

KETCHIKAN PUBLIC UTILITIES

KPU



Your Community, Your Utility

2015-2019 CAPITAL IMPROVEMENT PROGRAM

CITY OF KETCHIKAN, ALASKA
2015 - 2019 KETCHIKAN PUBLIC UTILITIES
CAPITAL IMPROVEMENT PROGRAM

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**Ketchikan Public Utilities
2015 - 2019 Capital Improvement Program
2015 Capital Budget**

Department/Division/Project	Revenues/ Reserves	Grants	Other	Revenue Bonds	2015 Total
Administration					
Financial & Accounting Information System	20,000				20,000
Administration Division Total	20,000				20,000
Sales, Marketing & Customer Service					
None					
Sales, Marketing & Customer Service Division Total					
Electric Division					
Bailey Generator 4 Turbo Charger Rebuild	50,000				50,000
Generator Rewind & Repair	325,000				325,000
Generator Cleaning & Testing	180,000				180,000
Ketchikan Powerhouse Battery Bank Replacement	30,000				30,000
Transmission & Distribution Maintenance	250,000				250,000
Downtown Underground Rebuild	50,000				50,000
Vehicles & Moving Equipment	118,000				118,000
Beaver Falls Unit No. 1 Exciter	12,190				12,190
System Sectionalizing Fault Study	185,000				185,000
Transformer Purchase	75,000				75,000
Operating Equipment	385,300				385,300
Additional Projects	150,000				150,000
Reimbursable Projects	85,000				85,000
Ward Cove Substation Expansion	50,000				50,000
Substation 34.5 kV Tie Breaker Spare	45,000				45,000
WAVE ROIP Software	45,000				45,000
Whitman Oil-Water Separator	100,000				100,000
Electric Division Total	2,135,490				2,135,490

**Ketchikan Public Utilities
2015 - 2019 Capital Improvement Program
2015 Capital Budget**

Department/Division/Project	Revenues/ Reserves	Grants	Other	Revenue Bonds	2015 Total
Telecommunications Division					
Normal Growth and Repair - Buildings	40,000				40,000
Normal Growth and Repair - Central Office Switching	25,000				25,000
Normal Growth and Repair - Copper Cable	20,000				20,000
Normal Growth and Repair - Fiber Cable	190,000				190,000
Normal Growth and Repair - CO Transmission	375,000				375,000
Normal Growth and Repair - Expansion	25,000				25,000
Normal Growth and Repair - Provisioning	25,000				25,000
Fiber to the Home	40,000				40,000
Remote Cabinets for Advanced Services	40,000				40,000
Core Network Upgrade	110,000				110,000
Blade Server	25,000				25,000
Multi-Dwelling Unit Project	100,000				100,000
Operating Equipment	25,000				25,000
PC Hardware & Software	20,000				20,000
Power	25,000				25,000
LiveWire Replacement/Design	150,000				150,000
Vehicle Acquisition	50,000				50,000
Network Monitoring	25,000				25,000
Headend Expansion	35,000				35,000
Video Set Top Boxes	300,000				300,000
4G LTE	250,000				250,000
Wi-Fi	15,000				15,000
Telecommunications Division Total	1,910,000				1,910,000
Water Division					
Raw Water Transmission	492,762				492,762
Replacement ClorTech Titanium Generating Cells	45,000				45,000
Water Distribution Grid Improvements	30,000				30,000
Additional Projects	30,000				30,000
Water Service Upgrade Program	15,000				15,000
Backflow Prevention Program	3,000				3,000
West Fairy Chasm Water Improvements	35,000				35,000
Water Division Total	650,762				650,762
GRAND TOTAL	4,716,252				4,716,252

Ketchikan Public Utilities 2015 - 2019 Capital Improvement Program Summary of Projects by Division - All Years								
Division/Project	Prior Years	2015	2016	2017	2018	2019	Five Year Total	Project Total
Administration								
Financial & Accounting Information System	417,392	20,000					20,000	437,392
Administration Total	417,392	20,000					20,000	437,392
Sales, Marketing & Customer Service								
None								
Sales, Mrktng & Cust Service Total								
Electric Division								
Bailey Generator 4 Turbo Charger Rebuild		50,000					50,000	50,000
Generator Rewind & Repair	650,000	325,000	975,000				1,300,000	1,950,000
Generator Cleaning & Testing	180,000	180,000	180,000	180,000	180,000		720,000	900,000
Ketchikan Powerhouse Battery Bank Replacement		30,000					30,000	30,000
Transmission & Distribution Maintenance		250,000		350,000			600,000	600,000
Downtown Underground Rebuild	220,459	50,000	75,000	75,000	50,000		250,000	470,459
Vehicles & Moving Equipment		118,000	365,500	200,000	400,000	340,000	1,423,500	1,423,500
Beaver Falls Unit No. 1 Exciter		12,190					12,190	12,190
System Sectionalizing Fault Study		185,000					185,000	185,000
Transformer Purchase		75,000	125,000	100,000	110,000	125,000	535,000	535,000
Operating Equipment		385,300	400,000	400,000	400,000	400,000	1,985,300	1,985,300
Additional Projects		150,000	154,500	159,100	164,000	164,000	791,600	791,600
Reimbursable Projects		85,000	87,600	90,200	92,000	92,000	446,800	446,800
Whitman Tuff Boom			15,000				15,000	15,000
Ward Cove Substation Expansion	50,000	50,000	125,000				175,000	225,000
Substation 34.5 kV Tie Breaker Spare		45,000					45,000	45,000
WAVE ROIP Software		45,000					45,000	45,000
Whitman Oil-Water Separator		100,000					100,000	100,000
Ketchikan Tunnel Penstock Valve Replacement	50,000		54,300	150,000			204,300	254,300
Pennock-KIA Upgrade	138,316		100,000				100,000	238,316
Beaver Falls Switch Gear Replacement			850,000				850,000	850,000
Property Acquisition - Material & Equipment Storage			500,000	100,000			600,000	600,000
Office Trailer Replacement			30,000				30,000	30,000
Silvis Hydro Runner Replacement			250,000				250,000	250,000
Bailey Exhaust Stack Painting			150,000				150,000	150,000
Beaver Falls Governor Upgrade			80,000	170,000			250,000	250,000
Generator Air Filtration Systems			750,000				750,000	750,000
Bailey Generator 4 Radiator Replacement			300,000				300,000	300,000
Beaver Falls Powerhouse Exterior	10,000		250,000				250,000	260,000
Electric Division Headquarters Exterior	20,450		245,000				245,000	265,450
Electric Division Total	1,319,225	2,135,490	6,061,900	1,974,300	1,396,000	1,121,000	12,688,690	14,007,915

Ketchikan Public Utilities
2015 - 2019 Capital Improvement Program
Summary of Projects by Division - All Years

Division/Project	Prior Years	2015	2016	2017	2018	2019	Five Year Total	Project Total
Telecommunications Division								
Normal Growth and Repair - Buildings		40,000	50,000	50,000	50,000	50,000	240,000	240,000
Normal Growth and Repair - Central Office Switching		25,000	25,000	25,000	25,000	25,000	125,000	125,000
Normal Growth and Repair - Copper Cable		20,000	20,000	20,000	20,000	20,000	100,000	100,000
Normal Growth and Repair - Fiber Cable		190,000	250,000	100,000	100,000	100,000	740,000	740,000
Normal Growth and Repair - CO Transmission		375,000	500,000	450,000	200,000	200,000	1,725,000	1,725,000
Normal Growth and Repair - Expansion		25,000	175,000	100,000	50,000	50,000	400,000	400,000
Normal Growth and Repair - Provisioning		25,000	50,000	50,000	50,000	25,000	200,000	200,000
Fiber to the Home	889,136	40,000	50,000	50,000	50,000	50,000	240,000	1,129,136
Remote Cabinets for Advanced Services		40,000	25,000	25,000	25,000	25,000	140,000	140,000
Core Network Upgrade	385,000	110,000	110,000	110,000	100,000	75,000	505,000	890,000
Blade Server	145,000	25,000	25,000	25,000	25,000	25,000	125,000	270,000
Multi-Dwelling Unit Project	226,250	100,000	100,000	100,000	100,000	100,000	500,000	726,250
Operating Equipment		25,000	25,000	25,000	25,000	25,000	125,000	125,000
PC Hardware & Software		20,000	20,000	20,000	20,000	20,000	100,000	100,000
Power	50,000	25,000	25,000	25,000	25,000	25,000	125,000	175,000
LiveWire Replacement/Design	50,000	150,000	25,000	25,000	25,000	25,000	250,000	300,000
Vehicle Acquisition		50,000	550,000	250,000	250,000	250,000	1,350,000	1,350,000
Network Monitoring	50,000	25,000	10,000	10,000	10,000	10,000	65,000	115,000
Headend Expansion		35,000	125,000	75,000	75,000	75,000	385,000	385,000
Video Set Top Boxes		300,000	300,000	75,000	75,000	75,000	825,000	825,000
4G LTE	3,450,000	250,000	200,000	100,000	50,000	50,000	650,000	4,100,000
Wi-Fi	15,000	15,000	25,000	25,000	25,000	25,000	115,000	130,000
Telecommunications Division Total		5,260,386	1,910,000	2,685,000	1,735,000	1,375,000	9,030,000	14,290,386

Ketchikan Public Utilities 2015 - 2019 Capital Improvement Program Summary of Projects by Division - All Years								
Division/Project	Prior Years	2015	2016	2017	2018	2019	Five Year Total	Project Total
Water Division								
Raw Water Transmission	47,238	492,762					492,762	540,000
Replacement ClorTech Titanium Generating Cell	15,000	45,000	30,000				75,000	90,000
Water Distribution Grid Improvements		30,000	60,000	60,000	60,000	60,000	270,000	270,000
Additional Projects		30,000	60,000	60,000	60,000	60,000	270,000	270,000
Water Service Upgrade Program		15,000	30,000	30,000	30,000	30,000	135,000	135,000
Backflow Prevention Program		3,000	10,000	10,000	10,000	10,000	43,000	43,000
Schoenbar Road Water Improvements	93,805		2,117,053				2,117,053	2,210,858
Chatham Avenue Water Main Replacement	34,369			847,960			847,960	882,329
Front, Mill & Stedman St. Water Improvements	75,000			3,825,000			3,825,000	3,900,000
West Fairy Chasm Water Improvements		35,000			564,000		599,000	599,000
KPU Jointly-Owned Transport Trailer			5,500				5,500	5,500
Harris Street Water Improvements	71,678					685,000	685,000	756,678
Lund & Millar St. Water Improvements			50,000			1,000,000	1,050,000	1,050,000
Denali Ave. Water Improvements				35,000		395,000	430,000	430,000
Sayles & Gorge Bridges & Water Improvements			10,000		180,000		190,000	190,000
Second Avenue Water & Sewer - Phase I			20,000			400,000	420,000	420,000
Dunton Street Viaduct Water Improvements			10,000		168,000		178,000	178,000
Woodland Ave. Water Improvements			25,000			480,000	505,000	505,000
Highlands Reservoir Replacement			100,000				100,000	100,000
Confidence Reservoir Replacement - Design				100,000			100,000	100,000
Jackson St. at Hoadley Creek Water Improvements			140,000			450,000	590,000	590,000
Second Avenue Water & Sewer - Phase II				50,000		1,100,000	1,150,000	1,150,000
Brown Deer Water & Sewer Improvements				50,000		1,183,000	1,233,000	1,233,000
Water Division Total	337,090	650,762	2,667,553	5,067,960	1,072,000	5,853,000	15,311,275	15,648,365
TOTAL	7,334,093	4,716,252	11,414,453	8,777,260	3,843,000	8,299,000	37,049,965	44,384,058

