Advanced Metering Infrastructure Project

Grant Applicant

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Technical Proposal and Evaluation Criteria

The technical proposal and evaluation criteria (50 pages maximum) includes: (1) the Executive Summary, (2) Background Data, (3) Technical Project Description, (4) Project Description, and (5) Evaluation Criteria.

Executive Summary

March 19, 2019
Mr. Les Rubstello, Deputy Director Public Works
City of Lynnwood, WA

- **A one-paragraph project summary that specifies the work proposed, including how project funds will be used to accomplish specific project activities and briefly identifies how the proposed project contributes to accomplishing the goals of this FOA.**

The City of Lynnwood, WA plans to implement an Advanced Metering Infrastructure (AMI) Project (AMI Project) as part of its long-term goal of water supply reliability and efficient water management. The AMI Project includes the upgrade of 6,218 existing manually-read water meters, installing new registers on 2,421 existing meters to remain in service, and an AMI fixed-based network system that will automatically collect and store hourly consumption data, aiding in water conservation and water use efficiency, improved water management, energy savings, and reduced carbon emissions. The upgrade to a fully automated AMI system leads to wide-ranging efficiency improvements resulting in water savings of 264.64 acre-feet per year (AFY) for the first of two phases, 201,268 kilowatt hours (kWh) per year in energy savings, 226 gallons of gasoline per year in meter reading and maintenance vehicle consumption, and carbon emissions reductions on the order of 318,205 pounds of C02 Equivalent per year. This project will also reduce the amount of water pumped out of the Snohomish watershed which increases the production of clean electricity from hydropower and benefits several threatened species including Bull Trout, Puget Sound Chinook, and Puget Sound Steelhead. Furthermore, the City will employ an AMI Technician that will monitor real time data and alerts. The AMI Technician will have access to real-time hourly water usage data, will be able to respond to leak alerts and alarms, and will prompt customers to make positive changes to their water use behaviors. The AMI Project will reduce real system losses and increase water use efficiency and conservation through the availability of near real-time data on water usage and daily water needs. The AMI Project will expand upon the City's efforts to promote water use efficiency by accomplishing the following: 1) More rapid identification and correction of water leaks (currently meters are read every two months allowing leaks to go undetected and water to be wasted for two months before being noticed), 2) More accurate meter readings compared to aging meters (95% of the City's meters are greater than 15 years of age and are likely erroneously registering lower water use than actual water use), and 3) Reduced potable water usage based on customer education through the AMI Project's data on water usage. Figure 1 shows the Project Location.

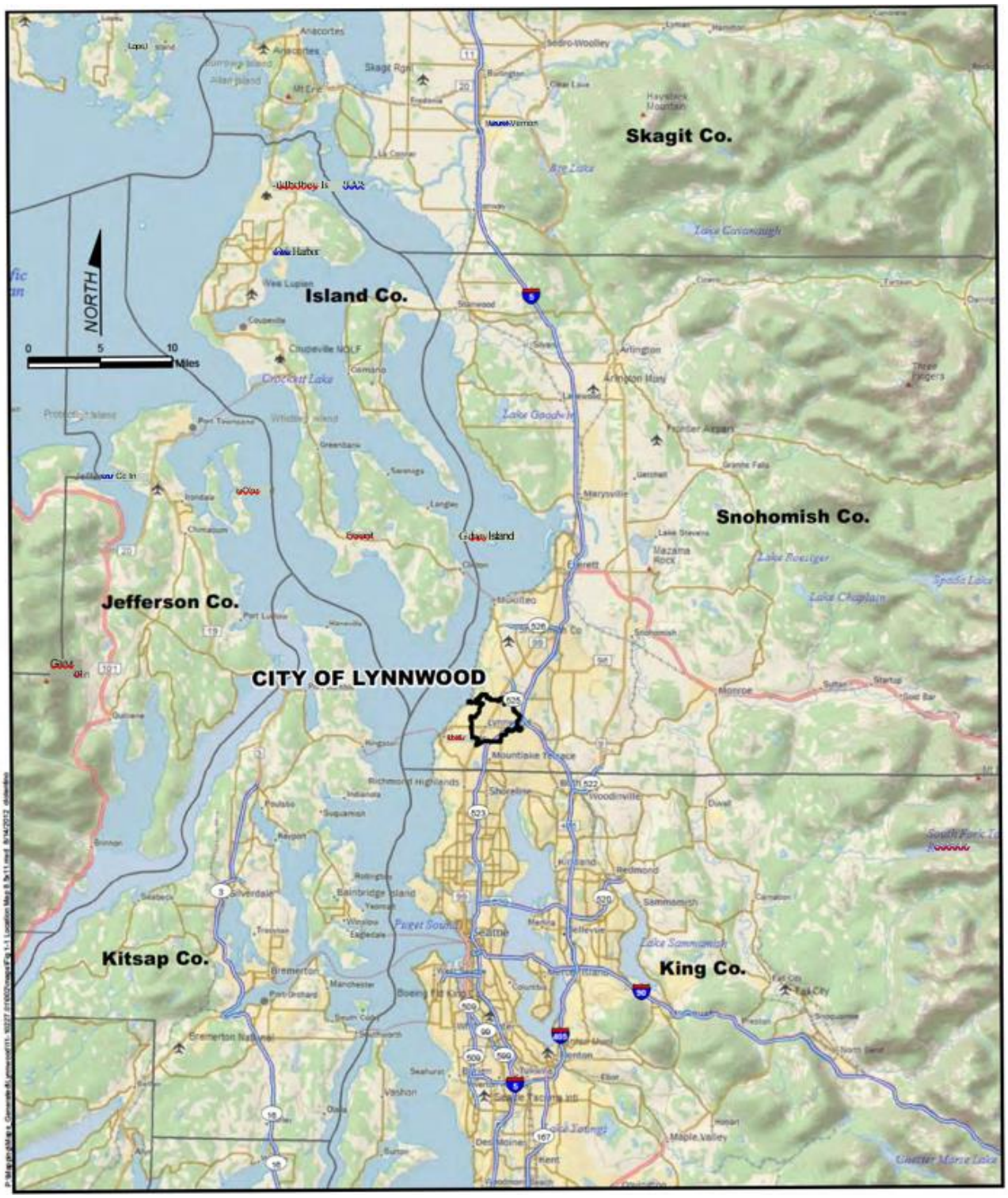


Figure 1 Project Location

- **State the length of time and estimated completion date for the project.**

Following the August, 2019 Funding Award, the first phase of the AMI Project will be completed by December, 2020.

- **Whether or not the project is located on a Federal facility.**

The AMI Project is not located on a Federal facility.

Background Data

The City of Lynnwood service area covers nearly 7.1 square miles and includes almost the entire City of Lynnwood. A few small areas within the current City limits are still served by Alderwood Water District (AWWD). Lynnwood is located in southwestern Snohomish County, Washington. The City is bounded by the City of Alderwood to the north and east, the City of Mountlake Terrace to the south, and the City of Edmonds to the west. The service area is characterized as heavily forested with rolling and steep hillside areas. Elevation differences within the City require the water system to operate with four pressure zones in order to provide adequate service pressures throughout the distribution system.

The City began as a small community of farms, forestlands, and businesses and was incorporated in 1959. The original water distribution system serving the City was built by (AWWD). The City purchased the portion of the water distribution system within its City limits from AWWD in 1966. In 1971, the first water system analysis and comprehensive plan was completed. By 1981, the water service area had expanded as a result of facility acquisitions outlined in the 1978 Lynnwood/AWWD Supply Agreement. The City acquired the two steel reservoirs that currently provide storage for the City's 573 zone in 1981.

Figure 1 shows the location and boundary of the City in Washington, within the County of Snohomish, and with the City of Lynnwood as identified.

Water Supply and Demand

The City's adjacent water purveyors are shown in Figure 2. All water used by the City and its adjacent purveyors is treated at the City of Everett's Drinking Water Filtration Plant. AWWD purchases water from the City of Everett and wholesales it to the Cities of Lynnwood, Mountlake Terrace, and Edmonds. The City of Everett intends to continue its role as primary water supplier for most of Snohomish County.

The existing facilities in the City's water system include the 680 Zone Booster Pump Station, two welded steel storage reservoirs, two pressure reducing stations, approximately 168 miles of transmission and distribution piping, one master meter, and 8,639 metered service connections.

Table 1.1 Water system Reservoir Inventory

Name	Base/Overflow Elevation	Constructed	Total Volume (MG)
573 Zone 3.00 MG	535.7/573.0	1962	3.00
573 Zone 2.77 MG	532.7 / 573.0	1959	2.77

Table 1-2 Water System Pressure Reducing Station Inventory

Station No.	Location	Make/Model	Size (Inches)	Inlet/Outlet Pressure (psi)
1	173rd Street SW and Spruce Way	Cla-Val/92-01	16	45.3/17.5
2	195th Street SW and 40th Avenue W	Cla-Val/92-01	6	

Table 1-3 Water System Pump Station Inventory

Name	Constructed	No. of Pumps	Pump Make/Model	Rated Capacity (gpm)	Rated TDH (ft)	Motor HP
680 Zone	1999	3	Tiger/1070-7	85	125	5

Table 1-4 Water System Piping Inventory

Diameter (inches)	Length (ft)
Unknown	1,704
2	1,491
4	48,233
6	168,723
8	435,510
10	35,435
12	136,414
16	26,135
18	20,998
24	14,588
Total	889,230 (169 miles)

The primary water transmission main for the City is a 24-inch concrete cylinder pipe that runs along 35th Avenue W and Spruce Way from AWWD's storage facilities. Pressure reducing station number 1 is located in a vault at 173rd Street SW and Spruce Way on the 24-inch main, to reduce the pressure of the incoming supply from AWWD.

The City has two metered interties with AWWD that serve as the primary and emergency sources of supply. They are located at 164th Street SW and Spruce Way and 179th Street SW and 36th Avenue W. Additional unmetered valved interties, which are available for emergencies, are normally closed. Locations of the City's interties are listed in Table 1-5. The water system hydraulic profile is shown in Figure 3.

Table 1-5 Interties

Purveyor	Tag	Location	Size (inch)	City Pressure Zone	Metered ?
City of Edmonds	E-1	76th Avenue W and 208th Street SW	8	573	No
City of Edmonds	E-2	44th Avenue W and 164th Street SW	8	635	No
City of Edmonds	E-3	76th Avenue W and 188th Street SW	8	573	No
City of Edmonds	E-4	72nd Avenue W and 186th Street SW	8	573	No
City of Mountlake Terrace	E-5	52nd Avenue W and 212th Street SW	12	573	No
AWWD	E-6	37th Avenue W and 196th Street SW	12	573	No
AWWD	E-7	44th Avenue W and 212th Street SW	6	573	No
AWWD	E-8	44th Avenue W and 172nd Street SW	6	635	No
AWWD	E-9	52nd Avenue W and 168th Street SW	8	573	No
AWWD	E-10	62nd Avenue W and 168th Street SW	8	573	No
AWWD	E-11	40th Avenue W and 200th Street SW	8	573	No
AWWD	E-12	48th Avenue W and 168th Street SW	8	573	No
AWWD	E-13	179th Street SW and 36th Avenue W	8	635	Yes
AWWD	E-14	164th Street SW and Spruce Way	10	573	Yes

For the 2018 calendar year, the City's total usage was 3,968 AFY, with an average daily usage of 3.5 MGD. For this same time period the City's population was 38,260 and the average usage per person per day was 77 gallons.

The City has approximately 8,639 service connections for approximately 38,260 residents and businesses. The City has the following billing classifications: single-family residential, multi-family residential, and commercial (includes churches, industrial, hotels, and institutional/government). Table 2 shows water demand by sector.

