

# KITSAP COUNTY PUBLIC WORKS SOLID WASTE DIVISION

# **COST OF SERVICE/RATE STUDY**

Olympic View Transfer Station and Recycling and Garbage Facilities

## KITSAP COUNTY PUBLIC WORKS SOLID WASTE DIVISION COST OF SERVICE/RATE STUDY

The Kitsap County Department of Public Works, Solid Waste Division (Division) oversees solid waste planning and management services throughout Kitsap County. Specifically, the Division owns the Olympic View Transfer Station (OVTS), and contracts with Waste Management of Washington, Inc. (WMW) for its operation. Commercial haulers who collect curbside Municipal Solid Waste (MSW) throughout the county bring the MSW to OVTS, where it is loaded onto rail cars and hauled to the Columbia Ridge Recycling & Landfill in Arlington, Oregon. OVTS also accepts self-hauled MSW and recyclable materials.

The Division also owns and operates three recycling and garbage facilities (RAGFs), which accept both MSW and recyclable materials. The Hansville RAGF is located at the north end of Kitsap County, the Silverdale RAGF is located in central Kitsap County, and the Olalla RAGF is located at the southern end of the county. MSW from the RAGFs is hauled via truck to OVTS. Recyclables from the RAGFs and OVTS are transported to various processing centers, primarily located in the Puget Sound region.

The Division's solid waste management services also include household hazardous waste, waste reduction/recycling/litter programs, the oversight of closed landfills, and education/outreach in support of all Division programs. Tipping fees from OVTS also support the Solid and Hazardous Waste program at the Kitsap Public Health District (KPHD), as well as litter and illegal dumping prevention and response efforts, known as the Clean Kitsap program.

The purpose of this cost-of-service study was to estimate the costs to provide the Division's various solid waste management services described above. A rate study was then conducted to define a rate structure that will equitably collect revenues to cover these costs.

The Division has five funds that are related to solid waste operations and programs. In addition, three dedicated funds are used specifically for landfill closure activities and potential cleanup activities at contaminated sites. Landfill closure and other remediation activities, because they are paid from these dedicated funds, are not included as part of this study. The five main solid waste funds are:

- Fund 401: Solid Waste Utility Operations;
- Fund 437: Transfer Systems Operations;
- Fund 438: Solid Waste Capital Improvements;
- Fund 430: Clean Kitsap Program; and
- Fund 434: OVTS Equipment Replacement Fund.

#### **BACKGROUND**

A cost of service/level of service/rate study was last conducted in 2012 by the consulting firm SAIC Energy, Environmental & Infrastructure, LLC (SAIC), establishing rates at both OVTS and the RAGF system. At the time of that study, Kitsap County was just beginning to recover from the economic recession which resulted in a 19% decrease in tonnage over the 2007-2012 time period. Rates were projected based on an estimated 1% annual increase in tonnage, with a goal to maintain a minimum fund balance in the operating funds equal to three months of operating expenses.

Fees established through SAIC's study were implemented at all sites mid-2013, with additional increases at OVTS in January 2015 and January 2017. RAGF disposal fees have not increased since mid-2013.

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Facility	Previous fees	07/01/13	01/01/15	01/01/17
OVTS minimum	\$10.00	\$15.00	\$19.00	\$22.00
OVTS per ton	\$62.02	\$65.00	\$68.00	\$71.00
RAGF minimum	\$3.69 per can	\$8.60 first can; \$2.35 each add'l can	no change	no change
RAGF per cubic yard	\$14.78	\$20.57	no change	no change

#### **CURRENT FEES FOR MUNICIPAL SOLID WASTE (MSW)**

With the economic recovery, tonnage has greatly exceeded the annual 1% growth projected in the last rate study; 2017 tonnage was approximately 20% higher than in 2013. New rates will need to account for this increased tonnage. In addition, by Resolution 202-2017, the Board of County Commissioners adopted Public Works Policy (PW 4.08.01 POL), establishing minimum reserve levels in the Public Works operations and construction funds. For the Division, this policy establishes the following minimum fund balances:

- Fund 401 (Solid Waste Utility Operations): three (3) months of operating expenses;
- Fund 437 (OVTS/RAGF Operations): three (3) months of operating expenses;
- Fund 430 (Clean Kitsap Program): minimum fund balance of \$1,000,000 to cover disposal of debris resulting from a disaster;
- Fund 438 (Solid Waste Capital Improvements): minimum fund balance of \$1,000,000 to cover asset repair and/or replacement resulting from an emergency or natural disaster;
- Fund 434 (OVTS Equipment Replacement): \$400,000 transferred from Fund 437 each year through 2021 to cover equipment replacement costs at OVTS; and
- Rate Stability Reserve Funds (NEW): 15% of annual estimated revenue for the budget year to hedge against revenue shortfalls or volatile expenses that could result in an intra-year deficit.

In addition, KPHD has requested an increase to their tipping fee allocation (currently \$2.65/ton of MSW) to offset the decrease in State grant funding to support their Solid and Hazardous Waste program. The Kitsap Nuisance Abatement Team (KNAT), overseen by Department of Community Development, has also requested an allocation of \$0.25/ton of MSW to support the abatement of nuisance properties.

#### **METHODOLOGY**

The cost of service to meet all of these requirements was projected only through the year 2021. The current contract with WMW to operate OVTS, and to transport and dispose of the waste received there to its Columbia Ridge Landfill, expires in 2022. Rates beyond 2021 will need to be developed based on the terms of the new contract.

For the three operating funds (Funds 401, 437, and 430), costs were projected based on escalation factors recommended by the Department of Administrative Services, modified somewhat based on specific Division historic expenditure information. For Fund 438 (Capital Improvement Fund), costs were based on the adopted 6-year Capital Facilities Plan, which includes planning, designing, and implementing major facility improvements at OVTS and Silverdale RAGF, siting and development of a new Household Hazardous Waste Collection Facility in North Kitsap County, and miscellaneous maintenance and repair projects at various facilities. Projected revenue requirements for these projects total \$9.6 million, though this figure may increase once initial planning and design is completed.

Fund 434 was designated as an Equipment Reserve Fund in 2013, with annual transfers of \$400,000 from Fund 437 planned through the expiration of the current OVTS Operations contract with WMW in 2022. The \$3.6 million accumulated in this fund will allow for the replacement of end-of-life equipment.

The yet-to-be-established Rate Stability Fund will protect against declining revenues as were seen during the economic recession which resulted in a 19% decline in tonnage over a six-year period. Public Works policy establishes a target of 15% of annual estimated revenue. Based on current revenues, this target is approximately \$2.5 million. There are several key assumptions that are built into this analysis:

- Projected 2019 expenses for wages and benefits are based on the Division's 2018 budget;
- Other projected 2019 expenses for materials, supplies, and services are based on the Division's 2016 actual expenses;
- A 3.0% annual increase in tonnage, tonnage-related expenditures, and tonnage-related revenues in 2019, 2% annually thereafter; and
- A 5% annual increase in costs for supplies and services.

Based on previous discussions with the Board of County Commissioners (September 2017) and the Solid Waste Advisory Committee (SWAC), staff prepared three options to review for further

consideration. Since the significant new revenue demands are mainly for capital projects and rate stability funds, these options focus mainly on how to meet these two demands. One main difference among these options is whether capital projects will be funded with cash or financed through the bonds. Advantages and disadvantages of these funding alternatives are described below.

CASH VS. BOND FINANCING FOR SOLID WASTE CAPITAL PROJECTS

CA	SH						
Pros	Cons						
No ongoing user fee collections for the project	Project costs must be collected upfront -						
after construction	before start of project						
Paid for up front - no ongoing debt service	Higher user fee increases to accumulate						
Paid for up from: - no origoning debt service	needed cash up front						
Frees up County's General Obligation debt	May be politically unpopular due to need for						
capacity for other uses	rapid fee increase						
Lower overall project costs - no debt issue	Opportunity cost - lost investment income						
costs, debt service costs	Opportunity cost - lost investment income						
	User fees are increased rapidly, usually not						
	decreased in the future						
ВО	NDS						
Pros	Cons						
County has the General Obligation debt	Higher project costs - debt service interest						
capacity	and bond issuance costs						
Cash will be immediately available for the	Debt service and reporting over a longer						
project	period of time						
User fee assessment for debt service over a	Ongoing user fee assessment for debt service						
longer period of time = smaller user fee	for life of bond						
increase	Tot life of boild						
Cost can be spread over the life of the asset;							
,	l						
those who use the asset in the future are							

Because of the large, new funding requirements for capital projects and the new Rate Stability Fund, the options analysis focused on these two funds, as follows:

- Option 1: Cash funding is used for Capital Projects, the Rate Stability Fund target balance is achieved in 4 years
- Option 2: Bonds are issued for Capital Projects, the Rate Stability Fund target balance is achieved in 8 years
- Option 3: Bonds are issued for Capital Projects, the Rate Stability Fund target balance is achieved in 12 years

#### **OLYMPIC VIEW TRANSFER STATION (OVTS) PROPOSED FEES**

Revenue and expenditure estimates through 2021 were projected, using escalation factors as provided by the Department of Administrative Services, modified slightly in some cases based on Division's actual expenditure history. Tonnage was assumed to increase at a rate of 3% in 2019. 2% per year in subsequent. For the three operating funds (Funds 401, 437, and 430), the per-ton revenue requirement for 2018 was calculated to meet the exact fund balance requirements stated in Public Works Policy PW 4.08.01 POL. This process was reiterated for each subsequent year.

For the KPHD, KNAT, Capital Improvement and Rate Stability funds, the per-ton requirement for each year was calculated and added to the operating fund requirement, providing the total per-ton revenue requirements shown below. Detailed calculations are contained in Appendix A.

#### PROJECTED REVENUE REQUIREMENT (per ton of MSW)

CURRENT TIPPING FEE = \$71.00/ton	2018	2019	2020	2021
<b>OPTION 1</b> : Capital Projects cash funded; Rate Stability Fund in 4 years	\$83.62	\$97.19	\$115.16	\$121.33
<b>OPTION 2</b> : Capital Projects financed with bonds; Rate Stability Fund in 8 years	\$80.24	\$81.47	\$83.39	\$86.00
<b>OPTION 3</b> : Capital Projects financed with bonds; Rate Stability Fund in 12 years	\$79.68	\$80.93	\$82.85	\$85.47

Given the magnitude of the needed increase to cash-fund the capital projects planned in the next six years, staff recommends issuing bonds for these projects in 2019, in conjunction with the Roads Division or other County departments to minimize administrative costs. The SWAC discussion in December seemed to generally also favor Option 2. This option has been used to calculate rates over the four-year period, averaging out the yearly increase needed to generate the total revenue over the four-year period. Appendix B shows further details of how these figures were calculated.

#### PROPOSED OVTS FEES FOR MSW

CURRENT TIPPING FEE = \$71.00/ton	2018	2019	2020	2021
Projected revenue requirement	\$80.24	\$81.47	\$83.39	\$86.00
PROPOSED FEES (per ton)	\$75.00	\$80.00	\$85.00	\$90.00
Annual % increase	5.63%	6.67%	6.25%	5.88%
Minimum Fee (w/ 3.6% Solid Waste Collection Tax)	\$22.00	\$22.00	\$22.00	\$22.00
Weight included in minimum fee (est.)	566 lbs.	531 lbs.	500 lbs.	472 lbs.

#### PROPOSED SPECIAL WASTE FEES - OVTS

Proposed Special Waste Fees at OVTS were calculated by increasing the 2017 fees by 2%, then increasing thereafter in additional 1% increments each year through 2021. This should account

for the contractual CPI-based increase in payments for special waste to WMW, as well as allocating to special waste generators a share of other miscellaneous Division expenses.

