

SKYWAY WATER AND SEWER DISTRICT

RESOLUTION NO. 20-06-556

A resolution approving a Water and Sewer Capital Improvement Plan for the years 2020-2029

WHEREAS, Skyway Water and Sewer District's ("District") staff and consulting engineers have prepared a capital improvement plan ("CIP") describing recommended water and sewer system improvements for the years 2020-2029; and

WHEREAS, the plan was reviewed by the Board of Commissioners at a Special Meeting on February 14, 2020 and District financial planning consultants have incorporated its projections into the recently completed 2020 rate update; and

WHEREAS, for budgeting and planning purposes the District desires to annually adopt a ten-year water and sewer system CIP. The CIP shall be used as a guideline for capital project prioritizing and rate setting, but the Board of Commissioners shall have discretion to change priorities or decide not to fund certain projects based on the best interest of the District and its customers; now, therefore,

BE IT RESOLVED by the Board of Commissioners that the water and sewer system CIP covering the period 2020-2029 is hereby adopted. A copy of the plan is attached.

PASSED BY THE BOARD OF COMMISSIONERS OF SKYWAY WATER AND SEWER DISTRICT OF KING COUNTY, WASHINGTON, at its regular meeting held February 25, 2020.



Jon Ault, President
and Commissioner



Gary Schulz, Vice President
and Commissioner

Attest:


Donald Henry, Secretary
and Commissioner

SKYWAY WATER AND SEWER DISTRICT
WATER SYSTEM CAPITAL IMPROVEMENT PROGRAM 2020-2029

SUMMARY OF CAPITAL PROJECTS
 COST ESTIMATE (x \$1,000)

| February 3, 2020 | | | | | | | | | | | | | | | | | |
|------------------------------|---|--------|--------------|-----------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|-----------------|----------------------|---|
| NO. | DESCRIPTION | Length | Unit Cost/LF | Cost (\$1000's) | 2020 | 2021 | 2022 | 2023 | 2024 | 2025 | 2026 | 2027 | 2028 | 2029 | 2020-2029 TOTAL | FUTURE CAPITAL PROJ. | NOTES |
| W1 | Computer / Software/ Hardware/ Technology Upgrades and Replacement (1/2): This item will fund the Water Utility's portion of on-going computer equipment, software, and technology-related upgrades and replacements. | | District OPC | | 55 | 15 | 10 | 10 | 10 | 10 | 10 | 10 | 10 | 10 | 150 | 10 | See CIP #S1; 2020 Leak Correlator & Listening Device \$40,000; 2020 Desktop Computers = \$9,000 (\$18,000 total W&S) 2021 File Server = \$7,500 (\$15,000 total W&S) |
| W2 | Vehicle Renewal (1/2): This item will fund the Water Utility's portion of a capital fund for the future periodic purchase and upgrade of maintenance equipment and vehicles. | | District OPC | | 20 | | | 20 | | | 20 | | | | 20 | 80 | 20 See CIP #S2. 2020, 2023, 2026, 2029: Programmed Pickup Truck Replacement = \$20,000 (\$40,000 total W&S) |
| W3 | Documentation and Regulatory Compliance: This item will fund the update to District planning and procedural documents including: | | District OPC | | 8 | 20 | 8 | 5 | 8 | 5 | 8 | 5 | 8 | 5 | 80 | 8 | 2020, 2022, 2024, 2026 - Well Head Protection Update 2021 Map Books = \$15,000 (\$30,000 total W&S) |
| | - Well Head Protection Program Plan | | | | | | | | | | | | | | | | |
| | - | | | | | | | | | | | | | | | | |
| | - Fire Hydrant Program Plan | | | | | | | | | | | | | | | | |
| | - Emergency Plan | | | | | | | | | | | | | | | | |
| | - Water Quality Monitoring Program Plan | | | | | | | | | | | | | | | | |
| | - Construction / Development Guideline Update / Map Books | | | | | | | | | | | | | | | | |
| W4 | Comprehensive Plan Update (1/2): This item will fund the Water Utility's portion of the six-year update of the Water Utility's portion of the Comp Plan. | | PACE OPC | | 100 | | | | | | | | | | 100 | | See CIP #S4 |
| W5 | Telemetry System Conversion; (1/2): This item is complete. | | District OPC | | | | | | | | | | | | 0 | | Complete |
| W6 | Geographic Info. Systems (GIS); (1/2): This item will fund the Water Utility's portion of the District's GIS creation/updates. | | District OPC | | 15 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 60 | 5 | See CIP #S6 - On-going system creation/updates. 2020 Remote GIS / GPS software and equipment upgrades = \$10,000 (\$20,000 total W&S) |
| W7 | AWIA Vulnerability Assessment and Emergency Response Plan | | District OPC | | 10 | 20 | | | | | | | | | 30 | | American Water Infrastructure Act (AWIA), VA & ERP |
| W8 | Hydraulic Model Update: This item will fund the on-going updates to the District's water system hydraulic model. | | District OPC | | 10 | 40 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 90 | 5 | |
| W9 | Vacant | | | | | | | | | | | | | | | | |
| W10 | On-Going Water Main Upgrades: This contingency item is reserved for the on-going and/or emergency rehabilitation, replacement, or upgrade of the existing water system utility | | District OPC | | 250 | 250 | 250 | 250 | 250 | 250 | 250 | 250 | 250 | 250 | 2,500 | 250 | 2020 - Install fire hydrants @ So 130th / S Langston = \$15,000 2020 - So 122nd St (NW 7th St) from 87th Ave. So. to Taylor Av (750 LF); ex. acp in wet ground = \$150,000. 2021 - Skyway Center Casino and Pawn Shop - Replace 3-inch steel water pipe (450 LF) = \$100,000. |
| W11 | Periodical Valve and Hydrant Maintenance: This item will provide a capital fund reserve for on-going valve and hydrant maintenance, and for inspection and associated rebuilding of the District's control and pressure reducing valves. | | District OPC | | 2 | 2 | 2 | 37 | 2 | 2 | 2 | 2 | 38 | 2 | 91 | 38 | PRV rebuild on 5-year cycle (2023, 2028) |
| W12 | Water Service Stub & Meter Replacement: This item will fund the on-going replacement of deteriorating water service lines, located throughout the District. Service stub replacement extends from the water main to the water meter. | | District OPC | | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 120 | 12 | |
| W13 | Automated Water Meter Reading: This item will fund the replacement and retrofit of deteriorating water meters located throughout the District with new meters that incorporate new meter reading technology. | | District OPC | | 300 | 200 | 100 | | | | | | | | 600 | | This funds new meter reading technology, replaces, and retrofits existing meters. |
| W14 | Water System Pump Replacement: This item will fund the replacement of water pumps at various sites. | | District OPC | | | | | | | | | | | | | 50 | Future Booster Pump Station replacement on So 128th St |
| SUBTOTAL (This Sheet) | | | | | 782 | 564 | 392 | 344 | 292 | 289 | 312 | 289 | 328 | 309 | 3,901 | 398 | |

