



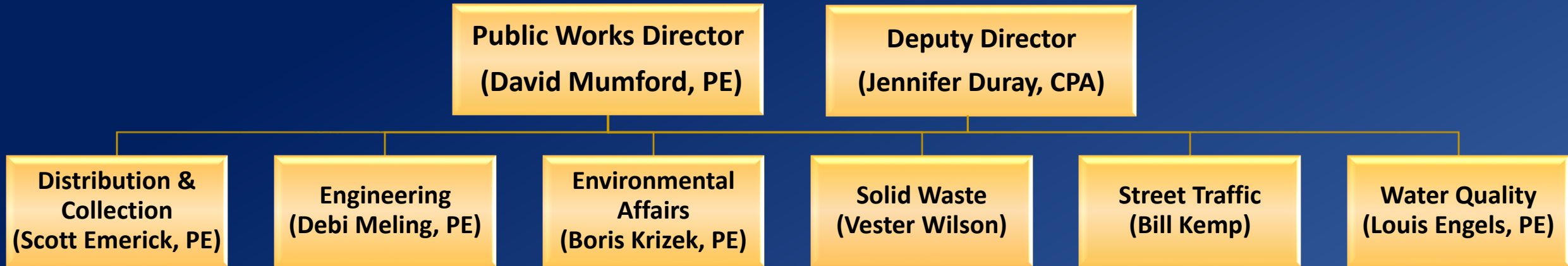
# PUBLIC WORKS IT STARTS HERE



# FY 2020 BUDGET

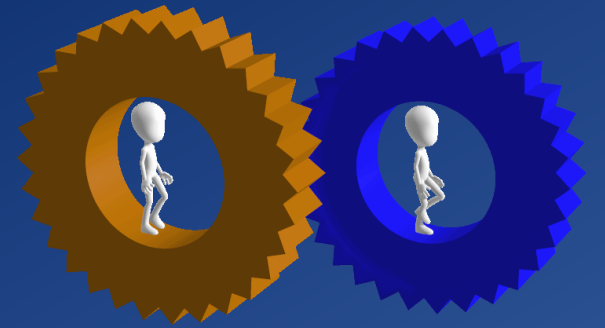


# Public Works Department



**Maintain Facilities in 35 Locations & Manage \$6.2 Billion in Assets**





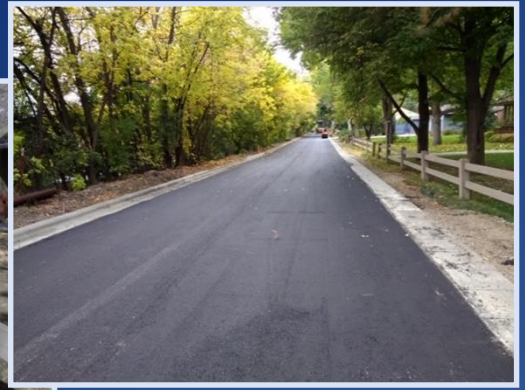
# Mobility Starts With Public Works!





# Mobility Starts With Public Works!

## Street Maintenance



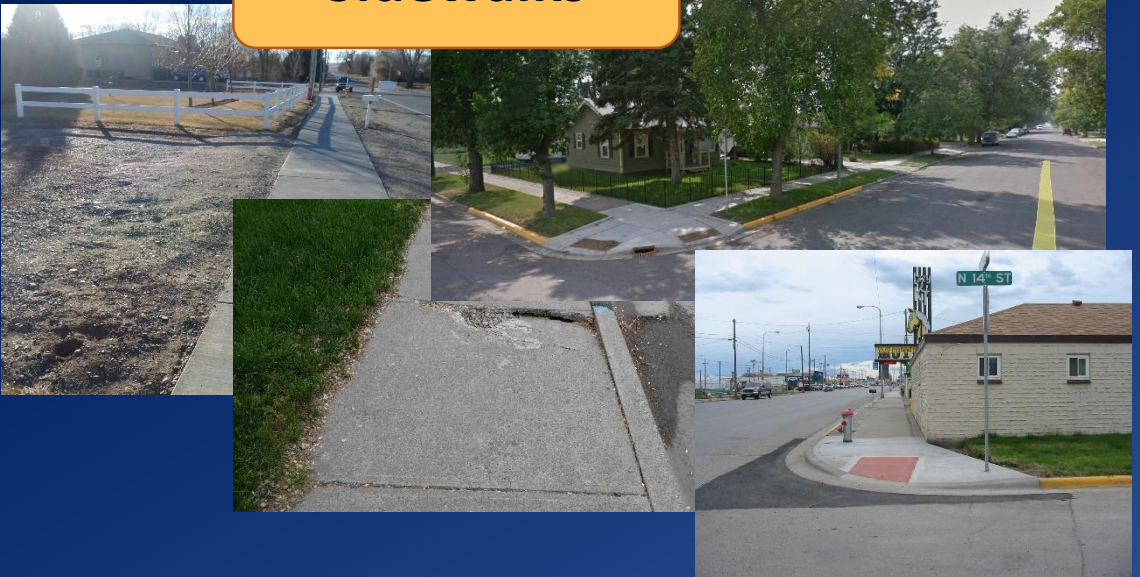
- Maintain 1,160 lanes miles of streets
- Maintain 94 miles of alleys
- PAVER program (\$2.6M)
  - Chip-seal 8 miles annually
  - Crack-seal 24 miles annually
  - Overlay 2 miles of roads annually

- Maintain 100 gravel streets
- 42 non-maintainable streets
- New street reconstruction program in FY 20 (\$3.3M)
  - 5 gravel streets per year
  - 6 non-maintainable streets per year



# Mobility Starts With Public Works!

## Sidewalks



- Annual sidewalk program (\$700k)
  - Trippers and missing sidewalk
- Annual ADA program (\$250k)
  - Approx. 55 corners constructed annually

## Multi-Use Paths



- Maintain 19 miles of multi-use paths

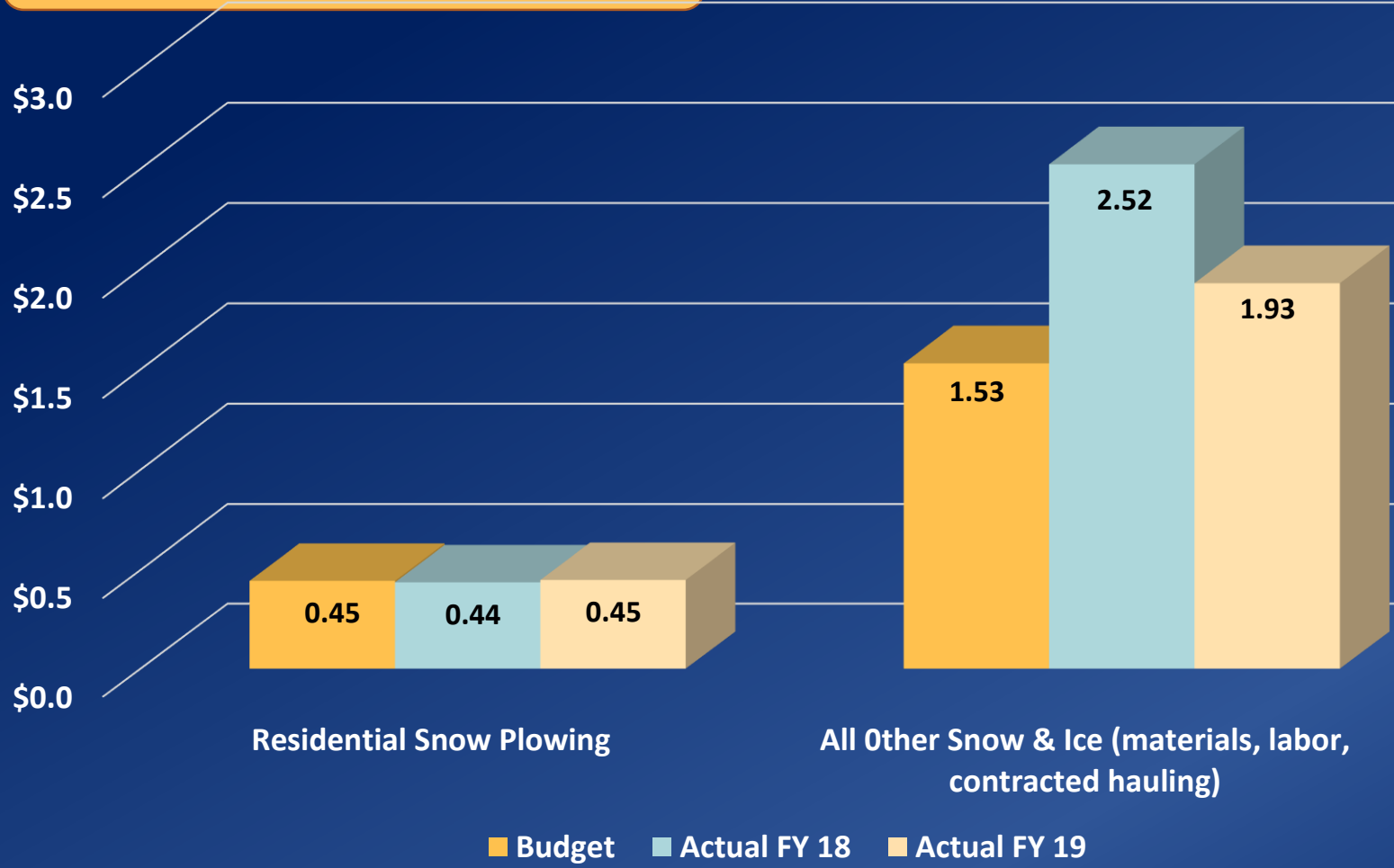




# Mobility Starts With Public Works!

## Snow & Ice Maintenance

In Millions





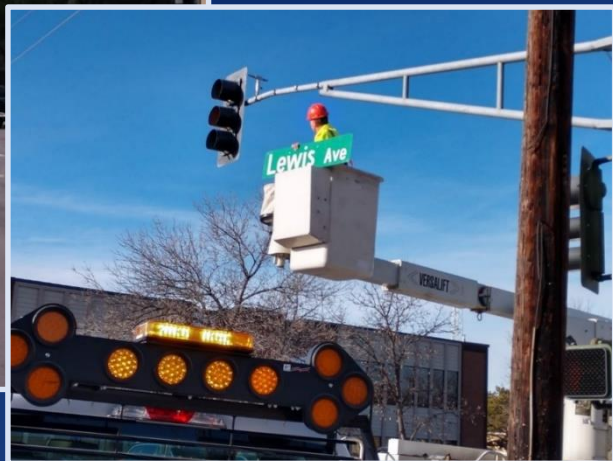
# Safe Communities Start With Public Works!