WMW has requested increases in fees that the County pays to them for white goods and tires, which unlike MSW and other special wastes are handled separately through contracts with local vendors. These fees have not increased since OVTS opened in 2002, though large variability in metals markets, and limited options for tire recycling, has resulted in increasing costs.

#### PROPOSED OVTS FEES FOR SPECIAL WASTE (per ton, except as noted)

SPECIAL WASTE TYPE	CURRENT	2018	2019	2020	2021		
Yard Waste	\$67.70	\$69.05	\$71.13	\$73.97	\$77.67		
Contaminated Soils	\$42.26	\$43.11	\$44.40	\$46.17	\$48.48		
Bulky Wastes	\$105.31	\$107.42	7.42 \$110.64 \$2		\$120.82		
Asbestos	\$159.82	\$163.02	\$167.91	\$174.62	\$183.35		
Coal Ash	\$50.39	\$51.40	\$52.94	\$55.06	\$57.81		
Processed Wood Waste	\$41.91	\$42.75	\$44.03	\$45.79	\$48.08		
Creosote Treated Lumber	\$50.39	\$51.40	\$52.94	\$55.06	\$57.81		
Dredge Spoils	\$39.93	\$43.11	\$44.40	\$46.17	\$48.48		
Biosolids (delivered loose)	\$64.16	\$69.66	\$71.75	\$74.62	\$78.35		
Biosolids (containerized)	\$57.13	\$61.90	\$63.76	\$66.31	\$69.63		
White Goods (each)	\$16.50	\$20.00	\$20.00	\$20.00	\$20.00		
Passenger Tires (each)	\$5.00	\$7.00	\$7.00	\$9.00	\$9.00		
Commercial Truck Tires (each)	\$8.00	\$9.00	\$9.00	\$11.00	\$11.00		

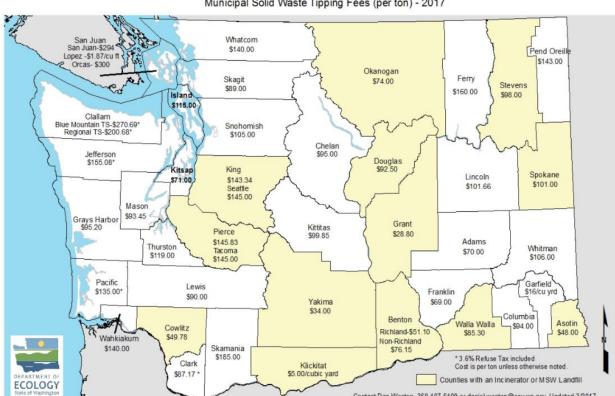
#### PROPOSED MINIMUM FEE - OVTS

The current minimum fee at OVTS is \$22, which includes the 3.6% WA State Solid Waste Collection Tax, and at the present tipping fee of \$71 per ton covers up to 598 pounds. During the 2012 rate study, this minimum fee was calculated by dividing the projected total 2017 OVTS costs that are not tonnage-related by the number of OVTS customers.

A similar approach was used in this rate study. The fixed costs of operations (Salaries, Benefits, Debt Service, Supplies and Services unrelated to disposal, Interfund Charges, and Transfer to Equipment Reserve Fund) were divided among all customers. However, since minimum fee customers represent about half of the customers but only 4-5% of the tonnage received at OVTS, the variable costs of operations (Waste Transport/Disposal and Taxes) were allocated to minimum fee customers in proportion to the weight they collectively dispose. When these calculations are averaged over the time period 2016-2012, the current fee of \$22 seems to continue to be an appropriate fee. As the MSW disposal fees per ton increase over the next four years, the amount of waste covered by the minimum fee will correspondingly decrease, from 566 lbs. in 2018, down to 472 lbs. in 2021. Spreadsheets containing these calculations are included in Appendix B.

#### TIPPING FEE COMPARISON WITH OTHER JURISDICTIONS

As shown in the figure below, Kitsap County's 2017 tipping fee is significantly lower than all neighboring Puget Sound and Olympic Peninsula jurisdictions, based on information compiled by the Washington State Department of Ecology. Kitsap County's fees will remain the lowest (compared with other jurisdictions' 2017 fees) even after the proposed fee increases are implemented through the year 2021, and it is expected that neighboring counties' fees will also likely be increasing within this time period.



Municipal Solid Waste Tipping Fees (per ton) - 2017

Source: https://ecology.wa.gov/DOE/files/c8/c88bb1c1-ab2f-4263-9e5e-6f6e9b4f443d.pdf

The proposed minimum fee at OVTS (\$22) is also below the following neighboring jurisdictions:

City of Seattle \$30.00 (up to 420 lbs.) King County \$24.25 (up to 320 lbs.) Pierce County \$31.48 (up to 400 lbs.)

For the following jurisdictions, although Kitsap County's minimum is higher, more weight is allowed per trip for the minimum fee:

**Snohomish County** \$20.00 (up to 360 lbs.) **Thurston County** \$18.00 (up to 300 lbs.)

#### RECYCLING AND GARBAGE FACILITY (RAGF) PROPOSED FEES

Based on expenditure projections through 2021, allocating fixed (customer-related) and variable (tonnage-related) costs (using the per ton allocation of the proposed OVTS tipping fees developed above) for "can customers" and "loose load customers", and rounding up or down to make cash transactions easier for attendants and customers, the proposed RAGF MSW fees are shown below. Detailed spreadsheets showing calculations are included in Appendix C.

PROPOSED RAGE	FEES FOR MSW
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MSW	CURRENT	2018	2019	2020	2021
One (32-gallon) can	\$8.60	\$9.65	\$9.65	\$10.62	\$10.62
w/ 3.6% Solid Waste Collection Tax	\$8.91	\$10.00	\$10.00	\$11.00	\$11.00
Each additional can	\$2.35	\$2.41	\$2.41	\$2.90	\$2.90
w/ 3.6% Solid Waste Collection Tax	\$2.43	\$2.50	\$2.50	\$3.00	\$3.00
Volume-based fees (per cubic yard)	\$20.57	\$23.13	\$23.13	\$24.94	\$24.94

#### RAGF SPECIAL WASTE FEE CALCULATIONS

Since the Division's 2012 rate study, the United States Environmental Protection Agency (EPA) has updated conversion factors for several categories of solid waste, published in "Volume-to-Weight Conversion Factors", April 2016, at: <a href="https://www.epa.gov/sites/production/files/2016-04/documents/volume-to-weight-conversion-factors-memorandum-04192016-508fnl.pdf">https://www.epa.gov/sites/production/files/2016-04/documents/volume-to-weight-conversion-factors-memorandum-04192016-508fnl.pdf</a>. As in the previous study, for most types of special wastes, the approximate weight of each special waste type is being used to set the appropriate fee. Fees for appliances are based on the current contract for hauling, processing, and recycling these items.

In the current cost of service study, however, consideration was also given to the volume of these various waste types, since items with large volumes (but perhaps lower weights) can also present handling concerns and capacity issues which can lead to increased hauling frequency. Therefore, though EPA's updated average weights of roofing and drywall (731 lbs/cu yd for roofing and 467 lbs/cu yd for drywall) are now very different from previously reported values (435.3 lbs/cu yd and 393.5 lbs/cu yd, respectively), it was decided to use an average weight of 600 lbs/cu yd for both of these commodities to account for costs associated with both weight and volume.

Generally, current fees are adequate over the next two years to cover costs of service for the various special waste items. As disposal fees increase at OVTS, however, a fee increase is being recommended for these items beginning in 2020. Special Waste fees are shown in the table below, with detailed calculations contained in Appendix C.

#### PROPOSED RAGF FEES FOR SPECIAL WASTE

SPECIAL WASTE TYPE	CURRENT	2018	2019	2020	2021
Mattress, box spring, or recliner (each)	\$11.00	\$11.00	\$11.00	\$12.00	\$12.00
Sofa (each)	\$13.50	\$13.50	\$13.50	\$15.00	\$15.00
Sofa with bed (each)	\$27.00	\$27.00	\$27.00	\$30.00	\$30.00
Roofing (per cubic yard)	\$40.00	\$40.00	\$40.00	\$45.00	\$45.00
Drywall (per cubic yard)	\$40.00	\$40.00	\$40.00	\$45.00	\$45.00
Appliance (each)	\$20.00	\$20.00	\$20.00	\$20.00	\$20.00

#### **IMPLEMENTATION OF STUDY RECOMMENDATIONS**

The recommended fees contained in this report have been reviewed by Kitsap County's Solid Waste Advisory Committee (SWAC), which advises the Board of County Commissioners on solid and hazardous waste issues. SWAC recommends adoption of these fees, including the following allocations to various programs:

- Continued funding (increasing from the present \$1.30/ton to \$1.60/ton of MSW) for the Clean Kitsap Litter and Illegal Dump prevention and response program
- Increased funding (increasing from the present \$2.65/ton to \$4.30/ton of MSW) to Kitsap Public Health District to offset the loss of State funding through the Department of Ecology for solid and hazardous waste enforcement programs
- New funding (\$0.25/ton of MSW) for the Kitsap Nuisance Abatement Team's efforts to clean up solid and hazardous waste from nuisance private properties, with efforts made to recover funds expended on abatements

The next steps in the implementation process include:

- Review of the proposed fees by the Board of County Commissioners
- Public outreach on the proposed rates (press release, website information, customer handouts)
- Public Hearing
- Adoption of resolutions setting rates at OVTS and at RAGFs
- Notification to garbage haulers and commercial OVTS accounts of fee increases
- Revise signage, update website and prepare outreach handouts for customer distribution
- Target implementation date: July 1, 2018