Table 2. Water Demand by Sector - Current and Projected (MG)

		Projected Water Use		
Water Use Sector	2018 (Actual)	2025	2032	2038
Single Family Residential	422	463	541	612
Multi-Family Residential	264	365	426	482
Commercial	389	417	470	555
Unaccounted Water	217 (16.8%)	215 (14.75%)	248 (14.75%)	285 (14.75%)
Total	1,292	1,460	1,685	1,934

Source: City of Lynnwood Comprehensive Water Plan 2012 (Amended 2018)

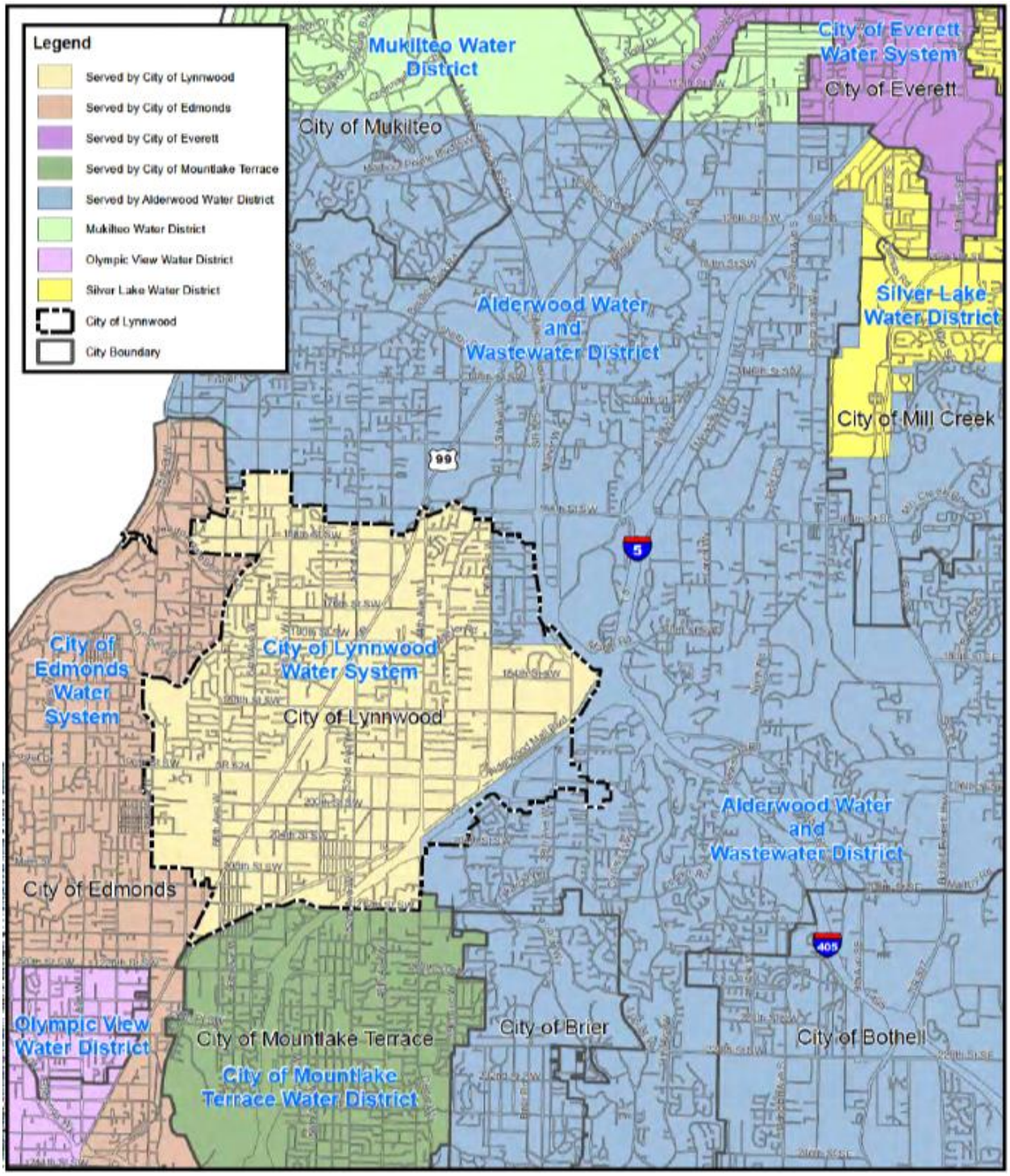


Figure 2 Adjacent Water Purveyors

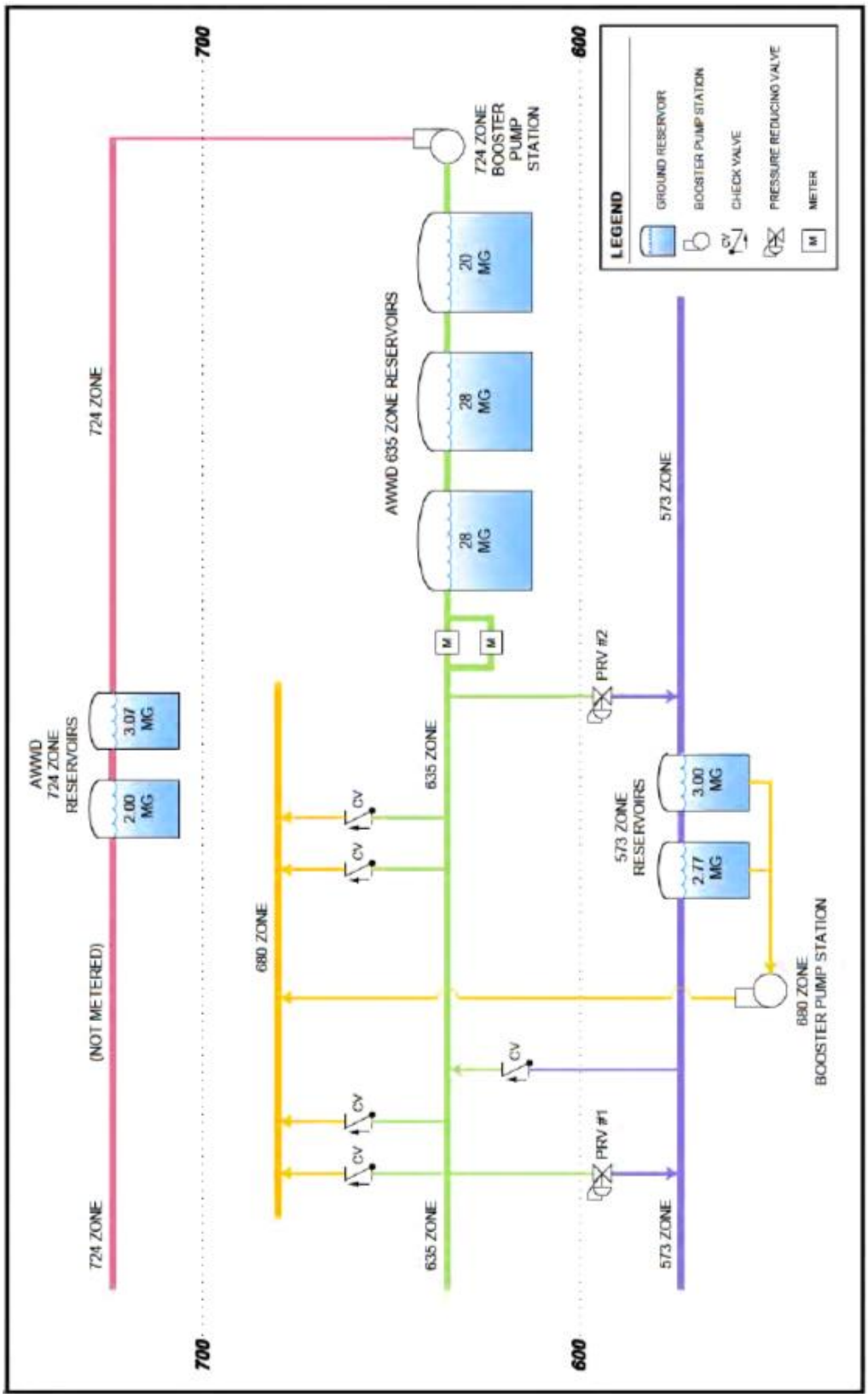


Figure 3 Hydraulic System Profile

Potential Shortfalls in Supply

Washington State experienced severe drought in 2015. As a result many communities enacted usage restrictions on residential and commercial customers, and the 2015 wildfire season was the largest in state history with more than 1 million acres burned. However water supply was still adequate in Snohomish County during the drought. In addition, statewide water use efficiency and conservation continues with measureable results.

The City does not anticipate a shortfall in supply in the near future based on the July, 2018 Phase 2 report prepared by the Water Supply Forum. However this same report sites risks to delivery from various sources as threats with mitigation plans. Water conservation is vitally important to the entire region to defer future water transmission infrastructure projects.

Renewable energy or energy efficiency elements

The City relies on electricity from Snohomish Public Utility District (SnoPUD) and the City does not produce any renewable energy itself. The AMI Project would serve to modernize the City's water management facilities and equipment to increase energy efficiency by installing AMI technology. The proposed AMI Project would promote energy efficiency by reducing fuel consumption and frequency in maintenance of vehicles previously used to collect bi-monthly meter readings and quantifiably reduce energy consumption through significant improvements in water use efficiency and conservation that would reduce pumping and importation of water from AWWD, which receives its supply from the City of Everett. The importation of water is extremely energy intensive. Any reduction in water loss and overall consumption would have an impact on increasing energy efficiency of the overall system operations.

The energy required for treatment in Everett, conveyance from Everett to AWWD, conveyance from AWWD to Lynnwood, and conveyance within Lynnwood is estimated at 2,334 kWh/MG based on actual energy usage provided by AWWD. A reduction in consumption by 264.64 AFY due to increased water use efficiency and decreased water losses could result in a savings of approximately 201,268 kWh per year on the potable water system. Also, installing AMI within the City of Lynnwood is estimated to eliminate the consumption of 226 gallons of gasoline annually and provide a reduction in greenhouse gas emissions of 318,205 pounds of Carbon Dioxide Equivalent.

Identify any past working relationships with Reclamation. This should include the date(s), description of prior relationships with Reclamation, and a description of the projects(s).

None

Project Location

The City of Lynnwood is located in southwestern Snohomish County, Washington, see Figure 1. The actual AMI project will be citywide at numerous locations within the City of Lynnwood. Figure 4 shows the location of all 8,639 meters within the project area.

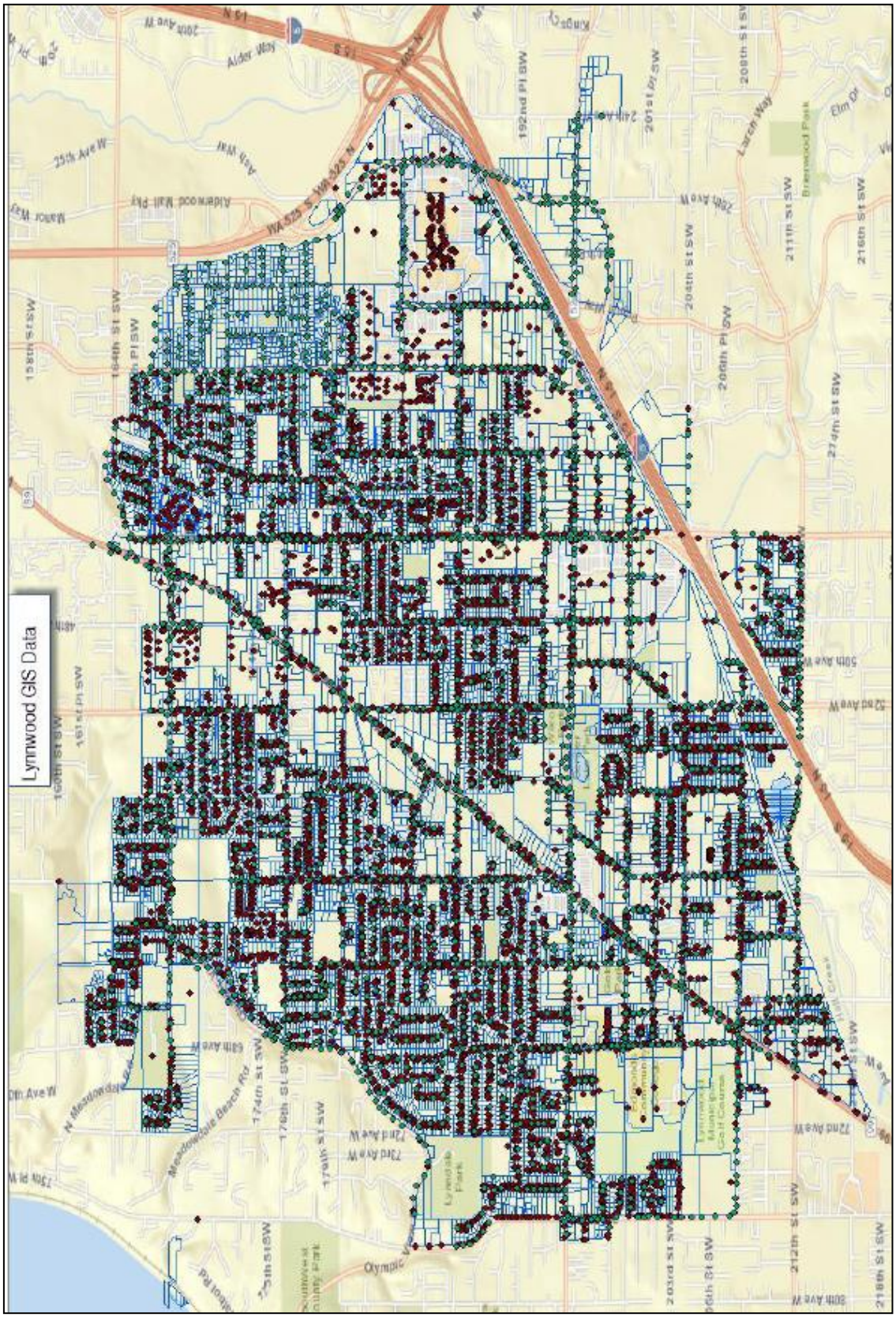


Figure 4 Meter Locations

Technical Project Description

The project description should describe the work in detail, including specific activities that will be accomplished as a result of this project. This description shall have sufficient detail to permit a comprehensive evaluation of the proposal.

General Scope: The City will implement an Advanced Metering Infrastructure Project as part of its long-term goal of water supply reliability, water conservation, and efficient water management. The AMI Project includes the upgrade of approximately 6,213 manually-read water meters to an automated fixed base network system that will collect and store meter readings hourly. The City will begin the AMI Project in calendar year 2019 with the intent of automating 72% of the meters over a 12-month period.

Project Work: In this first of two phases, the City will automate 6,213 water meters out of a total of 8,639 water meters. Of the 8,639 water meters, 6,213 will be completely replaced whereas 2,426 will require replacing the register of an existing meter with an automated digital register. The meters automated during this first phase of the project represent the majority of all six meter reading routes. Meter boxes and lids will be replaced where necessary. As each route is completed, real time access for both staff and water customers will be enabled.

The actual project work associated with the AMI Project is straightforward. The City will use grant funds to purchase various sizes of meters equipped with AMI technology, replacement AMI registers, composite meter box lids, communications network, meter reading software with utility billing software, and installation.

