

**PUBLIC WORKS ASSEMBLY UPDATE**  
**WORK COMPLETED THROUGH AUGUST 2019**

**Wastewater Treatment Plant (WWTP) Rehabilitation (DESIGN PHASE)**

**Milestones This Period**

- 99% completion of the SCADA design for the bid documents and working on full set coordination and QC review for the 100% bid set.

**Future Milestones**

- Complete the bidding documents for a September 2019 bid.
- Award construction contract and begin construction of the WWTP rehabilitation project October 2019, assuming sufficient funding is available.
- Anticipated project completion Spring 2021.

**Background**

The Wastewater Treatment Plant was built in the early 1980's and most of the building systems, especially the HVAC (ventilation air) systems have failed or are past their useful life and require replacement. The air quality within the building is inadequate and corrosive and the exposed piping and metal within the building are corroded. The building's envelope leaks air and does not allow for proper pressurization of the office areas and other clean rooms. Corrosive air in these spaces results in electronics regularly becoming dysfunctional within months, in addition to creating an unhealthy air quality for the WWTP operators. It is the intent of Public Works to move this project forward as quickly as possible as there are life safety issues that need to be addressed in the existing facility. It is anticipated that the current project funding will be insufficient to rehabilitate the building, correct the life safety, code compliance and non-functional existing conditions. The preliminary total project cost is estimated at \$10 million. Funding for this project is provided by the following sources: \$263,000 in Wastewater fund Working Capital and DEC loans for \$2,832,500 and \$1,825,000 (secured) and a third DEC loan of \$5,079,500 (approved and pending signed agreement).

Current Contracts: McCool Carlson Green (design) \$835,584

**SMC Transmission Main Break Repair (CONSTRUCTION PHASE)**

**Milestones This Period**

- Successfully bypassed leaks in transmission main with HDPE pipe section. Leak estimated at 4 to 7 percent of CBS water production.

**Future Milestones**

- Clean and hydroseed job site to Alaska Department of Transportation's satisfaction.
- Complete final contract close out.

**Background**

Public Works has discovered a break in the 24-inch water transmission main to town on Sawmill Creek Road (SMC) by the Indian River Bridge. The Assembly passed Ordinance 2019-28 (second reading) on July 9, establishing a \$400,000 budget for this work.

Current Contracts: Core & Main (materials Purchase Order)	\$76,213
K&E Alaska (construction)	NTE \$250,000
Northern Utility Services (leak detection)	\$9,400

**Critical Secondary Water Supply (DESIGN PHASE)**

**Milestones This Period**

- Assembly approved use of GPIIP Lot 17 for filter plant construction at August 13 meeting.
- Received draft project cost estimate from CRW (design consultant).
- Received draft technical specifications from CRW for use in a Request for Proposal (RFP) for membrane filtration equipment.

**Future Milestones**

- Issue filtration equipment RFP, September 2019
- Solicit construction bids, August 2020.
- Substantial Completion for secondary water source project anticipated in September 2021.

**Background**

The project is for design and construction of a secondary water source, for when the primary water source – Blue Lake water treated with ultraviolet (UV) radiation – is unavailable. Blue Lake water will not be available when the Electric Department inspects and maintains the penstock providing water from the dam to the power plant. Blue Lake water may also require filtration – not just UV treatment – if turbidity levels continue to exceed regulatory thresholds. Total project cost is estimated at \$18 million.

Funding for the project is provided by:

- \$150,000 – Working Capital
- \$380,000 – transferred from UV Disinfection project Working Capital
- \$17,620,000 – Alaska Clean Water Fund loan
- \$18,150,000 – Total Available Project Funding

Current Contracts: CRW Engineering Group, L.L.C. (design)	\$362,780
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**Crescent Harbor Float Replacement – Phase I (DESIGN PHASE)**

**Milestones This Period**

- Authorized procurement of floats through Progressive Design-Build contract with Turnagain Marine Construction, August 2019.
- 65% Harbor Plans submitted and reviewed August 2019.
- 65% Cost estimate submitted August 2019.

