Citizen Bond Committee

Bond Recommendations

TEAM FLAGSTAFF
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Agenda

- Background
- Information Sharing
- Committee Input
- Deliberation Process
- Bond Project Recommendations
- Bond Category Recommendations
- Cost of Recommendations
- Appendix

Background

Citizen Bond Committee

- Committee members began meeting in November 2021
- Adopted a Charter
- Met weekly to hear presentations on bond projects and seek more information
- Toured the Wildcat Hill and Rio de Flag plants
- Considered the three bond categories identified by City Council
- Spent 31 hours in meetings in addition to individual review time
- Narrowed down cost of projects from $206 million

Background

General Obligation Bonds

- $100 million in capacity at current tax rate of 0.8000 per $100 of Net Assessed Valuation

Residential Taxpayer Impacts

- For planning purposes:
  - 20-year debt issuance at 5% interest rate
  - $10M, $25M, $70M and $100M in bonds
  - Average Class 3 Residential Assessed Value - $287,000, 0% growth
  - Total rate stays within current rate: 0.8000

Amount of Voter Authorization	Total Principal and Interest Paid	Estimated Tax Rate Required	Residential Annual Impact	20-Year Impact
$ 10,000,000	$ 15,934,493	0.0777	$ 21	$ 420
$ 25,000,000	$ 39,836,233	0.1942	$ 53	$ 1,060
$ 70,000,000	$ 111,541,453	0.5437	$ 147	$ 2,940
$100,000,000	$ 159,344,933	0.7767	$ 210	$4,200

Commercial Taxpayer Impacts

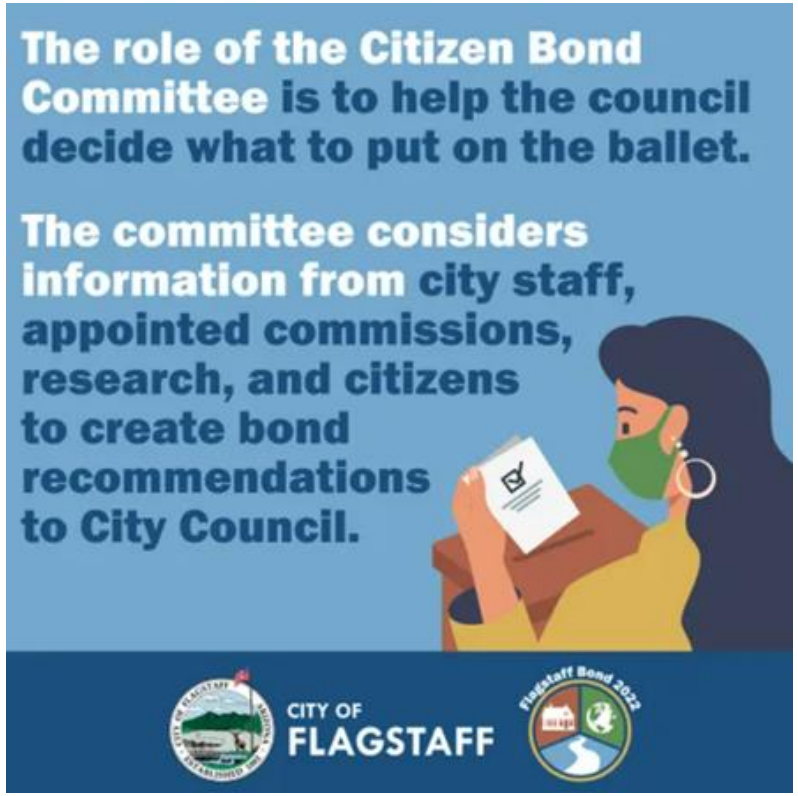
- For planning purposes:
  - 20-year debt issuance at 5% interest rate
  - $10M, $25M, $70M and $100M in bonds
  - Commercial Property at $270,000 Assessed Value, 0% growth
  - Total rate stays within current rate: 0.8000

Amount of Voter Authorization	Total Principal and Interest Paid	Estimated Tax Rate Required	Commercial Annual Impact	20-Year Impact
$ 10,000,000	$ 15,934,493	0.0777	$ 37	$ 740
$ 25,000,000	$ 39,836,233	0.1942	$ 97	$ 1,840
$ 70,000,000	$ 111,541,453	0.5437	$ 257	$ 5,140
$100,000,000	$ 159,344,933	0.7767	$ 367	$ 7,340

Information Sharing

- Dedicated web page to Citizen Bond Committee
  - Agendas, handouts & notes
  - Meeting recordings
- Created a bond logo
- Worked with Public Affairs on awareness videos, advertising and social media posts
  - Citizen Bond Committee
  - General Obligation Bonds
  - Community survey

Information Sharing



Meetings evolved to 4:00 to 5:30 pm beginning on February 3, 2022

Committee Input

- Community Survey
  - Mailed postcards to residents with invitation to participate
  - Banners, advertising, and social media for additional outreach
  - 1,385 responses
  - Representative random sample to match community demographics for age 18 and older
  - Provided ranked points for each bond project
- Meetings were advertised and open to public attendance

