

# Annual Report on Operations

## Rogue Valley Sewer Services

### Fiscal Year 2023

The Capacity Management, Operations and Maintenance Program (CMOM) is an effort promoted by the US Environmental Protection Agency to improve the performance of sewer collection systems and prevent sewer overflows. There is no regulatory requirement to develop or implement a CMOM program but it is considered a good management practice and collection system operators are encouraged to develop a CMOM program.

Operating under the principal that “you get what you measure” we have developed a comprehensive set of statistics that cover nearly every aspect of our operations. This information allows us gauge our effectiveness and to identify areas of weakness that need more attention.

The following statistical report covers 14 areas of performance. A brief description of each of the data sets is included in each section.

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<b>1. General Information</b>				
	Agency Name	Rogue Valley Sewer Services		
	Agency Address	138 West Vilas Road		
		Central Point	OR	97502
	Contact Person	Carl Tappert	Manager	
		541-664-6300		
		<a href="mailto:ctappert@rvss-or.gov">ctappert@rvss-or.gov</a>		

# Service Area

RVSS provides sanitary sewer and stormwater service to different areas of the region. There are six distinct service areas within RVSS:

- **RVSS Core:** This is the area that is served by the Regional Water Reclamation Facility.
- **Shady Cove:** This is defined by the city limits of Shady Cove. It is served by Shady Cove Sewer Treatment Plant and was annexed into RVSS effective July 1, 2019
- **Gold Hill:** This is defined by the city limits of Gold Hill. It is served by the Gold Hill Sewer Treatment Plant and is operated by RVSS under the terms of an intergovernmental agreement. An annexation vote was held on August 22, 2023 with over 90% of voters in favor. The final annexation order from Jackson County Board of Commissioners has not yet been issued.
- **MS4 Stormwater Area:** This is the area that falls under the MS4 Stormwater permit. It includes the cities of Talent and Phoenix, and the “urbanized” unincorporated areas of Jackson County, as defined by the US Census Bureau.
- **White City Industrial Storm Drainage Area:** This is the industrial side of White City. The boundary of the area was defined when the storm drainage utility was formed in 1989.
- **Sycamore Properties:** This is a small community septic system near Gold Hill. RVSS assumed responsibility for operating the system at the request of DEQ in 1979.

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<b>2. Service Area</b>	FY 2019	FY 2020	FY 2021	FY 2022	FY2023
2.1 District Area (sq. mi.)	189.76	191.78	191.78	191.78	191.78
<b>2.2 Population Data - RVSS Core</b>					
Population served (est.)	85,467	86,438	84,557	83,595	82,124
Residential Units	32,497	32,866	32,151	31,785	31,226
Commercial/Industrial Accounts	1,915	1,929	1,850	1,875	1,907
Total ERU	37,344	36,835	35,990	36,367	36,682
Total Accounts	24,753	24,995	23,857	25,105	25,498
<b>2.3 Population Data - Shady Cove</b>					
Population served (est.)	3,105	3,145	3,089	3,095	3,113
Residential Accounts					
Commercial/Industrial Accounts					
Total ERU	1,567	1,614	1,562	1,571	1,577
Total Accounts					
<b>2.4 Population Data - Gold Hill (Contract)</b>					
Population served (est.)	1,220	1,220	1,336	1,360	1,364
Residential Accounts					
Commercial/Industrial Accounts					
Total ERU	574	574	574	574	574
<b>2.5 MS4 Stormwater Area</b>					
Total Area (sq. mi.)	30.41	30.41	30.41	30.41	30.41
Total Area (acre)	19,462	19,462	19,462	19,462	19,462
Assessed Impervious Area (acre)	1,217	2,946	5,937	2,780	5,100
Residential Impervious Area (acre)	1,371	1,189	1,190	1,194	539
# of Commercial/Multi-Family Accounts	1,714	7,129	8,198	7,265	939
# of Single Family Residential Accounts	19,908	17,265	17,277	17,334	7,830
<b>2.6 White City Industrial Storm Drainage</b>					
Total Area (acres)	1,291	1,291	1,291	1,163	1,224
Assessed Impervious Area	573	590	594	594	1,080
Assessed Pervious Area	526	701	698	569	144
# of Accounts	263	277	278	277	474
<b>2.7 Sycamore Properties</b>					
Residential Accounts	9	9	9	9	9
<b>2.8 Owned Land</b>					
	Address	Area (acre)			
Main Office	138 West Vilas Road, Cp	3.75			
vacant lot behind main office	128 West Vilas Road, CP	1.01			
Dunn Pump Station	3201 Kirtland Road	1.32			
White City Lagoon	Kirtland Road	40.39			
White City Lagoon	Kirtland Road	10.00			
White City Pump Station	Kirtland Road	0.07			
Ashland #2 Pump Station	South Pacific Hwy	0.22			
Shady Cove Treatment Plant	4660 Rogue River Hwy	3.19			

# Sanitary Sewer Collection System

RVSS maintains an inventory of the various components of the sewer collection system. The collection systems for the RVSS Core, Shady Cove, and Gold Hill are tracked separately.

The mapping system at RVSS is constantly being updated and improved. Variations in the quantities of infrastructure from year to year reflect a combination of changes to the physical system and changes in the accuracy of the maps.

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<b>3 Collection System - RVSS Core</b>					
<b>3.1 System Inventory</b>	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023
Miles of Gravity Sewer	398.20	395.91	398.93	400.26	401.67
Miles of Force Main	16.4	16.3	16.1	17.1	16.2
Number of Manholes	8,728	8,636	8,724	8,801	8,898
Number of Pump Stations	21	19	19	19	19
Number of Siphons	12	12	12	12	12
Number of Creek Crossings	78	78	78	78	78
Number of Railroad Crossings	29	29	29	29	29
Number of Freeway Crossings	6	6	6	6	6
Number of Air/vac valves	16	16	16	16	16
Number of Design Overflows	2	2	2	2	2
Number of Grinder Pumps	5	5	12	19	24
Number of STEP Tanks	84	74	65	54	51
Number of STEG Tanks	22	15	15	20	19
<b>3.2 Age Distribution of Collection System (miles)</b>					
	Gravity Sewer				
0-25 years	193	189	190	177.2	177.2
26-50 years	167	167	166	161.7	161.7
51-75 years	20	18	18	43.0	43.0
>76 years	8	13	13	7.5	8.4
no data	11	9	11	11.3	11.3
Average age of system	31	33	32	33	34
	Force Mains				
0-25 years	8.56	9.08	4.38	4.5	4.2
26-50 years	5.94	5.91	10.96	11.5	10.5
51-75 years		-	0	-	-
>76 years		-	0	-	-
no data	0.92	0.92	0.75	1.1	1.5
Average age of system	28	30	31	32	32
	Pump Stations				
0-15 years	12	12	11		10
16-20 years	3	3	4		6
21-25 years	2	2	1		2
>25 years	2	2	3		1
no data	0	-	0		0

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<b>3.3 Size Distribution of Collection System (miles)</b>					
Gravity Sewer	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023
8 inches or less	282	283	286	293	289
9 -18 inches	69	67	67	67	67
19-36 inches	25	25	25	26	26
> 36 inches	19	19	19	18	18
no data	3	2	2	2	2
<b>Force Mains</b>					
8 inches or less	8.54	9.02	9.19	9.35	9.34
9 -18 inches	1.53	1.53	1.53	1.53	1.44
19-36 inches	3.69	3.69	3.69	3.69	3.69
> 36 inches	0	0		0	-
no data	1.66	1.66	1.66	1.66	0.49
<b>3.4 Material Distribution of Gravity Mains (miles)</b>					
Plastic (all types)	262.0	257.21	260.29	263.67	266.00
Concrete	82.1	79.94	79.63	79.37	78.96
Asbestos Cement	43.2	43.10	42.81	41.18	42.50
Clay	5.1	5.14	5.13	5.13	5.14
Cured in place lined		5.64	5.66	5.88	6.00
Other	0.8	0.38	0.56	0.56	0.53
no data	5.1	4.50	4.86	3.66	2.55
<b>3.5 Material Distribution of Pressure Mains (miles)</b>					
Plastic	11.0	11.5	11.5	11.5	11.0
Ductile Iron	1.8	1.8	1.9	1.9	1.8
no data	2.6	2.6	2.7	2.5	3.4

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<b>3A Collection System - Shady Cove</b>					
<b>3A.1 System Inventory</b>	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023
Miles of Gravity Sewer	20.45	20.87	20.86	20.86	20.8697
Miles of Force Main	1.03	0.71	0.86	0.71	0.71
Number of Manholes	497	490	490	490	490
Number of Pump Stations	5	5	5	6	5
Number of Siphons	0	0	0	0	0
Number of Creek Crossings	10	10	10	10	10
Number of Railroad Crossings	0	0	0	0	0
Number of Freeway Crossings	0	0	0	0	0
Number of Air/vac valves		0	0	0	0
Number of Design Overflows	0	0	0	0	0
Number of Grinder Pumps		0	0	0	2
Number of STEP Tanks	1	1	1	1	1
Number of STEG Tanks		0	0	0	0
<b>3A.2 Age Distribution of Collection System (miles)</b>					
	Gravity Sewer				
0-25 years		0.41	0.41	0.41	0.4
26-50 years		16.91	16.92	16.92	16.9
51-75 years				0	
>76 years				0	
no data		3.55	3.53	3.53	3.5
Average age of system		37.0	38.2	39.0	40.1
	Force Mains				
0-25 years		0.34	0.49	0.34	0.3
26-50 years		0.69	0.34	0.34	0.3
51-75 years		-		0	-
>76 years		-		0	-
no data		0.03	0.03	0.029	0.0
Average age of system		32	30.15	31.06	32.19
	Pump Stations				
0-15 years				1	2
16-20 years					
21-25 years					
>25 years					
no data		5	5	5	3