**Ketchikan Public Utilities
2015 - 2019 Capital Improvement Program
Summary of Projects by Funding Source - All Years**

Division/Project	Prior Years	Revenue Generating Fund	Grants	Other	Revenue Bonds	State Drinking Water Loan Fund	Total
Administration							
Financial & Accounting Information System	417,392	20,000					437,392
Administration Total	417,392	20,000					437,392
Electric Division							
Bailey Generator 4 Turbo Charger Rebuild		50,000					50,000
Generator Rewind & Repair	650,000	1,300,000					1,950,000
Generator Cleaning & Testing	180,000	720,000					900,000
Ketchikan Powerhouse Battery Bank Replacement		30,000					30,000
Transmission & Distribution Maintenance		600,000					600,000
Downtown Underground Rebuild	220,459	250,000					470,459
Vehicles & Moving Equipment		1,423,500					1,423,500
Beaver Falls Unit No. 1 Exciter		12,190					12,190
System Sectionalizing Fault Study		185,000					185,000
Transformer Purchase		535,000					535,000
Operating Equipment		1,985,300					1,985,300
Additional Projects		791,600					791,600
Reimbursable Projects		446,800					446,800
Whitman Tuff Boom		15,000					15,000
Ward Cove Substation Expansion	50,000	175,000					225,000
Substation 34.5 kV Tie Breaker Spare		45,000					45,000
WAVE ROIP Software		45,000					45,000
Whitman Oil-Water Separator		100,000					100,000
Ketchikan Tunnel Penstock Valve Replacement	50,000	204,300					254,300
Pennock-KIA Upgrade	138,316	100,000					238,316
Beaver Falls Switch Gear Replacement		850,000					850,000
Property Acquisition - Material & Equipment Storage		600,000					600,000
Office Trailer Replacement		30,000					30,000
Silvis Hydro Runner Replacement		250,000					250,000
Bailey Exhaust Stack Painting		150,000					150,000
Beaver Falls Governor Upgrade		250,000					250,000
Generator Air Filtration Systems		750,000					750,000
Bailey Generator 4 Radiator Replacement		300,000					300,000
Beaver Falls Powerhouse Exterior	10,000	250,000					260,000
Electric Division Headquarters Exterior	20,450	245,000					265,450
Electric Division Total	1,319,225	12,688,690					14,007,915

Ketchikan Public Utilities
2015 - 2019 Capital Improvement Program
Summary of Projects by Funding Source - All Years

Division/Project	Prior Years	Revenue Generating Fund	Grants	Other	Revenue Bonds	State Drinking Water Loan Fund	Total
Telecommunications Division							
Normal Growth and Repair - Buildings		240,000					240,000
Normal Growth and Repair - Central Office Switching		125,000					125,000
Normal Growth and Repair - Copper Cable		100,000					100,000
Normal Growth and Repair - Fiber Cable		740,000					740,000
Normal Growth and Repair - CO Transmission		1,725,000					1,725,000
Normal Growth and Repair - Expansion		400,000					400,000
Normal Growth and Repair - Provisioning		200,000					200,000
Fiber to the Home	889,136	240,000					1,129,136
Remote Cabinets for Advanced Services		140,000					140,000
Core Network Upgrade	385,000	505,000					890,000
Blade Server	145,000	125,000					270,000
Multi-Dwelling Unit Project	226,250	500,000					726,250
Operating Equipment		125,000					125,000
PC Hardware & Software		100,000					100,000
Power	50,000	125,000					175,000
LiveWire Replacement/Design	50,000	250,000					300,000
Vehicle Acquisition		1,350,000					1,350,000
Network Monitoring	50,000	65,000					115,000
Headend Expansion		385,000					385,000
Video Set Top Boxes		825,000					825,000
4G LTE	3,450,000	650,000					4,100,000
Wi-Fi	15,000	115,000					130,000
Telecommunications Division Total	5,260,386	9,030,000					14,290,386

**Ketchikan Public Utilities
2015 - 2019 Capital Improvement Program
Summary of Projects by Funding Source - All Years**

Division/Project	Prior Years	Revenue Generating Fund	Grants	Other	Revenue Bonds	State Drinking Water Loan Fund	Total
Water Division							
Raw Water Transmission	47,238	492,762					540,000
Replacement ClorTech Titanium Generating Cells	15,000	75,000					90,000
Water Distribution Grid Improvements		270,000					270,000
Additional Projects		270,000					270,000
Water Service Upgrade Program		135,000					135,000
Backflow Prevention Program		43,000					43,000
Schoenbar Road Water Improvements	93,805		1,481,937		635,116		2,210,858
Chatham Avenue Water Main Replacement	34,369		593,572		254,388		882,329
Front, Mill & Stedman St. Water Improvements	75,000		2,678,000		1,147,000		3,900,000
West Fairy Chasm Water Improvements		35,000	395,000		169,000		599,000
KPU Jointly-Owned Transport Trailer		5,500					5,500
Harris Street Water Improvements	71,678		480,000		205,000		756,678
Lund & Millar St. Water Improvements		50,000	700,000		300,000		1,050,000
Denali Ave. Water Improvements		35,000	276,500		118,500		430,000
Sayles & Gorge Bridges & Water Improvements		10,000	127,000		53,000		190,000
Second Avenue Water & Sewer - Phase I		20,000	280,000		120,000		420,000
Dunton Street Viaduct Water Improvements		10,000	117,600		50,400		178,000
Woodland Ave. Water Improvements		25,000	336,000		144,000		505,000
Highlands Reservoir Replacement		30,000	70,000				100,000
Confidence Reservoir Replacement - Design		30,000	70,000				100,000
Jackson St. at Hoadley Creek Water Improvements		140,000	315,000		135,000		590,000
Second Avenue Water & Sewer - Phase II		50,000	770,000		330,000		1,150,000
Brown Deer Water & Sewer Improvements		50,000	828,000		355,000		1,233,000
Water Division Total	337,090	1,776,262	9,518,609		4,016,404		15,648,365
TOTAL	7,334,093	23,514,952	9,518,609		4,016,404		44,384,058

**Ketchikan Public Utilities
2015 - 2019 Capital Improvement Program**

Department: General Manager

Project Title	Priority	Prior Years	Adopted 2015			Projected Requirements				Total Project
			Reappro- priated	New Funding	Total	2016	2017	2018	2019	
Financial & Accounting Information System	1	417,392	14,000	6,000	20,000					437,392
Total		417,392	14,000	6,000	20,000					437,392

Source of Funds	Fund No.	Prior Years	Adopted 2015			Projected Requirements				Total Project
			Reappro- priated	New Funding	Total	2016	2017	2018	2019	
Revenue Generating Fund		417,392	14,000	6,000	20,000					437,392
Total		417,392	14,000	6,000	20,000					437,392

Department: KPU General Manager			Project Priority: 1			Project Number:				
Project Title: Financial & Accounting Information System Replacement			Start Date: 01/07 End Date: 12/15			Estimated Project Cost:				
Description: The City awarded a contract to New World Systems for the acquisition of a new accounting system and began implementation in September 2011. The total project cost is estimated at \$874,784. Finance is requesting that remaining funds that have been appropriated for this project be carried over to 2015, with \$6,000 requested in new funding. Funds will be used for hardware and software contingencies, training and temporary labor resources required for data entry services and backfilling staff positions for the Finance Department and other departments impacted by the project. The cost of this project is being funded equally by General Government and KPU.						Design Land/Right-of-Way Consultation 41,975 Construction Equip, Software & Implementation Services 379,917 Other - Training 15,500 Project Total 437,392				
Source of Funds	Fund No.	Prior Years	Adopted 2015			Projected Requirements				Total Project
			Reappro- priated	New Funding	Total	2016	2017	2018	2019	
Revenue Generating Fund		417,392	14,000	6,000	20,000					437,392
Total		417,392	14,000	6,000	20,000					437,392

Ketchikan Public Utilities 2015 - 2019 Capital Improvement Program Division: Electric										
Project Title	Priority	Prior Years	Adopted 2015			Projected Requirements				Total Project
			Reappro- riated	New Funding	Total	2016	2017	2018	2019	
Generation (Hydro and Diesel) Projects										
Bailey Generator 4 Turbo Charger Rebuild	1			50,000	50,000					50,000
Generator Rewind & Repair	2	650,000		325,000	325,000	975,000				1,950,000
Generator Cleaning & Testing	3	180,000		180,000	180,000	180,000	180,000	180,000		900,000
Beaver Falls No. 1 Exciter	8		12,190		12,190					12,190
Whitman Tuff Boom	14					15,000				15,000
WAVE ROIP Software Solution	17			45,000	45,000					45,000
Whitman Oil-Water Separator	18			100,000	100,000					100,000
Ketchikan Tunnel Penstock Valves Replacement	19	50,000				54,300	150,000			254,300
Beaver Falls Switch Gear Replacement	21					850,000				850,000
Silvis Hydro Runner Replacement	24					250,000				250,000
Beaver Falls Governor Upgrade	26					80,000	170,000			250,000
Generator Air Filtration Systems	27					750,000				750,000
Bailey Generator 4 Radiator Replacement	28					300,000				300,000
Transmission and Distribution Projects										
Transmission & Distribution Maintenance	5			250,000	250,000		350,000			600,000
Downtown Underground Upgrade	6	220,459	20,000	30,000	50,000	75,000	75,000	50,000		470,459
System Sectionalizing Fault Study	9			185,000	185,000					185,000
Transformer Purchase	10			75,000	75,000	125,000	100,000	110,000	125,000	535,000
Reimbursable Projects	13			85,000	85,000	87,600	90,200	92,000	92,000	446,800
Ward Cove Substation Expansion	15	50,000	50,000		50,000	125,000				225,000
Substation 34.5 kV Tie Breaker Spare	16			45,000	45,000					45,000
Pennock-KIA Upgrade	20	138,316				100,000				238,316
General Plant Projects										
Ketchikan Powerhouse Battery Bank "A" Replacement	4			30,000	30,000					30,000
Vehicles & Moving Equipment	7			118,000	118,000	365,500	200,000	400,000	340,000	1,423,500
Operating Equipment	11			385,300	385,300	400,000	400,000	400,000	400,000	1,985,300
Additional Projects	12			150,000	150,000	154,500	159,100	164,000	164,000	791,600
Property Acquisition - Material & Equipment Storage	22					500,000	100,000			600,000
Office Trailer Replacement	23					30,000				30,000
Bailey Exhaust Stack Painting	25					150,000				150,000
Beaver Falls Powerhouse Exterior	29	10,000				250,000				260,000
Electric Division Headquarters Exterior	30	20,450				245,000				265,450
Total		1,319,225	82,190	2,053,300	2,135,490	6,061,900	1,974,300	1,396,000	1,121,000	14,007,915
Source of Funds		Prior Years	Adopted 2015			Projected Requirements				Total Project
			Reappro- riated	New Funding	Total	2016	2017	2018	2019	
Revenue Generating Fund		1,319,225	82,190	2,053,300	2,135,490	6,061,900	1,974,300	1,396,000	1,121,000	14,007,915
Total		1,319,225	82,190	2,053,300	2,135,490	6,061,900	1,974,300	1,396,000	1,121,000	14,007,915

Division: Electric					Project Priority: 1		Project Number:			
Project Title: Bailey Generator 4 Turbo Charger Rebuild					Start Date: 01/15		Estimated Project Cost:			
Description:					End Date: 12/15		Design/License			
Bailey generator 4's two turbo chargers have reached end of life and require rebuilding.							Land/Right-of-Way			
							Construction Management			
							Construction			
							Equipment 50,000			
							Other			
							Project Total 50,000			
Source of Funds		Prior Years	Adopted 2015			Projected Requirements				Total Project
			Reappro-priated	New Funding	Total	2016	2017	2018	2019	
Revenue Generating Fund				50,000	50,000					50,000
Total				50,000	50,000					50,000

Division: Electric		Project Priority:			2		Project Number:		
Project Title: Generator Rewind & Repair		Start Date:			01/14		Estimated Project Cost:		
Description: Most of the generators are extremely old. Built in the 1950's, some units do not have record of ever being re-wound. Typical life expectancy for windings is 25-30 years. Generators in service beyond 50 years is a major concern. Recent coil testing for insulation integrity have shown two of the units degraded to the point of requiring rewind and other repairs. This budget is to provide funding for up to one rewind per year or other repairs as identified.		End Date:			12/16		Design/License Land/Right-of-Way Construction Management Construction Equipment Other		
							1,950,000		
							Project Total		
							1,950,000		

Source of Funds	Prior Years	Adopted 2015			Projected Requirements				Total Project
		Reappro-priated	New Funding	Total	2016	2017	2018	2019	
Revenue Generating Fund	650,000		325,000	325,000	975,000				1,950,000
Total	650,000		325,000	325,000	975,000				1,950,000

Division: Electric					Project Priority: 3		Project Number: Estimated Project Cost: Design/License Land/Right-of-Way Construction Management Construction Equipment Other 900,000 Project Total 900,000			
Project Title: Generator Cleaning & Testing					Start Date: 01/14					
Description: To get an evaluation of both stator and rotor field winding integrity, comprehensive tests are required. More often than not, detailed cleaning, minor repairs and resin coatings are necessary combined with re-test. Due to the equipment required, this work has been contracted out. Such service is in the realm of \$20,000 to \$50,000 per generator. This work is essential in developing a datum for scheduling future rewinds or other major work. This budget is to provide funding for initial cleaning and testing for all generators in the KPU system which will be used to determine or schedule future work, i.e. rewinds.					End Date: 12/18					
Source of Funds		Prior Years	Adopted 2015			Projected Requirements				Total Project
			Reappro- priated	New Funding	Total	2016	2017	2018	2019	
Revenue Generating Fund		180,000		180,000	180,000	180,000	180,000	180,000		900,000
Total		180,000		180,000	180,000	180,000	180,000	180,000		900,000