Project Tasks

Task 1: Project Management

Activities include coordination of all Project activities including budget, schedule, materials, procurement, communication, safety, site supervision, and grant and cost-share administration, (preparation of invoices and maintenance of financial records).

Deliverables: Preparation of invoices, schedules, and other deliverables as required.

Task 2: Reporting

Reporting of the financial status and project progress will be conducted on a quarterly basis. Significant development reports and a final project report will be prepared. Additionally, the Project will comply with any other reporting requirements specified in the Grant Agreement.

Deliverables: Submission of quarterly, annual, and final reports as specified in the Grant Agreement.

Task 3: Design

None required.

Deliverables: None

Task 4: Environmental Documentation

This project is categorically exempted from SEPA per WAC 197-11-800 23(b) which states "all storm water, water, and sewer facilities, lines, equipment, hookups or appurtenances including, utilizing or related lines 12" in diameter or smaller." The City's AMI project will simply replace existing water meters, boxes and lids where necessary, and will install (2) data collection gateways. The data collection gateways will be constructed on City-owned property. The City does not anticipate any environmental impacts associated with the AMI project. An environmental assessment satisfying Federal requirements (NEPA), associated with Federal contracting/grant agreements will be completed if required. The City does not anticipate NEPA being required for this project due to the categorical exclusion found in Bureau of Reclamation Part 516 Chapter 14, 14.5D. "Operation and Maintenance Activities" 1. "Maintenance, rehabilitation, and replacement of existing facilities which may involve a minor change in size, location, and/or operation."

Deliverables: Completed and approved environmental documentation if required.

Task 5: Permitting

No special permits or approvals will be required for the City's AMI project, as all work will be performed on existing City-owned facilities. Project-related approvals, including an over the counter electrical permit for the data collection gateways and approval by the City of work on and near sidewalks, will be executed by the installers in a timely manner.

Deliverables: Appropriate permitting and approvals will be obtained.

Task 6: Installation

This project involves installation of 6,218 new water meters and registers, 2,421 new registers to be installed on existing water meters, 2 data collection gateways with antennae, and replacement meter boxes and lids where required. The work will be completed by a licensed installer.

Deliverables: Reference Task 7: Construction Management

Task 7: Construction Management

City staff will negotiate, execute and manage the cooperative agreement with Reclamation. Reporting will be performed on a semiannual basis, including submittal of Financial Reports and Program Performance reports, as well as Financial Reimbursement Requests using the online ASAP system through the System for Award Management (SAM). Program Performance and Final Reports will be in accordance with requirements included in the cooperative agreement. Performance Reports will include information regarding the status of the Project's Performance Measures, including Water Savings, Water Better Managed, Energy Savings, and Carbon Emission Savings. The methods of measuring Project Performance, which will be used for producing these reports, are explained in more detail in Subcriterion F.3 Performance Measures.

Evaluation Criteria

The evaluation criteria portion of your application should thoroughly address each of the following criterion and subcriterion in the order presented to assist in the complete and accurate evaluation of your proposal. (Note: it is suggested that applicants copy and paste the below criteria and subcriteria into their applications to ensure that all necessary information is adequately addressed). Applications will be evaluated against the evaluation criteria (listed below), which comprise 100 points of the total evaluation weight. Please note that projects may be prioritized to ensure balance among the program Task Areas and to ensure that the projects address the goals of the WaterSMART program.

Evaluation Criterion A: Quantifiable Water Savings (30 points)

*Up to **25 points** may be awarded for a proposal that will conserve water and improve efficiency. Points will be allocated based on the quantifiable water savings expected as a result of the project. Points will be allocated to give greater consideration to projects that are expected to result in significant water savings.*

Describe the amount of estimated water savings.

The City of Lynnwood AMI Project is expected to result in a large amount of water, energy, and greenhouse gas savings. The City expects the project to conserve 264.64 Acre feet per year (AFY). This water savings will also result in savings of approximately 201,268 kWh per year on the potable water system, 226 gallons of gasoline, or 318,205 pounds of carbon dioxide emissions.

Describe current losses.

The City recently completed a Water Master Plan (October, 2012 and amended in 2018). Historical and projected water consumption information by customer class was provided for the period from 2008 to 2038. Based on 2018 data the total water demand for the 8,639 service connections is approximately 3,968 AFY[1]. A comparison of total production versus total metered purchases calculated an average 14.6% water loss over the past 10 years[2], resulting in approximately 576.37 AFY[3] in water losses.

Unmetered water losses are likely seeping back into the ground or making its way into a storm drain, sewer drain, or the aquifer. Metered water losses could also be seeping into the ground, but are also likely going down the sewer drain. The AMI project is projected to change behavior in residents so that they will reduce their metered water use and discover unknown leaks. Water conserved as a result of the Project's implementation represents a decrease in local demand, which would decrease the amount imported by the City through AWWD.

[1] City of Lynnwood 2017 Water Master Plan, amended 2018
[2] City of Lynnwood 2017 Water Master Plan, amended 2018
[3] City of Lynnwood 2012 Water Master Plan, amended 2018

Describe the support/documentation of estimated water savings:

Please address the following questions according to the type of project you propose for funding.

(2) Municipal Metering: Municipal metering projects can provide water savings when individual user meters are installed where none exist to allow for unit or tiered pricing, when existing

individual user meters are replaced with advanced metering infrastructure (AMI) meters, and when new meters are installed within a distribution system to assist with leakage reduction. To receive credit for water savings for a municipal metering project, an applicant must provide a detailed description of the method used to estimate savings, including references to documented savings from similar previously implemented projects. Applicants proposing municipal metering projects should address the following:

(a) How has the estimated average annual water savings that will result from the project been determined? Please provide all relevant calculations, assumptions, and supporting data.

The City's AMI Project will be able to reduce some of the estimated 576 AF in water losses, but the project is expected to show even more savings from the metered water demand mostly from improved leak detection and repair. As this phase of the AMI project is expected to install 6,218 meters, it represents 72% of the entire meter population (8,639). The 2,421 existing meters to remain in service all serve single family residences and were installed after the year 2000. Lynnwood's estimated average annual water savings will be totaled from the following two savings areas of 1) Improved Customer-Side and Distribution Leak Identification, and 2) Improved Accuracy of Meters. All calculations are based upon data from various sources which are noted sections (b) and (c) under this Criterion section.

Improved Customer-Side and Distribution Leak Identification

The City's AMI Project will achieve water savings by implementing more rapid identification and correction of water leaks. Currently meters are read every 2 months, allowing leaks to go undetected and water to be wasted for 2 months before being noticed. The new AMI meters will provide readings every hour. This will enable the automated software and City staff to identify leaks real-time, such as higher than normal minimum night flow (MNF) values. The software will notify the City of potential leaks and the volume of the potential water loss and staff will work with the customer to inform them of the amount of potential water losses. Educating the customers on their actual water usage will reduce potable water usage.

Improved meter data accuracy and frequency of data collection will also supplement the City's existing distribution leak identification and repair process. The City currently employs the following process to identify, locate, and repair leaks:

1. Approximately 30 "Permaloggers" are strategically placed around town (usually on the steel mains), which identify potential leaks and automatically record the data. If a leak is identified, the City then uses a leak "correlator" which locates the specific location of the leak and the repair is scheduled.
2. The City has an ongoing annual program to replace old steel water mains. The list is prioritized on past leak history, age, and material.
3. The City checks hydrants annually for leaking drains / weep holes.
4. When leaks are identified through visual surface leaks (and identified as positive for chlorine / fluoride), those are scheduled for repair immediately.

The City is going to eliminate the existing meter reading position and will create a new position "AMI technician" that will monitor historical and real-time flow data through the data collection software. The AMI technician will be able to set up alerts and reports and the software will enable notifications. These system generated notifications will provide the AMI technician with the ability to notify, educate, and assist customers if their consumption has reached a particular threshold.

Additional water savings will come from self-leak detection and water use behavioral change on the part of customers who will now receive monthly invoices and additional insight into their consumption.

Improved Residential (SFR) Customer-Side and Distribution Leak Identification:
Annual Water Savings = SFR Consumption x % of Leaks x % of Meters Installed x % Effectiveness
Annual Water Savings = 1,459 AF x 14.7% x 66.4% x 35% = **49.84 AFY**

Improved Non-SFR Customer-Side and Distribution Leak Identification:
Annual Water Savings = Non-SFR Consumption x % of Leaks x % of Meters Installed x % Effectiveness
Annual Water Savings = 2,509 AF x 14.7% x 100% x 35% = **129.09 AFY**

Improved Accuracy of Meters

The new AMI meters that the Water City will install give more accurate meter readings when compared to the current aging meters. 95% of the City's meters are older than 15 years old and are erroneously registering lower water use than actual water use based on age and known limitations of nutating-disk meter technology. The City tested accuracy of 100 meters of varying sizes in the Lynnwood service area and has determined that an average increase in accuracy of 4% is possible. An accuracy improvement of 3% has been used in this analysis.

Improved Accuracy of Meters
Annual Water Savings = Consumption x % Inaccuracy x % of Meters Installed Annual Water Savings = 3,968 AF x 3.0% x 72% = **85.71 AFY**

Total Amount of Water Saved/Conserved (AFY):

Improved SFR Customer-Side and Dist. Leak Identification:	71.21 AFY
Improved Non-SFR Customer-Side and Dist. Leak Identification:	184.41 AFY
Improved Accuracy of Meters:	114.28 AFY
TOTAL AMOUNT SAVED:	**264.64 AFY**

(b) How have current distribution system losses and/or the potential for reductions in water use by individual users been determined?

The City's Water Master Plan describes system losses in order to determine water demand and development within the City. Historic water usage in the 10-year period from 2009 to 2018 was analyzed with yearly totals of water delivered to the City, water billed to customers, and active services. The Water Master Plan described water conservation measures to reduce water loss. In addition, as described above in section (a), current distribution system losses were determined by the City comparing the total water purchased and produced to the water billed to customers and calculated an average of 14.6% water loss over the past 10 years, resulting in approximately 576.37 AFY in water losses. Some potential reasons for water loss include water used in operation and maintenance, pipe leaks, reservoir leaks, fire department use, meter error and unmetered water usage.

(c) For installing individual water user meters, refer to studies in the region or in the applicant's service area that are relevant to water use patterns and the potential for reducing such use. In the absence of such studies, please explain in detail how expected water use reductions have been

estimated and the basis for the estimations.

The City's Improved Customer-side and Distribution leak identification water savings was determined from the following facts and reports. The City's most recent Water Comprehensive Plan and a review of the past 10 years of yearly totals of water delivered to the City, water billed to customers, and active services was analyzed to determine SFR and non-SFR water consumption as well as water loss values. The City then de-rated the potential savings estimates to account for hard to find leaks and customers that will not adopt conservation related behaviors. Anecdotally, an Energy Department report cited that "leaks account for 13% of all residential indoor water consumption across the U.S."[4] This data was not used in the savings analysis however it does validate the findings that existing SFR nutating-disk meters are under-reporting water consumption in residences. Nutating-disk meters are known to be inaccurate at low-flows and many indoor water leaks are low flow events such as a leaking flapper valve. The most recent Water Comprehensive Plan and historical utility billing records found that 36.8% of all Lynnwood water consumption is from SFR, and the remaining 63.2% water consumption is from Non-SFR.[5]
The City performed meter accuracy testing of 100 existing meters to determine baseline meter accuracy. The meter testing was completed over a range of meter sizes, and each meter was tested at 5 different points in its rated flow range. This testing shows that on average the existing meters are under-reporting water consumption by 4%. For the purposes of this grant application the City has assumed an improvement in meter accuracy of 3% to be conservative.

(d) If installing distribution main meters will result in conserved water, please provide support for this determination (including, but not limited to leakage studies, previous leakage reduction projects, etc.). Please provide details underlying any assumptions being made in support of water savings estimates (e.g., how leakage will be reduced once identified with improved meter data).

Not applicable. No AMI distribution main meters will be installed.

(e) What types (manufacturer and model) of devices will be installed and what quantity of each?

Phase 1 of the AMI Project includes the replacement of 6,218 existing water meters, installing 2,421 new digital registers on existing meters, which are currently manually read, with an AMI fixed base network system, and 2 data collection gateways. For all meters 1" and smaller the City is deploying the iPERL electro-magnetic meter manufactured by Sensus. Meters 1.5" and larger will be the OMNI Turbo T2 meter that uses floating ball technology. Meters are equipped or are retrofitted with a Sensus 520M MXU single or dual port radio SmartPoint. The SmartPoint transmitter is connected to the meter/register using Sensus Touch Couple water proof technology. Field splicing is not required.

(f) How will actual water savings be verified upon completion of the project?

Actual water savings will be verified upon completion of the AMI Project through the use of utility data management software to conduct a water balance of the completed Phase 1. Additionally, all usage data for all meters equipped with AMI will be compared to historical values to determine water savings due to increased water use efficiency and improved meter accuracy.

Immediately upon startup the software analytics will begin to identify issues including leak, backflow, zero consumption, and high/low alarms. After a short baseline period the software analytics will identify other issues including abnormal usage patterns and higher than normal minimum night flow (MNF) values. The City will maintain a log of these issues as they arise and the resolution for each

event. All leaks and water loss identified through this process will be quantified.

Evaluation Criterion B: Water Supply Reliability (18 points)

Up to 18 points may be awarded under this criterion. This criterion prioritizes projects that address water reliability concerns, including making water available for multiple beneficial uses and resolving water related conflicts in the region.

