



City of Grand Island Utilities Department Annual Report for 2017



Utilities Department – Highlights for 2017

Production Division

Platte Generating Station

The Production Division completed 1,093 corrective work orders and 2,995 preventative work orders. A list of the major items are listed below.

- A tube rupture on the main boiler required a forced outage at Platte Generating Station (PGS). Staff did a great job getting the unit into a safe condition and had contractors on-site to make the repairs. Operations returned the unit back to service once repairs were made. A temporary auxiliary boiler was used during the outage at PGS while the auxiliary boiler was out of service for a re-tube project. The temporary boiler was operated for building heat and kept the unit from freezing.
- The Auxiliary Boiler Re-tube Project was completed successfully.
- Operations continue to make adjustments to the lime slaking process that is used to scrub acid gases from the flue gas.
- Boiler feed pump 1B was reinstalled after the re-build was completed.
- The generating unit was shut down to repair a leak in the boiler feed piping pump discharge line.
- While the unit was shut down, the duct from the spray dry absorber to the bag house was cleaned as lime ash had built up from the boiler tube rupture increasing the moisture in the ash system.
- The Spring Outage was completed. This included cleaning the precipitator, Scrubber and Bottom Ash Systems.
- Two battery banks were load tested and it was found that the Distributive Control System Battery Bank had several bad cells and was replaced after 15 years of service.
- The control room and relay room heating, ventilation and air conditioning units were replaced.
- Boiler tuning was completed to meet the Mercury Air Toxics Standard (MATS) requirements.
- On July 29, 2017, another boiler tube leak developed requiring PGS to go off-line. The ruptured tubes were cut out and new tubes were welded in place. The steam and water from the leak ran into the fly ash economizer hoppers plugging the fly ash system. It took several days to tear apart the piping and water blast the hardened fly ash from the piping. The water also found its way into the fly ash silo, which also had to be vacuumed out.
- During this outage, it was found that the induced fan damper positioner had slipped on the shaft, not allowing the unit to reach full load. It was re-adjusted and the unit was returned to full load status.
- The major fall outage was completed, with work including:
 - Precipitator and duct cleaning
 - Turbine overhaul
 - Boiler inspection and repairs
 - Spray dry absorber coating
 - Firewater storage tank interior painting
 - Railroad track repairs
 - Bottom ash controls upgrade
 - Inspection and testing of motors
 - Fire system inspection
 - Diesel fuel tank cleaning and inspection
 - Numerous valve repairs
 - Breaker testing

Burdick Station

- A black start test of the Mobile Generating Station to Substation G was completed. The Production Division is ready to restore power if all other sources of power into Grand Island are not available.
- Burdick Unit #3 was decommissioned.
- A damaged crossfire tube was discovered between cans 8 and 9 on Gas Turbine #2 during a run on liquid fuel. The maintenance crew repaired the tube.
- Wellfield Wells #6 and #7 had CO₂ injecting cleaning completed.
- The #2 bearing on Gas Turbine #3 was replaced through the exhaust tunnel. The unit ran successfully after the replacement was completed.
- The battery banks at Burdick Station were load tested. One bank had four bad cells that were replaced under warranty. GT#2 had two cells fail and replaced.
- The bleed heat return valve controller failed on GT #3. A new one was installed and configured by plant personnel. Gas Turbine #3 was placed back into service.
- Diesel fuel was transferred from Platte Generating Station to Burdick to perform fuel tank inspection at Platte, then transferred back to Platte to perform diesel fuel tank inspection at Burdick. The tanks are inspected every 10 years to ensure there is no corrosion developing that could lead to leaks.

Water System

- Secondary containment was installed at the Wellfield Well Pump House for the electrical transformers. This will contain any oil from the transformers that set next to the Well Building.
- The elevated water storage tower had significant work completed with the construction of the foundation and pedestal.
- The uranium removal media was replaced in Vessel #1 of Train #1; tested and put back into service.
- Burdick Reservoir was drained, cleaned, inspected, chlorinated and returned to service.
- Roger's Reservoir #1 was cleaned and inspected.

Water Department

In 2017 the Water Department performed the following:

- 323 Work Orders were opened, closed, or are pending
- 47 Trouble Calls were taken care of by Water Shop personal after hours
- 2 Ludlow fire hydrants were changed out
 - College & Huston Streets and Division & Clark Streets
- 2,561 Spring hydrants were checked
- 2,582 Fall hydrants were checked
- 1,243 fire hydrants were painted
- 212 Dead End Fire hydrants were flushed
- 4 fire hydrants were repaired or replaced that had been damaged by hit and run drivers
 - 509 E. Memorial Drive
 - 3320 W. Old Hwy 30
 - Bismark & Locust Streets
 - Talc Drive
- 4 private fire hydrants were repaired or replaced
 - Video Kingdom
 - 3051 S. Locust
 - State & Sagewood (2)
 - JBS Swift

