2015 Utilities Rate Study

PRESENTATION ON

WATER – WASTEWATER – STORMWATER

By

Utilities & Management Services Staff

and

Willdan Financial

City Council Work Session

February 17, 2016

AGENDA

- Where we have been (revisit Council direction already provided)
  - Reclaimed water set aside for another day, decrease water rate structure, no tiers for non-residential
- Relationship between Rates, CIP & Debt Limit
  - a 3-legged stool comparison
  - Policy Questions: what's your tolerance for rate increases?
    do you want go beyond the debt limit 20% threshold?
    how much CIP do you want to fund?
- Rate Funded Capital Improvement Program
  - Water, Wastewater & Stormwater
- Water Conservation Program
  - funding increase options

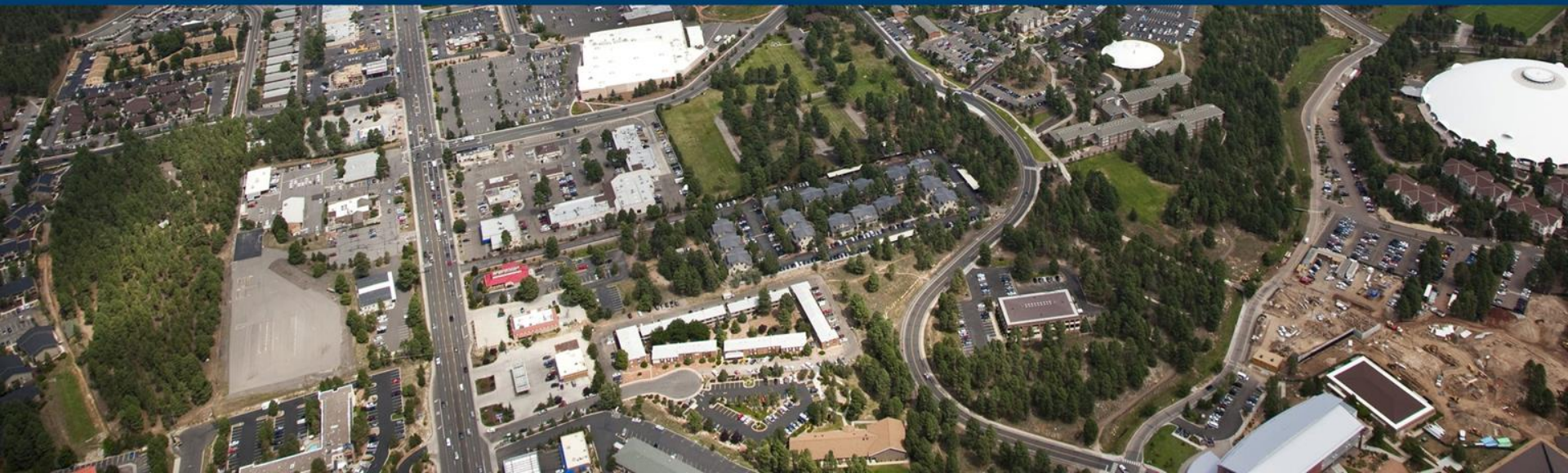
AGENDA

- Water Rate Options
  - Rate Structure to be modified (i.e., 0-3,500 gallons/ 3,501-6,200 gallons/ 6,201 – 11,500 gallons/ > 11,501 gallons)
  - Option 1: 3% increase with ~28% Debt Limit and keep proposed CIP
  - Option 2: 7% increase with a 20% Debt Limit and keep proposed CIP
  - *New Option 3: 3% increase with a 20% Debt Limit and reduce proposed CIP*
  - Other option?
- Sewer Rate Options
  - Option 1: 5.5% increase with a ~28% Debt Limit and keep proposed CIP
  - Option 2: 7% increase with a 20% Debt Limit and keep proposed CIP
  - *New Option 3: 5.5% increase with a 20% Debt Limit and reduce proposed CIP*
  - Other increase option?
- Stormwater Rate Options
  - Option 1: 3% increase with $400,000 CIP
  - Option 2: 6% increase with $600,000 CIP, no debt
  - Option 3: 6% increase with $1M CIP, with debt
  - Option 4: 15% increase for $15M Rio de Flag and $400,000 CIP
- Capacity Fee CIP Presentation and proposed options
  - Water: Option 1 (slight decrease) or Option 2 (increase)
  - Sewer: Option 1
- Reclaimed Water Discussion: future
  - where to define costs of reclaimed water v. wastewater

Relationships

Council needs to provide direction on 2 and the 3rd will be calculated

Rate Funded & Proposed Capital by Fund



EXISTING RATE FUNDED WATER CIP

5-YEAR PLAN

C	E	F	G	H	I	J	K
	Budget 2014-2015	Estimate 2014-2015	Budget 2015-2016	2016-2017	2017-2018	2018-2019	2019-2020
Communication Towers for Operations (3)	225,000	225,000	-	-	-	-	-
	298,600	298,600	25,000	-	-	-	-
	-	-	-	-	-	-	-
	-	-	-	-	-	-	-
Rio Flood Control Project-W/L Replacement	200,000	200,000	-	-	-	250,000	275,000
Aging Water Infrustructure Replacement	284,128	284,128	1,000,000	2,400,000	2,832,000	2,832,000	2,832,000
West/Arrowhead Waterline	110,433	110,433	-	-	-	-	-
AWIR-Walapai Dr Alley Waterline	265,720	265,720	-	-	-	-	-
AWIR-San Francisco Alley Waterline	170,960	170,960	-	-	-	-	-
Westside Waterline Expansion-WL Gore	444,000	444,000	-	-	-	-	-
Water Meter Vault Replacement Prog	106,500	106,500	-	-	-	-	-
Radio Read Meter Replacements	350,000	350,000	300,000	300,000	340,000	340,000	340,000
Reserve	300,000	300,000	300,000	300,000	300,000	300,000	300,000
Water System Master Plan	-	-	-	-	-	-	150,000
Water Rate Study	148,400	89,040	-	-	-	-	105,000
LM Wellfield-LM#2 12" Pipeline	321,000	321,000	-	-	-	-	-
Cheshire Tank Repairs	300,000	300,000	-	-	-	-	-
Future Water Rights-Red Gap Waterline	597,200	597,200	-	-	-	-	-
NAZ Water Supply Feasibility	110,000	110,000	-	-	-	-	-
McCallister-Well Pump & Building	1,050,000	1,050,000	-	-	-	-	-
AWIR-Leroux St Waterline/Sewerline	815,970	815,970	1,200,000	-	-	-	-
Switzer Canyon Transmission Line PH 2	1,525,545	1,525,545	-	-	-	-	-
WTP Security and SCADA Improvements	-	-	77,500	-	-	-	-
Lake Mary Electrical Upgrade	-	-	300,000	-	-	-	-
Hydrolic Studies	-	-	250,000	-	-	-	-
Railroad Springs Res #1 Repaint	-	-	-	-	200,000	-	-
Lake Mary Land Acquisition	-	-	-	-	-	700,000	700,000
New Well and Pumphouse	-	-	-	1,500,000	1,000,000	-	-
Cheshire Tank Upgrade	-	-	-	-	-	-	-
Fort Tuthill Waterline Loop	-	-	-	-	-	-	-
Switzer Canyon Transmission Line PH 3	-	-	-	-	-	-	900,000
	-	-	-	-	-	-	-
	-	-	-	-	-	-	-
	-	-	-	-	-	-	-
	7,099,856	7,040,496	3,427,500	4,500,000	4,672,000	4,422,000	5,602,000
Total Water Fund CIP	7,398,456	7,339,096	3,452,500	4,500,000	4,672,000	4,422,000	5,602,000

Summary | Combined Detail | Transfers | Fund 202 Detail | Fund 202 OpCap | **Fund 202 CIP** | Fund 203 Detail | Fund 203 OpCap | Fund 203 CIP | Fun

Proposed Additional Rate Funded Water CIP

City of Flagstaff
Proposed Additional Water Rate Funding
New 5-Year Capital Improvement Projects
Fiscal Years 2016-2020

