



**KITSAP COUNTY PUBLIC WORKS
SOLID WASTE DIVISION**

COST OF SERVICE/RATE STUDY

**Olympic View Transfer Station and
Recycling and Garbage Facilities**

December 2017

***KITSAP COUNTY PUBLIC WORKS SOLID WASTE DIVISION
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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.

CURRENT FEES FOR MUNICIPAL SOLID WASTE (MSW)

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

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

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

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
OPTION 1: Capital Projects cash funded; Rate Stability Fund in 4 years	\$83.62	\$97.19	\$115.16	\$121.33
OPTION 2: Capital Projects financed with bonds; Rate Stability Fund in 8 years	\$80.24	\$81.47	\$83.39	\$86.00
OPTION 3: 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	\$110.64	\$115.06	\$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

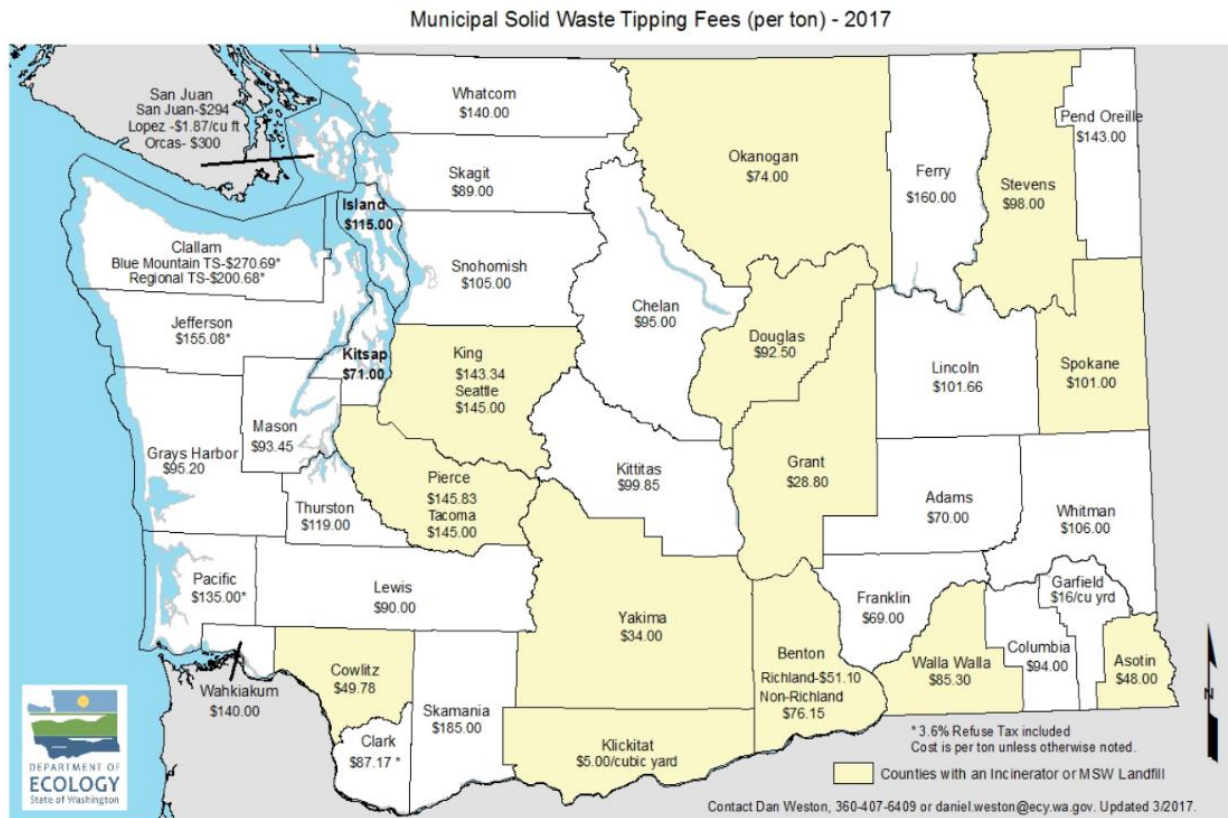
PROPOSED MINIMUM FEE – OVTS

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.



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 RAGF FEES FOR MSW

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: https://www.epa.gov/sites/production/files/2016-04/documents/volume_to_weight_conversion_factors_memorandum_04192016_508fnl.pdf.