**SKYWAY WATER AND SEWER DISTRICT
WATER SYSTEM CAPITAL IMPROVEMENT PROGRAM 2020-2029**

SUMMARY OF CAPITAL PROJECTS
COST ESTIMATE (x \$1,000)

| February 3, 2020 | | | | | | | | | | | | | | | | | | |
|------------------------------|--|--------|--------------|-----------------|--------------|--------------|----------|------------|----------|----------|----------|----------|----------|----------|-----------------|----------------------|--|--|
| NO. | DESCRIPTION | Length | Unit Cost/LF | Cost (\$1000's) | 2020 | 2021 | 2022 | 2023 | 2024 | 2025 | 2026 | 2027 | 2028 | 2029 | 2020-2029 TOTAL | FUTURE CAPITAL PROJ. | NOTES | |
| W15 | Vacant | | | | | | | | | | | | | | | | | |
| W16 | Vacant | | | | | | | | | | | | | | | | | |
| W17 | Vacant | | | | | | | | | | | | | | | | | |
| W18 | Vacant | | | | | | | | | | | | | | | | | |
| W19 | Vacant | | | | | | | | | | | | | | | | | |
| W20 | Skyway Park Water Main Replacement: This item will replace the existing water main crossing Skyway Park as a portion of the construction documents for the District's Main sewer pump station and associated pipeline replacement project (800 LF). | | HZ OPC | | 307 | | | | | | | | | | 307 | | Coordinate with sewer system project- CIP #S20 | |
| W21 | Vacant | | | | | | | | | | | | | | | | | |
| W22 | Skyway Water Tank No.1 Painting, or Tower Replacement: This item will fund the interior and exterior painting, or decommissioning of Skyway Tank No. 1, located at 7402 South 128th Street. | | HZ OPC | | | | | 640 | | | | | | | 640 | 665 | Re-coating tank exterior on 15-year cycle. Interior recoating on 30-year cycle. 2023 Interior and Exterior coating. Future scheduled exterior coating in 2038. | |
| W23A | Small Diameter Water Main Replacement and Fire Flow Improvements Design and Construction. This item will fund the permitting, topographic survey, engineering design, PS&E, easement acquisition, construction, and construction review for the replacement of existing 2-inch and 4-inch water main with 8-inch DIP at the following locations: The associated water service lines will be replaced to the water meter as part of this construction. | | HZ OPC | | | | | | | | | | | | | | Fire hydrants to be provided. | |
| | - So. 115th St. from 84th Ave. So., to end of water main (750 LF) | 750 | 450 | \$338 | | | | | | | | | | | | | eastward to end of main; not in DWSRF funding application; ex. acp in wet ground; valve replacement | |
| | - So. 117th St. from 84th Ave. So. to Rainier Ave. So. (1,850 LF) | 1850 | 450 | \$833 | | | | | | | | | | | | | ex. acp in wet ground; valve replacement | |
| | - So. 118th St. from 84th Ave. So. to 87th Ave. So. (1,125 LF) | 1125 | 450 | \$506 | | | | | | | | | | | | | ex. acp in wet ground; valve replacement | |
| | - So. 120th St. from 84th Ave. So. to 87th Ave. So. (1,125 LF) | 1125 | 450 | \$506 | | | | | | | | | | | | | ex. acp in wet ground; valve replacement | |
| | - 87th Ave So from So 117th St to So 118th St | 550 | 450 | \$248 | | | | | | | | | | | | | | ex. acp in wet ground; valve replacement |
| | - 87th Ave So from So 118th St to So 121st St | 800 | 450 | \$360 | | | | | | | | | | | | | | ex. acp in wet ground; valve replacement |
| Total | 6200 | | | | 1395 | 1465 | | | | | | | | | 2,860 | | | |
| W23B | Small Diameter Water Main Replacement and Fire Flow Improvements - Skyway Park North Ph 1. This item will fund the permitting, topographic survey, engineering design, PS&E, easement acquisition, construction, and construction review for the replacement of existing 4-inch AC water main with 8-inch DIP at the following locations: The associated water service lines will be replaced to the water meter as part of this construction. | | HZ OPC | | | | | | | | | | | | | | | |
| | - So. 116th St. from So. 116th Pl. east to 76th Ave. So. (700 LF) | 700 | 450 | \$315 | | | | | | | | | | | | | Coordinate with Skyway Park North Ph 1, sewer CIP #S21 (scheduled for 2020 / 2021 construction) | |
| | - So. 116th Pl. from So. 116th St. to 76th Ave So (800 LF) | 800 | 450 | \$360 | | | | | | | | | | | | | Coordinate with Skyway Park North Ph 1, sewer CIP #S21 (scheduled for 2020 / 2021 construction) | |
| | - 76th Ave So from So 116th St to So 116th Pl (500 LF) | 500 | 450 | \$225 | | | | | | | | | | | | | Coordinate with Skyway Park North Ph 1, sewer CIP #S21 (scheduled for 2020 / 2021 construction) | |
| | - So. 118th Pl. from 74th Ave. So. to 76th Ave So (950 LF) | 950 | 450 | \$428 | | | | | | | | | | | | | Coordinate with Skyway Park North Ph 1, sewer CIP #S21 (scheduled for 2020 / 2021 construction) | |
| Total | 2950 | | | | 66 | 1324 | | | | | | | | | 1,391 | | | |
| SUBTOTAL (This Sheet) | | | | | 1,769 | 2,789 | 0 | 640 | 0 | 0 | 0 | 0 | 0 | 0 | 5,198 | 665 | | |

