | 100% | 100% | 100% | 100% |
| | % of lines on the City's sanitary sewer system that are cleaned annually | 25% | 10% | 25% | 25% | 15% | 25% |
| | % of man holes on the City's sewer system that are inspected annually | 25% | 25% | 25% | 25% | 25% | 25% |
| | % of CSO monitors checked as recommended by State | 50% | 50% | 50% | 100% | 100% | 100% |
| City Buildings are well maintained | | | | | | | |
| | % of days the main entrances to City Hall receive priority cleaning, in all seasons. | New for FY17 | | | 100% | 95% | |
| | % of time custodial services work plan (daily/weekly/monthly) is accomplished. | | | | 100% | 100% | |
| | % of days the bathrooms receive priority cleaning and maintenance (incl re-stocking). | | | | 100% | 100% | |

- Met Yearly Target for Water Steady State Plan (500')
- Met Yearly Target for Sewer Steady State Plan (500')

New measures:

- PCI target progress
- % of projects completed
- Custodial services

- ### Upcoming Management Tools:
- Beehive Software Assessments
 - Condition Index for all asset systems



Budget Challenges/Progress

Challenge: Achieving Infrastructure steady state with limited funds for water/sewer/storm projects

- Progress: Successfully completed in-house projects for the past two years
- Progress : Awarded CWSRLF for Northfield Street and East State Street w/ 50% design subsidy
- Progress : Awarded \$20K for Water System asset management grant with rate study funding
- Progress : Awarded state structures grant for Spring Street bridge deck rehabilitation – work completed

Challenge: WRRF is in need modernization replacement/repairs of aging equipment

- Progress : Performed Plant upgrades, Governor's Excellence Award
- Progress : Awarded CWSRLF for plant upgrade w/ 50% design subsidy. Efficiency VT assisting in funding energy efficiency projects

Challenge: High level of work load planned for FY16-FY17

- Progress : At end of construction season 95% of all planned projects completed
- Progress: Also accepted & completed unplanned projects

Challenge: Equipment not complete for in house construction

- Progress : Rental of tracked excavator. Purchase of new compaction equipment & sidewalk paver

Challenge: Staff is charged with implementing Montpelier in Motion, development support, CSO's, storm water, increased infrastructure improvement management, and increased regulatory mandates

- Progress : Storm water Master Plan complete, Source Protection Plan (SPP) complete, multiple construction project completed or in development, utilized interns for added support, CSO incident reduction & new rules implementation



Emerging Issues

Upcoming Challenges:

- Roads General Permit (Storm water)
- Bond Vote for Northfield Street Reconstruction Project
- Bond Vote for WRRF upgrade
- FY18 Integrated Facilities plan and grounds management
- Building CNA projects (CIP Funding)
- CSO Rules- Development of long term plan and minimum controls
- Net Zero- LED street lights (City owned)
- Complete Streets Implementation

Upcoming Needs:

- Engineering staff to support increase in work load including new mandates (1 FTE)
- Separate Storm water utility for additional revenue to support new regulations
- Ordinance revisions for grease trap management
- Facilities Manager for CIP funded projects and general maintenance needs for multiple properties (0.5 – 1 FTE)
- Facilities / Operations Manager for District Heat Operations to restore Assistant Director / City Engineer to primary responsibilities (0.25 FTE)



Emerging Issues

Council Goals document future priorities – what is carrying forward from this year’s Council goals?

- B) Energy Efficiency Improvements
- B) Maintain Excellent services- high quality oriented department
- C) Water source protection plan- control of source and/or enhanced treatment
- C) CSO Elimination- Long term control plan
- D) Facilitate Housing- Policy on infrastructure support
- E) Montpelier in Motion
- F) Improve downtown infrastructure- Paving and sidewalks projects and Way Finding plan
- G) Steady state infrastructure- Street & Utilities
- G) Facilities & Ground Maintenance
- H) Stormwater plan implementation

Our FY18 Project Priorities

- State and Route 12 Paving Projects
- Bike Path (Expansion & Taylor Street)
- Taylor Street Reconstruction
- Northfield Street Utilities & Recon
- WRRF plant upgrades
- Cummings Street Bridge Design & Recon
- Downtown Sidewalk Improvements
- Storm water system upgrades & replacements
- FY18 Paving Program
- Montpelier in Motion

