

Wastewater Equipment Replacement Plan

Current Year: 2019

- The Utility operates differently as compared to other City Departments. The DNR requires that we operate with an Equipment Replacement Fund,
- these guide lines are set up by the DNR and was approved by the BPW in 2001.

(Compliance Component)

- Using an equipment replacement fund to replace existing equipment ensures that the WWTP is setting aside funding to replace equipment before it fails.
- The CMAR report submitted annually to DNR has a financial section which indicates the Utility is using an E.R.F. for equipment replacement.

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Vehicle replacement

- The WWTP vehicles are used in a variety of different ways.
- Emergency response to Sewer backups, responding to power outages at Lift stations during and after storm events.
- Vac Jet, TV, and flusher trucks also have a compliance component. The Utility is required to flush and TV a targeted amount of miles of sewer each year.
- Other Utility vehicles are used for Industrial Pretreatment, Laboratory Testing, Routine maintenance of equipment, and infrastructure maintenance of sanitary and storm.
- Most all Wastewater equipment is used to stay compliant therefore we indicate Required or Mandate in request forms. (Mandated by DNR)
- It's important to have good reliable vehicles for maintaining the sewer collection system and continued DNR compliance at the WWTP.
- Utility uses a 10 year vehicle replacement schedule to ensure vehicles are reliable when needed.
- If vehicles are kept beyond 10 years more maintenance issues occur which can drive up operating budget repairs and also hinder response time to emergencies.
- The value of replacing vehicles before they are completely worn out is that Utility has success receiving a higher resale value as surplus equipment or selling to other departments, this method has value.

WWTP Equipment

- Most WWTP equipment is replaced or added during a major WWTP upgrade; this equipment lasts up to 20 years and usually is replaced at that time.
- One of the larger accounts in Wastewater operating budget is used to rebuild and perform O&M on a schedule to ensure reliability of the WWTP and Lift station equipment.
- We evaluate equipment at the plant by priority, does it run 24/7, will there be a non-compliant issue if it fails. Most WWTP equipment has redundancy.
- Most field equipment such as Backhoe, Mini Excavator, and other equipment are on a 10 year replacement rotation.

Wastewater Computer Replacement Plan

- > Wastewater Department schedules replacement of computers every 4 years based on the amount of time used and City IT recommendation.
- > Wastewater computers are an essential tool to work more efficient, if the Utility didn't have reliable computers the WWTP would need to be staffed 24/7 like it was previous to 2003 before SCADA was implemented, best practice would be to replace on a schedule before failure occurs.
- > The computers at the Wastewater treatment plant are either used to control WWTP, Lab data entry/calculations, maintaining data bases for DNR compliance and reporting.
- > By maintaining records, whether it be WWTP performance data or collection system maintenance data, the information is at our finger tips to better serve the public and report to DNR.
- > There is safety component to routinely replacing computers, provides the ability to stay connected to the network when away from work, (note no 24/7 staffing at WWTP) allowing quicker response to alarms that can be generated in the collection system which provides quicker response through SCADA to prevent sewer overflows.
- > Note a computer may cost less than \$5,000 for a value and may not be tracked as an asset, but the 19 computers at the Wastewater Department hold a huge value when you go from 33 employees to operate a WWTP to 4 employees computers makes a significant difference to the operations.
Note at one time the WWTP employed 48 employees and currently have 25 employees to provide the same service.