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<b>3A.3 Size Distribution of Collection System (miles)</b>					
<b>Gravity Sewer</b>	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023
8 inches or less	16.6	16.9	16.9	16.9	16.9
9 -18 inches	3.8	3.9	4.0	4.0	4.0
19-36 inches	-	-		-	-
> 36 inches	-	-		-	-
no data	-	-	0.0	-	-
<b>Pressure Sewer</b>					
8 inches or less	0.3		0.2	0.2	0.0
9 -18 inches	-				
19-36 inches	-				
> 36 inches	-				
no data	0.7		0.7	0.7	0.7
<b>3A.4 Material Distribution of Gravity Mains (miles)</b>					
Plastic (all types)	17.0	17.3	17.3	17.3	17.7
Concrete	1.2	1.2	1.2	1.2	1.2
Asbestos Cement	-	-	-	-	-
Clay	0.1	0.1	0.1	0.1	0.1
Other	-	-	-	-	-
no data	2.2	2.3	2.3	2.3	1.9
<b>3A.5 Material Distribution of Pressure Mains (miles)</b>					
Plastic		1.0	0.9	0.7	0.7
Ductile Iron					
no data	1.0	0.0	0	0	

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<b>3B Collection System - Gold Hill (Contract)</b>					
<b>3B.1 System Inventory</b>	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023
Miles of Gravity Sewer	6.7	7.2	7.1	7.4	7.390909
Miles of Force Main	0.2	0.2	0.2	0.2	0.2
Number of Manholes	178	175	174	175	175
Number of Pump Stations	0	0	0	0	0
Number of Siphons	0	0	0	0	0
Number of Creek Crossings					
Number of Railroad Crossings	7	7	7	7	7
Number of Freeway Crossings	0	0	0	0	0
Number of Air/vac valves	0	0	0	0	0
Number of Design Overflows	0	0	0	0	0
Number of Grinder Pumps	1	1	1	1	1
Number of STEP Tanks	1	1	1	1	1
Number of STEG Tanks					0
<b>3B.2 Age Distribution of Collection System (miles)</b>					
<b>Gravity Sewer</b>					
0-25 years					
26-50 years					
51-75 years					
>76 years					
no data		7.19	7.14	7.42	7.39
Average age of system					
<b>3B.3 Size Distribution of Collection System (miles)</b>					
<b>Gravity Sewer</b>					
6 inches or less	3.0	3.6	3.5	3.5	3.5
8 inches	2.5	2.6	2.5	2.6	2.6
12 inches	1.0	1.0	1.0	1.0	1.0
no data	0.2	0.1	0.1	0.2	0.2
<b>3B.4 Material Distribution of Gravity Mains (miles)</b>					
Plastic (all types)	2.3	3.0	3.0	3.2	3.2
CIPP	1.7	1.7	1.7	2.0	1.7
Concrete	0.8	2.1	2.0	2.0	2.0
no data	2.6	0.4	0.4	0.5	0.1
(most 'no data' presumed to be concrete)					

# Stormwater System

RVSS is responsible for maintaining the public water quality facilities within the MS4 system, and monitoring the private water quality facilities. RVSS is also responsible for monitoring outfalls from the stormwater system into streams.

The MS4 boundary includes Talent, Phoenix, and portions of Jackson County. Prior to 2020 it also included Central Point.

RVSS is not responsible for maintaining stormwater collection systems outside of the White City Storm Drainage Area, so no data on these systems is provided.

RVSS is responsible for maintaining the drainage system in the industrial portion of White City.

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<b>4. Stormwater System</b>					
<b>MS4 Area</b>					
<b>4.1 Water Quality Facilities - Publicly Maintained</b>					
	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023
Manufactured Structures	41	47	50	49	49
Detention Basin	2	2	4	4	4
Vegetated Swale	0	7	2	0	
Pond/Wetland	2	2			
Other Vegetated Facility	0	3			
Porous Paving		0			
Retention Pond		0			
Infiltration System		0			
Area Draining through facilities (acres)	741	790	774		638
<b>4.2 Water Quality Facilities - Privately Maintained</b>					
Manufactured Structures	5	19	18	21	31
Detention Basin	15	30	31	43	48
Vegetated Swale	57	61	80	89	89
Pond/Wetland	10	2	2	2	2
Other Vegetated Facility	3	6	13	19	31
Porous Paving	7	7	8	8	7
Retention Pond		1	1	1	1
Infiltration system		2	2	3	4
Area Draining through facilities (acres)	366	425	558		691
<b>4.3 Number of Stream Outfalls</b>					
	<b>333</b>	<b>158</b>	<b>168</b>	<b>202</b>	<b>136</b>
Agate Slough	5	5	5	8	5
Anderson Creek	1	1	1	1	0
Bear Creek	15	57	80	80	71
Coleman Creek	11	11	13	17	3
Crooked Creek	7	8	8	7	0
Daisy Creek	24	0	0	0	0
Elk Creek	13	0	0	13	0
Gore Creek	5	5	5	5	0
Griffin Creek	66	0	0	0	0
Horn Creek	30	0	0	0	0
Jackson Creek	32	0	0	0	0
MID Canal	1	0	0		
Mingus Creek	65	0	0	0	0
No Name #48	2	2	2		
No Name # 50	2	2	2		
No Name #52	7	7	7		
North Fork Whetstone	1	1	1	1	0
Payne Creek	8	8	8	8	9
Phoenix Canal	9	9	9	21	16
Rogue River				8	8
Upton Slough	2	2	2	0	0
Wagner Creek	23	36	21	29	21
Whetstone Creek	4	4	4	4	3
<b>4.4 White City Industrial Area</b>					
	FY 2019	FY 2020			
Miles of Pipe	7.37	7.37	7.37	7.37	7.37
# of Manholes					
# of Catch Basins					
# of Driveway culverts					
Miles of Open Ditch					

# Pressure Systems

Pump station alarms provide a measure of the integrity of the upstream collection system and the condition of the pump station. Alarms have traditionally been recorded on a spreadsheet. As most of the stations are now equipped with Mission telemetry the alarm records are stored on the Mission website. Many conditions that trigger alarms are self-correcting and do not require a response. As a result, the number of alarms reported by Mission is far higher than what was previously recorded by hand.

The low-pressure systems consist of a series of pumps which each serve a single service connection. STEP tanks are effluent pumps inside a traditional septic tank. The pump discharges the effluent into a small-diameter pressure main while the solids remain in the tank.

STEG tanks are located such that a pump is not needed to discharge the effluent into the small-diameter main. Like STEP tanks, the solids remain in the tank.

Grinder pumps pass all of the waste to the small-diameter main.

There are areas where customers have installed pressure systems that do not meet RVSS standards. In these cases RVSS has not assumed any maintenance responsibility. If the customer chooses to improve their system to meet RVSS standards they will be considered public facilities and RVSS will assume maintenance responsibility.

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<b>5. Pressure Systems</b>					
<b>5.1 RVSS Core</b>					
<b>Pump Station Alarms</b>	<b>FY 2019</b>	<b>FY 2020</b>	<b>FY 2021</b>	<b>FY 2022</b>	<b>FY 2023</b>
Total	4	4	2	3	
Pump Failure	1	3	2	3	
Motor Failure	2		-	-	
High Water	1	1	-	-	
Other	-		-	-	
High Water Alarms - Mission	81	129	99	97	72
Pump Failure - Mission		113	128	223	180
Number of Pump Stations Flow Tested	2	22	-	8	3
Frequency of Inspections					
Number of PS with capacity redundancy	19	18	18	18	19
Number of PS with backup power on site	3	3	3	3	3
Number of PS with flow meters	3	3	3	3	12
Number of PS with remote monitoring	17	18	19	19	19
Number of PS with run time meters	26	18	19	19	19
Force Mains Inspected (miles)	0	0	-	-	-
Force Mains Cleaned (miles)	0	0	-	-	-
Air Relief Valves Inspected	0	0	-	-	-
<b>5.2 RVSS - Shady Cove</b>					
<b>Pump Station Alarms</b>					
Total	6	1	3	-	
Pump Failure	3	1	2	-	
Motor Failure			-	-	
High Water	2		1	-	
Other	1		-	-	
High Water Alarms - Mission	7	17	6	7	22
Pump Failure - Mission		68	63	56	129
Number of Pump Stations Flow Tested	1	-	-	-	3
Frequency of Inspections					
Number of PS with capacity redundancy	3	3	4	4	5
Number of PS with backup power on site	1	1	1	1	1
Number of PS with flow meters	1	1	1	1	1
Number of PS with remote monitoring	1	3	4	4	5
Number of PS with run time meters	5	5	6	6	5
Force Mains Inspected (miles)	0	0	0	-	-
Force Mains Cleaned (miles)	0	0	0	-	-
Air Relief Valves Inspected	0	0	0	-	-