### **APPENDIX A**

**Options Analysis** 

#### 2016 - 2021 Solid Waste Division Summary of Projected Expenditures & Revenues - OVTS No Tipping Fee Increase 2016 2017 2018 2019 2020 2021 Estimate Actuals Budget Budge Estimate Estimate EXPENDITURES Cost Center 4011 - Solid Waste Administration Sub-Total 1,051,139 \$ 1,157,140 \$ 1,096,392 1,127,953 Cost Center 4013 - Waste Reduction/Recycling/Litter 437,747 \$ 591,378 \$ 668,934 \$ 580,305 598,826 \$ 617,949 Cost Center 4014 - Household Hazardous Waste Sub-Total \$ 1,369,198 \$ 1,317,672 1,302,578 Cost Center 4015 - Landfill Management Sub-Total 116.447 \$ 137,768 \$ 143,929 \$ 144,592 \$ 149.131 \$ 153,816 \$ 2,634,521 \$ 3,149,483 \$ 3,287,675 \$ 3,084,332 Cost Center 4371 - Transfer Station Operations Sub-Total Transfer Station Operations \$ 11,381,573 \$ 11,865,163 \$ 13,040,861 13,476,149 14,150,003 \$ 14,857,755 ransfer to Equipment Reserve Fund (Fund 434) \$ 12,181,573 \$ 12,265,163 \$ 13,440,861 \$ 13,876,149 \$ 14,550,003 \$ 15,257,755 Sub-Total TOTAL FUND 437. Cost Center 4371 \$ 12.181.573 \$ 12.265.163 \$ 13.440.861 255.500 FUND 430 - Clean Kitsap 263.543 S 340.284 \$ 350.493 \$ 361.007 \$ 371.838 FUND 438 - Solid Waste Capital Improvement 356,740 \$ 1,670,000 \$ 1,875,000 2,750,000 FUND 434 - Solid Waste Equipment Reserve \$ \$ -\$ \$ \$ \$ -REVENUE 320,018 \$ 210,000 \$ 100.000 ees and Charges 1.826.296 2.385.000 2.473.000 2.522.460 2.572.909 2.624.367 119.608 terest lisc. Rev. OTAL FUND 401 \$ 2,283,333 \$ 2,715,000 2,693,000 2,738,651 \$ 2,897,349 2.950.888 Fund 437 Solid Waste Fees and Charges 12,073,024 12,000,000 12,500,000 \$ 12,750,000 \$ 13,005,000 ipping Fee Increase 14,603 3,000 terfund 18,155 1,094 \$ 12,106,876 TOTAL FUND 437 \$ 12,003,000 \$ 12,500,000 \$ 12,750,000 \$ 13,005,000 \$ 13,265,100 und 430 40.000 \$ 50,000 \$ 260,000 olid Waste Fees and Charges ipping Fee Increas \$ 316.620 300.000 \$ 310.000 305,200 310,504 315.914 TOTAL FUND 430 - Clean Kitsap \$ \$ FUND 438 - Solid Waste Capital Improvement FUND 434 - Solid Waste Equipment Reserve \$ 800,000 400,000 400,000 400,000 400,000 400,000 FUND XXX - Rate Stability \$ TOTAL REVENUE \$ 15,018,000 \$ 15,503,000 \$ 15,793,851 \$ 16,212,853 \$ 14,706,830 \$ 16,531,902 REVENUE - EXPENDITURES (401, 437, 430) KPHD Solid & Hazardous Waste Program 918,580 \$ 1,005,824 87,244 1,179,742 \$ 836,369 (343,372) 1,126,231 \$ 828,099 1,238,104 844,765 1,298,664 853,284 (445,379) expenditures Revenue (includes Tipping Fee at \$2.65/ton) 1,064,643 \$ 947,700 (116,943) (298,133) (393,339) Fund 401 Beginning Fund Balance Fund 401 Target Fund Balance (= 3 months operating expenses) Fund 437 Beginning Fund Balance 394,922 770,000 1,077,151 660,000 790,000 3,144,161 \$ 820,000 790,000 Fund 437 Target Fund Balance (= 3 months operating expenses) 2,800,000 3,000,000 3,400,000 1,000,000 2,200,000 \$ 1,000,000 Fund 438 Target Fund Balance (= \$1,000,000 for emergency repairs/replacement) Fund XXX (Rate Stability) Beginning Fund Balance Fund XXX Target Fund Balance (= 15% of annual estimated revenue) 2,300,000 2,300,000 2,400,000 2,400,000 2,500,000 TOTAL FUND BALANCE 7,887,439 \$ 8.090,000 4,446,619 8,520,000 Total target fund balance 207,038 210,000 218,000 226,807 231,343 222,360 Ionnage Tipping fee increase to Fund 401 (SWD Programs) Tipping fee increase to Fund 437 (Operations) Tipping fee increase to Fund 430 (Clean Kitsap) Tipping fee increase to Fund 438 (Capital Improvement) ipping fee increase to KNAT ipping fee increase to KPHD ipping fee increase to Rate Stability Fund \$71.00 \$71.00 \$71.00 \$71.00 Tipping Fee (total) ASSUMED ESCALATORS (modified from DAS 2018 6-year forecast) 2017 2018 2019 2020 2021 xpeditures: Salaries 3.5% 3.5% 3.5% 2.3% 2.3% 6.2% 3.0% 3.0% 3.0% upplies and Services 3.0% 3.0% 3.0% 3.0% 3.0% ernmental 3.0% 3.0% 2.0% 2.0% 2.0% Revenues (tonnage increase)

#### 2016 - 2021 Solid Waste Division Summary of Projected Expenditures & Revenues - OVTS

#### Rate Stability Fund Balance in 4 Years, Cash for Capital Projects

2016   2017   2018   2019   2020   Estimate   Estimat	16 \$ 617 178 \$ 1,343 11 \$ 1533 17 \$ 3,275 17 \$ 3,275 10 4000 13 \$ 15,257 17 \$ 371	60,470 17,949 43,365 53,816 75,600 57,755
EXPENDITURES  Cost Center 4011 - Solid Waste Administration  Sub-Total  Sub-T	33 \$ 1,160 16 \$ 617 18 \$ 1,343 11 \$ 153 17 \$ 3,275 10 400 30 \$ 15,257 10 \$ 371 17 \$ 371 10 \$ 381	17,949 17,949 143,365 53,816 775,600 00,000 57,755 57,755
Cost Center 4011 - Solid Waste Administration   Sub-Total   \$927,353 \$ 1,051,139 \$ 1,157,140 \$ 1,096,392 \$ 1,127,5	16 \$ 617 18 \$ 1,343 11 \$ 1535 17 \$ 3,275 10 400 13 \$ 14,857 10 400 13 \$ 15,257 13 \$ 15,257 17 \$ 371 17 \$ 371	17,949 43,365 53,816 75,600 57,755 50,000 57,755 71,838
Sub-Total	16 \$ 617 18 \$ 1,343 11 \$ 1535 17 \$ 3,275 10 400 13 \$ 14,857 10 400 13 \$ 15,257 13 \$ 15,257 17 \$ 371 17 \$ 371	17,949 43,365 53,816 75,600 57,755 50,000 57,755 71,838
Sub-Total   \$ 437,747 \$ 591,378 \$ 668,934 \$ 580,305 \$ 598,6	11 \$ 153 17 \$ 3,275 10 4000 10 4000 10 4000 10 15,257 10 \$ 371 10 \$ 331	43,365 53,816 75,600 57,755 50,000 57,755 57,755 71,838
Sub-Total   \$ 437,747 \$ 591,378 \$ 668,934 \$ 580,305 \$ 598,6	11 \$ 153 17 \$ 3,275 10 4000 10 4000 10 4000 10 15,257 10 \$ 371 10 \$ 331	43,365 53,816 75,600 57,755 50,000 57,755 57,755 71,838
Sub-Total   \$ 1,152,974   \$ 1,369,198   \$ 1,317,672   \$ 1,263,044   \$ 1,302,000	11 \$ 153 17 \$ 3,275 13 \$ 14,857 10 400 13 \$ 15,257 17 \$ 371 10 \$ 830	53,816 75,600 57,755 00,000 57,755 57,755 71,838
Cost Center 4015 - Landfill Management   Sub-Total   \$ 116,447 \$ 137,768 \$ 143,929 \$ 144,592 \$ 149,500	11 \$ 153 17 \$ 3,275 13 \$ 14,857 10 400 13 \$ 15,257 17 \$ 371 10 \$ 830	53,816 75,600 57,755 00,000 57,755 57,755 71,838
Sub-Total	37 \$ 3,275 33 \$ 14,857 30 400 31 \$ 15,257 371 371 371 371	75,600 57,755 00,000 57,755 57,755 71,838
TOTAL FUND 401 \$ 2,634,521 \$ 3,149,483 \$ 3,287,675 \$ 3,084,332 \$ 3,178,600 \$ \$ 2,634,521 \$ 3,149,483 \$ 3,287,675 \$ 3,084,332 \$ 3,178,600 \$ \$ 2,634,521 \$ 3,149,483 \$ 3,287,675 \$ 3,084,332 \$ 3,178,600 \$ 2,000	37 \$ 3,275 33 \$ 14,857 30 400 31 \$ 15,257 371 371 371 371	75,600 57,755 00,000 57,755 57,755 71,838
Cost Center 4371 - Transfer Station Operations Sub-Total Transfer Station Operations \$ 11,381,573 \$ 11,865,163 \$ 13,040,861 \$ 13,476,149 \$ 14,150,000 \$ 100,000 \$ 400,	33 \$ 14,857 100 400 131 \$ 15,257 132 \$ 15,257 153 \$ 15,257 154 \$ 371 165 \$ 830	57,755 00,000 57,755 57,755 71,838
Sub-Total Transfer Station Operations         \$ 11,381,573         \$ 11,386,163         \$ 13,040,861         \$ 13,476,149         \$ 14,150,0           Transfer to Equipment Reserve Fund (Fund 434)         800,000         400,000	00 400 03 \$ 15,257 03 \$ 15,257 07 \$ 371 00 \$ 830	00,000 57,755 57,755 71,838
Transfer to Equipment Reserve Fund (Fund 434)  Sub-Total  \$ 12,181,573 \$ 12,265,163 \$ 13,440,861 \$ 13,876,149 \$ 14,550,000 \$ 10,0	00 400 03 \$ 15,257 03 \$ 15,257 07 \$ 371 00 \$ 830	00,000 57,755 57,755 71,838
Sub-Total	13 \$ 15,257 13 \$ 15,257 17 \$ 371 10 \$ 830	57,755 57,755 71,838
FUND 430 - Clean Kitsap \$ 263,543 \$ 255,500 \$ 340,284 \$ 350,493 \$ 361,000 \$ 1,670,000 \$ - \$ 2,750,000 \$ 3,650,000 \$ 1,000 \$ 100,000 \$ 100,000 \$ 200,000 \$ 100,000 \$ 200,000 \$ 100,000 \$ 200,000 \$ 100,000 \$ 200,000 \$ 100,000 \$ 200,000 \$ 100,000 \$ 200,000 \$ 100,000 \$ 200,000 \$ 100,000 \$ 200,000 \$ 100,000 \$ 200,000 \$ 100,000 \$ 200,000 \$ 100,000 \$ 200,000 \$ 100,000 \$ 200,000 \$ 100,000 \$ 200,000 \$ 100,000 \$ 200,000 \$ 100,000 \$ 200,000 \$ 100,000 \$ 200,000 \$ 100,000 \$ 20	07 \$ 371 00 \$ 830	71,838
FUND 430 - Clean Kitsap \$ 263,543 \$ 255,500 \$ 340,284 \$ 350,493 \$ 361,000 \$ 1,670,000 \$ - \$ 2,750,000 \$ 3,650,000 \$ 1,000 \$ 100,000 \$ 100,000 \$ 200,000 \$ 100,000 \$ 200,000 \$ 100,000 \$ 200,000 \$ 100,000 \$ 200,000 \$ 100,000 \$ 200,000 \$ 100,000 \$ 200,000 \$ 100,000 \$ 200,000 \$ 100,000 \$ 200,000 \$ 100,000 \$ 200,000 \$ 100,000 \$ 200,000 \$ 100,000 \$ 200,000 \$ 100,000 \$ 200,000 \$ 100,000 \$ 200,000 \$ 100,000 \$ 200,000 \$ 100,000 \$ 200,000 \$ 100,000 \$ 200,000 \$ 100,000 \$ 20	07 \$ 371 00 \$ 830	71,838
FUND 438 - Solid Waste Capital Improvement \$ 356,740 \$ 1,670,000 \$ - \$ 2,750,000 \$ 3,650,000 \$ 1,000 \$	00 \$ 830	
FUND 434 - Solid Waste Equipment Reserve \$ - \$ - \$ - \$ - \$  REVENUE Fund 401 Grants \$ 320,018 \$ 210,000 \$ 100,000 \$ 200,		30,000
REVENUE Fund 401 Grants \$ 320,018 \$ 210,000 \$ 100,000 \$ 200,000 \$	\$	
Fund 401         \$ 320,018         \$ 210,000         \$ 100,000         \$ 200,00		-
Fund 401         \$ 320,018         \$ 210,000         \$ 100,000         \$ 200,00		
Grants \$ 320,018 \$ 210,000 \$ 100,000 \$ 200,000		
Fees and Charges 1,826,296 2,385,000 2,473,000 2,522,460 2,572,5		00,000
Tipping Fee increase 79,397 80,985 82,6	)5 84	24,367 34,257
214,696 218,	0 223	23,370 (466)
	47	47,551
Interest 13,913 20,000 20,000 14,191 20,		06,121 20,400
Misc. Rev. 3,498 -   -   -   TOTAL FUND 401 \$ 2,283,333 \$ 2,715,000 \$ 2,772,397 \$ 3,034,332 \$ 3,198,498	-  87 \$ 3,305	05,600
Fund 437         \$ 12,073,024         \$ 12,000,000         \$ 12,500,000         \$ 12,750,000         \$ 13,005,000           Solid Waste Fees and Charges         \$ 12,073,024         \$ 12,000,000         \$ 12,500,000         \$ 12,750,000         \$ 13,005,000	00 \$ 13,265	55.100
Tipping Fee Increase 1,096,700 1,118,634 1,141,0 107,515 109,6	7 1,163	63,827 11,859
195.1 394.1 394.1	31 402	02,217
Interfund 14,603 3,000	514	14,751
Interest         18,155         -         -         -           Misc. Rev.         1,094         -         -         -	-	
TOTAL FUND 437 \$ 12,106,876 \$ 12,003,000 \$ 13,596,700 \$ 13,976,149 \$ 14,650,000 \$ 13,976,149 \$ 14,650,000 \$ 13,976,149 \$ 14,650,000 \$ 13,976,149 \$ 14,650,000 \$ 13,976,149 \$ 14,650,000 \$ 13,976,149 \$ 14,650,000 \$ 13,976,149 \$ 14,650,000 \$ 13,976,149 \$ 14,650,000 \$ 13,976,149 \$ 14,650,000 \$ 13,976,149 \$ 14,650,000 \$ 13,976,149 \$ 14,650,000 \$ 13,976,149 \$ 14,650,000 \$ 13,976,149 \$ 14,650,000 \$ 13,976,149 \$ 14,650,000 \$ 13,976,149 \$ 14,650,000 \$ 13,976,149 \$ 14,650,000 \$ 1	3 \$ 15,457	57,755
Grants 68,503 40,000 50,000 40,000 40,	0 40	40,000
Solid Waste Fees and Charges         248,117         260,000         260,000         265,200         270,3           Tipping Fee Increase         122,284         124,730         127,3	4 275	75,914 29,769
(79,437) (81, 4,	.6) (82 15 4	32,646) 4,391
TOTAL FUND 430 - Clean Kitsap \$ 316,620 \$ 300,000 \$ 432,284 \$ 350,493 \$ 361,0	4	4,410 71,838
FUND 438 - Solid Waste Capital Improvement \$ - \$ - \$ 375,000 \$ 2,750,000 \$ 3,650,000 \$ 1,7		30,000
FUND 434 - Solid Waste Equipment Reserve \$ 800,000 \$ 400,000 \$ 400,000 \$ 400,000 \$ 400,000 \$ 400,000	00 \$ 400	00,000
FUND XXX - Rate Stability \$ - \$ - \$ 362,500 \$ 725,000 \$	00 \$ 725	25,000
TOTAL REVENUE \$ 14,706,830 \$ 15,018,000 \$ 16,801,381 \$ 17,360,974 \$ 18,209,	8 \$ 19,135	35,192
REVENUE - EXPENDITURES (401, 437, 430) \$ (372,807) \$ (652,146) \$ (267,439) \$ 50,000 \$ 120.00	0 \$ 230	30,000
KPHD Solid & Hazardous Waste Program		
Expenditures         \$ 918,580         \$ 1,064,643         \$ 1,126,231         \$ 1,179,742         \$ 1,238,733           Revenue (includes Tipping Fee at \$2.65/ton)         1,005,824         947,700         828,099         836,369         844,733		98,664 53,284
Balance 87,244 (116,943) (298,133) (343,372) (393,		45,379)
Fund 401 Beginning Fund Balance		90,000
Fund 437 Beginning Fund Balance \$ 3,406,324 \$ 3,144,161 \$ 3,300,000 \$ 3,400,0	00 \$ 3,500	90,000
Fund 437 Target Fund Balance (= 3 months operating expenses)         2,800,000         3,000,000         3,000,000         3,000,000         3,400,0           Fund 430 Beginning Fund Balance         \$ 863,500         \$ 908,000         \$ 1,000,	0 \$ 3,500	00,000
Fund 430 Target Fund Balance (= \$1,000,000 for disaster debris management) 1,000,000 1,000,000 1,000,000 1,000,000	00 1,000	75,000
Fund 438 Target Fund Balance (= \$1,000,000 for emergency repairs/replacement) 1,000,000 1,000,000 1,000,000 1,000,000	00 1,000	00,000
Fund XXX (Rate Stability) Beginning Fund Balance         \$		37,500 00,000
TOTAL FUND BALANCE \$ 8,239,585 \$ 8,249,939 \$ 9,082,500 \$ 9,857,8		02,500
Total target fund balance         7,760,000         8,290,000         8,720,000         8,870,000		90,000
Tonnage 207,038 210,000 218,000 222,360 226,807 TIPPING FEE INCREASES	231,34	43
Tipping fee increase to Fund 401 (SWD Programs) \$ 0.36 \$ 0.97 \$ (0		0.21
Tipping fee increase to Fund 430 (Clean Kitsap) \$ 0.56 \$ (0.36) \$ 0	12 \$	0.02
Tipping fee increase to Fund 438 (Capital Improvement)         \$ 1.72         \$ 12.37         \$ 16	9 \$	3.59 0.25
Tipping fee to KPHD (per ton) \$ 1.37 \$ 1.54 \$ 1	3 \$	1.93
Tipping tee to Rate Stability Fund (per ton)   \$ 3.33   \$ 3.20   \$ 3.20   \$ 3.20		3.13 121.33
ASSUMED ESCALATORS (modified from DAS 2018 6-year forecast) 2017 2018 2019 2020	2021	1
Expeditures:         3.5%         3.5%         3.5%         3.5%	3.5%	
Benefits         2.3%         2.3%         6.2%         3.0%           Supplies and Services         3.0%         3.0%         3.0%         3.0%	3.0% 3.0%	%
1.00   1.00	3.0% 2.0%	%
	2.0%	
Revenues (tonnage increase)         3.0%         2.0%         2.0%		v

