CITY OF OUZINKIE
CAPITAL IMPROVEMENT PROJECT LIST
FY 2019-2024

1. Water Main Replacement, Phase 3

Design, Engineering, Permitting $200,000 - Construction $1,800,000

A. Water Main Replacement

The majority of Ouzinkies residential and Business water service lines, including the School, Mission, Native Corporation Offices and US Post Office are connected to ductile iron pipe constructed between the 1960s and 1970s. Due to electrolysis the lines began to corrode through and leak in the mid 1980s and as time passes the structural integrity of the line has continued to degrade, resulting in increasing annual line loss of millions of gallons of treated water, and rapidly increasing repair costs. The degradation has reached the point that even minor vibrations such as traffic or low level seismic events can and have caused new blowouts in the lines. In addition to losing nearly 50 percent of our municipal potable water annually, pressure loss in the lines during repair shutdowns results in negative pressure, which causes siphoning of contaminated ground water into the system that has the potential to carry giardia and other toxic bacteria. This project is now in critical need of funding and complete failure is eminent.

It is desired that this project be managed by the Alaska Native Tribal Health Consortium

2. Electrical Infrastructure Upgrade

A. Electric Distribution System $1,000,000

Age and exposure to salt-water atmosphere have revealed that all of the transformers on Ouzinkie's electric distribution system have rusted out. When the lids rust thru, water gets into the transformer causing extreme loads, short circuits and the potential, (due to build up of gas pressure), of explosion with consequences to individuals and property in the vicinity. It is expected that this preventive renovation will reveal other situations such as individual poles that need replacement and rerouting of transmission lines. A highly critical and significant section of Ouzinkie's power is connected to the hydroelectric plant. This connection is by direct burial concentric neutral 7,200 volt power lines. This quality of cable as it was installed has been estimated by Jim Develin, KEA's Electrical Engineer to have exceeded its normal expected life, and is subject to failure any day. The western section of town is serviced by the same type cable and there is no possibility of delivering power to these residents, temporary or otherwise when this failure occurs.

It is desired that this project be engineered and project managed thru The Alaska Energy Authority.

3. Renewable Energy Projects

A. Alternative Energy Wind Generation $250,000

Ouzinkie has utilized alternative energy with the use of hydro power for 20 years. This has worked well for the community, and has resulted in a large saving of fuel vs. diesel generation. The community wishes to enhance this component of our generation facilities with the addition of wind power. Spruce Island is located in an area with high potential for wind generation. The project is expected to take four phases to be incorporated into the present grid.

Construction Phases

Phase One: Analyze the two years of wind data collected in the process of site investigation for the new airport. Expected expenses $1,000

Phase Two: Construct a site-specific data collection wind tower for sizing of wind generation tower and generator. An engineering feasibility study to the applicable aspects of connecting solar to the present system. Running in tandem with diesel and hydro-electric. Expected expense $10,000

Phase Three: Construct and install generator and tower of estimated size of 200 KW. Expected expense $1,000,000

Phase Four: Install power control equipment to integrate equipment into the present grid utilizing the hydro/diesel combination of generation. Expected expense $25,000

Phase Five: Design and engineering, installation of SCADA computer controls and programmable logic controllers. Expected expense $105,000

The creation of green alternative energy is an increasingly promising solution to multiple challenges. Sustainable business and energy independence are keys to our economic revitalization. Solar could be part of the answer to affordable power for housing and business that will help offset the cost of electricity by diesel powered generators.

B. Alternative Energy Solar Panels $500,000

Ouzinkie has an ideal area at the old Ouzinkie Airport for development of a solar

farm that would power much of the energy needs of the community. With the need to cut our dependence on diesel fuel the community is looking at various alternative energy projects. Having a hydro electric system has helped with the consumption of diesel, additional alternative energy working in tandem with the hydro would make Ouzinkie completely independent of diesel.

The tremendous growth in the U.S. solar industry is helping to pave the way to a cleaner, more sustainable energy future. Over the past few years, the cost of a solar energy system has dropped significantly -- helping to give more families and businesses access to affordable, clean energy.