→ *Debt funded*

Project	Budget FY2016	Budget FY2017	Budget FY2018	Budget FY2019	Budget FY2020	Total
						$0
→ Aging Water Infrastructure Replacement-2 Mile		$800,000	$1,200,000	$1,200,000	$1,200,000	$4,400,000
Annual Meter Replacement-15 yr cycle		$100,000	$60,000	$60,000	$60,000	$280,000
Water Vault/PRV Replacement Program		$150,000	$150,000	$150,000	$150,000	$600,000
Rio de Flag Waterline Relocations		$500,000	$50,000		$293,000	$843,000
→ Lake Mary WTP Land Acquisition from FS		$1,400,000				$1,400,000
LM WTP - Electrical Svc Upgrade						$0
Water System Master Plan				$150,000		$150,000
→ Switzer Canyon/RFP Transmission WL		$150,000	$1,000,000	$150,000	$150,000	$1,450,000
Vehicle Equipment Storage						
Railroad Springs # 1 Tank Rehabilitation			$100,000			$100,000
New Well and Pumphouse						
AWIR-Leroux Street Waterline/Sewerline						
WTP Security and SCADA Improvements						
LM Raw Water Pump Station						$0
→ LM WTP - Sedimentation Basins		$1,000,000	$1,200,000	$1,200,000		$3,400,000
→ LM WTP - Flocculation Basins		$640,000	$640,000			$1,280,000
Fox Glenn Well Energy Efficiency Upgrade				$137,500		$137,500
WM Clarifier				$134,000	$536,000	$670,000
Meter Replacement-Catch up		$450,000	$450,000			$900,000
AMR Meter Fixed Network		$350,000				$350,000
Additional Water Capital included in Rate Study	$0	$5,540,000	$4,850,000	$3,181,500	$2,389,000	$ 14,710,500

Recommended additions to CIP from condition assessment evaluations-Master Plan NCS Engineering Oct 2014

	Monthly Increase in Water Bill – Scenario 1 (3%)				
Fiscal Year	2016	2017	2018	2019	2020
Single Family (5,000 Gal/Mo)	$0.94	$1.05	$1.06	$1.13	$1.14
Commercial (Big Box Store) (75,000 Gal/Mo)	$11.88	$11.15	$11.92	$11.19	$11.21

	Monthly Increase in Water Bill – Scenario 2 (7%)				
Fiscal Year	2016	2017	2018	2019	2020
Single Family (5,000 Gal/Mo)	$2.26	$2.52	$2.69	$2.88	$3.07
Commercial (Big Box Store) (75,000 Gal/Mo)	$26.95	$27.81	$29.43	$31.04	$33.42

Existing Rate Funded Wastewater CIP

5-Year Plan

			Budget 2014-2015	Estimate 2014-2015	Budget 2015-2016	2016-2017	2017-2018	2018-2019	2019-2020
Wastewater CIP:									
Wastewater Treatment-Wildcat									
311-####		Cogen Improvements	340,000	340,000	-	-	-	-	-
311-1110		Facility Improvments	-	-	50,000	-	-	-	-
311-1112		Repair Grit Chanber/Replace Grit Pumps	-	-	65,000	-	-	-	-
Subtotal-311			340,000	340,000	115,000	-	-	-	-
Wastewater Treatment-Rio									
312-1121		Facility Improvements	-	-	55,000	-	-	-	-
312-1122		Facility Improvements-Plant	-	-	60,000	-	-	-	-
Subtotal-312			-	-	115,000	-	-	-	-
Wastewater Collection									
313-####			-	-	-	-	-	-	-
Subtotal-313			-	-		-	-	-	-
Wastewater CIP Section									
375-3203	50%	Sewer/RW Master Plan	-	-	-	-	-	-	112,500
375-3204	0%	WWTP Energy Efficiency Program	948,400	858,400	600,000	650,000	350,000	-	-
375-3207		WWTP Security and SCADA Improvements	-	-	97,500	-	-	-	-
375-3208	53%	Wildcat-Solids Disposal	823,000	516,000	-	-	-	-	-
375-3211	0%	Picture Canyon	260,000	260,000	-	-	-	-	-
375-3314	0%	ASIR-Sinclair Wash Sewerline	70,000	70,000	-	-	-	-	-
375-3217	0%	Wildcat Barscreens	400,000	388,000	-	-	-	-	-
375-3220	0%	Annual Sewer Replacement Program	430,000	430,000	368,600	1,300,000	1,300,000	1,300,000	1,300,000
375-3235	0%	Reserve	300,000	270,000	300,000	300,000	300,000	300,000	300,000
375-3284	0%	ASIR-Bonito Sewerline Replacement	320,000	320,000	931,400	-	-	-	-
375-3286	0%	Rio Flood Control Project-Sewer Replacement	242,000	242,000	-	-	-	250,000	275,000
375-3297	80%	Wildcat Septage and Grease Station	600,000	600,000	200,000	-	-	-	-
375-3298	60%	Wildcat Centrate	450,000	450,000	-	-	-	-	-
375-####	100%	Westside Intercepter Improvements	-	-	-	-	500,000	-	-
375-####	100%	Wildcat Primary Pump Station	-	-	-	-	-	300,000	-
375-####	0%	Wildcat-Replacement Grit Pumps	-	-	-	-	-	-	-
375-3319	0%	Rio Plant-Replace UV System	-	-	1,400,000	-	-	-	-
375-3320		Wildcat Micro Carbon Feed Addition	-	-	200,000	-	-	-	-
375-####	50%	Backup Generator. at Rio Plant	-	-	-	-	-	400,000	-
375-####	100%	Rio Filter Expansion, TF-1	-	-	-	-	-	-	-
380-3299	50%	Bushmaster RW Pump Station	495,000	495,000	-	-	-	-	-
380-3300	50%	Wildcat RW Pump Station and Piping	850,000	850,000	-	-	-	-	-
380-####	10%	Rate Study- Sewer Portion	-	59,360	-	-	-	-	63,000
380-####			-	-	-	-	-	-	-
380-####			-	-	-	-	-	-	-
Subtotal-58			6,188,400	5,808,760	4,097,500	2,250,000	2,450,000	2,550,000	2,050,500
		Total Wastewater	6,528,400	6,148,760	4,327,500	2,250,000	2,450,000	2,550,000	2,050,500

Summary | Combined Detail | Transfers | Fund 202 Detail | Fund 202 OpCap | Fund 202 CIP | Fund 203 Detail | Fund 203 OpCap | Fund 203 CIP | Fund 204 Detail | Fun

Proposed Additional Rate Funded Wastewater CIP

→ *Debt funded*

City of Flagstaff
Proposed Additional Sewer Rate Funding
New 5-Year Capital Improvement Projects
Fiscal Years 2016-2020

Project	Budget FY2016	Budget FY2017	Budget FY2018	Budget FY2019	Budget FY2020	Total
Westside Interceptor Improvements						$0
Sewer System Master Plan						$0
→ Rio WRP-UV System Replacement						$0
WWTP Energy Efficiency Program						$0
Wildcat Septage and Grease Station						$0
Wildcat Primary Pump Stations						$0
Wildcat WWTP-Micro Carbon Feed Addition						$0
→ Aging Sewer Infrastructure Replacement	$931,400	$100,000	$568,000	$400,000	$400,000	$2,399,400
→ Flagstaff Interceptor Replacements			$1,000,000	$1,000,000	$1,000,000	$3,000,000
Rio Flood Control Project-Sewer Relocations					$200,000	$200,000
Rio Facility Improvements				$175,000		
Rio Plant backup Generator				$400,000		
Wildcat WWTP-Develop Solids Handling Plan		$390,000				$390,000
Wildcat WWTP-Repair Digester #2, Cover, and piping and coating repairs per inspection.			$200,000			$200,000
→ Wildcat WWTP-Permanent Solids Handling Disposal			$1,417,000	$2,303,600	$2,037,800	$5,758,400
→ Wildcat WWTP- Third Digester					$3,500,000	$3,500,000
Sewer Emergency Reserve						$0
Additional Sewer Capital included in Rate Study	$931,400	$490,000	$3,185,000	$4,278,600	$7,137,800	$15,447,800

Recommended additions to CIP from condition assessment evaluations-Master Plan Brown & Caldwell Engineering Oct 2014