Division: Electric					Project Priority: 4		Project Number:		
Project Title: Ketchikan Powerhouse Battery Bank "A" Replacement					Start Date: 01/15		Estimated Project Cost:		
Description:					End Date: 12/15		Design/License		
Currently this battery bank is at end of life. Failure of this bank would result in downtime and loss of control to the substation and powerhouse							Land/Right-of-Way		
							Construction Management		
							Construction		
							Equipment 30,000		
							Other		
							Project Total 30,000		
Source of Funds	Prior Years	Adopted 2015			Projected Requirements				Total Project
		Reappro- priated	New Funding	Total	2016	2017	2018	2019	
Revenue Generating Fund			30,000	30,000					30,000
Total			30,000	30,000					30,000

Division: Electric					Project Priority: 5		Project Number:		
Project Title: Transmission & Distribution Maintenance					Start Date: 01/15 End Date: 12/17		Estimated Project Cost:		
Description: Electric last hired a contract linecrew in 2010 to perform maintenance of it's transmission & distribution (T&D) system; this work primarily entails replacement of utility poles, from secondary poles to double-circuit 34.5kV poles. This system is of a large enough scale that KPU crews must be periodically augmented in order to meet proper maintenance levels; It is anticipated that every 2-5 years a contract crew will be required. Of the over 4,700 poles in the system, nearly 100 of them have been identified as needing replacement in the next few years. This funding level will provide for approximately 25 poles in 2015.							Design Land/Right-of-Way Construction Management Construction 600,000 Equipment Other Project Total 600,000		
Source of Funds	Prior Years	Adopted 2015			Projected Requirements				Total Project
		Reappro- priated	New Funding	Total	2016	2017	2018	2019	
Revenue Generating Fund			250,000	250,000		350,000			600,000
Total			250,000	250,000		350,000			600,000

Division: Electric					Project Priority: 6		Project Number:		
Project Title: Downtown Underground Upgrade					Start Date: 01/11 End Date: 12/18		Estimated Project Cost:		
Description: Work will continue upgrading the downtown's underground electric systems. Vault 5 switches will be replaced and relocated above ground. Future efforts will include replacing submersible switches and transformers in vaults 0, 2, and 4.							Design 40,000 Land/Right-of-Way Construction Management 20,000 Construction 150,000 Equipment 260,000 Other 459 Project Total 470,459		
Source of Funds	Prior Years	Adopted 2015			Projected Requirements				Total Project
		Reappro- priated	New Funding	Total	2016	2017	2018	2019	
Revenue Generating Fund	220,459	20,000	30,000	50,000	75,000	75,000	50,000		470,459
Total	220,459	20,000	30,000	50,000	75,000	75,000	50,000		470,459

Division: Electric					Project Priority: 7		Project Number:		
Project Title: Vehicles & Moving Equipment					Start Date: 01/15 End Date: 12/19		Estimated Project Cost: Design Land/Right-of-Way Construction Management Construction Equipment Other Project Total		
Description: This project is for the purchase of two new/replacement vehicles and one new equipment trailer for the Electric Division. In order to maintain an efficient and safe operating fleet, vehicles and equipment need to be replaced based on a regular cycle. The following is a schedule of the vehicles to be purchased and vehicles to be replaced: <u>Purchase:</u> 1) F-450 Work Truck w/ Service Body (Linecrew) - estimated \$90,000 2) Escape (Metershop) - estimated \$28,000 <u>Replaces:</u> 1) 2004 1-Ton Work Truck w/ Service Body 2) 2000 Blazer							1,423,500 1,423,500		
Source of Funds	Prior Years	Adopted 2015			Projected Requirements				Total Project
		Reappro- priated	New Funding	Total	2016	2017	2018	2019	
Revenue Generating Fund			118,000	118,000	365,500	200,000	400,000	340,000	1,423,500
Total			118,000	118,000	365,500	200,000	400,000	340,000	1,423,500

Division: Electric			Project Priority: 8			Project Number:			
Project Title: Beaver Falls No. 1 Exciter			Start Date: 01/14 End Date: 12/15			Estimated Project Cost:			
Description: Excitation equipment on Beaver Falls Unit No. 1 performs slowly and does not compensate with Unit Nos. 3 & 4 during voltage changes. Unit No. 1 is a rotating exciter with a rheostat voltage regulator. Replacement of the rheostat with a controller to work with the rotating exciter should improve response and compensation with Unit Nos. 3 and 4 static exciters.						Design Land/Right-of-Way Construction Management Construction Equipment 12,190 Other Project Total 12,190			
Source of Funds	Prior Years	Adopted 2015			Projected Requirements				Total Project
		Reappro- priated	New Funding	Total	2016	2017	2018	2019	
Revenue Generating Fund		12,190		12,190					12,190
Total		12,190		12,190					12,190

Division: Electric					Project Priority: 9		Project Number:		
Project Title: System Sectionalizing Fault Study					Start Date: 01/15		Estimated Project Cost:		
Description:					End Date: 12/15		Design/License		
A SEAPA relay protection, coordination, and fault study identified many improvements needed within the SEAPA system but didn't drill down deep enough into the KPU system for suitable recommendations. The KPU system is long overdue for a new relay coordination and fault study. In addition, distribution feeder loads have grown to the point that sectionalizing breakers are required to split load and assist in restoration, further driving the need for a new study. A good example being the Bethe Tongass feeder which needs sectionalizing and a protection study for consideration of the Ketchikan General Hospital and International Airport, and the Ward Cove Substation which has no protection from faults north of the station on the 34.5kV.							Land/Right-of-Way		
							Construction Management		
							Construction		
							Equipment		185,000
							Other		
							Project Total		185,000

Source of Funds	Prior Years	Adopted 2015			Projected Requirements				Total Project
		Reappro- priated	New Funding	Total	2016	2017	2018	2019	
Revenue Generating Fund			185,000	185,000					185,000

Division: Electric					Project Priority: 10		Project Number:		
Project Title: Transformer Purchase					Start Date: 01/15 End Date: 12/19		Estimated Project Cost:		
Description: Funds the routine and preventative replacement and upgrades of both polemounted and padmounted transformers throughout the system. Projected increases are anticipated due to the expected continued rise in the price of metals.							Design Land/Right-of-Way Construction Management Construction Equipment 535,000 Other Project Total 535,000		
Source of Funds	Prior Years	Adopted 2015			Projected Requirements				Total Project
		Reappro- priated	New Funding	Total	2016	2017	2018	2019	
Revenue Generating Fund			75,000	75,000	125,000	100,000	110,000	125,000	535,000
Total			75,000	75,000	125,000	100,000	110,000	125,000	535,000

Division: Electric		Project Priority: 11		Project Number:						
Project Title: Operating Equipment		Start Date: 01/15		Estimated Project Cost:						
Description:		End Date: 12/19		Design						
<p>Purchase of new or replacement equipment for the meter shop, warehouse and SCADA department. This equipment will be used for the operation and maintenance of electrical service.</p> <p>1) SCADA Critical Parts \$ 3,300</p> <p>2) Rock Drill 4,000</p> <p>3) Automated External Defibrillator 2,000</p> <p>4) Substation and Powerhouse Electronic Meters 25,000</p> <p>5) Recorder Equipment 10,000</p> <p>6) Test/Indication Equipment Repair & Recalibration 30,000</p> <p>7) Meters, Probes and Hand Tools 25,000</p> <p>8) Customer Current & Potential Transformers 45,000</p> <p>9) AMI Meters & Meter Replacement Parts 150,000</p> <p>10) Generation and Powerhouse Spare Parts 72,000</p> <p>11) Beaver Falls Generator Vibration Monitoring 10,000</p> <p>12) Spare Orion LX 9,000</p>				Land/Right-of-Way						
				Construction Management						
				Construction						
				Equipment 1,985,300						
				Other						
				Project Total 1,985,300						
Source of Funds		Prior Years	Adopted 2015			Projected Requirements				Total Project
			Reappro- priated	New Funding	Total	2016	2017	2018	2019	
Revenue Generating Fund				385,300	385,300	400,000	400,000	400,000	400,000	1,985,300
Total				385,300	385,300	400,000	400,000	400,000	400,000	1,985,300

Division: Electric					Project Priority: 13		Project Number:		
Project Title: Reimbursable Projects					Start Date: 01/15 End Date: 12/19		Estimated Project Cost:		
Description: This account represents funds for materials for work that the division will be called upon to perform at the request of outside agencies and customers. Examples of reimbursable projects are new line extensions and damage repairs to the electrical system resulting from accidents, negligence and vandalism. The division's expectation is that such work will be reimbursed 100%.							Design Land/Right-of-Way Construction Management Construction Equipment 446,800 Other Project Total 446,800		
Source of Funds	Prior Years	Adopted 2015			Projected Requirements				Total Project
		Reappro- priated	New Funding	Total	2016	2017	2018	2019	
Revenue Generating Fund			85,000	85,000	87,600	90,200	92,000	92,000	446,800
Total			85,000	85,000	87,600	90,200	92,000	92,000	446,800

Division: Electric					Project Priority: 15		Project Number:		
Project Title: Ward Cove Substation Expansion					Start Date: 01/14 End Date: 12/16		Estimated Project Cost:		
Description: This project will follow a phased approach. The initial phase will be to extend the existing fence line and ground plane to include an 18' x 50' easement to the north to include the existing oil/water separator, thereby expanding the site. The next phase would include engineering studies for the increased capacity of the station to meet growing loads, utilizing surplus pieces saved from the old Bethe substation, and the possibility of using the remainder of the easement for equipment and material storage.							Design/License 100,000 Land/Right-of-Way Construction Management Construction 125,000 Equipment Other Project Total 225,000		
Source of Funds	Prior Years	Adopted 2015			Projected Requirements				Total Project
		Reappro- priated	New Funding	Total	2016	2017	2018	2019	
Revenue Generating Fund	50,000	50,000		50,000	125,000				225,000
Total	50,000	50,000		50,000	125,000				225,000

Division: Electric					Project Priority: 16		Project Number: Estimated Project Cost: Design/License Land/Right-of-Way Construction Management Construction Equipment 45,000 Other Project Total 45,000		
Project Title: Substation 34.5 kV Tie Breaker Spare					Start Date: 01/15 End Date: 12/15				
Description: This breaker is used on the transmission line at Mountain Point and the substation tie at Port West. This would provide for a spare.									
Source of Funds	Prior Years	Adopted 2015			Projected Requirements				Total Project
		Reappro- priated	New Funding	Total	2016	2017	2018	2019	
Revenue Generating Fund			45,000	45,000					45,000

Division: Electric					Project Priority: 17		Project Number: Estimated Project Cost: Design/License Land/Right-of-Way Construction Management Construction Equipment Other 45,000 Project Total 45,000			
Project Title: WAVE ROIP Software Solution					Start Date: 01/15					
Description: The Electric Division currently has two working radio channels, with base stations on High Mountain and at Beaver Falls, respectively. The WAVE ROIP (radio over internet protocol) package will combine the two working channels through a software solution, allowing for better communication between various work crews and Bailey Powerhouse throughout the system, including within the Silvis Lakes watershed.					End Date: 12/15					
Source of Funds		Prior Years	Adopted 2015			Projected Requirements				Total Project
			Reappro- priated	New Funding	Total	2016	2017	2018	2019	
Revenue Generating Fund				45,000	45,000					45,000
Total				45,000	45,000					45,000

Division: Electric		Project Priority: 18		Project Number:	
Project Title: Whitman Oil-Water Separator		Start Date: 01/15 End Date: 12/15		Estimated Project Cost: Design Land/Right-of-Way Construction Management Construction 100,000 Equipment Other Project Total 100,000	
Description: This provides for the design, procurement and installation of an oil-water separator to prevent oil leaks from entering the tailrace and subsequently into Herring Cove.					

