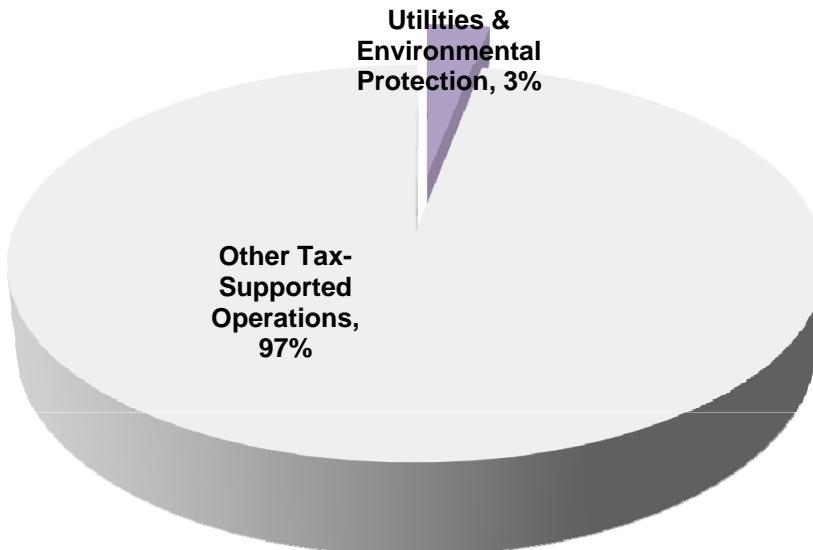


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UTILITIES & ENVIRONMENTAL PROTECTION Share of Tax-Supported Net Operating Budget



UTILITIES & ENVIRONMENTAL PROTECTION: Departmental Overview

UEP works with the community and Corporation to protect land, air and water. UEP employees provide quality public service through the delivery of integrated programs and services that support responsible environmental stewardship and protect public health. Services include: collection of residential waste; recycling services; landfill management; contaminated site management; air quality management; greenhouse gas reduction; provision of safe, clean drinking water to Calgarians and the region; treatment and disposal of wastewater, and protection of the river and watershed.

UEP is also the Corporate leader for workplace safety and environmental performance. Through monitoring and reporting and Corporate program and policy development, UEP supports all City departments to continually improve safety performance and manage environmental risk.

Business Units

- Environmental & Safety Management - ESM
- Waste & Recycling Services - WRS
- Utilities (Water Resources and Water Services) – UTILITIES

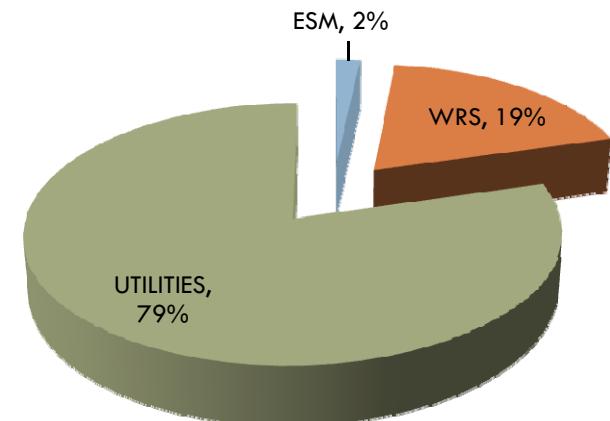
Key Trends and Issues

A trends review showed growth, financial pressures, regulatory changes, infrastructure management, communication and workforce to be major business drivers over the next three to five years. A discussion of the trends and areas of highest risk identified five priorities that helped guide planning for the 2012-2014 business plan and budget. The priorities were used to develop the outcomes, strategies and actions outlined in UEP's business plan and budget.

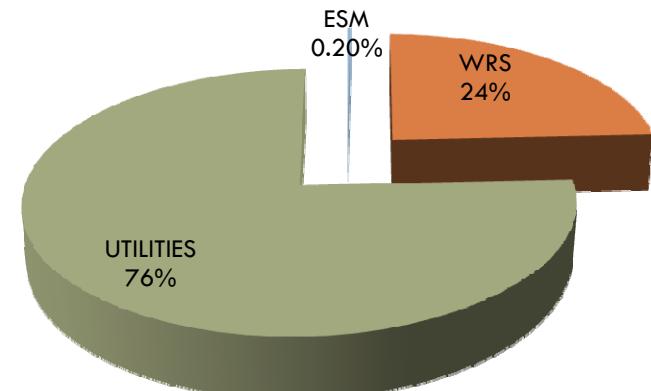
1. Customer service and stakeholder relations

Calgarians value the services UEP provides. UEP recognizes that to continue to build trust and improve decision-making UEP must engage citizens, customers, City departments and stakeholders to understand expectations and demonstrate value. It will be important to continue to use multiple channels, including new technologies, to support two-way dialogue with citizens and stakeholders. Ongoing research and engagement will continue to help inform program development and delivery, and ensure UEP consistently invests in initiatives, strategic partnerships and programs that produce measurable results.

Department Operating Expenditures



Department Capital Plan



UTILITIES & ENVIRONMENTAL PROTECTION: Departmental Overview

2. Natural resource management

UEP will continue its strong service delivery and leadership roles in contaminated sites redevelopment and waste, air quality and water resource management. The increasing complexity and severity of pressures on the environment – especially from growth and climate change – require more focus on encouraging behaviour change to protect the environment and public health. The focus on protecting the environment will support the long-term security of natural resources and maintain quality of life for current and future generations.

3. Asset management

Effective asset management will require continued long-range infrastructure planning. UEP will take a full lifecycle approach to: provide capacity for growth; manage potential impacts from climate change; meet regulatory requirements; and manage risk. Through critical infrastructure assessment, prioritization and reinvestment, UEP will ensure reliable services, operational efficiencies, and resiliency. Leveraging new technologies will be critical in supporting effective and efficient operations and achievement of business goals.

4. Financial management

UEP focuses on providing the best value for money in the delivery of service to other City departments, citizens, customers and stakeholders. UEP recognizes that sound financial management means UEP must consider current and future needs. This approach provides stability and predictability of tax and utility rates, and fees for citizens and customers.

5. Workforce management

Changes in the composition of the workforce due to retirements, turnover and diversity combined with the potential difficulties in attracting and retaining people with the needed competencies will challenge UEP to establish a resilient workforce that is best positioned to meet current and future demands. UEP recognizes that continuing to foster a safe and collaborative work environment is critical to ensuring UEP employees are engaged, ready to respond to the changing environment and equipped to deliver quality customer service.

Workplace safety regulations will become increasingly more stringent. As the Corporate champion for safety, UEP will support all City departments to develop targeted safety strategies, policies and programs.

Achieving Council's Fiscal Plan/Addressing Sustainability and Long Term Plans

The outcomes, strategies and actions identified in this business plan demonstrate UEP's commitment to helping achieve Council's Fiscal Plan and longer-term goals defined in the 2020 Sustainability Direction, the Municipal Development Plan and imagineCALGARY.

UEP's outcomes demonstrate commitment to continuous improvement and being an even more effective organization. UEP is taking action to address Council's direction to implement a plan to ensure the financial sustainability of the water utilities and develop and implement comprehensive waste diversion strategies and capital plan. Overall, this plan supports Council's priorities to invest in and continue to build a vibrant and healthy community to support the success of all Calgarians.

The 2012-2014 strategies and actions continue UEP's efforts to support longer-term goals and the future envisioned in imagineCALGARY. UEP will work with The Corporation and community to achieve objectives including: the 80/20 by 2020 waste diversion strategy; brownfield strategy; greenhouse gas reduction; water efficiency plan; and stormwater management strategy. UEP will also support all departments in achieving The City's 2020 target to be best in class for Canadian municipalities for recordable injury rates.

Addressing Other Emerging Issues

In addition to trends and risk reviews, UEP considered public and staff input received through the Our City. Our Budget. Our Future. process and research conducted by UEP business units to support program development. Results show Calgarians value the services UEP provides, are interested in expanding some programs such as organics collection and recycling, and want the department to be efficient, transparent and cost conscious in the delivery of services. The strategies and actions in this plan respond to this feedback and focus UEP on continually improving business practices to achieve desired outcomes.

In developing its 2012-2014 business plan and budget, UEP focused on strengths and opportunities and will use performance measures to track and monitor progress and adjust course if needed. This plan demonstrates UEP employees' commitment to quality public service in support of building a great city and achieving Calgarians' vision of a sustainable future.

UTILITIES & ENVIRONMENTAL PROTECTION: Departmental Outcomes, Performance Measures and Targets for Council Approval

	Departmental Outcomes	Performance Measures	2010 Actual	2011 Est.	2012	2013	2014
Community 1C UEP engages customers and stakeholders in timely dialogue to improve decision-making, demonstrate value, and foster understanding of services to align with citizen and customer expectations.	PM1.1 Calgarians' satisfaction with residential garbage collection.	95%	93%	90%	90%	90%	
	PM1.2 Calgarians' satisfaction with residential Blue Cart collection.	83%	84%	80%	80%	80%	
	PM1.3 Calgarians' satisfaction with drinking water quality.	92%	91%	90%	90%	90%	
	PM1.4 Customer service satisfaction index for Water frontline services.	91	85	85	85	85	
	PM1.5 Emergency water or wastewater system response completed on time.	100%	97%	95%	95%	95%	
	PM1.6 Emergency water or wastewater system repair completed on time.	100%	100%	90%	90%	90%	
	PM1.7 Customers that experienced zero water service interruptions longer than 24 hours.	NA	NA	TBD	TBD	TBD	
	PM1.8 Customers that experienced zero wastewater service back-ups in the past year.	99%	98%	98%	98%	98%	
	PM1.9 UEP 3-1-1 service requests completed on time.	88%	90%	88%	88%	88%	
Community 2C UEP's financial management is focused on investing in facilities and services that deliver the best value for money to meet current and future needs, and support stable and predictable rates and service levels.	PM2.1 Tonnes of carbon registered per year on a public offset registry.	0	825,000	200,000	200,000	200,000	200,000
	PM2.2 Annual operations and maintenance cost of waste collection per household.	\$90	\$91	\$83	\$82	\$81	
	PM2.3 Annual operations and maintenance cost of waste disposed at landfills per tonne.	\$34	\$42	\$46	\$52	\$59	
	PM2.4 Annual water treatment and distribution operations and maintenance costs per capita.	\$61	\$61	\$64	\$65	\$66	
	PM2.5 Annual wastewater collection and treatment operations and maintenance costs per capita.	\$48	\$48	\$51	\$52	\$53	

For Council Approval

For Council Information

Community	Places	Mobility	Business	Organization	Finance
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UTILITIES & ENVIRONMENTAL PROTECTION: Departmental Outcomes, Performance Measures and Targets for Council Approval

	Departmental Outcomes	Performance Measures	2010 Actual	2011 Est.	2012	2013	2014
Community	(Continued) 2C UEP's financial management is focused on investing in facilities and services that deliver the best value for money to meet current and future needs, and support stable and predictable rates and service levels.	PM2.6 Water utilities total debt. (billion)	\$1.4B	\$1.5B	<\$2B	<\$2B	<\$2B
		PM2.7 Water utilities capital maintenance financed with cash.	21%	0%	5%	40%	50%
		PM2.8 Water utilities debt to equity ratio.	70/30	71/29	75/25	75/25	75/25
Places	3P UEP works with the community, the region and The Corporation to achieve land, air, and water goals to help conserve, protect and enhance the environment.	PM3.1 City-owned properties screened through the Environmental Liability Assessment Program.	63%	69%	76%	84%	92%
		PM3.2 Cumulative number of current vacant former gas station sites actively pursued for the purpose of returning to productive community use.	0	0	2	4	6
		PM3.3 Cumulative area of investigated, remediated or risk-managed City-owned land. (hectares)	27	52	78	104	130
		PM3.4 Reduction in Corporate greenhouse gas emissions.	28%	28%	35%	36%	37%
		PM3.5 Materials recycled per household for Blue Cart. (kilograms)	203	204	205	205	205
		PM3.6 Waste collected per household. (kilograms)	655	640	635	630	625
		PM3.7 Waste landfilled per capita. (kilograms)	608	600	580	560	540
		PM3.8 Bow River downstream water quality index.	NA	83	≥80	≥80	≥80

For Council Approval

For Council Information

Community	Places	Mobility	Business	Organization	Finance
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UTILITIES & ENVIRONMENTAL PROTECTION: Departmental Outcomes, Performance Measures and Targets for Council Approval

	Departmental Outcomes	Performance Measures	2010 Actual	2011 Est.	2012	2013	2014
Places (Continued) 3P UEP works with the community, the region and The Corporation to achieve land, air, and water goals to help conserve, protect and enhance the environment.	PM3.9 Provincial regulations met for treated drinking water.	100%	100%	100%	100%	100%	100%
	PM3.10 Provincial regulations met for treated wastewater.	100%	100%	100%	100%	100%	100%
	PM3.11 Single family average daily water consumption per person. (litres per capita per day)	241	260	255	250	245	
	PM3.12 Annual river water withdrawals. (megalitres)	177,000	179,000	≤215,000	≤215,000	≤215,000	
Places 4P UEP employs a full life cycle approach to the systematic acquisition, operations, maintenance, replacement and disposal of land and assets to maximize economic, environmental and social benefits, manage risk and achieve business goals.	PM4.1 Serviced land supply (water, wastewater and drainage) aligned with Corporate growth management plan. (years)	5	6.5	3 to 5	3 to 5	3 to 5	3 to 5
	PM4.2 Water, wastewater and drainage systems assessed to be in good or fair condition.	95%	95%	95%	95%	95%	95%
	PM4.3 Projected remaining years of water treatment capacity.	0	7	≥5	≥5	≥5	≥5
	PM4.4 Projected remaining years of wastewater treatment capacity.	6	5	≥5	≥5	≥5	≥5

For Council Approval

For Council Information

Community	Places	Mobility	Business	Organization	Finance
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UTILITIES & ENVIRONMENTAL PROTECTION: Departmental Outcomes, Performance Measures and Targets for Council Approval

	Departmental Outcomes	Performance Measures	2010 Actual	2011 Est.	2012	2013	2014
Organization	5Z UEP employees flourish in a safe, supportive and challenging work environment where they see how their contributions link to building a great city.	PM5.1 UEP lost time claims frequency.	6.7	6.1	6.0	5.4	4.9
		PM5.2 UEP employees who agree or strongly agree that they know and understand the objectives of their business.	70%	NA	71%	72%	73%
		PM5.3 UEP leader participation in leadership development opportunities.	100%	100%	100%	100%	100%
Organization	6Z UEP leads The Corporation to foster a safe workplace for all City employees.	PM6.1 Corporate score for 2013 Certificate of Recognition external safety audit.	83%	-	-	90%	-
		PM6.2 Corporate lost time claims frequency.	4.6	4.5	4.2	3.9	3.5

For Council Approval

For Council Information

Community	Places	Mobility	Business	Organization	Finance
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UTILITIES & ENVIRONMENTAL PROTECTION: Strategies for Council Approval

	Departmental Outcomes	Strategies	Accountable Business Units
Community	1C UEP engages customers and stakeholders in timely dialogue to improve decision-making, demonstrate value, and foster understanding of services to align with citizen and customer expectations.	1C1 Deliver and demonstrate value to citizens and customers. (CFP- Z7) 1C2 Provide excellent customer service. (CFP-B1, Z7) 1C3 Make it easy to do business with us. (CFP-Z5, Z7, Z9) 1C4 Build productive working relationships with stakeholders to achieve common goals. (CFP-Z3, Z5)	Department Wide Department Wide Department Wide Department Wide
Community	2C UEP's financial management is focused on investing in facilities and services that deliver the best value for money to meet current and future needs, and support stable and predictable rates and service levels.	2C1 Focus on our financial health. (CFP-Z2, Z10) 2C2 Increase efficiencies and transparency. (CFP-Z2, Z3, Z10) 2C3 Benchmark our performance. (CFP-Z2, Z3) 2C4 Implement a financial plan to ensure the financial sustainability of City of Calgary Water Services. (CFP-C7*)	ESM, WRS Department Wide Department Wide Utilities
Places	3P UEP works with the community, the region and The Corporation to achieve land, air, and water goals to help conserve, protect and enhance the environment.	3P1 Meet regulatory requirements to protect public health. 3P2 Lead by example. 3P3 Develop and implement programs to make it easier for the community to take action. (CFP-B4) 3P4 Ensure integrated resource management planning. (CFP-P8) 3P5 Think and act regionally. (CFP-P1, P10) 3P6 Develop and implement comprehensive waste diversion strategies, which continues progress towards 80/20 by 2020. (CFP-P9*)	Department Wide Department Wide Department Wide Department Wide Department Wide WRS

UTILITIES & ENVIRONMENTAL PROTECTION: Strategies for Council Approval

	Departmental Outcomes	Strategies	Accountable Business Units
Places	4P UEP employs a full life cycle approach to the systematic acquisition, operations, maintenance, replacement, and disposal of land and assets to maximize economic, environmental and social benefits, manage risk and achieve business goals.	4P1 Continually improve on asset management. (CFP-Z1, Z5) 4P2 Manage risks to our infrastructure. 4P3 Manage the challenges of continued growth of the city. (CFP-B5, P1, P10, P11) 4P4 Develop and implement a capital plan, which continues progress towards 80/20 by 2020. (CFP-P9*)	Department Wide Department Wide Utilities WRS
Organization	5Z UEP employees flourish in a safe, supportive and challenging work environment where they see how their contributions link to building a great city.	5Z1 Invest in the learning and development of our employees. (CFP-Z1, Z6) 5Z2 Invest in the growth of our leaders. (CFP-Z1, Z6) 5Z3 Increase employee participation to support meaningful connection to the workplace. (CFP-Z1, Z6) 5Z4 Improve health and safety for UEP employees. (CFP-Z6)	Department Wide Department Wide Department Wide Department Wide
Organization	6Z UEP leads The Corporation to foster a safe workplace for all City employees.	6Z1 Improve health and safety for all City employees. (CFP-Z6)	ESM

For Council Approval

For Council Information

Community	Places	Mobility	Business	Organization	Finance
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ESM Environmental & Safety Management

UTILITIES

Water Resources/ Water Services

WRS

Waste & Recycling Services

UTILITIES & ENVIRONMENTAL PROTECTION: Operating Budgets for Council Approval

(\$ 000s)

2010 Actual	2011 Total Budget	2012 Base Budget	2012 One-Time Budget	2012 Total Budget	2013 Base Budget	2013 One-Time Budget	2013 Total Budget	2014 Base Budget	2014 One-Time Budget	2014 Total Budget
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GM UEP (Program 906)

Revenues	0	0	0	0	0	0	0	0	0	0
Expenditures	610	735	735	0	735	735	0	735	735	735
Recoveries	(156)	(253)	(253)	0	(253)	(253)	0	(253)	(253)	(253)
Net	454	482	482	0	482	482	0	482	482	482
FTEs	3.0	3.0	3.0	0.0	3.0	3.0	0.0	3.0	3.0	3.0

Environmental & Safety Management (Program 817)

Revenues	(901)	(185)	(689)	0	(689)	(809)	0	(809)	(445)	0	(445)
Expenditures	11,407	11,448	11,422	150	11,572	11,613	150	11,763	11,320	150	11,470
Recoveries	(2,830)	(3,143)	(2,920)	0	(2,920)	(2,920)	0	(2,920)	(2,920)	0	(2,920)
Net	7,677	8,120	7,813	150	7,963	7,884	150	8,034	7,955	150	8,105
FTEs	68.0	66.6	62.6	0.0	62.6	62.6	0.0	62.6	61.6	0.0	61.6

For Council Approval

UTILITIES & ENVIRONMENTAL PROTECTION: Operating Budgets for Council Approval

(\$ 000s)

2010 Actual	2011 Total Budget	2012 Base Budget	2012 One-Time Budget	2012 Total Budget	2013 Base Budget	2013 One-Time Budget	2013 Total Budget	2014 Base Budget	2014 One-Time Budget	2014 Total Budget
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Waste & Recycling Services (Program 252)

Revenues	(108,073)	(91,222)	(87,107)	0	(87,107)	(90,230)	0	(90,230)	(93,942)	0	(93,942)
Expenditures	166,772	129,626	125,423	0	125,423	129,736	0	129,736	134,257	0	134,257
Recoveries	(17,633)	(2,691)	(3,424)	0	(3,424)	(4,289)	0	(4,289)	(4,773)	0	(4,773)
Net	41,066	35,713	34,892	0	34,892	35,217	0	35,217	35,542	0	35,542
FTEs	563.0	572.5	548.5	0.0	548.5	560.5	0.0	560.5	572.5	0.0	572.5

Utilities (Water Resources and Water Services) (Program 270)

Revenues	(387,427)	(442,305)	(478,230)	0	(478,230)	(511,154)	0	(511,154)	(564,095)	0	(564,095)
Expenditures	415,015	468,460	505,168	0	505,168	538,874	0	538,874	592,562	0	592,562
Recoveries	(27,588)	(26,155)	(26,938)	0	(26,938)	(27,720)	0	(27,720)	(28,467)	0	(28,467)
Net	(0)	0	0	0	0	0	0	0	0	0	0
FTEs	1,173.0	1,194.0	1,205.5	0.0	1,205.5	1,211.0	0.0	1,211.0	1,216.0	0.0	1,216.0

For Council Approval

UTILITIES & ENVIRONMENTAL PROTECTION: Operating Budgets for Council Approval

(\$ 000s)

	2010 Actual	2011 Total Budget	2012 Base Budget	2012 One-Time Budget	2012 Total Budget	2013 Base Budget	2013 One-Time Budget	2013 Total Budget	2014 Base Budget	2014 One-Time Budget	2014 Total Budget
TOTAL UEP											
Revenues	(496,401)	(533,712)	(566,027)	0	(566,027)	(602,194)	0	(602,194)	(658,482)	0	(658,482)
Expenditures	593,805	610,269	642,747	150	642,897	680,957	150	681,107	738,873	150	739,023
Recoveries	(48,207)	(32,242)	(33,534)	0	(33,534)	(35,181)	0	(35,181)	(36,412)	0	(36,412)
Net	49,197	44,315	43,187	150	43,337	43,583	150	43,733	43,979	150	44,129
FTEs	1,807.0	1,836.1	1,819.6	0.0	1,819.6	1,837.1	0.0	1,837.1	1,853.1	0.0	1,853.1

Totals may not add due to rounding

For Council Approval

UTILITIES & ENVIRONMENTAL PROTECTION: Capital Budget Highlights

UEP's capital budget supports achieving Council Fiscal Plan directional statements to ensure the financial sustainability of the Water business and develop and implement comprehensive waste diversion strategies and supporting capital plan. It also supports the environmental and financial capacity goals outlined in the 2020 Sustainability Direction. WRS and the Utilities capital budgets reflect preliminary estimates and as detailed designs progress funding requirements may change to more closely align with construction costs and timing.