When converted to thermal energy, solar energy can be used to heat water for use in homes and buildings; to heat spaces inside homes, greenhouses, and other buildings.

Solar energy can be converted to electricity by Photovoltaic (PV devices or solar cells). Solar cells change sunlight directly into electricity. Individual PV cells are grouped into panels and arrays of panels that can be used in a wide variety of systems that power single homes, to power plants.

4. Burn Box Unit **35,000**

This project will purchase a burn box to significantly reduce the volume of waste being burned and buried at the Municipal Landfill, thereby greatly improving the longevity of the facility and restricting the food supply for vermin.
The size #2 is a small and will process 10 cubic yards of trash; our preferred size is a medium #4 and will process 20 cubic yards trash or more at a time. These units are $70,000 plus transport.

5. Equipment Upgrades

A. Fork Lift Replacement **$125,000**

The current forklift in the village is a large tire, with four wheel drive, crab steering or close quarters steering, all terrain, capable of lifting 15,000 pounds in the boom retracted position, telescoping boom features. This provides needs of moving set netter skiffs, fishing gear, nets, pots, construction items such as concrete manholes, pipe, generators, logs and other items. This was built sometime in the 1970's and was purchased as surplus equipment from a contractor in the 1990's. Most of its operational capabilities are dysfunctional due to age. This will also be of assistance with the operations off the new dock facility with the removal of boats for repair and maintenance.

B. Landfill Maintenance Equipment **$100,000**

In order to process the large pieces of metal and tires at the dump a hydraulically operated shears is available as an accessory to the presently owned Linkbelt

Excavator. This devise would replace on a temporary basis the present bucket and thumb, and allow cutting up of large metal pieces. This would allow reduction of the mass of metal at the present pile. In turn this would contribute to the ease of shipping these metals back to the regional center for recycling and processing as outlined in the Kodiak Regional Waste Management Plan.

6. Agricultural Development **$500,000.00**

Food security is a major concern in almost all rural Alaskan communities. The high cost of shipping and the often inclement weather results in a constant shortage of affordable fresh produce. The development of agriculture is a major part of our local and regional economic development strategy, providing healthy, affordable nutrition and local job opportunities.

In late 2014 the old Ouzinkie Airport reverted back to the City of Ouzinkie where there are plans to develop acreage for field crops and construct and manage green or hoop houses. The land being in a southern exposure means that the potential area receives more than adequate sunshine.
On a commercial scale hoop and/or greenhouses as well as field crops would fill an important economic development opportunity for the community of Ouzinkie; allowing for the sale of fresh fruit and vegetables in Ouzinkie and Kodiak.

Greenhouses allow for greater control over the growing environment of plants. Depending upon the technical specification of a greenhouse, key factors which can be controlled include temperature, levels of light and shade application, and atmospheric humidity. Greenhouses may be used to overcome shortcomings in the growing qualities of a piece of land, such as a short growing season or poor light levels, and they can thereby improve food production in marginal environments such as you find in Alaska. As they may enable certain crops to be grown throughout the year, greenhouses are increasingly important in the food supply of colder areas with short growing seasons. The relatively closed environment of a greenhouse has its own unique management requirements, compared with outdoor production. Pests and diseases, and extremes of heat and humidity, have to be controlled, and irrigation is necessary to provide water. Most greenhouses use sprinklers or drip lines. Significant inputs of heat and light may be required, particularly with winter production of warm-weather vegetables.

Heating or electricity is one of the most considerable costs in the operation of greenhouses across the globe, especially in colder climates. Passive heating methods exist which create heat using low energy input. Solar energy can be captured from periods of relative abundance (day time/summer), and released to boost the temperature during cooler periods (night time/winter).