# Safe Communities Start With Public Works!

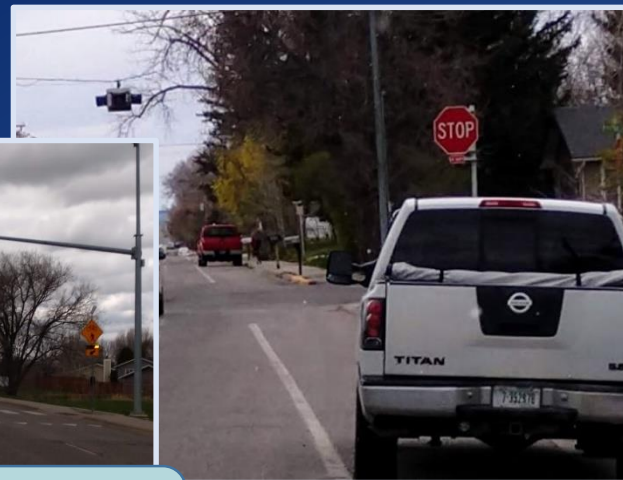
## Traffic Signals



- 113 signalized intersections
- 16 school flashers
- 11 HAWK signals



## Signs



- 29,402 signs
- 2,152 stop signs
- 839 signs repaired annually
- 1,057 signs replaced annually

## Painting



- Paint 374 crosswalks annually
- Paint 347 intersections annually



# Safe Communities Start With Public Works!

## Street Lights



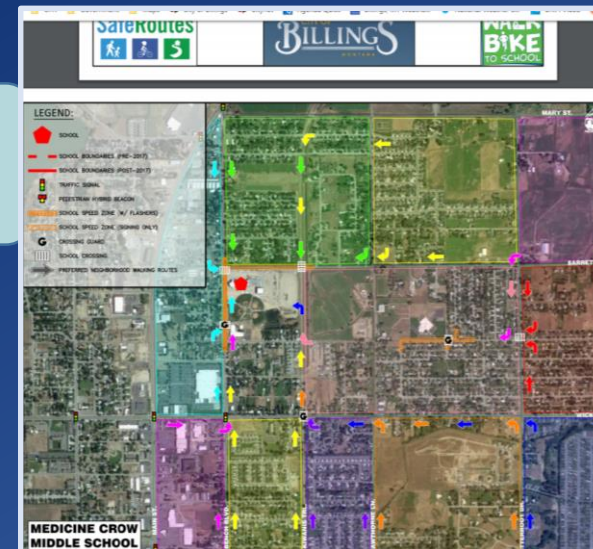
- Maintain 4,576 street lights
- Replace 29 poles annually
- Replace 1,661 lights annually

## Fire Hydrants



- Maintain and supply water to 4,500 fire hydrants

## Safe Routes to School



- Work with schools to enhance safety of kids walking to school
- Construct missing sidewalks along school routes



# Healthy Communities Start With Public Works!





# Healthy Communities Start With Public Works!



## Safe Drinking Water



- 14 reservoirs
- 11 pump stations
- Maintain 496 miles of water mains
- Provide service to 30,000 customers
- Treat 8 billion gallons of water annually
- Repair 75 water main breaks per year
- Maintain compliance with State & Federal regulations





# Healthy Communities Start With Public Works!

## Wastewater Management



- 11 lift stations
- Maintain 505 miles of wastewater mains
- Provide service to 35,000 customers
- Treat 6 billion gallons of water annually
- Repair 15 sewer backups per year
- Maintain compliance with State & Federal regulations





# Healthy Communities Start With Public Works!



## Solid Waste



- 335,000 tons of waste are deposited in the landfill annually
- Collect 131,000 tons of waste from nearly 40,000 customers
- Collect 70,000 pounds of hazardous waste
- Maintain compliance with State & Federal regulations





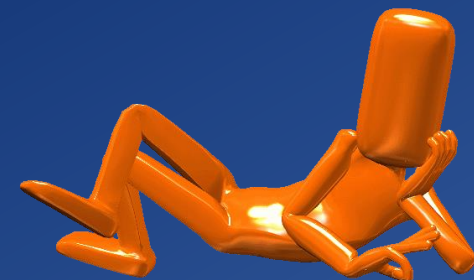
# Healthy Communities Start With Public Works!

## Storm Drain Maintenance



- Maintain 288 storm sewer miles
- Manage 7,829 active storm inlets
- Maintain 250 culverts
- Clean 1,931 catch basins annually
- Clean 2,880 intakes per year
- Maintain compliance with State & Federal regulations





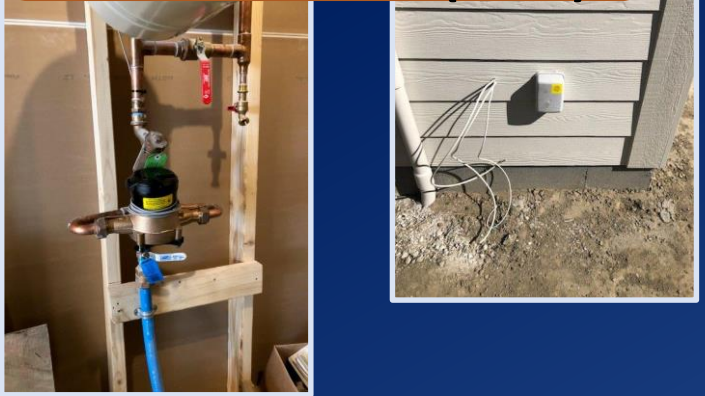
# Growth & Innovation Starts With Public Works!





# Growth & Innovation Starts With Public Works!

## Automatic Metering Infrastructure (AMI)



- Find non-revenue water loss
- More efficient operations
- Better customer service
- Sustainability – no truck/no gas

## Water Smart



- Enhance customer service
- Better leak detection

## Invoice Cloud

Invoice Cloud lets your customers pay when they want, how they want and where they want. It's all about choices.

- Pay online, by text, or phone
- KIOSKS add convenient, low cost payment activity at bottleneck locations
- Self-service Go Paperless program
- AutoPay, Scheduled Payments, FlexPay for budget payments
- Biller Branded Customer Portal looks like your web site, making Customers comfortable
- Built in email and SMS Text Engine improves Customer communications

- Enhance customer service
- Save \$ with more e-bills





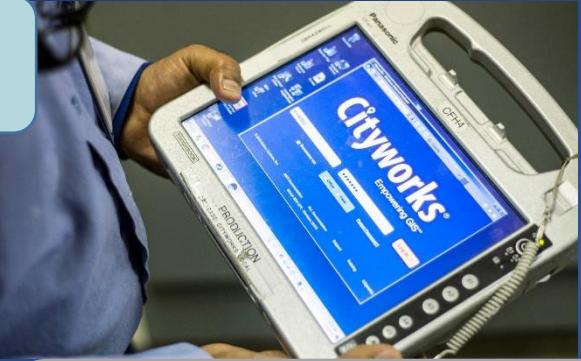
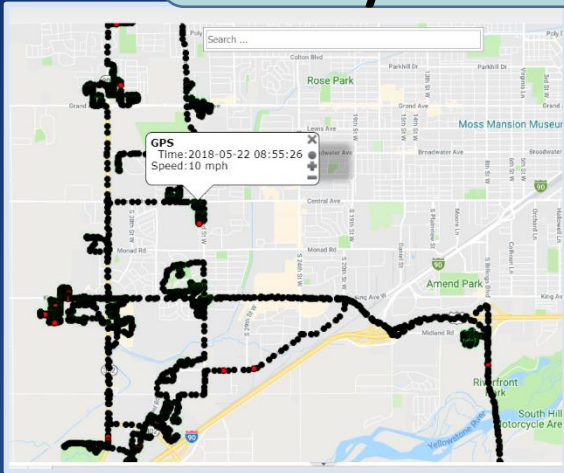
# Growth & Innovation Starts With Public Works!

## Grid Smart Cameras



- 30 intersections complete
- Gain efficiencies in staff
- Real-time monitoring

## Cityworks/ GIS/AVL



- Enhance employee safety
- Improve staff performance
- Fully leverage GIS data to monitor risk & inform capital investment decisions

## LEDs



- Changed street light standard to LED
- Energy savings
- Reduced maintenance





# Growth & Innovation Starts With Public Works!

## CNG



- Average savings = \$10,000/Year/Vehicle
- CNG fueling station ROI = 6.4 years
- FY 20 investment in CNG fueling station = \$1 million

## Composting

- 19,000 tons of yard waste diverted from landfill annually
- FY 21/22 investment in composting facility = \$2.6 million



## Trash to Gas

- Over 1 billion cubic feet of natural gas processed
- Heats 2,200 homes per year





# Growth & Innovation Starts With Public Works!

## Drop-Off Facility



- \$23 million investment
- Enhance safety
- Improve operations



## Brush Truck



- Enhance employee safety
- Improve efficiency of operations



# Growth & Innovation Starts With Public Works!

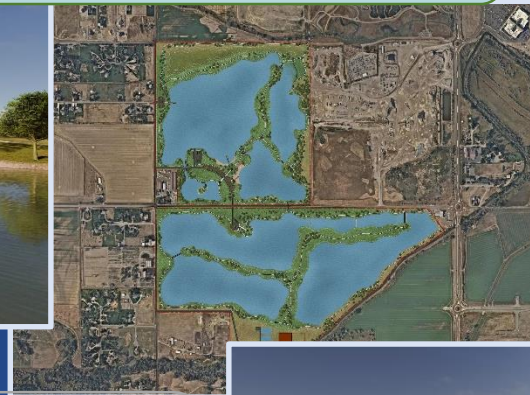
## WRF Upgrades



- \$76 million investment
- Meet nutrient requirements
- Increase capacity by 8 MGD



## West End Reservoir & Plant



- \$85 million investment
- Provide critical redundancy
- Increase storage from hours to months
- Increase capacity by 20 MGD
- Community amenity

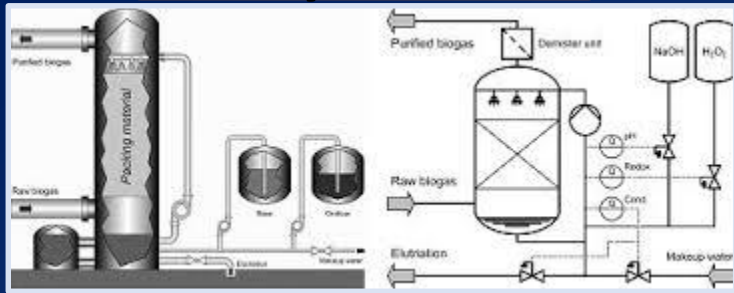




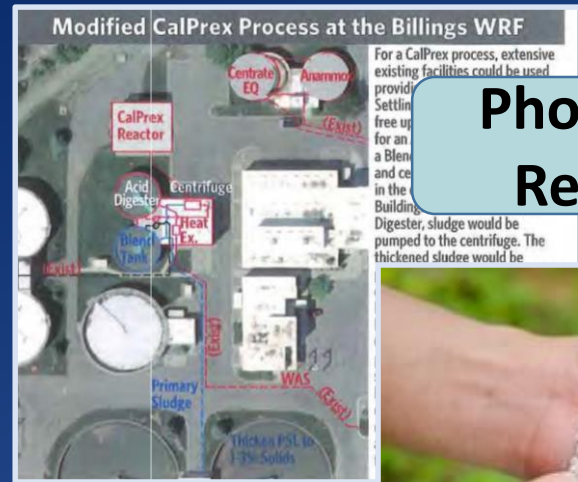


# Growth & Innovation Starts With Public Works!

## Biogas Recovery System



- \$1.2 million investment in FY 20 & 21
- Recover methane biogas to heat plant in winter and provide electricity
- ROI = 3.5 years



## Phosphorus Recovery



- Reduce phosphorus going to river by 50%
- Make marketable fertilizer
- ROI = 3.5 years