	Monthly Increase in Wastewater Bill – Scenario 1 (5.5%)				
Fiscal Year	**2016**	**2017**	**2018**	**2019**	**2020**
Single Family (5,000 Gal/Mo)	$1.05	$1.15	$1.20	$1.25	$1.35
Commercial (Big Box Store) (75,000 Gal/Mo)	$17.20	$17.95	$18.70	$20.20	$20.94

	Monthly Increase in Wastewater Bill – Scenario 2 (7%)				
Fiscal Year	**2016**	**2017**	**2018**	**2019**	**2020**
Single Family (5,000 Gal/Mo)	$1.35	$1.45	$1.55	$1.65	$1.75
Commercial (Big Box Store) (75,000 Gal/Mo)	$21.69	$23.19	$24.68	$26.18	$28.42

Existing Rate Funded Stormwater CIP

Option 1 5-Year Plan

Stormwater Capital Improvement Program-Existing Base Option 1

Project	FY2016	FY2017	FY2018	FY2019	FY2020	Total
Schultz Creek	300,000	200,000	-		-	$ 500,000
Fanning Drive Wash - Lockett Road	100,000	200,000	300,000	-	-	$ 600,000
Cottage and Elden			100,000	300,000		$ 400,000
Fanning Drive Wash - Steve's Blvd Crossing				100,000	50,000	$ 150,000
Spruce Avenue Wash - Linda Vista					350,000	$ 350,000
	$ 400,000	**$ 400,000**	**$ 400,000**	**$ 400,000**	**$ 400,000**	**$ 2,000,000**

City of Flagstaff Master Drainage Study, WLB Group, Inc. September 2009

	Monthly Increase in Stormwater Billl– Scenario 1 (3%)				
Fiscal Year	**2016**	**2017**	**2018**	**2019**	**2020**
Single Family (3 ERUs)	$0.12	$0.15	$0.15	$0.15	$0.15
Commercial (Big Box Store) (107 ERUs)	$4.28	$5.35	$5.35	$5.35	$5.35

Proposed Rate Funded Stormwater CIP

Option 2 – Additional $200,000/yr

Total $600,000/yr CIP **

Additional Stormwater Capital Improvement Program-Option 2

Project	FY2016	FY2017	FY2018	FY2019	FY2020	Total
Schultz Creek	500,000	-	-		-	$ 500,000
Fanning Drive Wash - Lockett Road	100000	500,000		-	-	$ 600,000
Cottage and Elden		100,000	300000			$ 400,000
Fanning Drive Wash - Steve's Blvd Crossing			150,000			$ 150,000
Spruce Avenue Wash - Linda Vista			150000	300,000		$ 450,000
Bow and Arrow Wash				300000	600,000	$ 900,000
	$ 600,000	**$ 600,000**	**$ 600,000**	**$ 600,000**	**$ 600,000**	**$ 3,000,000**

City of Flagstaff Master Drainage Study, WLB Group, Inc. September 2009

** Water Commission Recommendation

	Monthly Increase in Stormwater Billl– Scenario 2 (6%)				
Fiscal Year	2016	2017	2018	2019	2020
Single Family (3 ERUs)	$0.24	$0.27	$0.27	$0.30	$0.30
Commercial (Big Box Store) (107 ERUs)	$8.56	$9.63	$9.63	$10.70	$10.70

Proposed Rate Funded Stormwater CIP

Option 3 – Additional $600,000/yr

Total $1,000,000/yr CIP

Additional Stormwater Capital Improvement Program-Option 3 -$1M per year

Project	FY2016	FY2017	FY2018	FY2019	FY2020	Total
Schultz Creek	500,000	-	-		-	$ 500,000
Fanning Drive Wash - Lockett Road	500,000	100000		-	-	$ 600,000
Cottage and Elden		400,000				$ 400,000
Fanning Drive Wash - Steve's Blvd Crossing		150,000				$ 150,000
Spruce Avenue Wash - Linda Vista		350,000	100000			$ 450,000
Bow and Arrow Wash			900000			$ 900,000
[2]Steve's Boulevard Wash - Soliere Crossing				500,000	-	$ 500,000
West Phoenix		-		400000		$ 400,000
[2]Spruce Avenue Wash Dorth Inlet	-			100000	400,000	$ 500,000
[2]Hospital Hill	-				600,000	$ 600,000
						$ -
	$ 1,000,000	**$ 1,000,000**	**$ 1,000,000**	**$ 1,000,000**	**$ 1,000,000**	**$ 5,000,000**

City of Flagstaff Master Drainage Study, WLB Group, Inc. September 2009

	Monthly Increase in Stormwater Billl– Scenario 3 (6% w/debt)				
Fiscal Year	**2016**	**2017**	**2018**	**2019**	**2020**
Single Family (3 ERUs)	$0.24	$0.27	$0.27	$0.30	$0.15
Commercial (Big Box Store) (107 ERUs)	$8.56	$9.63	$9.63	$10.70	$10.70

Proposed Rate Funded Stormwater CIP

Option 4 – $15M Rio de Flag + Existing

Additional Stormwater Capital Improvement Program-Option 4 - Rio de Flag plus $400K Base

Project	FY2016	FY2017	FY2018	FY2019	FY2020	Total
Rio De Flag Control Project	-	-	3,000,000	3,000,000	3,000,000	9,000,000
	$ -	**$ -**	**$ 3,000,000**	**$ 3,000,000**	**$ 3,000,000**	**$ 9,000,000**

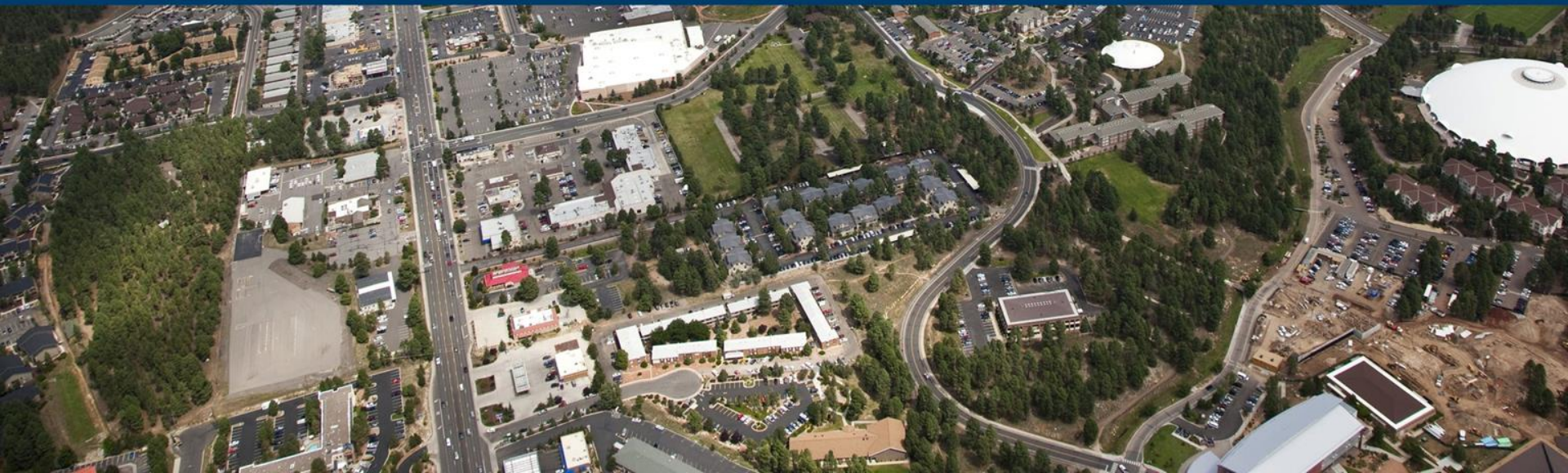
Stormwater Capital Improvement Program-Existing Base

Project	FY2016	FY2017	FY2018	FY2019	FY2020	Total
Schultz Creek	300,000	200,000	-		-	$ 500,000
Fanning Drive Wash - Lockett Road	100,000	200,000	300,000	-	-	$ 600,000
Cottage and Elden			100,000	300,000		$ 400,000
Fanning Drive Wash - Steve's Blvd Crossing				100,000	50,000	$ 150,000
Spruce Avenue Wash - Linda Vista					350,000	$ 350,000
	$ 400,000	**$ 400,000**	**$ 400,000**	**$ 400,000**	**$ 400,000**	**$ 2,000,000**