Please address how the project will increase water supply reliability. Proposals that will address more significant water supply shortfalls benefitting multiple sectors and multiple water users will be prioritized. General water supply reliability benefits (e.g., proposals that will increase resiliency to drought will also be considered. Please provide sufficient explanation of the project benefits and their significance. These benefits may include, but are not limited to, the following:

Does the project promote and encourage collaboration among parties in a way that helps increase the reliability of the water supply?

The AMI Project will improve the reliability of water supplies from both the Snohomish and Lake Washington Watersheds, which would ultimately benefit people, agriculture, and the environment associated with both of these watersheds. The City of Lynnwood purchases water from AWWD, and AWWD in turn purchases water from the City of Everett. Everett, WA is located in the Snohomish Watershed and Lynnwood is located in the Lake Washington Watershed. Lynnwood is committed to the collaboration and maintenance of regional and local partnerships to enhance water supply reliability by promoting the regional common goals outlined by the City of Everett and AWWD, as well as adding flexibility to water portfolios and distribution systems. The AMI Project will provide a step forward in contributing towards the regional conservation and reliability/resiliency goals. This AMI Project could result in an additional availability of approximately 5,292.8 AF of water supply over the 20-year lifespan of the project that would otherwise be lost and unavailable to the City and region. The AMI Project enhances its partnership with the Everett Water Utility Committee (EWUC) to work towards greater regional water conservation efforts throughout the Snohomish and Lake Washington Watersheds.

Is there widespread support for the project?

Yes, there is widespread support for the AMI Project from the City of Everett, Everett Water Utilities Committee (EWUC), Alderwood Water & Wastewater District, and US Representative Rick Larson, as it aims to enhance water reliability for the region and State. The City of Lynnwood is a member of the EWUC, and all members share common annual conservation goals. These goals were last updated in 2012, and the current annual conservation goal is 1.2%. This project would help the City of Lynnwood achieve and sustain their conservation goals.

What is the significance of the collaboration/support?

The significance of the collaboration is that the AMI Project would provide a step forward in contributing towards EWUC and City of Lynnwood conservation goals. This AMI Project, if funded, could result in an additional availability of approximately 264.64 AFY of annual water supply that would otherwise be lost and unavailable to the City, AWWD, the City of Everett, and the region. Lynnwood, AWWD, Everett, and the EWUC have shared conservation goals which are increasingly important as the population and future use projections in the region continue to escalate. The region has experienced significant population and use growth in recent years and that trend is

expected to continue.

Increased collaboration between the City of Lynnwood and its customers will also demonstrate acknowledgement of the City's progressive approach to increasing conservation through improved water management, leak identification and resolution, education, and customer service.

Is the possibility of future water conservation improvements by other water users enhanced by completion of this project?

Yes, the City's AMI project will allow the AMI technician to identify abnormal use and leaks real-time, and the AMI technician will be able to quantify the added cost of the leak to the end user. Billing frequency will increase to once a month which will give customers much more insight into their usage data. With this data, they could be encouraged to perform water conservation improvements on their house or business.

Will the project make water available to address a specific water reliability concern? Please address:

Explain and provide detail of the specific issue(s) in the area that is impacting water reliability, such as shortages due to drought, increased demand, or reduced deliveries.

The Phase 1 and Phase 2 studies completed by the Water Supply Forum confirm that without future actions, the Puget Sound, including the Snohomish and Lake Washington watersheds face a range of potential future supply disruption threats. As the City is reliant on imported water sources, availability of water supply from the City of Everett via AWWD transmission lines are critical. The main threats to supply reliability include natural threats, water quality threats, and drought. One of the primary adaptation strategies identified in the studies included using the interties between water systems to improve delivery resiliency. The AMI Project would help increase water use efficiency of potable water, thereby increasing available water to the region in the event of disruption. Greater water use efficiency would reduce the stress on the aging water distribution system.

Describe where the conserved water will go/how it will be used. Will the project directly address a heightened competition for finite water supplies and over-allocation (e.g., population growth)? Will it be left in the river system?

The conserved water from the Lynnwood AMI project will reduce demand on the imported water from the Snohomish watershed. The region has large future population growth and water demand projections. This extra water can be used at the discretion of the City of Everett and neighboring water purveyors. The water could be left to remain in the reservoir, which will benefit the environment, or the water can be put to other uses such as agriculture, or used in other Bureau of Reclamation areas that are competing for water or have even more limited water supplies.

Describe how the project will address the water reliability concern?

The Water Supply Forum Phase 2 Study includes in Chapter 7 an action plan to increase water delivery resiliency and reliability, specifically for municipalities and water districts to consider new interties as a means to mitigate delivery risk with localized events. Water conservation and education, and the proposed WaterSMART Grant Project will reduce water consumption within the City of Lynnwood, which makes existing and future interties more reliable.

Imported water supplies from the City of Everett are projected to be adequate in the near future however periodic droughts are an ongoing concern for the region. The most recent drought was in 2015. As a result many communities enacted usage restrictions on residential and commercial customers, and the 2015 wildfire season was the largest in state history with more than 1 million acres burned. In the event of another drought and wildfire season water reliability could be at risk.

Changing demographics and climate change present many additional long-term challenges to an adequate water supply. Water management agencies, such as the City of Everett, have and will continue to pursue the development of local and surface water resources consider including ground water-supply projects. However, consideration of how ground water interacts with surface streams will affect access to groundwater supplies will be considered to maintain the health of aquatic ecosystems.

The AMI Project will implement water conservation measures to assist with water savings for the region. The AMI Project contributes to a sustainable water supply within the City's service area and provides an overarching benefit to the region. The AMI project will conserve an estimated **264.64 AFY or 5,292.8 AF over the 20-year useful lifespan of the project.** The water conserved can be left in the reservoir which will benefit the environment or be re-allocated within the region.

Will the project help to prevent a water-related crisis or conflict? Is there frequently tension or litigation over water in the basin?

The Central Puget Sound region is susceptible to a variety of natural threats, such as earthquakes, volcanos, wildfires, severe storms, and drought. These threats have the potential to disrupt the delivery of safe and reliable water. Catastrophic events such as these are a reality every community could face. To plan for these threats, the Central Puget Sound Water Supply Forum (comprised of Seattle Public Utilities, Tacoma Water, Everett Public Works, Cascade Water Alliance, and other water utilities in the region) came together – without crisis or mandate – to determine how utilities could continue providing essential water service during a crisis. -- Water Supply Forum

Provide a description of the mechanism that will be used, if necessary, to put the conserved water to the intended use.

Of the 264.64 AFY that will be saved, the EWUC tasked with the allocation of water, can reallocate those water resources to another use. Of the multiple annual claims and demands on the region's water resources, another agency or region could have their allocation increase, whether it be another water agency, an environmental interest, Tribal interest, or agricultural interest.

Describe the roles of any partners in the process. Please attach any relevant supporting documents.

The City is not collaborating with other agencies, so supporting documents are not needed.

Indicate the quantity of conserved water that will be used for the intended purpose.
The AMI project will conserve an estimated **264.64 AFY or 5,292.8 AF over the 20-year useful lifespan of the project.** The water conserved can be left in the reservoir to the benefit of the environment, or re-allocated to neighboring water purveyors.

Will the project benefit Indian tribes?

The watershed providing the water source for the City has one federally recognized tribe in it – The Tulalip Tribe. City believes this project will further the environmental stewardship goals of the Tulalip Tribes. The Tribe eloquently states these goals as:

> Tulalip takes the lead in preserving and restoring its land and waters. Tulalip accomplishes this goal by not only establishing environmentally friendly building practices but by dedicating various departments to environmental rehabilitation. These departments include a salmon hatchery, a state-of-the-art waste water treatment facility, a forestry program and a shellfish and wildlife recovery program.
>
> Environmental preservation is important for the culture of the Tulalip Tribes. Tulalip Tribal members have always used the resources of the land and water to live. Keeping the land and water healthy allows Tribal members to practice their culture through fishing, hunting, gathering of berries and herbs and using cedar to make baskets, hats and clothing.

Will the project benefit rural or economically disadvantaged communities?

Yes, the AMI Project will indirectly make water available for communities that are below the State average median household income including the Cities of Everett, Granite Falls, Marysville, Monroe, and Sultan. The AMI Project will conserve 264.64 AFY of potable water thereby making that same amount of potable water available to serve these Communities within the region. The AMI Project will increase regional supply reliability, decrease water consumption, and decrease energy needed for supplying and transporting water. The City of Lynnwood, does have several neighborhoods listed under as disadvantaged communities as defined by the Department of Housing and Urban Development (HUD), including the South Lynnwood/City Center area which has been designated an Opportunity Zone und the 2017 Tax Cuts and Jobs Act.

Will the project benefit species (e.g., federally threatened or endangered, a federally recognized candidate species, a state listed species, or a species of particular recreational, or economic importance). Please describe the relationship of the species to the water supply, and whether the species is adversely affected by a Reclamation project.

As stated above, this watershed is home to three threatened species, including Bull Trout, Puget Sound Chinook, and Puget Sound Steelhead. This project will increase the amount of water available for beneficial salmonid habitat by reducing usage and loss. It is widely recognized, including by the Washington State Legislature (RCW 90.94 – Streamflow Restoration), that a key priority of water resource management is the development of water supply conservation techniques to benefit the instream flow needs of fish while balancing the community development needs of people.

The City's AMI project will have no negative impacts to endangered, threatened, candidate species, or critical habitats. Conversely, the AMI project would only have positive impacts to species and habitats.

Will the project address water supply reliability in other ways not described above?

The ways water conserved through the project will improve water supply reliability have been listed.

Evaluation Criterion C: Implementing Hydropower (18 points)

Up to 18 points may be awarded for this criterion. This criterion prioritizes projects that will install new hydropower capacity in order to utilize our natural resources to ensure energy is available to meet our security and economic needs.

Although this project will not be implementing a hydropower project, this project is expected to save a lot of energy. Based on actual data from AWWD, the amount of electrical energy required to transfer 1 million gallons of water from the City of Everett to the City of Lynnwood requires 2,334 kWh. Based on this data the amount of power per MG required to transfer the water delivered to Lynnwood is a total of 3,017,951.69 kWh per year.

A reduction in consumption by **264.64 AFY** due to increased water use efficiency and decreased water losses could result in a savings of approximately **201,268 kWh per year** on the potable water system, or **318,205 pounds per year** of greenhouse gas emissions.

In addition, any water conserved as a result of this project is a gallon for gallon reduction in water not drawn from the Spada Reservoir which increases the production of clean electricity from hydropower and benefits several threatened species including Bull Trout, Puget Sound Chinook, and Puget Sound Steelhead.

Evaluation Criterion D: Complementing On-Farm Irrigation Improvements (10 points)

Up to 10 points may be awarded for projects that describe in detail how they will complement on-farm irrigation improvements eligible for NRCS financial or technical assistance.

This section does not apply to the City's AMI Project.

Evaluation Criterion E: Department of the Interior Priorities (10 points)

Up to 10 points may be awarded based on the extent that the proposal demonstrates that the project supports the Department of the Interior (DOI) priorities. Please address those priorities that are applicable to your project. It is not necessary to address priorities that are not applicable to your project. A project will not necessarily receive more points simply because multiple priorities are addressed. Points will be allocated based on the degree to which the project supports one or more of the priorities listed, and whether the connection to the priority(ies) is well supported in the proposal.

1. Creating a conservation stewardship legacy second only to Teddy Roosevelt.

   The City's AMI project highly supports the conservation legacies of Theodore Roosevelt. President T. Roosevelt found tremendous value in conserving wilderness and preserving wild spaces for future generations to enjoy. He wanted to preserve not just the land, but also the trees, plants and other wildlife. He understood that although industry and the extraction of raw minerals and natural resources is important, that there must be a proper balance and the Federal government should be there to help preserve these natural locations for the benefit of the people.

   The City's AMI project matches the values of T. Roosevelt by assisting to conserve 264.64 Acre-feet of water each year that can reduce water demand out of the Snohomish watershed. This project can help the Snohomish River remain a habitable environment for wild species such as several threatened species including Bull Trout, Puget Sound Chinook, and Puget Sound Steelhead.

   The AMI project will utilize the latest in wireless and computer technology to help the City

find and fix leaks, and to help customers save water. This best practice and increased customer service will bring our water provider further along in achieving our conservation management goals. This project will indirectly help in resolving water supply disruptions and will expand capacity. This project will indirectly help to expand access over time to regional watersheds and access to fishing as well as providing greater access to the public.

2. Sustainably develop our energy and natural resources

   Water consumption within the City of Lynnwood is expected to increase by 51.2% in the next 20 years assuming the City achieves their annual water conservation goals. This large increase in use is mostly caused by projected growth in population and commerce. Any water saved through effective management and proactive correction of leaks will help to reduce this projected consumption increase.

   The City's AMI project will save a large amount water and in turn, energy related to water conveyance. These energy savings will be available for the nation's security and economic needs.

3. Restore trust and be a good neighbor

   The Tulalip Tribe recently connected to the City of Everett water supply system and they are now part of the EWUC. Any water saved by the City of Lynnwood will indirectly benefit the Tulalip Tribe.

4. Ensure Tribal sovereignty means something

   The Federal Government recognizes the Tulalip Tribes as a sovereign Indian Tribe operating under a Tribal Constitution approved by the Secretary of Interior. Nothing about this project will impede the Tulalip Tribes ability to act and operate as a sovereign Tribe.

5. Increase revenues to support the Department and national interests

   Not applicable

6. Protect our people and the border

   Not applicable

7. Strike a regulatory balance

   Not applicable

8. Modernize our infrastructure

   This project will support the White House Public/Private Partnership Initiative to modernize the U.S. infrastructure be installing 21st century modern metering technology. This AMI technology is improving the interaction between water customers and the water supplier. AMI technology is bringing communities together to better detect leaks, save time, money, water, electricity and the impact of greenhouse gases. As this project highlights the installation of new infrastructure, it matches the highest priority of the DOI.