# Infrastructure Starts With Public Works!





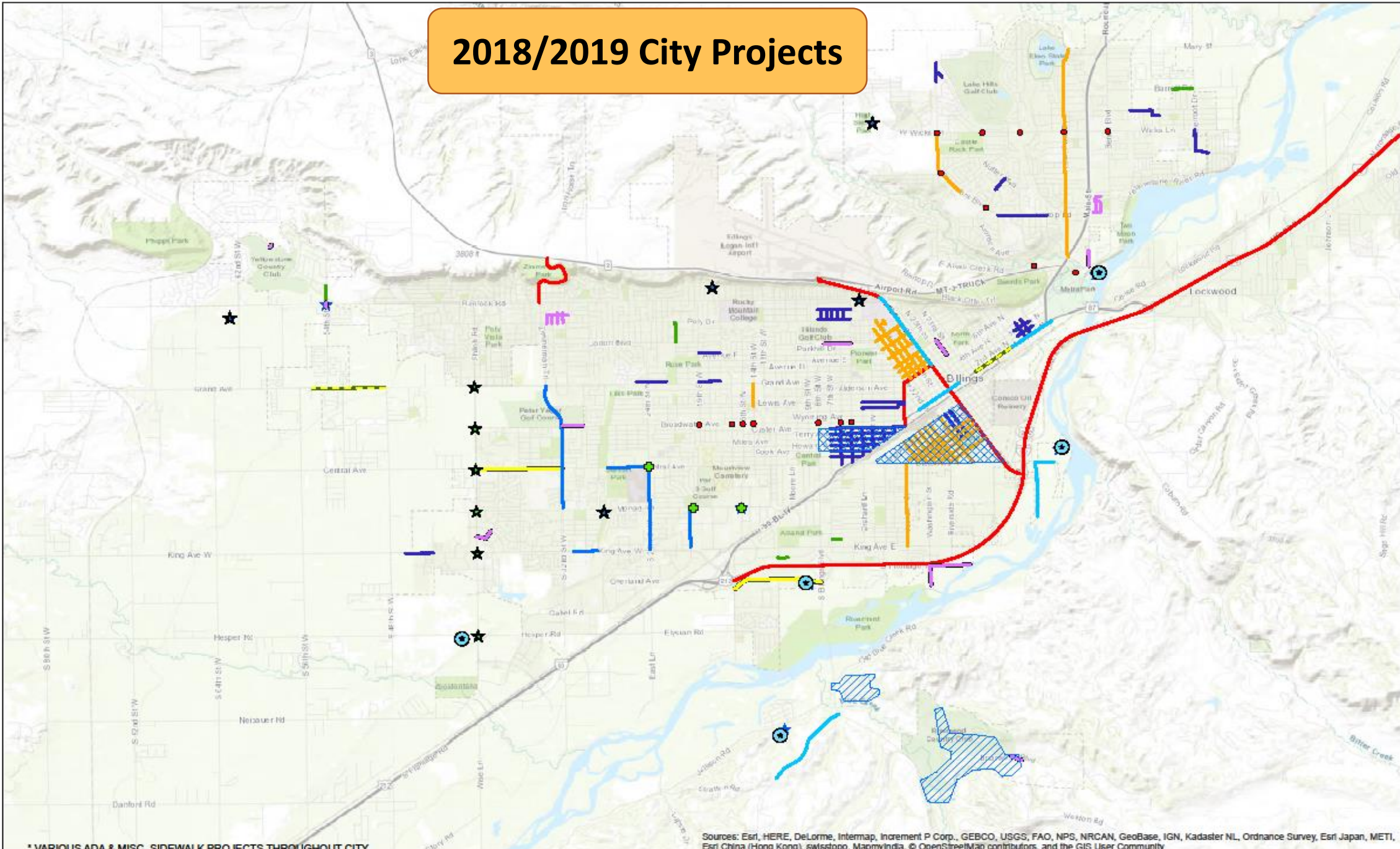
# Infrastructure Starts With Public Works!

## Major FY 19 Projects

- Landfill Drop Off Facility - \$23M
- Zone 4 North/Fox Reservoir - \$3.2M
- Leavens Reservoir Expansion - \$8.5M
- Central Avenue Lead Services - \$.6M
- Southside Water Line Replacement - \$4M
- North 27<sup>th</sup> Street Water Line - \$2.9M
- WRF Improvement Project - \$76M
- Montana Avenue Sewer Project - \$1.6M
- City County Drain Flood Mitigation - \$3.4M
- Hilltop Road & Aronson Storm - \$2M
- Central (32<sup>nd</sup> – Shiloh) - \$6M
- Midland Road - \$4M
- EBURD Improvements - \$5.8M
- Poet Streets - \$1.2M
- Monad & Daniel Traffic Signal - \$.8M



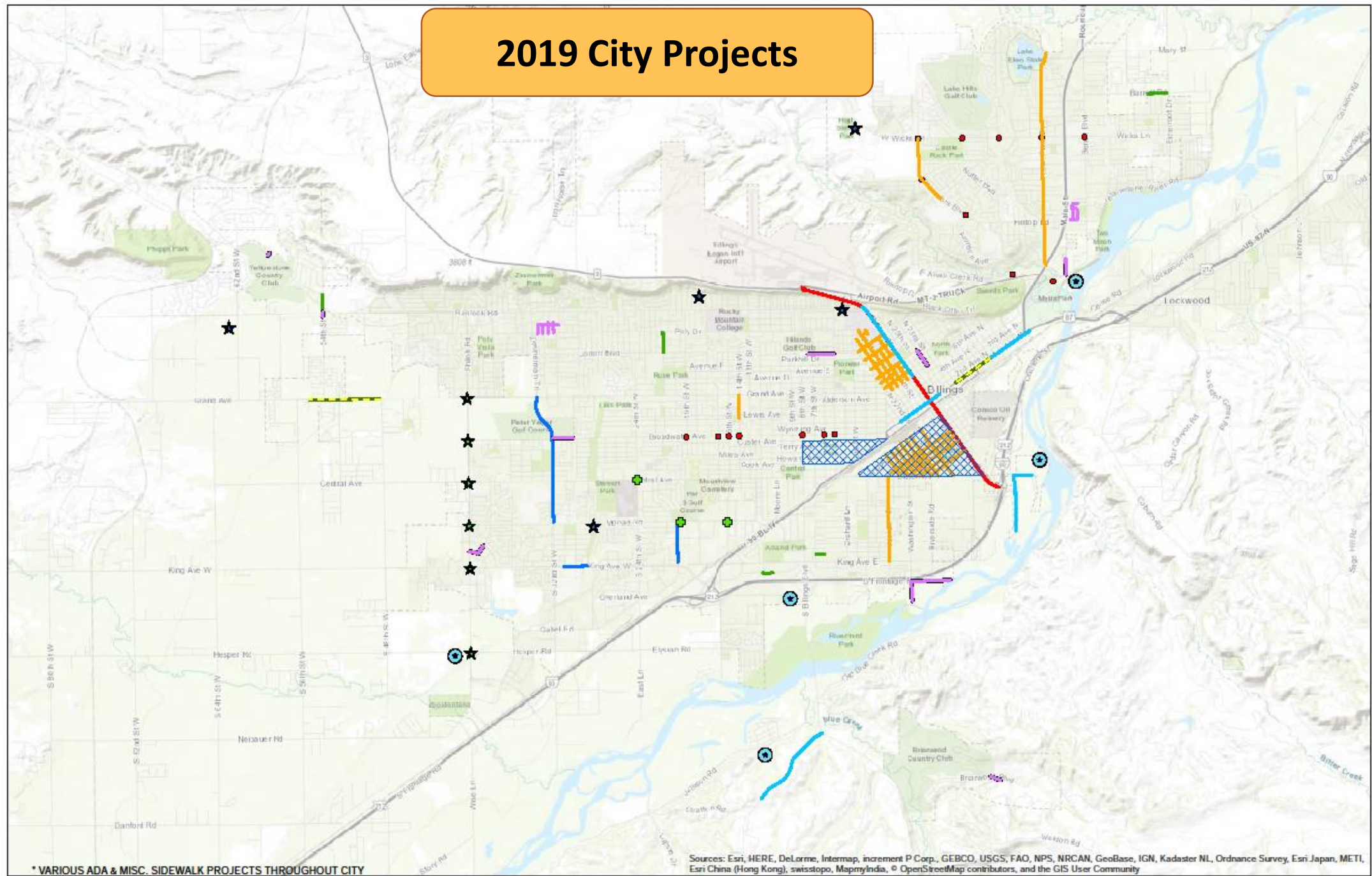
# 2018/2019 City Projects



\* VARIOUS ADA & MISC. SIDEWALK PROJECTS THROUGHOUT CITY

Sources: Esri, HERE, DeLorme, Intermap, Increment P Corp., GEBCO, USGS, FAO, NPS, NRCAN, GeoBase, IGN, Kadaster NL, Ordnance Survey, Esri Japan, METI, Esri China (Hong Kong), swisstopo, MapmyIndia, © OpenStreetMap contributors, and the GIS User Community