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	STEP Tanks	STEG Tanks	Grinder Pumps	Owner Maintained System	
<b>5.3 Low Pressure Systems</b>					
<b>Alpine Way, Project 78-38</b>	1	-	-	-	1
<b>Camp Baker Road, Project 89-15</b>	25	-	5	-	
<b>Dutton Road, 91-06</b>	-	3	-	-	
Dutton Road, 94-14	-	2	-	-	
Dutton Road, 97-35	-	6	-	-	
Stanfield Extension, 00-23	3	-	-	-	
<b>Eagle Mill Road, 92-09</b>	2	6	-	-	
<b>Hartley Road, 83-05</b>	-	-	4	-	1
Hartley Road, 88-05	1	-	6	-	
<b>Highbanks Road, 91-08</b>	1	-	2	-	
Highbanks Road, 08-21	2	-	1	-	
Highbanks Road, 12-07	2	-	1	-	
<b>Hillside Drive, 89-11</b>	1	-	-	-	
Hillside Drive, 99-07	-	1	-	-	
<b>Magnolia Ave, Project 90-12</b>	-	-	-	-	
Hyacinth Ave, 05-37	2	-	-	-	
<b>Newland Road, 94-22</b>	-	-	2	-	
<b>Old Stage Road, Project 89-18</b>	5	1	-	-	
<b>Peace &amp; Justice, 79-15</b>	-	-	-	-	10
Peace & Justice, 79-27	-	-	-	-	9
<b>Ross Lane, 98-37</b>	-	-	1	-	
<b>Sycamore Properties, 79-25</b>	-	-	-	-	9
<b>Truax Road, 77-08</b>	-	-	1	-	
<b>Vilas Road, 78-27</b>	1	-	-	-	1
<b>138 West Vilas Rd, 72-04</b>	1	-	-	-	
<b>2312 Gramercy Dr, 85-08</b>	1	-	-	-	
<b>2522 Reed Lane</b>	-	-	1	-	
<b>2550 Lakeshore Dr, 87-01</b>	1	-	-	-	
<b>Hudspeth Lane, 19-04 (Shady Cove)</b>	-	-	2	-	
Ambrose Street (Gold Hill)	-	-	1	-	1
<b>Total</b>	<b>49</b>	<b>19</b>	<b>27</b>	<b>32</b>	

# Flows

Flow data is collected at each of the permanent flow monitoring stations. Dry weather is measured from May to October, wet weather is measured from November to April. The peak factor is the peak wet weather flow divided by the average daily flow. Peak factors in excess of 3.5 are highlighted and considered excessive flow.

Our data for the year is incomplete. The flow monitoring equipment is old and is in the process of being replaced.



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<b>6. Flows</b>					
	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023
Annual Rainfall (inches)					
Medford Airport	18.54	15.52	13.30	16.35	13.20
Ashland #2 P.S.				13.99	16.45
Agate P.S.				16.14	14.43
Meadows P.S.				14.58	13.50
<b>UPPER BEAR CREEK INTERCEPTOR</b>					
<b>UB-04 - Talent</b>					
Average Daily Flow (MGD)	0.60	0.60			
Peak Day - Dry Weather	0.90	0.69	0.5245		
Peak Day - Wet Weather	1.54	0.99			
Peak Hour	2.01	1.25			
Wet Weather Peak Factor	3.35	2.10			
<b>UB-03 - Phoenix/Talent</b>					
Average Daily Flow (MGD)	0.28	0.38	0.15		
Peak Day - Dry Weather	0.40	(0.16)			
Peak Day - Wet Weather	0.22	(0.14)			
Peak Hour	1.81	n/a			
Wet Weather Peak Factor					
<b>SOUTH MEDFORD BASIN</b>					
Peak Dry Weather Flow (MGD)	1.49	1.53	1.3498	1.0886	
Peak Wet Weather Flow (MGD)	2.36	1.69			
Average Daily Flow (MGD)	1.10	1.03			
Wet Weather Peak Factor	2.15	1.65			
<b>EAST MEDFORD BASIN (MEDFORD COLLECTION SYSTEM)</b>					
Peak Dry Weather Flow (MGD)	6.61	7.08	4.57	4.89	4.90
Peak Wet Weather Flow (MGD)	14.96	7.45	7.50	6.26	7.57
Average Daily Flow (MGD)	4.76	3.99	4.20	4.14	4.59
Wet Weather Peak Factor	3.15	1.87	1.79	1.51	1.65
<b>NORTH MEDFORD BASIN</b>					
Peak Dry Weather Flow (MGD)	3.31	8.41	5.42	6.32	0.84
Peak Wet Weather Flow (MGD)	27.17	17.00	13.55	4.16	8.61
Average Daily Flow (MGD)	4.29	2.96	7.26	1.51	2.51
Wet Weather Peak Factor	6.33	5.74	1.87	2.75	3.43

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<b>LOWER BEAR CREEK INTERCEPTOR</b>					
	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023
<b>JACKSONVILLE BASIN</b>					
Peak Dry Weather Flow (MGD)	0.31	0.38	0.31	0.26	0.23
Peak Wet Weather Flow (MGD)	0.97	0.42	0.39	0.36	0.36
Average Daily Flow (MGD)	0.22	0.17	0.19	0.18	0.16
Wet Weather Peak Factor	4.34	2.49	2.05	1.98	2.33
<b>WEST MEDFORD BASIN</b>					
Peak Dry Weather Flow (MGD)	0.69	0.83	0.7013		
Peak Wet Weather Flow (MGD)	1.93	0.78	0.7979		
Average Daily Flow (MGD)	0.60	0.54	0.5657		
Wet Weather Peak Factor	3.21	1.45	1.41		
<b>CENTRAL POINT BASIN</b>					
Peak Dry Weather Flow (MGD)	3.41	3.80	2.13		
Peak Wet Weather Flow (MGD)	7.27	4.54	3.74		
Average Daily Flow (MGD)	2.99	3.67	3.93		
Wet Weather Peak Factor	2.43	1.24	0.95		
<b>BURSELL BASIN (MEDFORD COLLECTION SYSTEM)</b>					
Peak Dry Weather Flow (MGD)	0.92	1.24	0.96	2.11	0.79
Peak Wet Weather Flow (MGD)	2.72	1.32	1.08	1.00	1.06
Average Daily Flow (MGD)	0.64	0.55	0.55	0.63	0.57
Wet Weather Peak Factor	4.22	2.40	1.96	1.60	1.88

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<b>OLD MEDFORD TRUNK</b>					
	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023
<b>DOWNTOWN MEDFORD (MEDFORD COLLECTION SYSTEM)</b>					
Peak Dry Weather Flow (MGD)	1.84	2.88	1.27	1.39	0.95
Peak Wet Weather Flow (MGD)	7.36	2.98	2.55	1.78	2.10
Average Daily Flow (MGD)	1.16	0.96	0.98	0.97	0.90
Wet Weather Peak Factor	6.34	3.10	2.60	1.84	2.33
<b>WHETSTONE BASIN</b>					
Peak Dry Weather Flow (MGD)	1.28	1.28	0.79		
Peak Wet Weather Flow (MGD)	4.67	2.51	1.53		
Average Daily Flow (MGD)	0.87	0.74	0.76		
Wet Weather Peak Factor	5.40	3.40	2.01		
<b>WHITE CITY TRUNK</b>					
<b>EAGLE POINT BASIN</b>					
Peak Dry Weather Flow (MGD)	0.87	1.15	0.77	0.97	0.91
Peak Wet Weather Flow (MGD)	2.49	1.81	1.17	1.11	1.28
Average Daily Flow (MGD)	0.75	0.69	0.72	0.69	0.69
Wet Weather Peak Factor	3.32	2.62	1.63	1.61	1.86
<b>WHITE CITY BASIN</b>					
Peak Dry Weather Flow (MGD)	1.66	3.13	2.11	1.21	0.90
Peak Wet Weather Flow (MGD)	5.97	3.94	3.34	2.06	2.38
Average Daily Flow (MGD)	1.21	1.16	1.21	1.19	1.12
Wet Weather Peak Factor	4.92	3.41	2.76	1.74	2.13