City of Flagstaff Master Drainage Study, WLB Group, Inc. September 2009

	Monthly Increase in Stormwater Billl– Scenario 4 (15%)				
Fiscal Year	**2016**	**2017**	**2018**	**2019**	**2020**
Single Family (3 ERUs)	$0.60	$0.69	$0.78	$0.90	$0.21
Commercial (Big Box Store) (107 ERUs)	$21.40	$24.61	$27.82	$32.10	$7.49

Water Conservation



WATER CONSERVATION

"Best Practice" in water efficiency

- System water loss management
  - pipeline leaks, production meter accuracy & maintenance of system
- Customer side
  - customer meter replacement/accuracy, billing (real time water use)
- Financial Incentive Rebates
  - residential, non-residential, analysis of cost benefit, etc
- Education and outreach
  - school programs, water use behavior, water audits, social media
- Rates and Ordinances

Flagstaff Water Conservation

historic funding & expenses

	EXPENSES					BUDGETED	
Fiscal Year	Rebates Expense	Staff Expense	Advertising Expense	Program Expense [1]	Total Program Expense	Rebates Budgeted	Total Program Budget
FY03	$18,891	- - - -	- - - -	$13,915	$32,806	$13,000	$30,800
FY04	$15,686	$54,489	- - - -	$16,348	$86,559	$13,000	$101,555
FY05	$10,400	$63,076	- - - -	$31,455	$104,931	$30,000	$135,400
FY06	$23,474	$66,030	$8,313	$29,731	$127,548	$45,000	$163,407
FY07	$27,516	$51,485	$9,092	$15,132	$103,225	$25,000	$153,054
FY08	$19,300	$80,893	$6,565	$14,516	$121,274	$67,957	$195,695
FY09	$25,200	$79,106	$4,794	$15,456	$124,556	$62,600	$191,474
FY10	$1,000	$18,942	- - - -	$1,106	$21,048	$15,100	$112,096
FY11	- - - -	$41,734	$1,124	$4,012	$46,870	$14,100	$63,996
FY12	$20,200	$90,203	$5,039	$13,655	$129,097	$20,000	$115,403
FY13	$17,500	$87,743	$8,842	$13,814	$127,899	$17,500	$132,993
FY14	$31,300	$90,957	- - - -	$12,396	$134,653	$17,500	$136,667
FY15	$22,500	$110,222	$14,357	$32,888	$179,967	$22,500	$207,178
FY16 [2]	$22,500	$121,031	$20,000	$18,850		$22,500	$182,381

1 - Includes promotional items, printing, professional services, training, travel, etc
2 - Budget and does not include the $21,132 1-X expense for Communications Plan

Comparison of Municipal Water Conservation Programs

City	Annual Budget	Rebates Budget	Staffing	Customer Meters	**Budget per Customer Meter**
Yuma [2]	$10,000	$0	0	29,400	**$0.34**
Prescott Valley	$10,000	$0	0	19,215	**$0.52**
Buckeye	$30,000	$10,000	0	18,355	**$1.63**
Mesa	$270,000	$90,000	1.5 FTE	140,000	**$1.93**
Phoenix	$971,870	$75,000 [1]	3.25 FTE 2 PT	413,241	**$2.35**
Chandler	$350,000	$78,000	2 FTE	79,216	**$4.42**
Prescott	$147,984	$40,000	1 FTE	22,422	**$6.60**
Avondale	$148,440	$20,000	1 FTE	22,000	**$6.75**
Goodyear	$152,900	$0	1 FTE	18,000	**$8.49**
Scottsdale	$775,885	$190,000	4 FTE	89,232	**$8.70**
Flagstaff [2]	$182,381	$22,500	1 FTE 2 PT	19,832	**$9.20**
Tempe	$750,000	$350,000	3 FTE	44,000	**$17.05**
Tucson	$4,190,000	$1,026,162	6 FTE	230,000	**$18.22**

1 – Direct installation toilet program – low income
2 - Cities that are not legally required by ADWR to have a Water Conservation Program
Survey of Cities conducted December, 2015/January 2016

Existing Program – no new funding

- Maintain existing program elements
  - *Administer Rebate program, Reclaimed Water Agreements & site inspections, develop advertisement, manage Summer enforcement, develop Education & Outreach…*
- Refresh of the Rebate Program
  - *look at alternative options to provide customer incentives (e.g., non-residential and low income, etc)*
- Define ways to implement new Utilities Communications Plan
- Create a Water Conservation Program Plan
  - *Develop Program goals (e.g., define elements across the Utilities Division, water use reduction targets, etc) using the Water Commission*
  - *Programs that are inclusive of all income levels*
  - *History of the Program & future of the Program*

WATER CONSERVATION

Option 1 - Rebates

- Expand Funding for Financial Incentive Rebates

  FY16 : Use Water Reserve ~$25K to "catch-up" for customers on waiting list
  Rate Study: increase on-going funding by **$27.5K** (Total = $50K)
  Increased workload to Customer Service – working to streamline

- Expand Water Audit Program to non-Residential

  using USEPA's Water Sense to guide program expansion

  Option A: re-purpose a portion of existing Conservation Enforcement Aides time to conduct (no new $), *reduce conservation enforcement*
  Option B: add new Temporary Summer Staff to conduct Audits - **$20K**
  New advertising for Water Audit program : **$10K**
  Use expanded rebate funding to offer to non-residential rebates

On-Going Funding Expansion: ***$57,500/year***

	If One-time Rate Adjustment	If Annual Rate Adjustment
Approx. Rate Impact of Option 1 Funding	0.41%	0.04%

WATER CONSERVATION

Option 2

Customer, Communication & Outreach

- Option 1…plus
- Expand overall Water Conservation Program Elements
  1. Add new Full Time Water Conservation Technician: - ***$53K***

     (instead of temporary summer staff in Option 1)

     a. Conduct expanded water audit program in Option 1
     b. Expand Education – classrooms, workshops, weekend events
     c. Implement Communications Plan for community outreach – social media,
     d. Data analysis, cost-benefit of program elements, trending, etc
     e. Conserve2Enhance, etc…

Option 1 only - $57,500/year

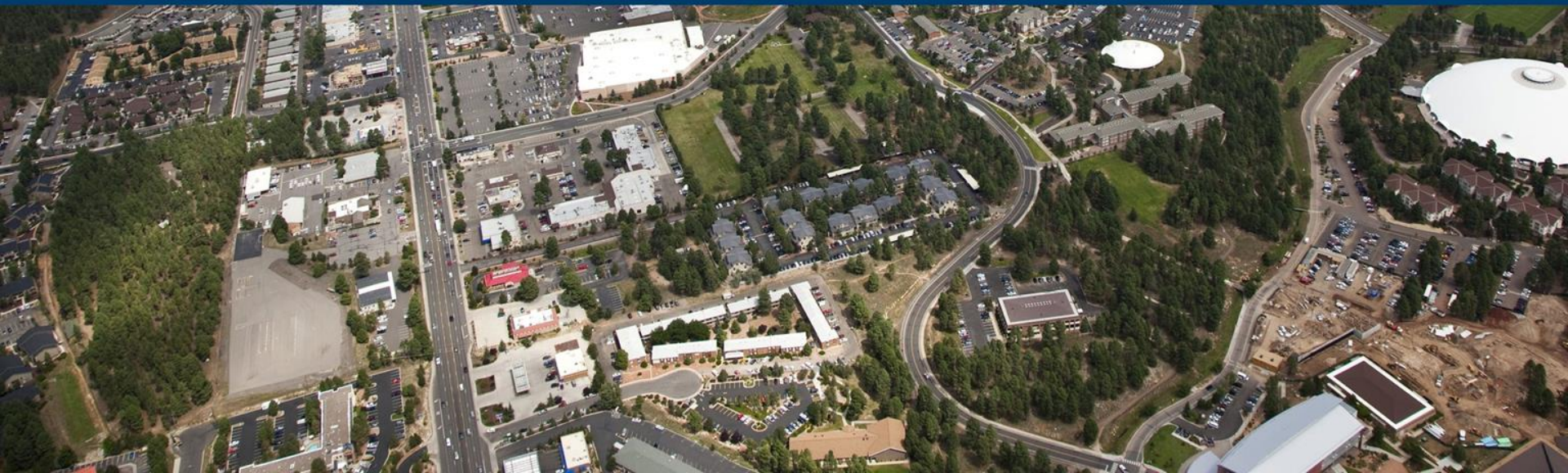
Option 2 0nly - $62,000/year *(full burden staff rate)*