**Future Milestones**

- Review and comments on 65% cost estimate, September 3, 2019.
- 95% plans submission, September 5, 2019.
- Construction project scheduled Fall 2019 to March 15, 2020.

## **Background**

The physical condition of Crescent Harbor has deteriorated to point where in-house repairs are no longer sufficient to adequately maintain the facility. Harbor Department staff and Public Works Department engineers have determined that the harbor now presents an operational and safety risk due to floats sinking, decay of wooden beams, corrosion of metal fixtures and failure of walk-down ramps to meet ADA accessibility requirements. The project has estimated total cost of \$14,025,000. Of this, the harbor grant will provide \$5,000,000. The Harbor Fund working capital has allocated \$1,000,000 for the project. The remaining \$9,025,000 is planned to be provided with \$8,025,000 in harbor revenue bond proceeds and the use of the Harbor Fund working capital in the amount of \$1,000,000 noted above.

Current Contracts:	Jacobs (project admin & Plan review)	\$90,090
	Moffatt and Nichol (third party estimating)	\$79,948
	Turnagain Phase I Design Build Contract	\$700,000
	Turnagain Float Procurement	\$6,282,666

## **Sitka Seaplane Base (SPB) (PLANNING PHASE)**

### **Milestones This Period**

- Submitted AIP Grant Application and CBS Assembly accepted AIP Grant offer on 8/27/19.

### **Future Milestones**

- With Assembly approval of the AIP Grant, prepare and execute consultant contract and start project.

## **Background**

Assembly Resolution supporting the acquisition of the preferred location/land parcel for the Seaplane Base (SPB), October 9, 2018. The Assembly approved Supplemental Appropriations for FY19, Ordinance 2018-49, for the SPB. Finance Department submitted project information to FAA by October 31, 2018 – required step in order to be considered to receive any of the \$1 billion AIP Supplemental funding. Improvement or replacement of the Seaplane Base has been discussed on and off for the past two decades. Part of the due diligence, staff is researching the necessary staffing, money, and land acquisition needed for adequate maintenance, operations and reporting for the project. The Seaplane Base study, which included an Economic Impact Study, showed that property on Japonski Island was the preferred site for the SPB. The AIP grants from FAA could help fund planning, design, land acquisition, and construction costs for the new SPB. \$16 million is the estimated Project Cost submitted to FAA for AIP grant funding, which may require (6.25%) matching funds from CBS, unless the project wins a grant from the Supplemental AIP funding, which funds 100% without any required match.

## **Brady, Channel and Eagle Way Lift Station Rehabilitation (DESIGN PHASE)**

### **Milestones This Period**

- Received 65% design drawings, specifications and cost estimate for lift station rehabilitation project.

### **Future Milestones**

- Bid period: October to November 2019.
- Construction notice-to-proceed, November 2019.
- Rehabilitate lift station, Winter 2019 - Spring 2020.

### **Background**

Eagle Way Lift Station is responsible for pumping all sewage east of Eagle Way toward the Wastewater Treatment Plant (WWTP). Brady Lift Station is responsible for all sewage north of Brady Street. Channel Lift Station is responsible for an apartment complex and one private residence on Halibut Point Road. All three lift stations require excess maintenance due to corrosion and/or outdated pumping equipment. Project will rehabilitate lift stations, re-using existing infrastructure to the extent feasible. Funding for the project is provided by:

#### *Eagle Way Lift Station*

\$250,000 – DCCED grant

\$220,000 – Wastewater Fund Working Capital

#### *Brady Lift Station*

\$217,400 – ACWF loan

\$165,000 – Wastewater Fund Working Capital

#### *Channel Lift Station*

\$300,000 – ACWF loan (left over from larger, four-lift station loan)

\$100,000 – Wastewater Fund Working Capital

\$1,222,400 – Total Available Project Funding

Current Contracts: DOWL (design)

\$128,930

## **Bio-solids Municipal Landfill Expansion (PLANNING & DESIGN PHASE)**

### **Milestones This Period**

- COE permit submitted and under advertisement by COE for comments.