WASTEWATER PLANT COMPUTER INVENTORY REPLACEMENT SCHEDULE

Current year: 2019 Additions 2019

5 Year Replacement
Schedule

Number of Units	ROOM/STATION	Computer Name	Inventory No>	Year Replaced	Computer	Screen Size	Printer	Main User	Budget year to replace	DVD Drive Y/N	Cell-Connect Needed Y/N
1	Lab NE corner on counter	WWU-Ignition1		2014	Server	21.5" Monitor	WWU COLOR FRONT	Operators	2018	N	N
2	Lab Comp SE Corner BOD	WWU-Ignition2		2014	Station	21.5" Monitor	WWU COLOR FRONT	Operators	2018	N	N
3	Lab Comp Desck West wall	New		2019	Laptop			Mechanics	2019	N	Y
4	Special Projects	New		2019	Tuff Book ?			Crew Lead	2019	N	Y
5		LAX-UTITS3		2016	Sharp Printer			Front Office	2020		
6	Mechanic Room	WWU-LAPTOP6		2016	Lenovo Think Pad	Laptop	Sharp WWTP	Sewer Dept	2020	N	Y
7	Mechanics Laptop	WWU-LAPTOP7		2016	Lenovo Think Pad	Laptop	Sharp WWTP	Sewer Dept	2020	N	Y
8	Electricians Office Laptop	WWU-COMP6		2017	Lenovo Think Station	23.8" Monitor	WWU COLOR LAB	Lab Techs	2021	N	N
9	Sewer Map Room	WWU-COMP7		2017	Lenovo Think Station	23.8" Monitor	WWU COLOR LAB	Lab Techs	2021	N	N
10	Sewer Map Room	WWU-COMP8		2017	Lenovo Think Station	Dual Monitors 23.8" & 22"	WWU COLOR LAB	Lab Techs	2021	N	N
11	Vac All Laptop	WWU-COMP13		2017	Lenovo Think Station	Dual Monitors 23.8" & 22"	Sharp WWTP	Pretreatment	2021	Y	N
12	S-12 Laptop	WWU-LAPTOP4		2017	Lenovo Think Pad	Dual Monitors 23.8" & 22"	Sharp WWTP	Electrician	2021	N	Y
13	S-18 Laptop	WWU-COMP-2		2017	Lenovo Think Station	Dual Monitors 23.8" & 21.5"	Sharp WWTP	Clerk	2021	N	N
14	Clerk Work Area Cube PC	WWU-LAPTOP1		2017	Lenovo Think Pad	Dual 23.8 Monitors	WWU COLOR FRONT	Jared	2021	N	Y
15	Loactor Tablet	WWU-LAPTOP8		2017	Lenovo Think Pad	Dual 23.8 Monitors	Sharp WWTP	Brian	2021	N	Y
16	Superintendent Portable Laptop	WWU-LAPTOP5		2017	HP	Dual 23.8 Monitors	Sharp WWTP	Steve	2021	N	Y
17	Asst Super WWTP Portable Laptop	WWU-COMP-10		2018	Lenovo Think Station	Dual 23.8 Monitors	Sharp WWTP	Mechanics	2022	Y	N
18	Asst Super SEWR Portable Laptop	WWU-COMP5		2018	Lenovo Think Station	Dual 23.8 Monitors	Sharp WWTP	Sewer Dept	2022	Y	N
19	Conference Room	WWU-COMP3		2018	Lenovo Think Station	Dual 23.8 Monitors	Sharp WWTP	Sewer Dept	2022	Y	N
20	Operators Office	Apple Tablet		2018	I Pad	Tablet		Locator	2022	N	Y

Wastewater Vehicle Replacement schedule

5 Year Plan =
Replacement
year

Current Year: 2019 Enter current year and odometer readings to run formulas.

Make sure to refresh connection to Access database under the data tab.

Formula Driven Columns

EQUIP CODE	VEH-CODE	MODEL YR	MFG	MODEL	PURCHASE DATE	PURCHASE PRICE	Present Odometer	Annual Estimated Mileage	Purchase Every 10 Years	Purchase Every 120K Miles	How Old at 100K Miles	Vehicle Condition (Excellent, Fair, Poor)	Year to Replace	Estimated Replacement Cost
WWU-TDS-27	S27	2000	STERLING	L7501 DUMP TRUCK	2000	\$ 55,607.00	27,935	1,470	2019	2082	68			
WWU-TRP-29	D29	2007	FORD	F150	2007	\$ 22,115.00	44,290	3,691	2019	2040	27			
WWU-THV-12	S12	2007	STERLING	PIPE HUNTER	2007	\$ 195,187.00	4,323	360	2020	2340	278			
WWU-TFL-18	S18	2008	FORD	F45SD	2008	\$ 39,919.23	70,534	6,412	2019	2027	16			
WWU-TRP-37	S37	2011	FORD	F150	2011	\$ 14,038.50	11,877	1,485	2021	2092	67			
WWU-TVL-09	S09	2012	INTERNATIONAL	CARGOSTAR	2012	\$ 229,701.36	1,447	207	2022	2593	484			
WWU-TRP-45	S45	2012	FORD	F250 4X2	2012	\$ 16,723.50	37,009	5,287	2022	2035	19			
WWU-TRP-07	D07	2013	FORD	F150	2013	\$ 15,935.50	56,077	9,346	2023	2026	11			
WWU-VAN-23	D23	2014	CHEVROLET	EXPRESS	2014	\$ 19,881.00	12,213	2,443	2024	2063	41			
WWU-TRP-22	D22	2015	FORD	F150	2015	\$ 18,068.50	40,507	10,127	2025	2027	10			
WWU-TDS-03	S03	2015	PETERBILT	PB337	2015	\$ 74,687.50	17,873	4,468	2025	2042	22			
WWU-TFL-11	S11	2015	CHEVROLET	3500 HD	2015	\$ 23,642.55	6,583	1,646	2025	2088	61			
WWU-TFL-21	D21	2016	FORD	F350	2016	\$ 53,334.90	8,163	2,721	2026	2060	37			
WWU-TFL-35	S35	2016	FORD	F550	2016	\$ 66,343.90	12,492	4,164	2026	2045	24			
WWU-TVB-01	D01	2017	FORD	F450	2017	\$ 41,441.00	4,765	2,383	2027	2067	42			
WWU-SUV-10	D10	2015	CHEVROLET	TRAVERSE	2017	\$ 28,088.35	32,847	8,212	2027	2032	12			
WWU-TRP-54	D54	2017	TOYOTA	TACOMA	2017	\$ 21,844.50	6,615	3,308	2027	2053	30			
WWU-THV-10	S10	2017	PETERBILT	PB348	2017	\$ 231,575.75	1,275	638	2027	2205	157			
WWU-VAN-12	D12	2018	CHRYSLER	PACIFICA	2018	\$ 24,975.50	2,621	2,621	2028	2064	38			
WWU-TVJ-28	S28	2018	KENWORTH	T800, 900 ECO JET/VAC	2018	\$ 439,059.21	261	261	2028	2478	383			
WWU-TRP-36	S36	2018	CHEVROLET	SILVARADO	2018	\$ 27,661.50	5,832	5,832	2028	2039	17			