- 10 Broken water mains were repaired (2" through 12")
 - 2100 N. Broadwell Avenue
 - 10th & Howard
 - 5th & Eddy
 - 2006 W. 11th Avenue
 - 411 E. Sunset
 - Blaine & Phoenix Streets
 - 14th & Webb
 - 3215 W. State Street
 - State & Huston
 - South of the Airport
- 2 water main and services damaged by contractors were repaired
 - 205 E. 10th Street
 - 716 S. Elm Street
- 9 4" through 18" line valves were added or replaced with new valves
 - College & Huston
 - 10th & Sherman
 - 7th & Kimball
 - 7th & Pine
 - Division & Oak
 - S. Front & Pine
 - 16th & Elm (2 valves)
 - 4th & Pine
 - Oak & Ashton
- 2,050 4" through 24" main line valves were exercised
- 25 water mains/line valves were turned off and on for plumbers and contractors
- 41 broken water services were checked by the Water Department
- 12 Backflow Preventers were tested for all City Departments
- 110 Fire Hydrant Meters with Backflow Assemblies were set out for contractors
- 6 ¾" Service Taps were made or replaced
- 72 1" Service Taps were made or replaced
- 29 Water Taps were made from ½" to 12"
- 48 1" test taps were done for plumbers and contractors
- 2 2" test taps were done
- 179 New water meters (sized 5/8" to 6") were installed
- 316 Water meters were replaced – sizes 5/8" to 6"
- 12 Meters were repaired or rebuilt
- 284,980 Gallons of water was sold to contractors or trucking companies
- 14 Private water services were located or traced
- 254 Water Services were turned off/on at the request customer service or due to backflow issues
- 4,624 Locates were performed through Diggers Hotline of Nebraska

Backflow Program

2017 Backflow Prevention Device Testing Statistics:

- ✓ 4,181 First Notice reminders were mailed
- ✓ 775 Certified Letters Delivered
- ✓ 181 48 Hour Notices left at the door
- ✓ 28 Water Services shut off for failure to test

2017 Backflow Prevention Device Installation Statistics:

- ✓ 35 First Notices to require installation were mailed
- ✓ 7 Certified letters were delivered
- ✓ 1 48 Hour Notice was delivered at the door

Transmission – Phelps Control Center

- Storm damage from the Christmas2016 Wind Storm was repaired along Airport Road near Substation C. This involved the rebuild of a portion of overhead line and the re-termination of cabling into the substation.
- The 115 kV Transmission Line 1093 from Substation E near JBS Swift to the Nebraska Public Power District (NPPD) Substation east of the City was rebuilt with new structures and conductor. This line is the original connection with NPPD and was due for an upgrade. This is the last line in need of upgrading as identified in the Master Plan conducted in 2015 by Black and Veatch.
- The construction of a new vehicle storage building at the service facility was completed. This was needed to house newer trucks that are larger than the older ones.
- The protective relaying panel for 115 kV Transmission Line 1145A was replaced. This is a tie line with NPPD and is the last line requiring upgrades to new protective relays.
- Three potential transformers were replaced on Substation H south 13.8 kV buss after one failed.
- New fiber was installed between Substation J and Platte Generating Station. This will improve communications to back-up servers located at Substation J.
- Replacement protective relays were purchased for the 115 kV transmission loop. These will replace obsolete relays that were installed nearly 20 years ago. Installation will occur as time permits.
- Early in 2017, Midwest Reliability Organization (MRO) informed Utilities Department Management that registration as a Transmission Operator (TOP) would be required. This signifies a significant increase in compliance responsibility for the department. Due to the cost of additional manpower and equipment that this registration would require, the decision was made to explore outside options. An RFP was issued resulting in three respondents. After evaluation, the decision was made to enter into a contract with Omaha Public Power District (OPPD) for Transmission Operator Services. This contract was signed in August with an anticipated services start date of February 1, 2018. Much of the second half of 2017 was focused on the development work necessary to make these services possible.
- A request for quotation for several new substation circuit breakers was issued. A contract was awarded and receipt of breakers is anticipated early in 2018.
- New fiber optic cable was installed between Phelps Control Center and the Water Shop. This cable will provide for future network upgrades.
- Animal guards were installed in various substation locations across the system to help prevent future disruptions.
- New revenue accurate meters were purchased for the 115 kV transmission system to replace obsolete meters. These meters will be installed as time allows.
- With the retirement of Burdick Steam Unit #1, breaker G-11 in Substation G was permanently disconnected. Future additional substation modifications will take place associated with Burdick unit retirements.
- The north Substation H transformer panel was replaced to install new protective relaying. This is the last of the Substation H transformer panels to be replaced.
- A Contract was signed with SolSystems for a 1 MW solar installation to be located adjacent to Substation E near JBS Swift. This is due to come on-line later in 2018.
- A Contract was signed with Sempra Renewables for a 50 MW wind facility to be located in Custer County in Nebraska. The farm is anticipated to go commercial in 2019.