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<b>TREATMENT PLANTS</b>					
<b>Shady Cove (calendar year)</b>	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023
Peak Dry Weather Flow (MGD)	0.47	0.49	0.41	0.40	0.41
Peak Wet Weather Flow (MGD)	0.64	1.42	0.75	0.76	0.93
Average Daily Flow (MGD)	0.35	0.39	0.34	0.34	0.30
Wet Weather Peak Factor	1.82	3.65	2.21	2.24	3.10
<b>Gold Hill calendar year)</b>					
Peak Dry Weather Flow (MGD)	0.124	0.080	0.085	0.080	0.115
Peak Wet Weather Flow (MGD)	0.079	0.138	0.096	0.090	0.120
Average Daily Flow (MGD)	0.063	0.066	0.065	0.063	0.065
Wet Weather Peak Factor	1.25	2.09	1.48	1.43	1.85
<b>PUMP STATION FLOWS</b>					
<b>Airport (meter installed 3/23)</b>					
Average Daily Flow					47,064
Average Dry Weather Flow (GPD)					51,464
Average Wet Weather Flow (GPD)					42,664
Peak Daily Flow					80,990
Wet Weather Peak Factor					1.6
<b>Arborwood (Meter installed 10/22)</b>					
Average Daily Flow					3,733
Average Dry Weather Flow (GPD)					3,519
Average Wet Weather Flow (GPD)					3,947
Peak Daily Flow					6,319
Wet Weather Peak Factor					1.8
<b>Ashland #1 (Meter installed 3/23)</b>					
Average Daily Flow					33228
Average Dry Weather Flow (GPD)					30,158
Average Wet Weather Flow (GPD)					36,297
Peak Daily Flow					48,327
Wet Weather Peak Factor					1.6
<b>Eagle Point - Luthy</b>					
Average Daily Flow					756,029
Average Dry Weather Flow (GPD)					723,158
Average Wet Weather Flow (GPD)					788,900
Peak Daily Flow					2,143,000
Wet Weather Peak Factor					3.0
<b>Foreign Trade Zone (meter installed 3/23)</b>					
Average Daily Flow					101,023
Average Dry Weather Flow (GPD)					95,499
Average Wet Weather Flow (GPD)					106,546
Peak Daily Flow					119,794
Wet Weather Peak Factor					1.3

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	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023
<b>Justice (meter installed 3/23)</b>					
Average Daily Flow					17,223
Average Dry Weather Flow (GPD)					16,238
Average Wet Weather Flow (GPD)					18,208
Peak Daily Flow					79,655
Wet Weather Peak Factor					4.9
<b>Pioneer (meter installed 10/22)</b>					
Average Daily Flow					12,524
Average Dry Weather Flow (GPD)					12,504
Average Wet Weather Flow (GPD)					12,543
Peak Daily Flow					21,716
Wet Weather Peak Factor					1.7
<b>Shady Cove #2</b>					
Average Daily Flow					79,511
Average Dry Weather Flow (GPD)			66,753		72,105
Average Wet Weather Flow (GPD)					86,917
Peak Daily Flow			90,913		128,000
Wet Weather Peak Factor			1.4		1.8
<b>Collins Way (meter installed 10/22)</b>					
Average Daily Flow					16,548
Average Dry Weather Flow (GPD)					16,912
Average Wet Weather Flow (GPD)					16,185
Peak Daily Flow					26,522
Wet Weather Peak Factor					1.6
<b>West Glenwood (meter installed 3/23)</b>					
Average Daily Flow					473
Average Dry Weather Flow (GPD)					576
Average Wet Weather Flow (GPD)					371
Peak Daily Flow					1,157
Wet Weather Peak Factor					2.0
<b>West Gregory</b>					
Average Daily Flow					11,419
Average Dry Weather Flow (GPD)					10,436
Average Wet Weather Flow (GPD)					12,402
Peak Daily Flow					109,114
Wet Weather Peak Factor					10.5

# Preventative Maintenance

This page is a summary of preventative maintenance activities. Specific targets for these tasks have been identified as follows:

- CCTV Inspection: complete entire system  $\leq 18''$  pipe once every 5 years. Total is given in both total miles of pipe and as a percentage of the system.
- Flushing: complete entire system  $\leq 18''$  pipe once every 3 years. Total is given in both total miles of pipe and as a percentage of the system.
- Root Saw: complete entire root saw list annually
- Special Cleaning: complete entire special cleaning list monthly
- STEP/STEG tanks inspected: Inspect all tanks once every 3 years, pump as needed.
- Stormwater Quality Facilities: Inspect all publicly maintained facilities annually, clean as needed.
- Stormwater Quality Facilities: Inspect all privately maintained facilities once every 3 years.
- White City Storm Drain: Inspect all storm drainage facilities once every 3 years, clean as needed.
- Fats, Oils, and Grease: Our approach to the FOG program has changed from a proactive program to a reactive program. Inspections of restaurants are only scheduled when our tv crew or flusher crew identify specific areas that have FOG issues.

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<b>7. Preventative Maintenance of System</b>					
<b>7.1 RVSS Core</b>	FY 2019	FY 2020	FY2021	FY2022	FY 2023
CCTV (miles)	120.06	95.71	75.84	105.69	120.20
Percent of system (<= 18")	34%	27%	19%	26%	30%
Flush (miles)	91.33	120.82	131.20	122.15	126.64
Percent of system (<= 18")	26%	35%	37%	34%	36%
Root Saw (miles)	2.32	6.31	8.99	7.17	15.66
Special Cleaning (miles)	22.62	25.41	17.04	21.03	15.67
STEP/STEG Tanks Inspected	59.00	97.00	14.00	35	13
STEP/STEG Tanks Pumped	4.00	11.00	3.00	9	4
Smoke Testing	-		-	-	-
<b>7.2 RVSS - Shady Cove</b>					
CCTV (miles)	0.07	0.82	15.89	0.08	0.42
Percent of system (<= 18")	0%	4%	76%	0%	2%
Flush (miles)	14.34	0.44	0.06	14.07	1.20
Percent of system (<= 18")	70%	2%	0%	67%	6%
Root Saw (miles)			1.22	0.59	-
Special Cleaning (miles)			1.06	0.35	0.884091
Smoke Testing	-	16.94	-	-	-
<b>7.3 Gold Hill (Contract)</b>					
CCTV (miles)	3.15	-	5.50	-	0
Percent of system (<= 18")	47%	0%	77%	0%	0%
Flush (miles)	5.79	1.26	0.36	0.16	7.294886
Percent of system (<= 18")	87%	18%	5%	2%	99%
Root Saw (miles)			1.06	0.40	0.409848
Special Cleaning (miles)			2.06	2.58	3.967803
Smoke Testing (miles)	4.39	-	-	-	-
<b>7.4 MS4 Area</b>					
Proprietary Structures Inspected	35	37	31	38	42
Proprietary Structures Cleaned	19	12	8	11	11
Private Structural SWQ Facilities Inspected			24	9	11
Private Non-Structrual SWQ facilities inspected				29	31
Pipes Cleaned (Miles)	0	0.71	0.65	1.39053	0
Catch Basins Inspected		810		23	0
Catch Basins Cleaned	0	657	23	20	0
Outfalls Inspected	32	31	47	75	60
Outfalls Sampled	6	14	15	15	2
<b>7.5 White City Industrial Storm Drain Area</b>					
Miles of Pipe cleaned	5,062	-	0.03	0	0
Miles of Ditch cleaned	0	0		0	0
Catch basins cleaned	0	0		0	0
<b>7.6 Sycamore Properties</b>					
STEP/STEG Tanks Inspected	0	0	0	0	0
STEP/STEG Tanks Pumped	0	0	0	0	0
<b>7.7 Fats, Oils, and Grease</b>					
# of Food Service Establishmetns in System	292	288			0
FSE Initial Inspections	228	9	1	48	0
FSE Annual Inpsections		234	8		0
Violations	115	72	4	0	0
No Log Book Updated	54	46	3		
Inadequate Maintenance	59	59	4		
Water Temp > 140d	2	0	0		

# Repairs and Rehabilitation

Repair orders are system defects that are identified by our maintenance crews. They are prioritized based on the severity of the defect and are typically completed by our construction crew.

Rehabilitation projects are typically larger projects. They can be completed by contractors or our construction crew.



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<b>8. Repairs and Rehabilitation</b>					
8.1 Repair Orders	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023
Priority 1 Repairs	18	13	9	12	12
Priority 2 Repairs	7	26	22	32	34
Priority 3 Repairs	5	14	21	19	22
Priority 4 Repairs					
8.2 Sewer Rehab Projects	9	8	6	6	3
Pipe replaced (feet)	7,504	6,906	2,503	4,386	1,264
Pipe relined (feet)	4,772	-	4,318	-	-
Pump Stations Rehabilitated		1		2	1
Pump Stations Removed	3	-		-	1
STEP Tanks Eliminated	18	13	13	7	3
STEG Tanks Eliminated	6	5	-	-	-
<b>Cost of Rehab Projects</b>	<b>\$ 3,068,575</b>	<b>\$ 1,478,858</b>	<b>\$ 873,688</b>	<b>\$ 2,763,218</b>	<b>\$ 627,943</b>
<b>8.3 Stormwater Rehab Projects</b>					
Pipe replaced (feet)					
Cost of Rehab Projects					
8.4 Stormwater Quality Projects					
Q001 - Wagner Creek Swale	\$ 18,056				
Q005 - Colver Road Park		\$ 52,600			

# Blockages and Overflows

RVSS is required to file a report with DEQ whenever there is a sewer main blockage that leads to an overflow. Blockages in service laterals are not required to be reported, however RVSS has chosen to report these as well to build a better record of the system performance.

Stormwater illicit discharges are reported to RVSS for any type of discharge within the MS4 area. Each of these reports are investigated by RVSS to determine what action, if any, is needed.

Stormwater violations are issued by RVSS for violation of our illicit discharge or construction site stormwater control rules.