Wastewater Motorized Equipment Replacement Schedule

Current Year: 2019

5 Years Plan =
Replacement Year

EQUIP CODE	VEH-CODE	MODEL YR	MFG	MODEL	VIN	Current Hours	Annual Hours Run	PURCHASE DATE	PURCHASE PRICE	Replacement Year	Schedule
WWU-MOW-68	LWN-68	2009	John Deere	1445	TC1445D090286			2009	\$27,507	2019	10 year replacement schedule
WWU-TRL-01	TRL-01	2013	Becker	I-Beam Deck over (F8)	4P5F82223E1201380			2013	\$4,695	2020	10 years. But This will be moved up the Trailers isn't Heavy enough to haul what we need
WWU-BKH-24	BKH-24	2013	Case	590SN	JJGN59SNJDC5901077			2013	\$98,182	2023	10 year replacement schedule
WWU-EXC-01	EXC-01	2014	HYUNDAI	R55-9 MINI-EXCAVATOR	HM903KD0003309			2014	\$78,915	2024	10 year replacement schedule
WWU-WLD-01	WLD-01	1982	Miller (Purchased Used)	TRAILBLAZER 280NT	LA119666			2015	\$3,500	2025	10 year replacement schedule
WWU-FKL-34	FKL-34	2000	MITSUBISHI FORKLIFT (purchased used)	FG25K	AF17B-10468	7320	732	2000	\$11,900	2025	25 Year replacement schedule with a used machine.

Wastewater other motorized equipment not on a schedule to be replaced at this time

Current year: 2019

Highway ID	WW ID	Md Yr.	Desc	Yr. Purch	Present Odometer	Annual Estimate Mileage	Purchase Every 10 Yrs.	Purchase Every 120K	How Old Vehicle would be	Vehicle Condition	Yr. to Replace	Cost/Veh
WWU-TDS-15	D-15	2001	International	2019							Dump Truck	
WWU-TTA-14	D14	2003	STERLING TANKER TRUCK	2003	20,311	2,902	2018	2044	41	E	Sldg Trk	\$60,000.00
WWU-TTA-25	D25	2000	STERLING LT 8513 TANKER TRUCK	2000	45,000	4,500	2015	2027	27	E	Sldg Trk	\$60,000.00
WWU-TTA-26	D26	2001	FREIGHTLINER TANKER TRUCK	2001	43,317	4,813	2016	2026	25	E	Sldg Trk	\$60,000.00
WWU-TTA-38	D38	2002	STERLING TANKER TRUCK	2002	28,732	3,592	2017	2035	33	E	Sldg Trk	\$60,000.00
WWU-LDR-46	D46	1999	CASE 8740C	1999	3,182	289	2014			E		\$100,000.00

Highway ID	WW ID	Md Yr	Desc	Yr Purch	Hours	Annual Estimate, Hrs	Year to Replace	Cost
WWU-MOW-01		1996	JOHN DEERE MOWER	1996	965	69	2018	\$7,000
WWU-GNS-06		1992	GENERAC 230 KW PORTABLE GENERATOR (UV)	1992	303	17	2020	\$80,000
WWU-GNS-05		1988	DMT 250 KW PORTABLE GENERATOR	1988	116	5	2017	\$80,000
WWU-GNS-04		1986	ONAN 75 KW PORTABLE GENERATOR	1986	483	20	2014	\$50,000
RO/E-pure water system		2006	Lab Testing	2006	Daily	10	2020	\$11,000
New Wash Press		2001	Headworks	2001	Daily use	20	2020	\$36,000