Underground Division

- Planned rebuilds were integrated with service upgrades being done by customers. Combining the two met the need of new customers and maintenance of the system. Under this combination, five transformers and one medium voltage terminal made up of six cable runs and 31 cable terminations were installed. Projects in this classification included:
 - South Locust Strip Mall Pizza Hut – 1500 Block of S. Locust Street
 - Bosselman Enterprises – 1700 Block of S. Locust Street
 - Wheatwear complex – 1515 E. 4th Street
 - Residence at 2616 Chanticleer
 - Boarders Hotel – 3333 Ramada Road
- New customer services required the installation of 45 transformers and ten high voltage terminals made up of 58 cable runs and 188 cable terminations. Notable installations included:
 - Sterling Estates Subdivision – Ebony Lane, Pearl Place, Majestic Avenue, Royal Court, Sunrise Avenue and Monarch Avenue
 - Talon Apartments – 200 E. Highway 34
 - East Park Apartments – 558 Stuhr Road
 - Summerfield Estates – Meadow Way Trail, Diamond Drive, Quail Lane
 - Jefferson School – 1314 W. 7th Street
 - Residence – 2816 Engleman Road
 - Hardees – 2220 N. Webb Road
 - Med Express – 750 Allen Drive
 - Inland Truck – 4480 Gold Core Drive
 - Ditchwich Undercon – 4704 Gold Core Drive
 - Copper Creek Subdivision – W. Old Potash & Little Bluestem
 - Starostka Building – Engleman & Highway 30
 - GI Trailer – 5212 Antelope Drive
 - LaMexicana – 4th & Sycamore
 - Northwest Vet – 3010 N. North Road
- The transfer of existing overhead areas to underground where customer owned services were already underground and to relocate utility lines into easement areas. During these projects, six transformers, six runs of cable and 24 terminations were installed. Projects under this classification included:
 - Utilities Customer Service Center/Engineering – 1306 W. 3rd/315 N. Jefferson
 - Residence – 2825 N. Engleman Road
 - Residence – 3029 N. Shady Bend Road
 - Middleton Electric – open loop to Highway 30 and Industrial Lane
 - Contract Carriers – 2405 S. North Road
 - Island Landhandlers – 2419 S. North Road
- Areas scheduled for rebuild due to cable failure and degradation of the transformer cabinets and electrical components prompted the replacement of 28 transformers, eight medium voltage terminals, 41 runs of cable and 98 terminations. Projects under this classification included:
 - Grace Lutheran Subdivision – 700 & 800 blocks of East Bismark Road
 - Anita and Lindsay Subdivisions – 300 Block W. Hedde and 1500 Block S. Eddy Streets
 - Westgate Subdivision – Old Potash & Claude Road
 - Walnut Middle School – Hancock to Custer Avenue
 - Calvary Subdivision – 13th & Custer
 - Island Acres Subdivision – between State Street & Westside/Hancock to Webb Road
 - Fairway Villas – 1500 to 1700 blocks of Stagecoach Road

- Transformers were installed or removed for temporary service needs, repair or maintenance and/or customer service size changes accounted for the handling of 23 transformers, one medium voltage terminal, six runs of cable and 28 terminations.
 - State Street and Hwy. 281
 - Med Express construction trailer
 - Husker Highway & Highway 281 medical complex construction and trailers
 - Strip Mall at 118 Wilmar Avenue
 - Old Starr School for demolition
 - Lincoln School for additional classrooms
 - Residences at 2515 Riverview Drive, 1504 Stagecoach Road and 214 Shady Bend Lane
 - Adams & Stolley Park Road
 - Walgreens on 2nd Street
 - Central Nebraska Regional Airport original terminal
 - Holiday Gardens Apartments west of Wheeler Street
 - Farm Credit – 3333 Faidley Avenue
 - Sam’s Club – Diers Avenue
 - Fonner Park – Cattle Sheep Annex
 - Rowe Welding – East Highway 30
 - Peavey Elevator – 254 Cleburn Street
 - College Street & Webb Road area
 - Discount Tire construction site – Diers Avenue
 - Heritage Living Center construction trailer and Sagewood street lighting.
 - Nova Tech construction
 - Two sections of underground feeder capacity infrastructure were installed. One in the area of Koenig & Pine Streets to tie two overhead line sections and the second was a replacement due to wind damage of overhead line out of Substation C along Airport Road.

Overhead Division

- In 2017 the Overhead Division maintained and upgraded the overhead distribution lines which entailed 7,780 linear feet of single phase line and 5,550 linear feet of 3-phase line being rebuilt. These upgrades eliminated old primary lines and secondary service wires to provide safer and more reliable service to utility customers and to keep the interruption indices (SAIDI) and (SAIFI) well below national averages.
- Crews installed 5,600 linear feet of fiber from Phelps Control to the Water Shop. This will allow for the Utilities Department to have a separate network.
- Two new poles were installed for Hall County Emergency Management to upgrade their emergency warning sirens.
- In September a crew from Grand Island Utilities joined Lincoln Electric System and Loup Power to assist with the power restoration in Florida for 13 days after Hurricane Irma knocked out electricity in the state.
- In 2017, two utilities customers installed solar panels and co-generation accounts.
- Three streetlight poles were replaced with newly designed concrete or aluminum poles. The poles will support Verizon small cell nodes for future wireless expansion.
- Crews upgrade 2,250 linear feet of single phase to 3-phase wire from Stolley Park Road on Memorial Park Drive. This will accommodate the business expansion of Chief Carriers.
- Twenty-six American flags were installed on poles on Capital Avenue to show support for our veterans year around.
- Osmose Utilities inspected 753 poles last summer and found 43 poles that needed to be replaced.
- In an ongoing effort to maintain reliability with primary feeders, 19 switches/fused disconnects were installed or up upgraded.
- Seventeen secondary tap boxes were installed for service upgrades or new services.