Environmental & Safety Management (ESM)

- ESM's capital budget supports continuous improvement in environmental and safety performance, including technology funding for tools to ensure timely and accurate data reporting for energy and emission management and injury incidents and funding to support initiatives such as the Corporate Green Fleet (e.g. alternative fuel vehicles and supporting infrastructure and fuel consumption technology pilots) and Corporate Green Office programs.

Waste & Recycling Services (WRS)

- WRS has a 10-year capital plan necessary to continue to meet the needs of a growing city, specifically:
 - Making progress to achieve the 80/20 by 2020 waste diversion goal;
 - Meeting environmental and regulatory requirements for active and inactive landfills to comply with approvals to operate. All three active landfills will require new approvals in 2012-2014; and,
 - Meeting facility requirements to support ongoing operational needs and customer service delivery including waste collection, landfill operations and waste diversion initiatives.
- The total capital program for 2012-2014 will be just over \$130 million. Highlights include: leachate capture and treatment; stormwater management; and facility upgrades and replacement (e.g. truck storage, entranceways, throw 'n go's, and scale house redevelopment.)
- The capital program is primarily self-supporting from revenue collected from the waste management charge, blue cart recycling fee and commercial landfill tipping fee. Cash financing will be used for capital maintenance expenditures. Large capital projects will be appropriately debt financed. Debt financing spreads the cost of large capital projects over an appreciable portion of the useful life of the asset.

- WRS also receives about \$16 million per year of Federal Gas Tax Funding (GTF), which is an integral and critical component of the 10-year capital plan.
- A Sustainment Reserve will further manage cash flow to meet the needs of a fluctuating operating and capital spending program.

Utilities (Water Resources and Water Services)

- Existing water, wastewater and drainage infrastructure represents more than half of The City's asset base.
- The Utility 10-year capital plan supports maintaining existing infrastructure and meeting increasing quality standards for a growing city. As a key component of the Utility financial plan, the capital budget includes targets for total debt and cash financing, which will be achieved over six years in order to maintain manageable utility rates.
- The capital plan of \$250 million each year for the next three years is significantly lower than previous capital budgets. Water, wastewater and drainage projects will be delayed or reduced based on an evaluation and prioritization process.
- The capital budget:
 - Allows the Utilities to continue to support urban growth by maintaining a 3 to 5 year serviced land inventory aligned with the Municipal Development Plan (MDP) and sufficient water and wastewater treatment capacity. The proportion of the capital program allocated for growth is significantly lower than in 2009-2011 due to current population projections. This funding is now allocated for capital maintenance upgrades and lowers debt financing requirements;
 - Ensures high quality water and wastewater service that protects public health and the environment by reinvesting in infrastructure to ensure resiliency and improve operational and energy efficiency;
 - Protects river water quality and ensures that the Utilities continue to meet provincial regulations for drinking water and wastewater treatment; and
 - Ensures The City continues to make progress towards achieving the goals of the Water Efficiency Plan and the Stormwater Management Strategy.
- The investment plan supports departmental performance measures related to citizen satisfaction with drinking water quality, interruptions to service, system condition, river water quality, meeting provincial regulations for water and wastewater treatment, treatment plant capacity and serviced land supply.

UTILITIES & ENVIRONMENTAL PROTECTION: Department 2012 - 2016 Capital Plan (1)

(\$000s)

	<u>2012</u>	<u>2013</u>	<u>2014</u>	<u>2015</u>	<u>2016</u>	<u>TOTAL</u>
Environmental & Safety Management						
Approved Projects in Progress	0	0	0	0	0	0
Total Projects Requiring Approval: (2)						
Program 815 : Environmental Liabilities & Remediation	1,350	380	95	0	0	1,825
Total Projects Requiring Approval	1,350	380	95	0	0	1,825
2012 Capital Budget	1,350	380	95	0	0	1,825
Projects in Capital Plan for 2013-2016 (Not Requiring Approval)	0	745	470	0	0	1,215
Total Environmental & Safety Management	1,350	1,125	565	0	0	3,040
Waste & Recycling Services						
Approved Projects in Progress	27,638	44,212	13,328	5,666	0	90,844
Total Projects Requiring Approval: (2)						
Program 256 : Landfill/Treatment Infrastructure	13,759	15,971	23,355	4,114	4,675	61,874
Program 257 : Diversion Infrastructure	6,000	5,500	0	0	0	11,500
Program 258 : Facilities & Equipment	13,362	24,865	19,482	0	0	57,709
Total Projects Requiring Approval	33,121	46,336	42,837	4,114	4,675	131,083
2012 Capital Budget	60,759	90,548	56,165	9,780	4,675	221,927
Projects in Capital Plan for 2013-2016 (Not Requiring Approval)	0	0	0	57,980	65,495	123,475
Total Waste & Recycling Services	60,759	90,548	56,165	67,760	70,170	345,402
Environmental Protection						
Approved Projects in Progress	27,638	44,212	13,328	5,666	0	90,844
Projects Requiring Approval (2)	34,471	46,716	42,932	4,114	4,675	132,908
2012 Capital Budget	62,109	90,928	56,260	9,780	4,675	223,752
Projects in Capital Plan for 2013-2016 (Not Requiring Approval)	0	745	470	57,980	65,495	124,690
Total Environmental Protection	62,109	91,673	56,730	67,760	70,170	348,442

Notes:

- (1) The capital plan represents capital expenditures for 2012 to 2016. The 2012 capital budget is based on this five-year plan, where costs of a project may be appropriated over more than one year. Council approvals are requested for budget adjustments to projects in progress and for new projects starting in 2012.
- (2) Program-project details for approval are included in the Business Unit Report - Capital Projects Requiring Approval.

For Council Approval at Program-Project level. Details on Business Unit Report - Capital Projects Requiring Approval.

UTILITIES & ENVIRONMENTAL PROTECTION: Department 2012 - 2016 Capital Plan (1)

(\$000s)

	<u>2012</u>	<u>2013</u>	<u>2014</u>	<u>2015</u>	<u>2016</u>	<u>TOTAL</u>
Utilities						
Approved Projects in Progress	176,029	79,159	20,958	0	0	276,146
Total Projects Requiring Approval: (2)						
Program 891 : Water Treatment Plants	13,980	25,087	34,437	29,900	0	103,404
Program 892 : Water Distribution Systems	25,006	8,498	41,060	0	0	74,564
Program 893 : Water Equipment & Others	295	0	0	0	0	295
Program 894 : Wastewater Treatment	39,515	39,973	51,177	0	0	130,665
Program 895 : Wastewater Collection System	(38,441)	23,434	16,378	0	0	1,371
Program 896 : Wastewater Equipment_Others	1,082	0	0	0	0	1,082
Program 897 : Drainage Systems & Management Facilities	10,444	16,584	10,966	0	0	37,994
Program 898 : Drainage Equipment & Other	445	0	0	0	0	445
Program 899 : Common Assets	14,088	16,050	14,047	0	0	44,185
Total Projects Requiring Approval	66,414	129,626	168,065	29,900	0	394,005
2012 Capital Budget	242,443	208,785	189,023	29,900	0	670,151
Projects in Capital Plan for 2013-2016 (Not Requiring Approval)	0	41,556	47,613	250,343	282,887	622,399
Total Utilities	242,443	250,341	236,636	280,243	282,887	1,292,550
Utilities & Environmental Protection						
Approved Projects in Progress	203,667	123,371	34,286	5,666	0	366,990
Projects Requiring Approval (2)	100,885	176,342	210,997	34,014	4,675	526,913
2012 Capital Budget	304,552	299,713	245,283	39,680	4,675	893,903
Projects in Capital Plan for 2013-2016 (Not Requiring Approval)	0	42,301	48,083	308,323	348,382	747,089
Total Utilities & Environmental Protection	304,552	342,014	293,366	348,003	353,057	1,640,992

Notes:

- (1) The capital plan represents capital expenditures for 2012 to 2016. The 2012 capital budget is based on this five-year plan, where costs of a project may be appropriated over more than one year. Council approvals are requested for budget adjustments to projects in progress and for new projects starting in 2012.
- (2) Program-project details for approval are included in the Business Unit Report - Capital Projects Requiring Approval.

For Council Approval at Program-Project level. Details on Business Unit Report - Capital Projects Requiring Approval.

UTILITIES & ENVIRONMENTAL PROTECTION

Environmental & Safety Management	(\$ millions)								
	2012			2013			2014		
	Expend.	Net	FTEs	Expend.	Net	FTEs	Expend.	Net	FTEs
	\$11.6	\$8.0	63	\$11.8	\$8.0	63	\$11.5	\$8.1	62

Overview

Environmental & Safety Management (ESM) provides Corporate leadership to ensure continuous improvement in The City's occupational health and safety performance and environmental stewardship.

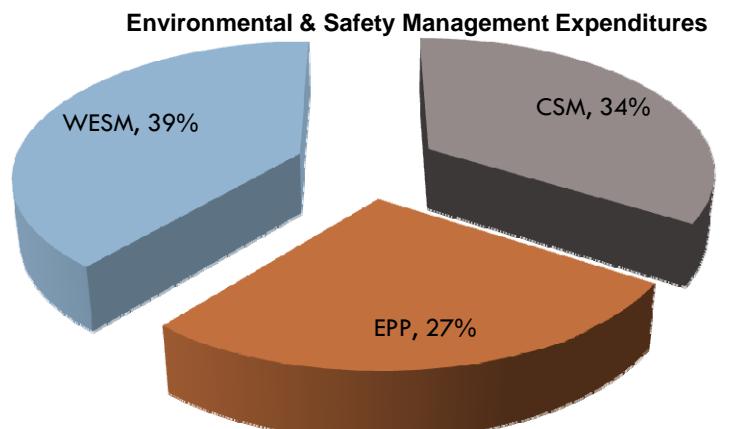
ESM assures The City is a safe and healthy place to work. ESM supports all departments in delivering occupational health and safety regulatory programs and continually improving safety performance by focusing on industry-wide benchmarking, trending and root cause analysis of incidents, near miss reporting, work accommodation and investments in training and safety policies and programs.

ESM champions policies, programs and initiatives to reduce The City's environmental impact. For instance, ESM supports initiatives to conserve energy, reduce emissions and reduce waste. ESM also supports the community to adopt more sustainable behaviours and take action to mitigate the impacts of climate change. A key focus is working with the community to develop and implement a community greenhouse gas reduction plan. ESM also works with the community and regional partners to support air quality monitoring and reporting.

ESM oversees Corporate environmental liabilities. ESM assesses, manages and develops City-owned contaminated sites to protect public health and demonstrate leadership in brownfield redevelopment. Brownfields are vacant or underused sites that are often contaminated due to former industrial or commercial use. Redevelopment of these sites supports communities by putting unused land into productive use. It also encourages intensification, utilizes existing infrastructure and rejuvenates neighbourhoods. Brownfield redevelopment also improves air, water and soil quality and can protect valuable or environmentally sensitive areas.

List of Services

- Contaminated Sites Management - CSM
- Environmental Policy & Programs - EPP
- Workplace Environmental & Safety Management - WESM



Achieving Council's Fiscal Plan/Addressing Sustainability and Long Term Plans

As Corporate leaders in environmental and safety management, ESM plays a pivotal role in both leading the way with respect to City operations and helping the community move toward more sustainable environmental behaviours. ESM's programs and services help The City and community protect natural resources and support the achievement of environmental objectives outlined in the 2020 Sustainability Direction and imagineCALGARY.

The actions outlined in the 2012-2014 business plan and budget include initiatives to proactively identify and manage safety and environmental risks and emerging issues. ESM's work supports The City in being a safe, healthy and environmentally responsible place to work to support achieving Council's priority to build a vibrant and healthy community. Four areas of focus include:

- Integration of environment, health and safety management systems to provide a systematic framework for managing risks and leveraging opportunities;
- Development of a Corporate carbon emission and offset system;
- Development and implementation of a community greenhouse gas reduction plan to save energy, mitigate climate change impacts and protect air quality; and,
- Development of contaminated site risk management plans and redevelopment of existing brownfield sites.

UTILITIES & ENVIRONMENTAL PROTECTION: Environmental & Safety Management: Actions for Council Approval

	Strategies	Actions	Accountable Services
Community	1C1 Deliver and demonstrate value to citizens and customers. (CFP-Z7)	1C1.1 Engage in dialogue with citizens and customers to understand their expectations and help them stay engaged and informed about programs and services. 1C1.2 Build public trust by effectively and efficiently providing valuable services. 1C1.3 Measure, benchmark and report our performance on a regular basis.	Business Unit Wide
Community	1C2 Provide excellent customer service.(CFP-B1,Z7)	1C2.1 Develop a customer centric organization where in our everyday operations, customer service is respectful, reliable, responsive and responsible.	Business Unit Wide
Community	1C3 Make it easy to do business with us. (CFP-Z5,Z7, Z9)	1C3.1 Provide transparent and timely information and access to services through multiple channels for both customers and the community.	Business Unit Wide
Community	1C4 Build productive working relationships with stakeholders to achieve common goals.(CFP-Z3,Z5)	1C4.1 Leverage relationships with partners, stakeholders and The Corporation to deliver programs and services.	Business Unit Wide
Community	2C1 Focus on our financial health. (CFP-Z2, Z10)	2C1.1 Provide effective management and collaborate with departments to reduce the risks to The City's Workers' Compensation Board claim rates, premiums and rebates. 2C1.2 Lead the development and implementation of a system to strategically manage Corporate carbon emissions and offsets. 2C1.3 Develop management and leadership financial competencies to support evaluation and decision-making. 2C1.4 Review environmental liabilities and ensure they are recorded on The City's financial statement to manage future financial risk.	WESM EPP Business Unit Wide CSM

For Council Approval

For Council Information

Community	Places	Mobility	Business	Organization	Finance
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CSM Contaminated Sites Management

EPP Environmental Policy & Programs

WESM Workplace Environmental & Safety Management

UTILITIES & ENVIRONMENTAL PROTECTION: Environmental & Safety Management: Actions for Council Approval

	Strategies	Actions	Accountable Services
Community	2C2 Increase efficiencies and transparency. (CFP-Z2,Z3,Z10)	2C2.1 Implement a program evaluation framework to assess the impact, cost and value of services and prioritize opportunities for improvement.	Business Unit Wide
Community	2C3 Benchmark our performance. (CFP-Z2,Z3)	2C3.1 Develop and implement benchmarking program for safety indicators that have a financial impact.	WESM
Places	3P1 Meet regulatory requirements to protect public health.	3P1.1 Assess and report Corporate risk for existing and emerging legislation regarding greenhouse gases and air contaminants. 3P1.2 Investigate contamination on City property and develop risk management plans.	EPP CSM
Places	3P2 Lead by example.	3P2.1 Lead The Corporation to embed the Triple Bottom Line Policy into decision-making. 3P2.2 Mitigate the impact of our business on the air, land and water to align with environmental goals. 3P2.3 Provide Corporate leadership to improve environmental performance and achieve efficiencies through the use of environmental management systems.	EPP CSM, EPP WESM
Places	3P3 Develop and implement programs to make it easier for the community to take action. (CFP-B4)	3P3.1 Foster behaviour change through program innovation, removing barriers and ongoing education.	EPP

For Council Approval

For Council Information

Community	Places	Mobility	Business	Organization	Finance
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CSM Contaminated Sites Management

EPP Environmental Policy & Programs

WESM Workplace Environmental & Safety Management

UTILITIES & ENVIRONMENTAL PROTECTION: Environmental & Safety Management: Actions for Council Approval

	Strategies	Actions	Accountable Services
Places	3P4 Ensure integrated resource management planning. (CFP-P8)	3P4.1 Deliver brownfield redevelopment, Corporate waste management, greenhouse gas and air quality programs that align to environmental goals. 3P4.2 Lead the Corporation to work with the oil and gas sector to manage the impact of resource development within and surrounding Calgary city limits.	Business Unit Wide CSM
	3P5 Think and act regionally. (CFP-P1,P10)	3P5.1 Align with The Corporation and the region to manage risks to air quality and achieve common goals.	EPP
Places	4P1 Continually improve on asset management. (CFP-Z1,Z5)	4P1.1 Leverage tools and technology to support operations and realize efficiencies.	Business Unit Wide
Places	4P2 Manage risks to our infrastructure.	4P2.1 Identify risks and prioritize actions for infrastructure protection through the development of a climate change adaptation strategy.	EPP
Organization	5Z1 Invest in the learning and development of our employees. (CFP-Z1,Z6)	5Z1.1 Develop and prioritize learning and development plans and resources in UEP and align with emerging organizational needs.	Business Unit Wide
		5Z1.2 Plan for employee transitions (e.g. knowledge management, competencies, job design, mentoring) and increase organizational performance capacity.	Business Unit Wide
		5Z1.3 Promote and celebrate employee learning and development.	Business Unit Wide

For Council Approval

For Council Information

Community	Places	Mobility	Business	Organization	Finance
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CSM Contaminated Sites Management

EPP Environmental Policy & Programs

WESM Workplace Environmental & Safety Management

UTILITIES & ENVIRONMENTAL PROTECTION: Environmental & Safety Management: Actions for Council Approval

	Strategies	Actions	Accountable Services
Organization	5Z2 Invest in the growth of our leaders. (CFP-Z1,Z6)	<p>5Z2.1 Create opportunities for leaders to increase their self awareness, explore their leadership strengths and skills, and enhance their working relationships.</p> <p>5Z2.2 Foster and support leadership communications that inspire employees' trust.</p> <p>5Z2.3 Improve managerial competency in applying policies and processes in day-to-day work increasing understanding of and access to tools and systems.</p>	Business Unit Wide
Organization	5Z3 Increase employee participation to support meaningful connection to the workplace. (CFP-Z12, Z6)	<p>5Z3.1 Support and encourage all employees to fulfill their organizational accountabilities and exemplify organizational values.</p> <p>5Z3.2 Showcase and celebrate the accomplishments of teams and employees.</p> <p>5Z3.3 Undertake initiatives that remove barriers and support inclusiveness of our workplace to achieve resiliency.</p>	Business Unit Wide
Organization	5Z4 Improve health and safety for UEP employees.(CFP-Z6)	<p>5Z4.1 Support resiliency and improve ability to meet job requirements by increasing employee understanding of wellness and occupational health and safety programs.</p> <p>5Z4.2 Support productivity by addressing occupational health, safety and wellness priorities.</p> <p>5Z4.3 Increase management and employee understanding of occupational health and safety legislation and Corporate program requirements.</p>	Business Unit Wide
Organization	6Z1 Improve health and safety for all City employees. (CFP-Z6)	<p>6Z1.1 Foster a culture of health and safety performance by providing Corporate focus and leadership and demonstrating measureable improvement.</p> <p>6Z1.2 Strengthen Corporate occupational health and safety goal setting, prioritization and performance measurement.</p> <p>6Z1.3 Develop consistent Corporate safety programs that can be adjusted to reflect the unique safety needs of business units.</p> <p>6Z1.4 Continue to ensure the use of the occupational health and safety management system and implement an internal audit protocol to continually improve performance.</p>	WESM