# 2019 City Projects

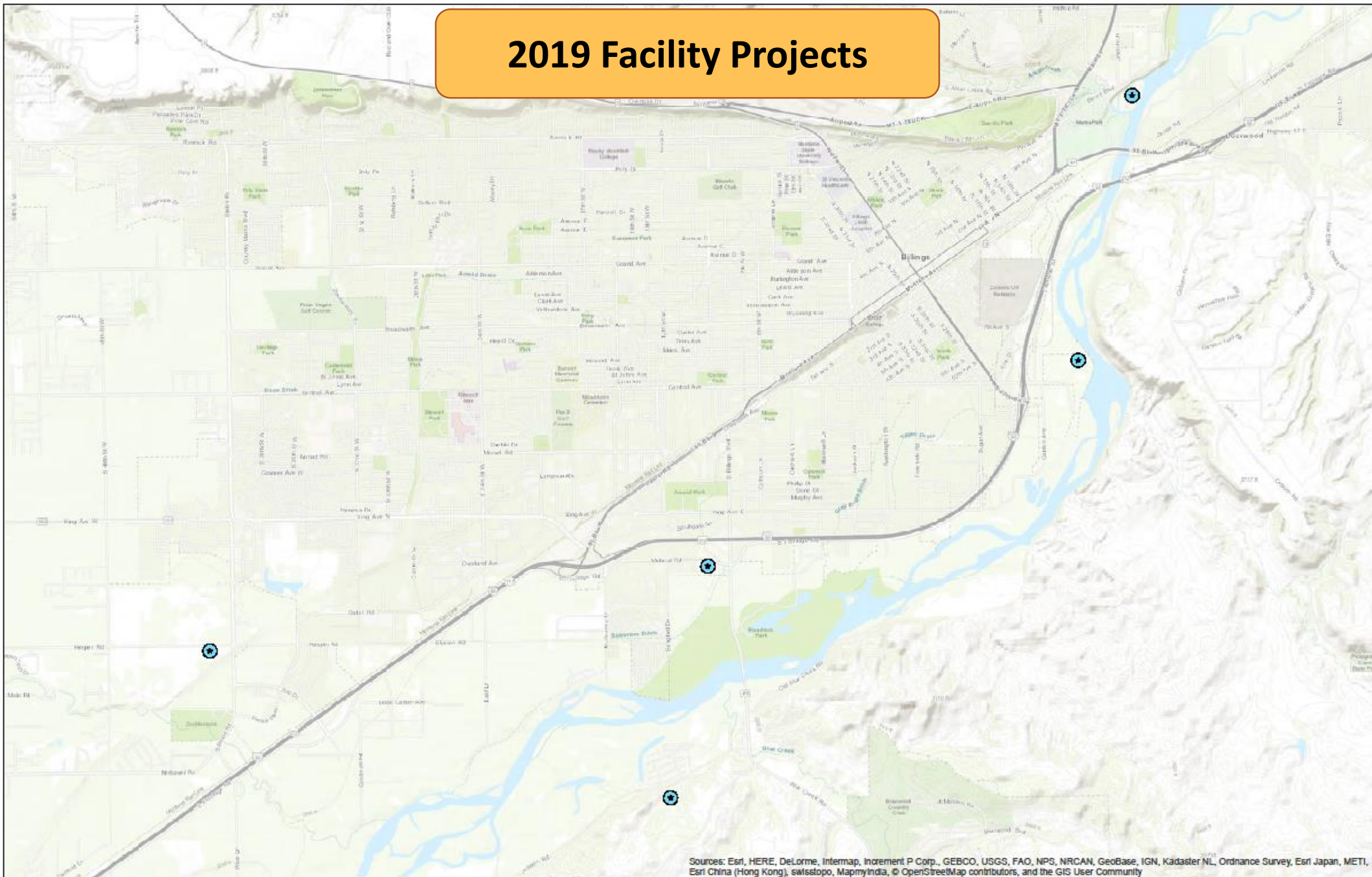


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Utilities Underpass

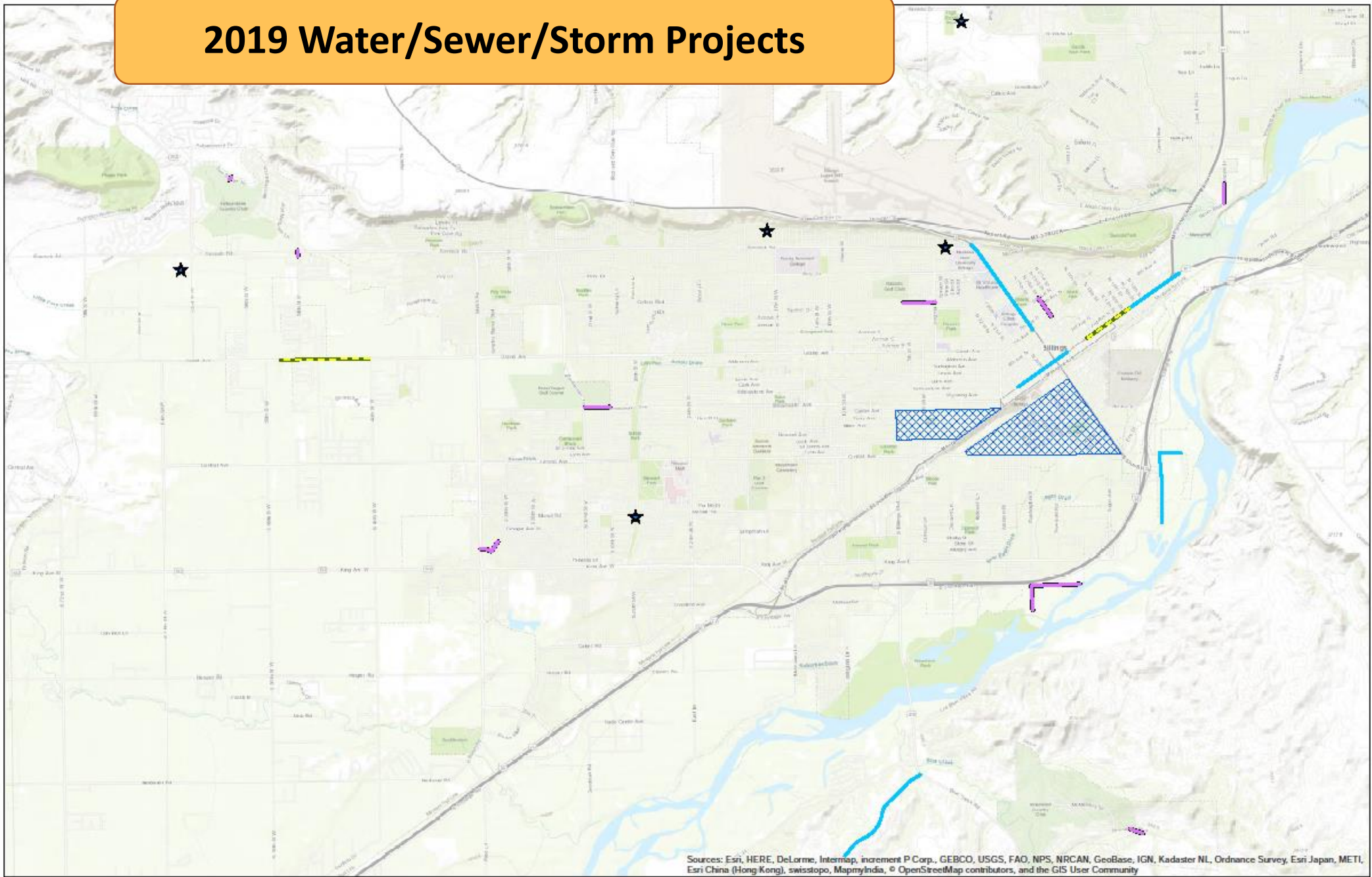
# 2019 Facility Projects



Sources: Esri, HERE, DeLorme, Intermap, Incentiv P Corp., GEBCO, USGS, FAO, NPS, NRCAN, GeoBase, IGN, Kadaster NL, Ordnance Survey, Esri Japan, METI, Esri China (Hong Kong), swisstopo, MapmyIndia, © OpenStreetMap contributors, and the GIS User Community

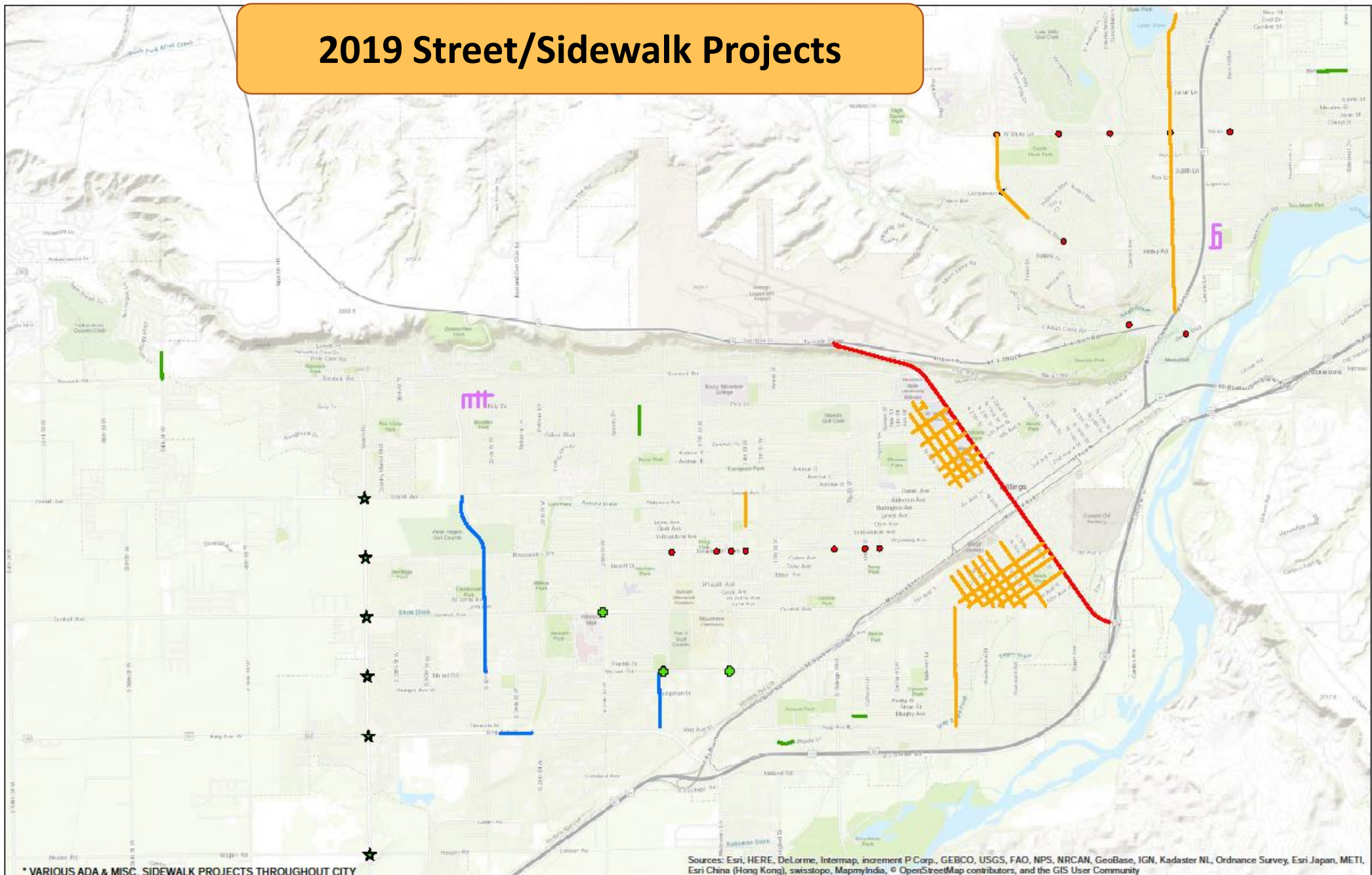
Utilities  
Perpass

# 2019 Water/Sewer/Storm Projects



Sources: Esri, HERE, DeLorme, Intermap, increment P Corp., GEBCO, USGS, FAO, NPS, NRCAN, GeoBase, IGN, Kadaster NL, Ordnance Survey, Esri Japan, METI, Esri China (Hong Kong), swisstopo, MapmyIndia, © OpenStreetMap contributors, and the GIS User Community

# 2019 Street/Sidewalk Projects



\* VARIOUS ADA & MISC. SIDEWALK PROJECTS THROUGHOUT CITY

Sources: Esri, HERE, DeLorme, Intermap, increment P Corp., GEBCO, USGS, FAO, NPS, NRCAN, GeoBase, IGN, Kadaster NL, Ordnance Survey, Esri Japan, METI, Esri China (Hong Kong), swisstopo, MapmyIndia, © OpenStreetMap contributors, and the GIS User Community







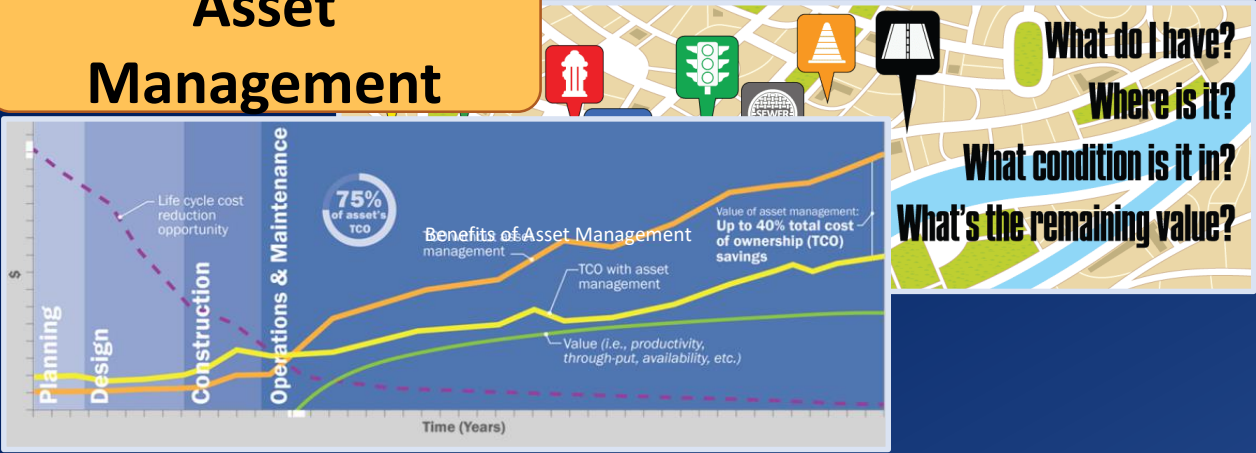
# Resource Management Starts With Public Works!