SKYWAY WATER AND SEWER DISTRICT
WATER SYSTEM CAPITAL IMPROVEMENT PROGRAM 2020-2029

SUMMARY OF CAPITAL PROJECTS
 COST ESTIMATE (x \$1,000)

| February 3, 2020 | | | | | | | | | | | | | | | | | | |
|------------------------------|--|--------|--------------|-----------------|----------|----------|----------|------------|--------------|------------|------------|------------|----------|----------|-----------------|----------------------|--|--|
| NO. | DESCRIPTION | Length | Unit Cost/LF | Cost (\$1000's) | 2020 | 2021 | 2022 | 2023 | 2024 | 2025 | 2026 | 2027 | 2028 | 2029 | 2020-2029 TOTAL | FUTURE CAPITAL PROJ. | NOTES | |
| W24A | District Water Supply/Treatment - Phase 2: Construction Complete. Project Closeout | | | | 1 | | | | | | | | | | 1 | | | |
| W24B | 550 Pressure Zone Water Improvements: This item will fund the permitting, topographic survey, engineering design, PS&E, construction, and construction review for the replacement of existing 2-inch and 4-inch water main with 8-inch DIP, and additional 8-inch DIP water main at the following locations: The associated water service lines will be replaced to the water meter as part of this construction. | | | | | | | | | | | | | | | | | |
| | * 8200 block of South 128th Street (200 LF) | 200 | 521 | \$104 | | | | | | | | | | | | | Move meters on to S 128th St. - add long services. Possible In-House. | |
| | * South end of Auburn Avenue South (300 LF) | 300 | 521 | \$156 | | | | | | | | | | | | | Ex. 2-inch galv replace with 4-inch DIP. Possible In-House / Developer | |
| | * 11800 block of 68th Avenue South (500 LF) | 500 | 521 | \$261 | | | | | | | | | | | | | Ex. 2-inch PVC. Consider install new main on S 118th St. | |
| | Total | 1000 | | | | | | 261 | 274 | | | | | | 534 | | | |
| W24C | Vacant | | | | | | | | | | | | | | | | | |
| W24D | Watershed Protection/Security This item will fund protection and security features for the District's well site. | | | | | | | | 100 | | | | | | 100 | | Fence, signs, lighting, security items | |
| W24E | Tank Nos. 3 & 4 Coating Replacement: This item will fund the structural inspection; exterior tank coating and interior tank wall and roof coatings rehabilitation of the two Bryn Mawr tank's (Nos. 3 & 4). Scope includes rehab of existing ceiling coatings and the removal and replacement of the tank's existing coal tar wall coatings. | | | | | | | | 850 | | | | | | 850 | | Project includes structural inspection, and interior and exterior coating replacement. | |
| W25A1 | Water Main Fire Flow Improvements - Skyway Park North Ph 2. This item will fund the permitting, topo survey, engineering design, PS&E, easement acquisition, construction, and construction review for the replacement of existing 4 and 6-inch dia. a/c pipelines with 8-inch ductile iron water mains at the below listed locations. The associated water service lines will be replaced to the water meter as part of this construction. | | | | | | | | | | | | | | | | Replace asbestos cement water main | |
| | 75th Ave So from So 122nd St north to fire hyd. @ 12044 75th Ave So (650 LF) | 650 | 548 | \$356 | | | | | | | | | | | | | Coordinate with sewer CIP #S25 (scheduled for 2023-25 construction) | |
| | Total | 650 | | \$356 | | | | 52 | 304 | | | | | | 356 | | | |
| W25A2 | Water Main Fire Flow Improvements - Skyway Park South This item will fund the permitting, topo survey, engineering design, PS&E, easement acquisition, construction, and construction review for the replacement of existing 4 and 6-inch dia. a/c pipelines with 8-inch ductile iron water mains at the below listed locations. The associated water service lines will be replaced to the water meter as part of this construction. | | | | | | | | | | | | | | | | Replace asbestos cement water main | |
| | - 70th Ave. So. from So. 124th St. to So 120th St (900 LF) | 900 | 604 | \$544 | | | | | | | | | | | | | Coordinate w / sewer CIP #S23 (scheduled for 2025-27) | |
| | - 70th Pl. So. from So. 120th Pl. to the end of main (400 LF) | 400 | 604 | \$242 | | | | | | | | | | | | | Coordinate w / sewer CIP #S23 (scheduled for 2025-27) | |
| | - 71st Ave So from So 124th St to 70th Ave S (1,200 LF) | 1200 | 604 | \$725 | | | | | | | | | | | | | Coordinate w / sewer CIP #S23 (scheduled for 2025-27) | |
| | Total | 2500 | | | | | | | 242 | 634 | 666 | | | | 1,542 | | | |
| SUBTOTAL (This Sheet) | | | | | 1 | 0 | 0 | 313 | 1,528 | 242 | 634 | 666 | 0 | 0 | 3,383 | 0 | | |