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 Actuals	2017 Budget	2018 Budget	2019 Estimate	2020 Estimate	2021 Estimate
EXPENDITURES						
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						
Sub-Total	\$ 437,747	\$ 591,378	\$ 668,934	\$ 580,305	\$ 598,826	\$ 617,949
Cost Center 4014 - Household Hazardous Waste						
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	\$ 11,381,573	\$ 11,865,163	\$ 13,040,861	\$ 13,476,149	\$ 14,150,003	\$ 14,857,755
Transfer to Equipment Reserve Fund (Fund 434)	800,000	400,000	400,000	400,000	400,000	400,000
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	\$ 1,875,000	\$ 2,750,000	\$ 3,650,000	\$ 830,000
FUND 434 - Solid Waste Equipment Reserve	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
REVENUE						
Fund 401						
Grants	\$ 320,018	\$ 210,000	\$ 100,000	\$ 100,000	\$ 200,000	\$ 200,000
Fees and Charges	1,826,296	2,385,000	2,473,000	2,522,460	2,572,909	2,624,367
Tipping Fee Increase						
Interfund	119,608	100,000	100,000	102,000	104,040	106,121
Interest	13,913	20,000	20,000	14,191	20,400	20,400
Misc. Rev.	3,498	-	-	-	-	-
TOTAL 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	\$ 13,265,100
Tipping Fee Increase						
Interfund	14,603	3,000	-	-	-	-
Interest	18,155	-	-	-	-	-
Misc. Rev.	1,094	-	-	-	-	-
TOTAL FUND 437	\$ 12,106,876	\$ 12,003,000	\$ 12,500,000	\$ 12,750,000	\$ 13,005,000	\$ 13,265,100
Fund 430						
Grants	\$ 68,503	\$ 40,000	\$ 50,000	\$ 40,000	\$ 40,000	\$ 40,000
Solid Waste Fees and Charges	248,117	260,000	260,000	265,200	270,504	275,914
Tipping Fee Increase						
TOTAL FUND 430 - Clean Kitsap	\$ 316,620	\$ 300,000	\$ 310,000	\$ 305,200	\$ 310,504	\$ 315,914
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	\$ 14,706,830	\$ 15,018,000	\$ 15,503,000	\$ 15,793,851	\$ 16,212,853	\$ 16,531,902
REVENUE - EXPENDITURES (401, 437, 430)	\$ (372,807)	\$ (652,146)	\$ (1,565,820)	\$ (1,517,123)	\$ (1,876,645)	\$ (2,373,289)
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)	1,005,824	947,700	828,099	836,369	844,765	853,284
Balance	87,244	(116,943)	(298,133)	(343,372)	(393,339)	(445,379)
Fund 401 Beginning Fund Balance		\$ 1,769,761	\$ 1,335,278	\$ 740,603	\$ 394,922	\$ 113,784
Fund 401 Target Fund Balance (= 3 months operating expenses)		680,000	790,000	820,000	770,000	790,000
Fund 437 Beginning Fund Balance		\$ 3,406,324	\$ 3,144,161	\$ 2,203,300	\$ 1,077,151	\$ (467,853)
Fund 437 Target Fund Balance (= 3 months operating expenses)		2,800,000	3,000,000	3,300,000	3,400,000	3,500,000
Fund 430 Beginning Fund Balance		\$ 863,500	\$ 908,000	\$ 877,716	\$ 832,423	\$ 781,920
Fund 430 Target Fund Balance (= \$1,000,000 for disaster debris management)		1,000,000	1,000,000	1,000,000	1,000,000	1,000,000
Fund 438 Beginning Fund Balance		\$ 2,200,000	\$ 2,500,000	\$ 625,000	\$ (2,125,000)	\$ (5,775,000)
Fund 438 Target Fund Balance (= \$1,000,000 for emergency repairs/replacement)		1,000,000	1,000,000	1,000,000	1,000,000	1,000,000
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		\$ 8,239,585	\$ 7,887,439	\$ 4,446,619	\$ 179,496	\$ (5,347,149)
Total target fund balance		7,760,000	8,090,000	8,520,000	8,570,000	8,790,000
Tonnage	207,038	210,000	218,000	222,360	226,807	231,343
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)						
Tipping fee increase to KNAT						
Tipping fee increase to KPHD						
Tipping fee increase to Rate Stability Fund						
Tipping Fee (total)		\$71.00	\$71.00	\$71.00	\$71.00	\$71.00
ASSUMED ESCALATORS (modified from DAS 2018 6-year forecast)						
Expenditures:		2017	2018	2019	2020	2021
Salaries		3.5%	3.5%	3.5%	3.5%	3.5%
Benefits		2.3%	2.3%	6.2%	3.0%	3.0%
Supplies and Services		3.0%	3.0%	3.0%	3.0%	3.0%
Intergovernmental		3.0%	3.0%	3.0%	3.0%	3.0%
Interfund		2.0%	2.0%	2.0%	2.0%	2.0%
Revenues (tonnage increase)		3.0%	3.0%	2.0%	2.0%	2.0%