- In 2017 six primary poles and 17 streetlight poles were replaced that had been damaged by motor vehicle accidents.
- The Overhead Division continued efforts to keep vegetation clear of power lines. There were only 18 reported outages that were attributed to trees. This was accomplished with the division's own Tree Trimming Crew and the use of a contractor clearing nine sections of lines and removing approximately 225 trees.
- In 2017, nineteen new LED lights were installed on new streets and in new residential subdivisions.
- Twenty streetlights from Webb Road to North Road were upgraded with new aluminum poles and 96 LED fixtures.
- Crews converted 278 High Pressure Sodium streetlights to LED in 2017.
- The automated meter infrastructure project continues to be a success. There are currently 179 water meters installed and 2,918 electric meters. The daily read percentage has been 99%. The system has been useful for meter readings, performing disconnects and troubleshooting for both water and electric.
- Line Crews installed or replaced 268 transformers and two capacitor banks. This has improved system reliability and power quality for utility customers as load continues to increase.
- In 2017 the Line Division implemented installing AMI meters when a customer is disconnected for non-payment. In the process approximately 1,500 meters were remotely reconnected without rolling truck. This also generated approximately \$75,000.00 in turn-on fees.

Utility Warehouse Division

- In 2017 the Utility Storeroom quoted, purchased, received and stocked \$2,141,401.15 worth of materials. This represents only the material that is on the inventory system.
- In 2017 the Storeroom issued \$2,626,416.86 worth of materials while salvaging, cleaning and restocking \$526,664.513
- The Storeroom purchased \$1,977,292.43 worth of items that are not on the inventory system for the Overhead, Underground and Storeroom Divisions.
- The Storeroom also process, weighed, stored and sold 67,186 pounds of scrap aluminum, copper wire, electrical brass and ACSR wire for \$70,853.51.
- The Utility Storeroom has not problems with the 2017 audit.

Utilities Engineering Division

The Utilities Engineering Division provides full engineering services for the Department's electrical and water infrastructure projects. Work involves research, design, plans and specifications, construction surveys, inspections, observation and maintaining accurate maps and data records of the related infrastructure activities. Over the past year, work involved 57 separate overhead and/or underground power line projects to provide service for new subdivisions or commercial developments and 18 public and 18 commercial water system projects which totaled over 19,600 linear feet of new water mains and service lines.

To accomplish the referenced projects, the Engineering Division performed the following:

- Drafting, editing or revising 519 CADD files and related database files
- Prepared 43 easement and/or permit documents for department projects
- Prepared 13 contracts and/or requests for proposals
- Inspected and tested for compliance water system improvement projects
- Performed project related construction surveys using high-accuracy GPS

- Implemented and maintained mobile technology resources for the Electric Overhead and Underground Divisions and the Water Division
- Provided training, maintenance and edited the web pages for multiple City Departments
- Full engineering services for paving a storage and parking area at the Line Department
- Project oversight for the vehicle garage and storage facility at 315 N. Jefferson Street
- Hosted the Heartland Community Food Bank's monthly distribution

LOCAL GENERATION 2017

BURDICK STATION, STEAM UNIT:	
UNIT #3, PCC METER	.000 MWh

BURDICK STATION, STEAM UNIT AUXILIARIES

GROFF ST. SUB. RESERVE SUPPLY	367.600 MWh
UNIT #3 RESERVE SUPPLY	528.100 MWh
BURDICK COOLING WATER	38,529 MWh
OIL FACILITIES	47,411
BURDICK STEAM NET TOTAL:	-981.640 MWh

BURDICK STATION, COMBUSTION TURBINES:

GT-1, PCC METER	272.100 MWh
GT-2, PCC METER	2,735.000 MWh
GT-3, PCC METER	1,936.200 MWh

BURDICK STATION, COMBUSTION TURBINE AUXILIARIES

GT-1, AUXILIARIES	121.760 MWh
GT-2 & GT-3 AUXILIARIES	1501
BURDICK COMBUSTION TURBINE NET TOTAL:	3,320.540 MWh

PLATTE GENERATING STATION:

UNIT #1, SUB D METER	323,436.944 MWh
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PLATTE GENERATING STATION AUXILIARIES

RESERVE SUPPLY TRANSFORMER	6,423.112 MWh
WAREHOUSE	209.400 MWh
PGS COOLING WATER	283.615 MWh
PLATTE GENERATING STATION NET TOTAL:	316,620.817 MWh

Copies:

- | | |
|----------------|-----------------|
| Tim Luchsinger | Travis Burdett |
| Ryan Schmitz | Jeff Mead |
| Darrell Dorsey | Keith Pobanz |
| Larry Keown | Darren Buettner |
| Tylor Robinson | Pat Gericke |
| Karen Nagel | Kathy Nelson |
| Cindy Martin | Phelps Control |

PARTICIPATION SHARES 2017

WAPA HYDRO	34,241.558 MWh
WIND PROJECTS	121,553.900 MWh
NEBRASKA CITY UNIT #2	231,654.000 MWh
WHELEN UNIT #2	56,306.200 MWh

INTERCHANGE & CITY DEMAND

INTEGRATED MARKETPLACE	
IMPORT	769,257.900 MWh
EXPORT	328,310.200 MWh
NET MARKET IMPORT	440,947.700 MWh

METERED ENERGY IMPORT TO GRAND ISLAND

LINE 1093	287,585.800 MWh
LINE 1145A	94,578.300 MWh
LINE 1145B	119,048.000 MWh
LINE 1149	20,811.024 MWh
LINE 1369	79,054.020 MWh
TOTAL TO GRAND ISLAND	601,077.144 MWh