### **Future Milestones**

- COE permit expected, September 2019.
- Bid Construction project, September 2019.
- Construction planned to start, Fall 2019.

### **Background**

The project is required because the existing limits of the Bio-Solids Landfill are nearing available storage limits. A COE permit is required to expand the limits of the landfill to the current DEC permit. The project is funded in fiscal year 2018 for \$500,000.00.

Current Contracts: Stantec (design)

\$48,019

## **Gary Paxton Industrial Park Access Ramp (PLANNING PHASE)**

### **Milestones This Period**

- PND completed Memorandum on Onsite Wash Water Schematics, Equipment and Temporary Wash Down Facilities Research, August 23, 2019.

### **Future Milestones**

- Complete change order tasks and scoping study, September 30, 2019.

### **Background**

The project includes planning and design for a multipurpose boat ramp for the Gary Paxton Industrial Park. The ramp is to be associated with the new existing barge ramp constructed adjacent to the Boat Building Lot. Project funding of \$40,000 provided in Gary Paxton Industrial Park Budget. Additional funding approved by Assembly March 3, 2019 for \$21,960 for a total of \$61,960.

Current Contracts: PND Engineers Inc. (design) \$49,716

## **O'Connell Lightering Float Pile Replacement (CONSTRUCTION PHASE)**

### **Milestones This Period**

- Final project closeout paperwork, late August 2019.

### **Future Milestones**

- Project Warranty inspection June 24, 2020.

### **Background**

With lightering traffic reduced due to cruise ships mooring at Old Sitka Dock, and what lightering remains shifting to the Crescent Lightering Facility near Harrigan Centennial Hall, Harbor Staff have found O'Connell to be a popular moorage location for yacht owners. However, the existing piling at the O'Connell Lightering Float were installed too shallow to support yacht moorage as evidenced by several piles being displaced during a storm event. This project will replace all piling at the facility with new rock-socketed piling specifically designed to support large yachts. The Assembly approved an appropriation of \$280,000 from the Harbor Fund Undesignated Working Capital on September 12, 2017, on 2<sup>nd</sup> reading. This amount was insufficient given regulatory agency feedback and timeframes. An additional \$290,000 appropriation from the Harbor Fund Undesignated Working Capital was approved by the Assembly on March 27, 2018, on 2<sup>nd</sup> reading.

Current Contracts: PND Engineers (design) \$35,380  
Turnagain Marine (construction) \$483,800

## **Lincoln Street Paving – Harbor Way to Harbor Drive (DESIGN PHASE)**

### **Milestones This Period**

- No significant milestones achieved.

### **Future Milestones**

- Submit application to DOT for 2019 Alaska Community Transportation Program call for projects (STIP Needs List), due September 15, 2019.

- Project purpose and vision to be revisited with community and Assembly input, beginning September 2019.
- Construction anticipated Fall 2020 to Spring 2021.

**Background**

The project includes replacing non-ADA-compliant curb ramps, failing storm drain, limited curb, gutter and sidewalk and all asphalt pavement on Lincoln Street from approximately Harbor Way to Harbor Drive. Red concrete crosswalks are planned to be bid as an additive alternate. Funding for the project is provided by:

\$1,760,000 – General Fund  
 \$105,000 – CPET Funding  
 \$20,000 – Water Fund  
\$20,000 – Sewer Fund  
 \$1,905,000 – Total Available Project Funding

Current Contracts: Professional and Technical Services, Inc.	\$394,986
(Lincoln portion of Lincoln & Katlian contract)	
Anderson Land Planning (design)	\$5,000

**Katlian Street (DESIGN PHASE)**

**Milestones This Period**

- No significant milestones achieved.