2016 - 2021 Solid Waste Division						
Summary of Projected Expenditures & Revenues - OVTS						
Rate Stability Fund Balance in 4 Years, Cash for Capital Projects						
	2016 Actuals	2017 Budget	2018 Budget	2019 Estimate	2020 Estimate	2021 Estimate
EXPENDITURES						
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						
Sub-Total	\$ 437,747	\$ 591,378	\$ 668,934	\$ 580,305	\$ 598,826	\$ 617,949
Cost Center 4014 - Household Hazardous Waste						
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	\$ 11,381,573	\$ 11,865,163	\$ 13,040,861	\$ 13,476,149	\$ 14,150,003	\$ 14,857,755
Transfer to Equipment Reserve Fund (Fund 434)	800,000	400,000	400,000	400,000	400,000	400,000
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	\$ -	\$ 2,750,000	\$ 3,650,000	\$ 830,000
FUND 434 - Solid Waste Equipment Reserve	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
REVENUE						
Fund 401						
Grants	\$ 320,018	\$ 210,000	\$ 100,000	\$ 100,000	\$ 200,000	\$ 200,000
Fees and Charges	1,826,296	2,385,000	2,473,000	2,522,460	2,572,909	2,624,367
Tipping Fee Increase			79,397	80,985	82,605	84,257
				214,696	218,990	223,370
					(456)	47,551
Interfund	119,608	100,000	100,000	102,000	104,040	106,121
Interest	13,913	20,000	20,000	14,191	20,400	20,400
Misc. Rev.	3,498	-	-	-	-	-
TOTAL FUND 401	\$ 2,283,333	\$ 2,715,000	\$ 2,772,397	\$ 3,034,332	\$ 3,198,487	\$ 3,305,600
Fund 437						
Solid Waste Fees and Charges	\$ 12,073,024	\$ 12,000,000	\$ 12,500,000	\$ 12,750,000	\$ 13,005,000	\$ 13,265,100
Tipping Fee Increase			1,096,700	1,118,634	1,141,007	1,163,827
				107,515	109,666	111,859
					394,331	402,217
						514,751
Interfund	14,603	3,000	-	-	-	-
Interest	18,155	-	-	-	-	-
Misc. Rev.	1,094	-	-	-	-	-
TOTAL FUND 437	\$ 12,106,876	\$ 12,003,000	\$ 13,596,700	\$ 13,976,149	\$ 14,650,003	\$ 15,457,755
Fund 430						
Grants	68,503	40,000	50,000	40,000	40,000	40,000
Solid Waste Fees and Charges	248,117	260,000	260,000	265,200	270,504	275,914
Tipping Fee Increase			122,284	124,730	127,224	129,769
				(79,437)	(81,026)	(82,646)
					4,305	4,391
TOTAL FUND 430 - Clean Kitsap	\$ 316,620	\$ 300,000	\$ 432,284	\$ 350,493	\$ 361,007	\$ 371,838
FUND 438 - Solid Waste Capital Improvement	\$ -	\$ -	\$ 375,000	\$ 2,750,000	\$ 3,650,000	\$ 830,000
FUND 434 - Solid Waste Equipment Reserve	\$ 800,000	\$ 400,000	\$ 400,000	\$ 400,000	\$ 400,000	\$ 400,000
FUND XXX - Rate Stability	\$ -	\$ -	\$ 362,500	\$ 725,000	\$ 725,000	\$ 725,000
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)	1,005,824	947,700	828,095	836,369	844,765	853,284
Balance	87,244	(116,943)	(298,133)	(343,372)	(393,339)	(445,379)
Fund 401 Beginning Fund Balance		\$ 1,769,761	\$ 1,335,278	\$ 820,000	\$ 770,000	\$ 790,000
Fund 401 Target Fund Balance (= 3 months operating expenses)		660,000	790,000	820,000	770,000	790,000
Fund 437 Beginning Fund Balance		\$ 3,406,324	\$ 3,144,161	\$ 3,300,000	\$ 3,400,000	\$ 3,500,000
Fund 437 Target Fund Balance (= 3 months operating expenses)		2,800,000	3,000,000	3,300,000	3,400,000	3,500,000
Fund 430 Beginning Fund Balance		\$ 863,500	\$ 908,000	\$ 1,000,000	\$ 1,000,000	\$ 1,000,000
Fund 430 Target Fund Balance (= \$1,000,000 for disaster debris management)		1,000,000	1,000,000	1,000,000	1,000,000	1,000,000
Fund 438 Beginning Fund Balance		\$ 2,200,000	\$ 2,500,000	\$ 2,875,000	\$ 2,875,000	\$ 2,875,000
Fund 438 Target Fund Balance (= \$1,000,000 for emergency repairs/replacement)		1,000,000	1,000,000	1,000,000	1,000,000	1,000,000
Fund XXX (Rate Stability) Beginning Fund Balance		\$ -	\$ 362,500	\$ 1,087,500	\$ 1,812,500	\$ 2,537,500
Fund XXX Target Fund Balance (= 15% of annual estimated revenue)		2,300,000	2,500,000	2,600,000	2,700,000	2,900,000
TOTAL FUND BALANCE		\$ 8,239,585	\$ 8,249,939	\$ 9,082,500	\$ 9,857,500	\$ 10,702,500
Total target fund balance		7,760,000	8,290,000	8,720,000	8,870,000	9,190,000
Tonnage	207,038	210,000	218,000	222,360	226,807	231,343
TIPPING FEE INCREASES						
Tipping fee increase to Fund 401 (SWD Programs)			\$ 0.36	\$ 0.97	\$ (0.00)	\$ 0.21
Tipping fee increase to Fund 437 (Operations)			\$ 5.03	\$ 0.48	\$ 1.74	\$ 2.23
Tipping fee increase to Fund 430 (Clean Kitsap)			\$ 0.56	\$ (0.36)	\$ 0.02	\$ 0.02
Tipping fee increase to Fund 438 (Capital Improvement)			\$ 1.72	\$ 12.37	\$ 16.09	\$ 3.59
Tipping fee to KNAT (per ton)			\$ 0.25	\$ 0.25	\$ 0.25	\$ 0.25
Tipping fee to KPHD (per ton)			\$ 1.37	\$ 1.54	\$ 1.73	\$ 1.93
Tipping fee to Rate Stability Fund (per ton)			\$ 3.33	\$ 3.26	\$ 3.26	\$ 3.13
Revenue Requirement (per ton MSW)		\$ 71.00	\$ 83.62	\$ 97.19	\$ 115.16	\$ 121.33
ASSUMED ESCALATORS (modified from DAS 2018 6-year forecast)						
Expenditures:		2017	2018	2019	2020	2021
Salaries		3.5%	3.5%	3.5%	3.5%	3.5%
Benefits		2.3%	2.3%	6.2%	3.0%	3.0%
Supplies and Services		3.0%	3.0%	3.0%	3.0%	3.0%
Intergovernmental		3.0%	3.0%	3.0%	3.0%	3.0%
Interfund		2.0%	2.0%	2.0%	2.0%	2.0%
Revenues (tonnage increase)		3.0%	3.0%	2.0%	2.0%	2.0%