Deliberation Process

- Committee members considered community survey and committee survey results along with staff priorities
- Completed a forced ranking exercise
- Participated in a facilitated process to identify the top 12 priorities
  - Three facilitated meetings to identify 12 priorities
  - Hybrid meeting to support in-person and virtual attendance
  - Staff was not in attendance

Bond Project Recommendations

1. Stormwater: Increase capacity of flood waters within Spruce Wash to mitigate future flood events ($26m)
2. Housing: Redevelop City owned housing to create affordable rental opportunities ($5m)
3. Wastewater: Update Wildcat Hill Treatment Plant with equipment to increase capacity and maintain public health and regulatory compliance ($21m)
4. Housing: Use self-sustaining loan fund to partner with private developers and repurpose existing buildings into affordable rental opportunities ($2-3m)

Bond Project Recommendations

5. Public Safety: Replace 20-year-old fire engine and water tankers used to fight wildfires ($2.2m)
6. Wastewater: Implement three energy efficiency projects: convert byproduct gases into energy to provide heat and electricity at the plant; purchase a backup generator to address low-flow power outages; and purchase varied speed blowers to match demand ($8.1m)
7. Climate Action: Full home retrofits to increase energy efficiency, lower costs, and increase air safety ($2-7m)

Bond Project Recommendations

8. Housing: Use self-sustaining loan fund to incentivize the private sector to incorporate affordable rental housing into new developments ($3-8m)
9. Climate Action: Conduct energy efficient upgrades to City of Flagstaff facilities ($1m)
10. Wastewater: Update wastewater treatment plants with new electrical distribution system and other equipment upgrades ($6m)

Bond Project Recommendations

11. Housing: Expand homebuyer down payment assistance loan program ($6-11m)
12. Wastewater: Update receiving station infrastructure at both wastewater treatment plants to prevent equipment damage ($11.9m)

Bond Category Recommendations

- Public Safety Infrastructure
- Stormwater and Wastewater Infrastructure
- Housing
- Climate Action

Cost of Recommendations

Public Safety Infrastructure Projects	Cost
Wildfire Engines (5)	$ 2,185,000
Total Public Safety Infrastructure	$ 2,185,000

Cost of Recommendations

Stormwater & Wastewater Infrastructure Projects	Cost
Spruce Wash (1)	$ 26,000,000
Wildcat Capacity (3)	$ 21,000,000
Wastewater Energy Efficiency (6)	$ 8,100,000
Wastewater Treatment Upgrades (10)	$ 5,972,439
Receiving Stations (12)	$ 11,900,000
Total Stormwater & Wastewater Infrastructure	$ 72,972,439

Cost of Recommendations

Housing Projects	Low Cost	High Cost
Redevelop City Owned Housing for Rental (2)	$ 5,000,000	$ 5,000,000
Repurpose Existing Building into Rental (4)	$ 2,000,000	$ 3,000,000
Incentivize Rental Housing (8)	$ 3,000,000	$ 8,000,000
Homebuyer Assistance (11)	$ 6,000,000	$ 11,000,000
Total Housing	$ 16,000,000	$ 27,000,000

Cost of Recommendations

Climate Action Projects	Low Cost	High Cost
Home Energy Retrofits (7)	$ 2,000,000	$ 7,000,000
City Efficient Facilities (9)	$ 1,000,000	$ 1,000,000
Total Climate Action	$ 3,000,000	$ 8,000,000
GRAND TOTAL	$94,157,439	$110,157,439

Council Questions & Discussion

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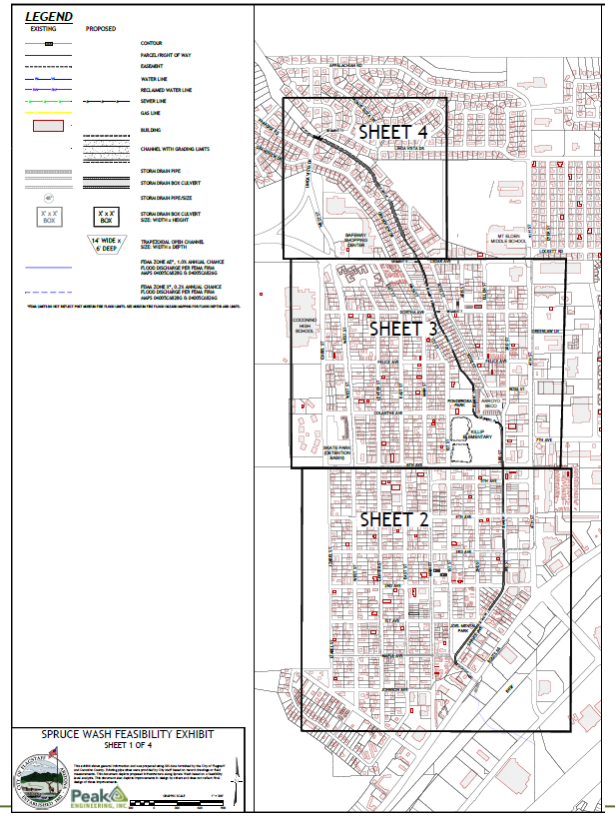
Appendix

Spruce Wash

Spruce Channel Master Plan

- **History** – Watershed that feeds Spruce Wash significantly burned, leading to flooding along this channel during 2021 monsoon events.
- **What** – Overview and analysis of the necessary improvements to maximize the capacity of Spruce Wash from Rt. 66 to Linda Vista Drive.
- **Status** – Feasibility study under internal review.



