

## **Attachment B – Project Narratives**

**Facility HVAC NPBI:** The installation of the air filtration technology will add additional protection to customers and employees in local jurisdiction facilities. This technology has been proven through independent laboratory testing to reduce pathogen content within facilities. Improved filtration can protect customers and employees operating in various City facilities, keeping those facilities open and people at lower risk of exposure of pathogens. This proposal would cover installation of units at City Hall, Home Court, Water and Wastewater Administration facilities, the Public Safety Training Center, Parks Maintenance facility as well as the Police Department and the Fire stations and training. Total cost is estimated to be approximately \$160,000.

**COVID Testing:** During surge periods, testing of COVID becomes a strained resource. While we are not aware of an inability to get tested, results can be delayed due to volume. Through research and contact, three firms were/are able to provide (essentially) the same service, either through contract or their existing testing formats for all patients. If the City were to contract specifically with a firm, it is still subject to their patient loading. The cost of a specific contract is roughly around \$10,000-\$15,000 based on total employee population, insurance charge and approximation of employee population needing testing in any given year. The City also has “self-test” kits available for employees to use should they request them.

**Golf Course Irrigation:** The existing irrigation system at Lakeview Golf Club is old, outdated, and falling apart. Details can be found in the Lakeview Master Plan final report. The plan identifies the critical replacement of the irrigation system, including the addition of a ground water well and replacement of the pump system. Key sections of the golf cart paths will also be rebuilt so that they interface properly with the new irrigation upgrades.

**Linder Rd. Overpass:** For the last 6, almost 7 years, we have heard in our surveys that over at least 70% of the population rates transportation needs as the highest importance. In 2020 alone, over 95% of the community noted that transportation projects are the highest priority of the community. The proposed funding will advance the construction of the overpass. The overpass will save 6-14 minutes/peak trip. COMPASS analysis shows that average weekday congested vehicle miles of travel is reduced by 7,000 miles in 2025 and 92,000 hours in 2040. Study also shows that average weekday vehicle hours of delay is reduced by 60 hours in 2025 and 510 hours in 2040 with the addition of the overpass. Local businesses have found that this new overpass would also lessen operating costs. A new overpass would also help improve emergency response times by providing greater connectivity and access as emergency vehicles would not have to go to Ten Mile or Meridian to go north over I-84 to service properties like The Landing Subdivision and Peregrine Elementary.

**Community Center:** The existing Community Center in downtown Meridian will be removed later next year with construction of the redevelopment project on the Civic Block by River Caddis Development. We are currently surveying the public and preparing concept plans for a new community center to serve our growing population. The new community center will provide a place to attend classes and camps for all ages, host business and community meetings, and more. The goal is for the new community center to enhance the quality of life and help fill currently unmet desires of our residents by hosting quality activities and services and providing diverse recreational opportunities. The specifics of the uses in the community center are being refined through the current feasibility study.

**Land – Regional Park (NW):** The Fields District Specific Area Plan is built around a large regional park and pathways that converge near McMillan and Star Road. This land is not in our current CFP and is not currently eligible for Park Impact Fees, based on the 2019 impact fees study. We are interested in developing a new regional park to support the vision, but will need to identify a funding source to acquire and develop the property. The cost estimate assumes \$100K per acre for 50 acres.

**Housing Affordability:** There are many efforts that would require additional research to determine the specifics of how funds can be allocated to housing affordability projects. The State is advancing an initiative to establish the Idaho Workforce Housing Commission and Fund. Partnerships can also be evaluated, whether contributing to a partnership project, investing in land to leverage or any number of other ideas.

<b>Proposed ARPA Project Title:</b>	<b>Biosolids Drying Facility</b>
Project Sponsor:	Public Works
Projected Project Timeline:	3 Years (1-year project design, 2 years project construction)
Estimated Project Cost:	\$5,000,000
Estimated Operational Savings (Annual, After POM Costs):	\$250,000
Estimated ROI:	Using \$4M in ARPA Funds: 4 years Without ARPA Funds: 20 years

**Project Description:**

This proposed project would fund the design and installation of a biosolids drying facility. Currently the City’s biosolids, which are an end product of the treatment process at the WRRF, are treated and disposed of at the Ada County landfill. The current technology at the WRRF treats the biosolids to a level that meets all landfill regulations but is currently not treated to a level that could be disposed of in another manner (example: land application, compost). At the landfill, the City is charged to dispose of the biosolids by the ton (weight based).