Both Options Funding Expansion: ***$99,500/year***

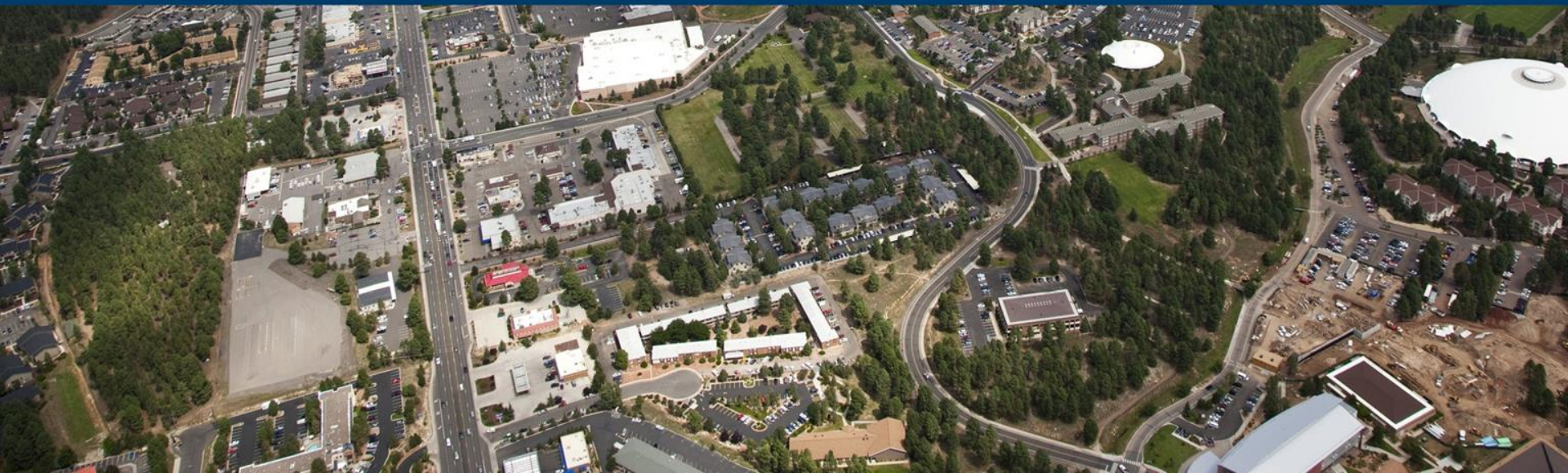
	If One-time Rate Adjustment	If Annual Rate Adjustment
Approx. Rate Impact of Option 1 Funding	0.71%	0.07%

Council Questions?

CIP & Water Conservation



Rate Adjustment Options & Policy Questions



WATER Rate Options

2 Options & a new proposed 3rd

1. 3% increase, with ~28% debt limit
2. 7% increase with 20% debt limit
3. *3% increase with 20% debt and reduced CIP*
4. *Other? Council provide direction*

No Water Commission recommendation

Residential Tier 1: 0-3,500 gallons, Tier 2: 3,501-6,200 gal; Tier 3: 6,201-11,500; Tier 4: >11,500 gallons

WASTEWATER Rate Options

<u>2 Options & a new proposed 3rd</u>

1. 5.5% increase, with ~28% debt limit
2. 7% increase with 20% debt limit **
3. *5.5% increase, with a 20% debt and reduced CIP*
4. *Other? Council provide direction*

** Water Commission recommendation

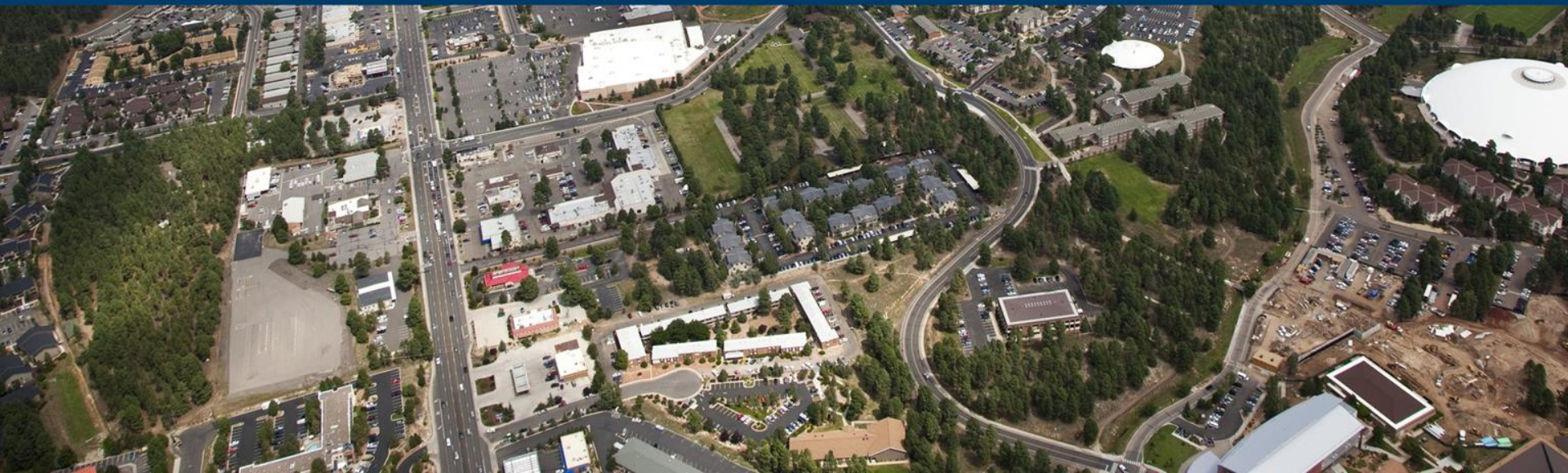
STORMWATER Rate Options

- 4 Options

1. 3% increase, $400K CIP & 0 debt
2. 6% increase, $600K CIP & 0 debt **
3. 6% increase, $1M CIP & 11% debt
4. 15% increase, $15M Rio de Flag & $400K CIP with 34% debt

** Water Commission recommendation

Capacity Fees



Capacity Fees

- One-time payments
- Reflect the demands and costs created by new development for additional utility capacity
- Will be used to fund infrastructure capacity that will benefit new development as well as make system overall more robust
- Must be a rational nexus between the amount of the fee and the cost to serve new development
- City has had capacity fees since the 1970's
- Policy; Growth pays for Growth

Assumptions about Future Development

Each component of each utility system is evaluated

What is the best measure of the demand created by new development for additional infrastructure capacity? 3 methodologies considered:

Buy-in
- Existing infrastructure which has capacity available for new development

Plan based
- Planned projects which add capacity to serve new development

Hybrid
- Combination of buy-in and plan based methodologies

Planned projects which are for routine maintenance and replacement or are to serve only existing development are not eligible for capacity fee funding and are included in the rates.

