

# **Fiscal Year 2011 Capital Report**

---

2-Year Renewal and Replacement (R&R) Capital Budget  
5-Year Extension and Expansion (E&E) Capital Budget  
10-Year Capital Improvements Plan



**Planning for tomorrow, Today**

June 28, 2010 – Final Report

---

## General Information

### Fiscal Year 2011 Capital Report

#### Introduction

The Capital Improvement Plan or CIP is the Commission's ten-year roadmap for creating, maintaining and funding present and future infrastructure requirements. The CIP addresses the Commission's needs related to the acquisition, expansion, and rehabilitation of long-lived facilities and infrastructure. The CIP serves as a planning instrument to identify needed capital expenditures and to coordinate the financing and timing of improvements in a way that maximizes the return to the customers.

The underlying strategy of the CIP is to plan for design, acquisition, construction, and maintenance of facilities necessary for the safe and efficient provision of water and wastewater services in accordance with policies, goals and objectives adopted by the Commission. A critical element of a balanced CIP is the provision of funds to both preserve or enhance existing facilities and provide new assets to respond to changing service needs and growth of the community.

The CIP is not the same as the Capital Budget. The Capital Budget represents the projects and/or programs that once approved by the Commission, authorizes specific projects and appropriates, where applicable, specific funding for those projects.

#### Capital Improvements Program Goals

- ❖ Ensure that the Commissioner's approved Capital Budget(s) and 10-Year Capital Improvement Program is affordable and finances only necessary capital expenditures.
- ❖ Enable informed capital investment decisions according to a fair, open and objective process.
- ❖ Emphasize the requirement for long-term planning.
- ❖ Enhance the linkage between the Capital and Operating Budgets.
- ❖ To avoid the need to impose "crisis" rate increases.
- ❖ To focus customers attention on Commission goals, needs and priorities.
- ❖ To serve as an education tool for the community and the Commission.

#### Revenue Sources

The Capital Budget is funded in accordance with the latest Cost Recovery Policy, through three primary revenue sources; Operating Revenues, Growth Related Revenues and Grants.

- Growth Related Revenues – are funds collected through impact fees and used to fund direct costs of planning, designing, or constructing capital facilities that will be Extended & Expanded (E&E) for future customers.

Impact fees are charges assessed against new development to recover part of the capital costs of expanding the water and wastewater infrastructure to serve them. Considered as a capital-recovery charge, impact fees allow recovery of the capital costs of developing the new service directly from the customer who will benefit from the service.

Impact fees recover major capital costs associated with expanding water and wastewater service facilities, including but not limited to water treatment plants, storage facilities, pumps and distribution mains, wastewater collection, transmission, storage, treatment and disposal facilities, and other capital equipment.

- **Operating Revenues** – are funds collected through rates and used to fund capital expenditures for the Renewal & Replacement (R&R) of existing facilities and infrastructure, as well as routine capital outlays and capital maintenance.
- **Grants** – are funds obtained from other agencies through a competitive selection process. The funds are made available for specific project objectives. Awards may be for the entire project cost or matched with contributions from the Commission.

## Capital Improvements Plan Structure

The Capital Improvements Plan (CIP) is broken down into three utilities: Administration; Wastewater (including Reuse); and Water. Within each utility, are asset classes. Projects are evaluated and grouped in accordance with their ability to support the asset class objective.

## Utility and Asset Class Definitions

**Administrative** Projects listed under the “Administration Group” are projects that support all utilities (water and wastewater), and are therefore funded with both water and wastewater R&R and E&E dollars. Asset classes for Admin Projects include:

<b>Facilities</b>	The objective of this asset class is to maintain the MPW Operations Center, and to provide for adequate facilities for future staff, which will be required as MPW’s customer base and infrastructure continue to grow.
<b>Information Technology (IT)</b>	The objective of this asset class it to provide improvements to MPW’s Management Information Systems (including computer, telecommunications, office, web and SCADA/process control systems) to ensure best practices are being used and to place a priority on performance, reliability, security, efficiency, and accessibility.
<b>Relocation</b>	The objective of this asset class is to provide adequate funding for the relocation of existing water and wastewater lines located in road right-of-ways to accommodate road widening and storm drain improvement projects by the Town, County and SCDOT.
<b>Study</b>	The objective of this asset class is to provide “critical” organization direction, help determine the feasibility/importance of specific project/program, and to provide data for future decisions.

**Wastewater** - Projects listed under the “Wastewater Group” are projects that support only wastewater assets, and are funded with wastewater R&R and E&E funds. Asset classes for Wastewater Projects include:

<b>Collections</b>	The objective of this asset class is the continued removal of infiltration/inflow from the collection system, replace non-repairable, aged gravity wastewater sections and install new gravity wastewater to support growth.
<b>Force Mains</b>	The objective of this asset class is the replacement of non-repairable, aged wastewater force mains including those approaching capacity limitations, general improvement to system appurtenances and installation of new force mains to support growth.
<b>Pump Stations</b>	The objective of this asset class is to upgrade existing stations to support growth and to renew and replace existing stations including pumps, electrical, controls and SCADA systems to improve operational reliability, control and efficiency.
<b>Study</b>	The objective of this asset class is to meet ever changing regulatory requirements and to define facility additions and improvements needed due to new technology. To guide structuring the 10-year CIP; and to define facility needs to stay ahead of growth demands. Studies address both treatment and collection needs of the system, as well as evaluation of a variety of related issues.
<b>Treatment/Disposal</b>	The objective of this asset class is to ensure that our plants exceed permit limits by providing adequate funding for process; equipment repair and replacement; incorporation of new technology; and expansion to meet growth.

**Water** - Projects listed under the “Water Group” are projects that support only water assets, and are funded with water R&R and E&E dollars. Asset classes for Water Projects include:

<b>Distribution System</b>	The objective of this asset class is to support the ongoing rehabilitation of existing water lines; improvements related to optimizing system performance and reliability, e.g. looping, paralleling lines, replacing lines approaching capacity; and adding new transmission and distribution mains to support growth and service deficiencies in specific areas.
<b>Storage</b>	The objective of this asset class is to ensure that adequate storage capacity exists to meet SCDHEC regulations and to provide maximum operation efficiency for the purchased water supply.
<b>Study</b>	The objective of this asset class is to meet both regulatory requirements and to define facility additions, improvements or contract requirements to (1) guide structuring the annual CIP and (2) to define facility needs to stay ahead of growth demands. Studies address supply, treatment, water quality, and distribution needs.
<b>Supply</b>	The objective of this asset class is to ensure that an adequate volume of water of a treatable quality is available from redundant local groundwater supply systems and from treated wholesale sources to meet the current and future service demands of MPW
<b>Treatment</b>	The objective of this asset class is to ensure exceptional treatment facilities are being maintained to and produce water quality that exceeds drinking water standards.

## Capital Expenditures

A capital expenditure is an expenditure used to 1) acquire or construct a new asset and/or, 2) to improve, restore, or renovate a current capital asset in a manner that extends the asset's current useful life. Within the respective asset classes, projects are further grouped by one of three types of capital expenditures: Capital Outlay, Capital Maintenance or Capital Project.