SKYWAY WATER AND SEWER DISTRICT
WATER SYSTEM CAPITAL IMPROVEMENT PROGRAM 2020-2029

SUMMARY OF CAPITAL PROJECTS
 COST ESTIMATE (x \$1,000)

| February 3, 2020 | | | | | | | | | | | | | | | | | |
|------------------------------|--|--------|--------------|-----------------|----------|----------|----------|------------|--------------|----------|----------|----------|--------------|------------|-----------------|----------------------|--|
| NO. | DESCRIPTION | Length | Unit Cost/LF | Cost (\$1000's) | 2020 | 2021 | 2022 | 2023 | 2024 | 2025 | 2026 | 2027 | 2028 | 2029 | 2020-2029 TOTAL | FUTURE CAPITAL PROJ. | NOTES |
| W25B | Water Main Fire Flow Improvements- Seattle Heights. This item will fund the permitting, topo survey, engineering design, PS&E, easement acquisition, construction, and construction review for the replacement of existing 4-inch dia. pipelines with 8-inch ductile iron water mains at the below listed locations. The associated water service lines will be replaced to the water meter as part of this construction. | | HZ OPC | | | | | | | | | | | | | | Replace asbestos cement water main |
| | - 79th Ave. So. from So. 122nd St. south to fire hyd. (350 LF) | 350 | 734 | \$257 | | | | | | | | | | | | | Coordinate w / sewer CIP #S27 (scheduled for 2029-31) |
| | So 122nd St from 78th-79th Ave So (300 LF) | 300 | 734 | \$220 | | | | | | | | | | | | | Coordinate w / sewer CIP #S27 (scheduled for 2029-31) |
| | 77th Ave. So. From So. 120th to So 124th St (1,250 LF) | 1250 | 734 | \$918 | | | | | | | | | | | | | Coordinate w / sewer CIP #S27 (scheduled for 2029-31) |
| | 78th Ave. So. From So. 120th to So 124th St (1,250 LF) | 1250 | 734 | \$918 | | | | | | | | | | | | | Coordinate w / sewer CIP #S27 (scheduled for 2029-31) |
| | Total | 3150 | | \$2,312 | | | | | | | | | | | 347 | 347 | 1,965 |
| W26 | 615 Pressure Zone Fire Flow Improvements Design and Construction (2,700 LF): This item will fund the permitting, topographic survey, engineering design, PS&E, easement acquisition, construction, and construction review for the replacement of existing cast iron pipeline segments with 8-inch ductile iron water mains at the following locations: The associated water service lines will be replaced to the water meter as part of this construction. | | HZ OPC | | | | | | | | | | | | | | |
| | - 69th Ave. So. from So. 129th Pl. to So. 130th St. (250 LF) | 250 | 521 | \$130 | | | | | | | | | | | | | |
| | - 70th Ave. So. from So. 128th St. to So. 129th Pl. (550 LF) | 550 | 521 | \$287 | | | | | | | | | | | | | |
| | - So. 129th Pl. from 69th Ave. So. to the F.H. east of 70th Ave. So. (350 LF) | 350 | 521 | \$182 | | | | | | | | | | | | | |
| | - So. 130th St. from 69th Ave. So. eastward to the first F.H. (100 LF) | 100 | 521 | \$52 | | | | | | | | | | | | | |
| | - 71st Ave. So. from Water Sample Stand to So. 129th Pl. (300 LF) | 300 | 521 | \$156 | | | | | | | | | | | | | |
| | - Private property near 73rd Ave. So. from So. 128th to So. 129th St. then east to F.H. (400 LF) | 400 | 521 | \$208 | | | | | | | | | | | | | |
| | - So. 129th St. from 74th to 76th Ave. So. (650 LF) | 650 | 521 | \$339 | | | | | | | | | | | | | |
| | - 74th Ave. So. from So. Langston Rd. north to F.H. (300 LF) | 300 | 521 | \$156 | | | | | | | | | | | | | |
| | - So. 127th St. from 74th Pl. So. southward to the first fire hydrant (100 LF) | 100 | 521 | \$52 | | | | | | | | | | | | | |
| Total | 3000 | | | | | | 234 | 1,395 | | | | | | | 1,629 | | |
| W27 | Renton Avenue South Water Main Replacement - This item provides a budget for water facility relocation/replacement associated with King County's Renton Avenue South sidewalk replacement/additions. This item also provides for the replacement of the existing A/C water mains in Renton Ave. So. from 68th Ave. So. to 75th Ave. So. with one appropriately-sized ductile iron water main. (3,100 LF) | 3100 | 766 | \$2,375 | | | | | | | | | 2,375 | | 2,375 | | Contingency for King County sidewalk replacement: Coordinate water main replacement(s) with King County Roads' improvements schedule (e.g. 68th Ave So, So 112th St) |
| SUBTOTAL (This Sheet) | | | | | 0 | 0 | 0 | 234 | 1,395 | 0 | 0 | 0 | 2,375 | 347 | 4,351 | 1,965 | |