Spruce Wash

Linda Vista Culvert Improvement

- **History** – Initial improvements completed in 2020, recent flooding events show necessity for increased capacity.
- **What** – Increasing the capacity of culvert under Linda Vista Drive to mitigate flooding on Grandview and into Sunnyside neighborhoods.
- **Status** – Peak Engineering conducting studies of current design and alternatives.

Spruce Wash

Cedar Avenue Culvert Improvement

- **History** – Culvert at Cedar Ave does not have sufficient capacity to convey small flood events.
- **What** – Increasing the capacity of culvert under Cedar Avenue to allow flow to remain within the channel.
- **Status** – Peak Engineering is conducting studies of current design and alternatives.

Spruce Wash

Dortha Inlet Improvement

- **History** – Existing 60" pipe installed circa 1960's. Does not accommodate post Museum Fire flood flows.
- **What** – New 12' x 8' single barrel box culvert crossing Dortha Avenue and an open channel box storm drain to capture localized drainage from adjacent properties. Construction and installation is anticipated for April to June 2022.
- **Status** – Design by Shepherd-Wesnitzer, Inc (SWI).

Spruce Wash

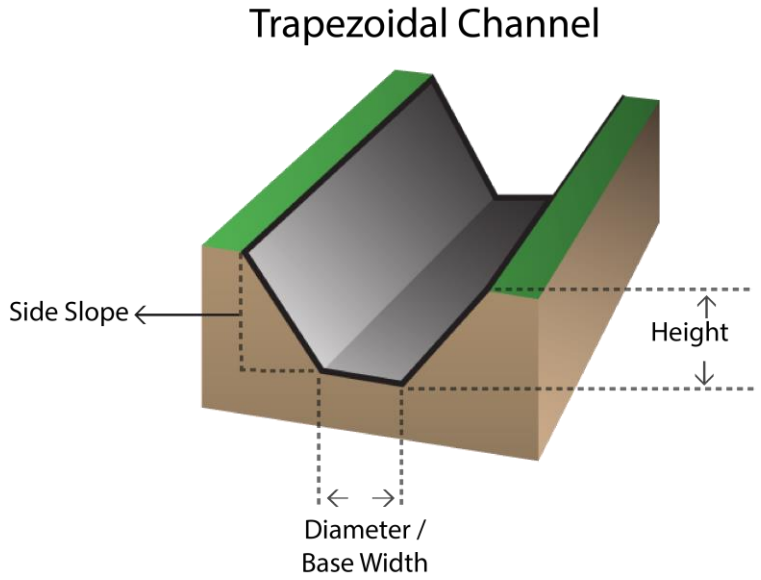
Arroyo Seco Diversion through Ponderosa Park

- **History** – There is an existing 60" pipe under Arroyo Seco Townhomes designed to a 100-year flood (pre-fire).
- **What** – Adding a storm diversion beginning at the Arroyo Seco inlet that feeds into the new Killip Regional Detention Basin
- **Status** – Studies and design underway (SWI Engineering).