A capital expenditure is one of three types:

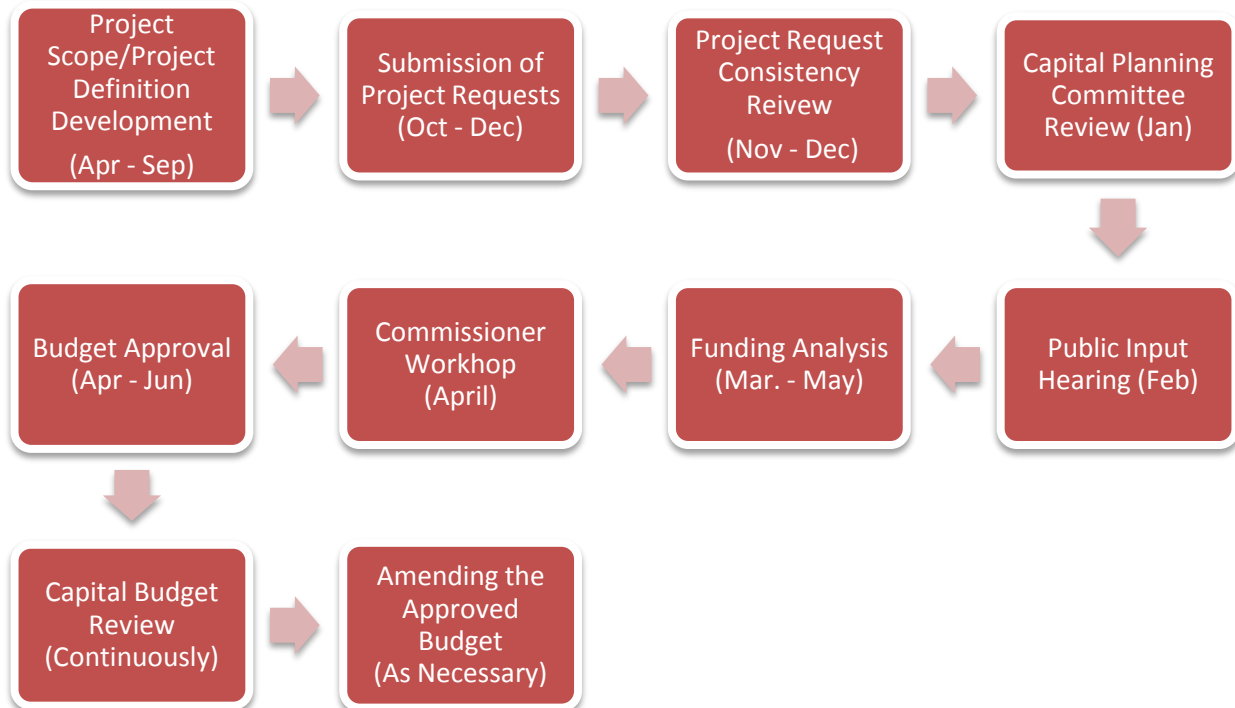
- Capital Maintenance: is defined as major expenditures for the preservation and/or repair of capital assets that protect the original life of the asset. Capital Maintenance projects by their nature are categorized as an O&M expense, but may generate capital assets, which are those greater than \$5,000 with a useful life greater than one year. In addition, the project will close out at the end of the fiscal year.
- Capital Outlay: Capital Outlay requests are annual appropriations required by a department to purchase a special asset to meet functional operations, has a useful life of at least one year, and has a purchase cost of at least \$5,000. Examples include the purchase of equipment, computers, and vehicles requiring little to no outside services for procurement or installation.
- Capital Project – is a planned process necessary to construct a new asset, improve an existing asset or study a current or anticipated future condition. It generally requires one or more of the following outside services: engineering study, engineering design, regulatory permitting/review, construction or specialized contract management. Capital Projects are split into two categories:

Multi-Year Projects: These types of projects are large scale projects usually recommended by one of MPW's Master Plans. Due to the size and complexity of the projects they are typically funded over several fiscal years by the issuance of debt.

Annual Projects: These are projects identified by the Operations staff and through MPW's Asset Management Program. They can typically be completed annually/bi-annually and are relatively easy to initiate. Funding for these projects will be approved on a 2-year year basis.

## Capital Planning Process

The Capital Planning Process is intended to be a vehicle to meet specific goals and/or objectives of the Commission and/or department and be consistent with the strategic, business and master plans. The purpose of Capital Improvement Planning Process is to encourage the flow of ideas and allow for advanced planning. During this period of time departments are reviewing maintenance records, performing master planning efforts, reviewing the conditions of assets and undertaking any other necessary planning efforts. From these activities, the departments should become familiar with overall condition of their assets and resulting problems/needs. If these needs/problems require the expenditure of capital dollars, each department will be responsible for completing the appropriate Capital Expenditure Request Form (Capital Outlay Request Form, Capital Maintenance Request Form, Capital Project Request Form or Business Case Request). These request forms will provide information such as: the desired project timing, a brief description and justification of the project, a rough estimate of the project cost, and resulting benefit. The procedures for the development of the Capital Improvement Plan budgets will generally follow the schedule below.



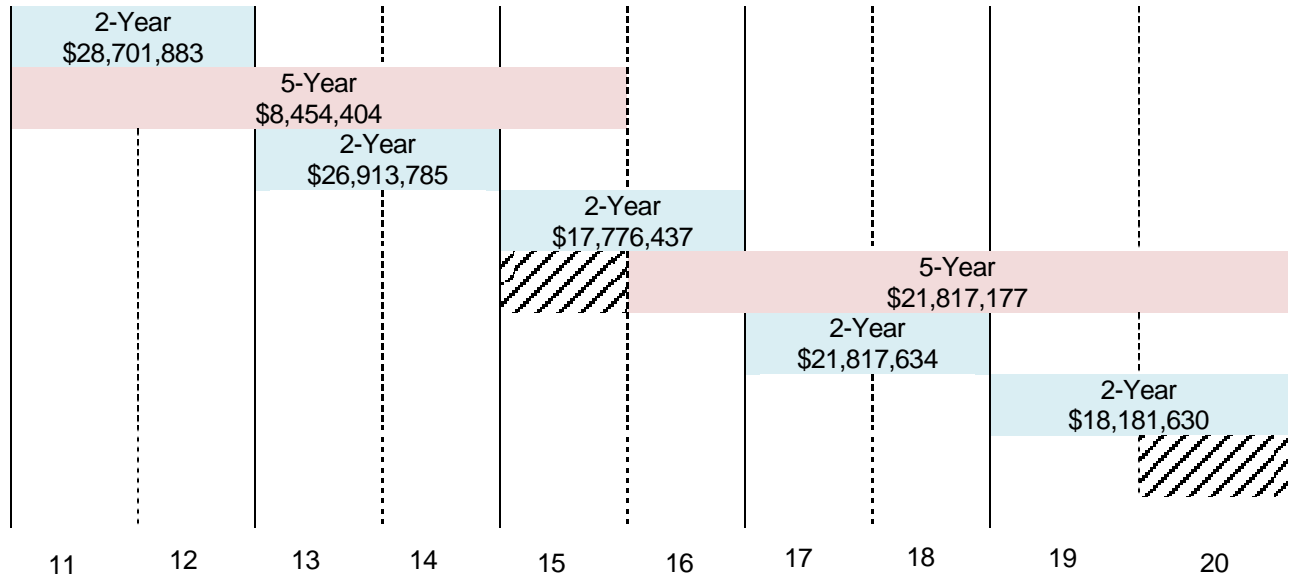
## Planning Documents

The following list of planning documents has been assembled to facilitate the development of the capital request forms necessary for the Capital Planning Process:

Asset	Document Title	Date	Author
Facilities	Building Facilities Master Plan	Dec 2009	Gary Freeman Architect Inc.
Relocation	TOMP Transportation Plan		Roadwise/TOMP
Vehicles	Fleet Management	Dec 2009	MPW
Wastewater - Collection	• East Cooper Wastewater Management Study	Sept 2008	CDM
	• Utility Master Plan	Jan 2010	CDM
	• Sewer Rehabilitation Master Plan	Jan 2010	Frazier Engineering
Wastewater – Force Mains	• 10-Year Capital Program for Renewal and Replacement of Pump Stations and Force Mains	Dec 2009	MPW Eng & Maintenance
	• Utility Master Plan	Jan 2010	CDM
Wastewater - Pump Stations	• 10-Year Capital Program for Renewal and Replacement of Pump Stations and Force Mains	Dec 2009	MPW Eng & Maintenance
	• Utility Master Plan	Jan 2010	CDM
Wastewater – Treatment/Disposal	• Wastewater Treatment System Master Plan	Feb 2009	Black & Veatch
	• Utility Master Plan	Jan 2010	CDM
Water - Distribution	• Utility Master Plan	Jan 2010	CDM
	• Water Distribution Master Plan for the Old Village	2007	BP Barber
Water – ASR	Aquifer Storage and Recovery Master Plan	March 2008	CH2MHill
Water - Treatment	Utility Master Plan	Jan 2010	CDM
Reuse	• Reuse Study Update	Apr 2009	CDM
	• Utility Master Plan	Jan 2010	CDM
ICAM	Infrastructure Asset Management Program Final Report	May 2005	CH2MHill

## Proposed Capital Budget Cycle

In an effort to facilitate the development of the Capital Program and particularly to evaluate individual projects in more detail, the following Capital Budget Cycle has been proposed.



2-Year

Annual Type Projects (R&R Funded). Annual Renewal and Replacement and Capital Outlay type projects will be reviewed every other year and presented for approval on a two-year basis. These will typically be R&R funded projects.



Master Planning is proposed once every 5 years and will coincide with the Town's and Comprehensive Plan Updates

5-Year

Multi-Year Master Plan Projects (E&E Funded). Projects identified through the master planning efforts will typically be E&E funded. These projects are generally larger multi-year projects. These projects will be presented and approved in a five-year period, to allow adequate time to plan and execute these projects and to help stabilize impact fees.

## Fiscal Year 2011/2012 Capital Budget

### Fiscal Year 2011 Capital Report

#### Summary

#### Renewal and Replacement (R&R) Funded Projects:

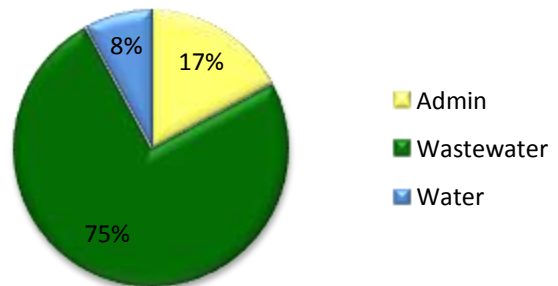
Each year the Departments prioritize problem areas that need to be corrected based on factors such as: water quality issues; low pressure concerns; wastewater backups and overflows; and recurring corrective maintenance. Engineering works closely with the Departments to ensure projects are well defined and are adequately funded.

In addition to input from the Departments, MPW has been working with CH2M Hill in the development of an Asset Management Plan. Over the past several years, MPW has been collecting data on its existing system, which was fed into the Infrastructure Capital Asset Management System (ICAM) model. The development of a more formal and quantitative asset management program will allow MPW to meet our Goal #4: Provide efficient infrastructure to meet our community's needs.

MPW has been responsibly managing its assets since its inception. However, in recent years our system has experienced unprecedented growth. This growth has occurred concurrently with aging infrastructure – both underground and aboveground (plants). A formalized asset management program continues to be implemented to accurately balance the useful life, capital spending and renewal and replacement of our current assets. Our program is directed primarily toward capital assets and will allow MPW to (1) continuously deliver desired level of service; (2) stabilize long-range capital investments for capital renewal; and (3) minimize life-cycle costs of owning, operating and maintaining infrastructure assets.

The Fiscal Year 2011/2012 total Renewal and Replacement Capital Budget is \$28,701,882, and is broken down as follows:

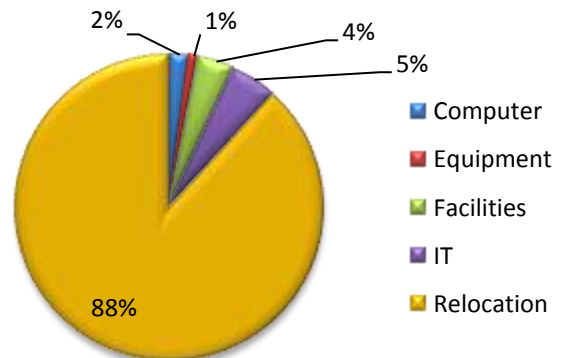
Projects by Utility	
Administration	\$4,940,300
Wastewater	\$21,478,249
Water	\$2,283,333
<b>Total</b>	<b>\$28,701,882</b>



## Administration – Renewal and Replacement Projects

### Fiscal Year 2011-2012 Summary

Projects by Asset Class	
Computer	\$112,010
Equipment	\$54,540
Facilities	\$210,000
Information Technology	\$272,750
Relocation	\$4,291,000
<b>Total</b>	<b>\$4,940,300</b>



### Capital Outlay

Computer		FY11/12 Budget Request		\$112,010
	Priority	Budget Request		
		FY11	FY12	
Department 710 – NAS New Array	High	\$10,000	\$0	
PC Leases Purchase	High	\$30,000	\$0	
Department 710 – Utility Billing and CIS Infinity Servers	High	\$20,480	\$0	
Department 710 – New Server for ESRI ArcIMS Application	Medium	\$7,960	\$0	
Department 710 – eCare On-Line Billing Server	Medium	\$16,440	\$0	
Department 720 – EDMS Server Software Upgrade	Medium		\$27,130	
<b>Total</b>		<b>\$84,880</b>	<b>\$27,130</b>	

Equipment		FY11/12 Budget Request		\$54,540
	Priority	Budget Request		
		FY11	FY12	
Department 730 – SCADA Repeater Relocation	High	\$18,000	\$0	
Department 730 – RTU Replacements	High	\$18,000	\$18,540	
<b>Total</b>		<b>\$36,000</b>	<b>\$18,540</b>	