9. Reorganize the Department for the next 100 years

   Not applicable

10. Achieve our goals and lead our team forward

    Not applicable

Evaluation Criterion F: Implementation and Results (6 points) Up to 6 points may be awarded for these subcriteria.

Subcriterion F.1 – Project Planning

Points may be awarded for proposals with planning efforts that provide support for the proposed project.

Does the project have a Water Conservation Plan, and/or System Optimization Review (SOR) in place? Please self-certify, or provide copies of these plans where appropriate, to verify that such a plan is in place.

Provide the following information regarding project planning:

(1) Identify any district-wide, or system-wide, planning that provides support for the proposed project. This could include a Water Conservation Plan, SOR, or other planning efforts done to determine the priority of this project in relation to other potential projects.

Lynnwood's 2012 Water Comprehensive Plan (amended in 2018) supports the AMI Project by identifying water use, water loss, and water conservation practices required to reduce water loss. In addition, the City has competed testing of 100 existing meters to determine accuracy of existing meters. This information has been used to quantify potential water savings through improved management of their system and customer service/education of customers. A City goal, supported by Public Works, the mayor, and the City Council has been to improve data collection, management, analysis, and customer service throughout the service territory. The City has partial funding for this project and desires to implement the project.

(2) Describe how the project conforms to and meets the goals of any applicable planning efforts, and identify any aspect of the project that implements a feature of an existing water plan(s).

The AMI Project conforms to and meets the goals of the City's 2012 Water Comprehensive Plan (amended in 2018), including water conservation. The AMI Project also meets the goals of the City to improve upon data collection, management, analysis, and customer service.

The AMI Project helps meet the State's greenhouse gas reduction goals by reducing greenhouse gas emissions as a result of the reduction in water treatment and delivery from imported water supplies. The State of Washington has published greenhouse gas reduction goals in RCW 70.235.020. The AMI Project will avoid GHG emissions by conserving approximately 318,205 lbs. of C02/year. The AMI Project also helps to meet the City's Community Vision Goal *to be a welcoming city that builds a healthy and sustainable environment.* Water use efficiency and energy efficiency are two of the main goals in all of these plans that will enable the region to manage water supplies and resources for future generations. Lastly, as a member agency, the City is covered by EWUC's Plan.

Subcriterion F.2 – Performance Measures

Points may be awarded based on the description and development of performance measures to quantify actual project benefits upon completion of the project.

Provide a brief summary describing the performance measure that will be used to quantify actual benefits upon completion of the project (e.g., water saved or better managed, energy generated or saved). For more information calculating performance measure, see Appendix A: Benefit Quantification and Performance Measurement Guidance.

Performance Measure A: Projects with Quantifiable Water Savings

Performance Measure A.2.a. Measuring Devices: Municipal Metering

For projects that install or replace existing municipal meters, the applicant should consider the following:

- **Whether the project includes new meters where none existed previously or replaces existing meters.**

  The AMI Project replaces 6,218 existing meters with AMI meters and retrofits 2,421 existing meters with new digital read registers.

- **Whether the project includes individual water user meters, main line meters, or both.**

  The AMI Project includes water user meters only.

- **If the project replaces existing meters with new meters, whether new technologies (automatic meter reading (AMR) or advanced metering infrastructure (AMI) meters) will be employed.**

  AMI meters will replace existing manual read meters.

- **If main line meters are included, whether system leak detection and leak reduction may be improved.**

  Main line meters are not included.

- **Include a description of both pre and post-project rate structuring.**

The City is in the fourth year of a tiered rate structure resulting from a recent rate study. The Lynnwood City Council adopted a seven-year rate structure with the first year effective January 1, 2016, and the seventh year effective on January 1, 2022. Water meters are currently read every two months.

Monthly base rate – The City's base rate is levied against all customers in the service area on a bi-monthly basis based on the size of each meter on the customer's premises. The charge recovers costs associated with providing water to the serviced property, which do not vary with consumption. These costs include meter reading and billing customers for each monthly period, maintenance of meters and service lines in the distribution system, administrative costs, water quality testing, and salaries and benefits.

Bi-Monthly Water Rate Schedules

Water Customer Classification	2016	2017	2018	2019	2020	2021	2022
Residential Single-Unit							
Bi-Monthly Base Rate (incl.10 CCF)	**$41.66**	$44.91	$47.83	$50.22	$52.23	$54.32	$56.49
Bi-Monthly Volume Charge > 10 CCF to 40 CCF	**$2.39**	$2.58	$2.74	$2.88	$3.00	$3.12	$3.24
Bi-Monthly Volume Charge > 40 CCF	**$3.60**	$3.88	$4.13	$4.34	$4.51	$4.69	$4.88
Special Water Rate	See LMC 13.20.080, Special water rate						
Residential Multiple/Mobile Combined							
Bi-Monthly Base Rate Per Unit (includes 10 CCF/meter)*	**$15.99**	$17.24	$18.36	$19.28	$20.05	$20.85	$21.68
Bi-Monthly Volume Charge > 10 CCF per meter	**$1.75**	$1.89	$2.01	$2.11	$2.19	$2.28	$2.37
Special Water Rate	See LMC 13.20.080, Special water rate						
Commercial/Industrial (Based on Meter Size)							
5/8 – 3/4-Inch Meter	**$48.40**	$52.18	$55.57	$58.34	$60.68	$63.11	$65.63
1-Inch Meter	**$104.80**	$112.97	$120.32	$126.33	$131.39	$136.64	$142.11
1-1/2-Inch Meter	**$197.52**	$212.93	$226.77	$238.11	$247.63	$257.53	$267.84
2-Inch Meter	**$306.32**	$330.21	$351.68	$369.26	$384.03	$399.39	$415.37
3-Inch Meter	**$572.36**	$617.00	$657.11	$689.96	$717.56	$746.27	$776.12
4-Inch Meter	**$939.13**	$1012.38	$1078.19	$1132.10	$1177.38	$1224.48	$1273.45
6-Inch Meter	**$1866.19**	$2011.75	$2142.52	$2249.64	$2339.63	$2433.21	$2530.54
Monthly Volume Charge > 10 CCF per meter	**$2.94**	$3.17	$3.38	$3.54	$3.69	$3.83	$3.99

* Base charge per unit plus volume over 10 CCF per meter.

Special Water Rate Schedule

Water Customer Classification	2016	2017	2018	2019	2020	2021	2022
Special Water Rates, Income Level Status A (40%)							
Bi-Monthly Base Rate (incl. 10 CCF)	**$16.66**	$17.96	$19.13	$20.09	$20.89	$21.73	$22.60
Bi-Monthly Volume Charge > 10 CCF to 40 CCF	**$0.95**	$1.03	$1.10	$1.15	$1.20	$1.25	$1.30
Bi-Monthly Volume Charge > 40 CCF	**$1.44**	$1.55	$1.65	$1.74	$1.80	$1.88	$1.95
Special Water Rates, Income Level Status B (45%)							
Bi-Monthly Base Rate (incl. 10 CCF)	**$18.75**	$20.21	$21.52	$22.60	$23.50	$24.44	$25.42
Bi-Monthly Volume Charge > 10 CCF to 40 CCF	**$1.07**	$1.16	$1.23	$1.30	$1.35	$1.40	$1.46
Bi-Monthly Volume Charge > 40 CCF	**$1.62**	$1.75	$1.86	$1.95	$2.03	$2.11	$2.20
Special Water Rates, Income Level Status C (50%)							
Bi-Monthly Base Rate (incl. 10 CCF)	**$20.83**	$22.46	$23.92	$25.11	$26.12	$27.16	$28.25
Bi-Monthly Volume Charge > 10 CCF to 40 CCF	**$1.19**	$1.29	$1.37	$1.44	$1.50	$1.56	$1.62
Monthly Volume Charge > 40 CCF	**$1.80**	$1.94	$2.07	$2.17	$2.26	$2.35	$2.44

The performance measures that will be used to quantify actual benefits upon completion of the AMI Project will include measures to quantify water savings, water better managed, and energy savings resulting from the installation of the newer, more technologically-advanced water meters.

Pre and post installation consumption measurements will be analyzed for all customers who are notified by the City that they have a leak and for all customers who view their flow data through the Customer Portal. Water consumption at each of the 6,281 sites where the AMI meters will be installed, and the additional 2,421 sites where new digital registers will be installed on existing meters, will be monitored over a 12-month period using monthly billing data. Post-installation water consumption for each of the AMI units will be compared against pre-installation consumption to verify water savings. The following table summarizes the performance measures of the AMI Project that will demonstrate and quantify actual benefits and effectiveness of the AMI Project. Water use monitoring will be provided to USBR throughout the reporting period and will be included in the final report. Water use monitoring will continue beyond that timeframe to be able to make a fair assessment of the actual water savings from this AMI Project. The table below summarizes the Project Performance Measures.

AMI Project Performance Measures		
Performance Measure	**Target**	**Measurement Tools and Methods**
Accurate Measurement	New system should allow for accuracy measurement tools to quantify savings	The new AMI meters will include an online portal, which will allow the City to quantify leakage, perform diagnostic testing on how a customer's water system, and other demand assessments.
Water Savings – Customer-Side and Distribution Leak Detection	178.93 AFY (Savings from Improved operator management, conscientious use by the customer and leak detection by both)	- Water consumption reported by the fixed network for each customer will be analyzed over a 12-month period. - Post installation Water consumption data will be compared against pre-installation consumption to verify savings.
Water Savings – Improved Meter Accuracy	85.71 AFY	- Post-installation water consumption will be measured over a 12-month period following AMI installation to verify that water was better managed - The City's AMI Technician will ensure data collection of all meters and will respond to all alerts and alarms generated by the software.

Quantified Savings	-Compare pre and post installation flow quantities -Detail underlying assumptions	The City's AMI meter project is expected to result in significant water savings. We have detailed reports and data from several sources that support our analysis. These sources are explained in section (c) within Criterion A shown earlier in this technical proposal. The City plans to provide a detailed post project report on all water savings achieved. City water customers are expected to reduce their usage when the new AMI meters are installed, billing increases to monthly, and the AMI Technician begins following up on alerts and alarms.
Energy Savings	From Water Savings: 201,268 kWh	- Water savings will be converted to energy savings using the calculation of 2,334 kWh/MG of water conserved
Carbon Emissions Savings	312,997 lbs. of CO2/year from water savings and 21,003 lbs. from reduced vehicle miles.	- Confirm the water savings resulting from the project in the Water Savings Project Performance Measure, and convert to carbon emissions using the calculation of required energy = 2,334 kWh/ MG and CO2 emissions = 1.559 lbs. of CO2/kWh. - Verify reduced vehicle miles and estimate carbon emissions savings using 19.59 lbs. of CO2/gallon

Performance Measure No. B: Projects with Hydropower Benefits

Any water conserved as a result of this project is a gallon for gallon reduction in water not drawn from the Spada Reservoir which increases the production of clean electricity from hydropower and benefits several threatened species including Bull Trout, Puget Sound Chinook, and Puget Sound Steelhead.

Subcriterion F.3 – Readiness to Proceed

Points may be awarded based upon the extent to which the proposed project is capable of proceeding upon entering into a financial assistance agreement.

Describe the implementation plan of the proposed project. Please include an estimated project schedule that shows the stages and duration of the proposed work, including major tasks, milestones, and dates.

1. August, 2019: Award notification from Bureau of Reclamation
2. October 15, 2019: City Council award contract for installation and issue PO for AMI equipment.
3. January 6, 2020: AMI equipment on site and contractor mobilization
4. June 30, 2020: Physical installation complete, begin data acquisition and analytics

5. August 31, 2020: Final completion, software analytics complete, city training complete

Describe any permits that will be required, along with the process for obtaining such permits.

There are no required permits anticipated for the AMI Project. All of the AMI Project work will be conducted at current meter locations and City property. All Project-related approvals will be handled by the City and will be executed in a timely and efficient manner. Final approval from the City Council would be required prior to proceeding with the AMI Project.

Identify and describe any engineering or design work performed specifically in support of the proposed project.

None

Describe any new policies or administrative actions required to implement the project.

None

Describe how the environmental compliance estimate was developed. Has the compliance cost been discussed with the local Reclamation office?

This project is categorically exempted from SEPA per WAC 197-11-800 23(b) which states "all storm water, water, and sewer facilities, lines, equipment, hookups or appurtenances including, utilizing or related lines 12" in diameter or smaller." The City's AMI project will simply replace existing water meters, boxes and lids where necessary, and will install (2) data collection gateways. The data collection gateways will be constructed on City-owned property. The City does not anticipate any environmental impacts associated with the AMI project. An environmental assessment satisfying Federal requirements (NEPA), associated with Federal contracting/grant agreements will be completed if required. The City does not anticipate NEPA being required for this project due to the categorical exclusion found in Bureau of Reclamation Part 516 Chapter 14, 14.5D. "Operation and Maintenance Activities" 1. "Maintenance, rehabilitation, and replacement of existing facilities which may involve a minor change in size, location, and/or operation."

Compliance cost has not been discussed with the local Reclamation office.

Evaluation Criterion G: Nexus to Reclamation Project Activities (4 points)

*Up to **4 points** may be awarded if the proposed project is in a basin with connections to Reclamation project activities. No points will be awarded for proposals without connection to a Reclamation project or Reclamation activity.*

(1) Is the proposed project connected to Reclamation project activities? If so, how?