Spruce Wash

Channel Improvements

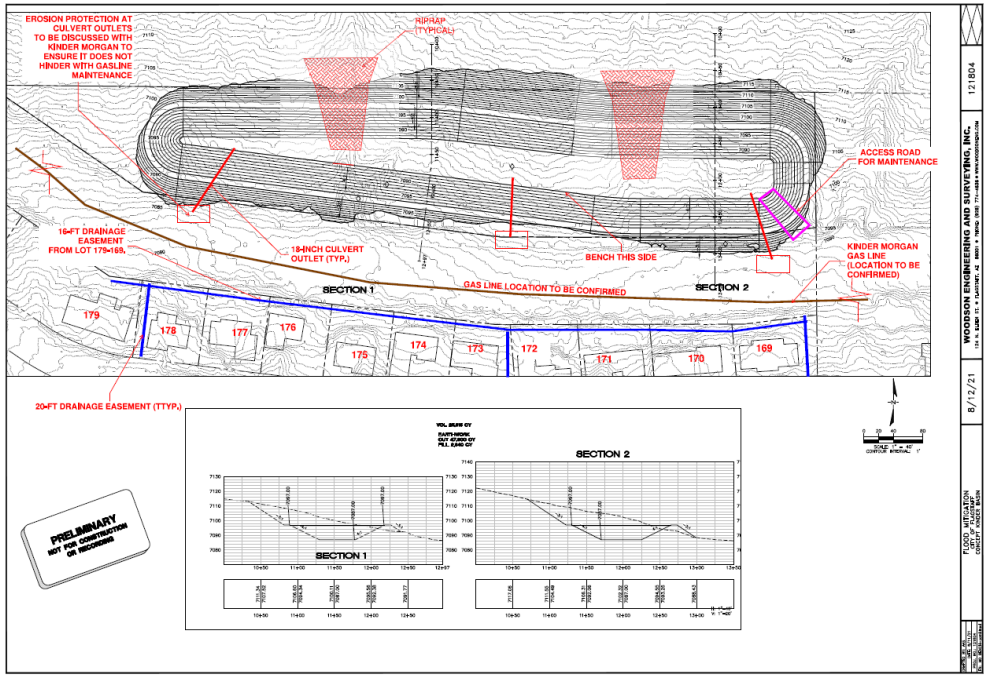
- **History** – The entire Spruce Wash channel will need to be widened and reinforced to mitigate future flood events.
- **What** – A series of underground boxes/tunnels, possibility of some open channel reaches that increase capacity to mitigate existing conditions.
- **Status** – Studies and design underway (Peak Engineering, JE Fuller Hydrology).

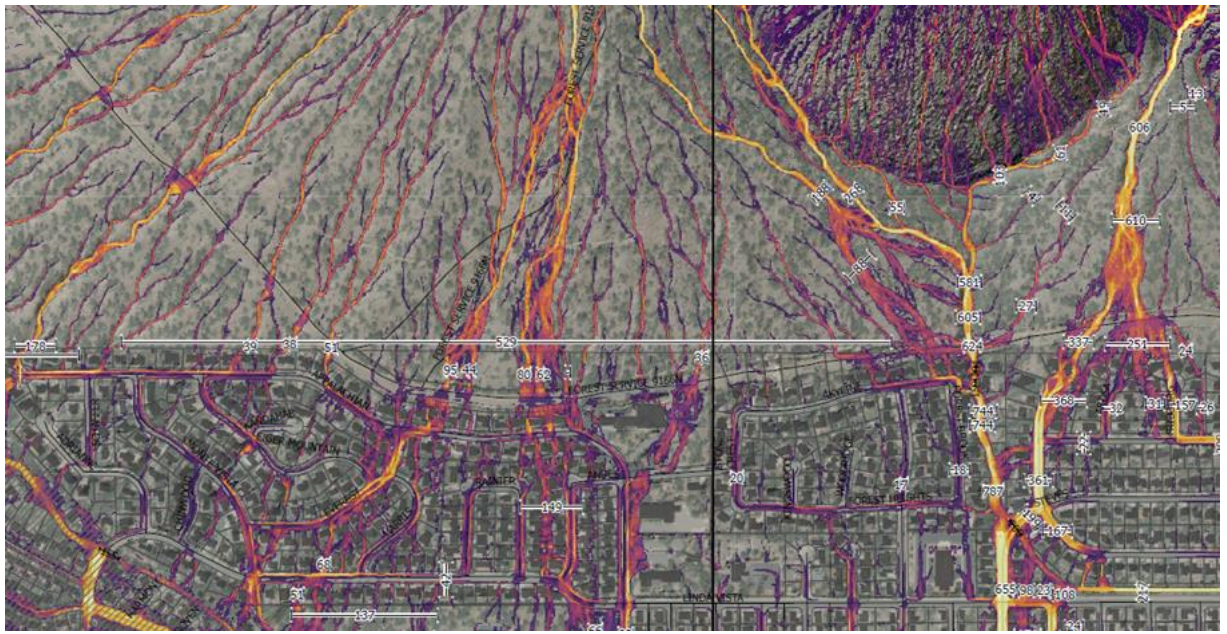


Spruce Wash

South Mt Elden Detention and Diversion Structures

- **History** – Significant flooding occurred in residential areas directly south of Mount Elden.
- **What** – A significant rain event caused flooding but also incised drainages on Mount Elden making future flood events more likely. A portion of the slopes drains to the Museum Fire area.
- **Status** – Conceptual designs were provided to the City. Discussions with Kinder Morgan, landowner of (natural gas pipeline) in that area are ongoing.