For Council Approval

For Council Information

Community	Places	Mobility	Business	Organization	Finance
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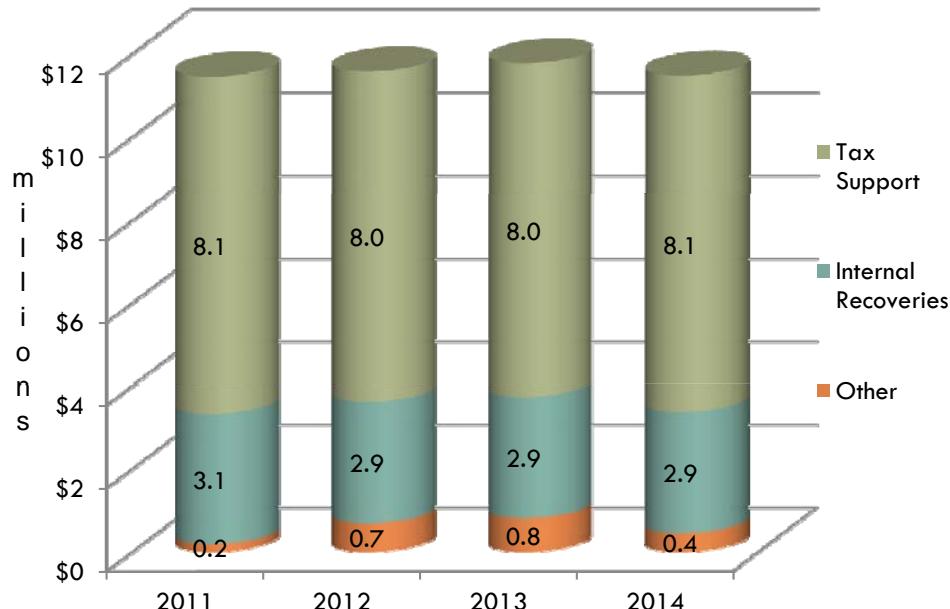
CSM Contaminated Sites Management

EPP Environmental Policy & Programs

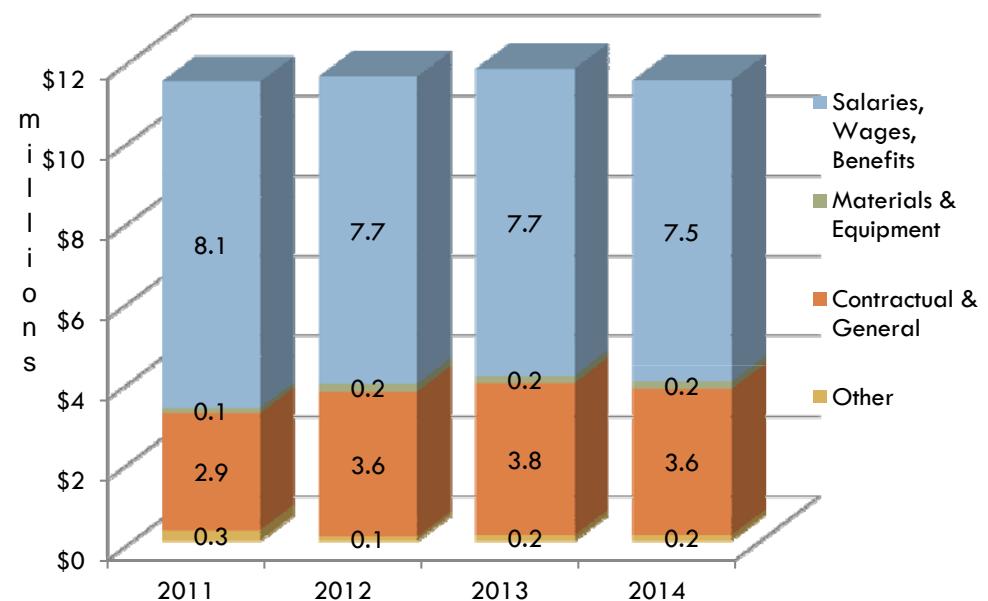
WESM Workplace Environmental & Safety Management

UTILITIES & ENVIRONMENTAL PROTECTION: Environmental & Safety Management: Business Plan & Budget Highlights

Funding Summary



Expenditure Summary



No changes to 2012-2014 user fees are proposed at this time.

Breakdown of Operating Budget (\$ millions)

	2011 Budget			2012 Budget			2013 Budget			2014 Budget		
	Expend.	Net	FTEs									
Director's Office												
<u>Services:</u>												
Contaminated Sites Management	3.8	2.5	17	3.6	2.4	17	3.6	2.4	17	3.5	2.4	17
Environmental Policy & Programs	2.6	2.1	19	2.8	2.3	17	2.9	2.4	17	2.8	2.3	16
Workplace Environmental & Safety Mgmt	3.6	2.4	28	4.0	2.4	27	4.1	2.4	27	3.9	2.6	27
Total Environmental & Safety Management	\$11.4	\$8.1	67	\$11.6	\$8.0	63	\$11.8	\$8.0	63	\$11.5	\$8.1	62

UTILITIES & ENVIRONMENTAL PROTECTION: Environmental & Safety Management: Business Plan & Budget Highlights

Productivity Gain (Budget reduced with no service impact)

Realignment of responsibilities, changes to team organization and processes across the business unit, and improved cost control of business expenses and materials will result in the reduction of \$570 thousand/5 FTEs (\$465 thousand/4 FTEs in 2012 and \$105 thousand/1 FTE in 2014).

Service and Budget Increases

The following provides budget details that will enable Environmental & Safety Management to take action to improve environmental and safety performance to help achieve Council's Fiscal Plan priority to build a vibrant and healthy community and continue progress toward the environmental objectives of the 2020 Sustainability Direction:

- Increase spending in 2012 by \$70 thousand for occupational health & safety programs, including maintenance of safety incident tracking technology, ergonomic assessments and audiometric testing to improve access and consistency for all City employees.
- Move 2009-2011 one-time funding for the Calgary Region Airshed Zone (CRAZ) to base budget (\$105 thousand in 2012) and increase funding by \$45 thousand in 2013 for a new emissions-based fee for air quality monitoring by CRAZ. These funds will allow ESM to participate as a member of CRAZ to support achievement of Corporate air quality and climate change action goals. CRAZ is a non-profit organization that monitors, analyzes and provides information on air quality and develops regional strategies to manage air quality issues.
- In 2012, there is a net increase of \$220 thousand as a result of reconciliation of salary costs, loss of recoveries from other business units and a move of Calgary River Forum funding to Water Resources. In 2014, there is an additional loss of staff recoveries of \$206 thousand.

• New costs for online reporting of environmental information and maintenance of environmental data management systems add \$35 thousand and \$61 thousand in 2012 and 2013 respectively. In 2013, the increase is partially offset (\$35 thousand) by continued improvements in business expenses cost control.

• One-time funding of \$150 thousand annually in 2012-2014 to cover costs for external verification and registration of a Corporate carbon finance model. Participation in a public emissions offset registry: reduces risks from increased costs related future carbon tax; contributes to achieving Corporate and regulated mission targets; ensures regulatory compliance; and funds further carbon mitigation technologies and practices.

Budget Reductions with Service Impact

Reduction of \$101 thousand in 2012 and \$30 thousand in 2014 within Contaminated Sites Management's contractual services will result in fewer new contaminated site investigations. The impact will be minimized using a risk-based prioritization process for contaminated sites investigations.

Summary of net operating budget changes (\$000's)

	2012	2013	2014
Productivity Gain (Budget reduced with no service impact)	(\$465)	\$0	(\$105)
Service and budget increases	430	71	206
Budget reductions with service impact	(101)	0	(30)
Total base changes	(136)	71	71
One-Time	150	150	150
Less: Prior Year's One-time	(171)	(150)	(150)
Total budget changes	(\$157)	\$71	\$71

UTILITIES & ENVIRONMENTAL PROTECTION: Environmental & Safety Management: Capital Projects Requiring Approval

(\$000s)

\$1,825

For Council Approval at Program-Project level
as per Department Capital Plan report

Program- Project	Project Description	Type	Cat.	(A)		(B) New Budget Request	2012	2013	2014	2015	2016	(C)=(A)+(B) 2012-2016
				Prev. Approved Budget	Prev. Approved Budget up to Years							
				for Future								
815-12F	Technology	U	C	0	0	1,175	700	380	95	0	0	1,175
815-13F	Corporate Environmental Programs	S	C	0	0	1,865	650	745	470	0	0	1,865
Total Program 815 : Environmental Liabilities & Remediation				0	0	3,040	1,350	1,125	565	0	0	3,040
<i>Operating costs of capital of Program 815</i>												
<i>2012-2014 Operating Budget</i>				O1			0	61	0	N/A	N/A	61
					0	3,040	1,350	1,125	565	0	0	3,040

Note:

Type: M=Maintenance/Replacement, U=Upgrade, G=Growth, S=Service Change

Category: A=Project in Progress, C=New Project, O1=2012-2014 Operating Cost

Funding For Capital Projects

Pay-As-You-Go	1,350	1,125	565	0	0	3,040
Total Funding	1,350	1,125	565	0	0	3,040

Explanation of Budget Requests

Program 815 : Environmental Liabilities & Remediation

Project 815-12F : Technology

New budget request for \$1.175 million in 2012-2014 budget cycle for the purchase/implementation of data management systems: (1) to provide detailed, auditable data and reports on energy consumption and Green-house Gases (GHG) emissions, and (2) to enhance safety tracking and monitoring, and replacement of occupational hygiene and safety equipment. Program will be funded by Pay-As-You-Go.

Operating costs of capital: This program requires an annual operating maintenance cost of \$61 thousand , which has been requested in ESM's operating base beginning in 2013.

Project 815-13F : Corporate Environmental Programs

New budget request for \$1.865 million in 2012-2014 budget cycle for the development/support/expansion of the Green office, Green Fleet and Corporate Climate Change Programs, aimed at reducing the environmental impact and regulatory risk of internal City's operations as well as delivery of community programs and initiatives to facilitate the reduction of green house gas emissions in support of community reduction targets. Program will be funded by Pay-As-You-Go.

UTILITIES & ENVIRONMENTAL PROTECTION: Environmental & Safety Management: Service Highlights

Contaminated Sites Management	(\$000s)								
	2012			2013			2014		
	Expend.	Net	FTEs	Expend.	Net	FTEs	Expend.	Net	FTEs
	\$3,563	\$2,385	17	\$3,563	\$2,385	17	\$3,533	\$2,355	17
Description of Services									
<p><i>Assessment, management and development of contaminated sites</i></p> <ul style="list-style-type: none"> • Manage Corporate environmental liability <ul style="list-style-type: none"> - Assess the environmental condition of City-owned property - Develop plans to remediate or risk manage City-owned property - Ensure The City's contaminated sites meet environmental legislation - Estimate The City's environmental liability - Oversee Environmental Construction Operations Plans (ECO Plans) to ensure contractors mitigate environmental impacts on major City construction projects - Provide support to business units on contamination issues - Manage City's position on oil and gas issues within city boundaries • Remove barriers to redevelopment of contaminated sites <ul style="list-style-type: none"> - Review development applications for environmental concerns with a focus on residential development - Advocate The City's position to support the redevelopment of contaminated sites - Identify incentives that The City can provide to develop contaminated sites 									
Highlighted Strategies			Highlighted Actions			Business Plan and Budget Highlights			
1C4 Build productive working relationships with stakeholders to achieve common goals.(CFP-Z3,Z5)			1C4.1 Leverage relationships with partners, stakeholders and The Corporation to deliver programs and services.			Contaminated Sites Management (CSM) supports environmental risk management and brownfield redevelopment.			
2C1 Focus on our financial health.(CFP-Z2,Z10)			2C1.4 Review environmental liabilities and ensure they are recorded on The City's financial statement to manage future financial risk.			To mitigate a budget reduction for contracted services, new contamination investigations will be commissioned using risk-based prioritization. Investigation of City-owned residential sites will be given priority status, while commercial and industrial sites will be investigated on an as needed basis. Environmental liabilities are recorded on The City's financial register and the funds are used to ensure that these sites remain in legislative compliance. Third party contamination of City property, from gas stations for example, will continue to be addressed on an as needed basis.			
3P1 Meet regulatory requirement to protect public health.			3P1.2 Investigate contamination on City property and develop risk management plans.			CSM works with the Corporate Planning Applications Group providing environmental risk management expertise to ensure that a site is suitable for the proposed development. CSM also oversees the Environmental Construction Operation Plan (ECOPlan) program to reduce environmental impacts from City construction projects and provides contamination expertise on individual projects.			
3P4 Ensure integrated resource management planning. (CFP-P8)			3P4.1 Deliver brownfield redevelopment, Corporate waste management, greenhouse gas and air quality programs that align to environmental goals.			CSM will continue to facilitate the development of Corporate incentives for brownfield sites. CSM will work with the Government of Alberta to advocate for legislative changes and investigate opportunities to access alternative sources of funding for brownfield redevelopment projects.			
			3P4.2 Lead The Corporation to work with the oil and gas sector to manage the impact of resource development within and surrounding Calgary city limits.						
<p>Please review the business unit action approval page to see a complete list of actions that are applicable to this service</p>									

UTILITIES & ENVIRONMENTAL PROTECTION: Environmental & Safety Management: Service Highlights

Environmental Policy & Programs	(\$000s)								
	2012			2013			2014		
	Expend.	Net	FTEs	Expend.	Net	FTEs	Expend.	Net	FTEs
	\$2,800	\$2,289	17	\$2,906	\$2,395	17	\$2,801	\$2,290	16
Description of Services									
<i>Community and internal climate change planning and programs and environmental sustainability</i>									
<ul style="list-style-type: none"> • Develop policy, plans, targets and strategies and report performance to manage environmental issues • Develop community and Corporate greenhouse gas reduction plans, including the assessment of air quality and greenhouse gas emissions risks <ul style="list-style-type: none"> • Assess and develop strategies to manage air quality issues working with the Calgary Region Airshed Zone • Develop and deliver community environmental programs and education • Ensure continual improvement of the Triple Bottom Line (TBL) assessment tools and training to support Corporate sustainability • Provide environmental management expertise to business units across The City 									
Highlighted Strategies			Highlighted Actions			Business Plan and Budget Highlights			
1C4 Build productive working relationships with stakeholders to achieve common goals.(CFP-Z3,Z5)			1C4.1 Leverage relationships with partners, stakeholders and The Corporation to deliver programs and services.			Environmental Policy & Programs (EPP) provides leadership to support achievement of long-term environmental goals. EPP works with the community and The Corporation to develop and implement initiatives for greenhouse gas (GHG) reduction and air quality management. This includes community and Corporate GHG planning and participation in the Calgary Region Airshed Zone. By working collaboratively, EPP leverages shared goals, initiates action, removes barriers in City processes and builds funding mechanisms for sustained action toward long-term targets.			
2C1 Focus on our financial health.(CFP-Z2,Z10)			2C1.2 Lead the development and implementation of a system to strategically manage Corporate carbon emissions and offsets.			Emerging regulatory changes that will reduce thresholds for GHG emissions require quantification and performance measurement of Corporate GHG emissions. A new carbon finance program will leverage carbon offsets from City investments in energy efficiency and GHG reduction projects and more effectively manage the financial costs of carbon. The Corporation will have options to meet Corporate targets, mitigate compliance costs or generate revenue streams for new projects.			
3P2 Lead by example.			3P2.1 Lead The Corporation to embed the Triple Bottom Line Policy into decision-making.			Corporate environmental stewardship requires policy development, reporting and continuous performance improvement. The Green Fleet, Green Office and Corporate Waste Reduction programs are led by EPP demonstrating our support for The City's environmental goals. EPP also implements the Triple Bottom Line Policy putting into practice The City's goals for environmental sustainability. Environmental policy development and programs for community and Corporate education focus on changing behaviours to build the sustainable community envisioned in imagineCALGARY.			
3P3 Develop and implement programs to make it easier for the community to take action.(CFP-B4)			3P3.1 Foster behaviour change through program innovation, barrier removal and ongoing education.						
3P5 Think and act regionally.(CFP-P1,P10)			3P5.1 Align with The Corporation and the region to manage risks to air quality and achieve common goals.						
<p>Please review the business unit action approval page to see a complete list of actions that are applicable to this service</p>									

UTILITIES & ENVIRONMENTAL PROTECTION: Environmental & Safety Management: Service Highlights

Workplace Environmental & Safety Management	(\$000s)								
	2012			2013			2014		
	Expend.	Net	FTEs	Expend.	Net	FTEs	Expend.	Net	FTEs
	\$3,976	\$2,403	27	\$4,071	\$2,378	27	\$3,913	\$2,584	27

Description of Services

Environmental and safety management systems and programs

- Assess and manage Corporate occupational health and safety risks
- Develop Corporate standards, best practices and tools for environmental and safety compliance
- Provide occupational health programs for all City departments

- Provide safety expertise to front-line operations
- Set Corporate targets and report performance on workplace environment and safety goals
- Audit environmental, occupational health and safety management systems
- Develop and deliver safety education and awareness programs

Highlighted Strategies

3P2 Lead by example.

Highlighted Actions

3P2.3 Provide Corporate leadership to improve environmental performance and achieve efficiencies through the use of environmental management systems.

4P1 Continually improve on asset management.
(CFP-Z1,Z5)

4P1.1 Leverage tools and technology to support operations and realize efficiencies.

6Z1 Improve health and safety for all City employees.
(CFP-Z6)

6Z1.1 Foster a culture of health and safety performance by providing Corporate focus and leadership and demonstrating measurable improvement.

6Z1.2 Strengthen Corporate occupational health and safety goal setting, prioritization and performance measurement.

6Z1.4 Continue to ensure the use of the occupational health and safety management system and implement an internal audit protocol to continually improve performance.

Business Plan and Budget Highlights

Workplace Environmental & Safety Management (WESM) provides Corporate leadership in environmental and occupational health and safety management. WESM supports City departments in ensuring all employees have consistent and appropriate support and access to programs and tools through the development of Corporate programs. These actions will support improved Corporate performance and regulatory compliance.

WESM focuses on efficient and effective service delivery and recognizes the need to leverage limited resources across The Corporation. Actions for 2012-2014 will focus on: improving administration of Workers' Compensation Board claims to manage financial risks; enhancing auditing of safety and environmental compliance; supporting departments to prepare for the Certificate of Recognition (COR) audit; reviewing and enhancing existing environmental and occupational health and safety management systems; addressing increasing internal demand for corporate safety communications and occupational hygiene programs; and sharing and implementing best practices at all levels of the organization.

To ensure progress towards goals, WESM will report on Corporate environmental and safety performance measures and targets to support environmental stewardship and foster a strong safety culture.

Please review the business unit action approval page to see a complete list of actions that are applicable to this service

UTILITIES & ENVIRONMENTAL PROTECTION

Waste & Recycling Services	(\$ millions)									
	2012			2013			2014			
	Expend.	Net	FTEs	Expend.	Net	FTEs	Expend.	Net	FTEs	
	\$125.4	\$34.9	549	\$129.7	\$35.2	561	\$134.3	\$35.5	573	

Overview

Waste & Recycling Services' (WRS) operating and capital costs are funded through a combination of self-supporting fees and property taxes. Effective waste diversion and management is essential to protecting public health and the environment. WRS's focus is to reduce the amount of material going to landfill by maximizing waste diversion across all customer sectors.

WRS provides collection service for residential garbage, some commercial garbage, residential blue cart recycling and community recycling depots. WRS operates and manages The City's active and former landfills to ensure compliance with regulatory requirements and approvals to operate. WRS develops and delivers education programs to support citizens to reduce, reuse and recycle. WRS also operates community-based waste diversion programs including leaf and pumpkin composting, Christmas tree collection and mulching, household chemical, electronics and paint recycling.

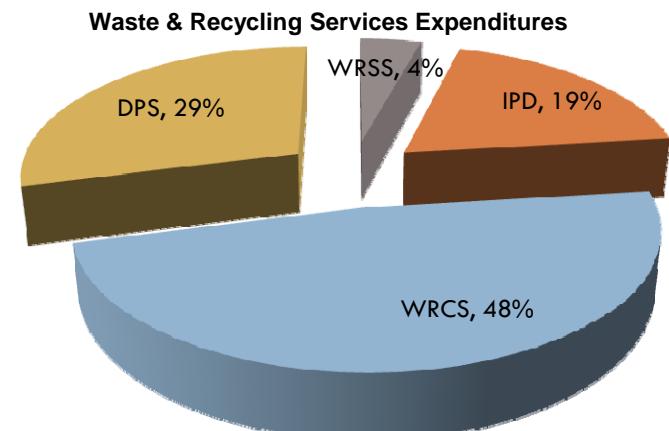
List of Services

- Collection Services - WRCS
- Disposal & Processing Services - DPS
- Infrastructure & Program Development - IPD
- Strategic Services - WRSS

Achieving Council's Fiscal Plan/Addressing Sustainability and Long Term Plans

In 2012-2014, WRS will continue to make progress toward 80/20 by 2020 and support a sustainable future for current and future generations. A key focus is Council's direction to develop and implement comprehensive waste diversion strategies, including the required capital plan. WRS will plan, test and evaluate a residential food and yard waste diversion program and make a recommendation to Council for a future city-wide program. Based on Council's approval, WRS will design and begin construction of a food and yard waste processing facility and will research, review, and evaluate new technology and processes. WRS will also continue to investigate new waste diversion programs, including construction and demolition waste diversion, multi-family recycling and industrial, commercial and institutional waste diversion.