Source of Funds	Prior Years	Adopted 2015			Projected Requirements				Total Project
		Reappropriated	New Funding	Total	2016	2017	2018	2019	
Revenue Generating Fund			100,000	100,000					100,000
Total			100,000	100,000					100,000

Division: Electric					Project Priority: 19		Project Number:		
Project Title: Ketchikan Tunnel Penstock Valves Replacement					Start Date: 01/13		Estimated Project Cost:		
Description: The three gate valves on the penstocks at the downstream end of the Ketchikan power tunnel are old and are nearing the end of their reliable service life. They must be capable of closing under flow and are critical to penstock safety. The valves are embedded in concrete and will be difficult to remove or to replace due to their location. As the tunnel provides the City's only potable water supply, it cannot be drained during the work. The first step is to run an ROV through the penstocks to assess the condition of the upstream face of the tunnel plug and the lower reaches of the tunnel. Assuming no issues are found with the inspection, valve rehabilitation could follow.					End Date: 12/17		Design 70,000 Land/Right-of-Way Construction Management Construction 150,000 Equipment 34,300 Other Project Total 254,300		
Source of Funds	Prior Years	Adopted 2015			Projected Requirements				Total Project
		Reappro- priated	New Funding	Total	2016	2017	2018	2019	
Revenue Generating Fund	50,000				54,300	150,000			254,300
Total	50,000				54,300	150,000			254,300

Division: Electric		Project Priority: 20			Project Number:				
Project Title: Pennock-KIA Upgrade		Start Date: 01/12			Estimated Project Cost:				
Description: Work includes: Installation of padmount switch gear on the Gravina shore at the airport, the study of and feasibility to connect the airport to the Clam Cove and the Lewis Reef distribution circuits and replacement of the airport submarine cable. Projected funding requirements are not possible beyond 2016 until conceptual studies are completed.		End Date: 12/16			Design/License 50,000				
					Land/Right-of-Way				
					Construction Management				
					Construction 50,000				
					Equipment 138,316				
					Other 138,316				
					Project Total 238,316				
Source of Funds	Prior Years	Adopted 2015			Projected Requirements				Total Project
		Reappro- priated	New Funding	Total	2016	2017	2018	2019	
Revenue Generating Fund	138,316				100,000				238,316
Total	138,316				100,000				238,316

Division: Electric					Project Priority: 21		Project Number: Estimated Project Cost: Design/License Land/Right-of-Way Construction Management Construction Equipment 850,000 Other Project Total 850,000			
Project Title: Beaver Falls Switch Gear Replacement					Start Date: 01/16 End Date: 12/16					
Description: The Beaver Falls powerhouse switch gear has been in need of replacement for a number of years. The existing equipment is of 1940's vintage. It has been identified as containing asbestos and 2400 VAC breakers are contained within the cubicles. A hydro modernization study recommended the replacement of the three generator's excitation controllers and protection relays. Since there is no room within the control room to accommodate new machine breakers, the existing units would need to be moved outside to the lower substation or onto the floor of the powerhouse. This is a major undertaking requiring an established scope of work and detailed work schedule.										
Source of Funds		Prior Years	Adopted 2015			Projected Requirements				Total Project
			Reappro- priated	New Funding	Total	2016	2017	2018	2019	
Revenue Generating Fund						850,000				850,000
Total						850,000				850,000

Division: Electric					Project Priority: 22		Project Number:		
Project Title: Property Acquisition-Material & Equipment Storage					Start Date: 01/16 End Date: 12/17		Estimated Project Cost:		
Description: The Electric Division will look for property (between 1 & 2 acres) for the purpose of consolidating its material and equipment storage, which is currently spread between two smaller parcels. Power poles, wire reels, pad and pole-mount transformers, heavy equipment and the mobile substation would all be stored on the new secured property. Future improvements to the land would include fencing the entire perimeter, building containment for transformers and the bulk power pole areas, as well as a basic shed building to protect the mobile substation from the weather. Currently, all transformers are stored near Ketchikan Powerhouse, located alongside Ketchikan Creek, presenting a spill hazard. The location needs access to the Tongass Highway system for large trucks and equipment, that does not run through residential neighborhoods and has at least basic site preparation already completed. It may prove feasible to undertake this in conjunction with the expansion of Ward Cove Substation.							Design 40,000 Land/Right-of-Way Construction Management Construction 560,000 Equipment Other Project Total 600,000		
Source of Funds	Prior Years	Adopted 2015			Projected Requirements				Total Project
		Reappro-priated	New Funding	Total	2016	2017	2018	2019	
Revenue Generating Fund					500,000	100,000			600,000
Total					500,000	100,000			600,000

Division: Electric					Project Priority: 23		Project Number:		
Project Title: Office Trailer					Start Date: 01/16 End Date: 12/16		Estimated Project Cost:		
Description: The existing office trailer in the parking lot of 1065 Fair Street is at the end of its usable life; walls and floors are rotten from water intrusion. A used office trailer in good condition will be purchased and installed in the same footprint as the existing.							Design Land/Right-of-Way Construction Management Construction Equipment 30,000 Other Project Total 30,000		
Source of Funds	Prior Years	Adopted 2015			Projected Requirements				Total Project
		Reappro- priated	New Funding	Total	2016	2017	2018	2019	
Revenue Generating Fund					30,000				30,000
Total					30,000				30,000

Division: Electric		Project Priority: 24		Project Number:						
Project Title: Silvis Hydro Runner Replacement		Start Date: 01/16		Estimated Project Cost:						
Description: The division is seeking to repair the original, aging steel runner for Silvis Hydro. This should work for some time although a more permanent solution is needed. This would fund a new stainless steel runner.		End Date: 12/16		Design						
				Land/Right-of-Way						
				Construction Management						
				Construction						
				Equipment 250,000						
				Other						
				Project Total 250,000						
Source of Funds		Prior Years	Adopted 2015			Projected Requirements				Total Project
			Reappro- priated	New Funding	Total	2016	2017	2018	2019	
Revenue Generating Fund						250,000				250,000
			</							

Division: Electric					Project Priority: 25		Project Number:		
Project Title: Bailey Exhaust Stack Painting					Start Date: 01/16 End Date: 12/16		Estimated Project Cost: Design/License Land/Right-of-Way Construction Management Construction Equipment Other		
Description: This project is to paint all four stacks with a proper coating that can protect the exhaust system from corrosion while withstanding high temperatures. The current rust coated stacks emphasize the ongoing deterioration and are aesthetically distressing to citizens and visitors of Ketchikan alike.							150,000		
							Project Total 150,000		
Source of Funds	Prior Years	Adopted 2015			Projected Requirements				Total Project
		Reappro- priated	New Funding	Total	2016	2017	2018	2019	
Revenue Generating Fund					150,000				150,000
Total					150,000				150,000

Division: Electric		Project Priority: 26		Project Number:					
Project Title: Beaver Falls Governor Upgrade		Start Date: 01/16		Estimated Project Cost:					
Description: KPU's hydro systems lack provision for isochronous operation (precise frequency control) if islanded, as sometimes occurs during outages and restoration. This proposed upgrade would provide SCADA selection for isoc/droop governor operation for Beaver Falls Nos. 3 & 4.		End Date: 12/17		Design					
				Land/Right-of-Way					
				Construction Management					
				Construction					
				Equipment 250,000					
				Other					
				Project Total 250,000					
Source of Funds	Prior Years	Adopted 2015			Projected Requirements				Total Project
		Reappro- priated	New Funding	Total	2016	2017	2018	2019	
Revenue Generating Fund					80,000	170,000			250,000
Total					80,000	170,000			250,000

Division: Electric		Project Priority: 27		Project Number:				
Project Title: Generator Air Filtration Systems		Start Date: 01/16		Estimated Project Cost:				
Description: Installation of an air filtration rack on each generator would minimize the amount of dirt and insects that go through the machines daily.		End Date: 12/16		Design				
		Land/Right-of-Way						
		Construction Management						
		Construction						
		Equipment						
				Other				
				Project Total				
				750,000				
				750,000				

Division: Electric					Project Priority: 28		Project Number:		
Project Title: Bailey Generator 4 Radiator Replacement					Start Date: 01/16 End Date: 12/16		Estimated Project Cost: Design/License Land/Right-of-Way Construction Management Construction Equipment Other Project Total		
Description: The exterior radiators for Bailey Generator No. 4 (BAG4) continually develop leaks in the core, requiring cutting and removing parts of the radiator system. Increased generator useage and subsequent increased maintenance of the cooling system will result in the eventual need for complete radiator replacement.							75,000 225,000 300,000		
Source of Funds	Prior Years	Adopted 2015			Projected Requirements				Total Project
		Reappro- priated	New Funding	Total	2016	2017	2018	2019	
Revenue Generating Fund					300,000				300,000
Total					300,000				300,000

Division: Electric		Project Priority: 29			Project Number:				
Project Title: Beaver Falls Powerhouse Exterior		Start Date: 01/13			Estimated Project Cost:				
Description: The exterior shell of Beaver Falls Powerhouse, built in 1954, contains asbestos and is flaking off the building. Signs of water intrusion into the concrete walls is apparent. This project will entail encapsulating the 120' x 30' building with metal siding and fencing to isolate the work zone from the adjacent substation.		End Date: 12/16			Design 10,000				
					Land/Right-of-Way				
					Construction Management				
					Construction 250,000				
					Equipment				
					Other				
					Project Total 260,000				
Source of Funds	Prior Years	Adopted 2015			Projected Requirements				Total Project
		Reappro- priated	New Funding	Total	2016	2017	2018	2019	
Revenue Generating Fund	10,000				250,000				260,000
Total	10,000				250,000				260,000

Division: Electric					Project Priority: 30		Project Number:		
Project Title: Electric Division Headquarters Exterior					Start Date: 01/11		Estimated Project Cost:		
Description: The warehouse's metal roof is leaking and metal siding has mutlitple holes in it. The flat roof over the offices has leaked for years. This project includes a new "Roof-Hugger"-type metal roofing system, new metal siding, and construction of a pitched roof over the offices.					End Date: 12/16		Design 20,450 Land/Right-of-Way Construction Management Construction 245,000 Equipment Other Project Total 265,450		
Source of Funds	Prior Years	Adopted 2015			Projected Requirements				Total Project
		Reappro- priated	New Funding	Total	2016	2017	2018	2019	
Revenue Generating Fund	20,450				245,000				265,450
Total	20,450				245,000				265,450

**Ketchikan Public Utilities
2015 - 2019 Capital Improvement Program**

Division: Telecommunications

Project Title	Priority	Prior Years	Adopted 2015			Projected Requirements				Total Project
			Reappro- priated	New Funding	Total	2016	2017	2018	2019	
<u>REGULATED</u>										
Normal Growth and Repair - Buildings	1			40,000	40,000	50,000	50,000	50,000	50,000	240,000
Normal Growth and Repair - CO Switching	2			25,000	25,000	25,000	25,000	25,000	25,000	125,000
Normal Growth and Repair - Copper Cable	3			20,000	20,000	20,000	20,000	20,000	20,000	100,000
Normal Growth and Repair - Fiber Cable	4			190,000	190,000	250,000	100,000	100,000	100,000	740,000
Normal Growth and Repair - CO Transmission	5			375,000	375,000	500,000	450,000	200,000	200,000	1,725,000
Normal Growth and Repair - Expansion	6			25,000	25,000	175,000	100,000	50,000	50,000	400,000
Normal Growth and Repair - Provisioning	7			25,000	25,000	50,000	50,000	50,000	25,000	200,000
Fiber to the Home	8	889,136		40,000	40,000	50,000	50,000	50,000	50,000	1,129,136
Remote Cabinets for Advanced Services	9			40,000	40,000	25,000	25,000	25,000	25,000	140,000
Core Network Upgrade	10	385,000		110,000	110,000	110,000	110,000	100,000	75,000	890,000
Blade Server	11	145,000		25,000	25,000	25,000	25,000	25,000	25,000	270,000
Multi-Dwelling Unit Project	12	226,250		100,000	100,000	100,000	100,000	100,000	100,000	726,250
Operating Equipment	13			25,000	25,000	25,000	25,000	25,000	25,000	125,000
PC Hardware & Software	14			20,000	20,000	20,000	20,000	20,000	20,000	100,000
Power Expansion	15	50,000		25,000	25,000	25,000	25,000	25,000	25,000	175,000
LiveWire Replacement/Design	16	50,000	50,000	100,000	150,000	25,000	25,000	25,000	25,000	300,000
Vehicle Acquisition	17			50,000	50,000	550,000	250,000	250,000	250,000	1,350,000
Network Monitoring	18	50,000		25,000	25,000	10,000	10,000	10,000	10,000	115,000
<u>NON-REGULATED</u>										
Headend Expansion	19			35,000	35,000	125,000	75,000	75,000	75,000	385,000
Video Set Top Boxes	20			300,000	300,000	300,000	75,000	75,000	75,000	825,000
4G LTE	21	3,450,000		250,000	250,000	200,000	100,000	50,000	50,000	4,100,000
Wi-Fi	22	15,000		15,000	15,000	25,000	25,000	25,000	25,000	130,000
Total		5,260,386	50,000	1,860,000	1,910,000	2,685,000	1,735,000	1,375,000	1,325,000	14,290,386
Source of Funds		Prior Years	Adopted 2015			Projected Requirements				Total Project
			Reappro- priated	New Funding	Total	2016	2017	2018	2019	
Revenue Generating Fund		5,260,386	50,000	1,860,000	1,910,000	2,685,000	1,735,000	1,375,000	1,325,000	14,290,386
Total		5,260,386	50,000	1,860,000	1,910,000	2,685,000	1,735,000	1,375,000	1,325,000	14,290,386