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<b>9. Blockages and Overflows</b>					
RVSS - Core	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023
<b>9.1 Number of Overflows</b>	<b>8</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>
Weather					
Grease					
Roots	1				
Debris					
Pipe Failure					
Equipment Failure	2				
3rd Party Actions					
Service Lateral	5				
<b>Estimated Gallons of Overflow</b>	<b>65</b>	<b>0</b>	<b>0</b>	<b>-</b>	<b>-</b>
RVSS - Shady Cove					
<b>9.2 Number of Overflows</b>	<b>2</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>
Weather					
Grease					
Roots					
Debris					
Pipe Failure					
Equipment Failure	1				
3rd Party Actions					
Service Lateral	1				
<b>Estimated Gallons of Overflow</b>	<b>2,020</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>
Gold Hill (Contract)					
<b>9.3 Number of Overflows</b>	<b>0</b>	<b>1</b>	<b>0</b>	<b>0</b>	<b>1</b>
Weather					
Grease					
Roots					
Debris					1
Pipe Failure		1			
Equipment Failure					
3rd Party Actions					
Service Lateral					
<b>Estimated Gallons of Overflow</b>	<b>-</b>	<b>2,000</b>	<b>-</b>	<b>-</b>	<b>100</b>
<b>9.4 Stormwater Illicit Discharge Reports (other than se</b>	<b>6</b>	<b>6</b>	<b>6</b>	<b>1</b>	<b>6</b>
Number of Discharges					
Construction Related	1			1	
Oil/grease		1	2	0	3
Gray Water	2	3		0	
Fertilizer	1		1	0	
Cross connection		2		0	
Other	2		3	0	3
<b>9.5 Stormwater Violations</b>					
Brown Tag	5	3	39	10	1
Notice of Non-Compliance	0	0	1	6	0
Stop Work Order	0	0	0	1	0

# New Construction

Sewer projects are any new construction project that involves the construction of public sewer mainline.

Inquiries are requests made by customers to calculate sewer connection permit fees, they are normally done in advance of issuing the connection permit.

Utility locate requests are made by anyone digging in the vicinity of a sewer main. RVSS is required to mark the location of the underground pipes to minimize the chance of damage.

SWQ projects are construction projects within the MS4 Stormwater area that require preparation of stormwater management plan. There is some overlap between sewer projects and SWQ projects, but it is not perfect.

1200-C permits are issued to construction sites that disturb 5 acres of land or more.

1200-CN permits are issued to construction sites that disturb between 1 and 5 acres of land.

Small lot stormwater permits are issued to construction sites less than 1 acre.

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<b>10. New Construction</b>					
<b>10.1 RVSS - Core</b>	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023
Projects Initiated	22	23	20	14	28
Projects Completed	23	23	23	15	7
Residential Lots Completed	273	234	364	307	175
New Pipe Completed	17,396	10,755	14,088	7,743	5,615
Cost of Completed Projects	\$ 1,897,459	\$ 1,131,338	\$ 1,953,663	\$ 1,224,046	\$ 588,271
Number of Inquiries	431	258	625	271	199
Number of Permits Issued	389	362	643	554	310
Utility Locate Requests	6,783	6,829	9,382	6,929	6,026
<b>10.2 RVSS - Shady Cove</b>					
Projects Initiated	2	2	-	1	1
Projects Completed	1	1	1	-	-
Residential Lots Completed	-	2	6	-	-
New Pipe Completed	42	190	436	-	-
Cost of Completed Projects	\$ 14,267	\$ 25,621	\$ 36,400	\$ -	\$ -
Number of Inquiries	14	11	12	13	8
Number of Permits Issued	12	13	16	15	9
Utility Locate Requests			216	179	178
<b>10.3 Gold Hill (Contract)</b>					
Projects Initiated	-	1	-	2	-
Projects Completed	-	-	-	1	-
Residential Lots Completed	-	-	-	2	-
New Pipe Completed	-	-	-	406	-
Cost of Completed Projects	\$ -	-	-	\$ 72,957	
Number of Inquiries	10	9	11	2	1
Number of Permits Issued	10	12	11	7	1
Utility Locate Requests			187	180	149
<b>10.4 MS4 Area</b>					
# of SWQ Projects Initiated	23	23	29	38	37
# of SWQ Projects completed	25	22	15	23	20
# of 1200-C permits issued	2	1	4	5	7
# of 1200-C permits renewed			5	0	0
# of 1200-C permits terminated			0	3	2
# of 1200-CN permits issued	11	6	11	18	16
# of 1200-CN permits renewed			18	10	0
# of 1200-CN permits terminated			9	11	14
# of Small Lot SW Permits	52	19	469	135	47
<b>10.5 White City Industrial Storm Drain Area</b>					
Storm Drain Project Completed	0	0	0	0	0
New Pipe Completed	0	0	0	0	0
Cost of Completed Projects	0	0	0	0	0

# Treatment

RVSS operates three treatment facilities: The Shady Cove Sewer Treatment Plant; the Gold Hill Sewer Treatment Plant; and the White City Lagoon. This page includes summary data from the monthly monitoring reports.

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<b>11. Treatment</b>	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023
<b>11.1 SHADY COVE TREATMENT PLANT</b>					
Volume of Waste Treated (MG)	141.57	126.51	110.23	112.98	103.30
Hauled Waste Received (Gallon)	-	-	-	-	-
Pounds of BOD Removed	157,264	207,035	155,814	242,647	198,003
BOD Removal Rate	97.76%	98.74%	98.75%	99.21%	98.84%
Pounds of TSS Removed		145,880	120,620	208,473	173,874
TSS Removal Rate		98.22%	98.64%	99.21%	99.05%
Pounds of BOD Discharged	3,607	2,777	2,235	1,993	2,375
Pounds of TSS Discharged	2,529	2,645	1,666	1,733	1,716
Pounds of Nitrogen Discharged		17,406	14,572	13,398	13,458
Pounds of Phosphorus Discharged		2,401	1,960	2,103	2,438
Dry Tons of Biosolids Generated (calendar year)	48.69	25.39	41.17	42.18	
Pounds of Chlorine Used	3,612	3,625	4,005	4,049	3,843
Pounds of Sodium Bisulfate Used					
Pounds of Polymer Used					
Total Energy Used (kw-hr)	440,000	432,400	445,040	453,240	400,120
kW-hr per Million Gallons	3,108	3,418	4,038	4,012	3,873
kW-hr per lb BOD Removed	2.80	2.09	2.86	1.87	2.02
<b>11.2 GOLD HILL TREATMENT PLANT</b>					
Volume of Waste Treated (MG)	24.13	23.45	23.33	22.77	23.77
Pounds of BOD Removed	48,180	58,014	61,626	54,399	62,084
BOD Removal Rate	98.11%	97.27%	97.78%	97.68%	97.95%
Pounds of TSS Removed	42,905	40,705	41,343	38,727	44,349
TSS Removal Rate	96.73%	93.59%	95.41%	94.98%	95.53%
Pounds of BOD Discharged	930	1,629	1,407	1,297	1,296
Pounds of TSS Discharged	1,450	2,789	1,994	2,027	2,061
Pounds of Nitrogen Discharged					
Pounds of Phosphorus Discharged					
Dry Tons of Biosolids Generated	13.40	13.95	15.64	11.72	
Pounds of Chlorine Used	1,211	1,705	1,770	1,893	1,997
Pounds of Sodium Bisulfate Used					
Total Energy Used (kw-hr)	208,720	172,480	181,520	172,320	238,480
Energy per Million Gallons	8,648	7,355	7,781	7,568	10,033
Energy per lb BOD Removed	4.33	2.97	2.95	3.25	4.36
<b>11.3 WHITE CITY LAGOON</b>					
Hauled Waste Received (gallons)					
Domestic Septage	2,283,379	2,404,692	2,655,378	3,224,455	2,757,991
Chemical Toilet	210,725	268,035	477,115	585,388	524,096
Fats, Oils, and Grease	306,015	375,138	430,291	385,118	417,680
Gray Water	9,400	5,500	-	500	-
Total	2,809,519	3,053,365	3,562,784	4,195,461	3,699,767

# Level of Service

Level of service includes a variety of factors that relate to RVSS' interaction with our customers.

- Staff level is the total number of employees within each department. In FY 2023 the organizational structure of RVSS was updated. Stormwater and Treatment departments were moved under the Engineering and O&M Departments, respectively.
- The residential sewer rate is set by the Board of Directors. The rates for Gold Hill is set by the City Council. Shady Cove rates were set by the City Council prior to annexation. Starting in FY 2020 the rates are set by the RVSS Board of Directors.
- The median household income is shown to assess the affordability of the sewer bill. EPA guidance is that sewer bills less than 2% of median household income are considered "affordable". Current data on household income is challenging. For this report the figures presented are the household income from the years 2017 through 2021
- The percent of income to pay sewer includes franchise fees imposed by individual cities, where applicable.
- Complaints come to RVSS from customers for a variety of reasons. Each complaint is investigated to determine what, if any, action is needed.
- Insurance claims provide an indication of instances where RVSS actions have caused some sort of harm to an individual.