2016 - 2021 Solid Waste Division						
Summary of Projected Expenditures & Revenues - OVTS						
Rate Stability Fund Balance in 8 years, Bonds for Capital Projects						
	2016 Actuals	2017 Budget	2018 Budget	2019 Estimate	2020 Estimate	2021 Estimate
EXPENDITURES						
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						
Sub-Total	\$ 437,747	\$ 591,378	\$ 668,934	\$ 580,305	\$ 598,826	\$ 617,949
Cost Center 4014 - Household Hazardous Waste						
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	\$ 11,381,573	\$ 11,865,163	\$ 13,040,861	\$ 13,476,149	\$ 14,150,003	\$ 14,857,755
Transfer to Equipment Reserve Fund (Fund 434)	800,000	400,000	400,000	400,000	400,000	400,000
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	\$ 320,018	\$ 210,000	\$ 100,000	\$ 100,000	\$ 200,000	\$ 200,000
Fees and Charges	1,826,296	2,385,000	2,473,000	2,522,460	2,572,909	2,624,367
Tipping Fee Increase			79,397	80,985	82,605	84,257
				214,696	218,990	223,370
					(456)	47,551
Interfund	119,608	100,000	100,000	102,000	104,040	106,121
Interest	13,913	20,000	20,000	14,191	20,400	20,400
Misc. Rev.	3,498	-	-	-	-	-
TOTAL FUND 401	\$ 2,283,333	\$ 2,715,000	\$ 2,772,397	\$ 3,034,332	\$ 3,198,487	\$ 3,305,600
Fund 437						
Solid Waste Fees and Charges	\$ 12,073,024	\$ 12,000,000	\$ 12,500,000	\$ 12,750,000	\$ 13,005,000	\$ 13,265,100
Tipping Fee Increase			1,096,700	1,118,634	1,141,007	1,163,827
				107,515	109,666	111,859
					394,331	402,217
						514,751
Interfund	14,603	3,000	-	-	-	-
Interest	18,155	-	-	-	-	-
Misc. Rev.	1,094	-	-	-	-	-
TOTAL FUND 437	\$ 12,106,876	\$ 12,003,000	\$ 13,596,700	\$ 13,976,149	\$ 14,650,003	\$ 15,457,755
Fund 430						
Grants	68,503	40,000	50,000	40,000	40,000	40,000
Solid Waste Fees and Charges	248,117	260,000	260,000	265,200	270,504	275,914
Tipping Fee Increase			122,284	124,730	127,224	129,769
				(79,437)	(81,026)	(82,646)
					4,305	4,391
TOTAL FUND 430 - Clean Kitsap	\$ 316,620	\$ 300,000	\$ 432,284	\$ 350,493	\$ 361,007	\$ 371,838
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	\$ -	\$ -	\$ 181,250	\$ 362,500	\$ 362,500	\$ 362,500
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)	1,005,824	947,700	828,095	836,369	844,765	853,284
Balance	87,244	(116,943)	(298,133)	(343,372)	(393,339)	(445,379)
Fund 401 Beginning Fund Balance		\$ 1,769,761	\$ 1,335,278	\$ 820,000	\$ 770,000	\$ 790,000
Fund 401 Target Fund Balance (= 3 months operating expenses)		660,000	790,000	820,000	770,000	790,000
Fund 437 Beginning Fund Balance		\$ 3,406,324	\$ 3,144,161	\$ 3,300,000	\$ 3,400,000	\$ 3,500,000
Fund 437 Target Fund Balance (= 3 months operating expenses)		2,800,000	3,000,000	3,300,000	3,400,000	3,500,000
Fund 430 Beginning Fund Balance		\$ 863,500	\$ 908,000	\$ 1,000,000	\$ 1,000,000	\$ 1,000,000
Fund 430 Target Fund Balance (= \$1,000,000 for disaster debris management)		1,000,000	1,000,000	1,000,000	1,000,000	1,000,000
Fund 438 Beginning Fund Balance		\$ 2,200,000	\$ 2,500,000	\$ 2,500,000	\$ 2,500,000	\$ 1,900,000
Fund 438 Target Fund Balance (= \$1,000,000 for emergency repairs/replacement)		1,000,000	1,000,000	1,000,000	1,000,000	1,000,000
Fund XXX (Rate Stability) Beginning Fund Balance		\$ -	\$ 181,250	\$ 543,750	\$ 906,250	\$ 1,268,750
Fund XXX Target Fund Balance (= 15% of annual estimated revenue)		2,300,000	2,500,000	2,600,000	2,700,000	2,900,000
TOTAL FUND BALANCE		\$ 8,239,585	\$ 8,068,689	\$ 8,163,750	\$ 8,576,250	\$ 8,458,750
Total target fund balance		7,760,000	8,290,000	8,720,000	8,870,000	9,190,000
Tonnage	207,038	210,000	218,000	222,360	226,807	231,343
TIPPING FEE INCREASES						
Tipping fee increase to Fund 401 (SWD Programs)			\$ 0.36	\$ 0.97	\$ (0.00)	\$ 0.21
Tipping fee increase to Fund 437 (Operations)			\$ 5.03	\$ 0.48	\$ 1.74	\$ 2.23
Tipping fee increase to Fund 430 (Clean Kitsap)			\$ 0.56	\$ (0.36)	\$ 0.02	\$ 0.02
Tipping fee increase to Fund 438 (Capital Improvement)			\$ -	\$ -	\$ -	\$ -
Tipping fee to KNAT (per ton)			\$ 0.25	\$ 0.25	\$ 0.25	\$ 0.25
Tipping fee to KPHD (per ton)			\$ 1.37	\$ 1.54	\$ 1.73	\$ 1.93
Tipping fee to Rate Stability Fund (per ton)			\$ 1.66	\$ 1.63	\$ 1.63	\$ 1.57
Revenue Requirement (per ton MSW)		\$ 71.00	\$ 80.24	\$ 81.47	\$ 83.39	\$ 86.00
ASSUMED ESCALATORS (modified from DAS 2018 6-year forecast)						
Expenditures:		2017	2018	2019	2020	2021
Salaries		3.5%	3.5%	3.5%	3.5%	3.5%
Benefits		2.3%	2.3%	6.2%	3.0%	3.0%
Supplies and Services		3.0%	3.0%	3.0%	3.0%	3.0%
Intergovernmental		3.0%	3.0%	3.0%	3.0%	3.0%
Interfund		2.0%	2.0%	2.0%	2.0%	2.0%
Revenues (tonnage increase)		3.0%	3.0%	2.0%	2.0%	2.0%