SKYWAY WATER AND SEWER DISTRICT
WATER SYSTEM CAPITAL IMPROVEMENT PROGRAM 2020-2029

SUMMARY OF CAPITAL PROJECTS
 COST ESTIMATE (x \$1,000)

| February 3, 2020 | | | | | | | | | | | | | | | | | | |
|---|--|--------|--------------|-----------------|--------------|--------------|---------------|---------------|--------------|--------------|--------------|--------------|--------------|--------------|-----------------|----------------------|---|--|
| NO. | DESCRIPTION | Length | Unit Cost/LF | Cost (\$1000's) | 2020 | 2021 | 2022 | 2023 | 2024 | 2025 | 2026 | 2027 | 2028 | 2029 | 2020-2029 TOTAL | FUTURE CAPITAL PROJ. | NOTES | |
| W28 | Rainier Avenue South / South 113th Street; So 118th St / 79th Ave So Water Main Replacement - This item will fund the permitting, topographic survey, engineering design, PS&E, construction, and construction review for the replacement of existing water main and associated water services pipeline segments with 8-inch ductile iron water main on the eastside of Rainier northward from South 113th Street to the fire hydrant (A/C main); on So 113th St east of Rainier Ave So (A/C main), So 118th St and 79th Ave So (fire flow). (1,800 LF) | | | | | | | | | | | | | | | | Design / Construction 2020. Budget consideration for high-volume traffic of Rainier Avenue, and private property coordination. | |
| | - Rainier Ave northward from South 113th Street | 700 | 473 | \$331 | | | | | | | | | | | | | | |
| | - South 113th Street | 450 | 450 | \$203 | | | | | | | | | | | | | | |
| | - So 118th St & 79th Ave So | 650 | 450 | \$293 | | | | | | | | | | | | | | |
| | Total | 1800 | | \$826 | 826 | | | | | | | | | | 826 | | | |
| W29 | Skyway Water Tank No.2 Interior and Exterior Coating Replacement: This item will fund the interior and exterior coating replacement for Skyway Tank No. 2, located at 6805 South 124th Street. | | | | | | 500 | | | | | | | | 500 | 1,500 | Re-coating tank exterior on 15-year cycle. Interior recoating on 30-year cycle. 2022 Remove existing exterior and recoat (exterior only). Future scheduled interior and exterior coating in 2037. | |
| W30 | South Sunnycrest Road Water Main Replacement (3,500 LF) - Lakeridge Ave to Cornell Ave. Replace existing 6-inch cast iron pipe with 8-inch ductile iron pipe | | | | | | 1,740 | | | | | | | | 1,740 | | Water main breaks | |
| W31 | Forest Avenue South; and Garden Place South - Lakeridge to Lotus, Water Main Replacement (3,150 LF) - Replace existing 4 inch cast iron pipe with 8-inch ductile iron pipe | | | | | | | | | | | | | | | | Water main breaks | |
| | - Forest Avenue South | 2800 | 521 | \$1,459 | | | | | | | | | | | | | | |
| | - Garden Place South | 350 | 521 | \$182 | | | | | | | | | | | | | | |
| | Total | 3150 | | \$1,641 | | | | 1,641 | | | | | | | 1,641 | | | |
| SUBTOTAL (This Sheet) | | | | | 826 | 0 | 2,240 | 1,641 | 0 | 0 | 0 | 0 | 0 | 0 | 4,707 | 1,500 | | |
| WATER UTILITY ANNUAL TOTAL | | | | | 3,378 | 3,353 | 2,632 | 3,172 | 3,215 | 531 | 946 | 955 | 2,703 | 656 | 21,539 | 4,528 | | |
| COMBINED WATER AND SEWER UTILITY'S ANNUAL TOTAL | | | | | 9,477 | 9,535 | 10,408 | 10,443 | 7,190 | 7,550 | 8,535 | 8,682 | 7,264 | 7,524 | 86,607 | 50,887 | | |
| <p>Planning-Level Opinions of Probable Costs (OPC) for water pipeline projects are based on a sampling of 2015-2017 bid tabulations for similar water works projects, and include the current State Sales Tax of 10.0%. In addition, an annual inflation factor of 5% was used in forecasting these capital improvement costs.</p> | | | | | | | | | | | | | | | | | | |