METERED ENERGY EXPORT FROM GRAND ISLAND

LINE 1093	26.304 MWh
LINE 1145A	19,919.400 MWh
LINE 1145B	26,260.800 MWh
LINE 1149	93,206.880 MWh
LINE 1369	21,055.020 MWh
TOTAL FROM GRAND ISLAND	160,468.404 MWh

SPP Meter Calibration / Station Aux (Record Only)	338.960 MWh
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HOURLY PEAK DEMAND: 162.200 MW

DATE & TIME OF PEAK: July 19th, 1700

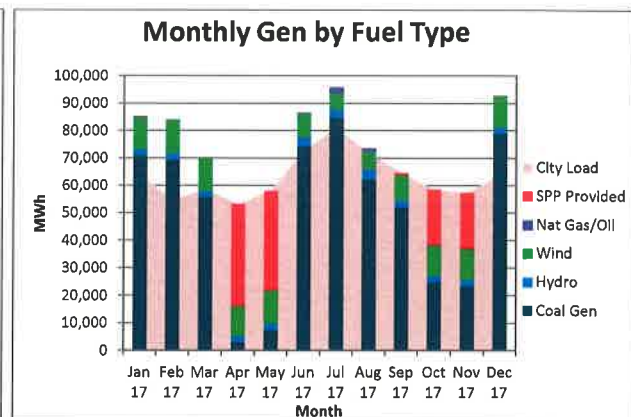
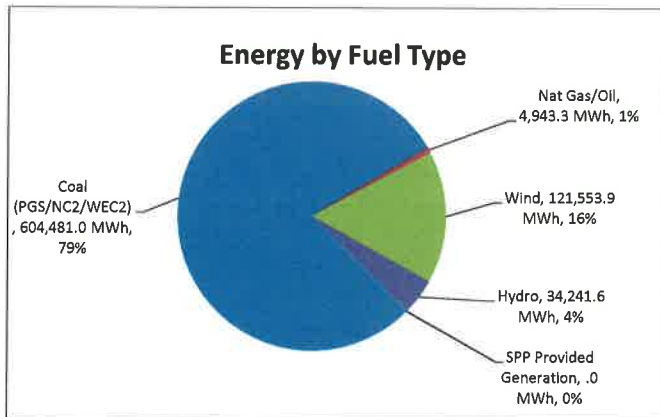
HOURLY MINIMUM DEMAND: 51.800 MW

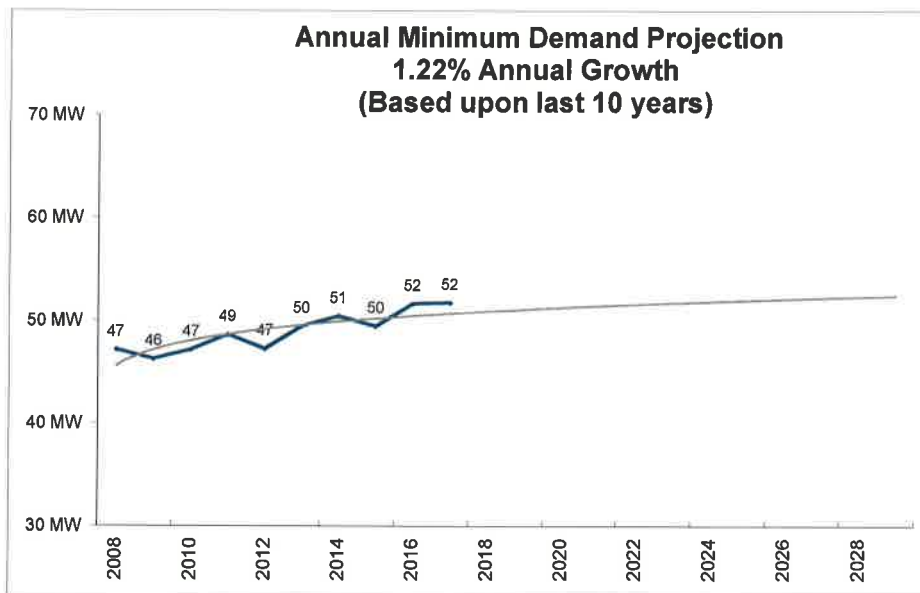
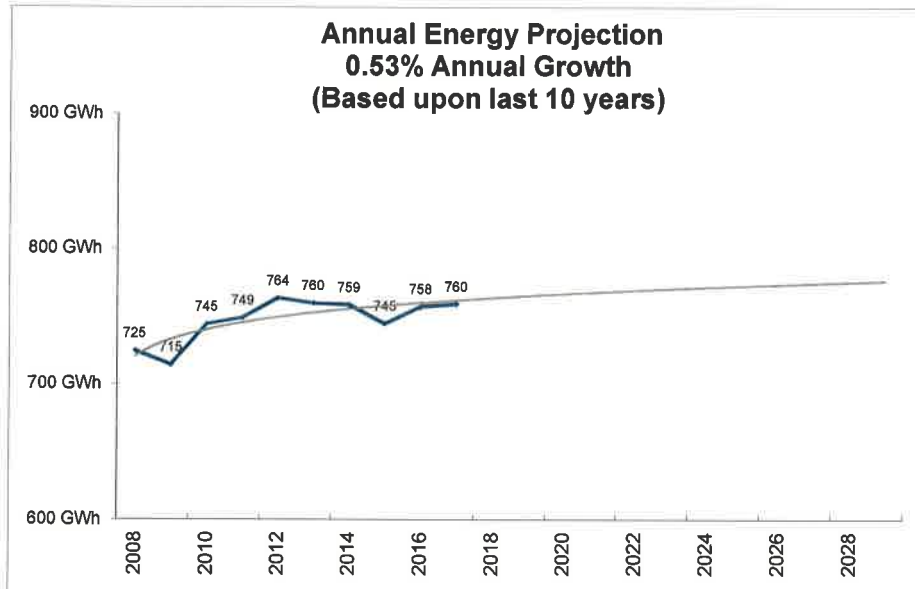
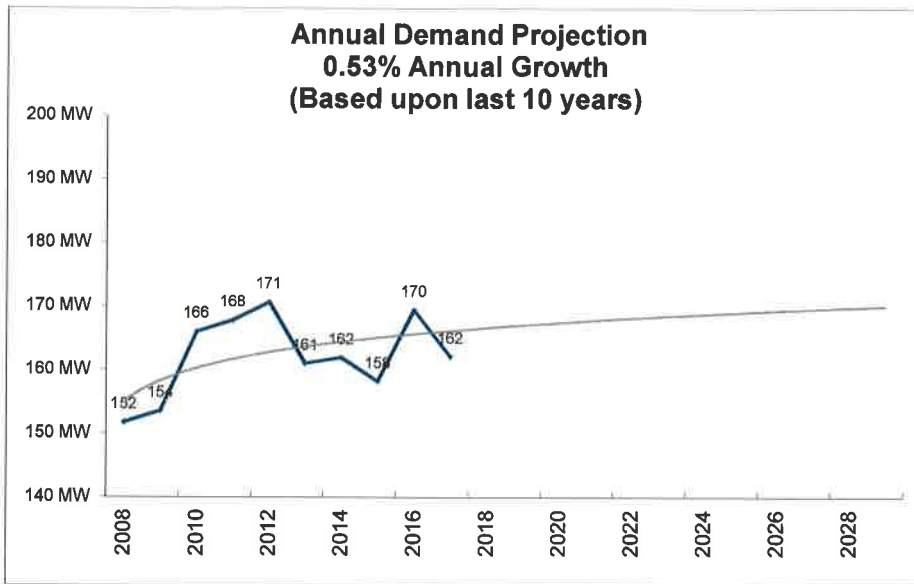
DATE & TIME OF MINIMUM: May 28th, 0300