No

(2) Does the applicant receive Reclamation project water?

No, the City receives water from the City of Everett via AWWD. The City of Everett sources their water from the Spada Reservoir.

(3) Is the project on Reclamation project lands or involving Reclamation facilities?

No, the AMI Project is neither on Reclamation lands nor involves Reclamation facilities.

(4)Is the project in the same basin as a Reclamation project or activity?

No, the AMI Project is not in the same basin as a Reclamation project or activity.

(5) Will the proposed work contribute water to a basin where a Reclamation project is located?

No

(6) Will the project help Reclamation meet trust responsibilities to Tribes?

The project will indirectly benefit the Tulalip Tribe since they depend on the same imported water that the City of Lynnwood uses. This project will reduce the City's water use from these sources thus making them more sustainable for others to use, such as the Tulalip Tribe.

Evaluation Criterion H: Additional Non-Federal Funding (4 points)

*Up to **4 points** may be awarded to proposals that provide non-Federal funding in excess of 50 percent of the project costs. State the percentage of non-Federal funding provided using the following calculation:*

$$\frac{\$4,489,634 \text{ (Non-Federal Funding)}}{\$4,789,634 \text{ (Total Project Cost)}}$$

The Non-federal cost-share is 93.7% to be provided from City funding sources.

Project Budget

The complete AMI Project Budget includes a Funding Plan, Budget Proposal, and Budget Narrative. The SF-424C Budget Form is attached to this application under Exhibit D – Budget Form SF-424C.

Funding Plan and Letters of Commitment

The City will fund 100 percent of all non-Federal project costs. The Advanced Metering Infrastructure Project has been listed in the City's CIP list of projects and the City will implement this project in FY 2019 and 2020. The project is expected to be completed in 12 months. The authorization for the last FY is included on page 214 of the City's Six-Year Capital Facilities Plan, 2019-24, available at the following link:
http://www.lynnwoodwa.gov/Assets/Departments/Administrative+Services/CFP/2019-2024+Capital+Facilities+Plan.pdf

Other than the funding provided by the Bureau of Reclamation under this grant application and the City of Lynnwood there are no other sources of funding necessary to complete this project. As there are no other sources of funding other than the City of Lynnwood, a letter of commitment is not required for this application.

l. Cost Share Contribution: The City will provide its cost share in monetary (cash) contributions. The AMI Project has been and is included in the Capital Budget and is funded by water sales

revenue and interest income.

2. In-kind Costs Incurred Before the Anticipated Project Start Date: The City does not anticipate any in-kind costs prior to the project start date.

3. Funding Requests from other Federal Partners: No other funding has been requested or received from other Federal partners.

4. Pending Funding Requests: No funding requests are pending.

Table 3 - Summary of Non-Federal and Federal Funding Sources

FUNDING SOURCES	AMOUNT
Non Federal Entities	
1. City of Lynnwood	$4,489,634.00
Non Federal Subtotal	$4,489,634.00
Other Federal Entities	$ 0.00
1.	
Other Federal Subtotal	$ 0.00
REQUESTED RECLAMATION FUNDING	$ 300,000.00

Table 4 – Budget Proposal

Budget and Item Description	Computation			Total Cost
	$/Unit	Quantity	Unit	
Salaries and Wages				**$965,522.00**
Underground Sewer and Water (General Laborer & Topman #1)	$73.35	1,376	hr	$100,929.60
Underground Sewer and Water (General Laborer & Topman #2)	$73.35	1,376	hr	$100,929.60
Underground Sewer and Water (General Laborer & Topman #3)	$73.35	1,376	hr	$100,929.60
Underground Sewer and Water (General Laborer & Topman #4)	$73.35	1,376	hr	$100,929.60
Project Administrator	$65.25	482	hr	$31,424.40
Foreman/Site Superintendent (1)	$147.50	1,376	hr	$202,960.00
Foreman/Site Superintendent (2)	$147.50	1,376	hr	$202,960.00
Project Manager	$180.90	688	hr	$124,459.20
Taxes and Insurance				**$108,355.73**
SUI	1.52%	$965,522.00	total salary	$14,675.93
Medicare	1.45%	$965,522.00	total salary	$14,000.07
Workers Comp	$1.4674 per hour	9426	total hours	$13,831.13
Misc State	0.02%	$965,522.00	total salary	$193.10
FUTA	0.60%	$965,522.00	total salary	$5,793.13
Social Security	6.20%	$965,522.00	total salary	$59,862.36
Travel				**$207,360.00**
Hotels and Lodging	$150.00	240 Days	4 Employees	$144,000.00
Per Diem	$66.00	240 Days	4 Employees	$63,360.00
Equipment				**$2,919,408.70**
Mobilization/Demobilization				$108,000.00
AMI Meters	$232.81	6,213	ea	$1,446,471.42
AMI Registers	$146.67	8,639	ea	$1,267,039.99
AMI Data Collection Gateways	$48,948.65	2	ea	$97,897.30
Supplies and Materials				**$157,324.08**
Meter lids and boxes	$150.00	300	ea	$45,000.00
Field Programmers	$4,072.29	2	ea	$8,144.58
Modems	$1,200.00	2	ea	$2,400.00
Software and Training	$75,862.50	1	ea	$75,862.50
Door hangers	$3.00	8639	ea	$25,917.00
Contractual				**$0.00**
None	$0.00			$0.00
Environmental and Regulatory Compliance				**$0.00**
Notice of Exemption	$0.00			$0.00
Other Costs				**$431,663.49**
Sales Tax (10.4%)	10.4%	1	ea	$431,663.49
Indirect Costs				**$0.00**
None	$0.00			$0.00
Total Project Costs				**$4,789,634.00**

Budget Narrative

Submission of a budget narrative is mandatory. An award will not be made to any applicant who fails to fully disclose this information. The budget narrative provides a discussion of, or explanation for, items included in the budget proposal.

Salaries and Wages

The Program Manager for this project is Ehsan Shirkhani for the City of Lynnwood. While Mr. Shirkhani will be involved in managing the project he will not charge his time to the project as his salary is supported by the City of Lynnwood general operating budget. The specific tasks for this position include supervising the project, preparing administrative reports and presentations and attending board meetings.

Subcontracted labor will be used to install new meters, registers, and the AMI communication system. All salaries are included in the Project Budget Table and will remain at the same rate for all of Fiscal Year 2019-20 as there will not be any salary increases for the positions listed under the budget. The total cost of salaries and wages for this project is $965,522.

Taxes and Insurance

We use percentage rates to calculate the five different tax and insurance requirements. The state unemployment insurance rate is set to 1.52% of the gross salary cost for a total cost of $14,675.93. The Medicare rate is set to 1.45% of the gross salary cost for a total cost of $14,007.07. The worker's compensation insurance rate is set to the clerical rate of $1.4674 per hour worked for a total cost of $13,831.13. The miscellaneous state taxes are set to 0.02% of the gross salary cost for a total cost of $193.10. The FUTA tax rate is 0.60% of the gross salary cost for a total of $5,793.13. The Social Security rate is set at 6.20% of the gross salary cost for a total cost of $59,862.36. The total combined tax and insurance costs for all employees' amounts to $108,355.73.

Travel

Travel expenses are expected for the four general laborers that will be installing the AMI project. All other employees that will work on this project are local to Lynnwood. Travel expenses include 240 days' worth of per diem and 240 nights in a hotel for a total cost of $207,360.

Equipment

The AMI equipment includes the AMI meter, and wire connectors to enable connection to the transmitter located on the top of each meter box. This equipment is vital to the project as the AMI meters have the digital capabilities to track usage and to perform an emergency shut off. The cost of this equipment is $232.81 for each meter, $146,67 for each register, and $48,948.65 for each data collection gateway. We will install 6,213 meters, 8,639 registers, and 2 data collection gateways during the 2019- 20 fiscal year for a total cost of $2,919,408.70.

Supplies and Materials

Supplies and materials included in this project include replacement meter boxes and lids, 2 field programmers, 2 modems, 8,639 door hangers, and data analytics software with training. The total cost of supplies and materials for this project is $157,324.08.

Contractual

The contractual costs for this project are itemized in Table 4 Budget Proposal above. The City of Lynnwood will purchase equipment and materials for this project directly for a total cost of $3,396,712.99. The City of Lynnwood will also subcontract the installation of the AMI project for a total cost of $1,392,921.01.

The City of Lynnwood will procure the subcontractor in compliance with WA State law, specifically Revised Code of Washington (RCW) 39.34, 39.35A, and 39.35C.

The subcontractor will install all new meters, registers, transmitters, data collection gateways, the analytic software package, and replacement lids and meter boxes where required. The new transmitters require drilling holes in the existing meter box lids. The subcontractor will complete a propagation study to determine the best location for the data collection gateways. The subcontractor will also provide training and technical support for the new software and ensure data acquisition.

Environmental and Regulatory Compliance Costs

There are no environmental and regulatory compliance expense costs that need to be itemized under this project.

Other Expenses

Sales tax within the City of Lynnwood is 10.4%. The total cost of sales tax for this project is $431,663.49.

Indirect Costs

There are no indirect costs that need to be itemized under this project.

Total Costs

The total cost to implement this project is **$4,789,634.00** with a Federal cost share amount of $1,500,000.00 and a non-Federal cost share amount of $3,289,634.00.

Environmental and Cultural Resources Compliance

So that Reclamation can assess the probable environmental and cultural resources impacts and costs associated with each application, all applicants must respond to the following list of questions focusing on the National Environmental Policy Act (NEPA), Endangered Species Act (ESA), and National Historic Preservation Act (NHPA) requirements. ***Note: Applicants proposing a Funding Group II project must address the environmental and cultural resources compliance questions for their entire project, not just the first 1-year phase.***

Please answer the following questions to the best of your knowledge. If any question is not applicable to the project, please explain why. The application should include answers to:

(1) Will the project impact the surrounding environment (e.g., soil [dust], air, water [quality and quantity], animal habitat)? Please briefly describe all earth-disturbing work and any work that will affect the air, water, or animal habitat in the project area. Please also explain the impacts of such work on the surrounding environment and any steps that could be taken to

minimize the impacts.

No, the AMI Project involves an upgrade to existing meters and should pose no impact to the surrounding environment. The work will be performed on property that is considered already disturbed, and no further requirements are needed.

(2) Are you aware of any species listed or proposed to be listed as a Federal threatened or endangered species, or designated critical habitat in the project area? If so, would they be affected by any activities associated with the proposed project?

No known species listed or proposed to be listed as a Federal endangered or threatened species, or designated critical habitats are within the AMI Project area.

(3) Are there wetlands or other surface waters inside the project boundaries that potentially fall under Clean Water Act (CWA) jurisdiction as "waters of the United States?" If so, please describe and estimate any impacts the project may have.

No, there are no wetlands or other surface waters inside the AMI Project boundaries that potentially fall under CWA jurisdiction as "waters of the United States." No associated impacts would occur and no mitigation is required.

When was the water delivery system constructed?

The City began as a small community of farms, forestlands, and businesses and was incorporated in 1959. The original water distribution system serving the City was built by (AWWD). The City purchased the portion of the water distribution system within its City limits from AWWD in 1966. In 1971, the first water system analysis and comprehensive plan was completed. By 1981, the water service area had expanded as a result of facility acquisitions outlined in the 1978 Lynnwood/AWWD Supply Agreement. The City acquired the two steel reservoirs that currently provide storage for the City's 573 zone in 1981.

(4) Will the project result in any modification of or effects to, individual features of an irrigation system (e.g., head gates, canals, or flumes)? If so, state when those features were constructed and describe the nature and timing of any extensive alterations or modifications to those features completed previously.

No, the AMI Project will not result in any modification of or affect any individual features of an irrigation system.

(6) Are any buildings, structures, or features in the irrigation district listed or eligible for listing on the National Register of Historic Places? A cultural resources specialist at your local Reclamation office or the State Historic Preservation Office can assist in answering this question.

There are no buildings, structures, or features listed or eligible for listing on the National Register of Historic Places within the AMI Project sites.

(7) Are there any known archeological sites in the proposed project area?
No

(8) Will the project have a disproportionately high and adverse effect on low income or

minority populations?

The AMI Project will not have a disproportionately high and adverse effect on low income or minority populations. The AMI Project has the potential to provide positive monetary benefits to low income and minority populations by identifying water inefficiencies within their community, which after installation of AMI, will potentially decrease the costs to that population.

(9) Will the project limit access to and ceremonial use of Indian sacred sites or result in other impacts on tribal lands?

The AMI Project will not limit access to and ceremonial use of Indian sacred sites or result in other impacts on tribal lands.

(10) Will the project contribute to the introduction, continued existence, or spread of noxious weeds or non-native invasive species known to occur in the area?

No, the AMI Project will not contribute to the introduction, continued existence, or spread of noxious weeds or non-native species known to occur in the area.

Note, if mitigation is required to lessen environmental impacts, the applicant may, at Reclamation's discretion, be required to report on progress and completion of these commitments. Reclamation will coordinate with the applicant to establish reporting requirements and intervals accordingly.

Under no circumstances may an applicant begin any ground-disturbing activities (including grading, clearing, and other preliminary activities) on a project before environmental compliance is complete and Reclamation explicitly authorizes work to proceed. This pertains to all components of the proposed project, including those that are part of the applicant's non-Federal cost-share. Reclamation will provide a successful applicant with information once environmental compliance is complete. An applicant that proceeds before environmental compliance is complete may risk forfeiting Reclamation funding under this FOA.

Required Permits or Approvals

Applicants must state in the application whether any permits or approvals are required and explain the plan for obtaining such permits or approvals.