#### 2016 - 2021 Solid Waste Division Summary of Projected Expenditures & Revenues - OVTS

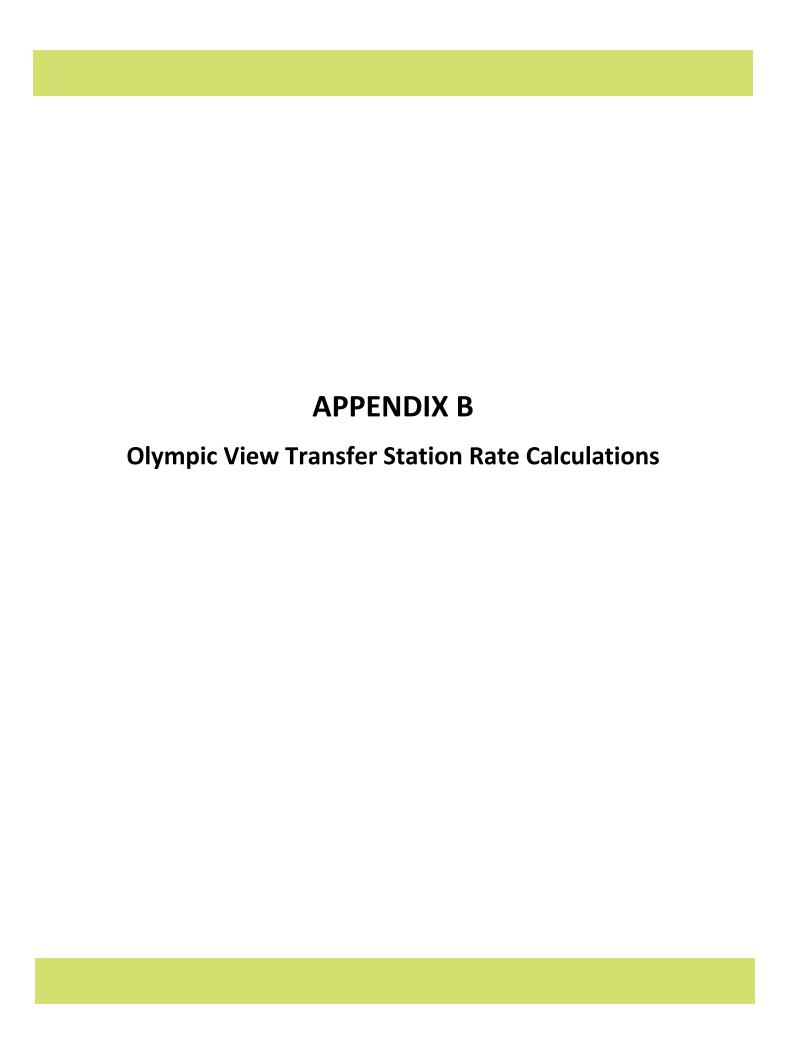
#### Rate Stability Fund Balance in 8 years, Bonds for Capital Projects