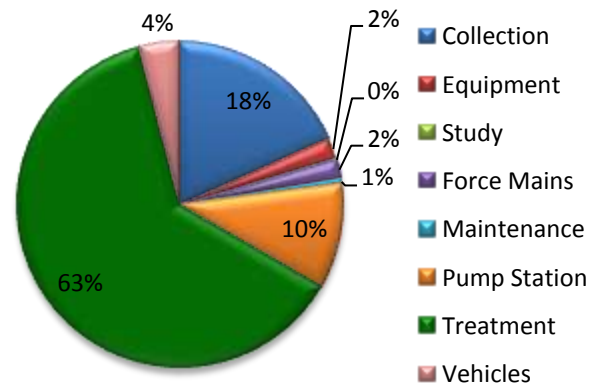
# Capital Projects

Project Name	Asset Class	Origination	Goal	Priority Ranking	2011	2012	Total
North Operations Center – Phase 1	Facilities	O&M	4	76	\$210,000	\$0	\$210,000
Department 510 – FIS Upgrade	Information Technology	O&M	4	32	\$75,000	\$0	\$75,000
Department 710 – Maximo Mobile Implementation	Information Technology	IT Master Plan	4	11	\$48,400	\$0	\$48,400
Maximo Purchasing & Inventory Implementation	Information Technology	IT Master Plan	4	11	\$0	\$92,700	\$92,700
CIS Infinity Upgrade	Information Technology	IT Master Plan	4	11	\$0	\$56,650	\$56,650
Bowman Road – Phase 1	Relocation	Town/DOT	4	8	\$208,000	\$0	\$208,000
Six Mile	Relocation	Town/DOT	4	8	\$25,000	\$0	\$25,000
Bowman Road – Phase 2	Relocation	Town/DOT	4	8	\$530,000	\$178,000	\$708,000
I526 and US 17 Interchange	Relocation	Town/DOT	4	8	\$300,000	\$0	\$300,000
Hamlin/RRR Intersection	Relocation	Town/DOT	4	8	\$25,000	\$0	\$25,000
Johnnie Dodds	Relocation	Town/DOT	4	8	\$670,000	\$818,000	\$1,488,000
Hwy 17 N – Phase 1 (IOP Connector to Hwy 41)	Relocation	Town/DOT	4	8	\$1,058,000	\$58,000	\$1,116,000
Hwy 17 N – Phase 2 (Hwy 41 to Darrell Creek Trail)	Relocation	Town/DOT	4	8	\$358,000	\$63,000	\$421,000
<b>TOTAL</b>					<b>\$3,507,400</b>	<b>\$1,266,350</b>	<b>\$4,773,750</b>

## Wastewater – Renewal and Replacement Projects

### Fiscal Year 2011-2012 Summary

Projects by Asset Class	
Collection	\$3,936,758
Equipment	\$447,706
Force Mains	\$406,000
Maintenance	\$109,035
Pump Stations	\$2,238,200
Study	\$25,750
Treatment	\$13,449,600
Vehicles	\$865,200
<b>Total</b>	<b>\$21,478,249</b>



## Capital Outlay/Maintenance

Equipment	FY11/12 Budget Request		\$447,706
	Priority	Budget Request	
		FY11	FY12
Department 390 - Fiberglass Control Cabinets for Pump Stations	High	\$100,000	\$0
Department 322 - Replacement Forklift	High	\$25,000	\$0
Department 390 - Replace RRRWWTP Entrance Gate	High	\$5,500	\$0
Department 390 - Replacement Motors RRRWWTP	High	\$106,000	\$0
Department 322 - Spare Recirculation Pump	High	\$22,000	\$0
Department 322 - Spare Grundfos Reuse Pump at RRRWWTP	High	\$6,000	\$0
Department 360 - New Pump Replacements	High	\$80,000	\$85,696
Department 321 - Spare Grundfos Reuse Pump at CSWWTP	High	\$0	\$6,180
Department 322 - Spare Belt Press Feed Pump at RRRWWTP	Medium	\$0	\$6,180
Department 340 - Flow Meter	Medium	\$0	\$5,150
<b>Total</b>		<b>\$344,500</b>	<b>\$103,206</b>

Maintenance	FY11/12 Budget Request		\$109,035
	Priority	Budget Request	
		FY11	FY12
RRRWWTP - Pipe Expansion Joints	High	\$7,000	\$0
RRRWWTP - Grit Screw Conveyer Replacement	High	\$0	\$51,500
Effluent Outfall Diffuser	Medium	\$15,000	\$0
RRRWWTP - Headworks Upgrade Project	Medium	\$0	\$35,535
<b>Total</b>		<b>\$22,000</b>	<b>\$87,035</b>

Vehicles	FY11/12 Budget Request		\$865,200
	Priority	Budget Request FY11      FY12	
Department 350 - Replacement Pipehunter Truck - Vehicle No. 359	High	\$225,000	\$0
Department 350 - Replacement Truck - Vehicle No. 351	High	\$30,000	\$0
Department 320 - Replacement Truck CS Semi Jockey	High	\$0	\$61,800
Department 340 - Replacement Truck Combination Vacuum and Jetting - Vehicle No. 345	Medium	\$260,000	\$0
Department 340 - Replacement Truck Combination Vacuum and Jetting - Vehicle No. 342	Medium	\$0	\$288,400
<b>Total</b>		<b>\$515,000</b>	<b>\$350,200</b>

# Capital Projects

Project Name	Asset Class	Origination	Goal	Priority Ranking	2011	2012	Total
Old Village – Manhole Rehab	Collection	Frazier Master Plan	4	84	\$250,000	\$257,500	\$507,500
Old Village – Trenchless Rehab	Collection	Frazier Master Plan	4	71	\$430,000	\$442,900	\$872,900
CMOM Backlog	Collection	Frazier Master Plan	4	65	\$910,000	\$937,300	\$1,847,300
Trenchless Rehab	Collection	Frazier Master Plan	4	40	\$185,440	\$191,868	\$377,308
Force Main Structural Condition Assessment	Force Mains	Frazier Master Plan	4	30	\$200,000	\$206,000	\$406,000
PS 119 Park West Upgrade	Pump Stations	Utility Master Plan	4	67	\$0	\$1,030,000	\$1,030,000
PS 51 VonKolnitz Upgrade (VK2)	Pump Stations	Utility Master Plan	4	64	\$750,000	\$0	\$750,000
In-House Rehab – PS 35 Thicket, PS 54 Wakendaw East	Pump Stations	PS Rehab Plan	4	40	\$211,000	\$0	\$211,000
In-House Rehab – PS 32 Patriots Point, PS 22 Rosemead	Pump Stations	PS Rehab Plan	4	40	\$0	\$247,200	\$247,200
Septic Tank Program Development	Study	Community Request	2	44	\$0	\$25,750	\$25,750
RRRWTP – Rebuild Secondary Clarifier No. 1	Treatment/Disposal	O&M	4	92	\$30,000	\$0	\$30,000
CSWWTP Modernization – Electrical System Replacement	Treatment/Disposal	Wastewater Treatment Master Plan	4	79	\$250,000	\$772,500	\$1,022,500
CSWWTP Capacity Enhancement	Treatment/Disposal	Wastewater Treatment Master Plan	4	78	\$1,910,000	\$5,634,100	\$7,544,100
CSWWTP Modernization – Dewatering	Treatment/Disposal	Wastewater Treatment Master Plan	4	75	\$3,050,000	\$1,803,000	\$4,853,000
<b>TOTAL</b>					<b>\$8,176,440</b>	<b>\$11,548,118</b>	<b>\$19,724,558</b>

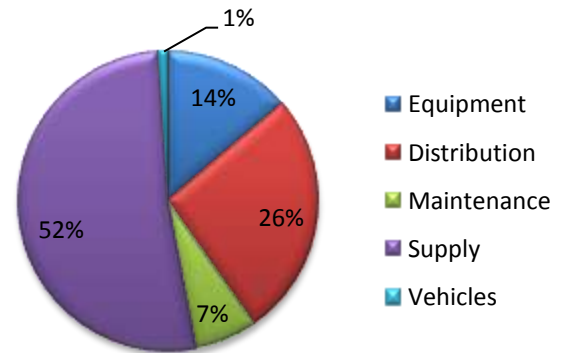
## Projects Contingent on 100% Grant Funding

Project Name	Asset Class	Origination	Goal	Priority Ranking	2011	2012	Total
Snowden LMI Connections – Phase 2	Collection	Community Request	4	23	\$100,000	\$103,000	\$203,000
CDBG - Wastewater Extensions and Tie-ins	Collection	Community Request	4	23	\$0	\$128,750	\$128,750
<b>TOTAL</b>					<b>\$100,000</b>	<b>\$231,750</b>	<b>\$331,750</b>

## Water - Renewal and Replacement Projects

### Fiscal Year 2011-2012 Summary

Projects by Asset Class	
Equipment	\$313,900
Distribution	\$606,750
Maintenance	\$152,250
Supply	\$1,187,773
Vehicles	\$22,660
<b>Total</b>	<b>\$2,283,333</b>