Capacity (gallons)
- Buy-in: Capacity of completed project
- Plan-based: Planned capacity or years of capacity to be provided

Cost
- Buy-in: Original cost
- Plan-based: Planned costs
- Minus credit for "double payment"

Cost/capacity (gallons) = cost per gallon

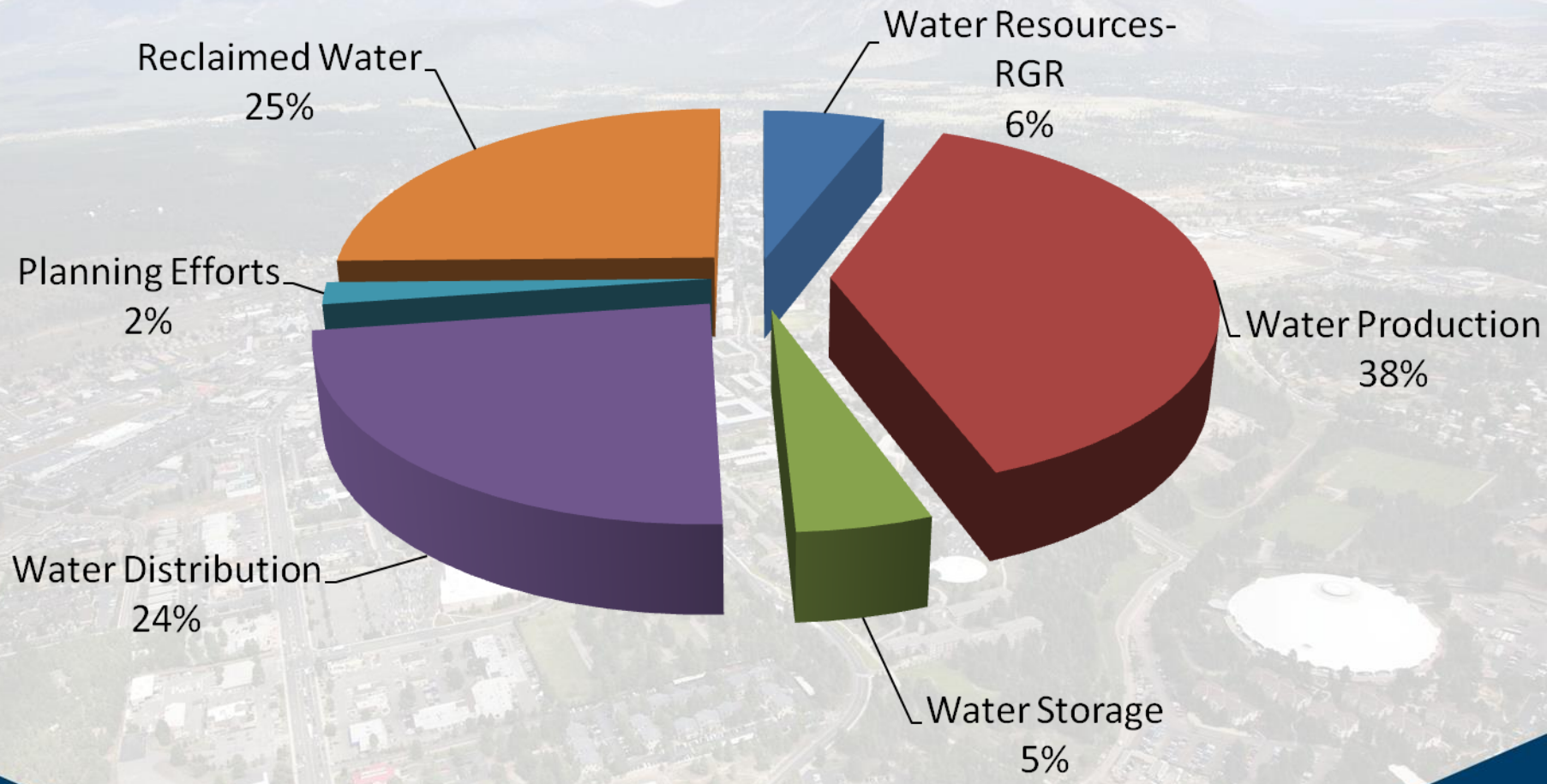
- Gallons consumed per residential connection multiplied by
- Total cost per gallon for capacity multiplied by
- Capacity ratio for different size and type of water meter equals
- **Capacity fee by size and type of water meter**

Water Capacity Fee Cost Summary

Function	Option 1 (cost per gallon)	Option 2 (1) (cost per gallon)
Water Resources	$1.19	$2.17
Water Production	7.70	7.70
Water Storage	0.96	0.96
Water Distribution	4.70	4.70
Study and Planning Efforts	0.39	0.39
Reclaimed Water	5.06	5.06
Total Cost	**$20.00**	**$20.98**
(1) Includes **all design** costs for Red Gap Ranch		

"Cost per gallon" refers to the capital cost per gallon of capacity to be purchased/reserved by new development to receive water service.

Water Capacity Fee Cost Components- Option 1



Capacity Fee Water Funded Capital Option 1

Rate Study Funding
10-Year
Capital Improvement
Projects

Table A-2: Water Capital Improvement Program Allocated to New Growth-Capacity Fee Option 1

O&M%	Growth %	Project	Total
0%	100%	Hydrologic Study for new wells	$250,000
0%	100%	New Well and Pumphouse	$15,000,000
50%	50%	LM WTP - Sedimentation Basins	$1,000,000
50%	50%	LM WTP - Flocculation Basins	$640,000
50%	50%	Switzer Canyon/RFP Transmission WL	$1,775,000
70%	30%	Rate Study-every 3 years	$240,000
50%	50%	Water System Master Plan-Every 5 yrs	$150,000
0%	100%	Fort Tuthill Waterline Loop -Phase 2	$2,628,000
0%	100%	JW Powell Waterline Oversizing	$2,085,000
30%	70%	Pine Del Waterline upsizing	$735,000
0%	100%	Cheshire Tank Expansion-Upgrade Zone A	$700,000
0%	100%	Railroad Springs #3 Storage tank 1 MG	$1,500,000
0%	100%	Red Gap Ranch Well Completion, pump testing,sizing-	$3,750,000
0%	100%	Red Gap Ranch NEPA Environmental Impact Study	$2,500,000
0%	100%	Red Gap Ranch Water Quality Study	$400,000
0%	100%	Red Gap Ranch ROW Acquisition Segments 1-3	$2,200,000
0%	100%	Red Gap Ranch ROW Survey and Mapping	$150,000
0%	100%	Red Gap Ranch Geotechnical Investigation	$500,000
0%	100%	Red Gap Ranch Well Field Piping Design	$500,000
0%	100%	Red Gap Ranch Pump Station Design	$1,350,000
0%	100%	Red Gap Ranch Water Treatment Plant Design	$1,100,000
Subtotal Water Projects to be included in Capacity Fees			$39,153,000

Capacity Fee Water Funded Capital Option 2

Rate Study Funding
10-Year
Capital Improvement
Projects

Table A-3: Water Capital Improvement Program Allocated to New Growth-Capacity Fee Option 2

O&M%	Growth %	Project	Total
0%	100%	Red Gap Ranch Pipeline/Pump Station Design	$10,450,000
Subtotal Water Projects to be added and included in Capacity Fees			$10,450,000

Water Capacity Fees-New Growth

Meter Size (inches)	Current Fee	Option 1 Fee	Option 2 Fee *
¾	$5,891	$5,748	$6,027
1	9,819	9,599	10,066
1 ½	19,638	19,141	20,071
2	31,420	30,637	32,126
3	58,913	57,480	60,274
4	98,188	95,819	100,476
6	196,376	191,581	200,893
8	314,201	306,541	321,440
10	451,664	440,700	462,119

Option 1

- $13 M Red Gap Ranch
  - R/O/W Acquisition, NEPA, Studies

Option 2

- $23 M Red Gap Ranch
  - R/O/W Acquisition, NEPA, Studies
  - incl Pipeline/Booster Design