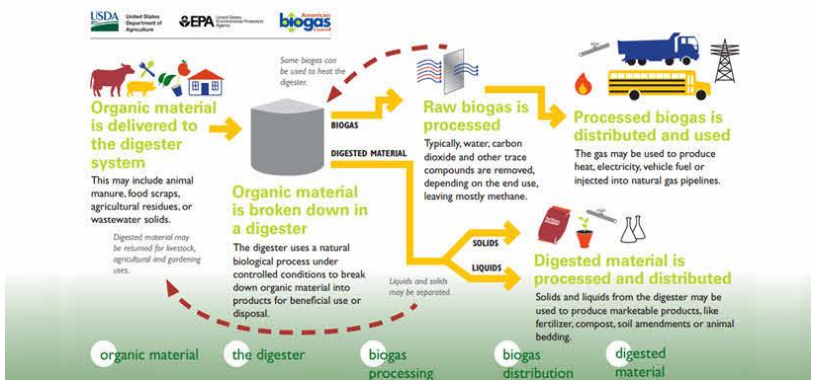
Redevelop City Owned Housing for Rental

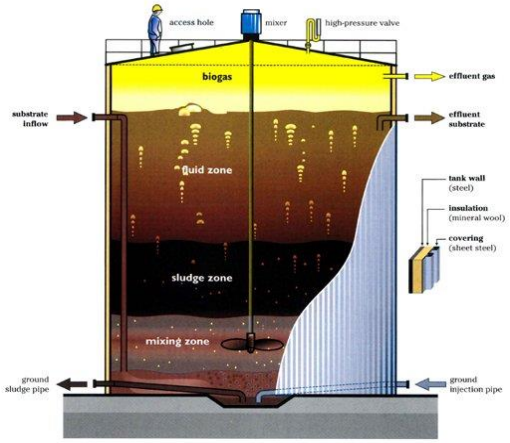
Project *(Prioritized)*	Amount	Estimated Community Benefit	Revolving Fund Capability (Yes/ No)
RH1: Redevelopment of housing owned & managed by the City	$5 million	250 units minimum (serving various AMIs)	No

Wildcat Capacity

WHWRP Digester Complex Expansion

- **History** – Installed in 1983, mixing system upgrade 2008
- **What** – Solids treatment is at 88% of capacity. Building two new digesters.
- **Status** – Carollo Engineering is the Design Consultant.
- **Critical equipment** – Wildcat Hill is the only solids handling location, vital to operations. This is the first of a 3-part plan to reduce the liquids from the solids disposal process.
- **Energy improvement project** more efficiently de-waters the solids.
- **Supports Carbon Neutrality**. This process can ultimately produce bio-solids for a Bio Char facility, potentially providing top cover for the landfill.

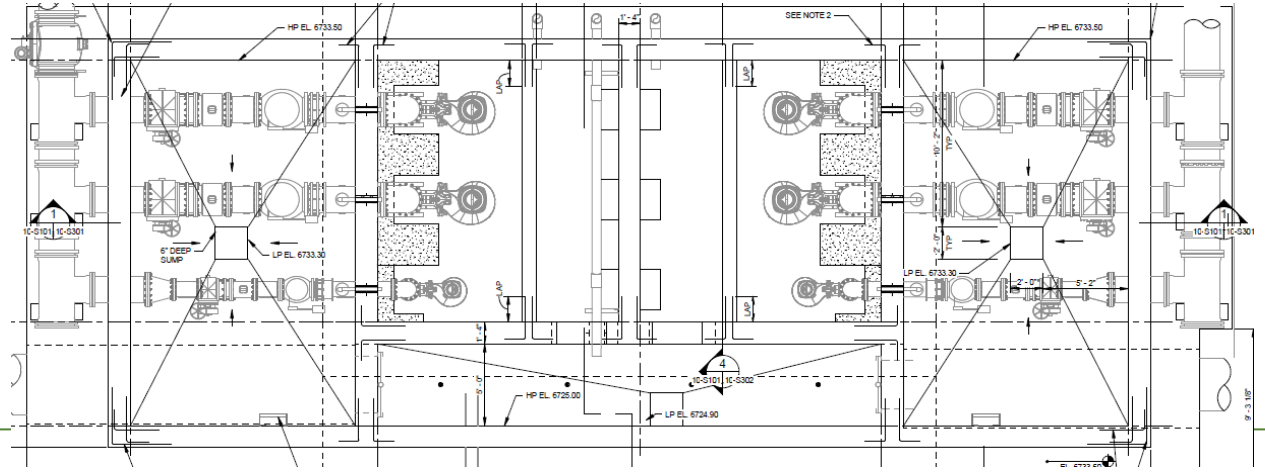




Wildcat Capacity

Primary Effluent Pump Station

- **History** – Built in 1983, no upgrades in 2008
- **What** – This is a new primary pump station, incorporating a mix of large and small pumps to move water efficiently.
- **Status** – Garver is the consulting engineer.
- **Critical equipment** – This is a top priority. PEPS moves wastewater to secondary treatment; a critical structure at Wildcat Hill WRP. Current pumps are beyond their useful life, the entire system is compromised and can fail at any time.
- **Energy improvement project** using a mix of large and small pumps to efficiently move water.
- **Supports Carbon Neutrality Plan.**



Repurpose Existing Buildings into Rental

RH2: Incentivize private sector affordable rental housing development through the creation of a revolving loan fund	$8 million	700-800 units (assuming an investment of $750K per project – 10 projects)	Yes, with repayment after expiration of affordability time period