[illegible]

Division: Telecommunications					Project Priority: 3		Project Number:		
Project Title: Normal Growth and Repair - Copper Cable					Start Date: 01/15 End Date: 12/19		Estimated Project Cost:		
Description: This budget item funds replacement of existing deteriorated cables and construction of minor cable projects, including line extensions. This budget item also funds cable, cross arms and miscellaneous hardware required to reconnect to poles replaced by the Electric Division.							Design 4,000 Land/Right-of-Way Construction Management Construction 40,000 Equipment 56,000 Other Project Total 100,000		
Source of Funds	Prior Years	Adopted 2015			Projected Requirements				Total Project
		Reappro- priated	New Funding	Total	2016	2017	2018	2019	
Revenue Generating Fund			20,000	20,000	20,000	20,000	20,000	20,000	100,000
Total			20,000	20,000	20,000	20,000	20,000	20,000	100,000

Division: Telecommunications			Project Priority: 4			Project Number:			
Project Title: Normal Growth and Repair - Fiber Cable			Start Date: 01/15 End Date: 12/19			Estimated Project Cost:			
Description: This budget item funds additional fiber optic network for business data circuits including smaller fiber projects necessary for the efficient operation of the Utility. This item also includes materials and labor for continued installation of fiber service drops for customers who order high bandwidth television services in areas served by the division's fiber cable network.						Design 14,800 Land/Right-of-Way Construction Management Construction 407,000 Equipment 318,200 Other Project Total 740,000			
Source of Funds	Prior Years	Adopted 2015			Projected Requirements				Total Project
		Reappro- priated	New Funding	Total	2016	2017	2018	2019	
Revenue Generating Fund			190,000	190,000	250,000	100,000	100,000	100,000	740,000
Total			190,000	190,000	250,000	100,000	100,000	100,000	740,000

Division: Telecommunications					Project Priority: 5		Project Number:		
Project Title: Normal Growth and Repair - CO Transmission					Start Date: 01/15 End Date: 12/19		Estimated Project Cost:		
Description: This budget item funds purchase and installation of additional intelligent Network Interface Devices (NIDS) and Optical Network Terminals (ONTs) required to deliver service to IPTV customers served via fiber optic cable. This budget item includes funding for required/associated internal network fiber ports. This budget item includes funding for network transmission electronics necessary to serve business customers with new private line services including digital data service, T1, etc. This budget item also includes the capital to begin the migration off of the division's legacy platforms, which are no longer supported, to the standard Adtran platforms, for both Optical and VDSL services.							Design 200,000 Land/Right-of-Way Construction Management Construction 150,000 Equipment 1,275,000 Other 100,000 Project Total 1,725,000		
Source of Funds	Prior Years	Adopted 2015			Projected Requirements				Total Project
		Reappro- priated	New Funding	Total	2016	2017	2018	2019	
Revenue Generating Fund			375,000	375,000	500,000	450,000	200,000	200,000	1,725,000
Total			375,000	375,000	500,000	450,000	200,000	200,000	1,725,000

Division: Telecommunications		Project Priority: 6		Project Number:	
Project Title: Normal Growth and Repair - Expansion		Start Date: 01/15 End Date: 12/19		Estimated Project Cost: Design Land/Right-of-Way Construction Management Construction 25,000 Equipment 375,000 Other Project Total 400,000	
Description: This project is to upgrade, maintain and expand our "off island" connections, ensuring reliable services are provided to underserved, outlying, areas. This project utilizes both Wireless and Fiber technologies to provide services to remote areas.					

Source of Funds	Prior Years	Adopted 2015			Projected Requirements				Total Project
		Reappro- priated	New Funding	Total	2016	2017	2018	2019	
Revenue Generating Fund			25,000	25,000	175,000	100,000	50,000	50,000	400,000
Total			25,000	25,000	175,000	100,000	50,000	50,000	400,000

Division: Telecommunications		Project Priority: 7		Project Number:	
Project Title: Normal Growth and Repair - Provisioning		Start Date: 01/15 End Date: 12/19		Estimated Project Cost: Design 50,000 Land/Right-of-Way Construction Management Construction Equipment 50,000 Other 100,000 Project Total 200,000	
Description: This budget item funds the integration of the new access, middleware and subscriber management platforms into the Virtual Telecommunications Connection (VTC) automated provisioning software (eliminating the requirement for manual/technician service order assignments). This budget item also identifies funds for enhancing the NewWorld package to recapture efficiencies in the warehouse					

Source of Funds	Prior Years	Adopted 2015			Projected Requirements				Total Project
		Reappro-priated	New Funding	Total	2016	2017	2018	2019	
Revenue Generating Fund			25,000	25,000	50,000	50,000	50,000	25,000	200,000
Total			25,000	25,000	50,000	50,000	50,000	25,000	200,000

Division: Telecommunications Project Title: Fiber to the Home Description: This budget item funds contract labor to deploy fiber cable and terminals necessary to bring fiber to homes, businesses and multi-dwelling units throughout Ketchikan. Additionally, this project will allow the division to look into providing fiber into outlying, underserved, areas.					Project Priority: 8 Start Date: 01/15 End Date: 12/19		Project Number: Estimated Project Cost: Design 28,228 Land/Right-of-Way Construction Management Construction 423,426 Equipment 677,482 Other Project Total 1,129,136		
Source of Funds	Prior Years	Adopted 2015			Projected Requirements				Total Project
		Reappro-priated	New Funding	Total	2016	2017	2018	2019	
Revenue Generating Fund	889,136		40,000	40,000	50,000	50,000	50,000	50,000	1,129,136
Total	889,136		40,000	40,000	50,000	50,000	50,000	50,000	1,129,136

Division: Telecommunications					Project Priority: 9		Project Number:		
Project Title: Remote Cabinets for Advanced Services					Start Date: 01/15 End Date: 12/19		Estimated Project Cost:		
Description: This budget item funds the testing and replacement of batteries in remote switching cabinets (RSC). Over time, RSC batteries reach the end of useful life and require replacement. This project also equips RSC's with remote monitoring sensors, ensuring technicians can remotely detect proper operation prior to failure.							Design 3,500 Land/Right-of-Way Construction Management Construction 10,500 Equipment 126,000 Other Project Total 140,000		
Source of Funds	Prior Years	Adopted 2015			Projected Requirements				Total Project
		Reappro- priated	New Funding	Total	2016	2017	2018	2019	
Revenue Generating Fund			40,000	40,000	25,000	25,000	25,000	25,000	140,000
Total			40,000	40,000	25,000	25,000	25,000	25,000	140,000

Division: Telecommunications		Project Priority: 10		Project Number:						
Project Title: Core Network Upgrade		Start Date: 01/15		Estimated Project Cost:						
Description: The Core IP Network is the primary center of the KPU's advanced network. This budget item expands the existing Core to add additional resiliency and diversity to key components. Additionally, it will continue to fund the replacement of the ALU equipment deployed in the remote sites, to provide additional bandwidth, along with a standardized platform that will easily scale. Lastly, the project will continue to fund out of band management to ensure remote monitoring and management capabilities to reduce outage repair time.		End Date: 12/19		Design 50,000						
		Land/Right-of-Way								
		Construction Management								
		Construction								
		Equipment 785,000								
		Other 55,000								
				Project Total 890,000						
Source of Funds		Prior Years	Adopted 2015			Projected Requirements				Total Project
			Reappro- priated	New Funding	Total	2016	2017	2018	2019	
Revenue Generating Fund		385,000		110,000	110,000	110,000	110,000	100,000	75,000	890,000
Total		385,000		110,000	110,000	110,000	110,000	100,000	75,000	890,000

[illegible]

Division: Telecommunications		Project Priority: 12			Project Number:				
Project Title: Muti-Dwelling Unit Project		Start Date: 01/15			Estimated Project Cost:				
Description: This budget item funds purchase of multi dwelling unit (MDU) electronics, enabling provision of triple-play services to the 40% of KPU customers residing in apartment buildings via a single fiber (eliminating the need to run multiple fibers into multi-dwelling units). This will eliminate the corresponding need to install and maintain the per each fiber electronics required for multiple fiber installations.		End Date: 12/19			Design 10,000				
					Land/Right-of-Way				
					Construction Management				
					Construction 116,250				
					Equipment 600,000				
					Other				
					Project Total 726,250				
Source of Funds	Prior Years	Adopted 2015			Projected Requirements				Total Project
		Reappro- priated	New Funding	Total	2016	2017	2018	2019	
Revenue Generating Fund	226,250		100,000	100,000	100,000	100,000	100,000	100,000	726,250
Total	226,250		100,000	100,000	100,000	100,000	100,000	100,000	726,250

Division: Telecommunications		Project Priority: 13		Project Number:	
Project Title: Operating Equipment		Start Date: 01/15 End Date: 12/19		Estimated Project Cost:	
Description: This budget item funds test equipment utilized by KPU technicians to test, repair and install high speed data and voice circuits, particularly as it relates to KPU’s expanded fiber optic network.				Design Land/Right-of-Way Construction Management Construction Equipment 125,000 Other Project Total 125,000	

Division: Telecommunications					Project Priority: 14		Project Number:		
Project Title: PC Hardware and Software					Start Date: 01/15 End Date: 12/19		Estimated Project Cost:		
Description: This budget item funds replacement of outdated computers (identified by Information Technology for replacement) and purchases new hardware and software for the network operations control center.							Design Land/Right-of-Way Construction Management Construction Equipment 100,000 Other Project Total 100,000		
Source of Funds	Prior Years	Adopted 2015			Projected Requirements				Total Project
		Reappro-priated	New Funding	Total	2016	2017	2018	2019	
Revenue Generating Fund			20,000	20,000	20,000	20,000	20,000	20,000	100,000
Total			20,000	20,000	20,000	20,000	20,000	20,000	100,000

Division: Telecommunications					Project Priority: 15		Project Number:		
Project Title: Power Expansion					Start Date: 01/15 End Date: 12/19		Estimated Project Cost:		
Description: Funds to expand power facilities via new AC / DC filtering, or reclamation of existing usage via more efficient equipment.							Design 10,000 Land/Right-of-Way Construction Management Construction 40,000 Equipment 125,000 Other Project Total 175,000		
Source of Funds	Prior Years	Adopted 2015			Projected Requirements				Total Project
		Reappro- priated	New Funding	Total	2016	2017	2018	2019	
Revenue Generating Fund	50,000		25,000	25,000	25,000	25,000	25,000	25,000	175,000
Total	50,000		25,000	25,000	25,000	25,000	25,000	25,000	175,000

Division: Telecommunications					Project Priority: 16		Project Number:		
Project Title: LiveWire Replacement					Start Date: 01/15 End Date: 12/19		Estimated Project Cost:		
Description: New funds, to be combined with 2014 Carry Over, to procure a replacement to the LiveWire design tool, enhancing the division's documentation, and the staff's ability to automate and distribute inside and outside plant design.					Design 10,000 Land/Right-of-Way Construction Management Construction 40,000 Equipment 250,000 Other Project Total 300,000				
Source of Funds	Prior Years	Adopted 2015			Projected Requirements				Total Project
		Reappro- riated	New Funding	Total	2016	2017	2018	2019	
Revenue Generating Fund	50,000	50,000	100,000	150,000	25,000	25,000	25,000	25,000	300,000
Total	50,000	50,000	100,000	150,000	25,000	25,000	25,000	25,000	300,000

Division: Telecommunications					Project Priority: 18		Project Number:			
Project Title: Network Monitoring					Start Date: 01/14		Estimated Project Cost:			
Description: This budget item purchases the Hardware and Software necessary to properly monitor the KPU network. Today, the KPU network is monitored in an ad-hoc manner, with substandard tools. This prevents KPU from true proactive monitoring, and reduces the division's mean time to repair (MTTR).					End Date: 12/19		Design			
							Land/Right-of-Way			
							Construction Management			
							Construction			
							Equipment 60,000			
							Other 55,000			
							Project Total 115,000			
Source of Funds		Prior Years	Adopted 2015			Projected Requirements				Total Project
			Reappro- priated	New Funding	Total	2016	2017	2018	2019	
Revenue Generating Fund		50,000		25,000	25,000	10,000	10,000	10,000	10,000	115,000

Division: Telecommunications					Project Priority: 19		Project Number:		
Project Title: Headend Expansion					Start Date: 01/15		Estimated Project Cost:		
Description: This budget item funds the growth and change of the Video Distribution platform in the Headend, due to normal business growth and change. Additionally, this line item will fund increased redundancy and diversity in the division's video delivery platform, along with Encryption to protect content and insure compliance with all regulatory bodies. Lastly, this budget item will fund a conversion to MPEG 4, allowing KPU to more efficiently distribute video.					End Date: 12/19		Design 1,925 Land/Right-of-Way Construction Management Construction 19,250 Equipment 363,825 Other Project Total 385,000		
Source of Funds	Prior Years	Adopted 2015			Projected Requirements				Total Project
		Reappro- priated	New Funding	Total	2016	2017	2018	2019	
Revenue Generating Fund			35,000	35,000	125,000	75,000	75,000	75,000	385,000
Total			35,000	35,000	125,000	75,000	75,000	75,000	385,000

Division: Telecommunications		Project Priority: 20		Project Number:	
Project Title: Video Set Top Boxes		Start Date: 01/15 End Date: 12/19		Estimated Project Cost: Design Land/Right-of-Way Construction Management Construction Equipment 825,000 Other Project Total 825,000	
Description: This budget item funds purchase of customer set top boxes (STB's) utilized in the provision of CommVision television service. This account also funds purchase of Personal Video Recorders (PVRs) required to provide time shifted television.					