Page	Rate Stability Fund Balance	III	o years,	D	onus ioi	C	арнаі Ріс	Je	LIS			
Common   C		$\vdash$	2016	┢	2017		2018		2019	2020		2021
Concentration			Actuals	-	Budget	L	Budget		Estimate	Estimate		Estimate
Section   Sect												
Section   Sect		\$	927,353	\$	1,051,139	\$	1,157,140	\$	1,096,392	\$ 1,127,953	\$	1,160,470
Section   S.   20777   S.   20378   S.   66694   S.   66690   S.   66694   S.   6	Cost Center 4013 - Wasta Paduction/Pacycling/Litter											
So From		\$	437,747	\$	591,378	\$	668,934	\$	580,305	\$ 598,826	\$	617,949
See   Pearl   See   Pearl   See	Cost Center 4014 - Household Hazardous Waste											
Section	Sub-Total	\$	1,152,974	\$	1,369,198	\$	1,317,672	\$	1,263,044	\$ 1,302,578	\$	1,343,365
Color   Content   Color   Co		e	116 447	e	127 760	e	142 020	¢	144 502	¢ 1/0 121	e	153,816
Section Cont.   Transfer Patinin Grantelons				_		_		•				
Section   Sect		\$	2,634,521	\$	3,149,483	\$	3,287,675	\$	3,084,332	\$ 3,178,487	\$	3,275,600
TOTAL FUND 437 - Coal Center 4771   \$ 12,181.977   \$ 12,286.140   \$ 13,480.941   \$ 1,387.440   \$ 1,455.0000   \$ 5,280.740   \$ 1,550.000   \$ 5,280.740   \$ 1,500.000   \$ 5,280.740   \$ 1,500.000   \$ 5,280.740   \$ 1,500.000   \$ 5,280.740   \$ 1,500.000   \$ 5,280.740   \$ 1,500.000   \$ 5,280.740   \$ 1,000.000   \$ 2,000.000   \$ 5,280.740   \$ 1,000.000   \$ 2,000.000   \$ 5,280.740   \$ 2,000.000   \$ 2,000.000   \$ 6,000.000   \$ 2,000.000   \$		\$	11,381,573	\$	11,865,163	\$	13,040,861	\$	13,476,149	\$ 14,150,003	\$	14,857,755
Standard   \$ 12,191,577   \$ 12,265,161   \$ 13,466,461   \$ 13,476,161   \$ 13,476,161   \$ 13,476,161   \$ 13,476,161   \$ 14,560,000   \$ 15,276,161   \$ 14,560,000   \$ 16,276   \$ 1,276,161   \$ 1,276,16					400 000		400,000					400,000
NAIO 649 - Clean Missap  RANO G14 - Solid Weste Capital Improvement  S	Sub-Total	\$		\$		\$		\$			\$	15,257,755
NAIO 649 - Clean Missap  RANO G14 - Solid Weste Capital Improvement  S		H		H		H						
PAID 438 - Solid Wisser Engine Improvement	TOTAL FUND 437, Cost Center 4371	<b>\$</b>	12,181,573	, \$ 	12,265,163	\$ 	13,440,861	\$	13,876,149	\$ 14,550,003	\$	15,257,755
Number	FUND 430 - Clean Kitsap	\$	263,543	\$	255,500	\$	340,284	\$	350,493	\$ 361,007	\$	371,838
Figure   F	FUND 438 - Solid Waste Capital Improvement	\$	356,740	\$	1,670,000	\$	-	\$	-	\$ 600,000	\$	600,000
Figure   F	FUND 434 - Solid Waste Equipment Reserve	\$	-	\$	-	\$	-	\$	-	\$ -	\$	-
Fund 407		$\vdash$		┢		H						
Section   Sect												
Tigron Fee Increase	Grants	\$		\$	210,000	\$		\$			\$	200,000
Interfiend  119.608 100.000 100.000 100.000 110.0000 110.0000 110.0000 110.0000 110.0000 110.0000 110.0000 110.0000 110.0000 110.0000 110.00000 110.00000 110.00000000		E	1,826,296	F	2,385,000	E			80,985	82,605	E	2,624,367 84,257
Interfund									214,696			223,370 (466)
Interest	Interfund		110 608		100.000		100.000		102 000			47,551 106,121
TOTAL FUND 491	Interest		13,913									20,400
Solid Waste Fees and Changes		\$	3,498 <b>2,283,333</b>	\$	2,715,000	\$	2,772,397	\$	3,034,332	\$ 3,198,487	\$	3,305,600
Tigoing Fee Increase		S	12.073.024	s	12.000.000	s	12.500.000	S	12.750.000	\$ 13.005.000	S	13,265,100
Interior		Ė	, , , , ,	Ė	,,	Ė			1,118,634	1,141,007	Ė	1,163,827 111,859
Interfund									107,515			402,217
Misc. Rev.   1,094   1,005   13,976,140   5 14,650,003   15,476,140   5 14,650,003   15,476,140   5 14,650,003   15,476,140   5 14,650,003   15,476,140   5 14,650,003   15,476,140   5 14,650,003   15,476,140   5 14,650,003   15,476,140   5 14,650,003   15,476,140   5 14,650,003   15,476,140   5 14,650,003   15,476,140   5 14,650,003   15,476,140   122,284   17,4730   127,224   17,4730   17,4730   17,4730   17,4730   17,4730   17,4730   17,4730   17,4730   17,4730   17,4730   15,4	Interfund				3,000							514,751
TOTAL FUND 437   \$ 12,106,876   \$ 12,003,000   \$ 13,596,700   \$ 13,596,740   \$ 14,560,003   \$ 15,45					-		-		-	-		-
Grants	TOTAL FUND 437	\$		\$	12,003,000	\$	13,596,700	\$	13,976,149	\$ 14,650,003	\$	15,457,755
Tipping Fee Increase	Grants											40,000
TOTAL FUND 430 - Clean Kitsap  \$ 316.620 \$ 300,000 \$ 432,284 \$ 350,493 \$ 361,007 \$ 37 FUND 438 - Solid Waste Capital Improvement  \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$			248,117		260,000				124,730	127,224		275,914 129,769
TOTAL FUND 430 - Clean Kitsap  \$ 316,620 \$ 300,000 \$ 432,224 \$ 350,493 \$ 361,007 \$ 37 FUND 438 - Solid Waste Capital Improvement  \$ . \$ . \$ . \$ . \$ . \$ . \$ . \$ . \$ . \$									(79,437)			(82,646) 4,391
FUND 438 - Solid Waste Capital Improvement	TOTAL FUND 430 - Clean Kitean	s	316 620	\$	300,000	\$	432 284	\$	350 493		\$	4,410 371,838
FUND 434 - Solid Waste Equipment Reserve			0.0,020	L			102,20	•	,			,
FUND XXX - Rate Stability  \$ - \$ - \$ 181,250 \$ 362,500 \$		L		Ė		Ė			M in bonds)	i	Ė	
TOTAL REVENUE \$ 14,706,830 \$ 15,018,000 \$ 16,801,381 \$ 17,360,974 \$ 18,209,498 \$ 19,13    REVENUE - EXPENDITURES (401, 437, 430) \$ (652,146) \$ (267,439) \$ 50,000 \$ 120,000 \$ 23    KPHD Solid & Hazardous Waste Program \$ 918,550 \$ 1,064,643 \$ 1,126,231 \$ 1,179,742 \$ 1,228,104 \$ 1,228    Expenditures \$ 918,550 \$ 1,064,643 \$ 1,126,231 \$ 1,179,742 \$ 1,228,104 \$ 1,228    Revenue (includes Tipping Fee at \$2.65/ton) \$ 1,005,824 \$ 947,700 \$ 28,099 \$ 83,639 \$ 844,765 \$ 88    Balance \$ 87,244 \$ (116,943) \$ (298,133) \$ (343,372) \$ (393,339) \$ (44    Fund 401 Beginning Fund Balance \$ 3,000 \$ 770,000 \$		Ė	800,000	\$	400,000	\$	•	\$			\$	400,000
REVENUE - EXPENDITURES (401, 437, 430)   \$ (372,807) \$ (652,146) \$ (267,439) \$ 50,000 \$ 120,000 \$ 23	FUND XXX - Rate Stability	\$	-	\$	-	\$ 	181,250	\$	362,500	\$ 362,500	\$	362,500
RPHD Solid & Hazardous Waste Program	TOTAL REVENUE	\$	14,706,830	\$	15,018,000	\$	16,801,381	\$	17,360,974	\$ 18,209,498	\$	19,135,192
Expenditures	REVENUE - EXPENDITURES (401, 437, 430)	\$	(372,807)	\$	(652,146)	\$	(267,439)	\$	50,000	\$ 120,000	\$	230,000
Revenue (includes Tipping Fee at \$2.65/ton)		L		L								
Fund 401 Beginning Fund Balance   \$ 1,769,761   \$ 1,335,275   \$ 820,000   \$ 770,000   \$ 75		\$		\$		\$		\$			\$	1,298,664 853,284
Fund 401 Target Fund Balance   3 months operating expenses	Balance		87,244		(116,943)	-	(298,133)		(343,372)	(393,339)		(445,379)
Fund 437 Enginning Fund Balance   \$3.406.324   \$3.144.161   \$3.300.000   \$3.400.000   \$3.50				\$		\$		\$			\$	790,000 790,000
Fund 430 Reginning Fund Balance   \$ 883,500 \$ 908,000 \$ 1,000,00	Fund 437 Beginning Fund Balance			\$	3,406,324	\$	3,144,161	\$	3,300,000	\$ 3,400,000	\$	3,500,000 3,500,000
Fund 438 Beginning Fund Balance   \$ 2,200,000   \$ 2,500,000   \$ 2,500,000   \$ 1,000,000	Fund 430 Beginning Fund Balance	<u> </u>		\$	863,500	\$	908,000	\$	1,000,000	\$ 1,000,000	\$	1,000,000
Fund 438 Target Fund Balance   \$1,000,000   1,000,00	Fund 430 Target Fund Balance (= \$1,000,000 for disaster debris management) Fund 438 Beginning Fund Balance	┼		\$	1,000,000 2,200,000	\$		\$	2,500,000		\$	1,000,000
Fund XXX Target Fund Balance (= 15% of annual estimated revenue)	Fund 438 Target Fund Balance (= \$1,000,000 for emergency repairs/replacement)			\$	1,000,000	s	1,000,000	S	1,000,000 543,750	1,000,000 \$ 906,250	s	1,000,000 1,268,750
Total target fund balance		ļ.,		Ľ.	2,300,000	Ľ.					ĻĹ	2,900,000
Tonnage				\$		\$		\$			\$	8,458,750
TIPPING FEE INCREASES				L		E						9,190,000
Tipping fee increase to Fund 401 (SWID Programs)   \$ 0.36   \$ 0.97   \$ (0.00)   \$ Tipping fee increase to Fund 401 (SWID Programs)   \$ 5.03   \$ 0.48   \$ 1.74   \$ \$ Tipping fee increase to Fund 437 (Operations)   \$ 5.03   \$ 0.48   \$ 1.74   \$ \$ Tipping fee increase to Fund 430 (Clean Kitsap)   \$ 0.56   \$ (0.36)   \$ 0.02   \$ \$ Tipping fee increase to Fund 430 (Capital Improvement)   \$	TIPPING FEE INCREASES	H	207,038	F	210,000	F					H	231,343
Tipping fee increase to Fund 430 (Clean Kitsap)   \$ 0.56   \$ (0.36)   \$ 0.02   \$	Tipping fee increase to Fund 401 (SWD Programs)			F						\$ (0.00) \$ 1.74	\$	0.21 2.23
Tipping fee to KNAT (per ton)   \$ 0.25 \$ 0.25 \$ 0.25 \$ 1.50	Tipping fee increase to Fund 430 (Clean Kitsap)					\$	0.56	\$	(0.36)	\$ 0.02	\$	0.02
Tipping fee to Rate Stability Fund (per ton)   S 1.68   S 1.63   S 1.60   S	Tipping fee to KNAT (per ton)					\$	0.25	\$	0.25	\$ 0.25	\$	0.25
Revenue Requirement (per ton MSW)   71.00   80.24   81.47   83.39	Tipping fee to KPHD (per ton) Tipping fee to Rate Stability Fund (per ton)	L		L			1.66	\$	1.63			1.93 1.57
Expeditures:         Stable in the properties of the				\$	71.00	\$		\$				86.00
Salaries         3.5%         3.5%         3.5%         3.5%         3.5%         3.5%         3.5%         3.5%         3.5%         3.5%         3.0%					2017		2018		2019	2020		2021
Supplies and Services         3.0%	Salaries	F		E								3.5%
Interfund         2.0%         2.0%         2.0%         2.0%	Supplies and Services			E	3.0%	E	3.0%		3.0%	3.0%		3.0%
		H	_	H		H						3.0% 2.0%
	Revenues (tonnage increase)	F	-	F	3.0%	F	3.0%		2.0%	2.0%	F	2.0%
100 000 000 000 000	,											