## Capital Outlay/Maintenance

Equipment	FY11/12 Budget Request		\$313,900
	Priority	Budget Request	
		FY11	FY12
Department 230 and 250 – Meter Improvements and New Installs	High	\$90,000	\$92,700
Department 270 – Front End Loader	Medium	\$80,000	\$0
Department 250 – Replace Trailer	Medium	\$10,000	\$0
Department 250 – Mini Excavator	Medium	\$0	\$41,200
<b>Total</b>		<b>\$180,000</b>	<b>\$133,900</b>

Maintenance	FY11/12 Budget Request		\$152,250
	Priority	Budget Request	
		FY11	FY12
Department 260 – RO Plant Rehab Work	High	\$75,000	\$77,250
<b>Total</b>		<b>\$75,000</b>	<b>\$77,250</b>

Vehicle	FY11/12 Budget Request		\$22,660
	Priority	Budget Request	
		FY11	FY12
Department 220 – Replacement Truck – Vehicle No. 221	Medium	\$0	\$22,660
<b>Total</b>			<b>\$22,660</b>

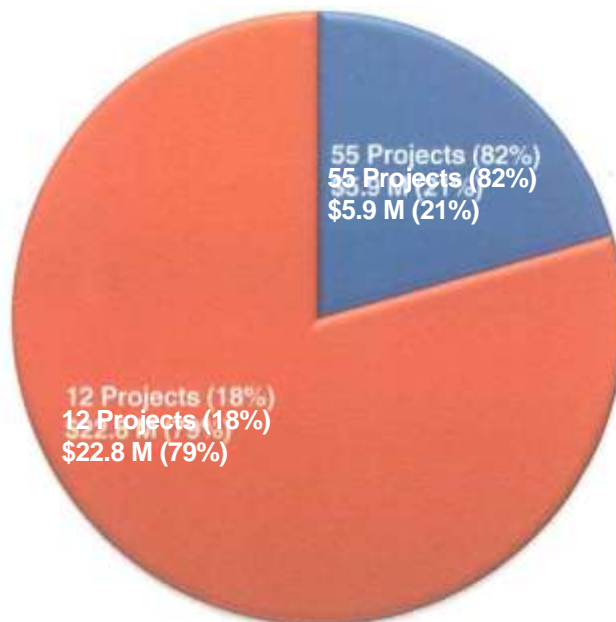
## Capital Projects

Project Name	Asset Class	Origination	Goal	Priority Ranking	2011	2012	Total
Old Village Distribution System Rehab	Distribution	Old Village Master Plan	4	64	\$150,000	\$0	\$150,000
Replace Saddles and Bolts in Subdivisions in the Hwy 41 Area	Distribution	O&M	4	61	\$200,000	\$206,000	\$406,000
Replace/Install Valves and Hydrants	Distribution	O&M	4	7	\$25,000	\$25,750	\$50,750
CWS Annual Capital Outlay	Supply	Contract	4	72	\$506,080	\$546,693	\$1,052,773
Deep Well 5 Site Rehab	Supply	O&M	4	36	\$135,000	\$0	\$135,000
<b>TOTAL</b>					<b>\$1,016,080</b>	<b>\$778,443</b>	<b>\$1,794,523</b>

## FY2011/12 Capital Projects over \$500,000

A review of the projects in the proposed 2-year Capital Budget, show's that most are small (<\$500k) in nature. The larger more significant projects from a financial, customer relation and implementation aspect are listed below.

CSWWTP Capacity Enhancement	\$7,544,100
CSWWTP Modernization - Dewatering Facility	\$4,853,000
CMOM Backlog	\$1,847,300
Johnnie Dodds Blvd	\$1,488,000
Hwy 17 N – Phase 1 (IOP Connector to Hwy 41)	\$1,116,000
CWS Annual Capital Outlay	\$1,052,773
PS119 Park West Upgrade	\$1,030,000
CSWWTP Modernization - Electrical System Replacement	\$1,022,500
Old Village - Trenchless Rehab	\$872,900
PS 51 VonKolnitz Upgrade (VK2) (Split EE & RR)	\$750,000
Bowman Road - Phase 2	\$708,000
Old Village - Manhole Rehab	\$507,500



## **Fiscal Year 2011 - 2015 Capital Budget**

### Fiscal Year 2011 Capital Report

#### **Summary**

##### **Expansion and Extension (E&E) Funded Projects:**

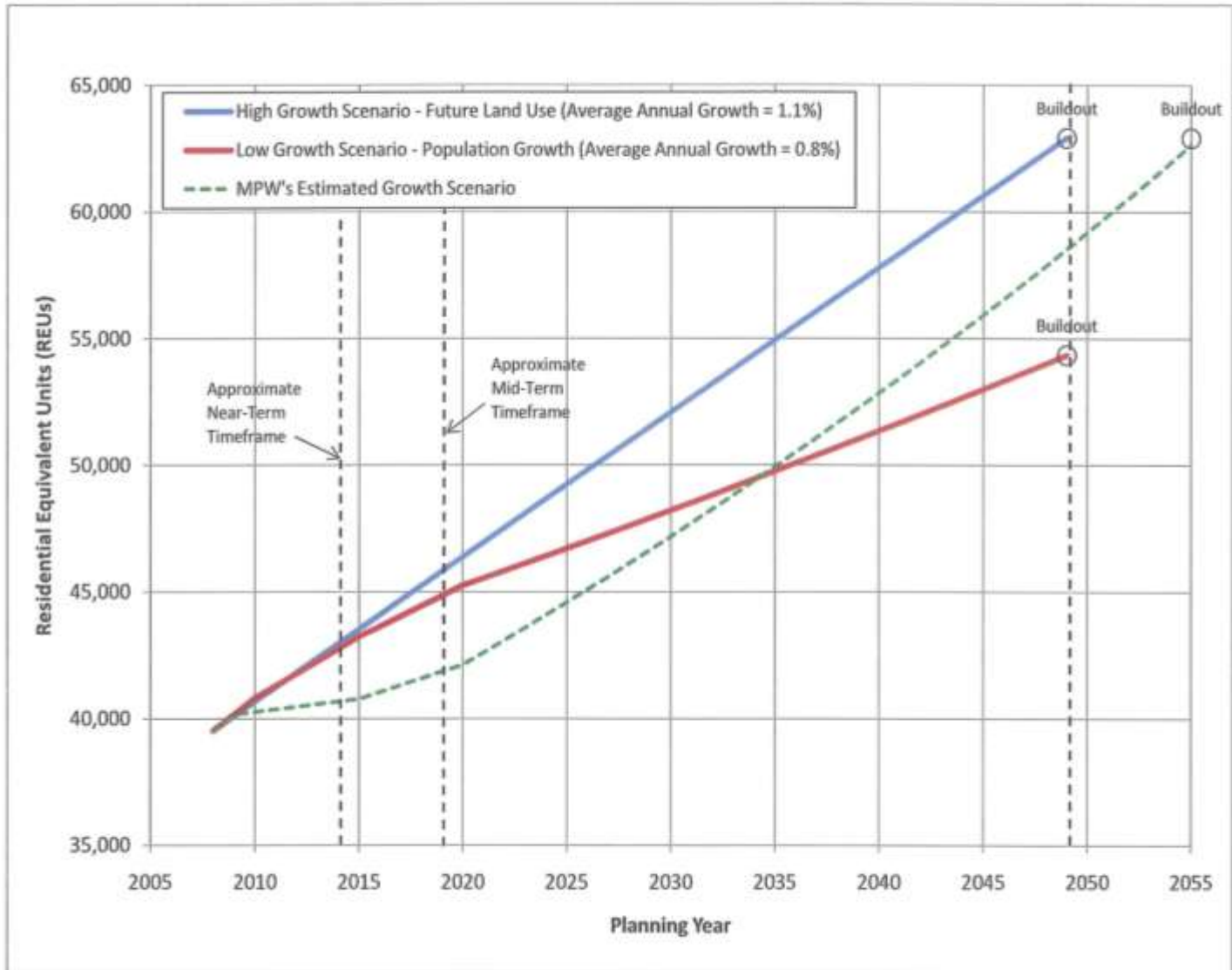
MPW relies on Master Plans to study and analyze our capacity requirements through build-out. These Master Plans provide recommended infrastructure extensions to support hydraulic demand and ensure adequate capacity is available. During this past planning period, a Comprehensive Utility Master Plan was developed. The objectives of the Plan were:

- ❖ Standardize the planning criteria and coordinate planning data with the Town of Mount Pleasant and Charleston County.
- ❖ Develop uniform design criteria to guide the facility planning
- ❖ Develop coordinated and comprehensive master plans for each asset class (including water source and treatment, water distribution and transmission, wastewater treatment, wastewater collection, and reuse).
- ❖ Develop recommendations for Near, Mid and Build-out planning periods needs.

The planning periods used for the Comprehensive Utility Master Plan were:

- ❖ Near term (approximately 5-years)
- ❖ Mid-term (approximately 10-years)
- ❖ Build-Out (approximately 40-years)

The following figures depict the projected growth rates used in the Plan and the anticipated Areas of Development in the planning area.



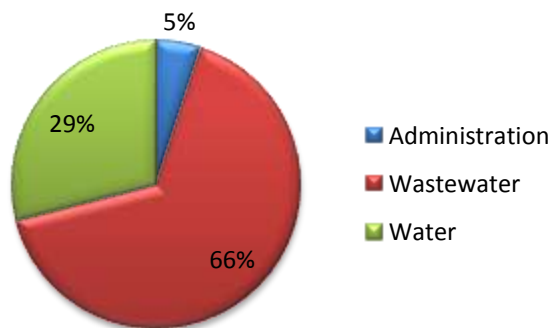
MPW Service Area Future REU Projections  
MPW Comprehensive Utility Master Plan

Figure 2-4  
CDM



The Fiscal Year 2011 - 2015 total Expansion and Extension Capital Budget is \$8,454,404, and is broken down as follows:

Projects by Utility	
Administration	\$428,005
Wastewater	\$5,574,333
Water	\$2,452,066
<b>Total</b>	<b><u>\$8,454,404</u></b>



## Administration Expansion and Extension Projects

Projects listed under the “Administration Group” are projects that support all utilities (water and wastewater), and are therefore funded with both water and wastewater E&E dollars. Asset classes for Admin Projects include: Facilities and Studies.

### Fiscal Year 2011-2015 Summary

Projects by Asset Class	
Facilities	\$120,000
Study	\$308,005
<b>Total</b>	<b><u>\$428,005</u></b>

## Wastewater – Expansion and Extension Projects

Projects listed under the “Wastewater Group” are projects that support only wastewater assets, and are funded with wastewater E&E funds. Asset classes for Wastewater Projects include Pump Stations; Force Mains; Study; and Treatment.

### Fiscal Year 2011-2015 Summary

Projects by Asset Class	
Force Mains	\$3,278,658
Pump Stations	\$2,295,675
<b>Total</b>	<b><u>\$5,574,333</u></b>

## Water

Projects listed under the “Water Group” are projects that support only water assets, and are funded with water E&E. Asset classes for Water Projects include Distribution System; Storage; Supply; Study; and Treatment.

### Fiscal Year 2011-2015 Summary

Projects by Asset Class	
Distribution System	\$2,452,066
<b>Total</b>	<b><u>\$2,452,066</u></b>

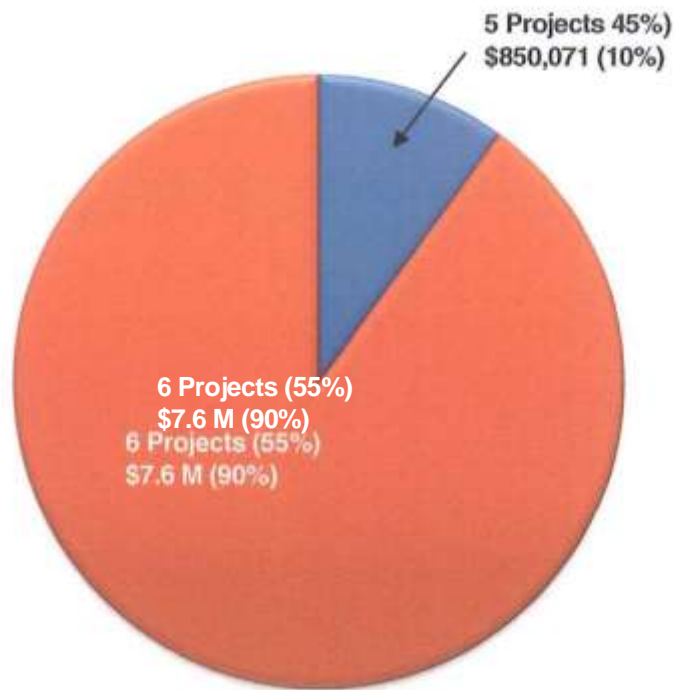
## Fiscal Year 2011 – 2015 Expansion and Extension Projects

Project Name	Utility	Asset Class	Origination	Goal	Priority Ranking	2011	2012	2013	2014	2015	Total
North Operations Center – Phase 1	Admin	Facilities	O&M	4	76	\$120,000					\$120,000
Utility Master Planning	Admin	Study	Commission	4	68					\$281,377	\$281,377
Rate Study	Admin	Study	Bond Ordinance	4	61			\$8,530			\$8,530
Impact Fee Study	Admin	Study	Bond Ordinance	4	58					\$18,098	\$18,098
Whipple at VonKolnitz to RRRWWTP Force Main	Wastewater	Force Mains	Utility Master Plan	4	69					\$562,754	\$562,754
Upsize Lucas – CSWWTP Force Main	Wastewater	Force Mains	Utility Master Plan	4	56			\$530,450	\$2,185,454		\$2,715,904
Pump Station 51 VonKolnitz	Wastewater	Pump Stations	Utility Master Plan	4	64	\$750,000					\$750,000
Pump Station 30 Coleman Blvd	Wastewater	Pump Stations	Utility Master Plan	4	62			\$795,675			\$795,675
Highway 41 Service Area Pump Station Upgrades	Wastewater	Pump Stations	Utility Master Plan	4	58	\$750,000					\$750,000
Hwy 17 Line (Whipple Road Transmission Line)	Water	Distribution	Utility Master Plan	4	60	\$1,000,000	\$1,030,000				\$2,030,000
Darrell Creek to Paradise Island	Water	Distribution	Utility Master Plan	4	14					\$422,066	\$422,066
<b>TOTAL</b>						<b>\$2,620,000</b>	<b>\$1,030,000</b>	<b>\$1,334,655</b>	<b>\$2,185,454</b>	<b>\$1,284,296</b>	<b>\$8,454,404</b>

## FY2011 thru 15 Capital Projects over \$500,000

Growth is projected at levels far below the recent past. As a result, expansion and extension needs have been pushed out into future planning periods. Those larger projects listed below are being recommended to either take advantage of an opportunity to reduce the overall costs by installing them while other construction activities are being conducted in the same area (road relocation) or that an asset is nearing the end of its useful life and repairs are needed and it is beneficial to include the future growth needs in the repair.