(\$ millions)



WRS will continue to ensure citizens are satisfied by continuing to deliver efficient and timely collection services and engage them to understand expectations and stay informed about the services we deliver.

WRS will continue to focus on innovation, collection efficiency and benchmarking to provide cost effective service delivery. The introduction of automated black cart collection allowed WRS to maintain high levels of customer satisfaction while creating operational efficiencies and reinvesting savings to keep pace with residential growth and support diversion programs. Cart collection also dramatically reduced work place injuries experienced through hand collection. WRS will continue to focus on operating facilities and systems to comply with regulations and approvals to operate. Mitigating the impact of WRS business on the environment will support the achievement of the goals outlined in the 2020 Sustainability Direction.

WRS will strengthen its financial and business capacity and will prioritize infrastructure planning to ensure investments are directed toward highest business value. WRS will manage infrastructure through its full lifecycle to mitigate risk and conduct a landfill lifecycle evaluation including closure and post closure care and liability management.

UTILITIES & ENVIRONMENTAL PROTECTION: Waste & Recycling Services: Actions for Council Approval

	Strategies	Actions	Accountable Services
Community	1C1 Deliver and demonstrate value to citizens and customers. (CFP-Z7)	1C1.1 Engage in dialogue with citizens and customers to understand their expectations and help them stay engaged and informed about programs and services. 1C1.2 Build public trust by effectively and efficiently providing valuable services. 1C1.3 Measure, benchmark and report our performance on a regular basis.	WRSS
Community	1C2 Provide excellent customer service. (CFP-B1, Z7)	1C2.1 Develop a customer centric organization where in our everyday operations, customer service is respectful, reliable, responsive and responsible.	DPS, WRCS
Community	1C3 Make it easy to do business with us. (CFP-Z5, Z7, Z9)	1C3.1 Provide transparent and timely information and access to services through multiple channels for both customers and the community.	WRSS
Community	1C4 Build productive working relationships with stakeholders to achieve common goals.(CFP-Z3, Z5)	1C4.1 Leverage relationships with partners, stakeholders and The Corporation to deliver programs and services.	WRSS

For Council Approval

For Council Information

Community	Places	Mobility	Business	Organization	Finance
WRCS Collection Services	DPS Disposal & Processing Services	IPD Infrastructure & Program Development		WRSS Strategic Services	

UTILITIES & ENVIRONMENTAL PROTECTION: Waste & Recycling Services: Actions for Council Approval

	Strategies	Actions	Accountable Services
Community	2C1 Focus on our financial health. (CFP-Z2, Z10)	2C1.1 Continue to evolve WRS' financial plan to align future funding requirements with the 80/20 by 2020 goal. 2C1.2 Develop management and leadership financial competencies to support evaluation and decision making. 2C1.3 Conduct a landfill lifecycle evaluation including closure and post closure care and liability management.	IPD, WRSS
Community	2C2 Increase efficiencies and transparency. (CFP-Z2, Z3, Z10)	2C2.1 Understand customers' perception of value and demonstrate the value they receive through the fees they pay. 2C2.2 Develop a culture of program evaluation, understand our cost of doing business and look for opportunities to improve efficiency and effectiveness. 2C2.3 Prepare for the Corporate zero-based review program, including review of services and programs for customers' value, efficiency and delivery method, if so directed.	WRSS Business Unit Wide Business Unit Wide
Community	2C3 Benchmark our performance. (CFP-Z2, Z3)	2C3.1 Develop and enhance WRS' performance management system and continue to participate in benchmarking initiatives.	WRSS
Places	3P1 Meet regulatory requirements to protect public health.	3P1.1 Operate facilities and systems to ensure compliance with regulatory requirements and licences and approvals to operate.	DPS

For Council Approval

For Council Information

Community	Places	Mobility	Business	Organization	Finance
WRCS Collection Services	DPS Disposal & Processing Services	IPD Infrastructure & Program Development		WRSS Strategic Services	

UTILITIES & ENVIRONMENTAL PROTECTION: Waste & Recycling Services: Actions for Council Approval

	Strategies	Actions	Accountable Services
Places	3P2 Lead by example.	<p>3P2.1 Model sustainable approaches that have a positive impact on environmental, social and economic outcomes.</p> <p>3P2.2 Mitigate the impact of our business on the air, land and water to align with environmental goals.</p>	WRSS Business Unit Wide
Places	3P3 Develop and implement programs to make it easier for the community to take action. (CFP-B4)	<p>3P3.1 Foster behaviour change through program innovation, removing barriers and ongoing education.</p> <p>3P3.2 Manage and improve existing diversion strategies for customer groups to achieve 80/20 by 2020.</p>	WRSS IPD, WRSS
Places	3P4 Ensure integrated resource management planning. (CFP-P8)	3P4.1 Deliver on the targets and actions embedded in the 80/20 by 2020 waste diversion strategy.	Business Unit Wide
Places	3P5 Think and act regionally. (CFP-P1, P10)	3P5.1 Collaborate with regional partners to achieve diversion outcomes.	WRSS

For Council Approval

For Council Information

Community	Places	Mobility	Business	Organization	Finance
WRCS Collection Services	DPS Disposal & Processing Services	IPD Infrastructure & Program Development		WRSS Strategic Services	

UTILITIES & ENVIRONMENTAL PROTECTION: Waste & Recycling Services: Actions for Council Approval

	Strategies	Actions	Accountable Services
Places	3P6 Develop and implement comprehensive waste diversion strategies, which continues progress towards 80/20 by 2020. (CFP-P9*)	3P6.1 Plan, test and evaluate a residential food and yard waste diversion program.	WRCS, IPD, WRSS
Places	4P1 Continually improve on asset management. (CFP-Z1, Z5)	4P1.1 Develop and implement asset management plans in accordance with Corporate framework. 4P1.2 Leverage tools and technology to support operations and realize efficiencies. 4P1.3 Continuous improvement in making day-to-day operations more efficient and effective. 4P1.4 Build capacity and understanding of asset management across the business to align and improve decision-making and program delivery.	IPD DPS, IPD, WRCS DPS, WRCS IPD
Places	4P2 Manage risks to our infrastructure.	4P2.1 Conduct condition and risk assessments for prioritized asset classes to ensure reinvestment are directed to higher risk assets. 4P2.2 Prioritize infrastructure investment planning to ensure investments are directed toward highest business value in the long-term. 4P2.3 Manage infrastructure through its full lifecycle and optimize lifecycle cost and mitigate risk.	IPD IPD, WRCS DPS, IPD, WRCS
Places	4P4 Develop and implement a capital plan, which continues progress towards 80/20 by 2020. (CFP-P9*)	4P4.1 Design and begin construction of a residential food and yard waste processing facility.	DPS, IPD

For Council Approval

For Council Information

Community	Places	Mobility	Business	Organization	Finance
WRCS Collection Services	DPS Disposal & Processing Services	IPD Infrastructure & Program Development		WRSS Strategic Services	

UTILITIES & ENVIRONMENTAL PROTECTION: Waste & Recycling Services: Actions for Council Approval

	Strategies	Actions	Accountable Services
Organization	5Z1 Invest in the learning and development of our employees. (CFP-Z1, Z6)	5Z1.1 Develop and prioritize learning and development plans and resources in UEP and align with emerging organizational needs. 5Z1.2 Plan for employee transitions (e.g. knowledge management, competencies, job design, mentoring) and increase organizational performance capacity. 5Z1.3 Promote and celebrate employee learning and development.	Business Unit Wide Business Unit Wide Business Unit Wide
Organization	5Z2 Invest in the growth of our leaders. (CFP-Z1, Z6)	5Z2.1 Create opportunities for leaders to increase their self awareness, explore their leadership strengths and skills, and enhance their working relationships. 5Z2.2 Foster and support leadership communications that inspire employees' trust. 5Z2.3 Improve managerial competency in applying policies and processes in day-to-day work increasing understanding of and access to tools and systems.	Business Unit Wide Business Unit Wide Business Unit Wide
Organization	5Z3 Increase employee participation to support a meaningful connection to the workplace. (CFP-Z1, Z6)	5Z3.1 Support and encourage all employees to fulfill their organizational accountabilities and exemplify organizational values. 5Z3.2 Showcase and celebrate the accomplishments of teams and employees. 5Z3.3 Undertake initiatives that remove barriers and support inclusiveness of our workplace to achieve resiliency.	Business Unit Wide Business Unit Wide Business Unit Wide
Organization	5Z4 Improve health and safety for UEP employees. (CFP-Z6)	5Z4.1 Support resiliency and improve ability to meet job requirements by increasing employee understanding of wellness and occupational health and safety programs. 5Z4.2 Support productivity by addressing occupational health, safety and wellness priorities. 5Z4.3 Increase management and employee understanding of occupational health and safety legislation and corporate program requirements.	Business Unit Wide Business Unit Wide Business Unit Wide

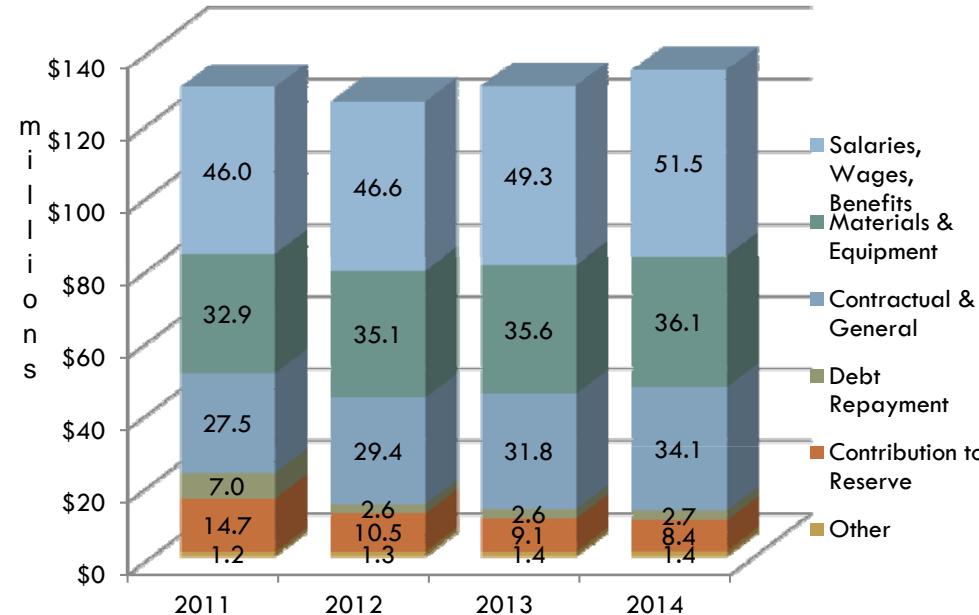
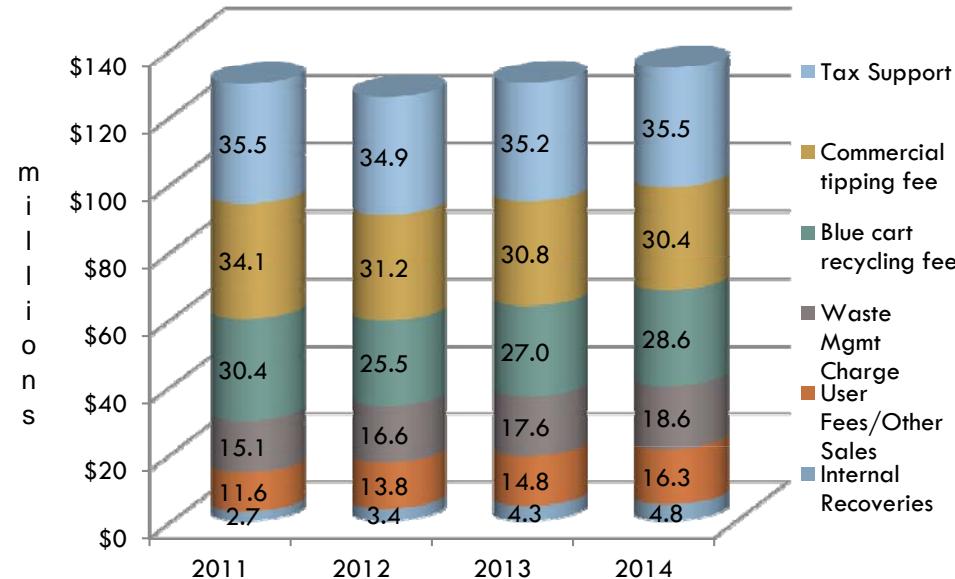
For Council Approval

For Council Information

Community	Places	Mobility	Business	Organization	Finance
WRCS Collection Services	DPS Disposal & Processing Services	IPD Infrastructure & Program Development		WRSS Strategic Services	

UTILITIES & ENVIRONMENTAL PROTECTION: Waste & Recycling Services: Business Plan & Budget Highlights

Funding Summary



Changes to rates for 2012-2014 are proposed and subject to Council approval as detailed in the Business Unit User Fee Schedules (Attachment 2).

Breakdown of Operating Budget (\$ millions)

	2011 Budget			2012 Budget			2013 Budget			2014 Budget		
	Expend	Net	FTE									
Director's Office	\$3.6	\$3.6	3	\$3.7	\$3.7	3	\$3.9	\$3.9	3	\$4.0	\$4.0	3
Major Revenues	0.0	(79.6)	0	0.0	(73.3)	0	0.0	(75.4)	0	0.0	(77.6)	0
Capital Costs	7.0	6.2	0	2.6	0.7	0	2.6	1.1	0	2.7	1.1	0
Contribution to Reserve	14.7	14.7	0	10.5	10.5	0	9.1	9.1	0	8.4	8.4	0
<u>Services:</u>												
Collection Services	52.6	47.3	390	53.2	47.7	355	54.7	49.0	357	56.3	50.2	360
Disposal & Processing Services	29.0	25.8	140	30.9	27.2	145	33.2	29.0	152	35.4	30.2	160
Infrastructure & Program Development	19.2	14.2	20	20.2	14.1	22	21.4	13.8	23	22.2	14.0	23
Strategic Services	3.5	3.5	19	4.3	4.3	24	4.8	4.8	26	5.2	5.2	27
TOTAL WASTE & RECYCLING SERVICES	\$129.6	\$35.7	573	\$125.4	\$34.9	549	\$129.7	\$35.2	561	\$134.3	\$35.5	573

UTILITIES & ENVIRONMENTAL PROTECTION: Waste & Recycling Services: Business Plan & Budget Highlights

Productivity Gain (budget reduced with no service impact)

Full implementation of automated residential garbage collection has resulted in a reduction of 66 FTEs in collection staff over 2 years. There will be a reduction of 48 FTEs in 2012; 18 FTEs were also given up in 2011. A portion of the savings realized will allow WRS to deliver the residential food and yard waste diversion pilot.

Rates

Through program efficiency, the 2012 blue cart recycling fee has been reduced by 19% from 2011, which represents a \$5.7 million savings to blue cart customers. The fee is projected to increase by 3.9% in each of 2013 and 2014 to address higher operating and capital costs, remaining below the current 2011 rate.

Service and Budget Increases

The following provides budget details to enable Waste & Recycling Services to achieve the priorities outlined in Council's Fiscal Plan, specifically development and implementation of comprehensive waste diversion strategies, and make progress on the environmental objectives in the 2020 Sustainability Direction.

The tax rate and fee structure will enable WRS to:

- Ensure environmental and regulatory compliance (\$300 thousand/2 FTEs in 2012, \$150 thousand/1 FTE in 2013 and \$300 thousand/2FTEs in 2014).
- Accommodate residential growth in new communities (\$200 thousand/4 FTEs in 2012, \$200 thousand/2 FTEs in 2013 and \$200 thousand/3 FTEs in 2014).
- Increase waste diversion opportunities (\$800 thousand/11 FTEs in 2012, \$700 thousand/6 FTEs in 2013, and \$500 thousand/6 FTEs in 2014).
- Support education and awareness to encourage citizens to take action and make progress on waste diversion goals (\$400 thousand/4 FTEs in 2012, with a further increase of \$100 thousand/1FTE in 2013).

- Strengthen financial management, business performance and benchmarking (\$100 thousand/1 FTE in each of 2012, 2013 and 2014).
- Deliver on WRS's capital program (\$300 thousand/2 FTEs in 2012, with a further increase of \$150 thousand/1 FTE in 2013).
- Provide for inflationary increases (approximately \$2.2 million annually).

Rates

- The waste management charge will increase by 3.9% annually for 2012-2014.
- The commercial landfill tipping fee will increase by 3.9% annually for 2012-2014.
- The increases address higher operating and capital costs.

Budget Reductions with Service Impact

There are no budget reductions with service impacts. The budget changes will enable WRS to leverage productivity gains to continue to meet regulatory requirements, protect public health and deliver quality service to customers.

Summary of net operating budget changes (\$000's)

	<u>2012</u>	<u>2013</u>	<u>2014</u>
Productivity Gain (Budget reduced with no service impact)	(\$2,250)	\$0	\$0
Service and budget increases	1,629	325	325
Budget reductions with service impact	0	0	0
Total base changes	(621)	325	325
One-Time	0	0	0
Less: Prior Year's One-time	(200)	0	0
Total budget changes	(\$821)	\$325	\$325

UTILITIES & ENVIRONMENTAL PROTECTION: Waste & Recycling Services: Capital Projects Requiring Approval

(\$000s)

\$131,083

For Council Approval at Program-Project level
as per Department Capital Plan report

Program- Project	Project Description	Type	Cat.	(A)		(B)	Budget Request	2012	2013	2014	2015	2016	(C)=(A)+(B) 2012-2016
				Prev. Approved Budget	Prev. Approved up to 2011								
256-000	Landfill/Treatment Infrastructure	M	A	23,639	40,350	7,727	16,802	14,300	9,300	7,200	475	48,077	
256-000	Landfill/Treatment Infrastructure	M	C	0	0	54,147	10,377	14,930	22,340	2,300	4,200	54,147	
Total Program 256 : Landfill/Treatment Infrastructure				23,639	40,350	61,874	27,179	29,230	31,640	9,500	4,675	102,224	
257-000	Diversion Infrastructure	S	C	0	0	11,500	6,000	5,500	0	0	0	11,500	
Total Program 257 : Diversion Infrastructure				0	0	11,500	6,000	5,500	0	0	0	11,500	
258-000	Facilities & Equipment	U	C	0	0	57,709	13,362	24,865	19,482	0	0	57,709	
Total Program 258 : Facilities & Equipment				0	0	57,709	13,362	24,865	19,482	0	0	57,709	
Operating costs of capital of Program 258												0	
2012-2014 Operating Budget								150	150	150	N/A	N/A	450
				23,639	40,350	131,083	46,541	59,595	51,122	9,500	4,675	171,433	

Note:

Type: M=Maintenance/Replacement, U=Upgrade, G=Growth, S=Service Change

Category: A=Project in Progress, C>New Project, O1=2012-2014 Operating Cost

Budgets and/or operating costs of capital beyond 2016 are included in 2016 and are detailed in the Explanation section

Funding For Capital Projects

Federal Gas Tax Fund (GTF)	16,280	16,405	14,670	9,500	4,675	61,530
Revenue/Reserves	30,261	43,190	20,419	0	0	93,870
Self-supported Debts	0	0	16,033	0	0	16,033
Total Funding	46,541	59,595	51,122	9,500	4,675	171,433

UTILITIES & ENVIRONMENTAL PROTECTION: Waste & Recycling Services : 2012 - 2016 Capital Plan Project Listing

Prog.	Proj.	Project Description	Cat.	Type	(A) Prev. Approved Budget up to 2011	(\$000s)					(B) Total 2012- 2016	(C)= (A)+(B) Total Project Costs
						2012	2013	2014	2015	2016		
256	000	Landfill/Treatment Infrastructure	A	M	23,639	16,802	14,300	9,300	7,200	475	48,077	71,716
256	000	Landfill/Treatment Infrastructure	C	M	0	10,377	14,930	22,340	2,300	4,200	54,147	54,147
256	000	Landfill/Treatment Infrastructure	D	M	0	0	0	0	6,830	19,855	26,685	26,685
257	000	Diversion Infrastructure	A	S	453	250	17,348	250	280	0	18,128	18,581
257	000	Diversion Infrastructure	C	S	0	6,000	5,500	0	0	0	11,500	11,500
257	000	Diversion Infrastructure	D	S	0	0	0	0	34,810	30,880	65,690	65,690
258	000	Facilities & Equipment	A	U	27,597	13,968	13,605	4,793	0	0	32,366	59,963
258	000	Facilities & Equipment	C	U	0	13,362	24,865	19,482	0	0	57,709	57,709
258	000	Facilities & Equipment	D	U	0	0	0	0	16,340	14,760	31,100	31,100
Total Waste & Recycling Services					51,689	60,759	90,548	56,165	67,760	70,170	345,402	397,091

Category of Project: A=Projects in Progress, C=New Projects, D=Projects Commencing in Future

Type of Project: M=Maintenance/Replacement, U=Upgrade, G=Growth, S=Service Change

UTILITIES & ENVIRONMENTAL PROTECTION: Waste & Recycling Services: Capital Projects Requiring Approval

Explanation of Budget Requests

Program 256 : Landfill/Treatment Infrastructure

Project 256-000: Landfill/Treatment Infrastructure

Previously Approved Budget up to 2011 of \$23.639 million which represents spending to end of 2011 for replacement and maintenance of landfill, leachate collection system, landfill cells, and remediated areas, with funding from Federal Gas Tax Fund (GTF) grant of \$6.899 million, Waste & Recycling Services Reserve of \$13.240 million and Pay-As-You-Go of \$3.5 million. This project will be at 50% completion at end of 2011.