A biosolids drying facility would accomplish three things.

- This equipment would reduce the weight and volume of the biosolids. By removing the moisture content in the biosolids, the City could reduce the number of trips to the landfill annually by approximately 50%. This would reduce the hauling and disposal costs at the landfill resulting in annual savings.
- This equipment would treat the City’s biosolids to a higher regulatory standard, giving the City the ability to utilize the biosolids for other uses (land application, compost).  
\*Note: additional costs (land, equipment, personnel) could be needed to execute these other disposal methods.
- While not a major source of odor for the facility, drying the biosolids would reduce odors at the facility from the biosolids storage area.

**Project Benefits:**

- Hauling and Disposal Costs Reduced
  - If either the landfill disposal costs or contracted hauling costs increase over time, the projected project savings increase.
- Trips to the Landfill Reduced
- Facility Odors Reduced
- Long Term Regulatory Benefit
  - This project would allow the City additional flexibility for disposal options with its biosolids if regulations changed in the future that did not allow landfilling of biosolids (not anticipated, but has occurred in other areas of the Country).

**Project Challenges:**

- Large Capital Project
- May need additional fund contribution from Enterprise Fund depending on amount of ARPA funding allocated

**Alternative Funding Options:**

This project is currently included in the Enterprise Fund CFP (FY31-FY33). The reason it is not sooner in the CFP schedule is because of the current ROI which is dependent on landfill and hauling costs and no imminent regulatory needs are identified. If landfill or hauling costs increase or regulations change, Public Works would move this project up in its planned project portfolio.

<b>Proposed ARPA Project Title:</b>	<b>Biogas Energy Conversion (CHP)</b>
Project Sponsor:	Public Works
Projected Project Timeline:	3 Years (1-year project design, 1 to 2 years project construction)
Estimated Project Cost:	\$1,500,000
Estimated Operational Savings (Annual, After POM Costs):	\$100,000
Estimated ROI:	Using \$1.5M in ARPA Funds: Immediate annual savings Without ARPA Funds: 15 years

**Project Description:**

This proposed project would fund the design and installation of facility that would convert the excess biogas produced at the facility into electrical power that would offset some of the facility’s power costs. Biogas is a natural biproduct of the anaerobic digestion process that the WRRF uses to treat the solids at the WRRF. Currently approximately 40% of the gas produced is used to heat the facility’s digesters and approximately 60% of the facility’s biogas is flared to the atmosphere.

A biogas energy conversion facility would accomplish two things.

- This equipment would reduce the amount of biogas that is flared to the atmosphere. The flaring of this excess biogas is permitted under the facility’s air permit.
- This equipment would produce energy for the facility that would offset some of the facility’s electrical power needs.

**Project Benefits:**

- Reduced facility electrical costs
  - If electrical costs increase over time, the projected project savings increase.
- Reduced flare emissions

**Project Challenges:**

- Large Capital Project

**Alternative Funding Options:**

This project is not currently included in the Enterprise Fund CFP. If electrical costs increase, the Enterprise Fund would pull this project into its planned portfolio.

<b>Proposed ARPA Project Title:</b>	<b>Well and/or Lift Station Solar</b>
Project Sponsor:	Public Works
Projected Project Timeline:	2 Years (1-year project design, 1-year project construction)
Estimated Project Cost:	TBD
Estimated Operational Savings (Annual, After POM Costs):	TBD
Estimated ROI:	Using TBD in ARPA Funds: TBD Without ARPA Funds: TBD

**Project Description:**

This proposed project would fund the design and installation of solar panels at our well and/or lift station sites.

Additional analysis is needed to determine site specific feasibility and site conditions/constraints. The Public Works Department is currently working with Idaho Power on further analysis.

**Project Benefits:**

- Reduced facility electrical costs
  - If electrical costs increase over time, the projected project savings increase.

**Project Challenges:**

- Each site needs analysis conducted on feasibility
- Current projected lifespan of solar panels/equipment is 15 years

**Alternative Funding Options:**

This project is not currently included in the Enterprise Fund CFP. If electrical costs increase, the Enterprise Fund would pull this project into its planned project portfolio.