7. Heavy Equipment Storage/Firehall Building $750'000

Ouzinkie has had a volunteer fire department for many years. Several years ago the City of Ouzinkie was gifted a firetruck from the Anchorage Fire Department. The existing fire hall which was built in approximately 1986 is too small for this new firetruck. The present location for the storage of the truck is not in a central location for the village. A new firehall in the 'downtown' area is a definite need for the village

Construct a building to store and work on the City's heavy equipment is needed to save the City expenses due to weather deterioration. The location of Ouzinkie on a peninsula by the ocean leads to heavy exposure of salt spray. Consequently, the City equipment suffers unnecessary deterioration due to rust. At risk due to improper storage and ocean salt deterioration is:

1. $50,000 Bucket Truck
2. $50,000 Dump Truck
3. $100,000 Linkbelt Crawler Excavator
4. $200,000 Sewage Pumping Truck
5. $50,000 Backhoe/Loader
6. $20,000 Welding and Cutting Equipment

There is other miscellaneous equipment that is presently suffering deterioration due to improper storage in a marine environment. The construction of a Storage Building ties well to the purchase of the needed landfill equipment stated in priority four.

8. Anton Larsen Bay Road Extension $8,000,000

Year around boat access to the Anton Larsen Bay road has public safety and emergency preparedness components as well as recreational and economic efficiency/development elements. The prevailing Kodiak weather pattern, especially in the winter, is from the North East. This pattern often brings fog, rain, wind and large seas. During N.E. "blows" vessels often cannot travel to Kodiak via Spruce Cape and frequently smaller bush airplanes, and sometimes the U.S. Coast Guard, cannot fly to small communities like Ouzinkie, Port Lions, Afognak Island Russian Village, Danger Bay Logging settlement, and numerous, hunting, sport fishing, and commercial fishing camps and recreation and cultural development sites. However, access to Kodiak is possible by boat via Anton Larsen Bay as the route lies in the lea of the N.E. winds. Nevertheless, access to Anton Larsen Bay is stopped during most of January, February, March and sometimes April due to Anton Larsen Bay freezing over. Year-around Anton Larsen Bay road salt water access would give residents of Ouzinkie, Port Lions as well as the whole west side of Kodiak Island access to Kodiak for emergencies during bad N.E. weather and give Kodiak residents access to the west side of Kodiak Island. In addition, the route is closer to these communities and Kodiak residents would use the

extended "year around" road access to increase economic and recreational opportunities during the winter.

9. Alaska Marine Highway - Tustumena Replacement

Replacing the troubled Tustumena ferry, which was out of commission for nearly a year, is the top priority of both the Marine Transportation Advisory Board, and the coastal communities that the M/V Tustumena serves.

The M/V Tustumena provides year-round service to Kodiak area, and journeys to the Aleutian chain ten times each year, providing a critical transportation and tourism link that affects the economies of each community served by this vessel. The ferry is also a critical piece of infrastructure necessary for the viability of economic development in rural coastal communities in the Gulf of Alaska. Recent vessel aging problems and repair delays are well documented and have created significant, recurring service disruptions and outages in the region. The M/V Tustumena is at the top of the queue in the AMHS Vessel Replacement Fund, and the legislature appropriated $10 million from this fund in 2013 for the design of a new ocean-going vessel to replace the M/V Tustumena.

The Alaska Department of Transportation and Public Facilities has begun the design process and estimates that it will take 18 months to complete with construction of the new vessel costing as much as $210 million; since it will take another two to three years to construct the new vessel and ready it for service, it is imperative to develop and implement a strategy to ensure construction funding is in place by 2015 to allow an immediate start of vessel construction.

10. Electrical Upgrade to Boat Harbor $20,000

The Ouzinkie Boat Harbor, when it was built, was designed with very limited electrical outlets. One group of 4 plug-ins at the end of each float. Our harbor is full and the need for electricity by the vessels has outgrown what is available. An upgrade to existing meter bases and additional bases to be put in at intervals along the three fingers to get rid of the multitude of electrical cords being used by individual users.

11. Ouzinkie Municipal Building $1,400,000

The Ouzinkie City Offices have been housed, for decades, in an old BIA territorial school that is home to hundreds of bats, old lead paint, and an electrical and plumbing system that needs rigorous upgrading. The City Office Building houses offices, two apartments, pre-school, library, conference and meeting area. It is believed that it would be less expensive to build from the ground up that to try to remodel the old building and that the best place for the new building is at the existing site.