**Future Milestones**

- Submit application to DOT for 2019 Alaska Community Transportation Program call for projects (STIP Needs List), due September 15, 2019.
- Finalize easements by end of October 2019.
- Construction anticipated Spring/Summer 2020.

**Background**

The project includes replacing non-ADA compliant curb ramps, failing storm drain, and limited curb, gutter and sidewalk and all asphalt pavement on Katlian Street from Halibut Point Road to the MSC. Currently, funding for the project is provided by:

Total Available Project Funding: \$747,868 (General Fund).

Current Contracts: Professional and Technical Services, Inc.	\$394,986
(Lincoln & Katlian design projects, combined)	

### **Knutson Drive Road Repair (INVESTIGATION PHASE)**

#### **Milestones This Period**

- DOWL geotechnical exploration and recommendations report completed August 2, 2019.

#### **Future Milestones**

- Review internally and discuss next steps: funding, design and repair plan.

#### **Background**

CBS engaged with DOWL in June 2019 to investigate evidence of road failure in two locations on Knutson Drive. The outside edge of the roadway is settling and the guardrail is slowly sinking and falling away from the street. The consultant was hired to study the road failure, potential causes, and evaluate the potential risk of a more significant road failure.

Current Contracts: DOWL \$47,549.50

### **East DeGroff Water, Sewer and Street Repairs (CONSTRUCTION PHASE)**

#### **Milestones This Period**

- Landscaping and project clean-up completed.

#### **Future Milestones**

- Establish transitional configuration of DeGroff – Sawmill Creek Road intersection in September. ADOT plans to re-build this intersection in 2021.
- Project closeout in September.

#### **Background**

The project includes replacement of aging, failing water, sewer and storm drainage infrastructure in DeGroff Street from Hollywood Way to Sawmill Creek Road. The project will replace all pavement, curb, gutter and sidewalk. Scope will also include utility trenching work in Sawmill Creek Road, ahead of an Alaska Department of Transportation project to re-pave SMC in 2019 or 2020. Funding for the project is provided by the following sources: \$2.24 million from FY2015 ADEC Water and Sewer Loans, \$175,000 from the FY17 Water Enterprise Fund and \$45,000 from the FY17 Wastewater Enterprise Fund and \$300,000 from the FY18 General Fund.

Current Contracts: PND Engineers (design) \$144,747  
K&E Alaska (construction) \$2,170,978

### **Nelson Logging Road Upgrades (CONSTRUCTION PHASE)**

#### **Milestones This Period**

- No significant milestones achieved.

#### **Future Milestones**

- DNR Survey by North 57 Surveying to prepare easement plan, September 2019.
- Final Project pay request.
- Final Project closeout September 2019.

## **Background**

The project includes replacing both inadequate bridges, realignment at HPR intersection to raise the road elevation out of the stream floodplain, upgrading Nelson Logging Road to include drainage improvements, resurfacing, widening, and pedestrian amenities. Funding for the project is provided by a \$2,343,000 State of Alaska Department of Commerce Community and Economic Development Grant.

Current Contracts:	LEI Engineers & Surveying (design)	\$471,120
	K & E Alaska, Inc (construction)	\$1,544,280

## **Davidoff Storm Sewer Rehabilitation (CONSTRUCTION PHASE)**

### **Milestones This Period**

- No significant milestones achieved.

### **Future Milestones**

- Design consultant to review camera footage of slip-lining installation in September, prior to full payment to construction contractor.
- Project closeout in September.

## **Background**

The project includes rehabilitation and/or replacement of deteriorated storm drain infrastructure including two 30" and two 36" metal culverts and two metal storm structures adjacent to Davidoff Street, between Charteris Street and HPR. Funding for the project is provided by:

\$350,000 – General Fund FY2018

\$150,000 – General Fund FY2019

(\$100,000) – transferred to Peterson Street Sewer Rehab project

\$400,000 – Total Available Project Funding

Current Contracts:	Stephl Engineering (design)	\$37,500
	K&E Alaska, Inc. (construction)	\$289,172

## **Airport Terminal Improvements (DESIGN PHASE)**

### **Milestones This Period**

- No significant milestones achieved.