SYSTEM NET GENERATION: 318,859.717 MWh

NET METERED IMPORT: 440,608.740 MWh

SYSTEM NET DISTRIBUTION: 759,468.457 MWh





Utilities Department
 Platte Generating Station
 Fiscal Year Fuel Summary
October 1, 2016 - September 30, 2017

Coal

Beginning Inventory	October 1, 2016	90,850.00 Tons
Total Coal Received		321,997.56 Tons
Total Coal Fired		-275,419.50 Tons
Total Cost Monthly Adjustments		-12,879.91 Tons
Coal Adjustments (Fiscal)		412.85 Tons
Final Coal Inventory	September 30, 2017	124,961.00 Tons
Average Coal Heat Value		8364 BTU/LB
Average Coal Sulfur		0.29%

PGS No. 2 Fuel Oil

Beginning Inventory	October 1, 2016	150,833.76 Gals
Total Fuel Oil Received		249,221.00 Gals
Total Fuel Oil Fired		-84,191.00 Gals
Other Fuel Oil Used		-7,814.20 Gals
Total Fuel Oil Adjustment		1,097.32 Gals
Final Fuel Oil Inventory	September 30, 2017	309,146.88 Gals

BURDICK STATION

No. 2 Fuel Oil

Beginning Inventory	October 1, 2016	199,702.80 Gals
Total Fuel Oil Received		-193,415.00 Gals
Total Fuel Oil Fired Gas Turbines		-2,315.00 Gals
Other Fuel Oil Used		0.00 Gals
Total Fuel Oil Adjustment		-503.84 Gals
Final Fuel Oil Inventory	September 30, 2017	3,468.96 Gals