Part of the building could also be used as a Rural Training Center with the conference and meeting room serving a dual purpose as class & training rooms. Having a designated area for classes would broaden the opportunities available for both agency programs and actual opportunities for residents that have employment skill needs that are currently unmet. The intent would be to keep the scale of operation flexible and small in size so as to be able to adapt to changing vocation skill needs as well as providing focused individual instruction.

- **Phase One-Design: $550,000**

This would include design of the building which would include but not be limited to the administrative offices, meeting and conference area/training areas, library, apartments, supply and maintenance/parts area.

- **Phase Two-Construction: $850,000**

Moving of the office into temporary quarters. The City of Ouzinkie has a lot where a temporary office trailer could go while this construction is underway.
It is believed that if construction starts in the early spring then by late fall the project would be completed. This phase would also include site preparation and construction.

12. Community Roads Resurfacing

A. Community Road Upgrade - Construction $3,275,000

The City of Ouzinkie has not had available, since original construction in the 1970's, material for maintenance and repair of the village roads. Road improvements would include road shaping and crowning, drainage and culvert improvements, chip seal surfacing and dust control. The road improvements would improve vehicle and pedestrian safety and eliminate destructive potholes.

Recent construction of a sewer project in the village has required digging up the village streets, causing damage that is not restorable under the constraints of the village sewer and water project budget. The net effect is excess wear and damage to not only the village utility vehicles such as the dump truck, electric utility vehicles, fire and ambulance services, but to the vehicles utilized by residents in the normal pursuit of personal or vocational business. Excess wear and damage has been noted on the grader used for snow removal. Repair of this item requires sending the equipment out of the village on a landing craft at considerable expense for repair. Individual residents can only afford to absorb their own personal losses.

There was a planned airport construction project in Ouzinkie in 2008; the project has provide the opportunity for tremendous cost-savings for small local projects that would otherwise not be practical from a construction mobilization standpoint. Throughout Alaska, agencies and communities look for these cooperating project opportunities. Ouzinkie understands this is an opportunity to focus their efforts.

B. Harbor to Dock Access Road (Water Front Access)

Engineering $150,000

Engineering will provide background and engineering design guidance for the Small Boat Harbor to Dock Access Road Project. The study will address the needs of the project,

1) Identification and evaluation of available data that can be used to describe environmental (earth, water and weather) conditions along Ouzinkie's community coastline, and

2) Develop a detailed design and construction cost estimate based on environmental conditions for further funding requests for the Access Road and to show the construction stage is needed. The planned proposed road is included in the Ouzinkie Tribal Council's Bureau of Indian Affairs, Indian Reservation Road inventory update and enjoys support from both the City of Ouzinkie and the Ouzinkie Native Corporation.

Conduct preliminary surveying and soils investigations, design standards and an environmental overview to understand issues that will need examination in detail

during full design and location of the Access Road. To develop community contacts to ascertain the local-knowledge base and develop community support.

The City of Ouzinkie has a breakwater for the protection of marine vessels and skiffs in the harbor area. Use of this facility has restrictions for commercial fishermen, skiff owners, and tourism vessels. Currently, access to the harbor is limited to a narrow gravel road from Spruce Street that goes down a hill.

The Access Road would assist in erosion control and mitigate the community's dust problem due to its location, design, and development. This road would create access to tideland throughout the small cove and would connect the harbor to the dock, creating efficiencies for businesses.

Development of the Small Boat Harbor to Dock Access Road would enhance economic development in form of commercial fishing, tourism, charter vessels, and well as convenient access needs of Ouzinkie residents to transport groceries, fuel, building materials, and maintenance items that are difficult with the present facility.

The Access Road is in the same development stage as the Industrial Area Development/Replacement Dock itself. There could be significant cost-effectiveness to combining reconnaissance engineering for the Access Road. Rock for this road project and the dock are in close proximity, which is a big consideration in rural Alaska.

C. Access Ramp at Harbor

Engineering **$100,000**

Engineering will provide background and engineering design guidance for the Boat Harbor Vehicle Access Ramp. The study will address the needs of the project, identification and evaluation of available data that can be used to describe environmental (earth, water and weather) conditions affect the land above the harbor, and develop a detailed design and construction cost estimate based on the environmental concerns.