Source of Funds	Prior Years	Adopted 2015			Projected Requirements				Total Project
		Reappro-priated	New Funding	Total	2016	2017	2018	2019	
Revenue Generating Fund			300,000	300,000	300,000	75,000	75,000	75,000	825,000
Total			300,000	300,000	300,000	75,000	75,000	75,000	825,000

Division: Telecommunications		Project Priority: 21			Project Number:				
Project Title: 4G LTE		Start Date: 01/15			Estimated Project Cost:				
Description: This budget item provides continued funding to construct and maintain KPU's 4G-LTE Mobile network in Ketchikan. The 4G-LTE network was launched in May 2014, and this budget item is for upgrading and the potential expansion of the 4G-LTE network.		End Date: 12/19			Design 10,000				
					Land/Right-of-Way				
					Construction Management				
					Construction 150,000				
					Equipment 3,940,000				
					Other				
					Project Total 4,100,000				
Source of Funds	Prior Years	Adopted 2015			Projected Requirements				Total Project
		Reappro- priated	New Funding	Total	2016	2017	2018	2019	
Revenue Generating Fund	350,000		250,000	250,000	200,000	100,000	50,000	50,000	1,000,000
Interfund Loan	3,100,000								3,100,000
Total	3,450,000		250,000	250,000	200,000	100,000	50,000	50,000	4,100,000

Division: Telecommunications		Project Priority: 22			Project Number:				
Project Title: WiFi		Start Date: 01/15 End Date: 12/19			Estimated Project Cost:				
Description: This budget item funds the second year of a multi-year project to place WiFi nodes in strategic locations throughout downtown Ketchikan. Ultimately the WiFi nodes will provide KPU customers with virtually seamless WiFi 'roaming' for iPad-type tablets/wireless devices and enables the Utility to sell WiFi to tourists and enhanced WiFi related services to business customers.		Design 3,250 Land/Right-of-Way Construction Management Construction 26,000 Equipment 100,750 Other Project Total 130,000							
Source of Funds	Prior Years	Adopted 2015			Projected Requirements				Total Project
		Reappropriated	New Funding	Total	2016	2017	2018	2019	
Revenue Generating Fund	15,000		15,000	15,000	25,000	25,000	25,000	25,000	130,000
Total	15,000		15,000	15,000	25,000	25,000	25,000	25,000	130,000

**Ketchikan Public Utilities
2015 - 2019 Capital Improvement Program**

Division: Water

Project Title	Priority	Prior Years	Adopted 2015			Projected Requirements				Total Project
			Reappro- riated	New Funding	Total	2016	2017	2018	2019	
Raw Water Transmission Main	1	47,238	492,762		492,762					540,000
Replacement ClorTech Titanium Generating Cells	2	15,000	7,000	38,000	45,000	30,000				90,000
Water Distribution Grid Improvements	3			30,000	30,000	60,000	60,000	60,000	60,000	270,000
Additional Projects	4			30,000	30,000	60,000	60,000	60,000	60,000	270,000
Water Service Upgrade Program	5			15,000	15,000	30,000	30,000	30,000	30,000	135,000
Backflow Prevention Program	6			3,000	3,000	10,000	10,000	10,000	10,000	43,000
Schoenbar Road Water Improvements	7	93,805				2,117,053				2,210,858
Chatham Avenue Water Main Replacement	8	34,369					847,960			882,329
Front, Mill, & Stedman St. Water Improvements	9	75,000					3,825,000			3,900,000
West Fairy Chasm Water Improvements	10		35,000		35,000			564,000		599,000
KPU Jointly-Owned Transport Trailer	11					5,500				5,500
Harris Street Water Improvements	12	71,678							685,000	756,678
Lund & Millar St. Water Improvements	13					50,000			1,000,000	1,050,000
Denali Ave. Water Improvements	14						35,000		395,000	430,000
Sayles & Gorge Bridges & Water Improvements	15					10,000		180,000		190,000
Second Avenue Water & Sewer- Phase I	16					20,000			400,000	420,000
Dunton Street Viaduct Water Improvements	17					10,000		168,000		178,000
Woodland Ave. Water Improvements	18					25,000			480,000	505,000
Highlands Reservoir Replacement	19					100,000				100,000
Confidence Reservoir Replacement-Design	20						100,000			100,000
Jackson St. at Hoadley Creek Water Improvements	21					140,000			450,000	590,000
Second Avenue Water & Sewer - Phase II	22						50,000		1,100,000	1,150,000
Brown Deer Water Main Improvements	23						50,000		1,183,000	1,233,000
Total		337,090	534,762	116,000	650,762	2,667,553	5,067,960	1,072,000	5,853,000	15,648,365

Source of Funds	Prior Years	Adopted 2015			Projected Requirements				Total Project
		Reappro- riated	New Funding	Total	2016	2017	2018	2019	
Revenue Generating Fund	337,090	534,762	116,000	650,762	480,500	325,000	160,000	160,000	2,113,352
Proposed Revenue Bonds/Drinking Water Loans					635,116	1,401,388	272,400	1,707,500	4,016,404
Proposed State Grants					1,551,937	3,341,572	639,600	3,985,500	9,518,609
Total	337,090	534,762	116,000	650,762	2,667,553	5,067,960	1,072,000	5,853,000	15,648,365

Division: Water		Project Priority: 1		Project Number:					
Project Title: Raw Water Transmission Main		Start Date: 01/13		Design 47,238 Land/Right-of-Way Construction Management Construction 492,762 Equipment Other Project Total 540,000					
Description:		End Date: 12/15							
In addition to the three steel penstocks supplying the Ketchikan Hydrogenerators, there are also two 16-inch steel water mains extending from the same concrete tunnel plug. These are the raw water supply to the Ketchikan Chlorination Plant and are the sole source of raw water for the entire community. Probably last replaced when the Ketchikan Lakes Dam was rebuilt in 1957, although their exterior surfaces has been have been carefully protected with coal tar epoxy, they are now finally failing from within and are being patched with wrap-around bands. These 16-inch steel transmission mains have reached the end of their service life after over 50 years and are overdue for replacement. The design for their replacement with larger 20-inch, non-corrodable, HDPE pipe is complete and the steel pipelines will be replaced in 2015.									
Source of Funds	Prior Years	Adopted 2015			Projected Requirements				Total Project
		Reappro- priated	New Funding	Total	2016	2017	2018	2019	
Revenue Generating Fund	47,238	492,762		492,762					540,000
Total	47,238	492,762		492,762					540,000

Division: Water					Project Priority: 2		Project Number:		
Project Title: Replacement ClorTech Titanium Generating Cells					Start Date: 11/14 End Date: 06/16		Estimated Project Cost:		
Description: The present ClorTech Titanium Generation Cells that create sodium hypochlorite (bleach) in the Chlorination Plant have been in service since 2002 when the plant started and are reaching the end of their useful service life. Each of our two ClorTech generating systems consists of a bank equipped with three of these electrolytic cells. If KPU has available unexpended funds remaining towards the end of the 2014 fiscal year, one replacement cell will be purchased this year followed by three in 2015 and the last two in 2016.							Design Land/Right-of-Way Construction Management Construction Equipment 90,000 Other Project Total 90,000		
Source of Funds	Prior Years	Adopted 2015			Projected Requirements				Total Project
		Reappro- priated	New Funding	Total	2016	2017	2018	2019	
Revenue Generating Fund	15,000	7,000	38,000	45,000	30,000				90,000
Total	15,000	7,000	38,000	45,000	30,000				90,000

Division: Water					Project Priority: 3		Project Number: Design Land/Right-of-Way Construction Management Construction 270,000 Equipment Other Project Total 270,000				
Project Title: Water Distribution Grid Improvements					Start Date: 01/15						
					End Date: 12/19						
Description: Each year the division has, in conjunction with the work of other agencies, unexpected opportunities to undertake repairs to improve the municipal water system. This account provides the funding for such improvements.											
Source of Funds			Prior Years	Adopted 2015			Projected Requirements				
				Reappro- priated	New Funding	Total	2016	2017	2018	2019	Total Project
Revenue Generating Fund					30,000	30,000	60,000	60,000	60,000	60,000	270,000
Total					30,000	30,000	60,000	60,000	60,000	60,000	270,000

Division: Water		Project Priority: 4		Project Number: Design Land/Right-of-Way Construction Management Construction 270,000 Equipment Other Project Total 270,000						
Project Title: Additional Projects		Start Date: 01/15								
Description: This account provides for the cost of fire hydrants and other related materials, which are provided by the Utility in water line extensions and are then incorporated into the municipal water system. This account also provides a source of funds for raising or replacing valve boxes in City streets when General Government repaving projects occur. Although specific streets have not yet been selected for asphalt paving in 2015, there will be paving next year.		End Date: 12/19								
Source of Funds		Prior Years	Adopted 2015			Projected Requirements				Total Project
			Reappro- priated	New Funding	Total	2016	2017	2018	2019	
Revenue Generating Fund				30,000	30,000	60,000	60,000	60,000	60,000	270,000
Total				30,000	30,000	60,000	60,000	60,000	60,000	270,000

Division: Water		Project Priority: 5		Project Number: Design Land/Right-of-Way Construction Management Construction 135,000 Equipment Other Project Total 135,000						
Project Title: Water Service Upgrade Program		Start Date: 01/15								
Description: The water service upgrade program was initiated in 1997, in order to allow a number of residents to upgrade their individual water services. The division proposes to continue offering this program in 2015 and requests that the City Council authorize funding. Numerous water services, from the main to the residence, are in need of replacement to KPU standards. After completion of the work and inspection by KPU, this program allows the customer to provide cost documentation and receive a grant-in-aid. \$500 is available for work undertaken on private property and up to \$4,000 is available for work undertaken within the right-of-way. As a result of homeowners participating in the program, KPU will assume full responsibility for future repairs within the right-of-way as long as they are not caused by negligence by the property owner.		End Date: 12/19								
Source of Funds		Prior Years	Adopted 2015			Projected Requirements				Total Project
			Reappro- priated	New Funding	Total	2016	2017	2018	2019	
Revenue Generating Fund				15,000	15,000	30,000	30,000	30,000	30,000	135,000
Total				15,000	15,000	30,000	30,000	30,000	30,000	135,000

Division: Water		Project Priority: 6		Project Number: Design Land/Right-of-Way Construction Management Construction 43,000 Equipment Other Project Total 43,000						
Project Title: Backflow Prevention Program		Start Date: 01/15								
Description: This grant-in-aid program was established in 1995, in order to encourage businesses to install backflow preventers to help protect the municipal water system. The division proposes to continue offering this program in 2015 and requests that the City Council authorize funding. This program is part of ADEC's mandated cross-connection control regulations, which require the Utility to be responsible for system-wide protection. Until 2001, Ketchikan's lack of adoption and enforcement of the Uniform Plumbing Code allowed many substandard installations to be constructed within the community. These deficiencies are still being discovered and must be corrected by the property owner. Due to a lesser interest by businesses this past year, the proposed 2015 Budget remains at the reduced amount of \$10,000.		End Date: 12/19								
Source of Funds		Prior Years	Adopted 2015			Projected Requirements				Total Project
			Reappro- priated	New Funding	Total	2016	2017	2018	2019	
Revenue Generating Fund				3,000	3,000	10,000	10,000	10,000	10,000	43,000
Total				3,000	3,000	10,000	10,000	10,000	10,000	43,000