# Resource Management Starts With Public Works!

## Long Range Planning

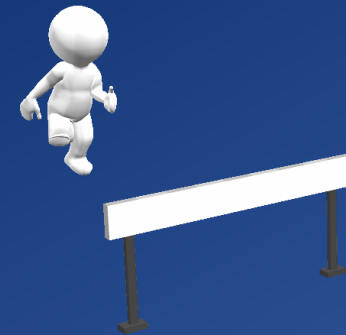
### Asset Management



- Manage \$65M of capital projects annually
  - Roads, sidewalks, storm, solid waste, water, wastewater, & projects for other Departments
  - Construction change orders average only 0.25%
- Review, permit, & inspect 3,000 sites annually
- Asset management plan
- Storm water utility
- Master plans
- 10 year capital improvement plans
- GIS

- 5 year & 10 year financial plans resulting in great bond rating & savings to customers
- Department business plan
- Department strategic planning
- Work cooperatively with DEQ to mitigate future regulations





# Hurdles Ahead





## Storm Sewer

- \$150M of existing infrastructure deficiencies to handle basic storms
  - About \$2M per year available for storm capital
- Increasing regulations

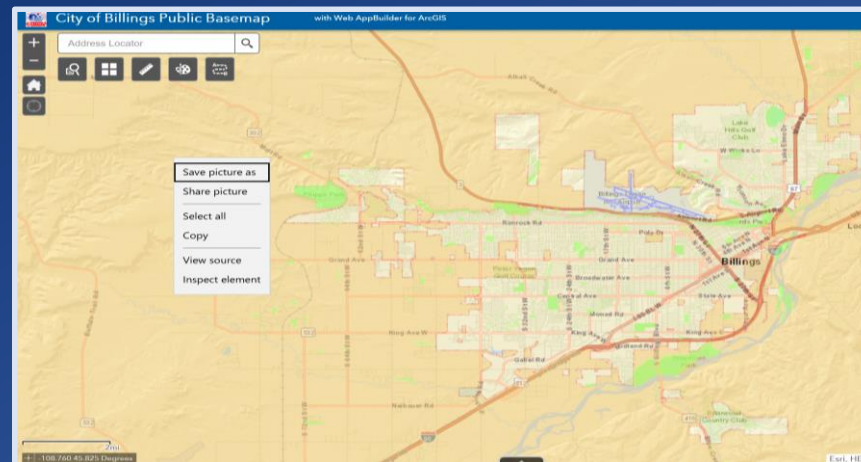




## Roads

- PAVER program funding shortfall
- Expanding system
- Need satellite work sites to reduce travel time
- Increased maintenance costs
- Pave gravel streets
- Fix non-maintainable streets

	Funding Cycle	Recommended Cycle
Overlay	33 Years	20 Years
Chip Seal	21 Years	12 Years





## Water & Wastewater

- 180 year pipe replacement program
- Increasing maintenance costs
- Water demands and storage
- Increasing regulations