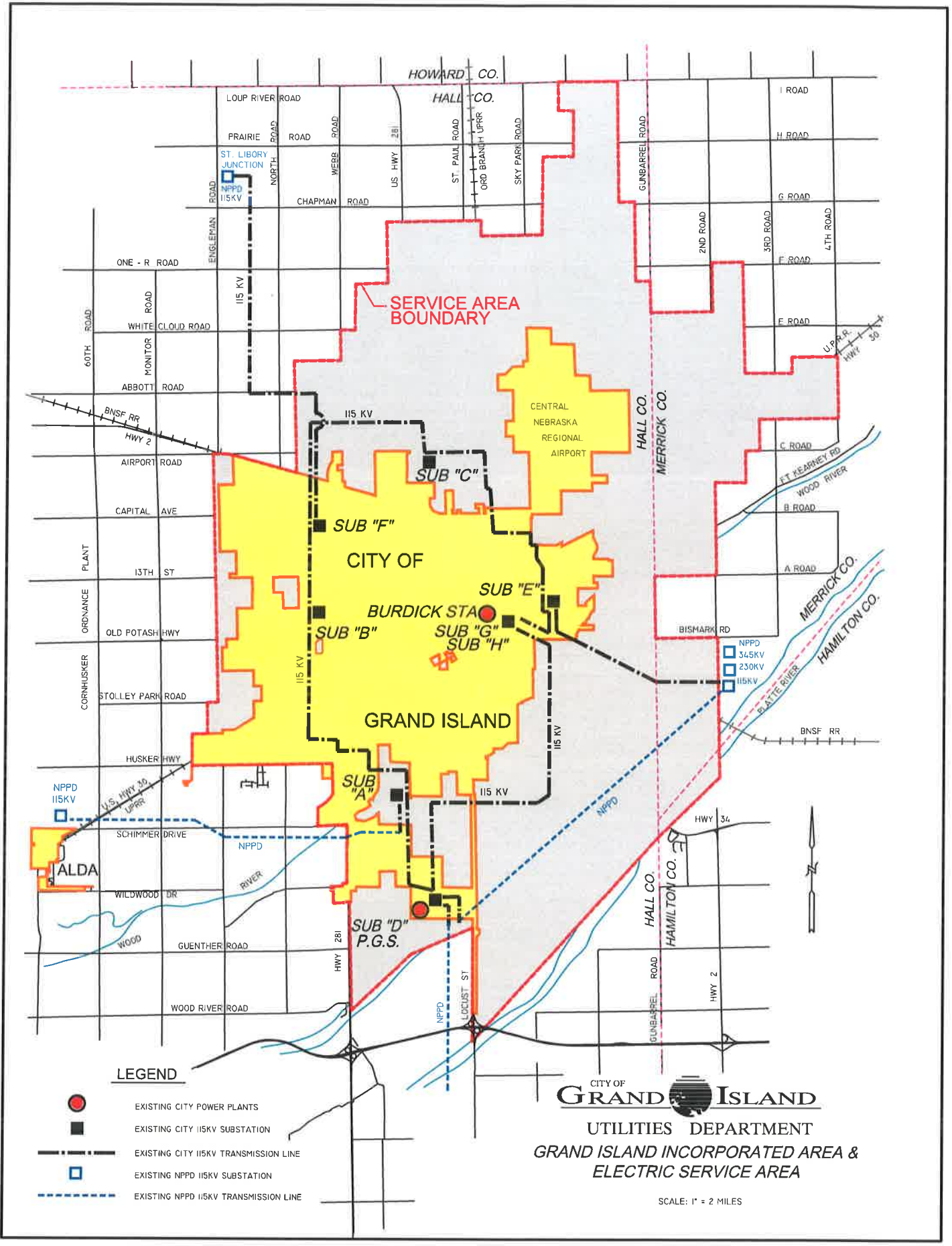
No. 6 Fuel Oil

Inventory	October 1, 2016	45,011.16 Gals
Total Fuel Oil Received		0.00 Gals
Total Fuel Oil Fired Unit 1		0.00 Gals
Total Fuel Oil Fired Unit 2		0.00 Gals
Total Fuel Oil Fired Unit 3		0.00 Gals
Total Fuel Oil Adjustment		0.00 Gals
Final Fuel Oil Inventory	September 30, 2017	45,011.16 Gals
Total No. 6 Fuel Oil Fired		0

Natural Gas

Total Gas Fired Unit 1	0.00 MCF
Total Gas Fired Unit2	0.00 MCF
Total Gas Fired Unit 3	8,722.00 MCF
Total Gas Turbine GT1	7,395.00 MCF
Total Gas Turbine GT2	43,038.00 MCF
Total Gas Turbine GT 3	28,526.00 MCF
Total Gas Fired	87,681.00 MCF

Revised 10/11/2017
 Lynn M/Darrell D-PGS
 Darren B-Finance
 Pat G-Utilities Admin
 Travis B/Keith P
 Ryan Schmitz
 Larry K/Cindy-Burdick



LEGEND

- EXISTING CITY POWER PLANTS
- EXISTING CITY 115KV SUBSTATION
- EXISTING CITY 115KV TRANSMISSION LINE
- EXISTING NPPD 115KV SUBSTATION
- EXISTING NPPD 115KV TRANSMISSION LINE

CITY OF
GRAND ISLAND
 UTILITIES DEPARTMENT
 GRAND ISLAND INCORPORATED AREA &
 ELECTRIC SERVICE AREA

SCALE: 1" = 2 MILES

CITY OF
GRAND ISLAND
 UTILITIES DEPARTMENT

2017 Electrical Feeder Summary

Distribution Lines

Line Type	Total (ft)	Total (mi)
OHL 3 Phase	1,574,947	298.3
OHL 1 Phase	469,319	88.9
OHL Unknown Phase	0	0.0
UGL 3 Phase	392,680	74.4
UGL 1 Phase	518,210	98.1
UGL Unknown Phase	0	0.0

Transformers

Polemount Transformers	Count	KVA
1 Phase	9,354	302,156
3 Phase	3	32,000
N/A	0	0
	9,357	334,156

Padmount Transformers	Count	KVA
1 Phase	2,331	90,562
3 Phase	910	910,480
N/A	0	0
	3,241	1,001,042

Total Connected KVA	1,405,293
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Capacitor Banks