**SKYWAY WATER AND SEWER DISTRICT
SEWER SYSTEM CAPITAL IMPROVEMENT PROGRAM 2020-2029**

SUMMARY OF CAPITAL PROJECTS
COST ESTIMATE (x \$1,000)

| February 3, 2020 | | | | | | | | | | | | | 2020-2029 | FUTURE | |
|------------------------------|---|---------------------|--------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|--------------|---------------|---|
| NO. | DESCRIPTION | | 2020 | 2021 | 2022 | 2023 | 2024 | 2025 | 2026 | 2027 | 2028 | 2029 | TOTAL | CAPITAL PROJ. | NOTES |
| S1 | Computer / Software/ Hardware/ Technology Upgrades and Replacement (1/2): This item will fund the Sewer Utility's portion of on-going computer equipment, software, telemetry system, and technology-related upgrades and replacements. | District OPC | 10 | 10 | 10 | 18 | 10 | 10 | 10 | 10 | 10 | 10 | 108 | 10 | See CIP #W1; 2020 Desktop Computers = \$9,000 (\$18,000 total W&S); 2020 Crawler Camera Software = \$12,000 2021 File Server = \$7,500 (\$15,000 total W&S) |
| S2 | Vehicle Renewal (1/2): This item will fund the Sewer Utility's portion of a capital fund for the future periodic purchase and upgrade of maintenance equipment and vehicles. | District OPC | 20 | | | 20 | | | 20 | | | | 20 | 20 | See CIP #W2. 2020, 2023, 2026, 2029: Programmed Pickup Truck Replacement = \$20,000 (\$40,000 total W&S) |
| S3 | Documentation and Regulatory Compliance: This item will fund the update to the District's planning and procedural documents including: - Sewer Manhole Maintenance Program Plan - Sewer Manhole and Pump Station Flow Monitoring Program Plan - Emergency Plan - Construction / Development Guideline Update / Map Books | District OPC | 5 | 20 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 65 | 5 | 2020 Sewer Manhole and Pump Station Monitoring Plan 2021 Map Books = \$15,000 (\$30,000 total W&S) |
| S4 | Comprehensive Plan Update (1/2): This item will fund the Sewer Utility's portion of the Comprehensive Utility Plan six-year updates. | PACE OPC | 100 | | | | | | | | | | 100 | | See CIP #W4 |
| S5 | Telemetry System Conversion; (1/2): This item will fund the Sewer Utility's portion of a capital fund for integrating telemetry system improvements that will increase system capabilities and reliability. | District OPC | 225 | | | | | | | | | | 225 | | Water system telemetry conversion complete |
| S6 | Geographic Information Systems (GIS); (1/2): This item will fund the Sewer Utility's portion of the District's GIS creation/updates. | District OPC | 15 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 60 | 5 | See CIP #W6 On-going system creation/updates. 2020 Remote GIS / GPS software and equipment upgrades \$10,000 (\$20,000 W&S). |
| S7 | Sewer Facility and Maintenance Equipment Replacement: This item will fund the procurement and replacement of sewer operation and maintenance equipment. | District OPC | 240 | | | | | | | | 60 | | 300 | 50 | Foster Station Pump Replacement (\$80k), Northshore, Southshore Panel Replacements (\$65k); 2020 Potential purchase of flow monitoring equipment (\$25K). Langston and Foster Panel Replacements (\$70k); One targeted generator replacement every 15 years. Next scheduled 2028; |
| S8 | Hydraulic Model Updates: This item will fund the on-going updates to the District's sewer system hydraulic model. | District OPC | 5 | 30 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 75 | 5 | 2021 model development |
| S9 | Vacant | | | | | | | | | | | | | | |
| S10 | Repair Existing Sewer System; I & I Monitoring; Sewer Video Inspection- This is a contingency item reserved for the on-going repair, rehabilitation or upgrade of the existing sanitary sewer utility, including but not limited to: a) Sewer Replacement Bokara Condos to Public Storage - replace offset pipe; possible In-House b) 84th Ave S and S 124th St Repair vertical offset sewer main; possible In-House | District and HZ OPC | 250 | 250 | 250 | 250 | 250 | 250 | 250 | 250 | 250 | 250 | 2500 | 250 | Sewer system infrastructure repairs. |
| S11 | First Cities Pump Replacement - This item will fund the pump station piping replacement, the installation of new wastewater pumps, a new dedicated fixed emergency generator, and site fencing. | HZ OPC | 300 | | | | | | | | | | 300 | | Design, permitting, and construction in 2020. |
| SUBTOTAL (This Sheet) | | | 1,170 | 315 | 275 | 303 | 275 | 275 | 295 | 275 | 335 | 295 | 3,813 | 345 | |