#### 2016 - 2021 Solid Waste Division Summary of Projected Expenditures & Revenues - OVTS

#### Rate Stability Fund Balance in 12 years, Bonds for Capital Projects

Rate Stability Fund Balance	В	onds for	С	apital Pr	oje	ects						
	H	2016 Actuals	2017 Budget			2018 Budget		2019 Estimate		2020 Estimate		2021 Estimate
EXPENDITURES		Actuals		Duaget		Duuget		Latimate		Latimate		Latimate
Cost Center 4011 - Solid Waste Administration Sub-Total	\$	927,353	\$	1,051,139	\$	1,157,140	\$	1,096,392	\$	1,127,953	\$	1,160,470
Cost Center 4013 - Waste Reduction/Recycling/Litter		107.747	_	504.070	_	200 004	_	500.005		500.000		047.040
Sub-Total  Cost Center 4014 - Household Hazardous Waste	\$	437,747	\$	591,378	\$	668,934	\$	580,305	\$	598,826	\$	617,949
Sub-Total	\$	1,152,974	\$	1,369,198	\$	1,317,672	\$	1,263,044	\$	1,302,578	\$	1,343,365
Cost Center 4015 - Landfill Management Sub-Total	\$	116,447	\$	137,768	\$	143,929	\$	144,592	\$	149,131	\$	153,816
TOTAL FUND 401	\$	2,634,521	\$	3,149,483	\$	3,287,675	\$	3,084,332	\$	3,178,487	\$	3,275,600
Cost Center 4371 - Transfer Station Operations Sub-Total Transfer Station Operations	s	11,381,573	\$	11,865,163	\$	13,040,861	\$	13,476,149	\$	14,150,003	s	14,857,755
Transfer to Equipment Reserve Fund (Fund 434)	Ť	800,000		400,000		400,000		400,000	Ė	400,000	_	400,000
Sub-Total Sub-Total	\$	12,181,573	\$	12,265,163	\$	13,440,861	\$	13,876,149	\$	14,550,003	\$	15,257,755
TOTAL FUND 437, Cost Center 4371	\$	12,181,573	\$	12,265,163	\$	13,440,861	\$	13,876,149	\$	14,550,003	\$	15,257,755
FUND 430 - Clean Kitsap	\$	263,543	\$	255,500	\$	340,284	\$	350,493	\$	361,007	\$	371,838
FUND 438 - Solid Waste Capital Improvement	\$	356,740	\$	1,670,000			\$	•	\$	600,000	\$	600,000
FUND 434 - Solid Waste Equipment Reserve	\$	-	\$	•	\$	-	\$	•	\$	-	\$	-
REVENUE Fund 401												
Grants Fees and Charges	\$	320,018 1,826,296	\$	210,000 2,385,000	\$	100,000 2,473,000	\$	100,000 2,522,460	\$	200,000 2,572,909	\$	200,000 2,624,367
Tipping Fee increase	E				Ē	79,397		80,985 214,696	E	82,605 218,990		84,257 223,370
Interfund	L	110 609		100,000		100,000		102,000		104,040		(466) 47,551 106,121
Interfund Interest Misc. Rev.		119,608 13,913 3,498		20,000		20,000		14,191		20,400		20,400
TOTAL FUND 401 Fund 437	\$	2,283,333	\$	2,715,000	\$	2,772,397	\$	3,034,332	\$	3,198,487	\$	3,305,600
Solid Waste Fees and Charges Tipping Fee Increase	\$	12,073,024	\$	12,000,000	\$	12,500,000 1,096,700	\$	12,750,000	\$	13,005,000	\$	13,265,100
								107,515		109,666 394,331		111,859 402,217 514,751
Interfund interest	F	14,603 18,155		3,000		-		-		-		-
Misc. Rev. TOTAL FUND 437	\$	1,094 <b>12,106,876</b>	\$	12,003,000	\$	13,596,700	\$	13,976,149	\$	14,650,003	\$	15,457,755
Fund 430 Grants Solid Waste Fees and Charges	\$	68,503	\$	40,000 260,000	\$	50,000 260,000	\$	40,000 265,200	\$	40,000 270,504	\$	40,000 275,914
Tipping Fee Increase	F	248,117		200,000		122,284		124,730 (79,437)		127,224 (81,026)		129,769 (82,646)
	Ę								Ę	4,305		4,391 4,410
TOTAL FUND 430 - Clean Kitsap FUND 438 - Solid Waste Capital Improvement	\$     	316,620	\$	300,000	\$	432,284	\$	350,493	\$     	361,007	\$	371,838
FUND 434 - Solid Waste Equipment Reserve	     	800,000	\$	400,000	\$	400,000		8 M in bonds) 400,000		400,000	\$	400,000
FUND XXX - Rate Stability	. \$	-	\$	-	\$	120,833	\$	241,667	\$	241,667	\$	241,667
TOTAL REVENUE	\$	14,706,830	\$	15,018,000	\$	16,801,381	\$	17,360,974	\$	18,209,498	\$	19,135,192
REVENUE - EXPENDITURES (401, 437, 430)	\$	(372,807)	\$	(652,146)	\$	(267,439)	\$	50,000	\$	120,000	\$	230,000
KPHD Solid & Hazardous Waste Program Expenditures	\$	918,580	\$	1,064,643	\$	1,126,231	\$	1,179,742	\$	1,238,104	\$	1,298,664
Revenue (includes Tipping Fee at \$2.65/ton) Balance	L	1,005,824 87,244		947,700 (116,943)		828,099 (298,133)		836,369 (343,372)		844,765 (393,339)		853,284 (445,379)
Fund 401 Beginning Fund Balance Fund 401 Target Fund Balance (= 3 months operating expenses)	F		\$	1,769,761 660,000	\$	1,335,278 790,000	\$	820,000 820,000	\$	770,000 770,000	\$	790,000 790,000
Fund 437 Target Fund Balance (= 3 months operating expenses) Fund 437 Target Fund Balance Fund 437 Target Fund Balance (= 3 months operating expenses)	F		\$	3,406,324 2,800,000	\$	3,144,161 3,000,000	\$	3,300,000 3,300,000	\$	3,400,000 3,400,000	\$	3,500,000 3,500,000
Fund 430 Beginning Fund Balance Fund 430 Target Fund Balance (= \$1,000,000 for disaster debris management)	E		\$	863,500 1,000,000	\$	908,000 1,000,000	\$	1,000,000	\$	1,000,000 1,000,000	\$	1,000,000 1,000,000
Fund 438 Beginning Fund Balance Fund 438 Target Fund Balance (= \$1,000,000 for emergency repairs/replacement)	Ļ.		\$	2,200,000 1,000,000	\$	2,500,000 1,000,000 120,833	\$	2,500,000 1,000,000 362,500	\$	2,500,000 1,000,000	\$	1,900,000 1,000,000 845,833
Fund XXX (Rate Stability) Beginning Fund Balance Fund XXX Target Fund Balance (= 15% of annual estimated revenue)	Ļ.		Đ.	2,300,000	a l	2,500,000		2,600,000	a	604,167 2,700,000	9	2,900,000
TOTAL FUND BALANCE Total target fund balance	Ē		\$	8,239,585 7,760,000	\$	8,008,272 8,290,000	\$	7,982,500 8,720,000	\$	8,274,167 8,870,000	\$	8,035,833 9,190,000
Tonnage	E	207,038		210,000		218,000		222,360	Ē	226,807		231,343
TIPPING FEE INCREASES Tipping fee increase to Fund 401 (SWD Programs) Tipping fee increase to Fund 437 (Operations)	F				\$	0.36 5.03	\$	0.97 0.48	\$	(0.00)	\$	0.21 2.23
Tipping fee increase to Fund 430 (Clean Kitsap) Tipping fee increase to Fund 438 (Capital Improvement)	E				\$	0.56	\$	(0.36)	\$	0.02	\$	0.02
Tipping fee to KNAT (per ton) Tipping fee to KPHD (per ton)	E				\$ \$	0.25 1.37	\$	0.25 1.54	\$	0.25 1.73	\$	0.25 1.93
Tipping fee to Rate Stability Fund (per ton)  Revenue Requirement (per ton MSW)	_		\$	71.00	\$	1.11 <b>79.68</b>	\$	1.09 <b>80.93</b>	\$	1.07 <b>82.85</b>	\$	1.04 <b>85.47</b>
ASSUMED ESCALATORS (modified from DAS 2018 6-year forecast) Expeditures:	F			2017		2018		2019	L	2020		2021
Salaries Benefits				3.5% 2.3%		3.5% 2.3%		3.5% 6.2%		3.5% 3.0%		3.5% 3.0%
Supplies and Services Intergovernmental	F			3.0% 3.0% 2.0%		3.0% 3.0% 2.0%		3.0% 3.0% 2.0%	E	3.0% 3.0% 2.0%		3.0% 3.0% 2.0%
Interfund  Revenues (tonnage increase)	F			3.0%		3.0%		2.0%		2.0%		2.0%
,										,0		,0



#### 2016 - 2021 Solid Waste Division Summary of Projected Expenditures & Revenues - OVTS Option 2 - Rate Stability Fund Balance in 8 years, Bonds for Capital Projects 2020 Estimate 2016 2017 2021 Estimate EXPENDITURES Cost Center 4011 - Solid Waste Administrat Sub-Total 927,353 \$ 1,051,139 \$ 1,157,140 \$ 1,096,392 \$ 1,127,953 Cost Center 4013 - Waste Reduction/Recycling/Litter Sub-Total 591,378 668,934 Cost Center 4014 - Household Hazardous Waste Sub-Total 1,302,578 1,152,974 \$ 1,369,198 1,317,672 1,263,044 Cost Center 4015 - Landfill Management Sub-Total 143,929 144,592 TOTAL FUND 401 \$ 2,634,521 \$ 3,149,483 \$ 3,287,675 3,084,332 3,178,487 Cost Center 4371 - Transfer Station Operations Sub-Total Transfer Station Operations \$ 13,040,861 Fransfer to Equipment Reserve Fund (Fund 434) Sub-Total FOTAL FUND 437, Cost Center 4371 \$ 12,181,573 \$ 12,265,163 \$ 13,440,861 \$ 13,876,149 \$ 14,550,003 FUND 430 - Clean Kitsap 263,543 \$ 255,500 \$ 340,284 350,493 361,007 FUND 438 - Solid Waste Capital Improvement 356,740 \$ 1,670,000 600,000 FUND 434 - Solid Waste Equipment Reserve \$ -Fund 401 100,000 \$ 2,473,000 79,397 100,000 \$ 200,000 \$ 2,572,909 2,522,460 80,985 214,696 2,624,36 84,25 223,370 ees and Charges 218,990 119,608 102,000 104,040 nterfund 20,400 TOTAL FUND 401 \$ 2,283,333 \$ 2,715,000 \$ 2,772,397 \$ 3,034,332 3,198,487 3,305,600 und 437 Solid Waste Fees and Charges \$ 12,073,024 \$ 12,000,000 \$ 12,500,000 13,005,000 \$ \$ 12,750,000 13,265,100 Tipping Fee Increase 1,096,700 107,515 109,666 402,217 514,751 3,000 nterfund Misc. Rev. TOTAL FUND 437 \$ 12,106,876 \$ 12,003,000 \$ 13,596,700 \$ 13,976,149 \$ 14,650,003 \$ 15,457,755 und 430 68,503 40,000 40,000 40,000 50,000 40,000 Grants Golid Waste Fees and Charges 265,200 124,730 (79,437) 270,504 Fipping Fee Increase 122,284 (81,026) (82,646 4,305 316,620 \$ 432,284 361,007 TOTAL FUND 430 - Clean Kitsap 300,000 \$ 350,493 \$ 371,838 FUND 438 - Solid Waste Capital Improvement \$ \$ -(\$8 M in bonds) FUND 434 - Solid Waste Equipment Reserve 800.000 \$ 400.000 S 400.000 400.000 \$ 400.000 \$ 400.000 FUND XXX - Rate Stability \$ 181,250 \$ 362,500 \$ \$ 362.500 \$ 362.500 \$ 14,706,830 \$ 15,018,000 \$ 16,801,381 \$ 17,360,974 \$ 18,209,498 \$ 19,135,192 TOTAL REVENUE (372,807) \$ (652,146) \$ (267,439) \$ 50,000 120,000 REVENUE - EXPENDITURES (401, 437, 430) 230,000 KPHD Solid & Hazardous Waste Program 1,064,643 \$ 947,700 (116,943) 1,126,231 \$ 828,099 (298,133) 1,179,742 \$ 836,369 (343,372) 1,238,104 \$ 844,765 (393,339) xpenditures Revenue (includes Tipping Fee at \$2.65/ton) 853,284 (445,379 Fund 401 Target Fund Balance (= 3 months operating expenses) und 437 Beginning Fund Balance (= 3 months operating expenses) Fund 437 Target Fund Balance (= 3 months operating expenses) und 430 Beginning Fund Balance (= 3 und 430 Beginning Fund Balance (= \$1,000,000 for disaster debris management) und 430 Target Fund Balance (= \$1,000,000 for disaster debris management) und 438 Beginning Fund Balance (= \$1,000,000 for emergency repairs/replacement) und XXX (Rate Stability) Beginning Fund Balance (= \$1,000,000 for emergency repairs/replacement) und XXX (Rate Stability) Beginning Fund Balance Fund XXX Target Fund Balance (= 15% of annual estimated revenue) TOTAL FUND BALANCE Total target fund balance 8,239,585 \$ 8,068,689 \$ 8,163,750 \$ 8,576,250 \$ 8,458,750 7,760,000 8,290,000 8,720,000 8,870,000 226,807 231,343 207,038 210,000 218,000 ipping fee increase to Fund 401 (SWD Programs) ipping fee increase to Fund 437 (Operations) (0.00) \$ 1.74 \$ 0.02 \$ 5.03 0.56 0.02 Tipping fee increase to Fund 430 (Clean Kitsap) Tipping fee increase to Fund 438 (Capital Improvement) Tipping fee to KNAT (per ton) Tipping fee to KPHD (per ton) Tipping fee to KPHD (per ton) CALCULATION OF OVERALL 4-YEAR REVENUE REQUIREMENTS 898,511 per tor Revenue needed for Fund 437 Revenue needed for Fund 430 Revenue needed for Fund 430 Revenue needed for KNAT Revenue needed for KNAT Revenue needed for RAT AUTOMATION FOR THE NEEDED AVERAGE PER TON 6.86 per ton 0.30 per ton 224,628 1,480,223 0.25 per ton 1.65 per ton 1.61 per ton 1,450,000 **74,414,538 82.82**