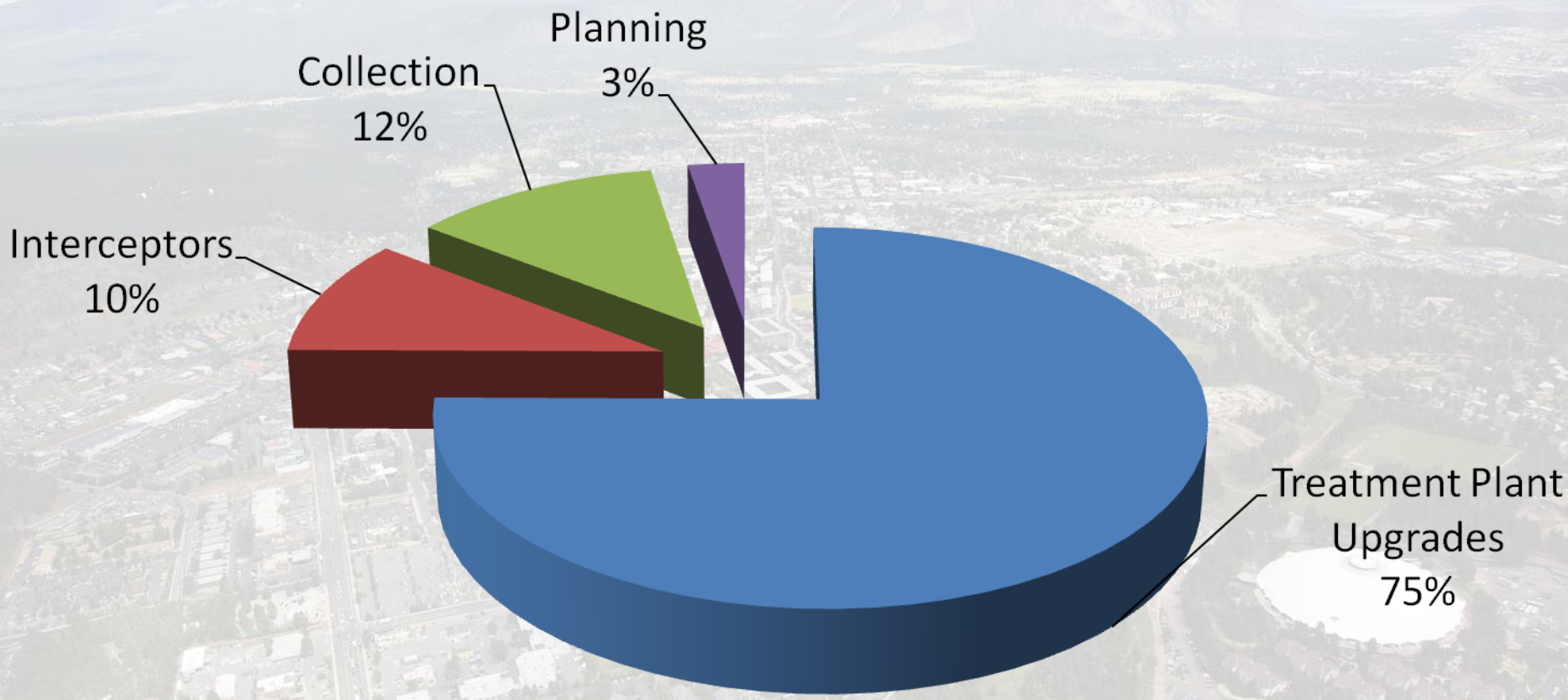
❖ *Water Commission recommendation-Option2*

Sewer Capacity Fee Cost Summary

Function		Cost per Gallon
Treatment Upgrades		
	Buy-in for Treatment Plants (1)	$5.80
	Planned Treatment Plant Upgrades	7.51
	Less Credit for Future Debt Service Payments	(2.46)
Treatment Subtotal		10.85
Interceptors		1.48
Collection		1.72
Studies		0.39
Total Cost		$14.44
(1) Existing plants are valued at $61,725,574		

"Cost per gallon" refers to the capital cost per gallon of capacity to be purchased/reserved by new development to receive sewer service.

Sewer Capacity Fee Cost Components



Capacity Fee Wastewater Funded Capital

Rate Study Funding
10-Year
Capital Improvement
Projects

Table A-5: Wastewater Capital Improvement Program Allocated to New Growth-Base Capacity Fees

O&M%	Growth %	Project		Total
60%	40%	Flagstaff Interceptor (CCC to Wildcat Hills WWTP)	$	1,200,000
		West-side Interceptor Improvements		
0%	100%	Replace 8" Bottleneck on Thompson	$	500,000
20%	80%	East Industrial (near North Park Drive)	$	232,000
20%	80%	Sunnyside	$	52,000
20%	80%	South Milton Road (at West University Avenue)	$	136,000
0%	100%	Westside Route 66 - (Developer - Aspen Heights)	$	1,460,000
20%	80%	Ponderosa Parkway - McMillan Mesa	$	49,600
20%	80%	East Railhead (near North Dodge Avenue)	$	63,200
0%	100%	Westside-WL Gore Sewerline Oversizing	$	1,107,382
0%	100%	Fort Tuthill Sewerline Oversizing	$	760,000
20%	80%	Wildcat Septage and Grease Station	$	160,000
70%	30%	Wildcat WWTP-Develop Solids Handling Plan	$	90,000
70%	30%	Wildcat WWTP-Permanent Solids Disposal Equipment	$	1,329,000
30%	70%	Wildcat WWTP- Third Digester	$	2,317,000
50%	50%	Sewer System Master Plan	$	150,000
			$	-
Sewer Projects to be included in Capacity Fees			$	9,606,182

Sewer Capacity Fees-New Growth

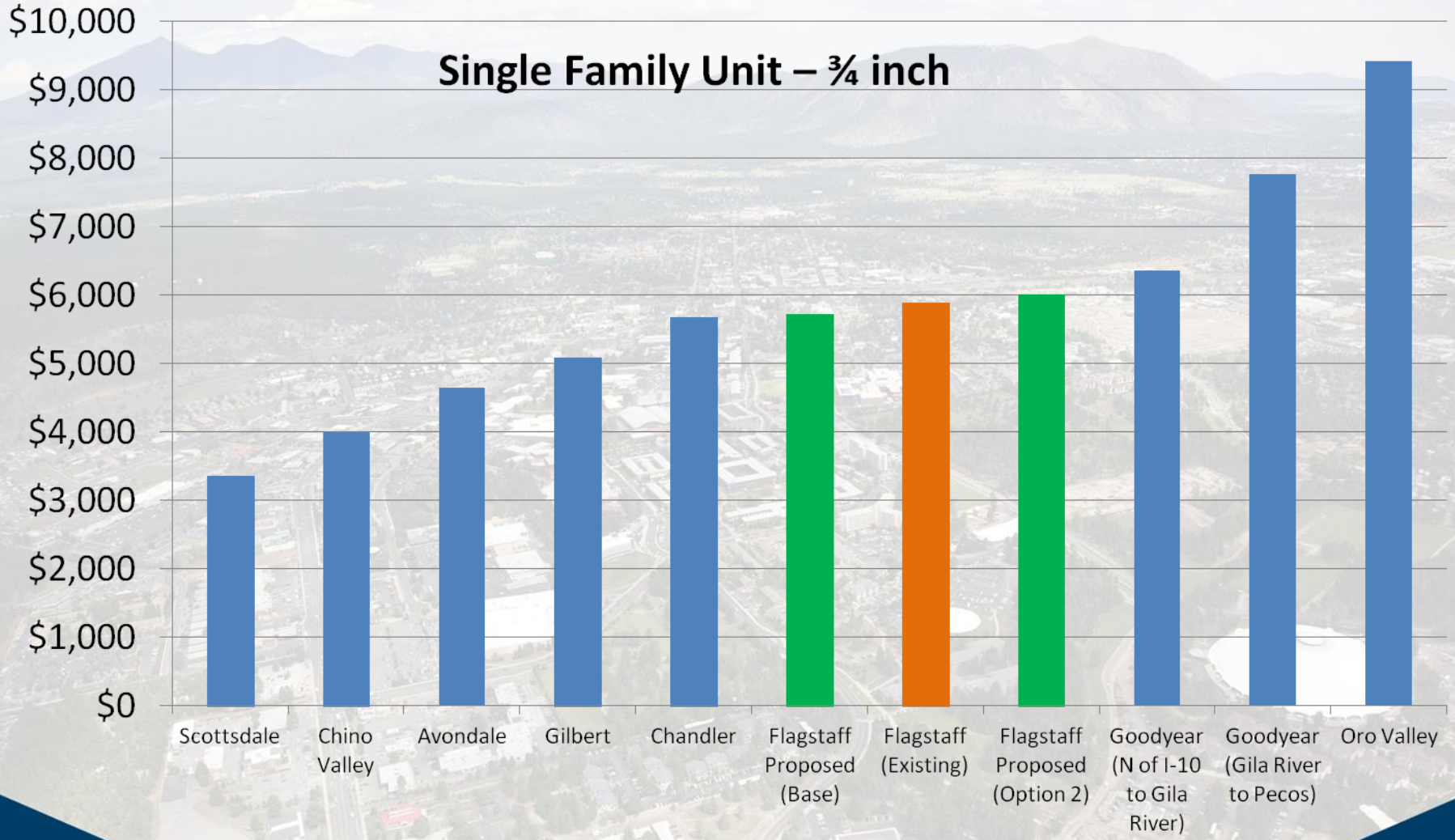
Meter Size (inches)	Current Fee	Proposed Fee
¾	$3,126	$3,723
1	5,210	6,218
1 ½	10,419	12,399
2	16,671	19,845
3	31,257	37,233
4	52,095	62,068
6	104,191	124,099
8	166,705	198,566
10	239,639	285,468