There are no required permits anticipated for the AMI Project. All of the AMI Project work will be conducted at current meter locations and City property. All Project-related approvals will be handled by the City and will be executed in a timely and efficient manner. Final approval from the City Council would be required prior to proceeding with the AMI Project.

Letters of Support

The City of Lynnwood has secured one (1) letter of support from our local Representative. This letter can be found in Exhibit A in the Exhibit section of this application. The stakeholders and representatives are as follows:

1) United States Representative from the 2nd District – The Honorable Mr. Rick Larson

Official Resolution

An official resolution meeting the requirements set forth above is mandatory.

An official resolution of the City of Lynnwood is scheduled for review and adoption at the next meeting of the City Council on March 25, 2019. The Resolution will be submitted following the Council Meeting and within 30 days after the application deadline or by April 18, 2019. A sample resolution has been attached to this application under Exhibit B – Sample Resolution.

The resolution verifies the City's legal authority to enter into an agreement; the City Council has reviewed and supports submittal of this application; the capability of the City to provide the amount of funding and in-kind contributions specified in the Funding Plan; and that the City will work cooperatively with the Bureau of Reclamation to meet established deadlines for entering into a cooperative agreement.

Unique Identity Identifier and System for Award Management

(1) Be registered in the System for Award Management (SAM) before submitting its application

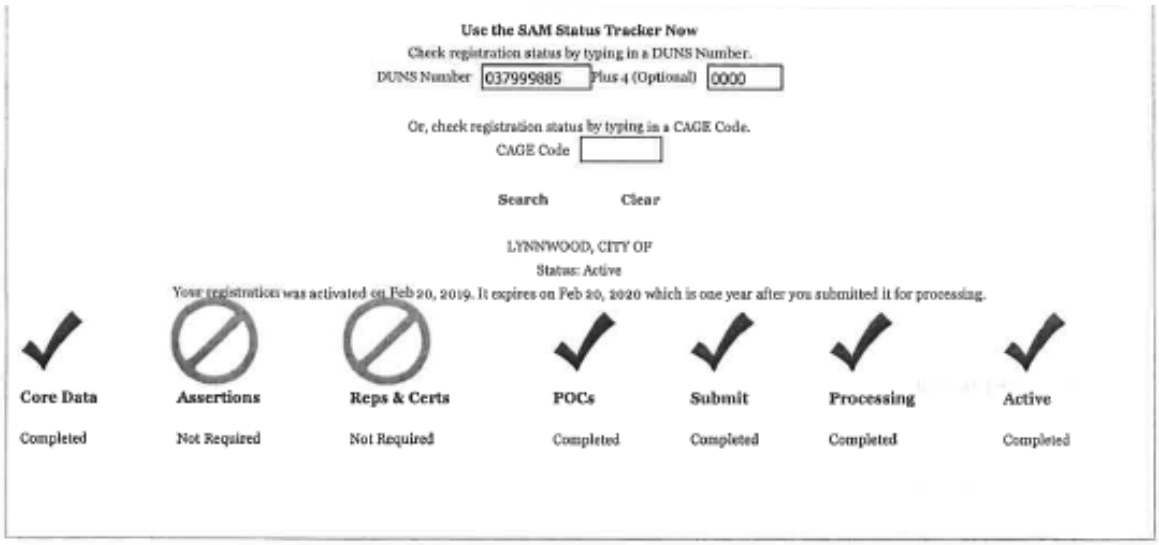
The City of Lynnwood is registered in the System for Award Management (SAM) under the City of Lynnwood.

(2) Provide a valid unique entity identifier in its application

The City of Lynnwood uses the DUNS number 037999885 as its unique entity identifier which is currently active and up to date.

(3) Continue to maintain an active SAM registration with current information at all times during which it has an active Federal award or an application or plan under consideration by a Federal awarding agency.

The City of Lynnwood has and will continue to maintain and keep current the City's active SAM registration.



Exhibits

Exhibit A – Letter of Support
Exhibit B – Sample Resolution
Exhibit C – Application for Federal Financial Assistance SF-424
Exhibit D – Budget Form SF-424C
Exhibit E – Assurances Form SF-424D
Exhibit F – Disclosure of Lobbying Activities SF-LLL

Exhibit A – Letter of Support

2113 Rayburn House Office Building
Washington, DC 20515
(202) 225-2605

District Offices
119 N. Commercial Street, Suite 1350
Bellingham, WA 98225
(360) 733-4500

2930 Wetmore Avenue, Suite 9F
Everett, WA 98201
(425) 252-3188

E-Mail: Rick.Larsen@mail.house.gov
http://larsen.house.gov

RICK LARSEN
2nd District, Washington

Congress of the United States
House of Representatives
Washington, DC 20515–4702

Committees
Transportation and Infrastructure

Armed Services

March 19, 2019

Darren Olsen
Bureau of Reclamation
Department of the Interior
Financial Assistance Support Section
PO Box 25007, MS 84-27814
Denver, CO 80225

Dear Mr. Olsen:

I am writing to request careful consideration of the City of Lynnwood's application for funding through the Bureau of Reclamation's WaterSMART grant program. These funds would help the city implement its Advanced Metering Infrastructure Project to enable better metering and use of water resources.

The City of Lynnwood delivers water to approximately 35,000 people and businesses within city limits and strives to create innovative solutions to maximize long-term water supply reliability and resiliency. The city will use WaterSMART funding to replace 6,218 meters and install an additional 2,421 new digital registers on existing meters that are relatively new. The total 8,639 water meters will transmit consumption data hourly, and software used in conjunction with the water meters will run ongoing analytics to optimize how water is managed and delivered.

Potable water for the City of Lynnwood is sourced from the City of Everett, which is located in a different watershed. Any conservation efforts reduce the amount of water being pumped from the Snohomish watershed to the Lake Washington watershed. Keeping water in the Snohomish watershed improves aquatic ecosystems downstream from the reservoir and provides additional water for electricity generation through hydropower.

For these reasons I ask that you give full and fair consideration to the City of Lynnwood's application for funding through the Bureau of Reclamation WaterSMART Grant Program. Thank you for your attention to this matter.

Sincerely,

Rick Larsen

Rick Larsen
Member of Congress
Washington State, 2nd District

Exhibit B – Sample Resolution

RESOLUTION NO. 2019-____

A RESOLUTION OF THE CITY COUNCIL OF THE CITY OF LYNNWOOD, WASHINGTON, APPROVING THE APPLICATION FOR GRANT FUNDS THROUGH THE BUREAU OF RECLAMATION FOR THE WATERSMART: WATER AND ENERGY EFFICIENCY GRANTS FOR FISCAL YEAR 2019

WHEREAS, the United States Department of Interior, Bureau of Reclamation has provided funds for the program shown above; and

WHEREAS, the Bureau of Reclamation has been delegated the responsibility for the administration of this grant program, establishing necessary procedures; and

WHEREAS, said procedures established by the bureau of Reclamation require a resolution certifying the approval of applications(s) by the Applicants governing board before submission of said application(s) to the Federal Government; and

WHEREAS, the Lynnwood City Council, if selected, will enter into an agreement with the Federal Government to carry out the project.

THE CITY COUNCIL OF THE CITY OF LYNNWOOD, WASHINGTON, DOES HEREBY RESOLVE AS FOLLOWS:

Section 1. The City approves the filing of an application through the Bureau of Reclamation for the WaterSMART: Water and Energy Efficiency Grants for Calendar Year 2019 for the "Lynnwood Advance Metering Infrastructure Project."

Section 2. The City certifies that the Lynnwood Water Utility, as applicant, understands the assurances and certifications in the application.

Section 3. The City certifies that applicant or title holder will have sufficient funds to operate and maintain the project consistent with grant requirements; or will secure the resources to do so.

Section 4. The City certifies that the project will comply with any laws and regulations including, but not limited to, legal requirements for building codes, health and safety codes, disabled access laws, environmental laws and, that prior to commencement of construction, all applicable permits will have been obtained.

Section 5. The City appoints the Mayor, or designee, as agent to conduct all negotiations, execute and submit all documents including, but no limited to applications, agreements, payments requests and so on, which may be necessary for the completion of the aforementioned project.

RESOLVED this ___ day of _____, 2019.

Approved:

_____
Nicola Smith, Mayor

Attest/Authenticate:

_____
Sonja Springer, Director of Administrative Services

Approved as to form:

_____
Rosemary Larsen, City Attorney

FILED WITH THE CITY CLERK:
PASSED BY THE CITY COUNCIL:
RESOLUTION NO. _____

Exhibit C – Application for Federal Financial Assistance SF-424

OMB Number: 4040-0004
Expiration Date: 12/31/2019

Application for Federal Assistance SF-424

* 1. Type of Submission: ☐ Preapplication ☒ Application ☐ Changed/Corrected Application	* 2. Type of Application: ☒ New ☐ Continuation ☐ Revision	* If Revision, select appropriate letter(s): / * Other (Specify):
* 3. Date Received: 03/19/2019	4. Applicant Identifier: City of Lynnwood	
5a. Federal Entity Identifier:	5b. Federal Award Identifier:	
State Use Only:		
6. Date Received by State:	7. State Application Identifier:	

8. APPLICANT INFORMATION:

* a. Legal Name:	City of Lynnwood
* b. Employer/Taxpayer Identification Number (EIN/TIN): 91-6015840	* c. Organizational DUNS: 037999885
d. Address:	
* Street1:	PO Box 5008
Street2:	
* City:	Lynnwood
County/Parish:	Snohomish
* State:	WA: Washington
Province:	
* Country:	USA: UNITED STATES
* Zip / Postal Code:	98046

e. Organizational Unit:	
Department Name: Public Works	Division Name: Water Utility

f. Name and contact information of person to be contacted on matters involving this application:

Prefix:	* First Name: Lester
Middle Name:	
* Last Name:	Rubstello
Suffix:	
Title:	Deputy Public Works Director
Organizational Affiliation:	
* Telephone Number: 425-670-5231	Fax Number: 425-670-5906
* Email:	LRUBSTELLO@LYNNWOODWA.GOV

Application for Federal Assistance SF-424

*** 9. Type of Applicant 1: Select Applicant Type:**

C: City or Township Government

Type of Applicant 2: Select Applicant Type:

Type of Applicant 3: Select Applicant Type:

* Other (specify):

*** 10. Name of Federal Agency:**

Bureau of Reclamation

11. Catalog of Federal Domestic Assistance Number:

CFDA Title:

*** 12. Funding Opportunity Number:**

BOR-DO-10-F004

* Title:

WaterSMART Grants: Water and Energy Efficiency Grants for FY 2019

13. Competition Identification Number:

Title:

14. Areas Affected by Project (Cities, Counties, States, etc.):

Add Attachment | Delete Attachment | View Attachment

*** 15. Descriptive Title of Applicant's Project:**

City of Lynnwood Advanced Metering Infrastructure Project

Attach supporting documents as specified in agency instructions.

Add Attachments | Delete Attachments | View Attachments

Application for Federal Assistance SF-424

16. Congressional Districts Of:

* a. Applicant: 2 * b. Program/Project: 2

Attach an additional list of Program/Project Congressional Districts if needed.

Add Attachment | Delete Attachment | View Attachment

17. Proposed Project:

* a. Start Date: 08/30/2019 * b. End Date: 08/28/2020

18. Estimated Funding ($):

* a. Federal	1,500,000.00
* b. Applicant	3,289,634.00
* c. State	
* d. Local	
* e. Other	
* f. Program Income	
* g. TOTAL	4,789,634.00

*** 19. Is Application Subject to Review By State Under Executive Order 12372 Process?**

☐ a. This application was made available to the State under the Executive Order 12372 Process for review on

☐ b. Program is subject to E.O. 12372 but has not been selected by the State for review.

☒ c. Program is not covered by E.O. 12372.

*** 20. Is the Applicant Delinquent On Any Federal Debt? (If "Yes," provide explanation in attachment.)**

☐ Yes ☒ No

If "Yes", provide explanation and attach

Add Attachment | Delete Attachment | View Attachment

21. *By signing this application, I certify (1) to the statements contained in the list of certifications and (2) that the statements herein are true, complete and accurate to the best of my knowledge. I also provide the required assurances** and agree to comply with any resulting terms if I accept an award. I am aware that any false, fictitious, or fraudulent statements or claims may subject me to criminal, civil, or administrative penalties. (U.S. Code, Title 218, Section 1001)**

☒ ** I AGREE

** The list of certifications and assurances, or an internet site where you may obtain this list, is contained in the announcement or agency specific instructions.

Authorized Representative:

Prefix:	
* First Name:	Lester
Middle Name:	
* Last Name:	Rubstello
Suffix:	
* Title:	Deputy Public Works Director
* Telephone Number:	425-670-5231
Fax Number:	
* Email:	LRUBSTELLO@LYNNWOODWA.GOV

* Signature of Authorized Representative: Lester O Rubstello * Date Signed: 3/19/19

View Burden Statement

OMB Number: 4040-0008
Expiration Date: 01/31/2019

BUDGET INFORMATION - Construction Programs

NOTE: Certain Federal assistance programs require additional computations to arrive at the Federal share of project costs eligible for participation. If such is the case, you will be notified.