Wildfire Engines

These units are over recommended life use (20 + years) as front-line units

Wildfire risks continue to elevate in and around our community

- 2 Wildfire Engines = **$1M** (21 yrs old)
- 2 Water Tenders = **$900k** (22 yrs old)

Estimated Cost: $1.9M + $285k **(15% Inflation)**

Total Cost: $2,185,000

Wastewater Energy Efficiency

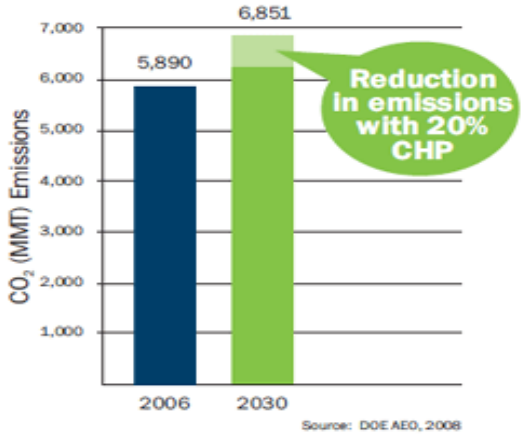
RDFWRP Generators & Automatic Transfer Switch

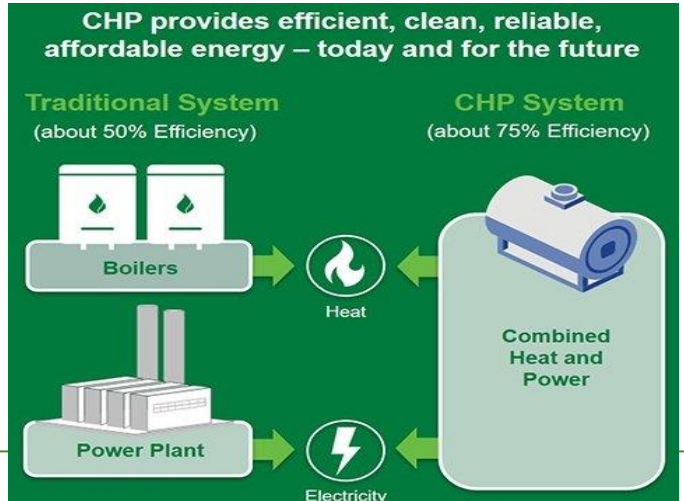
- **History** – Rio was originally constructed as a satellite facility, with ability for shutdown. It is now critical to Wildcat's operations and may not be shut down.
- **What** – Install new generator(s) and switch gear to allow the facility to operate during a power failure.
- **Status –** APS and an electrical contractor are providing an estimate.
- **Critical equipment** – The facility uses oxygen produced by compressors, run on electricity. A power failure (without oxygen production) will cause microorganisms to perish.
- **Supports Resiliency Initiatives.**

Wastewater Energy Efficiency

WHWRP Co-Generation using Biogas

- **History** – Existing unit installed 2006, shut down late 2015
- **What** – Install two Co-Gen units, which will produce electricity and heat. The heat will support Digester operations, reducing natural gas usage. Two units create redundancy and provide alternate energy during power failure.
- **Status** – Brown and Caldwell are the consulting engineers for this project.
- **Critical equipment** – This project utilizes gas produced by anaerobic digesters in solids processing and converts this gas to both heat and power to service the facility.
- **Energy improvement project** will offset electrical use, by generating electricity for plant use.
- **Largest Carbon Neutrality Project.**

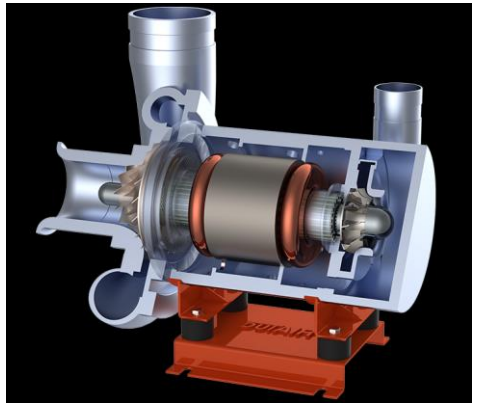




Wastewater Energy Efficiency

RDFWRP Smaller Turbo Blowers

- **History** – New blowers were installed in 2017
- **What** – Larger units provide too much air for the system, requiring manual operation to open relief valves which correct the air balance, and wastes energy. This negatively impacts the biological system.
- **Status** – This was identified facility modeling and in the 2019 Master Plan.
- **Critical equipment** – This will balance operations of the facility.
- **Energy improvement project** through efficient use of power.



Home Energy Retrofits

- 500 homes receive deep energy efficiency retrofits
- Retrofits are more accessible across more income levels

Co-benefits

CNP:

- Community Resilience
- Equitable Systems
- Clean Electricity
- Building Fuel Switching
- Reduced Building Energy Use

Incentivize Rental Housing

RH3: Acquisition of property in partnership with private developers to adaptively reuse available property for the creation of affordable housing	$3 million	Approximately 75 households	Yes

City Efficient Facilities

- Invest in energy efficiency upgrades at COF facilities. These upgrades will reduce COF natural gas usage, reduce overall energy use, and reduce costs.
- City will stabilize energy expenditures.
- Results in better indoor air quality, reduced costs and reduced emissions.