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<b>12. Level of Service</b>					
	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023
<b>12.1 Staff Levels (FTE)</b>	37	37	38	38	39
O&M/Treatment	17	17	17	17	18
Engineering/Stormwater/Construction	4	4	4	4	14
Stormwater	2.5	2.5	2.5	2.5	
Treatment	4	4	5	5	
Admin/Finance/IT/Customer Service	9.5	9.5	9.5	9.5	7
<b>12.2 Residential Sewer Rate</b>					
RVSS Core	\$ 20.50	\$ 21.50	\$ 21.50	\$ 23.00	\$ 24.00
RVSS - Shady Cove	\$ 46.00	\$ 41.12	\$ 41.12	\$ 42.06	\$ 43.22
Gold Hill (not RVSS)	\$ 58.86	\$ 58.86	\$ 58.86	\$ 58.86	\$ 58.86
Residential Stormwater Rate (MS4 area)	\$ 1.00	\$ 1.00	\$ 1.00	\$ 1.00	\$ 1.00
<b>12.3 Affordability</b>		Median Household Income	Median Household Income		% of Income to Pay Sewer
		(2016-2020)	(2017-2021)		
Jackson County		\$ 56,327	\$ 61,020		0.47%
Medford (97501)		\$ 48,865	\$ 57,424		0.50%
Central Point (97502)		\$ 72,650	\$ 73,534		0.39%
Talent (97540)		\$ 40,694	\$ 47,957		0.60%
Phoenix (97535)		\$ 38,427	\$ 40,691		0.71%
Jacksonville (97530)		\$ 87,254	\$ 79,770		0.36%
White City (97503)		\$ 54,204	\$ 57,869		0.50%
Eagle Point (97524)		\$ 69,825	\$ 73,159		0.39%
Shady Cove (97539)		\$ 43,824	\$ 53,962		1.03%
Gold Hill (97525)		\$ 57,823	\$ 62,703		1.13%
Notes on Income: Median Household income is reported by the US Census Bureau in Table B19013.					
Data covers the years 2017-2021 adjusted to 2021 dollars.					
Data is reported by Zip Code, not city limits.					

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	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023
<b>12.4A Complaints - RVSS Core</b>	<b>87</b>	<b>43</b>	<b>58</b>	<b>38</b>	<b>43</b>
Clogged line	40	10	15	14	13
Flusher Mishap	2	-	2	-	1
Odors	7	6	12	5	5
Sinkhole	1	-	3	-	-
STEP/STEG	20	12	11	6	5
Surface Water	10	7	4	5	7
Other	7	8	11	8	12
<b>12.4B Complaints - RVSS Shady Cove</b>	<b>-</b>	<b>-</b>	<b>6</b>	<b>1</b>	<b>3</b>
Clogged line			1	1	2
Flusher Mishap			-	-	-
Odors			2	-	1
Sinkhole			-	-	-
STEP/STEG			1	-	-
Surface Water			2	-	-
Other					-
<b>12.4C Complaints - Gold Hill (Contract)</b>	<b>0</b>	<b>0</b>	<b>9</b>	<b>-</b>	<b>1</b>
Clogged line			5	-	1
Flusher Mishap				-	
Odors				-	
Sinkhole				-	
STEP/STEG				-	
Surface Water			2	-	
Other			2	-	
<b>12.5 Insurance Claims (# of claims)</b>	<b>2</b>	<b>1</b>	<b>5</b>	<b>2</b>	<b>4</b>
General Liability	1	1	0	-	1
Auto Physical Damage	1		1	-	1
Auto Liability			0	-	1
Workers Comp			2	1	
Property			2	1	1
Incurred Loss (insurance)	\$ -	\$ -	\$ 91,758	\$ 7,330	\$ 17,082
Collection (RVSS)	\$ -	\$ -	\$ 5,811	\$ -	\$ -

# Financial

RVSS is subject to Oregon Budget Law. The budget is prepared annually and approved by the Board of Directors each June. End of year financial statements are audited by an independent auditor. All of the figures on this page are extracted from the budget.

- The annual revenue shows all of the money that comes in to RVSS from various sources.
- The annual expenses are separated to show the primary functions of RVSS.
- Personnel expenses is a subset of expenses. This shows all personnel costs from all functions.
- Training expenditure is a measure of the investment RVSS makes to train employees.
- The operating cost gives a measure of the cost to operate the collection system, based on the miles of pipe in the system and based on the number of residential equivalents.
- The treatment expense detail provides a measure of the cost per residential equivalent to operate the various treatment plants.
- The infrastructure expense detail shows where capital expenses are made.
  - The cost of privately funded projects is typically the labor expended during the plan review and inspection of private projects, but it also includes the cost of construction for projects build through the local improvement district process or through a reimbursement district sponsored by RVSS. RVSS expects to recoup these costs through plan review fees and assessments.
  - The 'other' costs are typically reimbursable costs associated with sewer repairs or contracted work. RVSS expects to recoup most of these costs through contract provisions or invoices for damages.
- The reinvestment rate is the amount of money spent on capital improvements divided by the total value of the system.

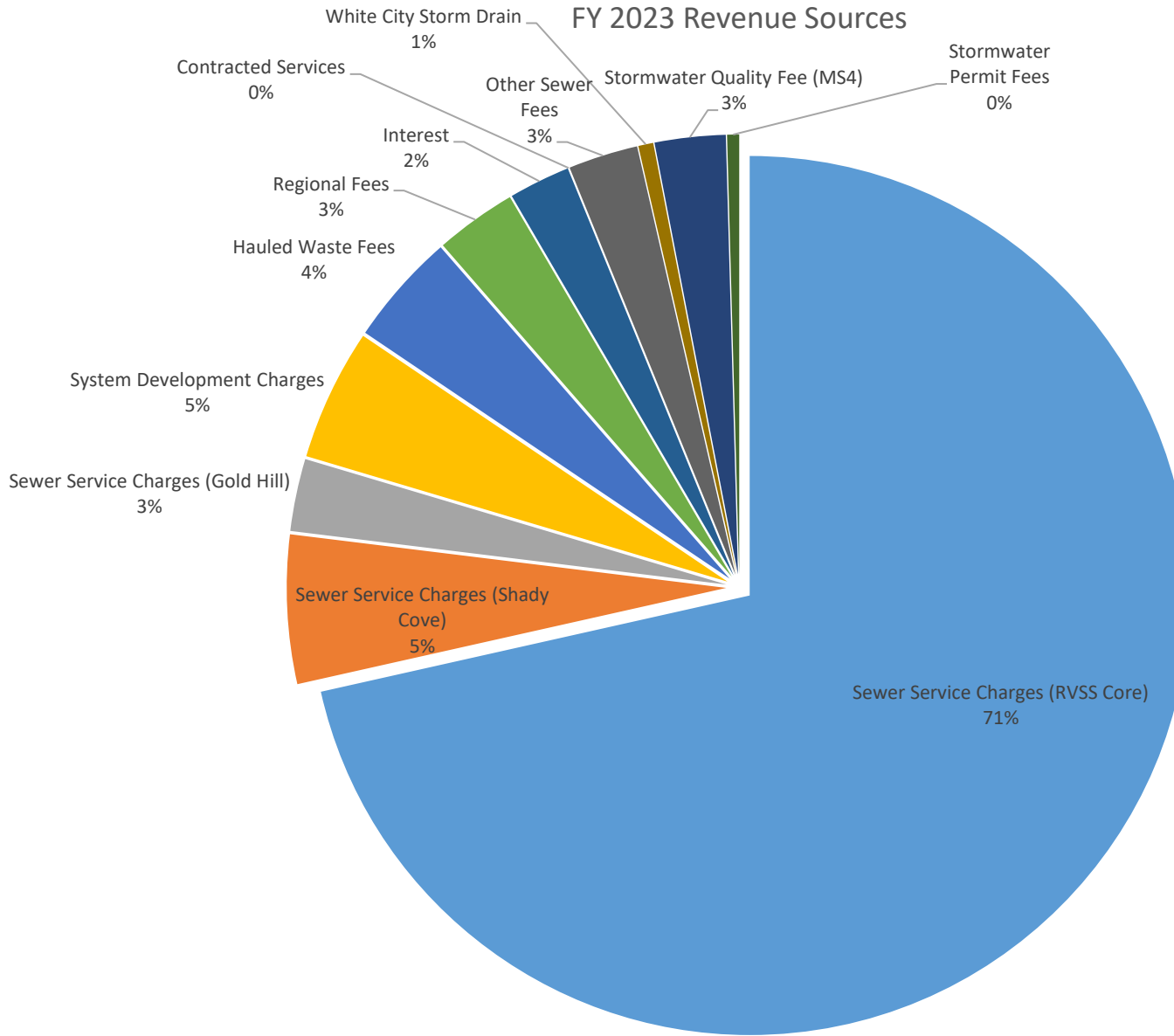
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<b>13. Financial</b>					
	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023
<b>13.1 Annual Revenue</b>					
Sewer Service Charges (RVSS Core)	\$ 8,962,931	\$ 9,423,735	\$ 9,199,728	\$ 9,872,239	\$ 10,482,194
Sewer Service Charges (Shady Cove)	\$ 405,000	\$ 726,680	\$ 770,849	\$ 799,775	\$ 801,000
Sewer Service Charges (Gold Hill)	\$ 360,000	\$ 360,000	\$ 360,000	\$ 360,000	\$ 390,060
System Development Charges	\$ 690,365	\$ 536,691	\$ 604,262	\$ 835,557	\$ 709,210
Hauled Waste Fees	\$ 432,736	\$ 453,759	\$ 525,036	\$ 629,693	\$ 607,288
Regional Fees	\$ 324,659	\$ 429,973	\$ 435,181	\$ 440,877	\$ 439,051
Interest	\$ 221,500	\$ 226,385	\$ 88,859	\$ 65,632	\$ 331,695
Contracted Services	\$ 43,250	\$ 9,488	\$ -	\$ -	\$ -
Other Sewer Fees	\$ 712,345	\$ 296,634	\$ 370,363	\$ 315,892	\$ 375,993
White City Storm Drain	\$ 77,561	\$ 76,443	\$ 77,670	\$ 78,612	\$ 80,733
Stormwater Quality Fee (MS4)	\$ 412,702	\$ 384,836	\$ 362,875	\$ 364,442	\$ 381,474
Stormwater Permit Fees	\$ 86,910	\$ 27,830	\$ 61,728	\$ 68,908	\$ 64,678
<b>Total Revenue</b>	<b>12,729,959</b>	<b>12,952,454</b>	<b>12,856,551</b>	<b>13,831,627</b>	<b>14,663,376</b>
<b>13.2 Annual Expenses</b>					
Collections (dept. 30, 40)	\$ 2,729,827	\$ 2,822,924	\$ 3,489,078	\$ 3,688,186	\$ 3,325,836
Treatment (dept. 60)	\$ 4,016,444	\$ 4,173,178	\$ 4,104,903	\$ 4,383,244	\$ 4,617,173
Stormwater (dept. 35)	\$ 361,879	\$ 268,586	\$ 290,252	\$ 259,135	\$ 247,056
Administration (dept. 10, 20)	\$ 1,934,593	\$ 2,047,666	\$ 2,164,394	\$ 2,588,717	\$ 2,405,811
Infrastructure Capital (dept. 50)	\$ 2,506,980	\$ 2,361,216	\$ 3,200,816	\$ 3,520,124	\$ 2,942,845
Debt Service	\$ 394,150	\$ 519,985	\$ 510,905	\$ 457,529	\$ 2,041,358
<b>Total Expenses</b>	<b>\$ 11,943,873</b>	<b>\$ 12,193,555</b>	<b>\$ 13,760,348</b>	<b>\$ 14,896,935</b>	<b>\$ 15,580,079</b>
% of Expenses for Collections	22.9%	23.2%	25.4%	24.8%	21.3%
% of Expenses for Treatment	33.6%	34.2%	29.8%	29.4%	29.6%
% of Expenses for Stormwater	3.0%	2.2%	2.1%	1.7%	1.6%
% of Expenses for Administration	16.2%	16.8%	15.7%	17.4%	15.4%
% of Expenses for Capital Improvements	21.0%	19.4%	23.3%	23.6%	18.9%
% of Expenses for Debt	3.3%	4.3%	3.7%	3.1%	13.1%
<b>13.3 Annual Personnel Expenditure</b>					
Wages	\$ 2,503,319	\$ 2,493,650	\$ 2,687,472	\$ 2,940,681	\$ 3,041,853
Benefits	\$ 1,319,278	\$ 1,397,340	\$ 1,540,669	\$ 1,659,075	\$ 1,741,672
Benefits as % of total personnel expense	35%	36%	36%	36%	36%
% of Revenue for Personnel	32.0%	31.9%	30.7%	30.9%	30.7%
Annual Training Expenditure	\$ 46,017	\$ 25,459	\$ 5,918	\$ 35,699	\$ 49,565
<b>13.4 Operating Costs</b>					
Collection System Operating Cost per Mile of Pipe	\$ 6,418	\$ 6,658	\$ 8,172	\$ 8,607	\$ 7,736
Collection System operating Cost per ERU	\$ 73.10	\$ 76.64	\$ 96.95	\$ 101.42	\$ 90.67