Upsize Lucas – CSWWTP Force Main (L2)	\$2,715,904
Highway 17 Line (Whipple Road Transmission Line 2)	\$2,030,000
Pump Station 30 Coleman Upgrades	\$795,675
Highway 41 Service Area Pump Station Upgrades	\$750,000
Pump Station 51 VonKolnitz Upgrade (VK2)	\$750,000
Whipple at VonKolnitz to RRRWWTP Force Main (RRR1 And LC1)	\$562,754



## **FY2011-2020 Plan**

### Fiscal Year 2011 Capital Report

#### **Summary**

The mission of MPW is to provide excellent quality water and wastewater services to its customers, while meeting all State and Federal regulations. All of the costs to provide these services must be fully recovered by MPW. In addition, rates must be equitable among customer classes, and between existing and future customers. Financial stability ensures that rates remain reasonable, and that the utility's borrowing ability is maintained.

MPW operates as a business enterprise independent of other revenue sources. The utility is managed as an enterprise fund, and prices will approximate those that would prevail in a competitive market. It is the intent to cash-fund renewal and replacement (R&R) whenever possible, while maintaining fund balances and rates, fees and charges at a reasonable level. However, for R&R of higher value, longer-life capital assets, the policy will provide for the use of debt financing if market conditions dictate that such funding would be a better solution for all customers.

#### **Special Assessment**

A part of the Fiscal Year 2011-2012, MPW has implemented a Special Assessment of \$3 per REU per month on all residential and commercial accounts, excluding irrigation accounts. The Special Assessment will fund the costs incurred for relocating water and wastewater lines necessitated by the Road Widening and Improvements Projects along Highway 17 between the Ravenel Bridge and Wando High School. The Special Assessment will be added to monthly bills for 36 months or until the relocation costs have been recovered, whichever comes first. When the costs have been recovered the Special Assessment will end. This Special Assessment will be charged on all bills rendered after July 1, 2010. The Special Assessment will be used to fund the following projects:

- Six Mile - \$25,000
- Hamlin/Rifle Range Road Intersection - \$25,000
- Bowman Phase 1 - \$208,000
- Bowman Phase 2 - \$708,000
- I-526 and US 17 Interchange - \$300,000
- Johnnie Dodds Blvd - \$1,488,000
- Hwy 17 N, Phase 1 (IOP Connector to Hwy 41) - \$1,116,000
- Hwy 17 N, Phase 2 (Hwy 41 to Darrell Creek) - \$421,000

#### **State Revolving Fund Loan Program**

The State Water Pollution Control Revolving Fund (CWSRF), initiated in 1989, provides local communities with affordable financing in the form of long-term, low-interest loans for the construction of publicly owned wastewater treatment facilities. It is capitalized by the Environmental Protection Agency (EPA) under the Clean Water Act and a required state match. MPW has submitted CWSRF Project Questionnaires for funding consideration for the following projects:

- Center Street Wastewater Treatment Plant Dewatering Facility - \$4.5 Million
- Center Street Wastewater Treatment Plant Modernization Project - \$18.0 Million
- Center Street Wastewater Treatment Plant Electrical System Replacement - \$2 Million

There is a potential for the CSWWTP Dewatering Facility project to be funded with “recycled” SRF funds since the project has been bid. These funds include monies that have been paid to the State by other State entities for other SRF projects. If “recycled” funds are not available, funding would need to wait until the SRF program is financed by the EPA at the beginning of the Federal government’s Fiscal Year 2011 in October.

The State Drinking Water Revolving Fund (DWSRF), initiated in 1997, provides long-term low-interest loans to assist public water systems finance the cost of facilities necessary to achieve or maintain compliance with the Safe Drinking Water Act (SDWA). It is capitalized by EPA under the SDWA and a required state match. MPW has submitted a DWSRF Project Questionnaire for funding consideration for the following project:

- Hwy 17 Johnnie Dodds Water Transmission Line - \$ 2 Million

### **Waterworks and Sewer System Revenue Bonds**

Tax-exempt revenue bonds provide MPW the ability to finance assets having long useful lives with low cost funding over 20 to 30 years. They can be issued to fund capital projects that enlarge, extend or improve the water and wastewater infrastructure. These bonds traditionally have interest rates slightly higher than the rates for State Revolving Fund loans.

### **Projected Debt Funding in Fiscal Years 2011 and 2012**

The budgets for Fiscal Years 2011 and 2012 are based upon funding \$20,000,000 using State Revolving Fund loans and \$5,000,000 using tax-exempt revenue bonds. The estimate is based on the assumption that not all of the projects submitted for CWSRF and DWSRF consideration could be approved. Any projects not approved through the SRF programs will be funded using tax-exempt revenue bonds.

# 5 Long Range Capital Improvements Plan

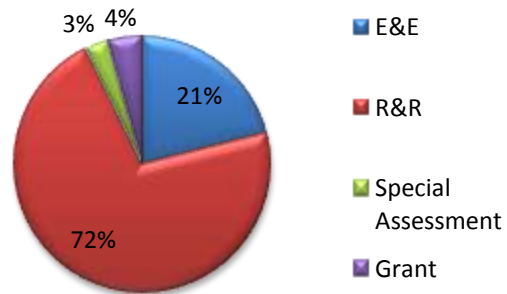
## FY2011-2020 Plan

### Fiscal Year 2011 Capital Report

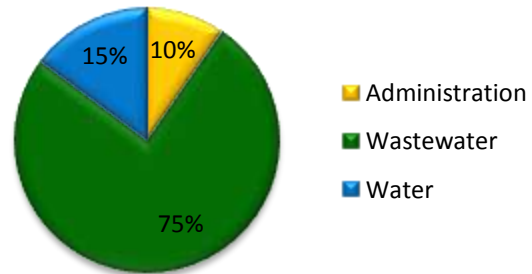
#### Summary

The FY2011-2020 Capital Improvements Plan includes:

Projects By Funding Source	
E&E Projects	\$30,271,581
R&R Projects	\$102,941,870
Special Assessment	\$4,291,000
Grant Projects	\$6,158,499
<b>Total</b>	<b>\$143,662,950</b>



Projects by Utility	
Administration	\$13,823,442
Wastewater	\$108,554,122
Water	\$21,285,386
<b>Total</b>	<b>\$143,662,950</b>



#### Cost Escalation Factor

In an effort to take into account the annual inflation rate related to construction projects, all dollars in the CIP have been adjusted to current year dollars, and a 3% annual inflation factor was added to projects scheduled in future years.

## FY2011 thru 2020 Capital Projects over \$2,000,000

CSWWTP Capacity Enhancements	\$18,064,100
Old Village - CMOM Rehab	\$8,490,491
RRRWWTP Expansion	\$7,660,948
WWTP Rehabilitation – ICAM*	\$7,237,609
Whipple at VonKolnitz to RRRWWTP Force Main (RRR1 and LC1)	\$6,446,070
Distribution System Rehabilitation – KANEW*	\$5,188,634
Trenchless Rehab - Based on Frazier Engineering Master Plan Report*	\$4,820,367
Snowden Wastewater Phase II	\$4,541,423
CSWWTP Modernization - Dewatering Facility	\$4,853,000
Pump Station Rehab Based on ICAM Analysis*	\$4,178,082
CWS Annual Capital Outlay*	\$4,215,515
Forcemain Rehabilitation Based on KANEW and Structural Condition Assessment*	\$2,830,164
Hamlin Road Force Main (PD1)	\$2,822,561
Old Village - Service Lateral Rehab	\$2,763,083
Upsize Lucas - CSWWTP Force Main (L2)	\$2,715,904
Hwy 17 Line (Whipple Road Transmission Line (2)	\$2,030,000

*\*Multi-Year Project*

## FY09/10 10-Year vs. FY11/12 10-Year

The proposed 10-year CIP (FY11-20) is over \$50M less than approved (FY09-FY18). The slowdown in growth is the largest single factor in the difference between the two CIP's. Many of the growth related projects have been pushed out into future planning periods. As a result the E&E expenditures for the planning period have decreased by nearly \$20M. With the use of our Asset Engineers, more detailed condition assessments have been conducted. This has resulted in the identification of new renewal programs and recommended increases in funding of ongoing programs. These recommendations have increased our R&R needs for this planning period by nearly \$15M

Below is an overview of the differences in the two planning period FY09-FY18 (currently approved) and FY11-FY20 (proposed).