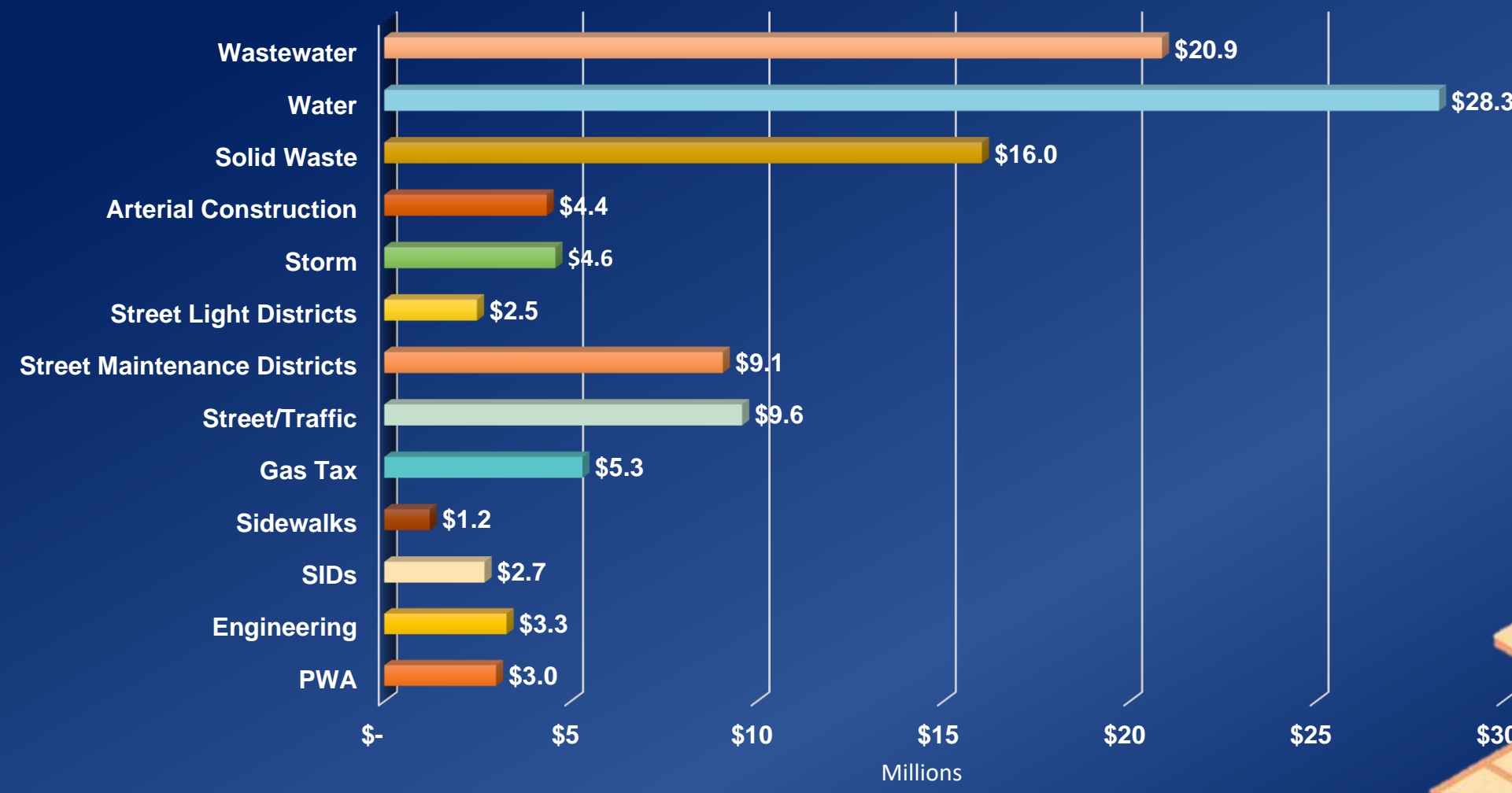
# FY 2020 Budget Highlights





# FY 2020 Revenues by Fund

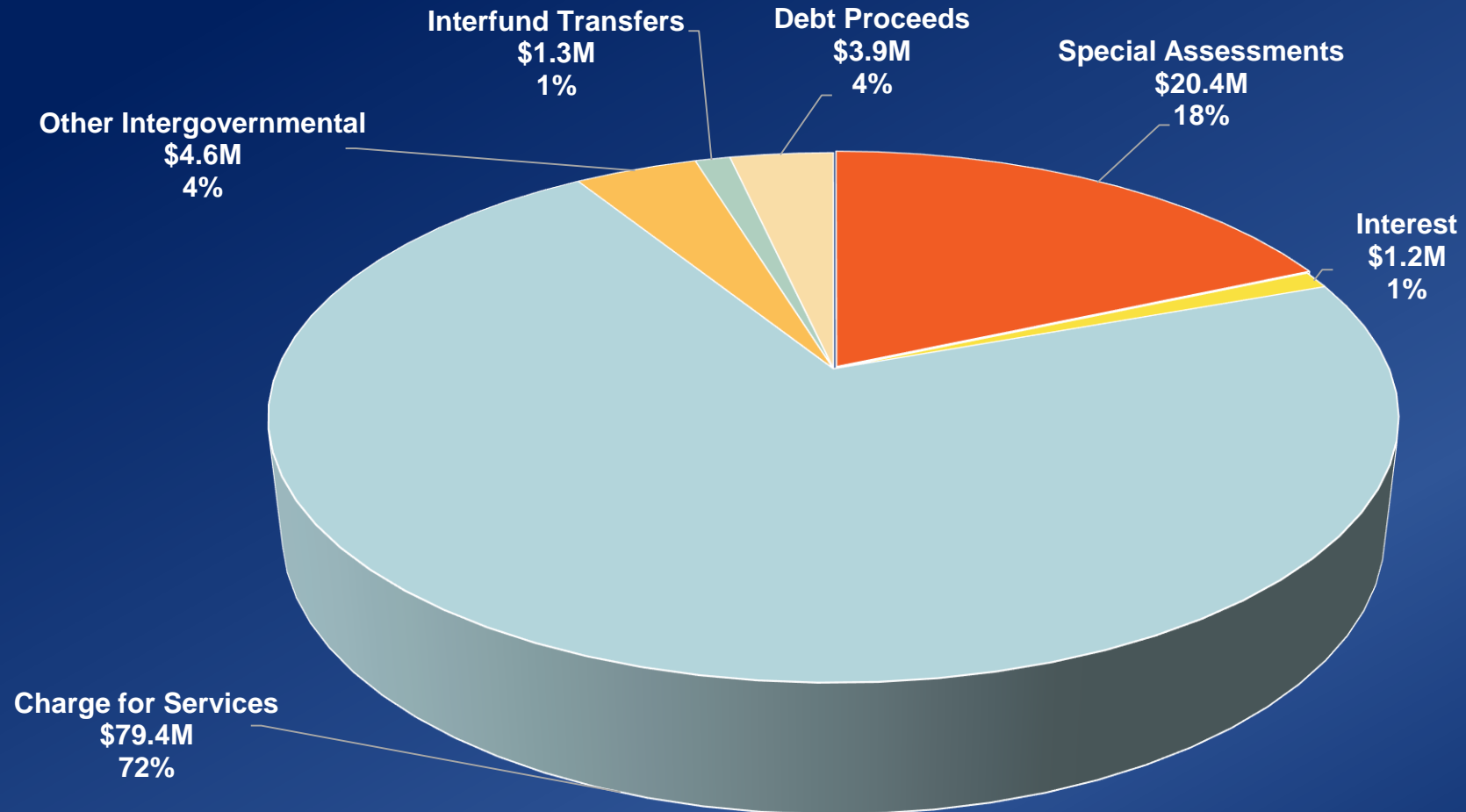
## \$110.8M





# FY 2020 Revenues by Funding Source

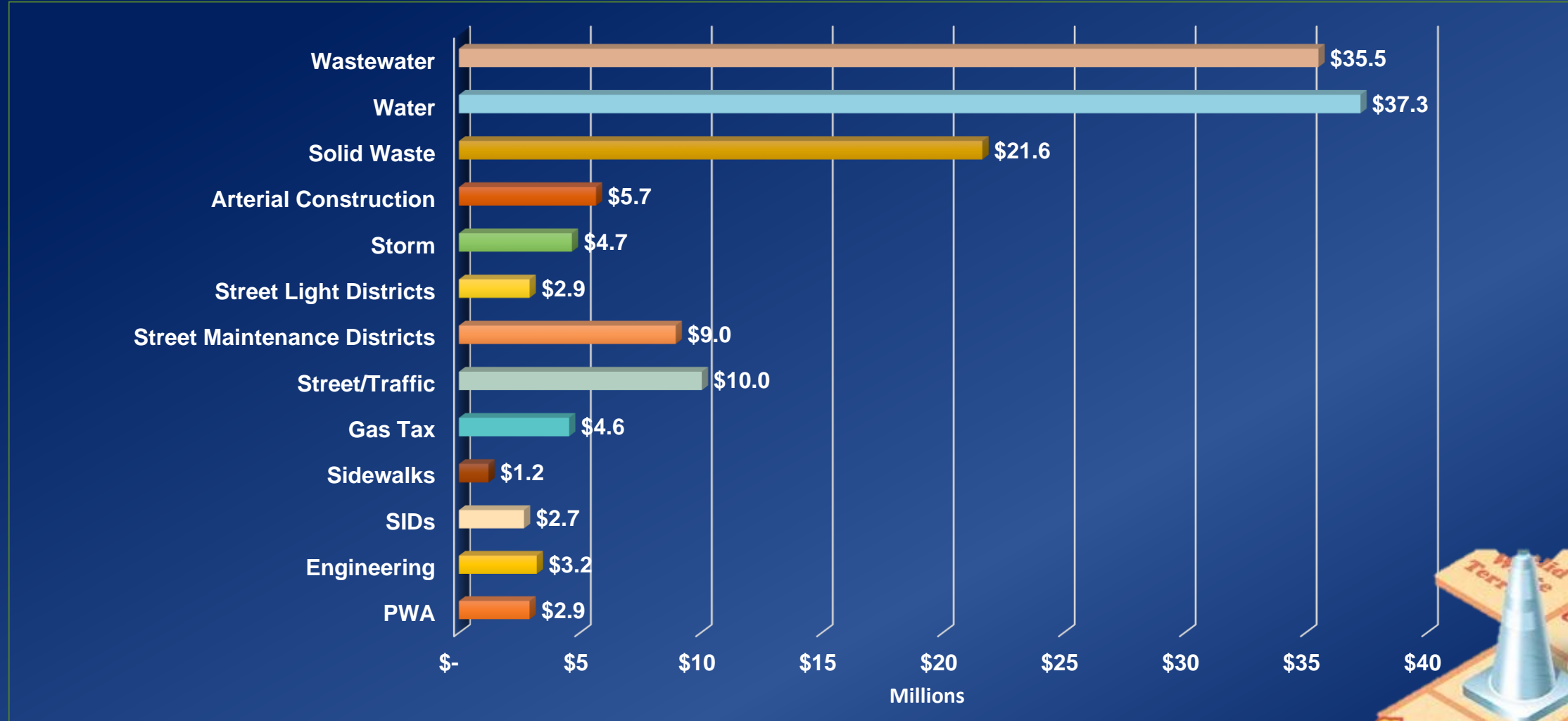
## \$110.8M





# FY 2020 Expenses by Fund

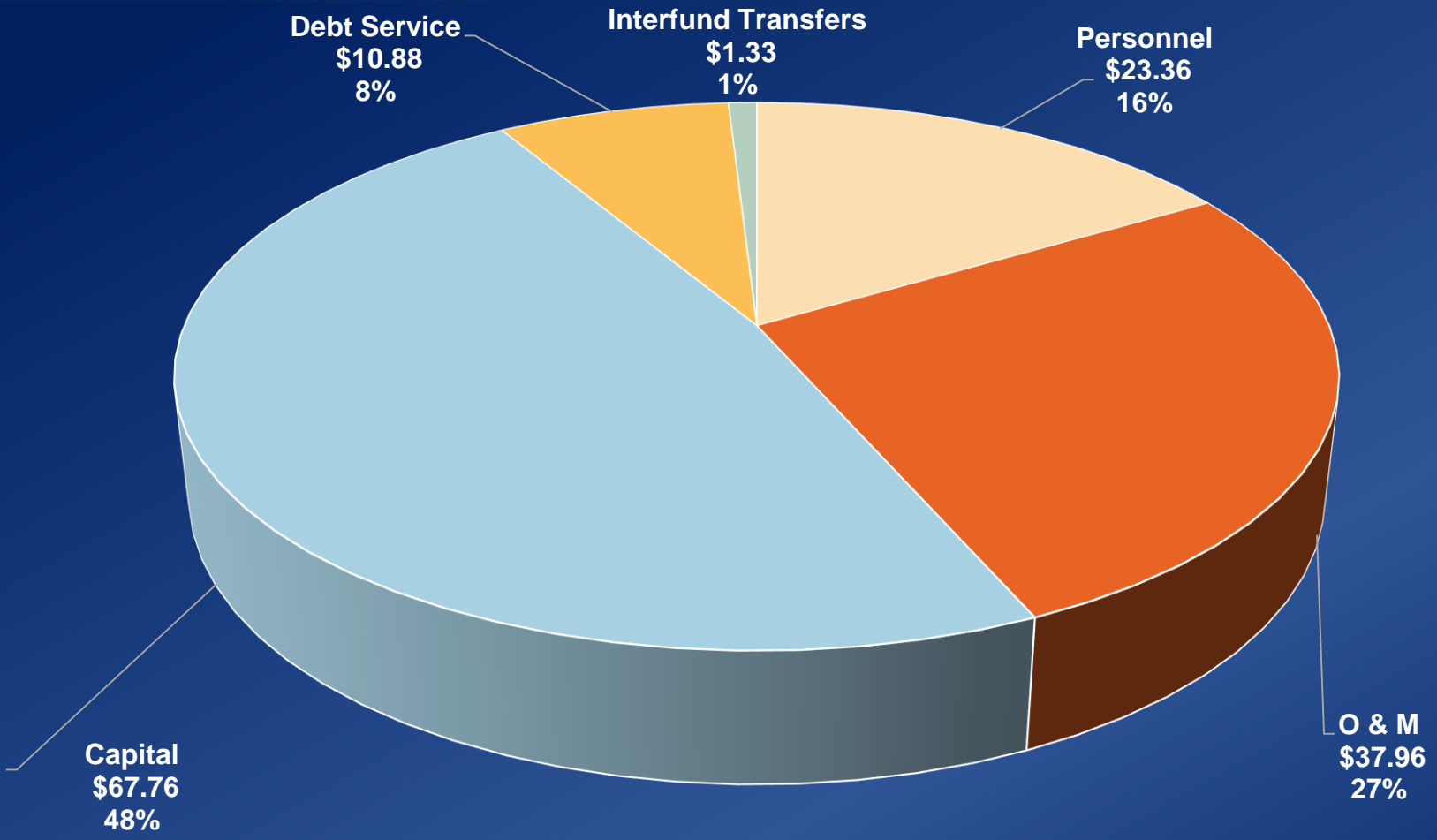
## \$141.3M





# FY 2020 Expenses by Category

## \$141.3M



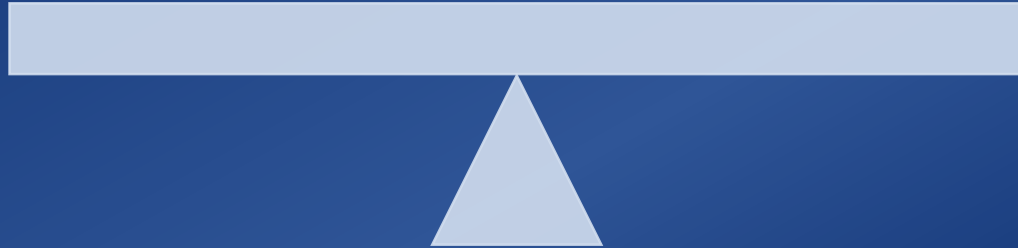


## A Balanced Budget

**Revenues**  
**\$110.8 Million**

**Saved cash for capital projects**  
**\$30.5 Million**

**Expenses**  
**\$141.3 Million**





## Primary Cost Increases

Major Supplemental Budget Requests (SBRs)	PWA	Solid Waste	Water	Wastewater	Storm	SILMDs	SMDs	TOTAL
Landfill Equipment		\$1,485,000						\$1,485,000
GIS Services		\$100,000	\$250,000	\$250,000	\$200,000	\$50,000	\$150,000	\$1,000,000
Heights Trunk Main Assessment			\$400,000					\$400,000
Light Poles						\$300,000		\$300,000
Solid Waste Containers		\$180,000						\$180,000
Landfill Maintenance Workers		\$117,201						\$117,201
Wireless Network Technician			\$37,360	\$37,359				\$74,719
Asset Management Coordinator	\$65,295							\$65,295
Contracted Snow Hauling							\$60,000	\$60,000
WRF Treatment Technician				\$56,226				\$56,226

Personnel Changes	
FY 19 FTEs	252
Landfill Maintenance Workers	2
Asset Management Coordinator	1
Wireless Network Technician	1
WRF Treatment Technician	1
FY 20 Proposed FTEs	257

Other Expense Increases	
Cost Allocations from General Fund	\$173,388
Electricity	\$209,475





## Proposed Changes in Arterial Construction Fees

- Currently generates \$4,230,000 in revenue
- Overall proposed increase of 3%
- Tied to Construction Cost Index (CCI)
- Generates additional \$127,000

	FY 2019	FY 2020	\$ Increase	% Increase
Impact to Annual Average Residential Rate	\$49.82	\$51.36	\$1.54	3%

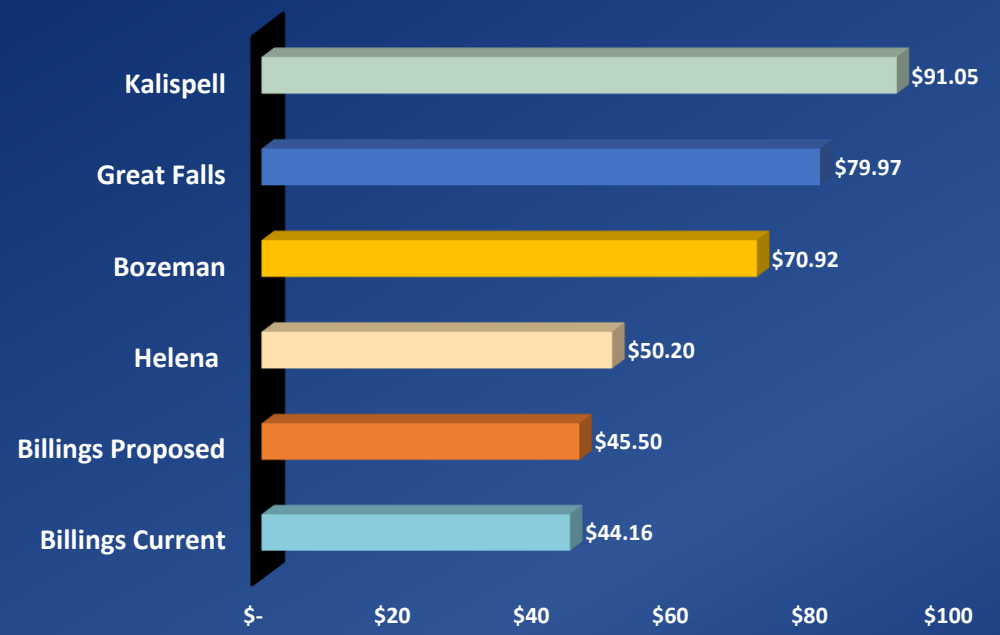




## Proposed Changes in Storm Assessment

- Currently generates \$4,371,000 in revenue
- Overall proposed increase of 3%
- Tied to Construction Cost Index (CCI)
- Generates additional \$131,000

Annual Storm Fee Comparison  
(Based on 9600 SF Residential Lot)



	FY 2019	FY 2020	\$ Increase	% Increase
Impact to Annual Average Residential Rate	\$44.16	\$45.50	\$1.34	3%