2016 - 2021 Solid Waste Division Summary of Projected Expenditures & Revenues - OVTS						
Rate Stability Fund Balance in 12 years, Bonds for Capital Projects						
	2016 Actuals	2017 Budget	2018 Budget	2019 Estimate	2020 Estimate	2021 Estimate
EXPENDITURES						
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						
Sub-Total	\$ 437,747	\$ 591,378	\$ 668,934	\$ 580,305	\$ 598,826	\$ 617,949
Cost Center 4014 - Household Hazardous Waste						
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	\$ 11,381,573	\$ 11,865,163	\$ 13,040,861	\$ 13,476,149	\$ 14,150,003	\$ 14,857,755
Transfer to Equipment Reserve Fund (Fund 434)	800,000	400,000	400,000	400,000	400,000	400,000
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	\$ 320,018	\$ 210,000	\$ 100,000	\$ 100,000	\$ 200,000	\$ 200,000
Fees and Charges	1,826,296	2,385,000	2,473,000	2,522,480	2,572,909	2,624,367
Tipping Fee Increase			79,397	80,985	82,605	84,257
				214,696	218,990	223,370
					(456)	(468)
						47,551
Interfund	119,608	100,000	100,000	102,000	104,040	106,121
Interest	13,913	20,000	20,000	14,191	20,400	20,400
Misc. Rev.	3,498	-	-	-	-	-
TOTAL FUND 401	\$ 2,283,333	\$ 2,715,000	\$ 2,772,397	\$ 3,034,332	\$ 3,198,487	\$ 3,305,600
Fund 437						
Solid Waste Fees and Charges	\$ 12,073,024	\$ 12,000,000	\$ 12,500,000	\$ 12,750,000	\$ 13,005,000	\$ 13,265,100
Tipping Fee Increase			1,096,700	1,118,634	1,141,007	1,163,827
				107,515	109,666	111,859
					394,331	402,217
						514,751
Interfund	14,603	3,000	-	-	-	-
Interest	18,155	-	-	-	-	-
Misc. Rev.	1,094	-	-	-	-	-
TOTAL FUND 437	\$ 12,106,876	\$ 12,003,000	\$ 13,596,700	\$ 13,976,149	\$ 14,650,003	\$ 15,457,755
Fund 430						
Grants	\$ 68,503	\$ 40,000	\$ 50,000	\$ 40,000	\$ 40,000	\$ 40,000
Solid Waste Fees and Charges	248,117	260,000	260,000	265,200	270,504	275,914
Tipping Fee Increase			122,284	124,730	127,224	129,769
				(79,437)	(81,026)	(82,646)
					4,305	4,391
						4,410
TOTAL FUND 430 - Clean Kitsap	\$ 316,620	\$ 300,000	\$ 432,284	\$ 350,493	\$ 361,007	\$ 371,838
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	\$ -	\$ -	\$ 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)	1,005,824	947,700	828,099	836,369	844,765	853,284
Balance	87,244	(116,943)	(298,133)	(343,372)	(393,339)	(445,379)
Fund 401 Beginning Fund Balance		\$ 1,769,761	\$ 1,335,278	\$ 820,000	\$ 770,000	\$ 790,000
Fund 401 Target Fund Balance (= 3 months operating expenses)		660,000	790,000	820,000	770,000	790,000
Fund 437 Beginning Fund Balance		\$ 3,406,324	\$ 3,144,161	\$ 3,300,000	\$ 3,400,000	\$ 3,500,000
Fund 437 Target Fund Balance (= 3 months operating expenses)		2,800,000	3,000,000	3,300,000	3,400,000	3,500,000
Fund 430 Beginning Fund Balance		\$ 863,500	\$ 908,000	\$ 1,000,000	\$ 1,000,000	\$ 1,000,000
Fund 430 Target Fund Balance (= \$1,000,000 for disaster debris management)		1,000,000	1,000,000	1,000,000	1,000,000	1,000,000
Fund 438 Beginning Fund Balance		\$ 2,200,000	\$ 2,500,000	\$ 2,500,000	\$ 2,500,000	\$ 1,900,000
Fund 438 Target Fund Balance (= \$1,000,000 for emergency repairs/replacement)		1,000,000	1,000,000	1,000,000	1,000,000	1,000,000
Fund XXX (Rate Stability) Beginning Fund Balance		\$ -	\$ 120,833	\$ 362,500	\$ 604,167	\$ 845,833
Fund XXX Target Fund Balance (= 15% of annual estimated revenue)		2,300,000	2,500,000	2,600,000	2,700,000	2,900,000
TOTAL FUND BALANCE		\$ 8,239,585	\$ 8,008,272	\$ 7,982,500	\$ 8,274,167	\$ 8,035,833
Total target fund balance		7,760,000	8,290,000	8,720,000	8,870,000	9,190,000
Tonnage	207,038	210,000	218,000	222,360	226,807	231,343
TIPPING FEE INCREASES						
Tipping fee increase to Fund 401 (SWD Programs)			\$ 0.36	\$ 0.97	\$ (0.00)	\$ 0.21
Tipping fee increase to Fund 437 (Operations)			\$ 5.03	\$ 0.48	\$ 1.74	\$ 2.23
Tipping fee increase to Fund 430 (Clean Kitsap)			\$ 0.56	\$ (0.36)	\$ 0.02	\$ 0.02
Tipping fee increase to Fund 438 (Capital Improvement)			\$ -	\$ -	\$ -	\$ -
Tipping fee to KNAT (per ton)			\$ 0.25	\$ 0.25	\$ 0.25	\$ 0.25
Tipping fee to KPHD (per ton)			\$ 1.37	\$ 1.54	\$ 1.73	\$ 1.93
Tipping fee to Rate Stability Fund (per ton)			\$ 1.11	\$ 1.09	\$ 1.07	\$ 1.04
Revenue Requirement (per ton MSW)		\$ 71.00	\$ 79.68	\$ 80.93	\$ 82.85	\$ 85.47
ASSUMED ESCALATORS (modified from DAS 2018 6-year forecast)						
Expenditures:		2017	2018	2019	2020	2021
Salaries		3.5%	3.5%	3.5%	3.5%	3.5%
Benefits		2.3%	2.3%	6.2%	3.0%	3.0%
Supplies and Services		3.0%	3.0%	3.0%	3.0%	3.0%
Intergovernmental		3.0%	3.0%	3.0%	3.0%	3.0%
Interfund		2.0%	2.0%	2.0%	2.0%	2.0%
Revenues (tonnage increase)		3.0%	3.0%	2.0%	2.0%	2.0%