COST CLASSIFICATION	a. Total Cost	b. Costs Not Allowable for Participation	c. Total Allowable Costs (Columns a-b)
1. Administrative and legal expenses	$	$	$
2. Land, structures, rights-of-way, appraisals, etc.	$	$	$
3. Relocation expenses and payments	$	$	$
4. Architectural and engineering fees	$	$	$
5. Other architectural and engineering fees	$	$	$
6. Project inspection fees	$	$	$
7. Site work	$	$	$
8. Demolition and removal	$	$	$
9. Construction	$ 1,392,921.01	$	$ 1,392,921.01
10. Equipment	$ 3,396,712.99	$	$ 3,396,712.99
11. Miscellaneous	$	$	$
12. SUBTOTAL *(sum of lines 1-11)*	$ 4,789,634.00	$	$ 4,789,634.00
13. Contingencies	$	$	$
14. SUBTOTAL	$ 4,789,634.00	$	$ 4,789,634.00
15. Project (program) income	$	$	$
16. TOTAL PROJECT COSTS *(subtract #15 from #14)*	$ 4,789,634.00	$	$ 4,789,634.00
FEDERAL FUNDING			
17. Federal assistance requested, calculate as follows: (Consult Federal agency for Federal percentage share.) Enter the resulting Federal share.	Enter eligible costs from line 16c Multiply X 31 %		$ 1,484,786.54

Exhibit E – Assurances Form SF-424D

ASSURANCES - CONSTRUCTION PROGRAMS

OMB Number: 4040-0009
Expiration Date: 01/31/2019

Public reporting burden for this collection of information is estimated to average 15 minutes per response, including time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Send comments regarding the burden estimate or any other aspect of this collection of information, including suggestions for reducing this burden, to the Office of Management and Budget, Paperwork Reduction Project (0348-0042), Washington, DC 20503.

PLEASE DO NOT RETURN YOUR COMPLETED FORM TO THE OFFICE OF MANAGEMENT AND BUDGET. SEND IT TO THE ADDRESS PROVIDED BY THE SPONSORING AGENCY.

NOTE: Certain of these assurances may not be applicable to your project or program. If you have questions, please contact the Awarding Agency. Further, certain Federal assistance awarding agencies may require applicants to certify to additional assurances. If such is the case, you will be notified.

As the duly authorized representative of the applicant:, I certify that the applicant:

1. Has the legal authority to apply for Federal assistance, and the institutional, managerial and financial capability (including funds sufficient to pay the non-Federal share of project costs) to ensure proper planning, management and completion of project described in this application.
2. Will give the awarding agency, the Comptroller General of the United States and, if appropriate, the State, the right to examine all records, books, papers, or documents related to the assistance; and will establish a proper accounting system in accordance with generally accepted accounting standards or agency directives.
3. Will not dispose of, modify the use of, or change the terms of the real property title or other interest in the site and facilities without permission and instructions from the awarding agency. Will record the Federal awarding agency directives and will include a covenant in the title of real property acquired in whole or in part with Federal assistance funds to assure non-discrimination during the useful life of the project.
4. Will comply with the requirements of the assistance awarding agency with regard to the drafting, review and approval of construction plans and specifications.
5. Will provide and maintain competent and adequate engineering supervision at the construction site to ensure that the complete work conforms with the approved plans and specifications and will furnish progressive reports and such other information as may be required by the assistance awarding agency or State.
6. Will initiate and complete the work within the applicable time frame after receipt of approval of the awarding agency.
7. Will establish safeguards to prohibit employees from using their positions for a purpose that constitutes or presents the appearance of personal or organizational conflict of interest, or personal gain.
8. Will comply with the Intergovernmental Personnel Act of 1970 (42 U.S.C. §§4728-4763) relating to prescribed standards of merit systems for programs funded under one of the 19 statutes or regulations specified in Appendix A of OPM's Standards for a Merit System of Personnel Administration (5 C.F.R. 900, Subpart F).
9. Will comply with the Lead-Based Paint Poisoning Prevention Act (42 U.S.C. §§4801 et seq.) which prohibits the use of lead-based paint in construction or rehabilitation of residence structures.
10. Will comply with all Federal statutes relating to non-discrimination. These include but are not limited to: (a) Title VI of the Civil Rights Act of 1964 (P.L. 88-352) which prohibits discrimination on the basis of race, color or national origin; (b) Title IX of the Education Amendments of 1972, as amended (20 U.S.C. §§1681 1683, and 1685-1686), which prohibits discrimination on the basis of sex; (c) Section 504 of the Rehabilitation Act of 1973, as amended (29) U.S.C. §794), which prohibits discrimination on the basis of handicaps; (d) the Age Discrimination Act of 1975, as amended (42 U.S.C. §§6101-6107), which prohibits discrimination on the basis of age; (e) the Drug Abuse Office and Treatment Act of 1972 (P.L. 92-255), as amended relating to nondiscrimination on the basis of drug abuse; (f) the Comprehensive Alcohol Abuse and Alcoholism Prevention, Treatment and Rehabilitation Act of 1970 (P.L. 91-616), as amended, relating to nondiscrimination on the basis of alcohol abuse or alcoholism; (g) §§523 and 527 of the Public Health Service Act of 1912 (42 U.S.C. §§290 dd-3 and 290 ee 3), as amended, relating to confidentiality of alcohol and drug abuse patient records; (h) Title VIII of the Civil Rights Act of 1968 (42 U.S.C. §§3601 et seq.), as amended, relating to nondiscrimination in the sale, rental or financing of housing; (i) any other nondiscrimination provisions in the specific statue(s) under which application for Federal assistance is being made; and (j) the requirements of any other nondiscrimination statue(s) which may apply to the application.

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Standard Form 424D (Rev. 7-97)
Prescribed by OMB Circular A-102

11. Will comply, or has already complied, with the requirements of Titles II and III of the Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970 (P.L. 91-646) which provide for fair and equitable treatment of persons displaced or whose property is acquired as a result of Federal and federally-assisted programs. These requirements apply to all interests in real property acquired for project purposes regardless of Federal participation in purchases.
12. Will comply with the provisions of the Hatch Act (5 U.S.C. §§1501-1508 and 7324-7328) which limit the political activities of employees whose principal employment activities are funded in whole or in part with Federal funds.
13. Will comply, as applicable, with the provisions of the Davis-Bacon Act (40 U.S.C. §§276a to 276a-7), the Copeland Act (40 U.S.C. §276c and 18 U.S.C. §874), and the Contract Work Hours and Safety Standards Act (40 U.S.C. §§327-333) regarding labor standards for federally-assisted construction subagreements.
14. Will comply with flood insurance purchase requirements of Section 102(a) of the Flood Disaster Protection Act of 1973 (P.L. 93-234) which requires recipients in a special flood hazard area to participate in the program and to purchase flood insurance if the total cost of insurable construction and acquisition is $10,000 or more.
15. Will comply with environmental standards which may be prescribed pursuant to the following: (a) institution of environmental quality control measures under the National Environmental Policy Act of 1969 (P.L. 91-190) and Executive Order (EO) 11514; (b) notification of violating facilities pursuant to EO 11738; (c) protection of wetlands pursuant to EO 11990; (d) evaluation of flood hazards in floodplains in accordance with EO 11988; (e) assurance of project consistency with the approved State management program developed under the Coastal Zone Management Act of 1972 (16 U.S.C. §§1451 et seq.); (f) conformity of Federal actions to State (Clean Air) implementation Plans under Section 176(c) of the Clean Air Act of 1955, as amended (42 U.S.C. §§7401 et seq.); (g) protection of underground sources of drinking water under the Safe Drinking Water Act of 1974, as amended (P.L. 93-523); and, (h) protection of endangered species under the Endangered Species Act of 1973, as amended (P.L. 93-205).
16. Will comply with the Wild and Scenic Rivers Act of 1968 (16 U.S.C. §§1271 et seq.) related to protecting components or potential components of the national wild and scenic rivers system.
17. Will assist the awarding agency in assuring compliance with Section 106 of the National Historic Preservation Act of 1966, as amended (16 U.S.C. §470), EO 11593 (identification and protection of historic properties), and the Archaeological and Historic Preservation Act of 1974 (16 U.S.C. §§469a-1 et seq).
18. Will cause to be performed the required financial and compliance audits in accordance with the Single Audit Act Amendments of 1996 and OMB Circular No. A-133, "Audits of States, Local Governments, and Non-Profit Organizations."
19. Will comply with all applicable requirements of all other Federal laws, executive orders, regulations, and policies governing this program.
20. Will comply with the requirements of Section 106(g) of the Trafficking Victims Protection Act (TVPA) of 2000, as amended (22 U.S.C. 7104) which prohibits grant award recipients or a sub-recipient from (1) Engaging in severe forms of trafficking in persons during the period of time that the award is in effect (2) Procuring a commercial sex act during the period of time that the award is in effect or (3) Using forced labor in the performance of the award or subawards under the award.

SIGNATURE OF AUTHORIZED CERTIFYING OFFICIAL	TITLE
Rester O Rubstello	Deputy Public Works Director
APPLICANT ORGANIZATION	DATE SUBMITTED
City of Lynnwood	03/19/2019

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Exhibit E – Disclosure of Lobbying Activities SF-LLL

DISCLOSURE OF LOBBYING ACTIVITIES

Complete this form to disclose lobbying activities pursuant to 31 U.S.C.1352

Approved by OMB
4040-0013

1. * Type of Federal Action:
- [ ] a. contract
- [x] b. grant
- [ ] c. cooperative agreement
- [ ] d. loan
- [ ] e. loan guarantee
- [ ] f. loan insurance

2. * Status of Federal Action:
- [ ] a. bid/offer/application
- [x] b. initial award
- [ ] c. post-award

3. * Report Type:
- [x] a. initial filing
- [ ] b. material change

For Material Change Only:
year ____ quarter ____
date of last report ____

4. Name and Address of Reporting Entity:

[x] Prime [ ] SubAwardee Tier if known: ____

* Name: City of Lynnwood
* Street 1: PO Box 5008 Street 2: ____
* City: Lynnwood State: WA: Washington Zip: 98046
Congressional District, if known: 2

5. If Reporting Entity in No.4 is Subawardee, Enter Name and Address of Prime:

6. * Federal Department/Agency:
Bureau of Reclamation

7. * Federal Program Name/Description:
WaterSMART Grants: Water and Energy Efficiency Grants for FY 2019
CFDA Number, if applicable: ____

8. Federal Action Number, *if known:*

9. Award Amount, *if known:*
$ ____

10. a. Name and Address of Lobbying Registrant:

Prefix: ____ * First Name: ____ Middle Name: ____
* Last Name: ____ Suffix: ____
* Street 1: ____ Street 2: ____
* City: ____ State: ____ Zip: ____

b. Individual Performing Services (including address if different from No. 10a)

Prefix: ____ * First Name: Mark Middle Name: ____
* Last Name: Dedrick Suffix: ____
* Street 1: 1331 SW Macadam Ave, Suite 356 Street 2: ____
* City: Portland State: OR: Oregon Zip: 97239

11. Information requested through this form is authorized by title 31 U.S.C. section 1352. This disclosure of lobbying activities is a material representation of fact upon which reliance was placed by the tier above when the transaction was made or entered into. This disclosure is required pursuant to 31 U.S.C. 1352. This information will be reported to the Congress semi-annually and will be available for public inspection. Any person who fails to file the required disclosure shall be subject to a civil penalty of not less than $10,000 and not more than $100,000 for each such failure.

* Signature: Lester O Rubstello

*Name: Prefix: ____ * First Name: Lester Middle Name: ____
* Last Name: Rubstello Suffix: ____

Title: Deputy Public Works Director Telephone No.: 425-670-5231 Date: 03/19/2019

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Standard Form - LLL (Rev. 7-97)

LYNNWOOD
WASHINGTON

RESOLUTION NO. 2019-04

A RESOLUTION OF THE CITY COUNCIL OF THE CITY OF LYNNWOOD, WASHINGTON, APPROVING THE APPLICATION FOR GRANT FUNDS THROUGH THE BUREAU OF RECLAMATION FOR THE WATERSMART: WATER AND ENERGY EFFICIENCY GRANTS FOR FISCAL YEAR 2019

WHEREAS, the United States Department of Interior, Bureau of Reclamation has provided funds for the program shown above; and

WHEREAS, the Bureau of Reclamation has been delegated the responsibility for the administration of this grant program, establishing necessary procedures; and

WHEREAS, said procedures established by the bureau of Reclamation require a resolution certifying the approval of applications(s) by the Applicants governing board before submission of said application(s) to the Federal Government; and

WHEREAS, the Lynnwood City Council, if selected, will enter into an agreement with the Federal Government to carry out the project.

THE CITY COUNCIL OF THE CITY OF LYNNWOOD, WASHINGTON, DO RESOLVE AS FOLLOWS:

Section 1. The City approves the filing of an application through the Bureau of Reclamation for the WaterSMART: Water and Energy Efficiency Grants for Calendar Year 2019 for the "Lynnwood Advance Metering Infrastructure Project."

Section 2. The City certifies that the Lynnwood Water Utility, as applicant, understands the assurances and certifications in the application.

Section 3. The City certifies that applicant or title holder will have sufficient funds to operate and maintain the project consistent with grant requirements; or will secure the resources to do so.

Section 4. The City certifies that the project will comply with any laws and regulations including, but not limited to, legal requirements for building codes, health and safety codes,

disabled access laws, environmental laws and, that prior to commencement of construction, all applicable permits will have been obtained.

Section 5. The City appoints the Mayor, or designee, as agent to conduct all negotiations, execute and submit all documents including, but no limited to applications, agreements, payments requests and so on, which may be necessary for the completion of the aforementioned project.

RESOLVED this 23rd day of March 2019.

Approved:

Nicola Smith, Mayor

Attest/Authenticate:

Sonja Springer, Finance Director

PASSED BY THE CITY COUNCIL: 03/25/2019
RESOLUTION NO.: 2019-04