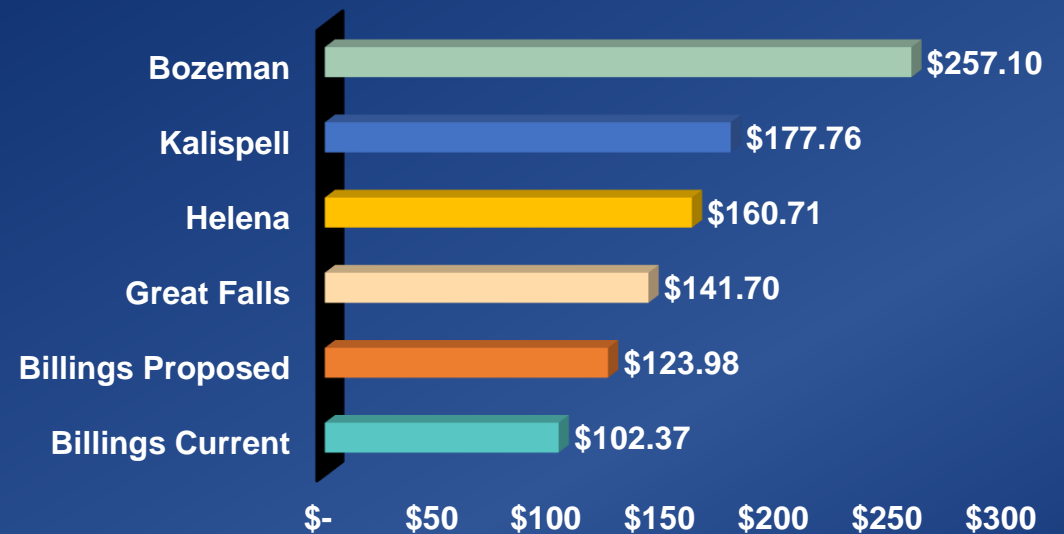




## Proposed Changes in Street Maintenance District (SMD) Assessments

- 2 Districts currently generate \$8,799,000
- Proposing increases to the amount required to maintain current service level
- Overall proposed increase of 3%
- Generates additional \$264,000

Annual SMD Fee Comparison  
(Based on 9600 SF Residential Lot)



	FY 2019	FY 2020	\$ Increase	% Increase
Impact to Annual Average Residential Rate	\$120.37	\$123.98	\$3.61	3%

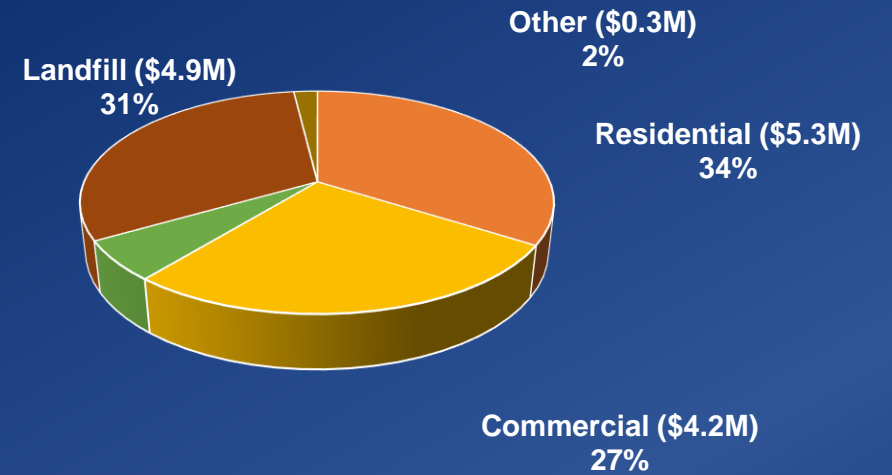




## Proposed Changes in Solid Waste Fees

- 2.5% Increase in Collection Fees for Residential and Commercial
  - Will Generate \$237,000 in Revenues
- 5% Increase for Landfill Fees
  - Will Generate \$235,000 in Revenues
- 8% Increase for Roll-Off Fees
  - Will Generate \$76,000 in Revenues

### FY 19 Revenue Breakdown



	FY 2019	FY 2020	\$ Increase	% Increase
Monthly Residential Fee	\$10.98	\$11.25	\$.27	2.5%
Commercial 8 Yard, 1X/Week	\$65.84	\$67.49	\$1.65	2.5%
Roll-Off Fee	\$139.80	\$150.98	\$19.94	8%
Billings Landfill Fee Per Ton	\$18.90	\$19.85	\$0.95	5%

Montana customers outside the City of Billings pay 20% more than Billings customers for landfill fees and out-of-state customers pay 44% more. The proposed fee increases include a 5% increase for all tipping fees.





## New Uncovered Load Fee

- Fee charged to drivers of vehicles with unsecured loads arriving at the landfill
- Fee = \$10 and includes a tarp for future use

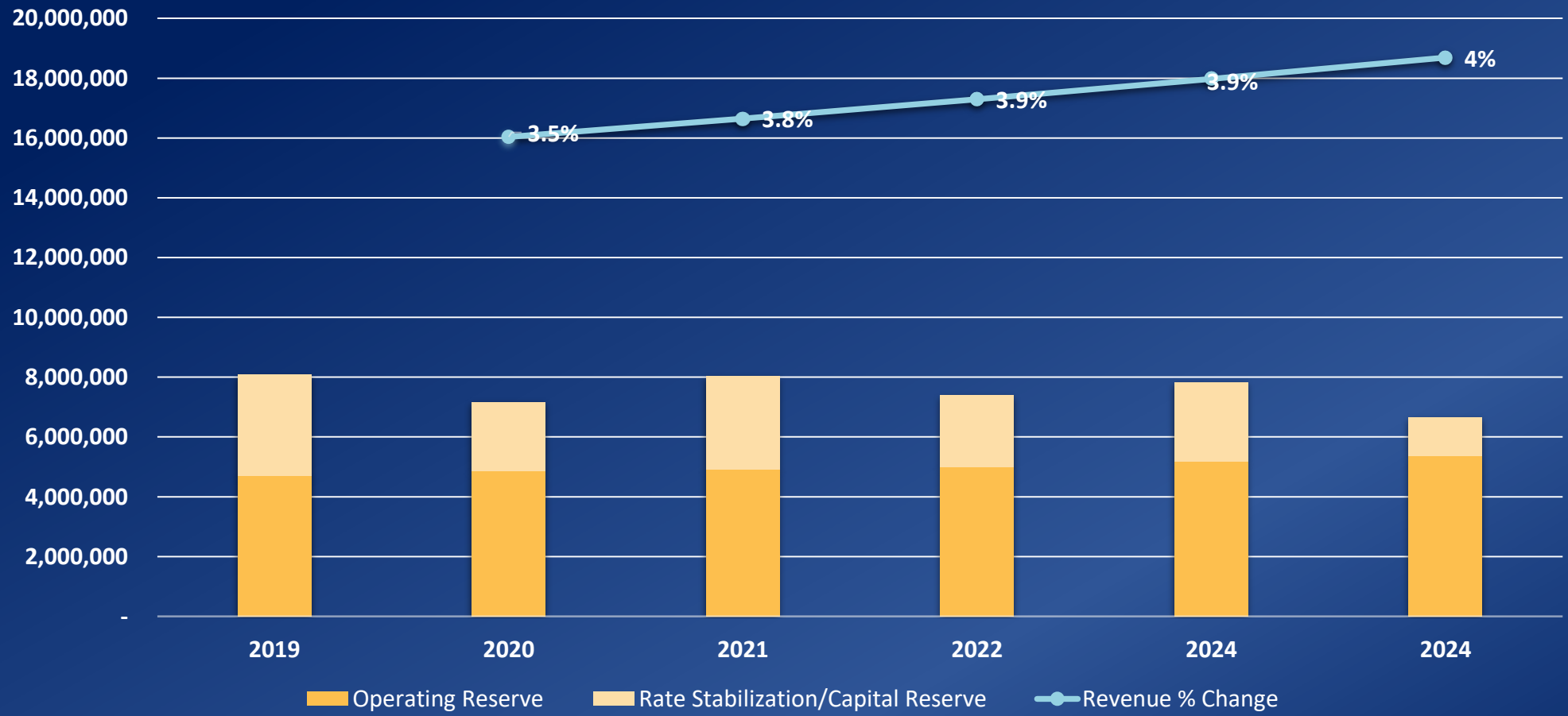


Properly secured loads traveling to the landfill prevent litter from being strewn along our roadways. More importantly, unsecured loads pose a risk of serious injury from debris exiting the vehicle onto the roadway into oncoming traffic.





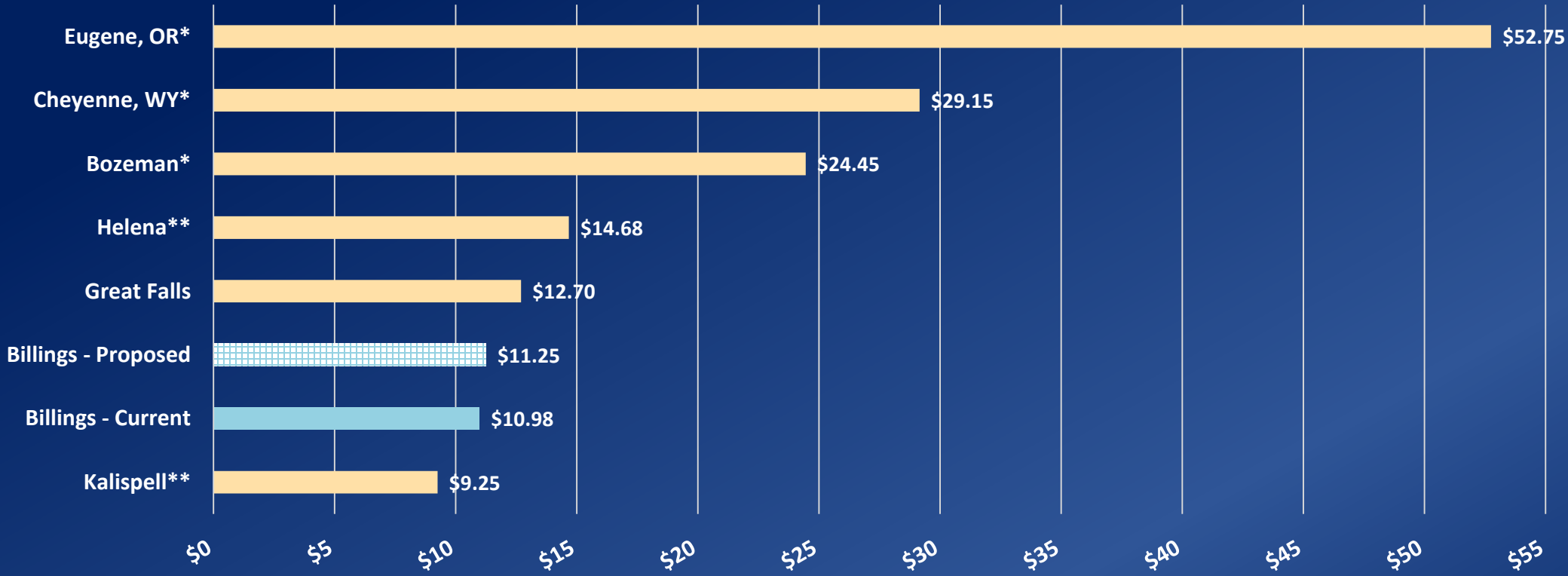
# Looking Forward





# Residential Monthly Rate Comparison

Monthly Residential Base Rates



\* Indicates cities with PAYT rate structures.  
\*\* Indicates cities that charge customers on an annual basis for solid waste services.