Co-benefits

CNP:

- Community Resilience
- Clean Electricity
- Building Fuel Switching

Wastewater Treatment Upgrades

WHWRP Headworks Motor Control

- **History** – Installed in 1971
- **What** – Replace existing MCC's with new units the meet electrical code standards.
- **Status** – The 5-year Arch Flash review and our annual electrical safety training determined we are past the end of useful life on this equipment.
- **Critical equipment** – This is the main controls for headworks, including Primary Effluent Pump Station. Without certain components, the plant has the potential to fail.
- **Energy improvement Project** uses less power, more efficiently.

Wastewater Treatment Upgrades

RDFWRP Main Motor Control Centers (MCC's)

- **History** – Installed 1993; online for 10,297 days
- **What** – Replace existing MCC's with new units that meet electrical code standards.
- **Status** – The 5-year Arch Flash review and annual electrical safety training identified this equipment as past its useful life.
- **Critical equipment** – Without certain components of MCC operating properly, the plant has the potential to fail.
- **Energy improvement project** uses less power, more efficiently.

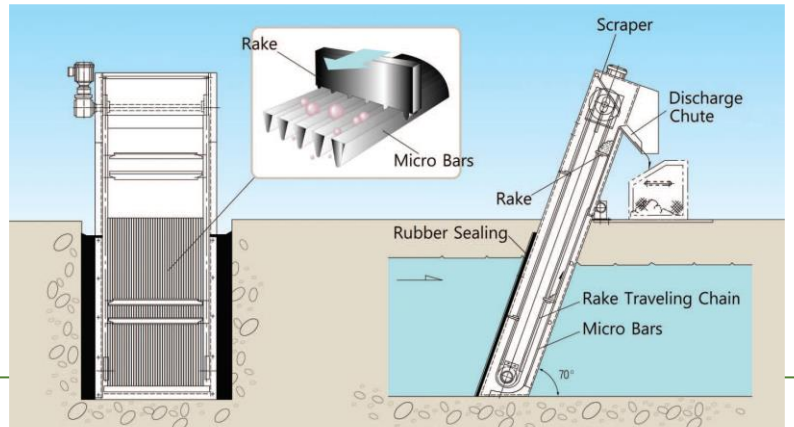
Homebuyer Assistance

OWN1: Homebuyer Purchase Assistance Loan Program	$11 million	480 homeowners served with initial purchase funding	Yes

Receiving Stations

WHWRP Headworks Rehabilitation

- **History** – Constructed in 1983
- **What** – Headworks Rehab. This project replaces one Bar screen, installs a flow metering system for incoming flow (currently have a portable flow meter in a manhole), with a bypass of the headworks building to facilitate repairs of the Primary Effluent pump station project. This will reduce risk associated with manual operations.
- **Status** – Waterworks Engineering is the Design Consultant.
- **Critical equipment** – This project will improve plant operations by removing more debris prior to entering the plant.
- **Creates Resiliency** to treat higher flows and provides more accurate measurements.



Receiving Stations

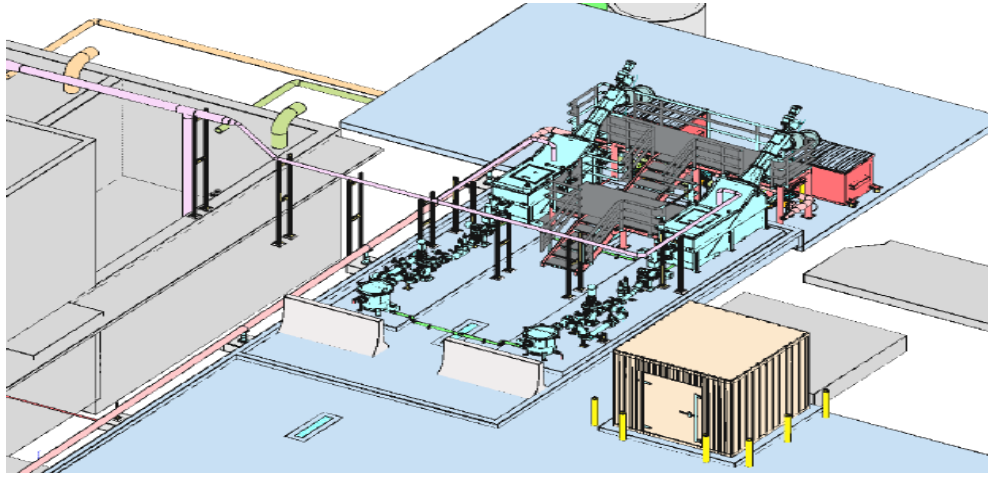
RDFWRP Bar Screen Rehabilitation

- **History** - Installed in 1993
- **What** - Mechanical Bar Screen removes large debris before it can damage downstream equipment in the facility. Reduces costs and complications for pump stations and wastewater treatment plants.
- **Status** - Manufacturer inspected both units and supports refurbishing of existing screens to restore them to virtually new condition.
- **Critical equipment** - Planned increased flows to the facility, will increase run time for these units.
- **Supports Resiliency Initiatives.**