Construction **$75,000**

Ouzinkie has a boat harbor breakwater for the protection of marine vessels and skiffs in the harbor area. Use of this facility has restrictions for commercial fishermen, skiff owners, and tourism vessels. Currently, access is restricted to a narrow gravel road from Spruce Street that goes down a hill to a narrow 10' x 3' wooden ramp that accesses the harbor grated walkway ramp. It does not allow for skiff to car/4-wheeler loading access. You have to unload your freight from your boat by hand, into carts, hand cart the freight up the grated ramp, up the wooden ramp, up a one lane S shaped gravel route to your vehicle. A vehicle accessible ramp would allow for skiff to car unloading. Handicap/Elder accessibility is almost non-existent.

13. Tourism Development

A. Public Restroom Facilities **$170,000**

For comfort and convenience of community members and visitors to the village we would like to install a concrete slab enclosed restroom facility at the Ouzinkie Boat Harbor and at the new Municipal Dock. Currently the closest public facilities for the boat harbor is half a mile away; at the Tribal Cultural Center. There is a septic station at the start of the harbor road, it would not take much effort to construct and install such a facility.

With Ouzinkie now being on the Alaska Marine Highway System people are waiting at the dock area where there are no restroom facilities available. This could be incorporated with a shelter for protection against inclement weather while waiting for the ferry. As part of the economic development of the municipal dock this public restroom facility would enhance the other projects that are planned for future development.

B. Boardwalk Repair/Replacement **$100,000**

Ouzinkie's wooden boardwalk is an identifying feature of the community and provides for a scenic stroll along our coastline. Unfortunately, City budget constraints have not allowed for proper routine maintenance and our boardwalk is in desperate need of extensive repairs or a complete replacement. Ouzinkie residents frequently travel the boardwalk to get from one end of the community to the other and it is a highlight of our village tour. Ensuring its continued presence in our community is a priority for many Ouzinkie residents.

C. Community Development **$200,000**

The City of Ouzinkie has many trails and recreational spots that have been in existence for time immemorial and should be taken care of especially that Ouzinkie is working on drawing tourism to the village. Scenic outlook viewing shelters, fire pits, benches, outdoor toilet facilities, trail maintenance, small bridges, and camping facilities would contribute to the development of this tourism and economic development.

In keeping with tourism a water-front area of shops downtown would be an attraction to tourists where they could buy from local artists. In addition a skiff launch and pull out would be incorporated into this area. The present beach allows this activity only during certain portions of the tide. Addition of this feature would remove some of the pressure.

The community needs an outdoor recreation site. A place where activities such as baseball, volleyball, basketball, tennis, track, etc. can be conducted. The facility could also include a camping and barbecue area for outdoor community events and tourist events.

D. Veterans Memorial **$7,500**

Paying proper tribute to our men in uniform for their dedicated service to our country is something that is valued by our community. A memorial to be put on display in our Tribal Building's Cultural Center, amongst our Veteran's photographs, would be a welcome addition in recognition of their bravery, selflessness and commitment to the defense of our nation.

E. Upgrade to Freezer Building/Fish Processing Facility **$350,000**

The existence of our community's freezer building/fish processing facility represents a great deal of opportunity and un-utilized potential. The primary reason for its non-operational status is that the cost of operation is too high and the village cannot afford its associated costs. Some modifications are required to update the facility and maximize its job-creating and income-earning potential, such as a ramp and an easy access point for unloading fish and finished products.

However, the primary issue which must be addressed is lowering the costs of utilities. Having the facility linked up with solar panels, wind turbines, etc. would lower the cost of the round-the-clock power consumption required to keep the catch cold and allow the village to realize a profit from its efforts. This would also facilitate the community in its ability to "brand" itself, selling an array of top-quality, locally caught fish to a wide range of consumers.

F. Teen & Youth Center **$300,000**

Ouzinkie's youth need a Teen & Youth Center for a fun and safe place for young people of Ouzinkie to socialize, exercise and have positive interaction with peers and adults affiliated with the center. The Center could build strong character and realize our youths development, healthy living and social responsibility. The mission would be to provide a safe, enjoyable environment where teenagers can engage in beneficial educational, and leisure-time activities.