**SKYWAY WATER AND SEWER DISTRICT
SEWER SYSTEM CAPITAL IMPROVEMENT PROGRAM 2020-2029**

SUMMARY OF CAPITAL PROJECTS
COST ESTIMATE (x \$1,000)

| February 3, 2020 | | | | | | | | | | | | | 2020-2029 TOTAL | FUTURE CAPITAL PROJ. | NOTES |
|------------------------------|---|--------|--------------|--------------|--------------|--------------|----------|--------------|--------------|--------------|----------|----------|-----------------|----------------------|---|
| NO. | DESCRIPTION | | 2020 | 2021 | 2022 | 2023 | 2024 | 2025 | 2026 | 2027 | 2028 | 2029 | | | |
| S12 | Sewer Lateral Connection Repairs - This provides for repair/replacement of sewer lateral connections at the District sewer main and the associated side sewers. a) 8200 blk S 114th St lateral connection repair (at sewer main) b) 7600 blk S 113th St lateral connection repair (at sewer main) c) 7905 S 120th St lateral connection repair (at sewer main) d) 7800 block of South 115th lateral connection repair f) 6800 block of South 120th Pl lateral connection repair g) 12000 block of 75th lateral connection repair | HZ OPC | 180 | | | | | | | | | | 180 | | 527 |
| S13 | Renlon Avenue South Sewer Repair / Replacement (1,550 LF): This item provides for sewer main pipe and associated side sewers repair/replacement on Renlon Ave So between 74th Ave So and 75th Ave So. | HZ OPC | 550 | | | | | | | | | | 550 | | Potential CIPP / Pipe bursting / Open cut options. Includes video review, determination of repair/replacement method, design, and construction. |
| S14 | Vacant | | | | | | | | | | | | | | |
| S15 | Vacant | | | | | | | | | | | | | | |
| S16 | Vacant | | | | | | | | | | | | | | |
| S17 | Vacant | | | | | | | | | | | | | | |
| S18 | Vacant | | | | | | | | | | | | | | |
| S19 | Vacant | | | | | | | | | | | | | | |
| S20 | Replace Main Pump Station (Convert to Submersible Station) / Gravity Main Greentree and Park to Main Sta. / New Force Main / Decommission Greentree and Park (4,250 LF): This item will replace the existing Main wet well/dry well sewage lift station with new submersible pump sta. This project also funds a gravity sewer main from the Greentree and Park Pump Stas. to the Main Pump Sta., a new Force Main for the Main Sta., and provides for the decommissioning of the Greentree and Park Pump Stations. | HZ OPC | 3,665 | | | | | | | | | | 3,665 | | Design by PWTF loan. Construction by PWTF loan. Coordinate with CIP #W20 (scheduled for 2020 construction). |
| S21 | Design/Easement Acquisition/Construction Skyway Park North- Phase 1 Sewer Replacement (I & I Reduction); (5,600 LF). This item will fund the Skyway Park North 'house survey' and overall sanitary sewer profile, topographic survey, engineering design, PS&E, easement acquisition, construction and construction review for the replacement of the existing sanitary sewer collection system, sewer stubs and side sewers for the northern portion of the Skyway Park development. | HZ OPC | 100 | 4,005 | 2,075 | | | | | | | | 6,180 | | Northern half of Skyway Park North neighborhood, South 118th Place and northward. Design completion in 2020. One half construction in 2020, one half in 2021. Coordinate with CIP #W23B (scheduled for 2020 / 2021 construction). |
| S22A | Sewer Force Main Replacement- Sunset Station. This item will fund the replacement of the permitting, design, and construction of the remaining portion of the original sewer force main along Martin Luther King Way South to its discharge point at So 129th Street (400 LF). | HZ OPC | 435 | | | | | | | | | | 435 | | Replace force main with past history of breaks. |
| S22B | Replace Sunset Pump Station (Convert to Submersible Station): This item will replace the existing Sunset wet well/dry well sewage lift station with new submersible pump station. | HZ OPC | | | | | | 540 | 1,702 | | | | 2,242 | | Potential station abandonment if reroute sewage flow. |
| S23 | Design/Easement Acquisition/Construction Skyway Park South Sewer Replacement (I & I Reduction); (8,200 LF): This item will fund the Skyway Park South 'house survey' and overall sanitary sewer profile, topographic survey, engineering design, PS&E, easement acquisition, construction and construction review for the replacement of the existing sanitary sewer collection system located within that portion of the Skyway Park development generally bounded by 68th Ave. So., So. 124th St., 71st Ave. So., and So 120th St. The downstream terminus is the gravity system's connection to the District's Main Sewer Lift Station. | HZ OPC | | | | | | 1,919 | 5,592 | 5,871 | | | 13,382 | | Video/planning/survey/design/permitting 2025; Estimate 50% const in 2026; 50% const in 2027. Coordinate with CIP #W25A2 (scheduled for 2025-2027). |
| S24A | Basin 7 North, Sewer System Replacement (I & I Reduction) ; (10,500 LF gravity, 500 LF force main). This item will fund the Basin 7 'house survey' and overall sanitary sewer profile, topographic survey, engineering design, PS&E, easement acquisition, construction and construction review for the replacement of the existing sanitary sewer collection system, sewer stubs and side sewers for the northern portion of the Basin 7 area of the District. | HZ OPC | | 1,862 | 5,426 | 5,698 | | | | | | | 12,986 | | Video/planning/survey/design/permitting 2021; Estimate 50% const in 2022; 50% const in 2023. |
| SUBTOTAL (This Sheet) | | | 4,930 | 5,867 | 7,501 | 5,698 | 0 | 2,459 | 7,294 | 5,871 | 0 | 0 | 39,620 | 0 | |