Bank Type	Count
Switched	62
Fixed	57

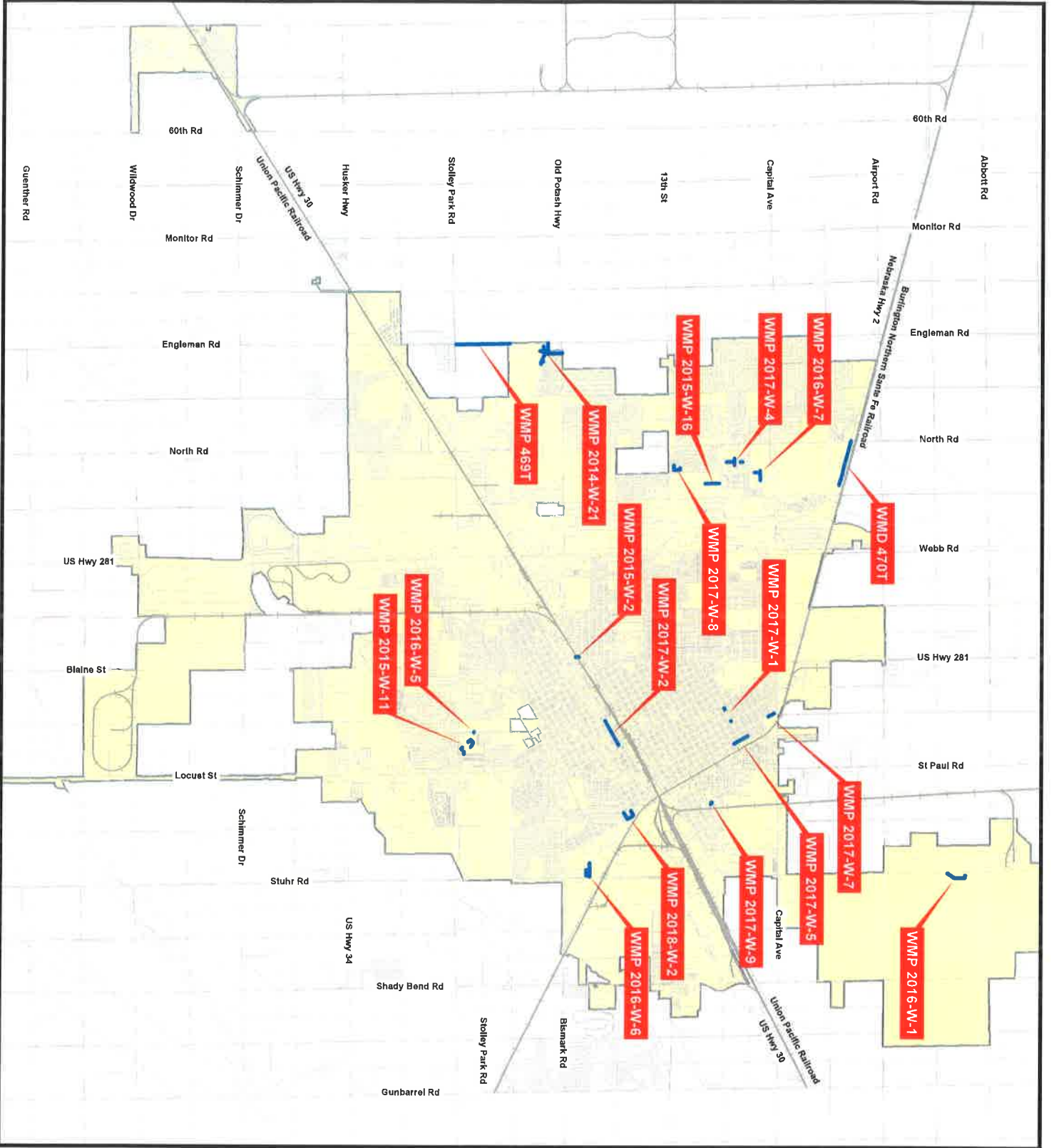
Utilities Department
 Platte Generating Station
 Fiscal Year Water Summary
October 1, 2016 - September 30, 2017

Report Totals


Water From Wellfield	4,107,485,690.08 Gals
High Pressure Wells	22,544,264.10 Gals
Burdick Wells	61,332,930.07 Gals
PGS Wells	554,807,175.00 Gals
Cleburn Well	0.00 Gals
Burdick Pumping Station	1,235,811,936.64 Gals
Pine Street Pumping Station	727,893,201.31 Gals
Rogers Pumping Station	2,232,393,043.50 Gals
Water Distributed to City	4,218,642,445.56 Gals
Water to Burdick Station	61,339,180.07 Gals
Water to PGS	555,109,075.00 Gals
Water Pumped - Permit 10266	4,107,485,690.08 Gals
Water Pumped - Permit 10302	638,684,369.17 Gals
Total Water Distributed	4,835,084,450.63 Gals
Total Groundwater Pumped	4,746,170,059.24 Gals
Water Unaccounted For	-1.87%
Burdick Station City Water Use	16,979,118.00 Gals
Pine Street Station City Water Use	263,331.20 Gals

Daily Maximum

Permit No. 10266 (Wellfield)	22,811,111.21 Gals	on	7/10/2017
Permit No. 10302 (In-Town Wells)	3,744,577.63 Gals	on	11/9/2016
Total Groundwater Pumped	26,309,537.58 Gals	on	7/10/2017
Water Distributed to City	23,038,732.34 Gals	on	7/10/2017




City of Grand Island
Utilities Department



Legend

- Watermain
- Parcel
- City Limits

2017
Construction
Districts/Projects
1/5/2018



Water Distribution
Network