#### 2016 - 2022 Solid Waste Division Summary of Projected Expenditures & Revenues - OVTS Option 2 - Rate Stability Fund Balance in 8 years, Bonds for Capital Projects Fee Increases spread out over 4 years <u>2018</u> Budge 2019 stimate 2020 Estima 2021 Estimate EXPENDITURES Cost Center 4011 - Solid Waste Administration 1,051,139 \$ 1,157,140 \$ 927,353 \$ 1,096,392 1,127,953 \$ 1,160,470 Cost Center 4013 - Waste Reduction/Recycling/Litter 591,378 668,934 580.305 598.826 Cost Center 4014 - Household Hazardous Waste Sub-Total 1,369,198 \$ 1,263,044 1,317,672 \$ Cost Center 4015 - Landfill Management 116,447 137,768 143,929 144,592 149,131 153,816 TOTAL FUND 401 \$ 3,149,483 3,287,675 3,084,332 3,178,487 3,275,600 2,634,521 Cost Center 4371 - Transfer Station Operations Sub-Total Transfer Station Operations Transfer to Equipment Reserve Fund (Fund 434) Sub-Total 12,265,163 14,550,003 TOTAL FUND 437, Cost Center 4371 \$ 12.181.573 \$ 12,265,163 \$ 13,440,861 \$ 13.876.149 14.550.003 FUND 430 - Clean Kitsap 263,543 255,500 340,284 350,493 361,007 371,838 FUND 438 - Solid Waste Capital Improvement 356,740 1,670,000 500,000 500.000 600,000 600,000 FUND 434 - Solid Waste Equipment Reserve \$ \$ \$ \$ \$ -REVENUE Fund 401 320,018 210,000 100,000 100,000 200,000 ees and Charges 2,473,000 250,700 100,000 2,572,909 260,828 104,040 2,522,460 255,714 1.826.296 2.385,000 2.624.367 ipping Fee increase 266,045 106,121 nterest 20,000 20,400 20,400 TOTAL FUND 401 2,283,333 2,715,000 2,943,700 2,994,365 3,158,177 3,216,933 Solid Waste Fees and Charges 12,073,024 12,000,000 12,500,000 \$ 12,750,000 \$ 13,005,000 \$ 13,265,100 ipping Fee Increase 14,603 18,155 Misc. Rev. TOTAL FUND 437 \$ 12,106,876 \$ 12,003,000 13,995,480 \$ 14,275,390 \$ 14,560,897 14,852,115 Fund 430 50,000 40,000 40,000 40,000 Grants Solid Waste Fees and Charges 248.117 260.000 265,200 66,708 69,403 385,317 65.400 68.042 Tipping Fee Increase TOTAL FUND 430 - Clean Kitsap 371,908 316,620 300,000 375,400 378,546 FUND 438 - Solid Waste Capital Improvement FUND 434 - Solid Waste Equipment Reserve 800,000 400,000 400,000 400,000 400,000 400,000 FUND XXX - Rate Stability 174,400 355,776 362.892 370,149 TOTAL REVENUE \$ 14,706,830 \$ 15,018,000 \$ 17,314,580 \$ 17,641,663 18,097,621 18,454,365 REVENUE - EXPENDITURES (401, 437, 430) KPHD Solid & Hazardous Waste Program 1,064,643 1,126,231 1,179,742 1,238,104 1,298,664 Revenue (includes Tipping Fee at \$2.65/ton) 1,005,824 947,700 828,099 836,369 844,765 853,284 381,717 Increase in Tipping Fee 359.700 366.894 374.232 87,244 (116,943) (19,107) (63,663 Fund 401 Beginning Fund Balance Fund 401 Target Fund Balance (= 3 months operating expenses) Fund 437 Beginning Fund Balance Fund 437 Target Fund Balance (= 3 months operating expenses) Fund 430 Beginning Fund Balance Fund 430 Target Fund Balance (= \$1,000,000 for disaster debris management) Fund 438 Beginning Fund Balance 3,300,000 943,116 3,500,000 982,070 2,800,000 3,000,000 3,400,000 1,000,000 Fund 438 Target Fund Balance (= \$1,000,000 for emergency repairs/replacement) Fund XXX (Rate Stability) Beginning Fund Balance Fund XXX Target Fund Balance (= 15% of annual estimated revenue) 2,300,000 2,600,000 2,700,000 TOTAL FUND BALANCE 8,061,839 Total target fund balance 7,760,000 8,390,000 207,038 210,000 218,000 222,360 226,807 231,343 Fipping fee increase to Fund 401 (SWD Programs) 1.15 Fipping fee increase to Fund 437 (Operations) Fipping fee increase to Fund 430 (Clean Kitsap) 6.86 0.30 Fipping fee increase to Fund 438 (Capital Improvement) 0.25 Fipping fee increase to KNA Fipping fee increase to KPHD Fipping fee increase to Rate Stability Fund 1.65 Revenue Requirement (per ton MSW) PROPOSED FEES 71.00 82.82 75.00 82.82 80.00 90.00 TOTAL REVENUE NEEDED \$ 74,414,538 ESTIMATED REVENUE PROJECTED \$ 74,238,313

CALCULATI	CALCULATION OF OVTS MINIMUM FEE													
		2016 Actuals		<u>2017</u> Actuals		2018 Budget	2019 Estimate		2020 Estimate	2021 Estimate		Average Annual		
Fixed Costs of Operations	L	Actuals	ļ	Actuals	-	Buuget	Estimate	1	LStilliate	Estillate		Ailliuai		
Salaries	\$	120,420	\$	119,767	\$	120,407	\$ 123,389	1 \$	127,707	\$ 132,177	\$	125,920		
Benefits		47,585		42,357	Ė	44,137	47,012	Т	48,422	49,875		47,361		
OVTS Debt Service		1,029,409		1,029,409		1,029,409	1,029,409		1,029,409	1,029,409		1,029,409		
Other Supplies and Services		144,095		135,663		262,500	106,250		163,715	224,086		189,138		
Interfund Charges		103,189		93,201		164,652	168,176		171,539	174,970		169,834		
Operational Transfers Out		400,000		400,000		400,000	400,000		400,000	400,000		400,000		
TOTAL Fixed Costs	\$	1,844,698	\$	1,820,397	\$	2,021,105	\$ 1,874,235	\$	1,940,792	\$ 2,010,516	\$	1,961,662		
Variable Costs of Operations														
Waste Disposal	\$	9,534,145	\$		\$	10,970,591		\$		\$12,721,614	\$	11,831,703		
Intergovernmental (Taxes)		402,730		438,341		450,000	476,212		500,308	525,624		488,036		
TOTAL Variable Costs	\$	9,936,875		10,505,918		11,420,591	\$12,001,915			\$13,247,238		12,319,739		
Total Transfer Station Operations	\$	11,781,573	\$	12,326,315	\$	13,441,696	\$13,876,150	\$	14,550,004	\$15,257,754	\$	14,281,401		
Total number of customers		134,087		129,459		130,000	130.000	+	130.000	130,000	-	130,000		
Number of minimum fee customers	T	60.183		64,401		65,000	65,000	t	65,000	65,000		65,000		
Transcript		00,100		01,101		00,000	00,000	Ļ	00,000	00,000				
Fixed costs per all customers	\$	13.76	\$	14.06	\$	15.55	\$ 14.42	\$	14.93	\$ 15.47	\$	15.09		
Variable costs per minimum fee customer (assumes 4.25% of waste disposed)		7.02		6.93		7.47	7.85		8.24	8.66		8.06		
Calculation of minimum charge		20.77	\$	20.99	\$	23.01	\$ 22.26	\$	23.17	\$ 24.13	\$	22.39		
PROPOSED MINIMUM CHARGE (Including 3.6% Solid Waste Collection Tax	\$	22.00	\$	22.00	\$	22.00	\$ 22.00	\$	22.00	\$ 22.00	\$	22.00		

CALC	TA III	ION OF	OVTS	<b>SPECIAL</b>	WASTE	FFFS
CAL	JULAII	IUN UF	$\mathbf{O}$	SPECIAL	WASIE	FEES

Special Waste Type	<u>2017</u>	<u>2018</u>	<u>2019</u>	<u>2020</u>	<u>2021</u>		
Special Waste Type	<u>Fees</u>	Proposed Fees <sup>1</sup>	Proposed Fees <sup>2</sup>	Proposed Fees <sup>3</sup>	Proposed Fees <sup>4</sup>		
Yard Waste (per ton)	\$67.70	\$69.05	\$71.13	\$73.97	\$77.67		
Contaminated Soils (per ton)	\$42.26	\$43.11	\$44.40	\$46.17	\$48.48		
Bulky Wastes (per ton)	\$105.31	\$107.42	\$110.64	\$115.06	\$120.82		
Asbestos (per ton)	\$159.82	\$163.02	\$167.91	\$174.62	\$183.35		
Coal Ash (per ton)	\$50.39	\$51.40	\$52.94	\$55.06	\$57.81		
Processed Wood Waste (per ton)	\$41.91	\$42.75	\$44.03	\$45.79	\$48.08		
Creosote Treated Lumber (per ton)	\$50.39	\$51.40	\$52.94	\$55.06	\$57.81		
Dredge Spoils (per ton)	\$42.26	\$43.11	\$44.40	\$46.17	\$48.48		
Biosolids - delivered loose (per ton)	\$68.29	\$69.66	\$71.75	\$74.62	\$78.35		
Biosolids - containerized (per ton)	\$60.69	\$61.90	\$63.76	\$66.31	\$69.63		
White Goods (each)	\$16.50	\$20.00	\$20.00	\$20.00	\$20.00		
Self Haul Tires (each)	\$5.00	\$7.00	\$7.00	\$9.00	\$9.00		
Commercial Truck Tires (each)	\$8.00	\$9.00	\$9.00	\$11.00	\$11.00		