**Administration**

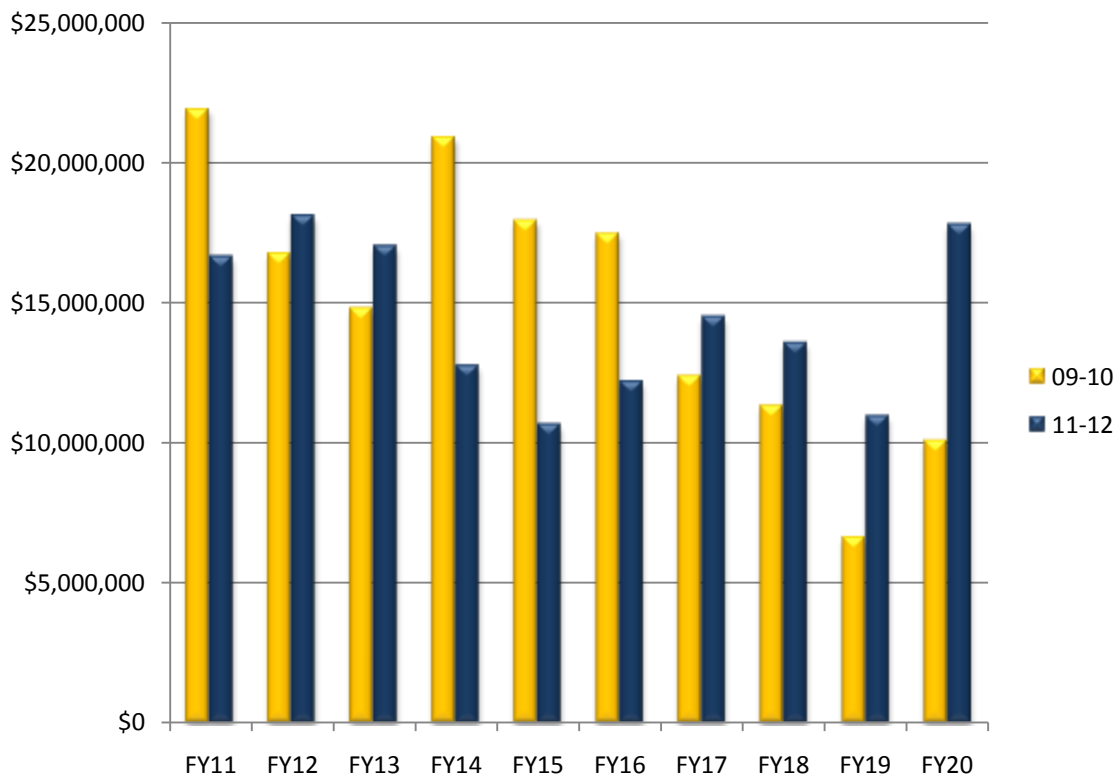
- IT ICAM increases (+1M)
- Push out North ops bldg (-1.5M)
- Relocation (+1M)

**Wastewater:**

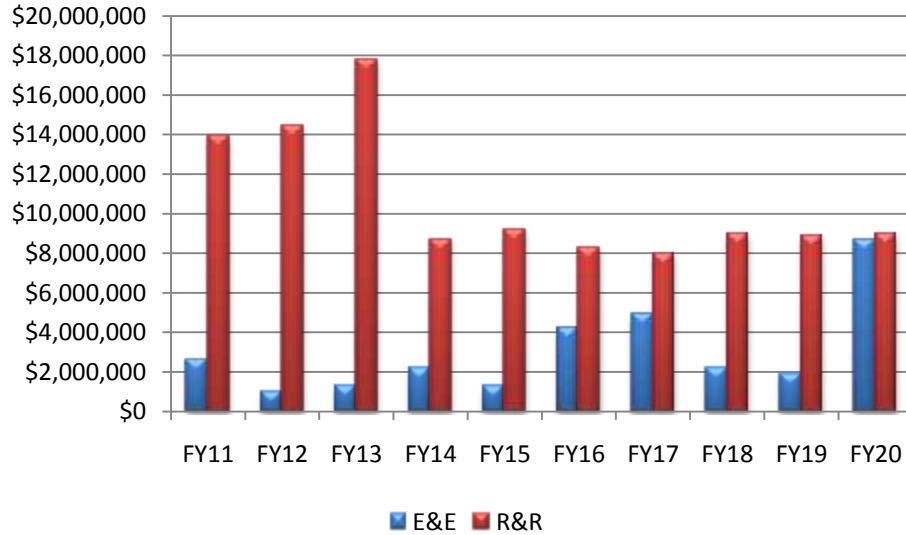
- CMOM – (+7M) – used avg based on old village TV work, Frazier
- Laterals – (+3M) – new program start in old village
- Trenchless/MH – (+4M) – Frazier adds
- PS – (+5M) – increase based on ICAM (400Kyr)
- FM – (+12M) – MPW rpt (4m), Vonkolnitz/Whipple/Central (6.5)
- Treatment – (+14M) - ICAM & Center Street WWTP Enhancements

**Water:**

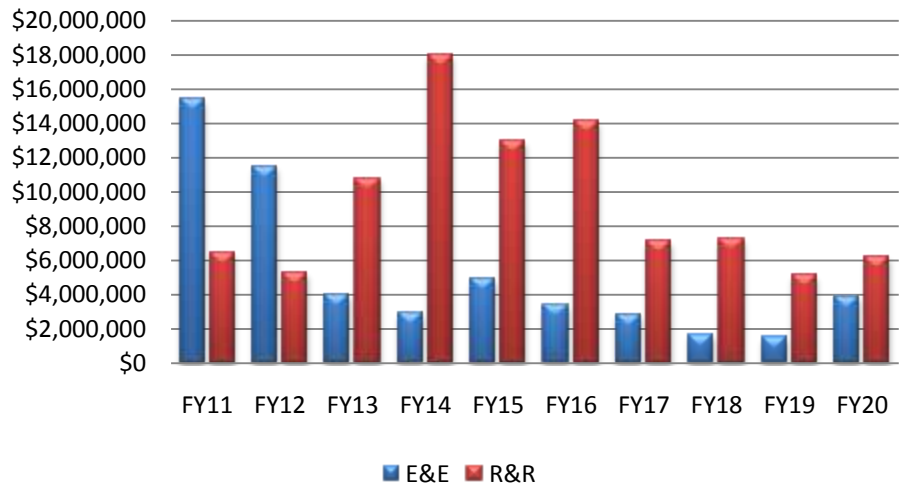
- Pushed out water purchase (-5M)
- Eliminate Deep Well replacement (-3M)



### FY11-12 Capital Budget



### FY09-10 Capital Budget



### 5-Year EE/RR Actual Expenditure Comparison