### **Future Milestones**

- Approval of the 30% TSA design submittal following 30% review meeting, scheduled for early September 2019.
- Complete the 35% revisions for the 'rest of the terminal improvements design' & move into the Design Development Phase (65%) where the Improvements will be developed & defined in separate phases for construction & funding.
- ADOT involvement 65%, especially regarding potential FAA AIP funding & Improvement staging.



- Other funding sources for terminal improvements beyond the PFC/Bonding and AIP grant requests are being developed for consideration, including airport terminal user fees and TSA grants for screening/security improvements.
- Phased construction has been delayed to 2020 through 2023 due to the Federal Government shutdown at the end of 2018.
- Still awaiting and anticipating the State of Alaska DOT sending the CBS information about the upcoming parking lot management changes and options.

**Background**

The Airport Terminal Improvement Project is intended to remedy some of the existing critical problems identified in the Airport Terminal Master Plan 2008-2011, including working conditions in the baggage make-up area and TSA baggage screening area, as well as problems with congested passenger queuing, screening, baggage, fish boxes, waiting areas and passenger flow. CBS accepted a TSA design grant in the amount of \$158,569.25 to design specific improvements to the TSA Baggage Screening Area. Other areas impacted by these design changes are ineligible for the TSA design funding. The Assembly approved moving forward to the 65% Schematic Design Milestone for the preferred concept plan that was presented in the Assembly work-session August 8, 2017. Passenger Facility Charges (PFC) were applied for and approved by ADOT and FAA. Collection of the PFCs began May 1, 2018 and will. The total anticipated revenue collection over the 20-year period of collection is \$6,840,000.00, which is anticipated to finance the \$4,025,000 revenue bond along with its fees and debt service.

The current estimated cost for the project as identified is approximately \$15-million. The current funding plan outlines the following components:

- |                                     |              |                                |
|-------------------------------------|--------------|--------------------------------|
| • Passenger Facility Charge Revenue | \$4,025,000  | Bond in progress               |
| • TSA Funding                       | \$3,397,500  | Unsecured                      |
| • Eligible AIP Grant Request        | \$10,283,954 | Unsecured                      |
| • Potential User Fees & Airline     | TBD          | – dependent on securing grants |

Current contracts: MCG Architects (design) \$449,069

**Peterson Storm Sewer Rehabilitation (DESIGN PHASE)**

**Milestones This Period**

- 80% plans submitted for review.
- 80% plan review comments submitted to consultant.
- Preliminary design for Wachusetts Street culvert.

**Future Milestones**

- USFW NEPA Evaluation.
- Bid construction project, May 2020.
- Complete construction work, September 2020.

## **Background**

The project includes replacement of deteriorated 60" corrugated metal culvert crossing under Peterson Street, allowing for fish passage. Funding for the project is provided by:

- \$150,000 – General Fund FY2019
- (\$50,000) – transferred to Davidoff Street Sewer Rehab project
- \$ 60,000 – U.S. Fish and Wildlife Service Fish Passage Program grant
- \$ 55,000 – U.S. Fish and Wildlife Service Fish Passage construction grant
- \$215,000 – Total Available Project Funding

Current Contracts: DOWL (design) \$78,072

## **Police Station Planning Study (PLANNING PHASE) - 99% complete**

### **Milestones This Period**

- Completed title search for the City/State Building property and adjacent parking lot. Results included in final report.
- Police Station Planning Study final report completed.

### **Future Milestones**

- Distribution of the final report September 10, 2019 Assembly Packet.