Receiving Stations

WHWRP Septage and Grease Station

- **History** – Existing Septage receiving installed mid 2000's
- **What** – Septage is accepted from any county resident and Grease accepted within a 20-mile radius with no testing or pretreatment. This can lead to major upsets to the Wildcat facility and the plant operations, causing staff hours spent in cleaning out pumps and equipment.
- **Status** – Waterworks Engineering
- **Critical equipment** – Adding the new system with testing probes ensures that no inappropriate material is allowed into the facility and creates redundancy.
- **Creates Resiliency.**



Option 1 for Costs

Public Safety Infrastructure Projects	Original Cost
Wildfire Engines (5)	$ 2,185,000
Total Public Safety Infrastructure	$ 2,185,000

Option 1 for Costs

Stormwater & Wastewater Infrastructure Projects	Adjusted Low Cost	Original Cost
Spruce Wash (1)	$ 26,000,000	$ 26,000,000
Wildcat Capacity (3)	$ 21,000,000	$ 21,000,000
Wastewater Energy Efficiency (6) *	$ 2,160,000	$ 8,100,000
Wastewater Treatment Upgrades (10)	$ 5,972,439	$ 5,972,439
Receiving Stations (12)	$ 11,900,000	$ 11,900,000
Total Stormwater & Wastewater Infrastructure	$ 67,032,439	$ 72,972,439

* Removed low risk items of biogas at $4,500,000 and blowers at $1,440,000 for a total reduction of $5,940,000

Option 1 for Costs

Housing Projects	Original Low Cost	Original High Cost
Redevelop City Owned Housing for Rental (2)	$ 5,000,000	$ 5,000,000
Repurpose Existing Building into Rental (4)	$ 2,000,000	$ 3,000,000
Incentivize Rental Housing (8)	$ 3,000,000	$ 8,000,000
Homebuyer Assistance (11)	$ 6,000,000	$ 11,000,000
Total Housing	$ 16,000,000	$ 27,000,000

Option 1 for Costs

Climate Action Projects	Original Low Cost	Original High Cost
Home Energy Retrofits (7)	$ 2,000,000	$ 7,000,000
City Efficient Facilities (9)	$ 1,000,000	$ 1,000,000
Total Climate Action	$ 3,000,000	$ 8,000,000
GRAND TOTAL	$88,217,439	$110,157,439

Option 2 for Costs

Public Safety Infrastructure Projects	Original Cost
Wildfire Engines (5)	$ 2,185,000
Total Public Safety Infrastructure	$ 2,185,000

Option 2 for Costs

Stormwater & Wastewater Infrastructure Projects	Adjusted Low Cost	Original Cost
Spruce Wash (1)	$ 26,000,000	$ 26,000,000
Wildcat Capacity (3)	$ 21,000,000	$ 21,000,000
Wastewater Energy Efficiency (6) **	$ -	$ 8,100,000
Wastewater Treatment Upgrades (10) **	$ 2,372,439	$ 5,972,439
Receiving Stations (12) **	$ 6,500,000	$ 11,900,000
Total Stormwater & Wastewater Infrastructure	$ 55,872,439	$ 72,972,439

** Low risk items removed plus medium risk items generators at $2,160,000, main motor control $3,600,000 and septage & grease receiving $5,400,000 for a total reduction of $11,160,000

Option 2 for Costs

Housing Projects	Original Low Cost	Original High Cost
Redevelop City Owned Housing for Rental (2)	$ 5,000,000	$ 5,000,000
Repurpose Existing Building into Rental (4)	$ 2,000,000	$ 3,000,000
Incentivize Rental Housing (8)	$ 3,000,000	$ 8,000,000
Homebuyer Assistance (11)	$ 6,000,000	$ 11,000,000
Total Housing	$ 16,000,000	$ 27,000,000

Option 2 for Costs

Climate Action Projects	Original Low Cost	Original High Cost
Home Energy Retrofits (7)	$ 2,000,000	$ 7,000,000
City Efficient Facilities (9)	$ 1,000,000	$ 1,000,000
Total Climate Action	$ 3,000,000	$ 8,000,000
GRAND TOTAL	$77,057,439	$110,157,439

Option 3 for Costs

- Recommend the top ten projects from the committee's list of recommendations
  - Spruce Wash
  - Redevelop City Owned Housing for Rental
  - Wildcat Capacity
  - Repurpose Existing Buildings into Rental
  - Wildfire Engines
  - Wastewater Energy Efficiency
  - Home Energy Retrofits
  - Incentivize Rental Housing
  - City Efficient Facilities
  - Wastewater Treatment Upgrades

Total Cost
$76,257,439