- Sewer Interceptor Pipelines
- Future Solids Handling
  - Additional Digester
  - Dewatering

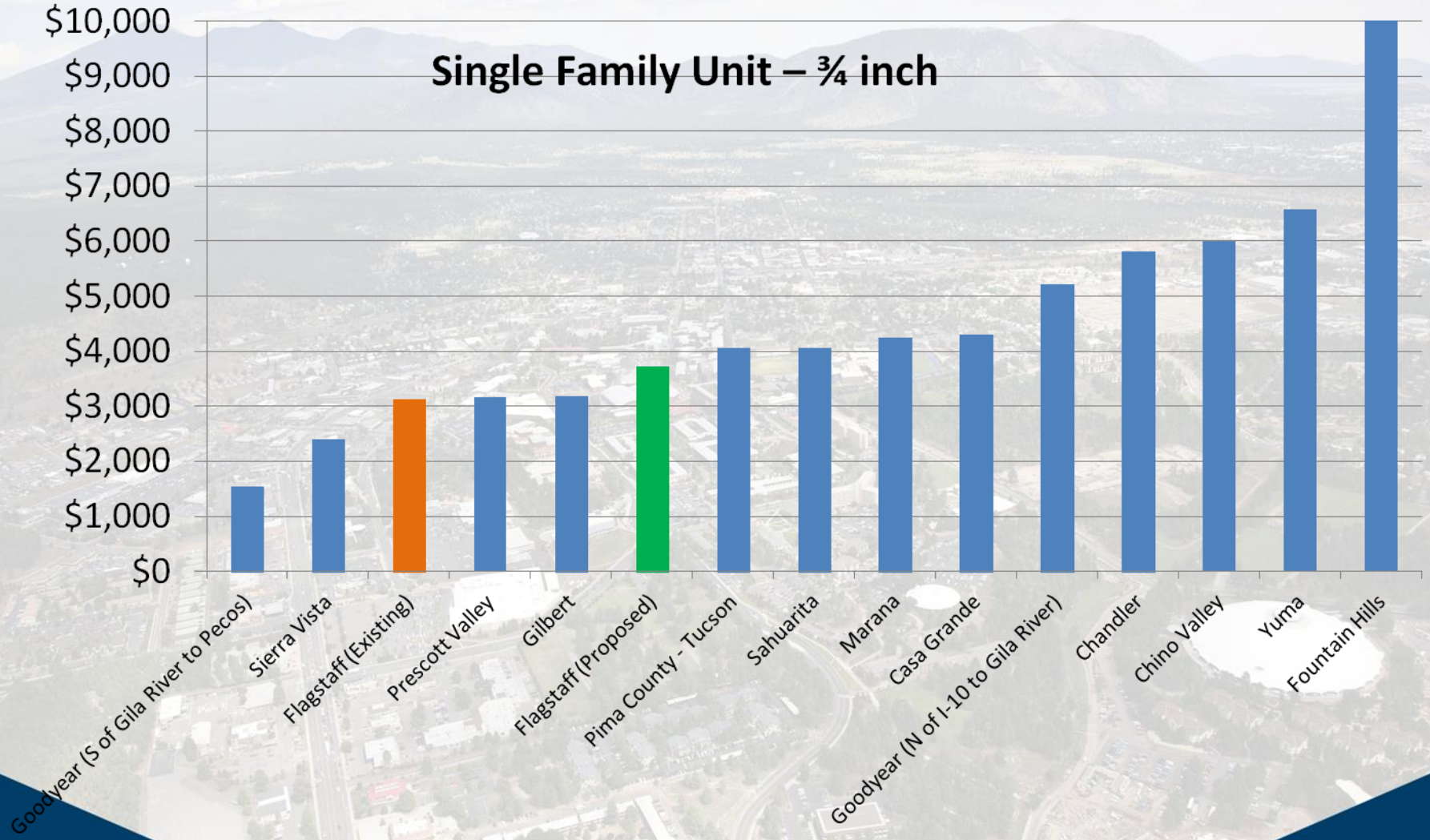
❖ *Water Commission recommendation*

WILLDAN Financial Services

Comparison of Water Development/Capacity Fees - AZ



Comparison of Sewer Development/Capacity Fees - AZ

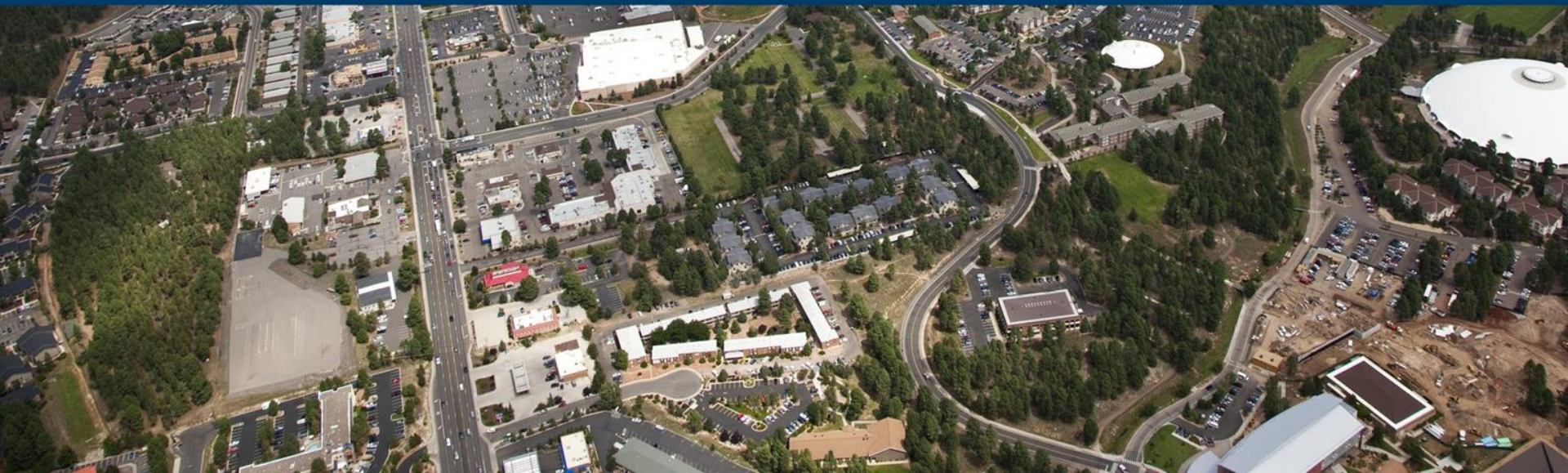


Possible Reasons for Differences in Development/Capacity Fees

- Persons per household and water use
- Lot size
- Age of system
- Changes in elevation
- Surface water versus ground water
- Depth of wells
- Treatment standards/methods
- Area (acres) covered by the system
- Subsidization through rates or other revenue sources

Council Direction

Rates & Capacity Fees



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4. 15% increase, $15M Rio de Flag & $400K CIP with 34% debt

** Water Commission recommendation

Council Direction - Capacity Fee Options?

- Water

  Option 1 or Option 2?

Wastewater

  Option 1?

Next Steps

- With Council Direction
  - Willdan will calculate new Rates, CIP, & new Final Report with the option(s) selected, etc
  - Staff will prepare Ordinance that includes details for Council's Review & possible adoption at a future City Council meeting (March 22nd?)
  - Staff will schedule a future discussion on Reclaimed Water Rates & Rate Structure, etc