**SKYWAY WATER AND SEWER DISTRICT
SEWER SYSTEM CAPITAL IMPROVEMENT PROGRAM 2020-2029**

SUMMARY OF CAPITAL PROJECTS
COST ESTIMATE (x \$1,000)

| February 3, 2020 | | | | | | | | | | | | | 2020-2029 | FUTURE | |
|--|--|--------|--------------|--------------|---------------|---------------|--------------|--------------|--------------|--------------|--------------|--------------|---------------|----------------|---|
| NO. | DESCRIPTION | | 2020 | 2021 | 2022 | 2023 | 2024 | 2025 | 2026 | 2027 | 2028 | 2029 | TOTAL | CAPITA L PROJ. | NOTES |
| S24B | Basin 7 South, Rainier Avenue Lakefront Sewer System Rehabilitation/Replacement (5,300 LF). This item will fund a sewer system rehabilitation/replacement design report for Basin 7, including existing conditions video, Rainier Avenue sewer main manhole topographic survey, and review of rehabilitation/replacement alternatives (2017). The east side of Rainier Avenue design, permitting, and sewer system rehabilitation/replacement (2019-2021). | HZ OPC | | | | | | 400 | | 1,581 | 4,226 | 4,438 | 10,645 | | 2025 - System condition review, design report. Design 2027; Construction 2026 / 2029. Schedule is contingent on Basin 7 North (S24A) system improvement completion and resultant sewer flows. |
| S25 | Design/Easement Acquisition/Construction Skyway Park North- Phase 2 Sewer Replacement (I & I Reduction); (5,800 LF). This item will fund the Skyway Park North 'house survey' and overall sanitary sewer profile, topographic survey, engineering design, PS&E, easement acquisition, construction and construction review for the replacement of the existing sanitary sewer collection system, sewer stubs and side sewers for the northern portion of the Skyway Park development. | HZ OPC | | | | 1,270 | 3,700 | 3,885 | | | | | 8,855 | | Southern half of Skyway Park North neighborhood, south of South 118th Place. Coordinate with CIP #W25A 1 (scheduled for 2023 design, 2024 construction). |
| S26 | Design/Easement Acquisition/Construction Bryn Mawr Central Sewer Main Replacement (I&I Reduction) for the locations as noted (2,550 LF); This item will fund the 'house survey', sanitary sewer profile, topographic survey, engineering design, PS&E, easement acquisition, bidding phase, and replacement of sewer main, sewer stubs and side sewers at the following locations: South 114th Street from 81st Pl S to 80th Ave S (550 LF) South 113th to South 114th Street - replace 10-inch (400 LF) 80th Avenue South from South 114th Street to South 115th Place South 115th Street (600 LF) South 115th Place (600 LF) | HZ OPC | | | | | | | | | | | 0 | 5,094 | System age and condition. Estimated year of improvement is 2030 design; 2032/2033 construction. |
| S27 | Design/Easement Acquisition/Construction Seattle Heights Sewer Replacement (I & I Reduction); (8,000 LF). This item will fund the Seattle Heights 'house survey' and overall sanitary sewer profile, topographic survey, engineering design, PS&E, easement acquisition, construction and construction review for the replacement of the existing sanitary sewer collection system, sewer stubs and side sewers for the Seattle Heights development. | HZ OPC | | | | | | | | | | 2,135 | 2,135 | 12,755 | Coordinate with CIP #W25B (scheduled for 2029-2031). Age, Side Sewers, Relocated mains into right-of-way. |
| S28 | Basin 6 - Phase 1 Sewer System Replacement (I & I Reduction); (6,000 LF). This item will fund the Basin 6 Phase 2 'house survey' and overall sanitary sewer profile, topographic survey, engineering design, PS&E, easement acquisition, construction and construction review for the replacement of the existing sanitary sewer collection system, sewer stubs and side sewers. | HZ OPC | | | | | | | | | | | 0 | 14,060 | System age and condition. 2031 design; 2033/2034 construction. |
| S29 | Basin 6 - Phase 2 Sewer System Replacement (I & I Reduction); (5,500 LF). This item will fund the Basin 6 Phase 1 'house survey' and overall sanitary sewer profile, topographic survey, engineering design, PS&E, easement acquisition, construction and construction review for the replacement of the existing sanitary sewer collection system, sewer stubs and side sewers. | HZ OPC | | | | | | | | | | | 0 | 14,105 | System age and condition. 2034 design; 2035/2036 construction. |
| S30 | Vacant | | | | | | | | | | | | 0 | | |
| SUBTOTAL (This Sheet) | | | 0 | 0 | 0 | 1,270 | 3,700 | 4,285 | 0 | 1,581 | 4,226 | 6,573 | 21,635 | 46,014 | |
| SEWER UTILITY ANNUAL TOTAL | | | 6,100 | 6,182 | 7,776 | 7,271 | 3,975 | 7,019 | 7,589 | 7,727 | 4,561 | 6,868 | 65,068 | 46,359 | |
| COMBINED SEWER AND WATER UTILITY'S ANNUAL TOTAL | | | 9,477 | 9,535 | 10,408 | 10,443 | 7,190 | 7,550 | 8,535 | 8,682 | 7,264 | 7,524 | 86,607 | 50,887 | |