Fee increase over previous year = 2%

<sup>&</sup>lt;sup>2</sup> Fee increase over previous year = 3%

<sup>&</sup>lt;sup>3</sup> Fee increase over previous year = 4%

<sup>&</sup>lt;sup>4</sup> Fee increase over previous year = 5%

# APPENDIX C

**RAGF Rate Calculations** 

### 2016 - 2021 Solid Waste Division Summary of RAGF Projected Expenditures & Revenues

### Assumes "Option 2" OVTS Tipping Fee Increase

EXPENDITURES (includes Cost Centers 4012 and 4372 in 2016/2017)  FIXED COSTS  Salaries  \$ 215,740 \$ 223,349 \$ 380,048 \$ 393,350 \$ 407,117 \$ 421, 807,117 \$ 821, 807,117 \$ 8				_	пррша					ı			
FixED COSTS												2021 Estimate	
Salaties   \$ 215,740   \$ 232,249   \$ 380,048   \$ 393,350   \$ 407,117   \$ 421	EXPENDITURES (includes Cost Centers 4012 and 4372 in 2016/2017)												
Salaries	EIVED COOTS												
Benefits		Φ.	045.740	•	000.040	Φ.	200.040	Φ.	202.250	Φ.	407.447	Φ.	404.000
Supplies and Services (sectudes hauling)   390,677   \$ 621,668   150,284   157,798   165,688   173, intergovernmental   81,430   \$ 77,000   83,873   863,399   88, interfund Charges (includes allocated Transfer Systems Manager sai/ben in 2016/2017)   38,224   \$ 48,237   24,348   24,835   25,332   25, Sub-Total   \$ 829,235   \$ 1,086,067   \$ 825,191   \$ 865,584   \$ 986,199   \$ 928, with the proposed feet of the proposed feet o		Ъ				Ф		Ъ		Ъ		Ъ	421,366
Intergroup Charges (includes allocated Transfer Systems Manager salben in 2016/2017)   38,224   \$ 48,237   24,348   24,348   25,332   25, 25   25, 31b-Total   \$ 829,235   \$ 1,086,067   \$ 825,191   \$ 865,364   \$ 896,199   \$ 928,													218,024
Interfund Charges (includes allocated Transfer Systems Manager salben in 2016/2017)   33.224   \$48,237   24.348   24.835   25.332   25.											,		
Sub-Total   S 829,235   1,086,067   S 825,191   S 865,364   S 896,199   S 928,													88,980 25,838
Hauling (MSW & Recyclables)		\$				\$		\$		\$		\$	928,181
Hauling (MSW & Recyclables)													
Disposal @ projected OVTS tipping fee   598.885   616.852   671.152   730.213   791.369   854.						_							
Sub-Total   \$ 1,064,677 \$ 1,105,934 \$ 1,184,688 \$ 1,269,426 \$ 1,357,542 \$ 1,449,		\$		\$		\$		\$		\$		\$	594,482
TOTAL EXPENDITURES   \$ 1,893,913   \$ 2,192,001   \$ 2,009,879   \$ 2,134,790   \$ 2,253,742   \$ 2,377,							- , -	_					854,678
CUSTOMER/TONNAGE DATA           Customer Count         106,399         96,000         106,400         108,528         110,699         112, 112, 112, 112, 112, 112, 112, 112,	Sub-Total Sub-Total	\$	1,064,677	\$	1,105,934	\$	1,184,688	\$	1,269,426	\$	1,357,542	\$	1,449,160
Customer Count	TOTAL EXPENDITURES	\$	1,893,913	\$	2,192,001	\$	2,009,879	\$	2,134,790	\$	2,253,742	\$	2,377,342
Radge   Radg	CUSTOMER/TONNAGE DATA									<u> </u>			
Radge   Radg			106.399		96,000		106,400		108.528	<u> </u>	110,699		112,913
Projected OVTS Tipping Fee   \$ 71 \$ 71 \$ 75 \$ 80 \$ 85 \$													9,496
Fixed costs per customer		\$		\$	-,	\$	- ,	\$	-, -	\$	,	\$	90
Fixed costs per customer	· · · ·												
Variable costs per ton         \$ 126.22         \$ 127.29         \$ 132.39         \$ 139.07         \$ 145.81         \$ 150.20           Variable costs per pound         \$ 0.063         \$ 0.064         \$ 0.066         \$ 0.070         \$ 0.073         \$ 0.073         \$ 0.063         \$ 0.064         \$ 0.066         \$ 0.070         \$ 0.073         \$ 0.073         \$ 0.066         \$ 0.070         \$ 0.073         \$ 0.066         \$ 0.070         \$ 0.073         \$ 0.066         \$ 0.070         \$ 0.073         \$ 0.066         \$ 0.070         \$ 0.073         \$ 0.066         \$ 0.070         \$ 0.073         \$ 0.066         \$ 0.070         \$ 0.073         \$ 0.066         \$ 0.070         \$ 0.073         \$ 0.066         \$ 0.070         \$ 0.073         \$ 0.066         \$ 0.070         \$ 0.073         \$ 0.066         \$ 0.070         \$ 0.073         \$ 0.066         \$ 0.070         \$ 0.073         \$ 0.066         \$ 0.070         \$ 0.073         \$ 0.066         \$ 0.070         \$ 0.073         \$ 0.066         \$ 0.070         \$ 0.073         \$ 0.066         \$ 0.070         \$ 0.073         \$ 0.071         \$ 0.071         \$ 0.071         \$ 0.071         \$ 0.071         \$ 0.071         \$ 0.071         \$ 0.071         \$ 0.071         \$ 0.071         \$ 0.071         \$ 0.071         \$ 0.071         \$ 0.071	PER CUSTOMER/PER TON COSTS												
Variable costs per pound         \$ 0.063         \$ 0.064         \$ 0.066         \$ 0.070         \$ 0.073         \$ 0.           Variable costs per 32-gallon can (assumes 40 lbs./can)         \$ 2.52         \$ 2.55         \$ 2.65         \$ 2.78         \$ 2.92         \$ 3.00           Varaible costs per cubic yard (assumes 225 lbs./cu.yd.)         \$ 14.20         \$ 14.32         \$ 14.89         \$ 15.65         \$ 16.40         \$ 11.01           Total Cost-of-Service         Tone-can customer         \$ 10.32         \$ 13.86         \$ 10.40         \$ 10.76         \$ 11.01	Fixed costs per customer	\$	7.79	\$	11.31	\$	7.76	\$	7.97	\$	8.10	\$	8.22
Variable costs per 32-gallon can (assumes 40 lbs./can)         \$ 2.52         \$ 2.55         \$ 2.65         \$ 2.78         \$ 2.92         \$ 3.00           Varaible costs per cubic yard (assumes 225 lbs./cu.yd.)         \$ 14.20         \$ 14.32         \$ 14.89         \$ 15.65         \$ 16.40         \$ 17.70           Total Cost-of-Service           One-can customer         \$ 10.32         \$ 13.86         \$ 10.40         \$ 10.76         \$ 11.01	Variable costs per ton	\$				\$				\$			152.60
Varaible costs per cubic yard (assumes 225 lbs./cu.yd.)   \$ 14.20 \$ 14.32 \$ 14.89 \$ 15.65 \$ 16.40 \$ 17.50													0.076
Total Cost-of-Service         \$ 10.32 \$ 13.86 \$ 10.40 \$ 10.76 \$ 11.01 \$ 17           Cone-can customer         \$ 2.52 \$ 2.55 \$ 2.65 \$ 2.78 \$ 2.92 \$ 3           Volume-based fees (per yard)         \$ 21.99 \$ 25.63 \$ 22.65 \$ 23.62 \$ 24.50 \$ 25           Proposed Fees         Current fee         2018 2019 2020 2021           One (32 gallon) can         \$ 8.60 \$ 9.65 \$ 9.65 \$ 10.62 \$ 11           W/ 3.6% Solid Waste Collection Tax         \$ 8.91 \$ 10.00 \$ 10.00 \$ 11.00 \$ 17           Each additional can         \$ 2.35 \$ 2.41 \$ 2.41 \$ 2.90 \$ 25           W/ 3.6% Solid Waste Collection Tax         \$ 2.43 \$ 2.50 \$ 2.50 \$ 3.00 \$ 3           Volume-based fees (per yard)         \$ 20.57 \$ 23.13 \$ 23.13 \$ 24.94 \$ 24	Variable costs per 32-gallon can (assumes 40 lbs./can)												3.05
One-can customer         \$ 10.32         \$ 13.86         \$ 10.40         \$ 10.76         \$ 11.01         \$ 12.01	Varaible costs per cubic yard (assumes 225 lbs./cu.yd.)	\$	14.20	\$	14.32	\$	14.89	\$	15.65	\$	16.40	\$	17.17
One-can customer         \$ 10.32         \$ 13.86         \$ 10.40         \$ 10.76         \$ 11.01         \$ 12.01           Each additional can         \$ 2.52         \$ 2.55         \$ 2.65         \$ 2.78         \$ 2.92         \$ 3.02           Volume-based fees (per yard)         \$ 21.99         \$ 25.63         \$ 22.65         \$ 23.62         \$ 24.50         \$ 22           Proposed Fees         Current fee         2018         2019         2020         2021           One (32 gallon) can         \$ 8.60         \$ 9.65         \$ 9.65         \$ 10.62         \$ 10           W/3.6% Solid Waste Collection Tax         \$ 8.91         \$ 10.00         \$ 11.00         \$ 11           Each additional can         \$ 2.35         \$ 2.41         \$ 2.41         \$ 2.90         \$ 2           W/3.6% Solid Waste Collection Tax         \$ 2.43         \$ 2.50         \$ 2.50         \$ 3.00         \$ 3           Volume-based fees (per yard)         \$ 20.57         \$ 23.13         \$ 24.94         \$ 24.94	Total Cost-of-Service												
Each additional can         \$ 2.52         \$ 2.55         \$ 2.65         \$ 2.78         \$ 2.92         \$ 3.02           Volume-based fees (per yard)         \$ 21.99         \$ 25.63         \$ 22.65         \$ 23.62         \$ 24.50         \$ 25.63           Proposed Fees         Current fee         2018         2019         2020         2021           One (32 gallon) can         \$ 8.60         \$ 9.65         \$ 9.65         \$ 10.62         \$ 10.02           W/3.6% Solid Waste Collection Tax         \$ 8.91         \$ 10.00         \$ 11.00         \$ 11.00         \$ 11.00         \$ 11.00         \$ 12.00         \$ 2.00		\$	10.32	\$	13.86	\$	10.40	\$	10.76	\$	11.01	\$	11.27
Volume-based fees (per yard)         \$ 21.99         \$ 25.63         \$ 22.65         \$ 23.62         \$ 24.50         \$ 25.63           Proposed Fees         Current fee         2018         2019         2020         2021           One (32 gallon) can         \$ 8.60         \$ 9.65         \$ 9.65         \$ 10.02         \$ 10.02         \$ 10.00         \$ 11.00	Each additional can												3.05
One (32 gallon) can       \$ 8.60       \$ 9.65       \$ 10.62       \$ 10	Volume-based fees (per yard)	\$							23.62	\$			25.39
One (32 gallon) can       \$ 8.60       \$ 9.65       \$ 10.62       \$ 10	Proposed Fees				Current fee		2018	l	2019		2020		2021
w/ 3.6% Solid Waste Collection Tax       \$ 8.91       \$ 10.00       \$ 11.00       \$ 12.00       \$ 11.00       \$ 11.00       \$ 12.00 <td></td> <td></td> <td></td> <td></td> <td></td> <td>\$</td> <td></td> <td>\$</td> <td></td> <td>\$</td> <td></td> <td>\$</td> <td>10.62</td>						\$		\$		\$		\$	10.62
w/ 3.6% Solid Waste Collection Tax       \$ 2.43       \$ 2.50       \$ 3.00       \$ 3.00         Volume-based fees (per yard)       \$ 20.57       \$ 23.13       \$ 24.94       \$ 24.94													11.00
w/ 3.6% Solid Waste Collection Tax       \$ 2.43       \$ 2.50       \$ 3.00       \$ 3.00         Volume-based fees (per yard)       \$ 20.57       \$ 23.13       \$ 24.94       \$ 24.94	Each additional can			\$	2.35	\$	2.41	\$	2.41	\$	2.90	\$	2.90
	w/ 3.6% Solid Waste Collection Tax				2.43	\$			2.50	\$	3.00	\$	3.00
w/3 6% Solid Waste Collection Tax \$ 21.31 \& 23.97 \& 23.97 \& 23.97 \& 25.84 \& 24.	Volume-based fees (per yard)				20.57	\$	23.13	\$	23.13	\$	24.94	\$	24.94
Ψ 21.01 Ψ 20.01 Ψ 20.01 Φ 20.04 Φ 2.	w/ 3.6% Solid Waste Collection Tax			\$	21.31	\$	23.97	\$	23.97	\$	25.84	\$	25.84
Proposed Special Waste Fees Current fee 2018 2019 2020 2021	Proposed Special Waste Fees	l		١.	Current fee		2018		2019	<u> </u>	2020		2021
		1				\$		\$		\$		\$	12.00
							13.50	\$					15.00
													30.00
								_		-			45.00
										-			45.00
						\$							20.00