Previously Approved Budget for Future Years of \$40.35 million for completion of landfill remediation work, leachate collection system, and landfill cell construction, with funding from GTF grant of \$9.632 million, Waste & Recycling Services Reserve of \$11.184 million and self-supported debt of \$19.534 million.

New Budget Request of \$7.727 million for additional work on storm ponds, landfill cell construction, and remediation due to scope change, with funding from GTF grant of \$3.919 million and Waste & Recycling Services Reserve of \$3.808 million.

Project 256-000: Landfill/Treatment Infrastructure

New Budget Request of \$54.147 million for design and construction of landfill bioreactor cells, repair and paving of landfill roads leading to leachate collection sumps, as well as continuous replacement and maintenance work on leachate collection systems, cell lining and remediation project, with funding from GTF grant of \$12.6 million, Waste & Recycling Services Reserve of \$37.547 million and self-supported debt of \$4 million.

Program 257 : Diversion Infrastructure

Project 257-000: Diversion Infrastructure

New Budget Request of \$11.500 million for recycling campus site development, with funding from Waste & Recycling Sustainability Reserve. This consists of site remediation, design and construction of roadways, underground infrastructure and site grading.

Operating costs of capital: This program requires \$300 thousand in operating costs and 2.0 FTE for the 2012-2014 budget cycle.

Program 258 : Facilities & Equipment

Project 258-000: Facilities & Equipment

New Budget Request of \$57.709 million for building scalehouse, operations depot and truck shelter at the 3 landfills, drainage ditches construction and wetland treatment for stormwater collection, landfill gas collection system extension, IT asset upgrade and replacement, landfill building maintenance and life cycle replacement of collection carts and bins, with funding from GTF grant of \$24.475 million, Waste & Recycling Services Reserve of \$25.701 million and self-supported debt of \$7.533 million.

Operating costs of capital: This program requires \$450 thousand in operating costs and 4.0 FTE for the 2012-2014 budget cycle.

UTILITIES & ENVIRONMENTAL PROTECTION: Waste & Recycling Services: Service Highlights

Collection Services	(\$000s)								
	2012			2013			2014		
	Expend.	Net	FTEs	Expend.	Net	FTEs	Expend.	Net	FTEs
	\$53,170	\$47,711	355	\$54,734	\$48,967	357	\$56,278	\$50,237	360

Description of Services

Residential and non-residential waste and recycling collection

- Provide residential black cart waste collection
 - Provide contracted non-residential waste collection
 - Provide contracted residential blue cart recycling collection
- Operate community recycling depots
 - Manage Waste & Recycling Services fleet
 - Implement new technology to improve collection efficiency

Highlighted Strategies

1C1 Deliver and demonstrate value to citizens and customers.(CFP-Z7)

1C2 Provide excellent customer service.(CFP-B1,Z7)

4P1 Continually improve on asset management.
(CFP-Z1,Z5)

4P2 Manage risks to our infrastructure.

Highlighted Actions

1C1.2 Build public trust by effectively and efficiently providing valuable services.

1C2.1 Develop a customer centric organization where in our everyday operations, customer service is respectful, reliable, responsive and responsible.

4P1.2 Leverage tools and technology to support operations and realize efficiencies.

4P1.3 Continuous improvement in making day-to-day operations more effective and efficient.

4P2.2 Prioritize infrastructure investment planning to ensure investments are directed toward highest business value in the long-term.

Business Plan and Budget Highlights

Collection Services provides residential and some non-residential waste and recycling collection services to Calgarians.

In 2012-2014, Collection Services' key focus will be to maintain our strong customer service satisfaction levels. This will be achieved by continuing to deliver efficient and timely collection while engaging stakeholders in dialogue to understand their expectations and help them stay informed about services. This customer-centric approach will continue to build public trust in the services provided.

Collection Services will work closely with Fleet Services to pursue operational efficiencies related to vehicles. Collection Services will also leverage tools and technology to improve service delivery and efficiency. Safety will continue to be a priority for Collection Services as improvements are made in day-to-day operations. The introduction of automated cart collection for blue cart recycling and black cart garbage has allowed WRS to maintain high levels of customer satisfaction while reducing work place injuries related to hand collection.

Automated collection is more cost efficient and the savings achieved have been reinvested to keep pace with residential growth and inflation and support more waste diversion. Beginning in 2012 January, blue cart customers will benefit from the efficiencies gained and see a reduction in the monthly blue cart recycling fee. All residential waste collection activities are fully tax funded. In 2012-2014, WRS will continue to focus on innovation and collection efficiency to provide further cost effective delivery of service.

Please review the business unit action approval page to see a complete list of actions that are applicable to this service

UTILITIES & ENVIRONMENTAL PROTECTION: Waste & Recycling Services: Service Highlights

Disposal & Processing Services	(\$000s)								
	2012			2013			2014		
	Expend.	Net	FTEs	Expend.	Net	FTEs	Expend.	Net	FTEs
	\$30,893	\$27,189	145	\$33,221	\$29,016	152	\$35,383	\$30,197	160

Description of Services

Manage active and inactive City-owned landfills to protect public health and the environment

- Manage and dispose of municipal and non-hazardous industrial waste, including:
 - Leachate collection and pre-treatment/treatment
 - Environmental monitoring
 - Post-closure management of former landfill sites

- Onsite stormwater management
- Landfill gas collection and utilization
- Provide onsite customer service at Shepard, East Calgary and Spyhill landfills
- Ensure compliance with all operating approvals federal and provincial laws
- Manage materials from diversion programs, such as leaf and pumpkin, Christmas tree program, construction & demolition waste, appliance recycling
- Provide provincially mandated diversion for oil, tires, electronics and paint
- Collect, transport, recycle and dispose household hazardous waste

Highlighted Strategies

1C2 Provide excellent customer service.(CFP-B1,Z7)

2C2 Increase efficiencies and transparency.
(CFP-Z2,Z3,Z10)

3P1 Meet regulatory requirements to protect public health.

3P2 Lead by example.

4P1 Continually improve on asset mananagment.
(CFP-Z1,Z5)

Highlighted Actions

1C2.1 Develop a customer centric organization where in our everyday operations, customer service is respectful, reliable, responsive and responsible.

2C2.2 Develop a culture of program evaluation, understand our cost of doing business and look for opportunities to improve efficiency and effectiveness.

3P1.1 Operate facilities and systems to ensure compliance with regulatory requirements and licences and approvals to operate.

3P2.2 Mitigate the impact of our business on the air, land and water to align with environmental goals.

4P1.3 Continous improvement in making day-to-day operations more effective and efficient.

Business Plan and Budget Highlights

In 2012-2014, Disposal & Processing Services will continue to focus on the effective, safe and environmentally responsible operation of City-owned landfills and long-term care of the City's former landfill sites.

Disposal & Processing Services ensures ongoing compliance with regulatory requirements and approvals to operate landfills. With increasingly stringent regulations, additional operational staff are required. Regulatory compliance activities include soil conservation, leachate, stormwater, and landfill gas management systems. Closure and post-closure landfill care and liability management are core functions performed to minimize environmental and regulatory risk.

Operational staff are also required to improve customer service and the safety of commercial customers and the public through the upgrading of landfill scale houses and throw 'n go facilities. Other priorities include the continuous improvement of on-site waste diversion opportunities including the extension of the construction & demolition recycling program, household hazardous waste collection, electronics recycling and organics composting. These programs will continue to advance progress towards the 80/20 by 2020 goal. To deliver on these priorities, Disposal & Processing Services requires additional resources that will be accommodated within the fees.

Please review the business unit action approval page to see a complete list of actions that are applicable to this service

UTILITIES & ENVIRONMENTAL PROTECTION: Waste & Recycling Services: Service Highlights

Infrastructure & Program Development	(\$000s)								
	2012			2013			2014		
	Expend.	Net	FTEs	Expend.	Net	FTEs	Expend.	Net	FTEs
	\$20,215	\$14,070	22	\$21,387	\$13,782	23	\$22,244	\$13,965	23
Description of Services									
<i>Infrastructure planning and project management, and program development for waste management</i> <ul style="list-style-type: none"> • Plan and manage assets to meet long-term waste management goals • Design, develop and construct infrastructure to support waste management disposal and treatment, collection and diversion • Advocate waste management services perspectives in the planning and development process 					<ul style="list-style-type: none"> • Incorporate technology and data management to support efficient and effective waste and recyclables collection • Research waste diversion initiatives and technologies to support operational efficiencies and effective customer service • Design and implement waste diversion programs and facilitate existing programs (e.g. blue cart collection, leaf and pumpkin, Christmas tree programs) • Engage stakeholder groups in support of waste diversion strategies for multi-family residential and construction & demolition waste recycling 				
Highlighted Strategies			Highlighted Actions			Business Plan and Budget Highlights			
3P4 Ensure integrated resource management planning.(CFP-P8)			3P4.1 Deliver on the targets and actions embedded in the 80/20 by 2020 waste diversion strategy.			IPD will continue to plan and build the necessary infrastructure and support efficient and effective delivery of programs to achieve waste diversion targets. IPD will focus on the design and development of food and yard waste diversion programs. IPD will also research, review, and evaluate new technology and processes that will continue to advance progress towards the 80/20 by 2020 goal.			
4P1 Continually improve on asset management. (CFP-Z1,Z5)			4P1.2 Leverage tools and technology to support operations and realize efficiencies. 4P1.4 Build capacity and understanding of asset management across the business to align and improve decision-making and program delivery.			IPD will conduct development reviews to advance the Municipal Development Plan goals for waste reduction through waste conscious design practices and advocacy for the use of recycled materials and material reuse during construction and demolition.			
4P2 Manage risks to our infrastructure.			4P2.3 Manage infrastructure through its full lifecycle and optimize lifecycle cost and mitigate risk.			IPD supports WRS to enhance collection efficiency and effectiveness. For example, ongoing advancements in GIS-based technology will be used to continue to refine collection route designs. Infrastructure priorities include completing a 10-year capital program. Key areas of construction are supporting facilities, diversion, and environmental and regulatory infrastructure including: new entrance ways; scale houses and material sorting areas; a residential food and yard waste processing facility; and landfill gas management systems.			
4P4 Develop and implement a capital plan which continues progress towards 80/20 by 2020. (CFP-P9*)			4P4.1 Design and begin construction of a residential food and yard waste processing facility.			Additional resources will be required to support capital projects and will be funded through the capital budget. In alignment with the Corporate framework, IPD will manage capital infrastructure and asset management for WRS, increasing transparency and accountability. In 2012-2014, IPD will engage stakeholders in the development of diversion strategies for multi-family recycling and construction and demolition waste.			
<p>Please review the business unit action approval page to see a complete list of actions that are applicable to this service</p>									

UTILITIES & ENVIRONMENTAL PROTECTION: Waste & Recycling Services: Service Highlights

Strategic Services	(\$000s)								
	2012			2013			2014		
	Expend.	Net	FTEs	Expend.	Net	FTEs	Expend.	Net	FTEs
	\$4,335	\$4,335	24	\$4,828	\$4,828	26	\$5,177	\$5,177	27
Description of Services									
<p>Strategic planning to achieve integrated waste resource management and business planning and performance.</p> <ul style="list-style-type: none"> Provide strategic leadership in creating long-term vision for waste diversion to meet the demands of a growing city Support the achievement of goals through business planning, performance management and continuous improvement 					<ul style="list-style-type: none"> Support customer service excellence and manage stakeholder relations Deliver a suite of community outreach and public education programs that support waste management goals Research and review of technology and programs to achieve long-term waste management goals Develop employees so they have the knowledge, skills and abilities required to excel in their roles 				
Highlighted Strategies			Highlighted Actions			Business Plan and Budget Highlights			
1C1 Deliver and demonstrate value to citizens and customers.(CFP-Z7)			1C1.1 Engage in dialogue with citizens and customers to understand their expectations and help them stay engaged and informed about programs and services.			Strategic Services provides strategic planning for the business unit to ensure continued progress towards achieving the 80/20 by 2020 waste diversion goal.			
2C2 Increase efficiencies and transparency. (CFP-Z2,Z3,Z10)			2C2.2 Develop a culture of program evaluation, understand our cost of doing business and look for opportunities to improve efficiency and effectiveness.			Strategic Services advances waste reduction, reuse and recycling by engaging citizens and industry through targeted education, policies and programs aimed at changing behaviour.			
3P2 Lead by example.			3P2.2 Mitigate the impact of our business on the air, land and water to align with environmental goals.			In 2012-2014, Strategic Services will focus on comprehensive waste diversion programs critical to achieving the 80/20 by 2020 goal including strategies for food and yard waste, industrial, commercial and institutional waste, and construction & demolition waste strategies. These strategies reduce the amount of material going to landfills and mitigate the impact on land, air and water.			
3P3 Develop and implement programs to make it easier for the community to take action.(CFP-B4)			3P3.1 Foster behaviour change through program innovation, barrier removal and ongoing education.			Strategic Services supports employee development and effectiveness for Waste & Recycling Services through competency management, training, mentoring and strengthening leadership skills.			
3P4 Ensure integrated resource management planning. (CFP-P8)			3P4.1 Deliver on the targets and actions embedded in the 80/20 by 2020 waste diversion strategy.			Other priorities include financial management, performance management and benchmarking to improve business efficiency across the business unit. Growth is required to advance these outcomes. A continued focus on increasing transparency and accountability will support WRS' ongoing efforts to become a more effective and disciplined organization.			
<p>Please review the business unit action approval page to see a complete list of actions that are applicable to this service</p>									

UTILITIES & ENVIRONMENTAL PROTECTION

Utilities (Water Resources and Water Services)	(\$ millions)								
	2012			2013			2014		
	Expend.	Net	FTEs	Expend.	Net	FTEs	Expend.	Net	FTEs
	\$505.2	\$0	1,206	\$538.9	\$0	1,211	\$592.6	\$0	1,216

Overview

The Utilities consists of Water Resources and Water Services business units. Water, wastewater and drainage services are self-supported businesses from utility billing and receive no support from property taxes. The Utilities plan, design, build, operate, and maintain water, wastewater and drainage systems to supply quality drinking water, collect and treat wastewater and manage urban runoff. The Utilities operate and maintain plants and collection and distribution systems to meet regulatory requirements and safeguard public health, property and the environment. The Utilities have a responsibility to manage natural resources and work with watershed partners to protect river water quality and quantity.

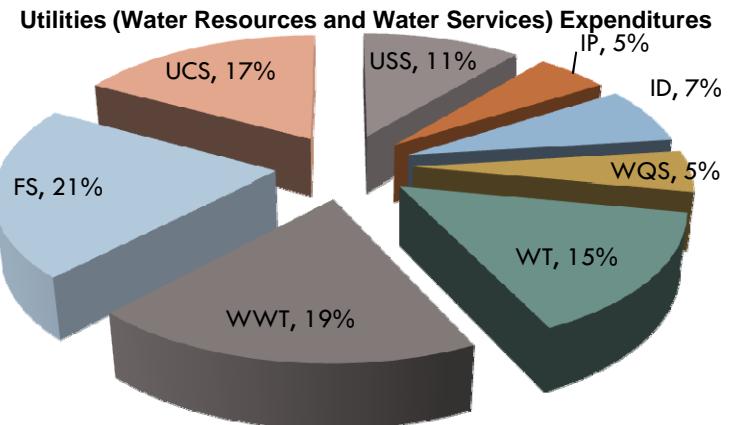
List of Services

- Construction Services - UCS
- Field Services - FS
- Infrastructure Delivery - ID
- Infrastructure Planning - IP
- Strategic Services - USS
- Wastewater Treatment - WWT
- Water Quality Services - WQS
- Water Treatment - WT

Achieving Council's Fiscal Plan/Addressing Sustainability and Long Term Plans

The Utilities is responsible for \$34 billion (replacement value) of City-owned assets, representing over half of total Corporate assets. An asset management framework is used to ensure the right money is spent at the right time to deliver the right services to a growing city. The Utilities maximize the productive life of assets by careful integration of operations, maintenance and capital investments to deliver the required service in the most cost effective manner. This results in system resiliency, service reliability and financial efficiency.

The Utilities have planned a multi-pronged approach to achieving long-term financial sustainability. Financial policies and targets are being implemented to improve and communicate the Utilities' financial standing. Also, the reinstatement of acreage assessment levies, a review of operating and capital expenditures and increasing utility rates will all contribute to a sustainable future. The Utilities continue to build on a culture of operational excellence where problem-solving, teamwork and leadership results in continuous improvement and effective service delivery. The Utilities will systematically review service and program offerings for customer value and delivery method. This will be done using a zero- based philosophy, benchmarking



and performance measurement.

The Utilities are making real progress in reducing the community's impact on the environment through long-term goals for water efficiency, stormwater management and continuing advances in wastewater treatment and reuse. These goals are reflected in the 2020 Sustainability Direction. Actions for the next three years include completing the universal metering program and expanding strategies for low impact development to better manage stormwater.

Addressing Other Emerging Issues

Areas of focus for 2012-2014 include clarifying service value and citizen expectations and meeting workforce challenges due to retirements and competitive job markets. The Utilities will continue to dialogue with Calgarians to understand their expectations and help them stay informed about our services. This will provide valuable input into setting levels of service and communicating the value of services we provide. The Utilities will renew the billing and customer care service delivery model to meet the strategic needs of the business and deliver excellent customer service.

The Utilities are committed to attracting, retaining and developing employees. Along with on-going training and development, the Utilities will focus on enhancing skills in leadership, decision-making and building staff capacity in priority areas.