APPENDIX B

Olympic View Transfer Station Rate Calculations



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

Option 2 - Rate Stability Fund Balance in 8 years, Bonds for Capital Projects

	2016 Actuals	2017 Budget	2018 Budget	2019 Estimate	2020 Estimate	2021 Estimate
EXPENDITURES						
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						
Sub-Total	\$ 437,747	\$ 591,378	\$ 668,934	\$ 580,305	\$ 598,826	\$ 617,949
Cost Center 4014 - Household Hazardous Waste						
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	\$ 11,381,573	\$ 11,865,163	\$ 13,040,861	\$ 13,476,149	\$ 14,150,003	\$ 14,857,755
Transfer to Equipment Reserve Fund (Fund 434)	800,000	400,000	400,000	400,000	400,000	400,000
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	\$ 320,018	\$ 210,000	\$ 100,000	\$ 100,000	\$ 200,000	\$ 200,000
Fees and Charges	1,826,296	2,385,000	2,473,000	2,522,460	2,572,909	2,624,367
Tipping Fee Increase			79,397	80,985	82,605	84,257
				214,696	218,990	223,370
					(456)	(466)
						47,551
Interfund	119,608	100,000	100,000	102,000	104,040	106,121
Interest	13,913	20,000	20,000	14,191	20,400	20,400
Misc. Rev.	3,498	-	-	-	-	-
TOTAL FUND 401	\$ 2,283,333	\$ 2,715,000	\$ 2,772,397	\$ 3,034,332	\$ 3,198,487	\$ 3,305,600
Fund 437						
Solid Waste Fees and Charges	\$ 12,073,024	\$ 12,000,000	\$ 12,500,000	\$ 12,750,000	\$ 13,005,000	\$ 13,285,100
Tipping Fee Increase			1,096,700	1,118,634	1,141,007	1,163,827
				107,515	109,666	111,859
					394,331	402,217
						514,751
Interfund	14,603	3,000				
Interest	18,155	-	-	-	-	-
Misc. Rev.	1,094	-	-	-	-	-
TOTAL FUND 437	\$ 12,106,876	\$ 12,003,000	\$ 13,596,700	\$ 13,976,149	\$ 14,650,003	\$ 15,457,755
Fund 430						
Grants	68,503	40,000	50,000	40,000	40,000	40,000
Solid Waste Fees and Charges	248,117	260,000	260,000	265,200	270,504	275,914
Tipping Fee Increase			122,284	124,730	127,224	129,769
				(79,437)	(81,026)	(82,646)
					4,305	4,391
						4,410
TOTAL FUND 430 - Clean Kitsap	\$ 316,620	\$ 300,000	\$ 432,284	\$ 350,493	\$ 361,007	\$ 371,838
FUND 438 - Solid Waste Capital Improvement	\$ -	\$ -	\$ -	\$ (58 M in bonds)	\$ -	\$ -
FUND 434 - Solid Waste Equipment Reserve	\$ 800,000	\$ 400,000	\$ 400,000	\$ 400,000	\$ 400,000	\$ 400,000
FUND XXX - Rate Stability	\$ -	\$ -	\$ 181,250	\$ 362,500	\$ 362,500	\$ 362,500
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)	1,005,824	947,700	828,099	836,369	844,765	853,284
Balance	87,244	(116,943)	(298,133)	(343,372)	(393,339)	(445,379)
Fund 401 Beginning Fund Balance	\$ 1,769,761	\$ 1,335,278	\$ 820,000	\$ 770,000	\$ 790,000	\$ 790,000
Fund 401 Target Fund Balance (= 3 months operating expenses)	660,000	790,000	820,000	820,000	770,000	790,000
Fund 437 Beginning Fund Balance	\$ 3,408,324	\$ 3,144,161	\$ 3,300,000	\$ 3,400,000	\$ 3,400,000	\$ 3,500,000
Fund 437 Target Fund Balance (= 3 months operating expenses)	2,800,000	3,000,000	3,300,000	3,300,000	3,400,000	3,500,000
Fund 430 Beginning Fund Balance	\$ 863,500	\$ 908,000	\$ 1,000,000	\$ 1,000,000	\$ 1,000,000	\$ 1,000,000
Fund 430 Target Fund Balance (= \$1,000,000 for disaster debris management)	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000
Fund 438 Beginning Fund Balance	\$ 2,200,000	\$ 2,500,000	\$ 2,500,000	\$ 2,500,000	\$ 2,500,000	\$ 1,900,000
Fund 438 Target Fund Balance (= \$1,000,000 for emergency repairs/replacement)	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000
Fund XXX (Rate Stability) Beginning Fund Balance	\$ -	\$ 181,250	\$ 543,750	\$ 906,250	\$ 1,268,750	\$ 1,268,750
Fund XXX Target Fund Balance (= 15% of annual estimated revenue)	2,300,000	2,500,000	2,600,000	2,700,000	2,900,000	2,900,000
TOTAL FUND BALANCE		\$ 8,239,585	\$ 8,068,689	\$ 8,163,750	\$ 8,576,250	\$ 8,458,750
Total target fund balance		7,760,000	8,290,000	8,720,000	8,870,000	9,190,000
Tonnage	207,038	210,000	218,000	222,360	226,807	231,343
TIPPING FEE INCREASES						
Tipping fee increase to Fund 401 (SWD Programs)			\$ 0.36	\$ 0.97	\$ (0.00)	\$ 0.21
Tipping fee increase to Fund 437 (Operations)			\$ 5.03	\$ 0.48	\$ 1.74	\$ 2.23
Tipping fee increase to Fund 430 (Clean Kitsap)			\$ 0.56	\$ (0.36)	\$ 0.02	\$ 0.02
Tipping fee increase to Fund 438 (Capital Improvement)			\$ -	\$ -	\$ -	\$ -
Tipping fee to KNAT (per ton)			\$ 0.25	\$ 0.25	\$ 0.25	\$ 0.25
Tipping fee to KPHD (per ton)			\$ 1.37	\$ 1.54	\$ 1.73	\$ 1.93
Tipping fee to Rate Stability Fund (per ton)			\$ 1.66	\$ 1.63	\$ 1.60	\$ 1.57
Revenue Requirement (per ton MSW)		\$ 71.00	\$ 80.24	\$ 81.47	\$ 83.39	\$ 86.00
CALCULATION OF OVERALL 4-YEAR REVENUE REQUIREMENTS						
TOTAL TONNAGE PROJECTION		898,511				