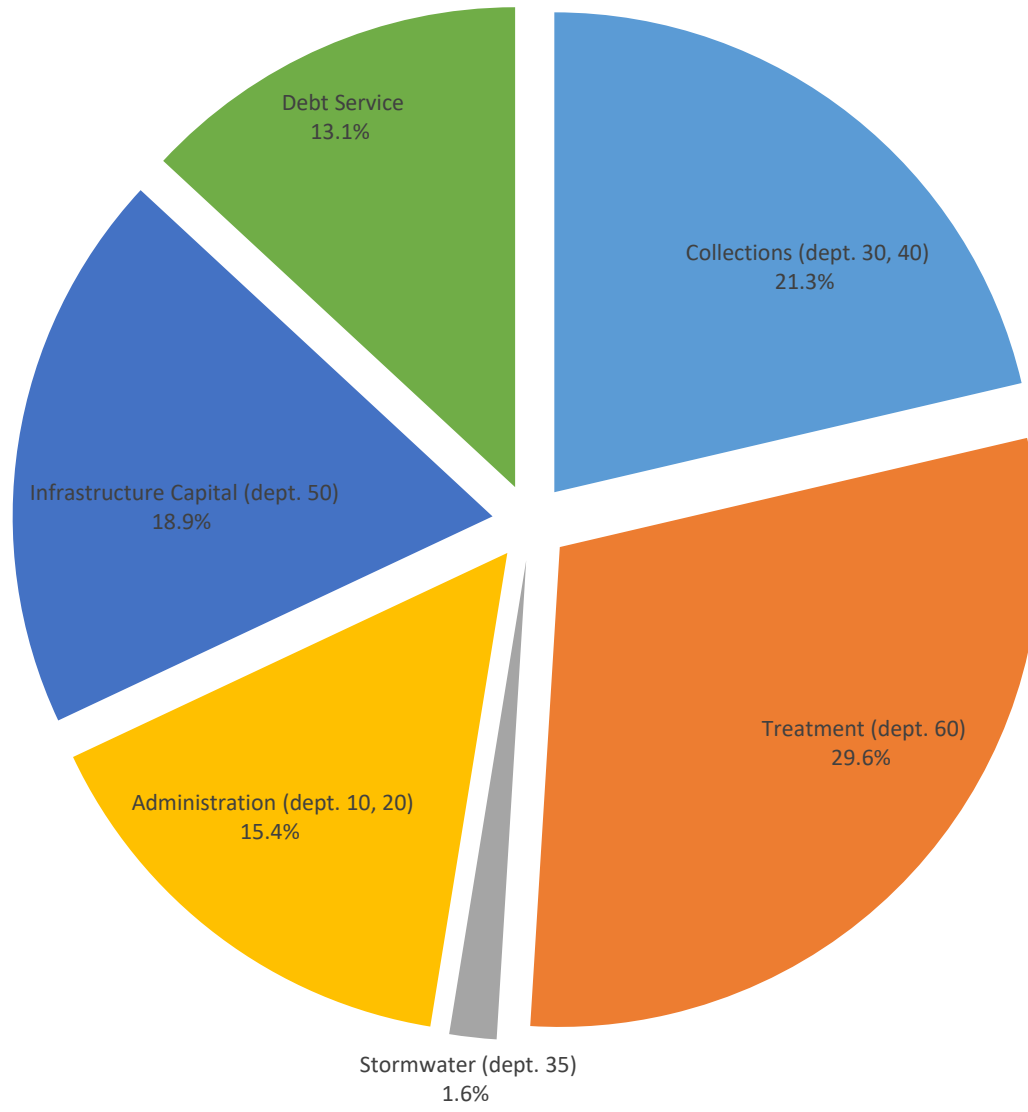
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<b>13.5 Treatment Operations Expense</b>	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023
RVSS Core	\$ 3,519,408	\$ 3,728,850	\$ 3,663,011	\$ 3,821,771	\$ 3,976,161
Shady Cove	\$ 356,222	\$ 343,301	\$ 369,581	\$ 391,794	\$ 357,608
Gold Hill	\$ 226,816	\$ 247,365	\$ 253,177	\$ 324,204	\$ 305,655
White City Lagoon		\$ 120,839	\$ 136,575	\$ 149,297	\$ 120,419
Treatment Cost per ERU					
RVSS Core	\$ 94.24	\$ 101.23	\$ 101.78	\$ 105.09	\$ 108.40
Shady Cove	\$ 227.32	\$ 212.70	\$ 236.58	\$ 249.39	\$ 226.76
Gold Hill	\$ 395.15	\$ 430.95	\$ 441.07	\$ 564.82	\$ 532.50
<b>13.6 Infrastructure Expense Detail</b>	FY 2019	FY 2020			
Privately Funded Projects	\$ 114,871	\$ 103,083	\$ 4,478	\$ 73,033	\$ 73,065
Collection System	\$ 1,957,554	\$ 1,870,158	\$ 2,176,351	\$ 2,070,458	\$ 1,401,341
Interceptor System	\$ 140,893	\$ 181,769	\$ 646,666	\$ 1,132,123	\$ 19,759
Shady Cove Treatment Plant	\$ 17,099	\$ 84,983	\$ 96,264	\$ 124,756	\$ 103,502
White City Lagoons	\$ 295,586	\$ 1,812	\$ 16,603	\$ 66,570	\$ 1,150,882
Gold Hill Treatment Plant		\$ 5,230	\$ 5,420	\$ 30,877	\$ 6,658
Gold Hill Collections			\$ 88,749	\$ -	\$ -
Storm Drainage	\$ 74	\$ 39,153	\$ -	\$ -	\$ -
Stormwater Quality	\$ 36,840	\$ 45,396	\$ 170,389	\$ 26,948	\$ 187,618
Building & Grounds	\$ (56,070)	\$ 5,593	\$ 1,050	\$ 19,915	\$ -
Other	\$ 133	\$ (1,306)	\$ (5,153)	\$ (24,556)	\$ 872
<b>Total</b>	\$ 2,506,980	\$ 2,335,871	\$ 3,200,816	\$ 3,520,124	\$ 2,943,697
Current Value of System	\$ 89,207,000	\$ 89,425,670	\$ 95,530,341	\$ 98,756,000	\$ 101,700,000
Re-investment Rate	2.81%	2.61%	3.35%	3.56%	2.89%

# FY 2023 Revenue Sources



# FY 2023 Expense Category



# Safety

RVSS files an annual report with OSHA detailing the number of labor hours worked and the number of safety incidents at each of our work locations. These reports are based on the calendar year.