UTILITIES & ENVIRONMENTAL PROTECTION: Utilities (Water Resources and Water Services): Actions for Council Approval

	Strategies	Actions	Accountable Services
Community	1C1 Deliver and demonstrate value to citizens and customers. (CFP- Z7)	1C1.1 Engage in dialogue with citizens and customers to understand their expectations and help them stay engaged and informed about programs and services. 1C1.2 Build public trust by effectively and efficiently providing valuable services. 1C1.3 Measure, benchmark and report our performance on a regular basis.	Business Unit Wide Business Unit Wide USS
Community	1C2 Provide excellent customer service. (CFP-B1, Z7)	1C2.1 Develop a customer centric organization where in our everyday operations, customer service is respectful, reliable, responsive and responsible.	Business Unit Wide
Community	1C3 Make it easy to do business with us. (CFP-Z5, Z7, Z9)	1C3.1 Provide transparent and timely information and access to services through multiple channels for both customers and the community. 1C3.2 Confirm a billing and customer care service delivery model that is aligned with the customer service vision and meets the strategic needs of the business.	Business Unit Wide FS, USS
Community	1C4 Build productive working relationships with stakeholders to achieve common goals. (CFP-Z3, Z5)	1C4.1 Leverage relationships with partners, stakeholders and The Corporation to deliver programs and services.	Business Unit Wide

For Council Approval

For Council Information

Community	Places	Mobility	Business	Organization	Finance
UCS Construction Services	ID Infrastructure Delivery		USS Strategic Services	WQS Water Quality Services	
FS Field Services	IP Infrastructure Planning		WWT Wastewater Treatment	WT Water Treatment	

UTILITIES & ENVIRONMENTAL PROTECTION: Utilities (Water Resources and Water Services): Actions for Council Approval

	Strategies	Actions	Accountable Services
Community	2C2 Increase efficiencies and transparency. (CFP-Z2, Z3, Z10)	2C2.1 Understand customers' perception of value and demonstrate to customers the value they receive through the fees they pay. 2C2.2 Develop a culture of program evaluation, understand our cost of doing business and look for opportunities to improve efficiency and effectiveness. 2C2.3 Prepare for the Corporate zero-based review program, to including review of services and programs for customers' value, efficiency and delivery method, if so directed.	USS
Community	2C3 Benchmark our performance. (CFP-Z2, Z3)	2C3.1 Enhance the Water utility performance management system and continue to participate in benchmarking initiatives.	Business Unit Wide
Community	2C4 Implement a financial plan to ensure the financial sustainability of City of Calgary Water Services. (CFP-C7*)	2C4.1 Align financial and business planning with capital and operating requirements to manage risk. 2C4.2 Implement financial policies and targets including minimizing borrowing and debt service costs to support growth and infrastructure serviceability. 2C4.3 Increase financial management capacity and leadership competencies to support evaluation and decision making.	IP, USS USS Business Unit Wide
Places	3P1 Meet regulatory requirements to protect public health.	3P1.1 Operate facilities and systems to ensure compliance with regulatory requirements and licences and approvals to operate. 3P1.2 Develop and implement research programs that monitor and assess environment trends to improve decision making and meet future regulations.	FS, USS, WQS, WWT, WT USS, WQS

For Council Approval

For Council Information

Community	Places	Mobility	Business	Organization	Finance
UCS Construction Services	ID Infrastructure Delivery		USS Strategic Services	WQS Water Quality Services	
FS Field Services	IP Infrastructure Planning		WWT Wastewater Treatment	WT Water Treatment	

UTILITIES & ENVIRONMENTAL PROTECTION: Utilities (Water Resources and Water Services): Actions for Council Approval

	Strategies	Actions	Accountable Services
Places	3P2 Lead by example.	<p>3P2.1 Model sustainable approaches that have a positive impact on environmental, social and economic outcomes.</p> <p>3P2.2 Mitigate the impact of our business on the air, land and water to align with environmental goals.</p>	Business Unit Wide Business Unit Wide
Places	3P3 Develop and implement programs to make it easier for the community to take action. (CFP-B4)	3P3.1 Foster behaviour change through program innovation, removing barriers and ongoing education.	USS
Places	3P4 Ensure integrated resource management planning. (CFP-P8)	<p>3P4.1 Develop integrated water resource management programs that align with environmental goals.</p> <p>3P4.2 Ensure resource and infrastructure resiliency by addressing the risks associated with uncertain impacts of climate change.</p> <p>3P4.3 Enhance and restore riparian areas to improve flood protection and erosion control.</p>	ID, IP, USS, WQS, WWT, WT FS, ID, USS, WWT, WT IP, USS
Places	3P5 Think and act regionally. (CFP-P1, P10)	3P5.1 Align with The Corporation and the region to manage risks to our water resources and achieve common goals.	USS

For Council Approval

For Council Information

Community	Places	Mobility	Business	Organization	Finance
UCS Construction Services	ID Infrastructure Delivery		USS Strategic Services	WQS Water Quality Services	
FS Field Services	IP Infrastructure Planning		WWT Wastewater Treatment	WT Water Treatment	

UTILITIES & ENVIRONMENTAL PROTECTION: Utilities (Water Resources and Water Services): Actions for Council Approval

	Strategies	Actions	Accountable Services
Places	4P1 Continually improve on asset management. (CFP-Z1, Z5)	4P1.1 Continue with the development and implementation of asset management plans in accordance with the Corporate framework.	IP
		4P1.2 Leverage tools and technology to support operations and realize efficiencies.	Business Unit Wide
		4P1.3 Continuous improvement in making day-to-day operations more efficient and effective.	Business Unit Wide
		4P1.4 Build capacity and understanding of asset management across the business to align and improve decision-making and program delivery.	IP, USS
Places	4P2 Manage risks to our infrastructure.	4P2.1 Conduct condition and risk assessments for prioritized asset classes to ensure reinvestment are directed to higher risk assets.	FS, ID, IP, USS, WWT, WT
		4P2.2 Prioritize infrastructure and investment planning to ensure investments are directed toward highest business value in the long-term.	FS, ID, IP, WWT, WT
		4P2.3 Build and operate infrastructure through its full lifecycle and optimize lifecycle cost and mitigate risk.	Business Unit Wide
Places	4P3 Manage the challenges of continued growth of the city. (CFP-B5, P1, P10, P11)	4P3.1 Integrate growth management policies and frameworks into decision-making to support long term planning across The Corporation.	IP
		4P3.2 Ensure long range infrastructure plans and budgets align with and support City development.	IP
Organization	5Z1 Invest in the learning and development of our employees. (CFP-Z1, Z6)	5Z1.1 Develop and prioritize learning and development plans and resources in UEP and align with emerging organizational needs.	Business Unit Wide
		5Z1.2 Plan for employee transitions (e.g. knowledge management, competencies, job design, mentoring) and increase organizational performance capacity.	Business Unit Wide
		5Z1.3 Promote and celebrate employee learning and development.	Business Unit Wide

For Council Approval

For Council Information

Community	Places	Mobility	Business	Organization	Finance
UCS Construction Services	ID Infrastructure Delivery		USS Strategic Services	WQS Water Quality Services	
FS Field Services	IP Infrastructure Planning		WWT Wastewater Treatment	WT Water Treatment	

UTILITIES & ENVIRONMENTAL PROTECTION: Utilities (Water Resources and Water Services): Actions for Council Approval

	Strategies	Actions	Accountable Services
Organization	5Z2 Invest in the growth of our leaders. (CFP-Z1, Z6)	<p>5Z2.1 Create opportunities for leaders to increase their self awareness, explore their leadership strengths and skills, and enhance their working relationships.</p> <p>5Z2.2 Foster and support leadership communications that inspire employees' trust.</p> <p>5Z2.3 Improve managerial competency in applying policies and processes in day-to-day work increasing understanding of and access to tools and systems.</p>	Business Unit Wide
Organization	5Z3 Increase employee participation to support a meaningful connection to the workplace. (CFP-Z1, Z6)	<p>5Z3.1 Support and encourage all employees to fulfill their organizational accountabilities and exemplify organizational values.</p> <p>5Z3.2 Showcase and celebrate the accomplishments of teams and employees.</p> <p>5Z3.3 Undertake initiatives that remove barriers and support inclusiveness of our workplace to achieve resiliency.</p>	Business Unit Wide
Organization	5Z4 Improve health and safety for UEP employees. (CFP-Z6)	<p>5Z4.1 Support resiliency and improve ability to meet job requirements by increasing employee understanding of wellness and occupational health and safety programs.</p> <p>5Z4.2 Support productivity by addressing occupational health, safety and wellness priorities.</p> <p>5Z4.3 Increase management and employee understanding of occupational health and safety legislation and corporate program requirements.</p>	Business Unit Wide

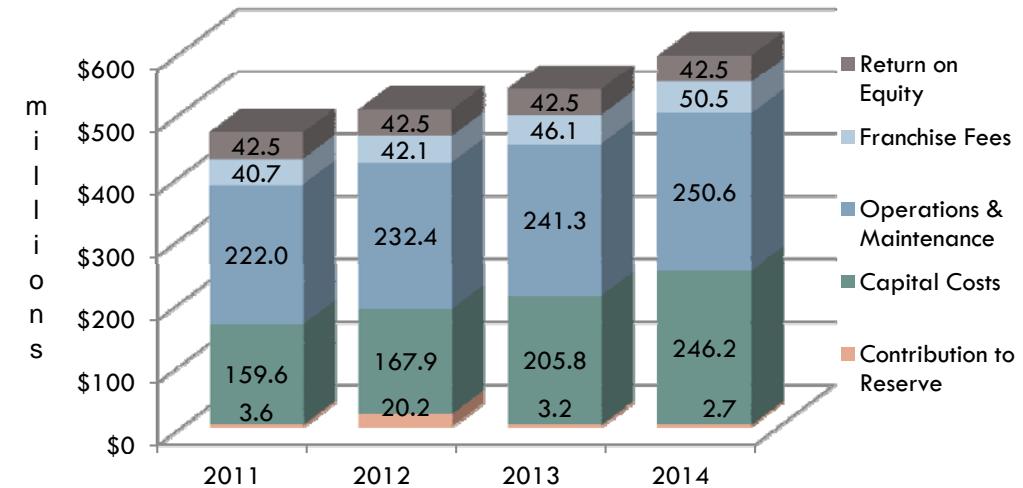
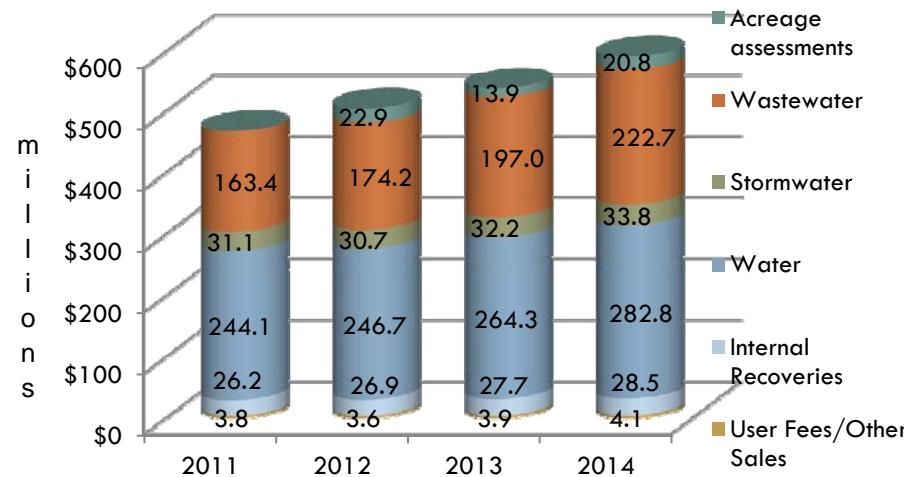
For Council Approval

For Council Information

Community	Places	Mobility	Business	Organization	Finance
UCS Construction Services	ID Infrastructure Delivery		USS Strategic Services	WQS Water Quality Services	
FS Field Services	IP Infrastructure Planning		WWT Wastewater Treatment	WT Water Treatment	

UTILITIES & ENVIRONMENTAL PROTECTION: Utilities (Water Resources and Water Services): Business Plan & Budget Highlights

Funding Summary



Changes to rates for 2012-2014 are proposed and subject to Council approval as detailed in the Business Unit User Fee Schedules (Attachment 2).

Breakdown of Operating Budget (\$ millions)

	2011 Budget			2012 Budget			2013 Budget			2014 Budget		
	Expend	Net	FTE	Expend	Net	FTE	Expend	Net	FTE	Expend	Net	FTE
Directors' Offices	\$ 115.4	\$ 111.2	27	\$ 117.2	\$ 113.3	31	\$ 124.1	\$ 120.1	32	\$ 130.4	\$ 126.2	33
Major Revenues	0.0	(438.2)		0.0	(474.6)		0.0	(507.3)		0.0	(560.1)	
Capital Costs	159.6	159.6		167.9	167.9		205.9	205.9		246.2	246.2	
Contributions to Reserves	3.6	3.6		20.2	20.2		3.2	3.2		2.7	2.7	
<u>Services:</u>												
Construction Services	33.0	25.1	233	34.9	26.7	233	35.9	27.5	233	37.1	28.5	233
Field Services	39.3	36.8	331	41.3	38.7	331	42.7	40.1	331	44.4	41.7	331
Infrastructure Delivery	13.1	5.0	92	13.5	5.2	92	14.1	5.4	93	14.6	5.6	93
Infrastructure Planning	9.0	4.0	49	8.9	3.8	51	9.4	4.1	51	9.7	4.3	51
Strategic Services	20.4	19.9	102	21.7	21.2	108	22.5	22.1	108	23.5	23.0	109
Wastewater Treatment	36.0	35.5	167	38.7	38.1	167	39.3	38.7	171	40.7	40.1	174
Water Quality Services	10.0	9.5	77	10.5	9.9	77	10.9	10.3	77	11.2	10.6	77
Water Treatment	29.1	28.1	117	30.4	29.5	117	30.9	29.9	117	32.2	31.2	117
Total Utilities	\$ 468.5	\$0.0	1,194	\$505.2	\$0.0	1,206	\$538.9	\$0.0	1,211	\$592.6	\$0.0	1,216

UTILITIES & ENVIRONMENTAL PROTECTION: Utilities (Water Resources and Water Services): Business Plan & Budget Highlights

Productivity Gain (Budget reduced with no service impact)

Investment in capital infrastructure at the water and wastewater treatment plants has resulted in reduced electrical and natural gas expenditures by \$1.37 million. Reduced reliance on consulting services within Infrastructure Planning and doing more in-house will generate an annual savings of \$425 thousand. Glenmore plant capital upgrades will be able to reduce sedimentation basin cleaning beginning in 2013 for an annual savings of \$350 thousand.

Service and Budget Increases

The following provides budget details to enable the Utilities to achieve the priorities outlined in Council's Fiscal Plan, specifically implementing a plan to ensure the financial sustainability of water services, and make progress on the environmental objectives in the 2020 Sustainability Direction.

Rates

- The rate increases allow the Utilities to work toward achievement of long-term financial health, with the largest impact being in the funding requirements for cash financing of capital investments and contribution to reserves.
- The composite water and wastewater rate increase is 9.8% for each year 2012-2014. Specifically:
 - Water rate increase - 7.6% in 2012, 7.5% in 2013, 7.4% in 2014
 - Wastewater rate increase - 13.5% annually for 2012-2014
- The stormwater drainage charge increase is 4.9% annually for 2012-2014.
- Inflationary increases for operations and maintenance, which include provision for salary, wage and benefit increases, have been accommodated.
- To manage the increased volume of biosolids, funding has been increased to meet current operational challenges, while long term solutions are being investigated to ensure appropriate handling and storage that protects the environment.
- Some provision has been made for expected increases in contract fees related to a new long-term Billing and Customer Care Agreement currently being negotiated.

- Lease costs for two new operational centres have been added to provide for decentralized operations and increased logistical efficiencies.
- To service a growing city, 7.0 FTEs have been added to meet new water and wastewater regulations, support the financial plan and plan infrastructure for the future.
- By finding new and innovative ways to deliver ongoing quality services, 11.5 FTEs have been added without a need to request additional dollars. The funds for the FTEs have been found within existing base budgets. For example, the business will move to a contracted services model for facility operations, reallocate resources to fund implementation of UEP's technology strategy and build in-house expertise related to employee development to reduce use of contracted services.
- To maintain and operate new capital infrastructure servicing new communities, \$550 thousand/3.5 FTEs has been added in 2013-2014.

Budget Reductions with Service Impact

Water, wastewater and drainage capital programs have been delayed or reduced to align with the prioritized capital budget, thereby reducing cash requirements in the operating budget.

Recognizing the need to focus on front line service, no requests for additional resources to several internal support services in the administrative, information management delivery and information technology areas were included. This will result in some deterioration in response time to information requests.

Summary of net operating budget changes (\$000's)

	<u>2012</u>	<u>2013</u>	<u>2014</u>
Productivity Gain (Budget reduced with no service impact)	(\$1,795)	(\$350)	\$0
Service and budget increases	1,795	350	0
Budget reductions with service impact	0	0	0
Total base changes	0	0	0
One-Time	0	0	0
Less: Previous year one-time	0	0	0
Total budget changes	\$0	\$0	\$0

UTILITIES & ENVIRONMENTAL PROTECTION: Utilities: Capital Projects Requiring Approval

(\$000s)

394,005

For Council Approval at Program-Project level
as per Department Capital Plan report

Program- Project	Project Description	Type	Cat.	(A)		(B) New Budget Request	2012	2013	2014	2015	2016	(C)=(A)+(B) 2012-2016
				Prev. Approved Budget up to	Prev. Approved Budget for Future Years							
				(A)	(B)							
891-302	Water Treatment Plants	M	A	37,722	35,192	24,508	19,760	1,080	8,960	29,900	0	59,700
891-302	Water Treatment Plants	M	C	0	0	78,896	17,836	35,583	25,477	0	0	78,896
Total Program 891 : Water Treatment Plants				37,722	35,192	103,404	37,596	36,663	34,437	29,900	0	138,596
892-290	Water Distribution Systems	M	C	0	0	60,580	19,446	20,193	20,941	0	0	60,580
892-291	Greenfield Utility Cost Recovery (Roads)	G	C	0	0	1,412	453	471	488	0	0	1,412
892-295	Water Efficiency and Metering	G	A	78,825	2,000	30,400	10,400	10,800	11,200	0	0	32,400
892-305	Feedermains, Pumpstations & Reservoirs	G	A	254,015	51,716	(19,580)	8,237	13,365	10,534	0	0	32,136
892-305	Feedermains, Pumpstations & Reservoirs	G	C	0	0	41,846	4,293	18,715	18,838	0	0	41,846
892-SER	Service Connections	M	C	0	0	3,240	1,040	1,080	1,120	0	0	3,240
Total Program 892 : Water Distribution Systems				332,840	53,716	117,898	43,869	64,624	63,121	0	0	171,614
893-292	Equipment	U	C	0	0	918	295	306	317	0	0	918
Total Program 893 : Water Equipment & Others				0	0	918	295	306	317	0	0	918
894-348	Wastewater Treatment Plants	U	C	0	0	130,665	39,515	39,973	51,177	0	0	130,665
Total Program 894 : Wastewater Treatment				0	0	130,665	39,515	39,973	51,177	0	0	130,665
895-321	Replacements and Extensions	M	C	0	0	36,089	11,761	11,943	12,385	0	0	36,089
895-322	Greenfield Utility Cost Recovery (Roads)	G	C	0	0	551	177	184	190	0	0	551
895-329	Wastewater Trunks Lift Station	G	A	189,130	56,139	(33,369)	3,089	7,484	12,197	0	0	22,770
895-329	Wastewater Trunks Lift Station	G	C	0	0	31,294	6,537	20,766	3,991	0	0	31,294
895-604	Bonnybrook Trunk	U	A	25,290	9,500	(9,500)	0	0	0	0	0	0
895-SER	Service Connections	M	C	0	0	1,976	634	659	683	0	0	1,976
Total Program 895 : Wastewater Collection System				214,420	65,639	27,041	22,198	41,036	29,446	0	0	92,680
896-320	Equipment	U	C	0	0	3,370	1,082	1,123	1,165	0	0	3,370
Total Program 896 : Wastewater Equipment_Others				0	0	3,370	1,082	1,123	1,165	0	0	3,370

UTILITIES & ENVIRONMENTAL PROTECTION: Utilities: Capital Projects Requiring Approval

Program- Project	Project Description	Type	Cat.	(A)		(B) New Budget Request	2012	2013	2014	2015	2016	(C)=(A)+(B) 2012-2016
				Prev. Approved Budget	Prev. Approved Budget							
				up to 2011	for Future Years							
897-352	Infrastructure Upgrade	U	C	0	0	9,130	1,286	1,336	6,508	0	0	9,130
897-353	Greenfield Utility Cost Recovery (Roads)	G	C	0	0	1,571	504	524	543	0	0	1,571
897-356	Stormwater Infrastructure for New Development	G	C	0	0	1,424	324	878	222	0	0	1,424
897-359	Storm Sewer Redevelopment	U	C	0	0	728	728	0	0	0	0	728
897-362	Flood Control	U	C	0	0	7,164	2,275	2,400	2,489	0	0	7,164
897-363	Storm Relief Projects	U	A	107,285	7,500	301	5,663	2,138	0	0	0	7,801
897-363	Storm Relief Projects	U	C	0	0	540	0	540	0	0	0	540
897-364	Shepard Wetland Projects	G	C	0	0	3,609	3,609	0	0	0	0	3,609
897-372	Stormwater Quality Improvements	M	C	0	0	26,540	3,295	13,044	10,201	0	0	26,540
897-SER	Service Connections	M	C	0	0	810	260	270	280	0	0	810
Total Program 897 : Drainage Systems & Management Facilities				107,285	7,500	51,817	17,944	21,130	20,243	0	0	59,317
898-436	Stormwater Monitoring	M	C	0	0	1,464	445	522	497	0	0	1,464
Total Program 898 : Drainage Equipment & Other				0	0	1,464	445	522	497	0	0	1,464
899-001	Equipment-Other	U	A	9,299	8,189	3,412	4,132	4,238	3,231	0	0	11,601
899-001	Equipment-Other	M	C	0	0	3,552	1,140	1,184	1,228	0	0	3,552
899-002	Systems	M	C	0	0	35,973	14,485	10,512	10,976	0	0	35,973
899-003	Facility Upgrades	G	C	0	0	3,660	520	2,300	840	0	0	3,660
Total Program 899 : Common Assets				9,299	8,189	46,597	20,277	18,234	16,275	0	0	54,786
							701,566	170,236	483,174	183,221	223,611	216,678
										29,900	0	653,410

Note:

Type: M=Maintenance/Replacement, U=Upgrade, G=Growth, S=Service Change

Category: A=Project in Progress, C>New Project

Funding For Capital Projects

Private Contributions	5,120	4,066	3,526	0	0	12,712
Revenue/Reserves	16,760	12,912	13,465	0	0	43,137
Self-supported Debts	161,341	206,633	206,387	29,900	0	604,261
Repayment to Developer with Self-supported Debts	0	0	(6,700)	0	0	(6,700)
Total Funding	183,221	223,611	216,678	29,900	0	653,410

UTILITIES & ENVIRONMENTAL PROTECTION: Utilities: Capital Projects Requiring Approval

Explanation of Budget Requests

Program 891 : Water Treatment Plants

Project 891-302: Water Treatment Plants

Previously approved Budget up to 2011 of \$37.722 million which represents estimated spending to end of 2011 on ongoing rehabilitation and replacement of equipment at Water Treatment Plants, with funding from revenue/reserve and self-supported debt.