## **Background**

The Sitka Police Department and jail occupies one-third of the first floor in the City/State Court/Office Building and does not meet current industry standards. The City/State Building was built in 1974-76 in partnership with the State of Alaska. It is unsafe and severely inhibits the effective delivery of police service to Sitka. Expenses for maintenance and operations, per 1993 December agreement, are split (34% CBS and 66% State) based on the occupancy remaining within the building. Maintenance of the facility and its building systems, along with replacement of non-functional and obsolete infrastructure, has not kept pace with facility needs. Repairs to the facility to address its deferred maintenance are conservatively estimated to exceed \$1 million. How these costs are to be shared is to be determined, and is complicated by the shared ownership of the facility with the State of Alaska. Given Alaska's current fiscal status, reaching a timely cost-sharing agreement is a point of significant concern.

Current Contracts: Stantec (planning) \$57,558

## **MAINTENANCE ACTIVITIES**

### **Streets**

- Graded gravel roads and dust control.
- Overlaying gravel roads.
- Street sweeping.
- Painted crosswalks, stop bars, and no parking curbs.
- Started ditching and planning for Winter.
- Buried approximately 80yds of bio-solid material from WWTP.

## **Central Garage**

- Performed 36 mostly preventative maintenance and minor repairs.
- One Central Garage mechanic filling in at the Scrapyard.
- Researched many different vehicle tracking systems. Have narrowed them down to the following best candidates for our fleet that provide vehicle tracking, driver habit tracking, and virtual mechanic.
  - Vehicle Gateway - \$37,560 per year for 71 units
  - Vehicle Tracking Solutions – Silent Passenger - \$27,240 per year for 71 units
  - Harman Spark (limited to passenger vehicles only) - \$6,530 for the first year for 51 units out of the 71 vehicle fleet (\$80 one time purchase of unit & \$48 annual fee per unit)
  - Units that are significantly cheaper appear to have reliability concerns.

## **Scrapyard**

- Shipped 6 gondolas, totaling 110,080lbs (9.1 tons/gondola).

## **Grounds Maintenance**

### COMPLETED:

- 3 of 4 temporary hires are done working for the season.
- Seasonal rotation for mowing and maintenance on grounds and athletic fields.
- Athletic field preparation for special events/games for the following:
  - Support to Adult Softball Association – Kimsham Complex & Moller – prepping for Mud Ball Tournament
  - Fall baseball program – Moller
  - Football program – Krueger Field and Moller
  - Soccer program – Krueger Field and Moller.
- Thimbleberry trailhead brushing completed.
- Cleaned up Herring Cove parking lot and fire pit area.
- Keet Gooshi Heen Athletic Fields – brushed fence line.
- Sitka High School – weeded and pruned vegetation in specific beds.
- Assisted Sitka Cycling Club with installing a Fix-It station on corner of Lake and Lincoln Streets.
- Repaired footings at Community Playground, due to standing water in footings at the entryway totems. Possibly not all sand was removed prior to group install.
- Repairs made to Moller Batting Cage membrane
- Cleared vegetation to open up view point for security line of site by cruise ships around mooring facility at Crescent Harbor. Added to seasonal rotation.
- Provided support for Street Crew with painting.

### ONGOING:

- Goddard Hot Springs – damage done to hot water supply line. Determined repairs will be made in the Fall, when site is not heavily used and rains fill the cold water supply source.
- Kimsham Complex needs attention on Field D (Krueger) to fill-in settling areas.

- Working on updates on policy and procedures for training, rotation plans, and work management for next season's crew.

## **Building Maintenance**

### COMPLETED:

- Airport hot water return line emergency repair (3<sup>rd</sup> leak in same line, different section of the building).
- Airport roof/conduit leak emergency repair.
- Tom Young Cabin:
  - Investigated report of leak in cabin's oil stove.
  - Seasonal stove preventive maintenance.
  - Repair to cabin front deck, due to broken deck board.
  - Repair to outhouse restroom door.
- Public Service Center – replace circulation pump off boiler.
- Preventive maintenance schedule – normal operations. **NOTE:** Due to limited staffing, resources, and other priorities, a number of monthly & quarterly after-hours work had to be deferred.