Division: Water					Project Priority: 7		Project Number:		
Project Title: Schoenbar Road Water Improvements					Start Date: 01/12 End Date: 12/16				
Description: <p>The Wastewater Division intends to replace the sewers along Schoenbar Road between the easterly intersection of Fairy Chasm and Park Avenue. Although some of the water mains have been replaced earlier, this project will allow 1,200 feet of undersized cast-iron mains to be replaced between Valley Forge and Schoenbar Trail intersections. The Schoenbar Road water main is the primary route from the Bear Valley Reservoir to Stedman Street. The expanding fish processing industries located along Stedman Street are consuming more water every year and supplying them is beginning to tax the ability of the Utility to supply their needs. The Water and Wastewater Divisions will resubmit an application in August 2014 under ADEC's 70% Municipal Matching Grant program requesting funds in SFY16. If it is approved, the Drinking Water Loan request for the remainder of the funding will be submitted in February of 2015. Although construction would not start until 2016, this assumes that voter approval to enter into loan agreements was approved at the October 2014 election. The amounts presented assume a 50/50 split between the Water & Wastewater Divisions for these funding sources.</p>							Design 93,805 Land/Right-of-Way Construction Management Construction 2,117,053 Equipment Other Project Total 2,210,858		
Source of Funds	Prior Years	Adopted 2015			Projected Requirements				Total Project
		Reappro- priated	New Funding	Total	2016	2017	2018	2019	
Revenue Generating Fund Proposed SFY 2016 70% Municipal Matching Grant Proposed Revenue Bonds/Drinking Water Loan Fund	93,805				1,481,937 635,116				93,805 1,481,937 635,116
Total	93,805				2,117,053				2,210,858

Division: Water		Project Priority: 8		Project Number:	
Project Title: Chatham Avenue Water Main Replacement		Start Date: 01/12			
		End Date: 10/17			
Description: The storm drainage system in Chatham Avenue is an "immediate priority" in the recent storm drainage study. This is another segment of a multi-year program jointly developed by KPU and the General Government to replace substandard, defective utilities simultaneously whenever possible. In conjunction with the Wastewater and Streets Divisions, install 360-feet of 6-inch main between Denali and Hill Road. The Water and Wastewater Divisions intend to submit an application in August 2015 under ADEC's 70% Municipal Matching Grant program requesting funds in SFY17. The remaining funds would be obtained through Drinking Water & Clean Water Loan requests to be submitted in February 2015. If funding is approved, and the voters approve the bond issue in October's 2014 Municipal Election, construction would begin in 2017. The amounts presented assume a 50/50 split between the Water & Wastewater Divisions for these funding sources.				Design 34,369 Land/Right-of-Way Construction Management Construction 847,960 Equipment Other Project Total 882,329	

Division: Water			Project Priority: 9			Project Number:			
Project Title: Front, Mill, & Stedman St. Water Improvements			Start Date: 01/13 End Date: 12/18						
Description: The Front, Mill, and Stedman Street replacement is estimated to cost \$8,825,000 in the 2013-2015 Statewide Transportation Improvement Program (STIP) Amendment 7. Unfortunately, this doesn't include any replacement of the 30 to 40-year old utilities underneath nor address the subsurface conditions. Mill Street is built over as much as 100-feet of decayed wood waste fill from the former Spruce Mill. Portions of Stedman's roadway are just fill dumped around piling with no retaining walls built at the property lines. Once bids are opened, the construction cost will very likely exceed the numbers presented below. The 2013 Water and Wastewater Capital Improvement Programs funded the utility designs. The Water and the Wastewater Divisions submitted applications under the 2015 ADEC 70% Municipal Matching Grant program requesting funds in SFY 2016. The remaining funds would be obtained through Drinking Water and Clean Water Loan requests submitted in February 2015. This assumes that the October 2014 utility bond measure is approved by the voters. If funding is approved, construction would begin in 2017 and continue into 2018.						Design 75,000 Land/Right-of-Way Construction Management Construction 3,825,000 Equipment Other Project Total 3,900,000			
Source of Funds	Prior Years	Adopted 2015			Projected Requirements				Total Project
		Reappro- priated	New Funding	Total	2016	2017	2018	2019	
Revenue Generating Fund	75,000								75,000
Proposed SFY 2017 70% Municipal Matching Grant						2,678,000			2,678,000
Proposed Revenue Bond/Drinking Water Loan Fund						1,147,000			1,147,000
Total	75,000					3,825,000			3,900,000

Division: Water		Project Priority: 10		Project Number:					
Project Title: West Fairy Chasm Water Improvements		Start Date: 01/15		Design 35,000 Land/Right-of-Way Construction Management Construction 564,000 Equipment Other Project Total 599,000					
Description:		End Date: 10/18							
This ductile iron main was installed in 1981. The portion replaced in 2007 failed in a different manner than usually occurs. Unlike electrolytic corrosion that usually creates fairly small pits along the bottom of the pipe where the soils are moist and most conductive; in this case, the entire surface of the pipe was badly pitted. The soil layer around the pipe was black from dissolved iron and smelt slightly of sulfur. There is a possibility that the ductile iron pipe was bedded using rock that contains quite a bit of iron pyrite (fools gold) which is actually iron disulfide. Pyrites reacting with oxygen and water will form <i>Thiobacillus</i> bacteria which generate their energy through oxidizing the iron with a side effect of producing sulfuric acid and that chemically corrodes the iron pipe. Subsequent repairs made at the Black Bear intersection have shown similar pitting and the ductile iron sewer mains are very likely in the same condition. The entire 720' should be replaced with non-corrodible plastic pipe. This project will be a joint venture between Public Works and KPU to be designed in 2016. If completed by July 2016, 70% Municipal Matching Grant SFY 2018 requests will be submitted. If approved, the remaining funds would be obtained through Drinking Water & Clean Water Loan requests to be submitted in February 2017. If funding is approved, and the voters approve the bond issue in October's 2016 Municipal Election, construction would begin in 2018.									
Source of Funds	Prior Years	Adopted 2015			Projected Requirements				Total Project
		Reappro- priated	New Funding	Total	2016	2017	2018	2019	
Revenue Generating Fund Proposed SFY 2017 70% Municipal Matching Grant Proposed Revenue Bond/ Drinking Water Loan Fund		35,000		35,000			395,000 169,000		35,000 395,000 169,000
Total		35,000		35,000			564,000		599,000

Division: Water		Project Priority: 11		Project Number:	
Project Title: KPU Jointly-Owned Transport Trailer		Start Date: 01/16 End Date: 12/16		Estimated Project Cost: Design Land/Right-of-Way Construction Management Construction Equipment 5,500 Other Project Total 5,500	
Description: KPU jointly owns two Kubota Mini-Excavators. Since both Electric and Telecommunications have maintenance responsibilities throughout our Borough service area, there are times when one of the excavators and its transport trailer are way outside the City Limits where Water's responsibilities are. This is particularly critical when a water main fails at night and there is no way to transport the second mini-excavator to the job site to begin excavation for repairs. The available options become to either send a service truck out into the Borough site to retrieve the trailer or slowly drive the remaining mini-excavator to the break. Either option is time-consuming and costly both in non-productive manpower as well as the additional time that our affected ratepayers are out of service until the water main repairs can be completed. To improve our operating efficiency, Electric and Water are proposing to jointly fund purchase of a second transport trailer.					

Source of Funds	Prior Years	Adopted 2015			Projected Requirements				Total Project
		Reappro- priated	New Funding	Total	2016	2017	2018	2019	
Revenue Generating Fund					5,500				5,500

Division: Water		Project Priority: 12			Project Number:					
Project Title: Harris Street Water Improvements		Start Date: 01/12								
		End Date: 12/19								
Description:										
<p>In conjunction with the Wastewater Division, install 880 feet of 6-inch water main along Harris Street. This is another segment of a multi-year program jointly developed by KPU and the General Government to replace substandard, defective utilities simultaneously whenever possible. DOWL-HKM's 2012 design is 100% complete. The Water and Wastewater Divisions intend to submit an application in August 2017 under ADEC's 70% Municipal Matching Grant program requesting funds in SFY19. The remaining funds would be obtained through a Drinking Water & Clean Water Loan request submitted in February 2018. If funding is approved by ADEC, and the voters approve the bond issue in October's 2016 Municipal Election, construction would begin in 2019. These numbers assume a 50/50 split between Water & Wastewater Divisions for just the Harris Street portion, while the Park Avenue portion would be built entirely by the Wastewater Division.</p>					Design 71,678					
					Land/Right-of-Way					
					Construction Management					
					Construction 685,000					
					Equipment					
					Other					
					Project Total 756,678					
Source of Funds		Prior Years	Adopted 2015			Projected Requirements				Total Project
			Reappro- priated	New Funding	Total	2016	2017	2018	2019	
Revenue Generating Fund		71,678								71,678
Proposed SFY 2017 70% Municipal Matching Grant									480,000	480,000
Proposed Revenue Bond/Drinking Water Loan Fund									205,000	205,000
Total		71,678							685,000	756,678

Division: Water			Project Priority: 13			Project Number:				
Project Title: Lund & Millar Street Water Improvements			Start Date: 01/16 End Date: 12/19							
Description: These streets are in serious need of repair along with replacement of the utilities beneath. Funding for the design appears in both 2016 Water and Wastewater Divisions' Capital Improvement Programs with each utility sharing the design costs equally at \$50,000 each. If the design is completed by December 2016, the Water and the Wastewater Divisions intend to submit an application for Drinking Water Loan and Clean Water Loan requests in February 2017. The Water and Wastewater Divisions also intend to submit an application in August 2017 under ADEC's 70% Municipal Matching Grant program requesting funding in SFY 2019. If funding is approved, construction would begin in 2019 replacing 980-feet of 6-inch cast iron piping. The total estimated project cost is \$1,000,000.						Design 50,000 Land/Right-of-Way Construction Management Construction 1,000,000 Equipment Other Project Total 1,050,000				
Source of Funds	Fund No.	Prior Years	Adopted 2015			Projected Requirements				Total Project
			Reappropriated	New Funding	Total	2016	2017	2018	2019	
Revenue Generating Fund						50,000				50,000
Proposed SFY 2018 70% Municipal Matching Grant									700,000	700,000
Proposed Revenue Bond/Drinking Water Loan Fund									300,000	300,000
Total						50,000			1,000,000	1,050,000

Division: Water		Project Priority: 14		Project Number: Design 35,000 Land/Right-of-Way Construction Management Construction 395,000 Equipment Other Project Total 430,000						
Project Title: Denali Avenue Water Improvements		Start Date: 01/17								
Description: In conjunction with the Wastewater Division, install 650 feet of 6-inch water main along Denali Avenue between Tower to Hill Road. This is another segment of a multi-year program jointly developed by KPU and General Government to replace substandard, defective utilities simultaneously wherever possible. The Water and Wastewater Divisions intend to submit an application in August 2017 under ADEC's 70% Municipal Matching Grant program. The remaining funds would be obtained through a Drinking Water Loan and Clean Water Loan requests submitted in February 2018. This assumes that the October 2016 ballot utility bond measure is approved by the voters. If funding sources are approved, construction would start in 2019. The total estimated project cost is \$395,000.		End Date: 12/19								
Source of Funds		Prior Years	Adopted 2015			Projected Requirements				Total Project
			Reappro- priated	New Funding	Total	2016	2017	2018	2019	
Revenue Generating Fund Proposed SFY 2018 70% Municipal Matching Grant Proposed Revenue Bond/Drinking Water Loan Fund						35,000		276,500	35,000	
								118,500	276,500	
									118,500	
Total						35,000		395,000	430,000	