Revenue needed for Fund 401		\$ 1,030,928	\$ 1.15	per ton		
Revenue needed for Fund 437		\$ 6,160,507	\$ 6.86	per ton		
Revenue needed for Fund 430		\$ 274,003	\$ 0.30	per ton		
Revenue needed for KNAT		\$ 224,628	\$ 0.25	per ton		
Revenue needed for KPHD		\$ 1,480,223	\$ 1.65	per ton		
Revenue needed for Rate Stability Fund		\$ 1,450,000	\$ 1.61	per ton		
TOTAL REVENUE NEEDED		\$ 74,414,538				
AVERAGE PER TON		\$ 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						
	2016	2017	2018	2019	2020	2021
	Actuals	Budget	Budget	Estimate	Estimate	Estimate
EXPENDITURES						
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						
Sub-Total	\$ 437,747	\$ 591,378	\$ 668,934	\$ 580,305	\$ 598,826	\$ 617,949
Cost Center 4014 - Household Hazardous Waste						
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	\$ 11,381,573	\$ 11,865,163	\$ 13,040,861	\$ 13,476,149	\$ 14,150,003	\$ 14,857,755
Transfer to Equipment Reserve Fund (Fund 434)	800,000	400,000	400,000	400,000	400,000	400,000
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	\$ 500,000	\$ 500,000	\$ 600,000	\$ 600,000
FUND 434 - Solid Waste Equipment Reserve	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
REVENUE						
Fund 401						
Grants	\$ 320,018	\$ 210,000	\$ 100,000	\$ 100,000	\$ 200,000	\$ 200,000
Fees and Charges	1,826,296	2,385,000	2,473,000	2,522,460	2,572,909	2,624,367
Tipping Fee Increase			250,700	255,714	260,828	266,045
Interfund	119,608	100,000	100,000	102,000	104,040	106,121
Interest	13,913	20,000	20,000	14,191	20,400	20,400
Misc. Rev.	3,498	-	-	-	-	-
TOTAL FUND 401	\$ 2,283,333	\$ 2,715,000	\$ 2,943,700	\$ 2,994,365	\$ 3,158,177	\$ 3,216,933
Fund 437						
Solid Waste Fees and Charges	\$ 12,073,024	\$ 12,000,000	\$ 12,500,000	\$ 12,750,000	\$ 13,005,000	\$ 13,265,100
Tipping Fee Increase			1,495,480	1,525,390	1,555,897	1,587,015
Interfund	14,603	3,000	-	-	-	-
Interest	18,155	-	-	-	-	-
Misc. Rev.	1,094	-	-	-	-	-
TOTAL FUND 437	\$ 12,106,876	\$ 12,003,000	\$ 13,995,480	\$ 14,275,390	\$ 14,560,897	\$ 14,852,115
Fund 430						
Grants	68,503	40,000	50,000	40,000	40,000	40,000
Solid Waste Fees and Charges	248,117	260,000	260,000	265,200	270,504	275,914
Tipping Fee Increase			65,400	66,708	68,042	69,403
TOTAL FUND 430 - Clean Kitsap	\$ 316,620	\$ 300,000	\$ 375,400	\$ 371,908	\$ 378,546	\$ 385,317
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)	\$ (372,807)	\$ (652,146)	\$ 245,760	\$ 330,689	\$ 8,123	\$ (450,826)
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)	1,005,824	947,700	828,099	836,369	844,765	853,284
Increase in Tipping Fee			359,700	366,894	374,232	381,717
Balance	87,244	(116,943)	61,567	23,522	(19,107)	(63,663)
Fund 401 Beginning Fund Balance		\$ 1,769,761	\$ 1,335,278	\$ 991,303	\$ 901,336	\$ 881,026
Fund 401 Target Fund Balance (= 3 months operating expenses)		660,000	790,000	820,000	770,000	790,000
Fund 437 Beginning Fund Balance		\$ 3,406,324	\$ 3,144,161	\$ 3,698,780	\$ 4,098,020	\$ 4,108,914
Fund 437 Target Fund Balance (= 3 months operating expenses)		2,800,000	3,000,000	3,300,000	3,400,000	3,500,000
Fund 430 Beginning Fund Balance		\$ 863,500	\$ 908,000	\$ 943,116	\$ 964,531	\$ 982,070
Fund 430 Target Fund Balance (= \$1,000,000 for disaster debris management)		1,000,000	1,000,000	1,000,000	1,000,000	1,000,000
Fund 438 Beginning Fund Balance		\$ 2,200,000	\$ 2,500,000	\$ 2,000,000	\$ 1,500,000	\$ 900,000
Fund 438 Target Fund Balance (= \$1,000,000 for emergency repairs/replacement)		1,000,000	1,000,000	1,000,000	1,000,000	1,000,000
Fund XXX (Rate Stability) Beginning Fund Balance		\$ -	\$ 174,400	\$ 530,776	\$ 893,088	\$ 1,263,217
Fund XXX Target Fund Balance (= 15% of annual estimated revenue)		2,300,000	2,600,000	2,600,000	2,700,000	2,800,000
TOTAL FUND BALANCE		\$ 8,239,585	\$ 8,061,839	\$ 8,163,375	\$ 8,356,955	\$ 8,135,228
Total target fund balance		7,760,000	8,390,000	8,720,000	8,870,000	9,090,000
Tonnage	207,038	210,000	218,000	222,360	228,807	231,343
TIPPING FEE ALLOCATIONS						
Tipping fee increase to Fund 401 (SWD Programs)			\$ 1.15			
Tipping fee increase to Fund 437 (Operations)			\$ 6.86			
Tipping fee increase to Fund 430 (Clean Kitsap)			\$ 0.30			
Tipping fee increase to Fund 438 (Capital Improvement)			\$ -			
Tipping fee increase to KNAT			\$ 0.25			
Tipping fee increase to KPHD			\$ 1.65			
Tipping fee increase to Rate Stability Fund			\$ 1.60			
Revenue Requirement (per ton MSW)		\$ 71.00	\$ 82.82	\$ 82.82	\$ 82.82	\$ 82.82
PROPOSED FEES		\$ 71.00	\$ 75.00	\$ 80.00	\$ 85.00	\$ 90.00
% increase			5.63%	6.67%	6.25%	5.88%
TOTAL REVENUE NEEDED					\$ 74,414,538	
ESTIMATED REVENUE PROJECTED					\$ 74,238,313	