### ONGOING:

- Waste Water Treatment Plant heat detector issues. Working with contractor.
- Police Department replacement in progress for two broken windows - coordinating with contractor.
- Airport luggage cart maintenance.
- City Hall utility counter modification – schedule around work hours to finalize cabinet removal, carpet repairs, and IT networking.
- Harrigan Centennial Hall gutter membrane installation – received bid price (funding based off original CIP).
- Library interior LED lighting – issue with restroom corridor fixture. Stock arrived, problem with electrical requiring access, need to cut into floor of mechanical space.
- Marine Service Center – asphalt patches around exterior of building, work scheduling in process.
- Marine Service Center interior lighting – having to work around schedule of occupants – busy season.
- Marine Service Center condenser – construction bid packet being finalized. Final review by engineering firm underway, before packet goes out to bid.
- Police Department – quote for heat pump option.
- Police Department – HVAC plan for short term solution and long term planning.
- Researched security camera options for athletic and recreation facilities. Stock on order.
- Transfer Station building project continuation by Sitka High School. Working with contractors on electrical, mechanical, plumbing plans/bids.
- Senior Center kitchen hood suppression – scheduling work with contractor September 13<sup>th</sup> 2019.

- Scheduling annual fire inspection and back flow preventer inspection.

MONITORING:

- WWTP boiler circulation pump 1 has leaking flanges.
- WWTP fan unit 2 failed and temporary fan was installed (we will continue to monitor until renovation). Fan unit is for storage area exhaust.
- Harrigan Centennial Hall heating in room 117.
- Harrigan Centennial Hall – tile floor cracking common areas.
- Homeless activity around Library campus.

## SANDY BEACH AND HALIBUT POINT GENERATOR REPLACEMENT

The 1982 Onan generators at the Sandy Beach and Halibut Point lift stations had reached a point that replacement parts were difficult or impossible to acquire. Given that



*Old Generator on Trailer*

these are emergency back-up generators, it was necessary to replace the generators and transfer switches at both locations. These generators are relatively modest in size, so the physical swap of the equipment was completed in-house. Final wiring and system programming was completed by Sitka Electric Inc. and a representative from the generator supplier, NC Machinery.

Work on the first generator at Sandy Beach began in June 2019. The first step was to bypass and remove the large transfer switch. The lift station was set up to run on a trailer-mounted generator in the event of a power outage. Once the transfer switch was bypassed, the old generator could be removed from the building. Crews unbolted the generator from its mounts and lifted it onto steel pipes using a shop-built levering device affectionately referred to as “The Strong Hand”. Each generator weighed roughly 2000 pounds making lifting and maneuvering in tight spaces difficult. Once the generator was on pipes, crews were able to roll the generator off the pad and out the back of the building. A set of intake louvers were tipped out of the building wall to provide a large opening to remove the generator from the Sandy Beach building. The old generator was lifted onto a trailer using a rented fork lift with an extending boom. The new generator was installed in the building in a reverse of the process above. To match the new generator to the existing engine exhaust and cooling system a set of pedestal bases and exhaust adapter had to be machined by Wastewater staff.

Work on the second generator at Halibut Point began in July of 2019. The transfer switch and electrical was



*Hoisting the New Halibut Point Generator*

bypassed in the same fashion as Sandy Beach. The location of the generator building prevented the intake louvers from being removed, so the door and frame had to be removed from the building to allow space for the generator to be removed. Crews used the Strong Hand to lift the generator onto pipes for rolling. Once the generator was out the door, crews used a crane from the work truck to lift the old generator onto a trailer. The new generator was lifted off the trailer and set near the doorway, then rolled into position on pipes. Again, shop-fabricated pedestal bases and exhaust adapter were needed to match existing equipment.



*New Generator in Place at Halibut Point*

In late July and early August, Sitka Electric completed the electrical installation connecting the new generator and transfer switch to the building electrical. On August 14<sup>th</sup> and 15<sup>th</sup>, the technician from NC Machinery was onsite to program the new transfer switches and commission the new generators.