Division: Water					Project Priority: 15		Project Number:		
Project Title: Sayles & Gorge Bridges & Water Improvements					Start Date: 01/16 End Date: 12/18				
Description: This viaduct is in need of replacement along with the utilities underneath. The Sayles & Gorge Viaduct has an estimated construction cost of \$1,280,000. It was nominated for the 2012-2015 Statewide Transportation Improvement Program (STIP), but wasn't included. Approximately 310' of the new 6-inch main will be buried and not eligible for being funded as part of the viaduct replacement. This design beyond the bridge abutments will be completed by Shearer Design as part of their on-going bridge and viaduct design project. The Water and Wastewater Divisions intend to submit an application in August 2016 under ADEC's 70% Municipal Matching Grant program. The remaining funds would be obtained through Drinking Water and Clean Water Loan requests submitted in February 2017. This assumes that both the October 2016 ballot utility bond measure is approved by the voters as well as included the next STIP funding amendment. If these funding sources are approved, construction would begin in 2018. The buried portion of the new 6-inch main is estimated to cost \$180,000.							Design 10,000 Land/Right-of-Way Construction Management Construction 180,000 Equipment Other Project Total 190,000		
Source of Funds	Prior Years	Adopted 2015			Projected Requirements				Total Project
		Reappro- priated	New Funding	Total	2016	2017	2018	2019	
Revenue Generating Fund Proposed SFY 2017 70% Municipal Matching Grant Proposed Revenue Bond/Drinking Water Loan Fund					10,000		127,000 53,000		10,000 127,000 53,000
Total					10,000		180,000		190,000

Division: Water			Project Priority: 16			Project Number:				
Project Title: Second Avenue Water Improvements - Phase I			Start Date: 01/16 End Date: 12/19			Design 20,000 Land/Right-of-Way Construction Management Construction 400,000 Equipment Other Project Total 420,000				
Description: The Wastewater Division intends to replace all of the sewer along 2nd Avenue between White Cliff and Water Street. The first phase will begin where construction was completed in 2005 at the White Cliff intersection. Approximately 500-feet to be replaced is already designed to a 35% level by DOWL HKM. 2016's funding will complete the remainder of the design. This is another segment of a multi-year program jointly developed by KPU and General Government to replace substandard, defective utilities simultaneously whenever possible. The Water and Wastewater Divisions intend to submit applications in August 2016 under ADEC's 70% Municipal Matching Grant program requesting funds in SFY 2019 followed by applications for Drinking Water and Clean Water Loan requests in February 2017. If all funding requests including the October 2016 ballot utility bond measure are approved by the voters, construction would start in 2019.										
Source of Funds	Fund No.	Prior Years	Adopted 2015			Projected Requirements				Total Project
			Reappro- riated	New Funding	Total	2016	2017	2018	2019	
Revenue Generating Fund Proposed SFY 2018 70% Municipal Matching Grant Proposed Revenue Bonds/Drinking Water Loan Fund						20,000			280,000 120,000	20,000 280,000 120,000
Total						20,000			400,000	420,000

Division: Water		Project Priority: 17		Project Number: Design 10,000 Land/Right-of-Way Construction Management Construction 168,000 Equipment Other Project Total 178,000					
Project Title: Dunton Street Viaduct Water Improvements		Start Date: 01/16 End Date: 12/18							
Description: This viaduct is in need of replacement along with the utilities underneath. The Dunton Viaduct has an estimated construction cost of \$4,200,000. It was nominated for the 2012-2015 Statewide Transportation Improvement Program (STIP), but wasn't included. Approximately 295' of the new 6-inch main will be buried and may not be eligible for being funded as part of the viaduct replacement. This design beyond the bridge abutments will be completed by Shearer Design as part of their on-going bridge and viaduct design projects. The Water and Wastewater Divisions intend to submit an application in August 2016 under ADEC's 70% SFY 2018 Municipal Matching Grant program. The remaining funds would be obtained through Drinking Water and Clean Water Loan requests submitted in February 2017. This assumes that both the October 2016 ballot utility bond measure is approved by the voters as well as included the next STIP funding amendment. If these funding sources are approved, construction would begin in 2018. The buried portion of the new 6-inch main is estimated to cost \$178,000.									
Source of Funds	Prior Years	Adopted 2015			Projected Requirements				Total Project
		Reappro- priated	New Funding	Total	2016	2017	2018	2019	
Revenue Generating Fund					10,000				10,000
Proposed SFY 2017 70% Municipal Matching Grant							117,600		117,600
Proposed Revenue Bonds/Drinking Water Loan Fund							50,400		50,400
Total					10,000		168,000		178,000

Division: Water			Project Priority: 18			Project Number:					
Project Title: Woodland Avenue Water Improvements			Start Date: 01/16								
			End Date: 12/19								
Description: The Wastewater Division intends to replace all of the sewer along Woodland Avenue between Deermount Street and Park Avenue. Although the wood-stave half of Woodland's water main was replaced in 1988, this project will allow the remaining 420 feet of undersized cast-iron mains to be replaced between the Nickey Way and Deermount Street intersections with 12-inch HDPE. If there was a failure in the Park/Fair route, it would provide an alternate route for water to Stedman Street. This is another segment of a multi-year program jointly developed by KPU and General Government to replace substandard, defective utilities simultaneously whenever possible. The Water and Wastewater Divisions intend to submit an application in August 2017 under ADEC's SFY 2019 70% Municipal Matching Grant program. The remaining funding would be obtained through Drinking Water and Clean Water Loan requests submitted in February 2018. If funding is approved, construction would begin in 2019.						Pre Design 25,000 Land/Right-of-Way Construction Management Construction 480,000 Equipment Other Project Total 505,000					
Source of Funds		Fund No.	Prior Years	Adopted 2015			Projected Requirements				Total Project
				Reappro- priated	New Funding	Total	2016	2017	2018	2019	
Revenue Generating Fund							25,000				25,000
Proposed SFY 2018 70% Municipal Matching Grant										336,000	336,000
Proposed Revenue Bonds/Drinking Water Loan Fund										144,000	144,000
Total							25,000			480,000	505,000

Division: Water		Project Priority: 19		Project Number:					
Project Title: Highlands Reservoir Replacement		Start Date: 01/16		Pre Design 100,000 Land/Right-of-Way Construction Management Construction Equipment Other Project Total 100,000					
Description: Construct a modern replacement for the wooden reservoir located on the northerly slope above the intersection of Forest Avenue and the Third Avenue Extension. The existing reservoir is too small to provide adequate fire protection for the surrounding residential area including the State Jail, the Library, and other commercial buildings on Copper Ridge Lane. Ketchikan is located in Seismic Zone 3 (major damage). This type of wooden reservoir will not survive a significant earthquake, nor can it be economically retrofitted with additional shear protection. Initial property discussions are already beginning to be followed by site investigations in later years before beginning construction of a large, modern 650,000 gallon reservoir. Design and construction funding will take at least another 8-10 years before the project is complete. KPU intends to submit an application in August 2015 under ADEC's 70% Municipal Matching Grant program requesting funds in SFY 2017 to begin the project. Preliminary negotiations for the property have already started in 2014 and construction would begin in about 2024.		End Date: 12/24							
Source of Funds	Prior Years	Adopted 2015			Projected Requirements				Total Project
		Reappro- priated	New Funding	Total	2016	2017	2018	2019	
Revenue Generating Fund Proposed SFY 2017 70% Municipal Matching Grant					30,000 70,000				30,000 70,000
Total					100,000				100,000

Division: Water			Project Priority: 20			Project Number:				
Project Title: Confidence Reservoir Replacement Design			Start Date: 01/17 End Date: 12/26							
Description: In the 1998 Comprehensive Plan, the cost of replacing the Confidence Zone Reservoir is estimated (in 1998 dollars) to cost \$2.94 million dollars. The area that it serves was originally expected to be a commercial zone (3,500 gpm for 4 hours fire fighting). Instead, it has become primarily a residential zone. Before investing significant amounts of money in a new reservoir, the sizing needs to be thoroughly investigated before design commences and suitable property acquired. The existing 21,380 gallon bolted steel reservoir was installed in 1992 as a temporary expedient planned to serve only the Solid Waste Handling Facility. Instead, this has become Ketchikan's fastest growing residential area. The division intends to submit an application in August 2016 (SFY 2018) under the 70% Municipal Matching Grant program requesting preliminary design funds for the proper size reservoir. If approved, funds would be released in summer 2017 to establish the initial design criteria along with suitable site locations. Subsequent phases will include geotechnical work, property purchase, and site preparation before actual construction could begin in about 2024.						Pre Design 100,000 Land/Right-of-Way Construction Management Construction Equipment Other Project Total 100,000				
Source of Funds	Fund No.	Prior Years	Adopted 2015			Projected Requirements				Total Project
			Reappro- priated	New Funding	Total	2016	2017	2018	2019	
Revenue Generating Fund Proposed SFY 2018 70% Municipal Matching Grant							30,000 70,000			30,000 70,000
Total							100,000			100,000

Division: Water		Project Priority: 21		Project Number:					
Project Title: Jackson St. at Hoadley Creek Water Improvements		Start Date: 01/16		Design 140,000 Land/Right-of-Way Construction Management Construction 450,000 Equipment Other Project Total 590,000					
		End Date: 12/19							
Description: Replacing the Hoadley Creek culvert as it crosses Jackson Street will sever the sole arterial water main that supplies both the Baranof and Carlanna Reservoirs for a period of several weeks. Before this occurs, a temporary pump station has to be built at a different location to supply the Carlanna Zone since those mains will be severed as well. For the Baranof Zone, a secondary route has to be constructed either as a temporary main spanning Hoadley Creek away from the culvert construction area or perhaps a permanent installation made through an existing City street that doesn't presently have a water main and will connect these two Baranof Zone segments. If the design is completed by July 2017 the Water and Wastewater Divisions intend to submit an application in August 2017 under ADEC's 70% Municipal Matching Grant program requesting funds in SFY2019. The remaining funds would be obtained through a Drinking Water and Clean Water Loan requests submitted in February 2018. If all funding is approved, construction would begin in 2019.									
Source of Funds	Prior Years	Adopted 2015			Projected Requirements				Total Project
		Reappro- priated	New Funding	Total	2016	2017	2018	2019	
Revenue Generating Fund Proposed SFY 2017 70% Municipal Matching Grant Proposed Revenue Bonds/Alaska Drinking Water Loan Fund					140,000			315,000 135,000	140,000 315,000 135,000
Total					140,000			450,000	590,000

Division: Water		Project Priority: 22		Project Number:						
Project Title: Second Avenue Water & Sewer - Phase II		Start Date: 01/17		Design 50,000 Land/Right-of-Way Construction Management Construction 1,100,000 Equipment Other Project Total 1,150,000						
Description: In conjunction with the Wastewater Division both the water and sewer utilities will be replaced between the White Cliff and Adams intersections. This is another segment of a multi-year program jointly developed by KPU and the General Government to replace substandard, defective utilities simultaneously whenever possible. If the design is completed by July 2017, the Water and Wastewater Divisions intend to submit an application in August 2017 under ADEC's 70% Municipal Matching Grant program requesting funds in SFY19. The remaining funds would be obtained through a Drinking Water and Clean Water Loan requests submitted in February 2020. If all funding is approved, construction would begin in 2019.		End Date: 12/19								
Source of Funds		Prior Years	Adopted 2015			Projected Requirements				Total Project
			Reappro- priated	New Funding	Total	2016	2017	2018	2019	
Revenue Generating Fund							50,000			50,000
Proposed SFY 2017 70% Municipal Matching Grant							770,000		770,000	
Proposed Revenue Bonds/Alaska Drinking Water Loan Fund							330,000		330,000	
Total							50,000		1,100,000	1,150,000

Division: Water		Project Priority: 23		Project Number:					
Project Title: Brown Deer Water Main Replacement		Start Date: 01/17 End Date: 12/19							
Description: In a similar condition as West Fairy Chasm, this ductile iron main was installed in 1974 with a further extension in 1981. An excavation in 2012 to replace a service found an iron saddle very badly corroded and about to fail. The ductile iron water and sewer mains are very likely in the same condition. The entire length of 1425-feet should be replaced with non-corrodible plastic pipe. This project will be a joint venture between Public Works and KPU. If the design is completed by July 2017, the Water and Wastewater Divisions intend to submit an application in August 2017 under ADEC's 70% Municipal Matching Grant program requesting funds in SFY19. The remaining funds would be obtained through a Drinking Water and Clean Water Loan requests submitted in February 2018. If funding is approved, and the voters approve the bond issue in October's 2016 Municipal Election, construction would begin in 2019.				Design 50,000 Land/Right-of-Way Construction Management Construction 1,183,000 Equipment Other Project Total 1,233,000					
Source of Funds	Prior Years	Adopted 2015			Projected Requirements				Total Project
		Reappro- priated	New Funding	Total	2016	2017	2018	2019	
Revenue Generating Fund Proposed SFY 2019 70% Municipal Matching Grant Proposed Revenue Bond/ Drinking Water Loan Fund						50,000		828,000 355,000	50,000 828,000 355,000
Total						50,000		1,183,000	1,233,000