CALCULATION OF OVTS MINIMUM FEE

	<u>2016</u> <u>Actuals</u>	<u>2017</u> <u>Actuals</u>	<u>2018</u> <u>Budget</u>	<u>2019</u> <u>Estimate</u>	<u>2020</u> <u>Estimate</u>	<u>2021</u> <u>Estimate</u>	<u>Average</u> <u>Annual</u>
Fixed Costs of Operations							
Salaries	\$ 120,420	\$ 119,767	\$ 120,407	\$ 123,389	\$ 127,707	\$ 132,177	\$ 125,920
Benefits	47,585	42,357	44,137	47,012	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	\$ 10,067,577	\$ 10,970,591	\$ 11,525,703	\$ 12,108,903	\$ 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	\$ 12,609,212	\$ 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	60,183	64,401	65,000	65,000	65,000	65,000	65,000
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

CALCULATION OF OVTS SPECIAL WASTE FEES

Special Waste Type	<u>2017</u> <u>Fees</u>	<u>2018</u> <u>Proposed Fees</u> ¹	<u>2019</u> <u>Proposed Fees</u> ²	<u>2020</u> <u>Proposed Fees</u> ³	<u>2021</u> <u>Proposed Fees</u> ⁴
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

¹ Fee increase over previous year = 2%

² Fee increase over previous year = 3%

³ Fee increase over previous year = 4%

⁴ 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

	<u>2016</u> Actuals	<u>2017</u> Budget	<u>2018</u> Budget	<u>2019</u> Estimate	<u>2020</u> Estimate	<u>2021</u> Estimate
EXPENDITURES (includes Cost Centers 4012 and 4372 in 2016/2017)						
FIXED COSTS						
Salaries	\$ 215,740	\$ 232,349	\$ 380,048	\$ 393,350	\$ 407,117	\$ 421,366
Benefits	103,165	106,813	193,511	205,509	211,674	218,024
Supplies and Services (excludes hauling)	390,677	621,668	150,284	157,798	165,688	173,973
Intergovernmental	81,430	77,000	77,000	83,873	86,389	88,980
Interfund Charges (includes allocated Transfer Systems Manager sal/ben in 2016/2017)	38,224	48,237	24,348	24,835	25,332	25,838
Sub-Total	\$ 829,235	\$ 1,086,067	\$ 825,191	\$ 865,364	\$ 896,199	\$ 928,181
VARIABLE COSTS						
Hauling (MSW & Recyclables)	\$ 465,792	\$ 489,082	\$ 513,536	\$ 539,213	\$ 566,174	\$ 594,482
Disposal @ projected OVTS tipping fee	598,885	616,852	671,152	730,213	791,369	854,678
Sub-Total	\$ 1,064,677	\$ 1,105,934	\$ 1,184,688	\$ 1,269,426	\$ 1,357,542	\$ 1,449,160
TOTAL EXPENDITURES	\$ 1,893,913	\$ 2,192,001	\$ 2,009,879	\$ 2,134,790	\$ 2,253,742	\$ 2,377,342
CUSTOMER/TONNAGE DATA						
Customer Count	106,399	96,000	106,400	108,528	110,699	112,913
Tonnage (from all RAGFs)	8,435	8,688	8,949	9,128	9,310	9,496
Projected OVTS Tipping Fee	\$ 71	\$ 71	\$ 75	\$ 80	\$ 85	\$ 90
PER CUSTOMER/PER TON COSTS						
Fixed costs per customer	\$ 7.79	\$ 11.31	\$ 7.76	\$ 7.97	\$ 8.10	\$ 8.22
Variable costs per ton	\$ 126.22	\$ 127.29	\$ 132.39	\$ 139.07	\$ 145.81	\$ 152.60
Variable costs per pound	\$ 0.063	\$ 0.064	\$ 0.066	\$ 0.070	\$ 0.073	\$ 0.076
Variable costs per 32-gallon can (assumes 40 lbs./can)	\$ 2.52	\$ 2.55	\$ 2.65	\$ 2.78	\$ 2.92	\$ 3.05
Variable costs per cubic yard (assumes 225 lbs./cu.yd.)	\$ 14.20	\$ 14.32	\$ 14.89	\$ 15.65	\$ 16.40	\$ 17.17
Total Cost-of-Service						
One-can customer	\$ 10.32	\$ 13.86	\$ 10.40	\$ 10.76	\$ 11.01	\$ 11.27
Each additional can	\$ 2.52	\$ 2.55	\$ 2.65	\$ 2.78	\$ 2.92	\$ 3.05
Volume-based fees (per yard)	\$ 21.99	\$ 25.63	\$ 22.65	\$ 23.62	\$ 24.50	\$ 25.39
Proposed Fees						
		Current fee	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 yard)		\$ 20.57	\$ 23.13	\$ 23.13	\$ 24.94	\$ 24.94
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
Mattress, box spring, or recliner (remaining at current fee)		\$ 11.00	\$ 11.00	\$ 11.00	\$ 12.00	\$ 12.00
Sofa		\$ 13.50	\$ 13.50	\$ 13.50	\$ 15.00	\$ 15.00
Sofa with bed		\$ 27.00	\$ 27.00	\$ 27.00	\$ 30.00	\$ 30.00
Roofing		\$ 40.00	\$ 40.00	\$ 40.00	\$ 45.00	\$ 45.00
Drywall		\$ 40.00	\$ 40.00	\$ 40.00	\$ 45.00	\$ 45.00
Appliance		\$ 20.00	\$ 20.00	\$ 20.00	\$ 20.00	\$ 20.00