Previously approved Budget for Future Years of \$35.192 million for Glenmore Filter Plant Improvements, Bearspaw High Lift Pump Station and Bearspaw UV Disinfection project, with funding from self-supported debt.

New Budget Request of \$24.508 million increase to the pre-approved budget for Bearspaw UV Disinfection. Additional funds are required in 2015 (\$24.508 million) to complete implementation of the Bearspaw UV Disinfection project with funding from self-supported debt.

New Budget Request of \$78.896 million from 2012 to 2014 with funding from self-supported debt to cover rehabilitation, replacement and installation of mechanical and pumping equipment, electrical instrumentation, control equipment, dam structure and building repair and rehabilitation at both Bearspaw and Glenmore plant locations.

Program 892 : Water Distribution Systems

Project 892-290: Water Distribution Systems

New Budget Request of \$60.58 million from 2012 to 2014 with funding from self-supported debt to cover ongoing monitoring, rehabilitation, replacement and corrosion protection of distribution mains, hydrants, services and valves.

Project 892-291: Greenfield Utility Cost Recovery (Roads)

New Budget Request of \$1.412 million from 2012 to 2014 with funding from private contributions to cover the capital request for reimbursement to Roads for water infrastructure installed by developers in new areas where infrastructure has to be installed in advance of when the developer would normally install it.

Project 892-295: Water Efficiency and Metering

Previously approved Budget up to 2011 of \$78.825 million which represents the estimated spending to end of 2011 with funding from revenue/reserve, debenture MPR and self-supported debt to cover water meter exchanges, flat-rate to meter conversion and metering of new commercial, residential, irrigation, and industrial customers.

Previously approved Budget for Future Years of \$2 million with funding from self-supported debt to cover water meter exchanges, flat-rate to meter conversion and metering of new commercial, residential, irrigation, and industrial customers.

New Budget Request of \$30.4 million increase to the pre-approved budget with funding from self-supported debt to cover water meter exchanges, flat-rate to meter conversion and metering of new commercial, residential, irrigation, and industrial customers.

UTILITIES & ENVIRONMENTAL PROTECTION: Utilities: Capital Projects Requiring Approval

Project 892-305: Feedermains, Pumpstations & Reservoirs

Previously approved Budget up to 2011 of \$254.015 million which represents estimated spending to end of 2011 on ongoing construction of new infrastructure and upgrades to existing transmission system infrastructure, with funding from private contribution, revenue/reserve debenture MPR and self-supported debt.

Previously approved Budget for Future Years of \$51.716 million for Currie Pump Station Upgrade, East Mckenzie and South Glenmore Res Basin 2, with funding from self-supported debt.

A relinquishment of \$19.58 million of the pre-approved budget as the funds for South Glenmore Res Basin 2 have been deferred outside the 2012-2014 budget cycle to align with anticipated timing of projects and a portion of the funds for East McKenzie have been relinquished to align with anticipated project costs.

New Budget Request of \$41.846 million from 2012 to 2014 with funding from self-supported debt to cover construction of new and upgrades to existing transmission system infrastructure.

Project 892-SER: Service Connections

New Budget Request of \$3.24 million from 2012 to 2014 with funding from private contributions to cover the installation of service connections as required throughout the city.

Program 893 : Water Equipment & Others

Project 893-292: Equipment

New Budget Request of \$918 thousand from 2012 to 2014 with funding from self-supported debt to cover the upgrade of bulk water stations.

Program 894 : Wastewater Treatment

Project 894-348: Wastewater Treatment Plants

New Budget Request of \$130.665 million from 2012 to 2014 with funding from self-supported debt for rehabilitation, replacement and installation of mechanical and pumping equipment, electrical instrumentation, control equipment, building repair and rehabilitation at the Bonnybrook, Fish Creek, Pine Creek plant locations and an interim biosolids management facility. Budget also includes preliminary design and engineering for a plant expansion and a biosolids management facility. As these projects progress, additional funds will be required for detailed design and construction in 2015 to 2017.

Program 895 : Wastewater Collection System

Project 895-321: Replacements and Extensions

New Budget Request of \$36.089 million from 2012 to 2014 with funding from self-supported debt to cover the ongoing replacement and rehabilitation of sanitary mains and service connections.

Project 895-322: Greenfield Utility Cost Recovery (Roads)

New Budget Request of \$551 thousand from 2012 to 2014 with funding from private contributions to cover capital request for reimbursement to Roads for wastewater collection infrastructure installed in advance of when the developer would normally install it.

UTILITIES & ENVIRONMENTAL PROTECTION: Utilities: Capital Projects Requiring Approval

Project 895-329: Wastewater Trunks Lift Station

Previously approved Budget up to 2011 of \$189.13 million which represents estimated spending to end of 2011 on ongoing construction of new and upgrades of existing collection system infrastructure, with funding from private contributions, revenue/reserve, self-supported debt and Developer's loan.

Previously approved Budget for Future Years of \$56.139 million for Nose Creek Trunk Upgrade, Fish Creek West and Anderson Sanitary Upgrades and Valley Ridge Syphon & Upgrade, with funding from private contributions and self-supported debt. An additional funding of \$6.7 million with self-supported debt for Trinity East Hill was approved to pay back developer in 2014 per construction financing agreement.

A relinquishment of \$33.369 million of the pre-approved budget for Fish Creek West and Anderson Sanitary Upgrades and Valley Ridge Syphon & Upgrade to align with timing of projects offset by a slight increase in project costs for Nose Creek Trunk Upgrade.

New Budget Request of \$31.294 million from 2012 to 2014 with funding from private contributions and self-supported debt to cover the construction of new and upgrades of existing collection system infrastructure.

Project 895-604: Bonnybrook Trunk

Previously approved Budget up to 2011 of \$25.29 million which represents estimated spending to end of 2011 on upgrade of the Bonnybrook Trunk, with funding from revenue/reserve and self-supported debt.

Previously approved Budget for Future Years of \$9.5 million for Bonnybrook trunk upgrade.

A relinquishment of \$9.5 million of the pre-approved budget to align with timing of future phases of the project.

Project 895-SER: Service Connections

New Budget Request of \$1.976 million from 2012 to 2014 with funding from private contributions to cover the installation of service connections as required throughout the city.

Program 896 : Wastewater Equipment_Others

Project 896-320: Equipment

New Budget Request of \$3.37 million from 2012 to 2014 with funding from self-supported debt to cover the purchase of flow monitoring equipment and lift station upgrades.

Program 897 : Drainage Systems & Management Facilities

Project 897-352: Infrastructure Upgrade

New Budget Request of \$9.13 million from 2012 to 2014 with funding from self-supported debt to cover minor extensions required to accommodate street construction and lane paving as well as modification and improvement to existing stormsewer system and outfalls.

Project 897-353: Greenfield Utility Cost Recovery (Roads)

New Budget Request of \$1.571 million from 2012 to 2014 with funding from private contributions to cover capital request for reimbursement to Roads for drainage infrastructure installed by developers in new areas where infrastructure has to be installed in advance of when the developer would normally install it.

UTILITIES & ENVIRONMENTAL PROTECTION: Utilities: Capital Projects Requiring Approval

Project 897-356 Stormwater Infrastructure for New Development

New Budget Request of \$1.424 million from 2012 to 2014 with funding from private contributions to cover storm trunks as part of the development of new industrial and residential areas.

Project 897-359: Storm Sewer Redevelopment

New Budget Request of \$728 thousand in 2012 with funding from private contributions to cover the extension, upgrading and enlargement of stormsewer system to areas being redeveloped.

Project 897-362: Flood Control

New Budget Request of \$7.164 million from 2012 to 2014 with funding from revenue/reserve and self-supported debt to cover stabilization of riverbanks that are eroding or susceptible to erosion and for work to prevent flooding.

Project 897-363: Storm Relief Projects

Previously approved Budget up to 2011 of \$107.285 million which represents estimated spending to end of 2011 on ongoing retrofit projects to provide flood relief in established communities, with funding from ICAP(Infrastructure Canada Alberta Program), revenue/reserve, Reserve for Future Capital, private contributions, other grants, self-supported debt.

Previously approved Budget for Future Years of \$7.5 million for Lakeview Storm Upgrades, with funding from self-supported debt.

New Budget Request of \$301 thousand increase to the pre-approved budget for Lakeview Storm Upgrades is requested to align with updated project costs from 2012 to 2013 with funding from self-supported debt.

New Budget Request of \$540 thousand in 2013 with funding from self-supported debt to cover retrofit projects and to upgrade existing stormwater systems.

Project 897-364: Shepard Wetland Projects

New Budget Request of \$3.609 million in 2012 with funding from self-supported debt to allow completion of the Shepard Wetland Projects. These projects divert stormwater from the Western Headworks Canal to treatment wetland facilities before being conveyed to the Bow River. They also allow for stormwater from new development to be conveyed to the Bow River.

Project 897-372: Stormwater Quality Improvements

New Budget Request of \$26.54 million from 2012 to 2014 with funding from revenue/reserve and self-supported debt for Stormwater Quality Improvement. Projects limit the pollutant load entering the Bow River through construction of wet ponds, wetlands and other bioretention areas within developed communities that currently have minimal treatment of rainwater discharge.

Project 897-SER: Service Connections

New Budget Request of \$810 thousand from 2012 to 2014 with funding from private contributions to cover the installation of service connections as required throughout the city.

UTILITIES & ENVIRONMENTAL PROTECTION: Utilities: Capital Projects Requiring Approval

Program 898 : Drainage Equipment & Other

Project 898-436: Stormwater Monitoring

New Budget Request of \$1.464 million from 2012 to 2014 with funding from self-supported debt to provide funds to purchase and maintain a variety of stormwater equipment to provide adequate and timely information on stormwater discharges and to manage the effectiveness of new and existing facilities.

Program 899 : Common Assets

Project 899-001: Equipment-Other

Previously approved budget up to 2011 of \$9.299 million which represents estimated spending to end of 2011 with funding from self-supported debt to cover the purchases of tools and equipment, furniture, lab equipment and public art.

Previous approved budget for Future Years of \$8.189 million with funding from self-supported debt to cover the purchases of tools and equipment, furniture, lab equipment and public art.

New Budget Request of \$3.412 million increase to the pre-approved budget with funding from self-supported debt to cover the purchases of public art.

New Budget Request of \$3.552 million from 2012 to 2014 with funding from self-supported debt to cover the purchases of tools and equipment, furniture, lab equipment.

Project 899-002: Systems

New Budget Request of \$35.973 million from 2012 to 2014 with funding from revenue/reserve to provide funds for a Geographic Information System (GIS), the implementation of Supervisory Control and Data Acquisition (SCADA) & Distributed Control Systems (DCS) and other technology, equipment and business applications.

Project 899-003: Facility Upgrades

New Budget Request of \$3.66 million from 2012 to 2014 with funding from self-supported debt to cover facility planning and upgrades as well as equipment replacement.

UTILITIES & ENVIRONMENTAL PROTECTION: Utilities : 2012 - 2016 Capital Plan Project Listing

Prog.	Proj.	Project Description	Cat.	Type	(A) Prev. Approved Budget up to 2011	(\$000s)					(B) Total 2012- 2016	(C)= (A)+(B) Total Project Costs
						2012	2013	2014	2015	2016		
890	000	Reclaimed Water System	A	S	7,000	37,600	0	0	0	0	37,600	44,600
891	302	Water Treatment Plants	A	M	37,722	19,760	1,080	8,960	29,900	0	59,700	97,422
891	302	Water Treatment Plants	C	M	0	17,836	35,583	25,477	0	0	78,896	78,896
891	302	Water Treatment Plants	D	M	0	0	0	0	28,727	41,276	70,003	70,003
892	290	Water Distribution Systems	C	M	0	19,446	20,193	20,941	0	0	60,580	60,580
892	290	Water Distribution Systems	D	M	0	0	0	0	21,084	21,635	42,719	42,719
892	291	Greenfield Utility Cost Recovery (Roads)	C	G	0	453	471	488	0	0	1,412	1,412
892	295	Water Efficiency and Metering	A	G	78,825	10,400	10,800	11,200	0	0	32,400	111,225
892	295	Water Efficiency and Metering	D	G	0	0	0	0	4,514	4,632	9,146	9,146
892	305	Feedermains, Pumpstations & Reservoirs	A	G	254,015	8,237	13,365	10,534	0	0	32,136	286,151
892	305	Feedermains, Pumpstations & Reservoirs	C	G	0	4,293	18,715	18,838	0	0	41,846	41,846
892	305	Feedermains, Pumpstations & Reservoirs	D	G	0	0	0	0	9,160	27,842	37,002	37,002
892	SER	Service Connections	C	M	0	1,040	1,080	1,120	0	0	3,240	3,240
892	SER	Service Connections	D	M	0	0	0	0	1,150	1,180	2,330	2,330
893	292	Equipment	C	U	0	295	306	317	0	0	918	918
893	292	Equipment	D	U	0	0	0	0	326	334	660	660
894	348	Wastewater Treatment Plants	A	U	113,496	21,622	26,730	19,958	0	0	68,310	181,806
894	348	Wastewater Treatment Plants	C	U	0	39,515	39,973	51,177	0	0	130,665	130,665
894	348	Wastewater Treatment Plants	D	U	0	0	0	0	120,283	116,271	236,554	236,554
895	321	Replacements and Extensions	C	M	0	11,761	11,943	12,385	0	0	36,089	36,089
895	321	Replacements and Extensions	D	M	0	0	0	0	14,557	13,049	27,606	27,606
895	322	Greenfield Utility Cost Recovery (Roads)	C	G	0	177	184	190	0	0	551	551
895	329	Wastewater Trunks Lift Station	A	G	189,130	3,089	7,484	12,197	0	0	22,770	211,900
895	329	Wastewater Trunks Lift Station	C	G	0	6,537	20,766	3,991	0	0	31,294	31,294

Category of Project: A=Projects in Progress, C=New Projects, D=Projects Commencing in Future

Type of Project: M=Maintenance/Replacement, U=Upgrade, G=Growth, S=Service Change

UTILITIES & ENVIRONMENTAL PROTECTION: Utilities : 2012 - 2016 Capital Plan Project Listing

Prog.	Proj.	Project Description	Cat.	Type	(A) Prev. Approved Budget up to 2011	(\$000s)					(B) Total 2012- 2016	(C)= (A)+(B) Total Project Costs
						2012	2013	2014	2015	2016		
895	329	Wastewater Trunks Lift Station	D	G	0	0	0	0	7,894	13,852	21,746	21,746
895	SER	Service Connections	C	M	0	634	659	683	0	0	1,976	1,976
895	SER	Service Connections	D	M	0	0	0	0	702	720	1,422	1,422
896	320	Equipment	C	U	0	1,082	1,123	1,165	0	0	3,370	3,370
896	320	Equipment	D	U	0	0	0	0	1,192	1,223	2,415	2,415
897	352	Infrastructure Upgrade	C	U	0	1,286	1,336	6,508	0	0	9,130	9,130
897	352	Infrastructure Upgrade	D	U	0	0	0	0	1,423	1,460	2,883	2,883
897	353	Greenfield Utility Cost Recovery (Roads)	C	G	0	504	524	543	0	0	1,571	1,571
897	353	Greenfield Utility Cost Recovery (Roads)	D	G	0	0	0	0	558	572	1,130	1,130
897	356	Stormwater Infrastructure for New Development	C	G	0	324	878	222	0	0	1,424	1,424
897	356	Stormwater Infrastructure for New Development	D	G	0	0	0	0	2,312	8,469	10,781	10,781
897	359	Storm Sewer Redevelopment	C	U	0	728	0	0	0	0	728	728
897	362	Flood Control	C	U	0	2,275	2,400	2,489	0	0	7,164	7,164
897	362	Flood Control	D	U	0	0	0	0	2,393	2,020	4,413	4,413
897	363	Storm Relief Projects	A	U	107,285	5,663	2,138	0	0	0	7,801	115,086
897	363	Storm Relief Projects	C	U	0	0	540	0	0	0	540	540
897	363	Storm Relief Projects	D	U	0	0	0	0	9,677	3,505	13,182	13,182
897	364	Shepard Wetland Projects	C	G	0	3,609	0	0	0	0	3,609	3,609
897	372	Stormwater Quality Improvements	C	M	0	3,295	13,044	10,201	0	0	26,540	26,540
897	372	Stormwater Quality Improvements	D	M	0	0	0	0	5,400	5,541	10,941	10,941
897	SER	Service Connections	C	M	0	260	270	280	0	0	810	810
897	SER	Service Connections	D	M	0	0	0	0	288	295	583	583
898	436	Stormwater Monitoring	C	M	0	445	522	497	0	0	1,464	1,464
898	436	Stormwater Monitoring	D	M	0	0	0	0	1,265	413	1,678	1,678

Category of Project: A=Projects in Progress, C=New Projects, D=Projects Commencing in Future

Type of Project: M=Maintenance/Replacement, U=Upgrade, G=Growth, S=Service Change

UTILITIES & ENVIRONMENTAL PROTECTION: Utilities : 2012 - 2016 Capital Plan Project Listing

Prog.	Proj.	Project Description	Cat.	Type	(A) Prev. Approved Budget up to 2011	(\$000s)					(B) Total 2012- 2016	(C)= (A)+(B) Total Project Costs
						2012	2013	2014	2015	2016		
899	001	Equipment-Other	A	U	9,299	4,132	4,238	3,231	0	0	11,601	20,900
899	001	Equipment-Other	C	M	0	1,140	1,184	1,228	0	0	3,552	3,552
899	001	Equipment-Other	D	U	0	0	0	0	2,747	2,934	5,681	5,681
899	002	Systems	C	M	0	14,485	10,512	10,976	0	0	35,973	35,973
899	002	Systems	D	U	0	0	0	0	13,733	14,091	27,824	27,824
899	003	Facility Upgrades	C	G	0	520	2,300	840	0	0	3,660	3,660
899	003	Facility Upgrades	D	G	0	0	0	0	958	1,573	2,531	2,531
Total Utilities					796,772	242,443	250,341	236,636	280,243	282,887	1,292,550	2,089,322

Category of Project: A=Projects in Progress, C=New Projects, D=Projects Commencing in Future

Type of Project: M=Maintenance/Replacement, U=Upgrade, G=Growth, S=Service Change

UTILITIES & ENVIRONMENTAL PROTECTION: Utilities (Water Resources and Water Services): Service Highlights

Construction Services	(\$000s)								
	2012			2013			2014		
	Expend.	Net	FTEs	Expend.	Net	FTEs	Expend.	Net	FTEs
	\$34,861	\$26,716	233	\$35,892	\$27,530	233	\$37,095	\$28,526	233

Description of Services

Construction, repair and replacement of water distribution, wastewater collection and storm drainage systems

- Install new water, wastewater and stormwater services to residential industrial commercial and institutional customers
- Repair watermain breaks, sanitary sewer and storm sewer collapses to restore system functionality and protect private property

- Deliver emergency potable water and provide temporary water connections to customers
- Replace water, wastewater and stormwater systems at the end of their lifecycle
- Deliver water, wastewater and drainage capital projects to replace aged infrastructure and upgrade existing infrastructure and service redevelopment.

Highlighted Strategies

1C2 Provide excellent customer service.(CFP-B1,Z7)

Highlighted Actions

1C2.1 Develop a customer centric organization where in our everyday operations, customer service is respectful, reliable, responsive and responsible.

2C2 Increase efficiencies and transparency.(CFP-Z2,Z3,Z10)

2C2.2 Develop a culture of program evaluation, understand our cost of doing business and look for opportunities to improve efficiency and effectiveness.

3P1 Meet regulatory requirements to protect public health.

3P1.1 Operate facilities and systems to ensure compliance with regulatory requirements and licences and approvals to operate.

3P2 Lead by example.

3P2.2 Mitigate the impact of our business on the air, land and water to align with environmental goals.