<b>Proposed ARPA Project Title:</b>	<b>Energy Efficiency Plan (Utilities)</b>
Project Sponsor:	Public Works
Projected Project Timeline:	1 Year
Estimated Project Cost:	\$100,000
Estimated Operational Savings (Annual, After POM Costs):	TBD
Estimated ROI:	TBD

**Project Description:**

This proposed project would fund the completion of an energy efficiency study by an external consultant to evaluate the various energy uses, potential technologies, and areas of potential savings in the Water and Wastewater Utilities.

**Project Benefits:**

- Identification of energy efficiency projects and operational activities that could result in energy savings.

**Project Challenges:**

- None anticipated

**Alternative Funding Options:**

This project is not currently included in the Enterprise Fund CFP.

<b>Proposed ARPA Project Title:</b>	<b>Cybersecurity (SCADA)</b>
Project Sponsor:	Public Works and IT
Projected Project Timeline:	1-2 Years (1-year project design, 1-year project construction)
Estimated Project Cost:	\$250,000
Estimated Operational Savings (Annual, After POM Costs):	\$0
Estimated ROI:	N/A

**Project Description:**

This proposed project would fund the installation of equipment and software that would allow the IT Department to isolate the City’s SCADA system from the main City servers in the case of an emergency. This would provide important security for both the SCADA system and City network.

**Project Benefits:**

- Increased cyber security

**Project Challenges:**

- None anticipated

**Alternative Funding Options:**

This project is not currently included in the Enterprise Fund CFP. However, if this project is not funded with ARPA funds, the Enterprise Fund will look for other funding opportunities including using planned CFP SCADA funds.

<b>Proposed ARPA Project Title:</b>	<b>Energy Efficiency Plan (City)</b>
Project Sponsor:	Public Works and Mayor’s Office
Projected Project Timeline:	1 Year
Estimated Project Cost:	\$100,000
Estimated Operational Savings (Annual, After POM Costs):	TBD
Estimated ROI:	TBD

**Project Description:**

This proposed project would fund the completion of a City-wide facility energy efficiency study by an external consultant to evaluate the various energy uses, potential technologies, and areas of potential savings in all the City facilities.

**Project Benefits:**

- Identification of energy efficiency projects and operational activities that could result in energy savings.

**Project Challenges:**

- None anticipated

**Alternative Funding Options:**

This project is not currently included in the Enterprise or General Fund CFPs.

<b>Proposed ARPA Project Title:</b>	<b>Streetlights</b>
Project Sponsor:	Public Works
Projected Project Timeline:	Up to 5 years
Estimated Project Cost:	\$1,500,000
Estimated Operational Savings (Annual, After POM Costs):	Varies- \$64,000 to \$79,000
Estimated ROI:	Breakeven point for single LED light conversion: <ul style="list-style-type: none"> <li>• 100W- approximately 8 years</li> <li>• 250w- approximately 5 years</li> </ul>

**Project Description:**

This proposed project would fund the conversion of high-pressure sodium (HPS) streetlights to LED resulting in energy and maintenance costs savings.

Historically the General Fund has allocated between \$50,000 and \$375,000 per year to complete streetlight LED upgrades. As of November 2021, the City has approximately 4,248 HPS left to convert.

Logistically, the Public Works Department is constrained by project management resource in completing more than a certain number of change outs per year. If the Department is fully staffed, it is estimated that they could handle no more than 1,000 conversions per year (approx. ~\$600,000). Alternatively, the City could look at contracting out this project management, although this option has not been fully vetted for additional costs.

Each converted streetlight results in the following annual savings:

	Electrical Savings (Annual per Light)	Maintenance Savings (Annual per Light)	Total Savings (Annual per Light)
100w (3,789 lights remaining)	\$11.75	\$52.50	\$64.25
250w (459 lights remaining)	\$43.50	\$52.50	\$96.00

**Project Benefits:**

- Reduced electrical and maintenance costs
  - If electrical costs increase over time, the projected project savings increase.

**Project Challenges:**

- Project management constraints
- Supply chain constraints
- Creating a future replacement bubble by installing all the lights at once (they will age out at the same time in the future)

**Alternative Funding Options:**

This project is currently included in the General Fund CFP at the following level.

- FY23- \$75,000
- FY24- \$75,000
- FY25 through FY32- \$100,000 per year