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<b>14. Safety</b>					
<b>14.1 RVSS Main Office</b>	2018	2019	2020	2021	2022
Total Labor Hours	64,697	66,505	54,587	57,980	61,863
Number of Incidents	0	-	-	1	-
Number of Lost Time Incidents	0	-	-	-	-
<b>14.2 Shady Cove Treatment Plant</b>					
Total Labor Hours	4,066	3,270	3,058	3,604	3,484
Number of Incidents	0	-	-	1	-
Number of Lost Time Incidents	0	-	-	-	-
<b>14.3 Gold Hill Cove Treatment Plant</b>					
Total Labor Hours	2,743	2,423	2,602	2,523	3,059
Number of Incidents	0	-	-	-	-
Number of Lost Time Incidents	0	-	-	-	-
*Note: OSHA Form 300A filed based on calendar year.					

# Environmental Impact

The environmental impact of RVSS operations is measured by the consumption of natural resources, specifically energy, and by the emission of carbon dioxide.

To provide a common basis for comparison, all energy consumed is converted into kilowatt-hours.

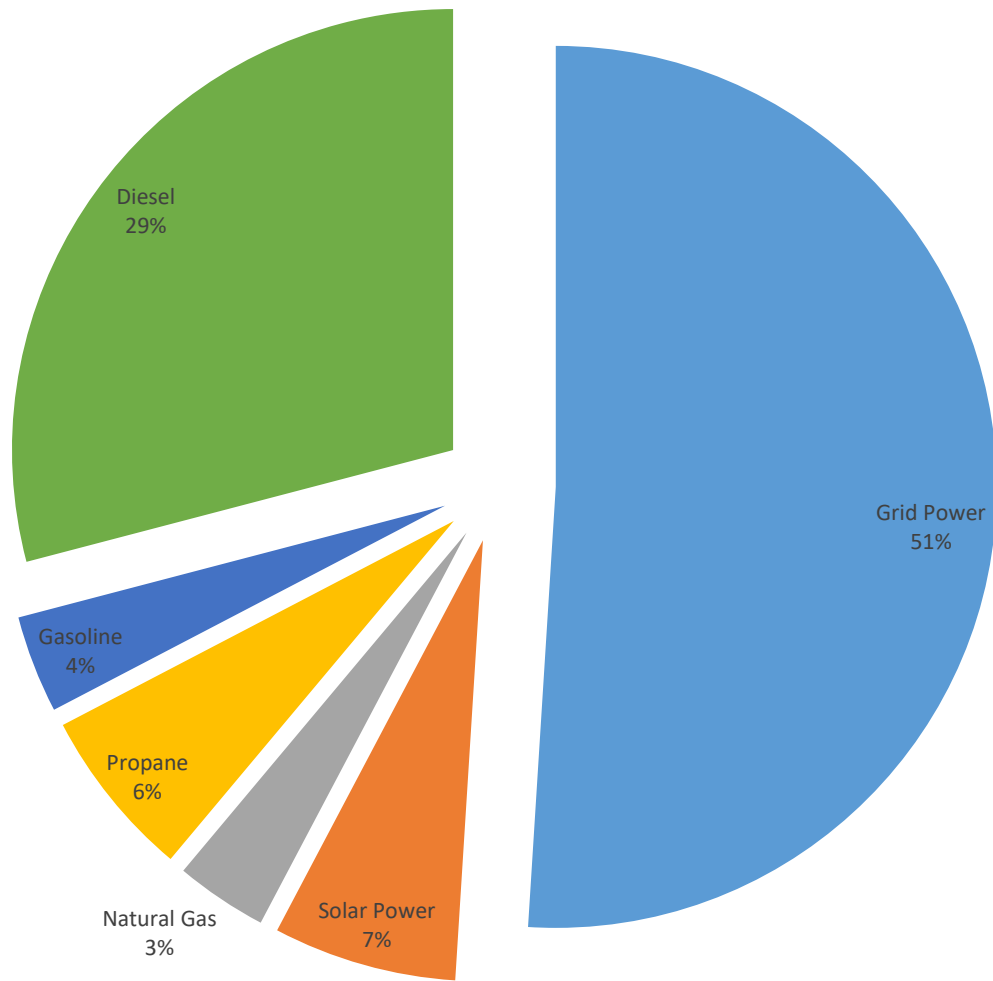
Carbon dioxide emissions are based on direct emissions from the use of energy. Indirect emissions, i.e. the carbon emitted during the manufacture and delivery of pipe, is not measured.

While the data presents energy consumption for wastewater treatment it does not include the Medford treatment plant, which treats the vast majority of wastewater conveyed by RVSS.

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<b>15. Environmental Impact</b>					
<b>Energy Use (all energy converted to kw-hr)</b>					
	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023
<b>15.1 Transportation</b>					
Gasoline	266,483	177,240	113,386	89,001	104,094
Diesel	561,921	571,979	784,287	723,674	682,318
Natural Gas	13,573	7,235	6,541	3,428	-
Propane	82,193	144,719	154,910	155,414	119,684
Electricity		1,088	2,794	4,317	5,545
<b>Total Transportation</b>	<b>924,169</b>	<b>902,261</b>	<b>1,061,918</b>	<b>975,834</b>	<b>911,641</b>
<b>15.2 Pumping</b>					
RVSS Core (utility power)	878,860	724,869	674,338	661,192	589,574
RVSS Core (solar power)	67,108	137,779	156,729	79,225	146,349
Shady Cove	49,573	52,827	52,772	51,572	26,111
<b>Total Pumping</b>	<b>995,541</b>	<b>915,475</b>	<b>883,839</b>	<b>791,989</b>	<b>762,034</b>
<b>15.3 Treatment</b>					
Shady Cove Electricity	440,000	432,400	445,040	453,240	437,360
Gold Hill Electricity	208,750	172,480	181,520	172,320	256,240
<b>Total Treatment</b>	<b>648,750</b>	<b>604,880</b>	<b>626,560</b>	<b>625,560</b>	<b>693,600</b>
<b>15.4 Office</b>					
Electricity (utility)	(7,482)	(35,329)	261	(17,478)	(23,235)
Electricity (solar)	90,461	101,289	95,958	88,173	91,380
Natural Gas	66,368	62,403	65,557	80,490	72,590
<b>Total Office</b>	<b>149,347</b>	<b>128,363</b>	<b>161,776</b>	<b>151,185</b>	<b>140,735</b>
<b>RVSS Operations (Total KW-HR)</b>	<b>2,717,807</b>	<b>2,550,979</b>	<b>2,734,093</b>	<b>2,544,568</b>	<b>2,508,010</b>
<b>RVSS Operations (Purchased KW-HR)</b>	<b>2,560,238</b>	<b>2,311,911</b>	<b>2,481,406</b>	<b>2,377,170</b>	<b>2,270,281</b>
<b>Carbon Emissions (tons of CO2)</b>					
	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023
<b>15.5 Transportation</b>					
Gasoline	72.34	48.12	30.80	24.16	28.30
Diesel	166.06	169.03	231.80	213.86	201.60
Natural Gas Vehicle	3.18	1.70	1.20	0.63	-
Propane Vehicle	19.57	34.46	36.90	37.00	28.50
Electric Vehicle		0.19	0.40	0.77	0.84
<b>Total Transportation</b>	<b>261.15</b>	<b>253.50</b>	<b>301.10</b>	<b>276.43</b>	<b>259.24</b>
<b>15.6 Pumping</b>					
RVSS Core	157.00	129.00	120.31	117.96	105.18
Shady Cove	9.00	9.00	9.41	9.20	4.66
<b>Total Pumping</b>	<b>166.00</b>	<b>138.00</b>	<b>129.72</b>	<b>127.16</b>	<b>109.84</b>
<b>15.7 Treatment</b>					
Shady Cove	78.00	77.00	79.40	80.86	78.03
Gold Hill	37.00	31.00	32.38	30.74	45.71
<b>Total Treatment</b>	<b>115.00</b>	<b>108.00</b>	<b>111.78</b>	<b>111.60</b>	<b>123.74</b>
<b>15.8 Office</b>					
Electricity	(1.33)	(6.30)	0.05	(3.12)	(4.15)
Natural Gas	12.29	11.55	12.14	14.90	13.44
<b>Total Office</b>	<b>10.96</b>	<b>5.25</b>	<b>12.18</b>	<b>11.78</b>	<b>9.29</b>
<b>Total RVSS Operations</b>	<b>553.11</b>	<b>504.75</b>	<b>554.78</b>	<b>526.97</b>	<b>502.11</b>

Fiscal Year 2023  
Energy Use by Source



FY 2023  
Energy Use by Function