4P1 Continually improve on asset management. (CFP-Z1,Z5)

4P1.3 Continuous improvement in making day-to-day operations more efficient and effective.

Business Plan and Budget Highlights

Construction Services builds, maintains and repairs water and wastewater and drainage infrastructure in a timely and prioritized way that balances the cost of service with customers' expectations.

As part of a continuous improvement approach, Construction Services will evaluate and benchmark services and processes to discover opportunities for efficiency. One area of focus will be on fleet management. As a major fleet operator, Construction Services will investigate innovative ways to right-size the fleet, evaluate maintenance and lease costs and consider how equipment is deployed in the field.

Construction Services will continue to collaborate with colleagues in Field Services and Roads to prioritize and plan work in order to deliver seamless service and get water services back in working condition as soon as possible. This will contribute to reduced costs and repairing services in a timely manner.

To serve a great city, Construction Services will engage with customers to determine service levels. As services are delivered, Construction Services will measure and monitor customer satisfaction and look for opportunities for improvement.

Construction Services will continue to balance the cost of service delivery with customer expectations by prioritizing emergency response, repairs and restoration to take in account cost and customer needs.

Communicating these priorities to customers and the community will keep them informed of timelines and progress.

Please review the business unit action approval page to see a complete list of actions that are applicable to this service

UTILITIES & ENVIRONMENTAL PROTECTION: Utilities (Water Resources and Water Services): Service Highlights

Field Services	(\$000s)								
	2012			2013			2014		
	Expend.	Net	FTEs	Expend.	Net	FTEs	Expend.	Net	FTEs
Description of Services									
<p><i>Water distribution, wastewater collection, stormwater management</i></p> <ul style="list-style-type: none"> Distribute water to and collect wastewater from residential, industrial commercial and institutional, and regional customers Protect property and roadways from stormwater flooding <ul style="list-style-type: none"> Provide customer care support for water, wastewater and drainage infrastructure concerns Provide emergency response and business continuity planning to ensure dependable service Maintain water, wastewater and stormwater pipes to ensure the longevity and reliability of infrastructure 									
Highlighted Strategies			Highlighted Actions			Business Plan and Budget Highlights			
1C2 Provide excellent customer service.(CFP-B1,Z7)			1C2.1 Develop a customer centric organization where in our everyday operations, customer service is respectful, reliable, responsive and responsible.			Field Services provides customer service to Calgarians through the operation and maintenance of the water, wastewater and stormwater collection and distribution systems.			
2C2 Increase efficiencies and transparency.(CFP-Z2,Z3,Z10)			2C2.2 Develop a culture of program evaluation, understand our cost of doing business and look for opportunities to improve efficiency and effectiveness.			Field Services will continue to deliver quality customer service in an efficient way while focusing on balancing service delivery and costs with customer expectations. Services will be reviewed to ensure they are delivered in a cost effective manner and within the proposed rate structure. Customer response will continue to be prioritized in a timely manner to protect property and restore water and wastewater services.			
3P1 Meet regulatory requirements to protect public health.			3P1.1 Operate facilities and systems to ensure compliance with regulatory requirements and licences and approvals to operate.			Field Services will build a culture of continuous improvement in the Utilities by evaluating programs to find opportunities for efficiency gains while maintaining a high level of customer service. This will include the use of benchmarking, performance measures and best practices information to optimize service effectiveness and efficiency.			
4P1 Continually improve on asset management. (CFP-Z1,Z5)			4P1.3 Continuous improvement in making day-to-day operations more efficient and effective.			Field Services will continue to operate the collection and distribution systems to meet all requirements for approvals to operate and provide residential, industrial, commercial, institutional and regional services. The active management of this system ensures the protection of public health and the availability of reliable services to customers.			
4P2 Manage risks to our infrastructure.			4P2.3 Build and operate infrastructure through its full lifecycle and optimize lifecycle cost and mitigate risk.			Field Services is maximizing investment in the linear systems through effective maintenance management practices. A proactive approach to maintenance planning ensures investments are directed to appropriate assets to optimize the asset lifecycle.			
<p>Please review the business unit action approval page to see a complete list of actions that are applicable to this service</p>									

UTILITIES & ENVIRONMENTAL PROTECTION: Utilities (Water Resources and Water Services): Service Highlights

Infrastructure Delivery	(\$000s)								
	2012			2013			2014		
	Expend.	Net	FTEs	Expend.	Net	FTEs	Expend.	Net	FTEs
	\$13,533	\$5,203	92	\$14,141	\$5,432	93	\$14,581	\$5,644	93

Description of Services

Project management, engineering and inspection services for water, wastewater and drainage infrastructure projects

- Project management for building, maintaining and upgrading water, wastewater and drainage infrastructure
- Provide internal engineering services to continually improve operational and maintenance efficiencies

- Investigate and recommend opportunities for energy efficiency and cost savings at Utility facilities
- Inspection services for water, wastewater and drainage projects to ensure the quality of infrastructure meets City specifications for long-term infrastructure viability
- Maintain and update approved product lists and standards and specifications to ensure infrastructure is built to meet service requirements
- Manage the external contractor indemnification process for construction of utilities on City rights of way to safeguard The City's interests

Highlighted Strategies

1C1 Deliver and demonstrate value to citizens and customers. (CFP-Z7)

2C2 Increase efficiencies and transparency. (CFP-Z2,Z3,Z10)

2C4 Implement a financial plan to ensure the financial sustainability of City of Calgary Water Services. (CFP-C7*)

3P2 Lead by example.

4P2 Manage risks to our infrastructure.

Highlighted Actions

1C1.2 Build public trust by effectively and efficiently providing valuable services.

2C2.2 Develop a culture of program evaluation, understand our cost of doing business and look for opportunities to improve efficiency and effectiveness.

2C4.3 Increase financial management capacity and leadership competencies to support evaluation and decision-making.

3P2.2 Mitigate the impact of our business on the air, land and water to align with environmental goals.

4P2.3 Build and operate infrastructure through its full lifecycle and optimize lifecycle cost and mitigate risk.

Business Plan and Budget Highlights

Infrastructure Delivery (ID) manages and provides inspection services for infrastructure projects for water, wastewater and drainage facilities to ensure sustainable, long term value. ID must meet the needs of the operating divisions and the citizens of Calgary by delivering the infrastructure for a growing city.

Over the next three years, planned capital improvements to The City's water, wastewater and drainage systems will total almost three quarters of a billion dollars to provide for growth and to replace aging infrastructure.

A continued emphasis in the next three years will be on effective and efficient program delivery. The mandate and the culture of ID are to provide lowest total cost of ownership for the asset lifecycle while achieving operational, environmental and social objectives. Over the next three years, ID will focus on value analysis, option development and alternative project delivery methods to maximize the benefits of investments.

A major cost in operating a water utility is the cost of energy. ID will examine all areas of Utilities operations to find ways of reducing energy consumption and to provide new infrastructure that minimizes energy use. This will enable the Utilities to reduce financial risks and demonstrate a commitment to environmental stewardship.

Please review the business unit action approval page to see a complete list of actions that are applicable to this service

UTILITIES & ENVIRONMENTAL PROTECTION: Utilities (Water Resources and Water Services): Service Highlights

Infrastructure Planning	(\$000s)								
	2012			2013			2014		
	Expend.	Net	FTEs	Expend.	Net	FTEs	Expend.	Net	FTEs
	\$8,943	\$3,800	51	\$9,398	\$4,103	51	\$9,707	\$4,268	51
Description of Services									
<p><i>Infrastructure planning and evaluation for water, wastewater and drainage infrastructure.</i></p> <ul style="list-style-type: none"> • Develop infrastructure long range plans to support the growth and development objectives of The City • Asset and investment management to ensure investment in the right infrastructure at the right time to deliver the right level of service • Represent water policies and servicing requirements in the Corporate land 									
Highlighted Strategies			Highlighted Actions			Business Plan and Budget Highlights			
2C4 Implement a financial plan to ensure the financial sustainability of City of Calgary Water Services. (CFP-C7*)			2C4.1 Align financial and business planning with capital and operating requirements to manage risk.			Infrastructure Planning (IP) applies an asset management framework that ensures the Utilities spend the right money at the right time to deliver services to a growing city. This framework includes planning and approval of new infrastructure and sustainment of existing water infrastructure. Asset management strategies and standards, infrastructure evaluations, and long-range asset and investment planning support the business strategy focusing on managing the assets.			
4P1 Continually improve on asset management. (CFP-Z1,Z5)			4P1.1 Continue the development and implementation of asset management plans in accordance with the Corporate framework. 4P1.4 Build capacity and understanding of asset management across the business to align and improve decision-making and program delivery.			IP is embedding a standardized approach to prioritize investment decisions for infrastructure maintenance, upgrades and growth. These decisions balance customer service, asset risk and costs through full infrastructure lifecycle to ensure an ongoing, base level of service. In 2012-2014, a level of service study will be conducted to inventory and determine the cost of delivering these services.			
4P2 Manage risks to our infrastructure.			4P2.2 Prioritize infrastructure and investment planning to ensure investments are directed toward highest business value in the long-term.			Assessments are routinely conducted for both built infrastructure and natural riparian areas to understand risks and priorities for assets managed by the business. To fully implement the framework, IP will focus on and increase the understanding of asset management across the business. This will improve decision-making, program alignment and delivery within the Utilities and Corporately.			
4P3 Manage the challenges of continued growth of the city. (CFP-B5,P1,P10,P11)			4P3.1 Integrate growth management policies and frameworks into decision making to support long term planning across The Corporation.			IP will lead the Utilities to ensure infrastructure and investment plans are aligned with and support city development. A prioritized infrastructure investment plan will ensure investments maximize long-term business value. This is an iterative process to manage budgets and shifting priorities.			
<p>Please review the business unit action approval page to see a complete list of actions that are applicable to this service</p>									

UTILITIES & ENVIRONMENTAL PROTECTION: Utilities (Water Resources and Water Services): Service Highlights

Strategic Services	(\$000s)								
	2012			2013			2014		
	Expend.	Net	FTEs	Expend.	Net	FTEs	Expend.	Net	FTEs
	\$21,670	\$21,242	108	\$22,492	\$22,051	108	\$23,454	\$23,001	109
Description of Services									
<p>Strategic planning to address risks related to water resource management and business planning and performance.</p> <ul style="list-style-type: none"> • Ensure sufficient water resources to meet city and regional demands • Support the achievement of goals with business planning and performance management • Manage customer service and manage stakeholder relations • Plan for climate change risks to address impacts on water infrastructure <ul style="list-style-type: none"> • Implement plans and policies to reduce impact of urban development on regional water resources • Monitor compliance with all operating approvals • Research technology and deliver community programs to achieve water management goals • Develop employees to build knowledge, skills and abilities required to excel • Support the water business with effectively managed facilities, vehicles, information and administrative services 									
Highlighted Strategies			Highlighted Actions			Business Plan and Budget Highlights			
1C1 Deliver and demonstrate value to citizens and customers.(CFP-Z7)			1C1.1 Engage in dialogue with citizens and customers to both understand their expectations and help them stay engaged and informed about the services we deliver.			Strategic Services (USS) will continue to focus on the long-term sustainability of Calgary's water quality and quantity. USS develops integrated water management approaches ensuring natural resources are available for citizens now and in the future. USS engages customers and partners within the community and region to achieve common watershed goals and to demonstrate the value of water in our lives.			
2C4 Implement a financial plan to ensure the financial sustainability of City of Calgary Water Services. (CFP-C7*)			2C4.2 Implement financial policies and targets including minimizing borrowing and debt service costs to support growth and infrastructure serviceability.			Strategic Services develops plans that coordinate the efforts of the Utilities to reach long-term goals such as the Water Efficiency Plan and the Stormwater Management Strategy. USS manages the impact of the Utilities business on land, air, and water to meet increasingly stringent regulatory standards. USS is focused on the Utilities' financial policies, performance and health. In addition, USS optimizes business efficiencies and supports across Water Resources and Water Services.			
3P2 Lead by example.			3P2.1 Model sustainable approaches that have a positive impact on environmental, social and economic outcomes.			USS supports employee development and effectiveness for the Utilities (Water Resources and Water Services) and fosters employees' ability to grow a career with The City. This is done through continued development of competency management, training, mentoring and strengthening leadership skills.			
3P4 Ensure integrated resource management planning. (CFP-P8)			3P4.1 Develop integrated water resource management programs that align with environmental goals.			USS continues to embed a customer centric culture that is respectful, responsible, reliable and responsive. USS engages citizens to understand their expectations and help them stay informed about the services delivered.			
3P5 Think and act regionally. (CFP-P1,P10)			3P5.1 Align with The Corporation and the region to manage risks to our water resources and achieve common goals.						
<p>Please review the business unit action approval page to see a complete list of actions that are applicable to this service</p>									

UTILITIES & ENVIRONMENTAL PROTECTION: Utilities (Water Resources and Water Services): Service Highlights

Wastewater Treatment	(\$000s)								
	2012			2013			2014		
	Expend.	Net	FTEs	Expend.	Net	FTEs	Expend.	Net	FTEs
	\$38,662	\$38,137	167	\$39,272	\$38,737	171	\$40,736	\$40,092	174

Description of Services

Wastewater treatment and solid waste management

- Treat wastewater to meet regulatory requirements, protect public health and the environment
- Recycle the nutrient-rich by-product of wastewater treatment and apply as a fertilizer for agricultural customers

- Receive and treat wastewater from industry and regional customers
- Maintain wastewater treatment facilities to ensure the longevity and efficiency of infrastructure

Highlighted Strategies

3P1 Meet regulatory requirements to protect public health.

3P2 Lead by example.

4P1 Continually improve on asset management.
(CFP-Z1,Z5)

4P2 Manage risks to our infrastructure.

Highlighted Actions

3P1.1 Operate facilities and systems to ensure compliance with regulatory requirements and licences and approvals to operate.

3P2.2 Mitigate the impact of our business on the air, land and water to align with environmental goals.

4P1.2 Leverage tools and technology to support operations and realize efficiencies.

4P1.3 Continuous improvement in making day-to-day operations more efficient and effective.

4P2.3 Build and operate infrastructure through its full lifecycle and optimize lifecycle cost and mitigate risk.

Business Plan and Budget Highlights

The City has one of the leading wastewater treatment processes in Canada. Wastewater from the city, the region and local industry is treated to a high standard to meet operating approvals and protect public health and the environment. Wastewater Treatment (WWT) will continue to realize the benefits of capital improvements in this business plan cycle. In the next three years, the primary focus of wastewater treatment will include efficient plant operations, biosolids management and infrastructure maintenance.

Efficient plant operations will be supported through operator training, leveraging technology for plant automation and applying industry best practices to address risks. To support operator development, standard operating procedures, training programs and knowledge management tools are being developed. These will also contribute to operator knowledge transfer as the workforce transitions. Additional plant automation will allow operators to run the plant more efficiently and reduce operational risk.

Biosolids management is a growing area driven by both industrial and population growth. Biosolids are the by-product of wastewater treatment and require effective management to protect the watershed. To address the increased volume of biosolids, WWT will examine innovative approaches in collaboration with Waste & Recycling Services.

To make timely investment decisions, address risk and ensure infrastructure resiliency, WWT will apply critical infrastructure assessment and maintenance management best practices to identify and prioritize plant infrastructure maintenance.

Please review the business unit action approval page to see a complete list of actions that are applicable to this service

UTILITIES & ENVIRONMENTAL PROTECTION: Utilities (Water Resources and Water Services): Service Highlights

Water Quality Services	(\$000s)								
	2012			2013			2014		
	Expend.	Net	FTEs	Expend.	Net	FTEs	Expend.	Net	FTEs
	\$10,457	\$9,886	77	\$10,878	\$10,292	77	\$11,166	\$10,566	77

Description of Services

Monitoring, analyzing, inspecting and reporting on water, wastewater and stormwater to protect the environment, public health and City infrastructure.

- Ensure the continuous quality of water, wastewater and stormwater to protect public safety and meet environmental and health related legislation
- Report on water, wastewater and stormwater compliance to the regulator from our nationally accredited laboratories

- Monitor surface waters, stormwater, industry, and erosion control activities to ensure compliance with bylaws and other legislative controls
- Facilitate applied research and development to assess and manage risk
- Provide scientific support services to various capital related programs, including the upgrades of the water and wastewater treatment facilities

Highlighted Strategies

1C2 Provide excellent customer service.(CFP-B1,Z7)

Highlighted Actions

1C2.1 Develop a customer centric organization where in our everyday operations, customer service is respectful, reliable, responsive and responsible.

2C2 Increase efficiencies and transparency.
(CFP-Z2,Z3,Z10)

2C2.2 Develop a culture of program evaluation, understand our cost of doing business and look for opportunities to improve efficiency and effectiveness.

3P1 Meet regulatory requirements to protect public health.

3P1.1 Operate facilities and systems to ensure compliance with regulatory requirements and licences and approvals to operate.

3P4 Ensure integrated resource management planning.
(CFP-P8)

3P1.2 Develop and implement research programs that monitor and assess environment trends to improve decision making and meet future regulations.

3P4.1 Develop integrated water resource management programs that align with environmental goals.

Please review the business unit action approval page to see a complete list of actions that are applicable to this service

Business Plan and Budget Highlights

Water Quality Services (WQS) provides quality analytical testing, monitoring, inspection, reporting and technical expertise to the Utilities, internal City of Calgary customers, the general public and external entities. To protect public health, City infrastructure and the environment, WQS supports regulatory compliance, integrated resource management, treatment plant operations and pollution control.

Regulations for drinking water, treated effluent and stormwater discharges are evolving in response to increasing scientific knowledge. WQS involvement provides experience with advanced scientific methods to improve internal decision-making and give input to regulators.

WQS plays an active role in protecting the river through monitoring point and non-point source pollution and river water quality. WQS monitors research related to emerging contaminants and their sources. WQS participates in program development to take the right actions in the watershed to provide the most benefit. To further support continued work to reduce the impact of wastewater on the watershed and infrastructure, WQS is developing a pollution prevention program.

An applied research and development strategy is being implemented to prioritize research programs for the Utilities, align business needs and reduce inherent risks in high priority areas.

A continuous improvement program is also being implemented in WQS to deliver more cost efficient services and reduce the operating budget through realized savings.

UTILITIES & ENVIRONMENTAL PROTECTION: Utilities (Water Resources and Water Services): Service Highlights

Water Treatment	(\$000s)								
	2012			2013			2014		
	Expend.	Net	FTEs	Expend.	Net	FTEs	Expend.	Net	FTEs
	\$30,407	\$29,464	117	\$30,864	\$29,911	117	\$32,165	\$31,202	117
Description of Services									
<p><i>Water treatment and supply</i></p> <ul style="list-style-type: none"> • Operate water treatment plants, transmission pumping, and reservoir storage facilities to ensure a clean, safe and reliable water supply to Calgarians and regional customers • Maintain water treatment plants, transmission pumping, and reservoir storage facilities to ensure the reliability and efficiency of infrastructure • Operate and maintain Glenmore Dam to manage a reliable raw water supply in the reservoir 									
Highlighted Strategies			Highlighted Actions			Business Plan and Budget Highlights			
1C1 Deliver and demonstrate value to citizens and customers. (CFP-Z7)			1C1.2 Build public trust by effectively and efficiently providing valuable services.			Calgary's water treatment plants use industry-leading processes and technologies to deliver safe and reliable drinking water to over one million Calgarians. Water Treatment operates water treatment plants and a reservoir system to deliver water to the city and the region that meets all regulatory requirements.			
3P1 Meet regulatory requirements to protect public health.			3P1.1 Operate facilities and systems to ensure compliance with regulatory requirements and licences and approvals to operate.			Water Treatment will continue to integrate recent and upcoming capital improvements at the plants while monitoring and managing chemical and electricity usage throughout the treatment process to ensure an efficient use of resources.			
4P1 Continually improve on asset management. (CFP-Z1,Z5)			4P1.2 Leverage tools and technology to support operations and realize efficiencies.			Water Treatment continues to advance its approach to maximizing the lifecycle of the treatment plant assets through effective maintenance management practices. To make timely investment decisions, address risk and ensure infrastructure resiliency, Water Treatment will apply critical infrastructure assessment and maintenance management best practices to identify and prioritize plant infrastructure maintenance.			
4P2 Manage risks to our infrastructure.			4P2.3 Build and operate infrastructure through its full lifecycle and optimize lifecycle cost and mitigate risk.			Water Treatment will realize the benefits of capital improvements in this business plan cycle, which increases the effectiveness and reliability of the treatment process and reduces the impact on the Elbow and Bow rivers. Recent capital improvements at Glenmore plant will provide the ability to treat larger volumes of water more quickly and effectively, producing stable and consistent water quality despite fluctuating raw river quality. Water quality in the river downstream of the plant is protected as residuals from the treatment process are no longer returned to the river.			
<p>Please review the business unit action approval page to see a complete list of actions that are applicable to this service</p>									