2016 Construction Summary

Projects Completed for a Total Expenditure of \$ 2,100,000 (CIP & Other Funds)

- 2.8 Miles of Roads Paved
- 1 Parking Lot Resurfaced
- 1.25 Miles of Roads Crack Sealed
- 0.95 Miles of Sidewalks Improvement (20 ramps)
- 500 ft Sewer Main replaced (Terrace St)
- 2 CSO Projects & 2 IDDE Projects
- 500 ft Water Main replaced (Gaylord Dr)
- 5 New Water Valves Installed
- 800 ft Storm Main Replaced
- Storm Water Retention Structure Installed
- 2 Retaining Walls Constructed
- 1 Bridge Repair
- 2 WRRF energy efficiency upgrades





2017 Construction Work Plan

Street Maintenance:

- Gallison Hill Road
- Gov. Davis Avenue
- High School Drive
- Crack Sealing

Street Rehabilitation Projects:

- Barre Street
- Harrison Ave
- Merrill Terrace
- Towne Hill Road
- Winter Street
- State St & Rte 12 (Main/Elm & Northfield St)

Montpelier in Motion (Bike & Ped)

- Rectangular Rapid Flashing Beacons
- Towne Hill Road Sidewalk Extension
- Elm Street Sidewalk Extension
- Northfield Street Sidewalk Extension

Retaining Wall

- River Street Retaining Wall

Bridges:

- Grout Road & Route 2: Apply for Engineering Grant
- Cummings Street- Replacement

Sidewalks:

- State and Main various locations
- Harrison Ave Sidewalk reconstruction

Storm Drains and Culverts:

- Isabel ditching
- 365 River Street culvert
- Crestview Drive culvert
- Hill Street ditching
- Franklin Street culvert
- Stormwater Quality: Apply for Grant

Building and Grounds:

- Pedestrian Walkway at Pool
- CNA Projects

Other Major Projects:

- Taylor Street reconstruction
- Bike Path extension
- Northfield Street Reconstruction



2017 Construction – Communications Plan

- 2017 Construction will be branded (name and logo)
- Dedicated website on the City's homepage
- Weekly updates provided via
 - Website
 - Facebook
 - Front Porch Forum
 - Press Release
- Partnerships include
 - Montpelier Business Association
 - Downtown residential landlords
 - State Project Managers
 - Montpelier Alive (to coordinate special events)
- Staff dedicated to this effort
 - January to March: 5 hours/week
 - April to November: 10 hours/week
- Other Support to Consider
 - Free downtown parking during construction
 - Specialized events to support businesses
 - Signage indicating that Montpelier is “open for business”

Announcement:

Public Meeting Re: Northfield Street,
Taylor Street & Route 12 (downtown)
paving projects:

Date: December 6th at 6:30PM
Memorial/Council Chambers

Winter Operations Information

- **FY16: 2015 / 2016 winter season (one of the mildest seasons on record)**
- Winter Parking Ban: 6 declared
- Local Snow fall was 27" & 7 freezing rain and/or mixed precipitation events
- 23 plowing, deicing, and sanding events
- 10 snow bank removal operations (early morning & day time)
- De-icing salt (with "Magic Minus"): 1,190 tons used (budget = 2,700 tons + 9,000 gallons liquid)

- **FY15: 2014 / 2015 winter season ("normal" snowfall / unusually cold)**
- Winter Parking Ban: 29 declared (some for continuous nights)
- Local snow fall was 101.7" & 5 freezing rain and/or mixed precipitation events
- 88 plowing, deicing, and sanding events of which 40 occurred during a declared winter ban.
- 13 overnight / early morning snow bank removal operations
- De-icing salt: 2,064 tons used (budget = 3,000 tons)



Contact Info:

Admin & Engineering
39 Main Street
802-223-9508

Water Treatment Plant
1480 Paine Turnpike
802-229-1401

Equipment Division
783 Dog River Rd
802-223-9510

Water/Sewer &
Streets Divisions
783 Dog River Rd
802-223-9510

Water Resource
Recovery Facility
783 Dog River Rd
802-223-9511



Thank you!