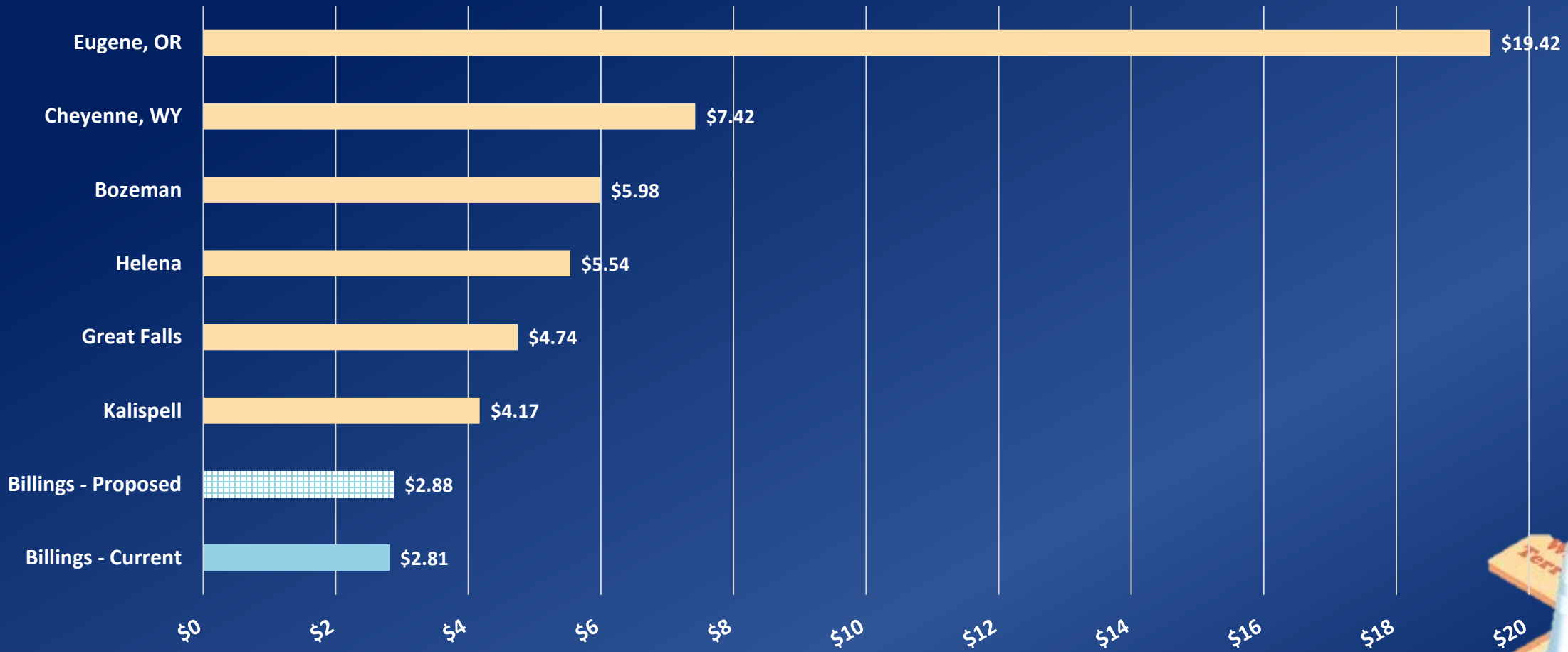
1. Rates reflect each city's monthly base rate for weekly refuse collection with carts similar in size to Billings refuse carts (90 to 100 gallons), or the equivalent.  
2. Eugene, OR has an open franchise system in which the City sets minimum service rates. Private haulers may charge up to 10 percent above minimum rates.





# Commercial Front Load Rate Comparison

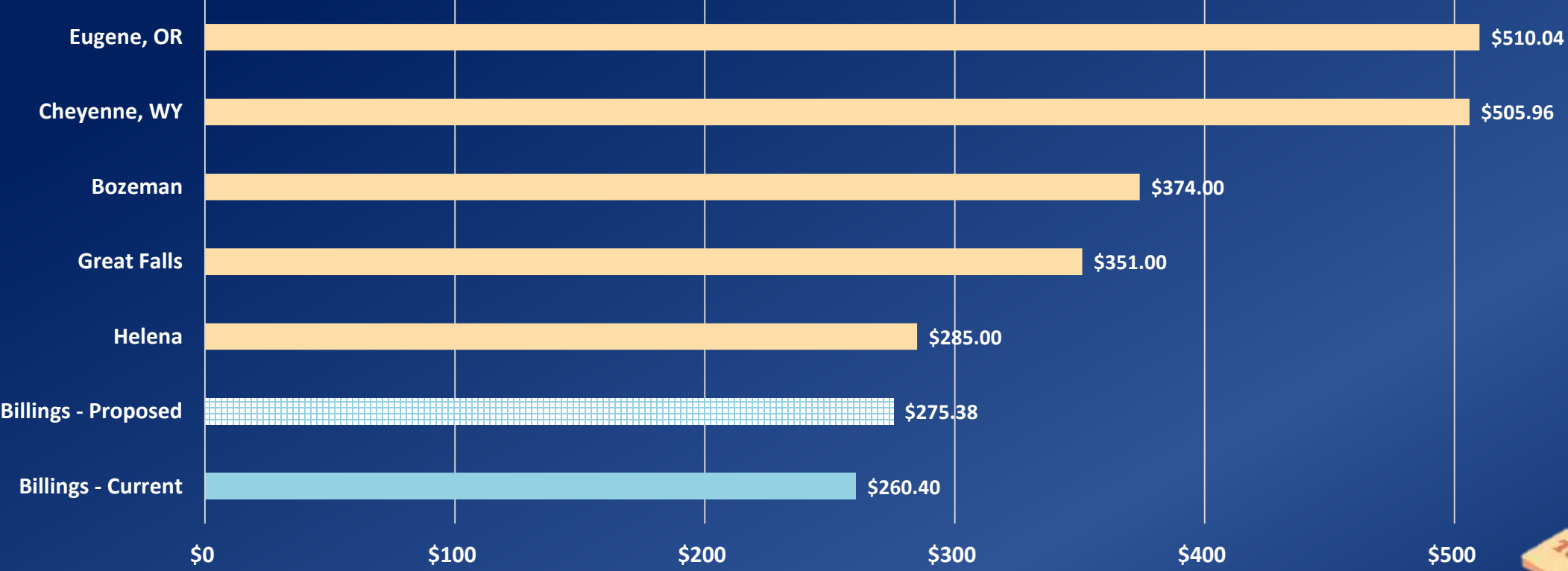
Average Cost Per Cubic Yard (Collection + Disposal)





# Roll-Off Rate Comparison

Average Total Cost Per Pull (30 CY, 4 Tons Disposal)



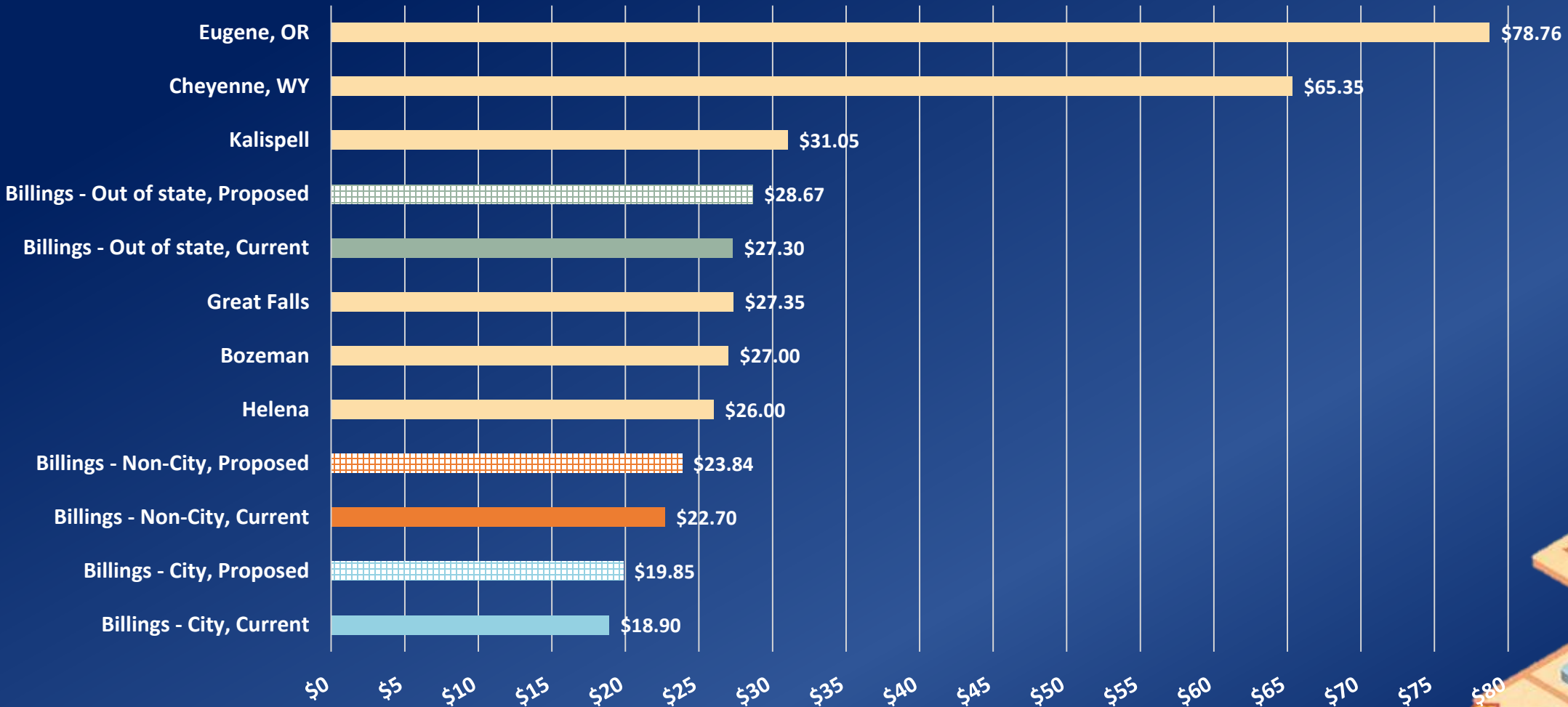
- 1. Costs for roll-off services represent the total cost for a temporary 30 CY roll-off, with one pull including four tons of MSW material over a 15-day rental period. Costs include all pull fees, disposal fees, and rental fees for this scenario.
- 2. Total cost per pull for the City of Helena includes a per-ton cost of \$56.75, which is the City's tipping fee for its transfer station. Most material collected within the City flows through the transfer station before being transported to the landfill.





# Landfill Tipping Fee Comparison

Per-ton Tipping Fee





## Summary of Public Works Proposed Rate Increases (for average residential household)

On Utility Bill (Monthly)	Current Rates	Proposed FY 20	\$ Change from Current
Water	\$40.77	\$43.57	\$2.80
Wastewater	\$27.02	\$27.80	\$.78
Solid Waste	\$10.98	\$11.25	\$.27
<b>Total Utility Bill</b>	<b>\$78.77</b>	<b>\$82.62</b>	<b>\$3.85</b>

On Property Tax Statement (Annually)	Current Rates	Proposed FY 20	\$ Change from Current
Arterial Fee	\$49.82	\$51.36	\$1.54
Storm	\$44.16	\$45.50	\$1.34
SMD	\$120.37	\$123.98	\$3.61
<b>Total Assessments</b>	<b>\$214.35</b>	<b>\$220.84</b>	<b>\$6.49</b>

**Total Public Works Fee Increases = \$52.69 annually  
\$ 4.39 monthly**





**Communities are Shaped  
Futures are Made  
and  
It Starts with Public Works!**

**Thank you**

