Public Works & Utilities



Ву

Ryan Joyce, Alexander Roos, Xiaoyou Chen, Miles Welch, Othniel Kamassee





Overview

The Public Works & Utilities department plays an integral role in any municipal day to day operations. The following proposal details our plan for the combination of specific Public Works and Utilities services between Anne Arundel County and the City of Annapolis.

A lay out of what the Public Works and Utilities department would look like after county and city services are combined is included. The reduction and combination of personnel, with a focus on ratios of outward-facing personnel to service needs, increases efficiency and minimizes unnecessary salary expenditures on employees with overlapping responsibilities.

Goals:

- Reduce costs via the combination of personnel and services in the public works & utilities sector of Annapolis and Anne Arundel County.
- 2. Reduce equipment spending by combining use and reducing equipment used on overlapping areas of Annapolis and Anne Arundel County.

Highways, Roads, and Bridges

Personnel Before combining:

Anne Arundel County

Roadways	, . ,	1	(
Salaries	1 704 540	1 AEA EGG	260 076
	1,724,542	1,454,566	269,976
Employee benefits	641,080	665,105	(24,025)
Materials and supplies	146,790	112,328	34,462
Utilities	585,980	604,884	(18,904)
Contractual services	29,400	26,937	2,463
Repair and maintenance	209,740	158,183	51,557
Other	2,500	261	2,239
Total Roadways	3,340,032	3,022,264	317,768

City of Annapolis

FIIII	TIME FOLIVAL	ENT EMPLO	VEES BY FI	INCTION

Fiscal Year	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
General Government	62	64	67	63	68	57	59	56	76	75
Public Safety	303	320	331	341	340	307	320	335	322	318
Public Works	50	50	48	51	49	46	45	40	42	60
Recreation & Parks	20	21	21	20	20	18	12	20	21	26
Water Fund	23	23	26	27	27	27	26	25	22	25
Sewer Fund	7	7	7	7	7	6	5	6	6	6
Dock Fund	3	3	3	3	3	3	2	3	3	2
Transportation Fund	49	49	49	55	55	49	37	38	50	55
Stormwater Mgmt Fund	3	3	3	3	3	3	3	3	3	3
Refuse Fund	22	22	22	22	22	21	23	1	2	2
Total	542	562	577	592	594	537	537	527	547	572

Source:

City of Annapolis - Finance Office

Highways, Roads, and Bridges

Six different job positions with more than five employees that can be combined: Engineer (x9), Senior engineer (x7), Maintenance working I (x14), Maintenance worker II (x34), Road maintenance crew leader (x8), Roads maintenance supervisor (x10)

Combining creates annual expense savings of \$103,963.00. The expenses saved in doing the same for hourly workers is \$21.02 per hour. Each year this amounts to an additional \$33,884.24 in savings based on the average of 1612 billable hours per year in the U.S. The total amount of expenditures that can be reduced amounts to \$137,847.24.

Waste Management

In Anne Arundel County, Waste Management provides community services including bulk metal collection (curbside collection of appliances and other metal items); Community Cleanup (provides dumpsters in neighborhoods); Curbside Collection (administers day-to-day operations for curbside collection of residential recyclables, yard waste, and trash); Recycling Centers (provide three locations in Glen Burnie, Severn, and Deale, for County residents to bring their recyclables and trash).

In the City of Annapolis, the Solid Waste Division is responsible for the collection and transportation of solid waste and yard trimmings from 8,600 residential households to a disposal site; the Curbside Recycling division is responsible for curbside collection of mixed recyclables; the Street Division is responsible for street cleaning, loose litter collection, and street-side refuse container collection.

Waste Management

Personnel: Before-Combining

Anne Arundel County

Solid Waste Recycling Manager

Fund Summary

Annapolis

Department of Public Works FY2017 Proposed Budget **Waste Collection Fund** Personnel Summary - Positions in the County Classified Service FY2015 FY2016 FY2016 FY2017 Job Code - Title Plan Grade Adjusted Budget Variance 0212 Office Support Assistant II OS 4 6 0 Office Support Specialist 0223 Secretary III 05 6 0 0224 Management Aide 0 Management Assistant II Deputy Director, Public Works 0261 0 0265 Program Specialist I 2002 Equipment Operator II IM 7 0 Equipment Operator III LM 9 2003 2004 Senior Equipment Operator 2021 Automotive Mechanic I LM 7 Automotive Mechanic II 2022 LM 9 2023 Automotive Mechanic III 2032 NR 17 2342 Engineer II Maintenance Worker I 10 2411 Maintenance Worker II 2481 Solid Waste Collection Inspect 2483 Environmental Technician Solid Waste ScaleHouse Operatr NR 15 2486 Solid Waste Supervisor 2487 Landfill Manager NR 19 0 2491 Solid Waste Disposal&Maint Mgr NR 21 0 Solid Waste Community Svcs Mgr NR 20 Solid Waste Operations Admin NR 22 2494 Solid Waste Crew Supervisor NR 14 Solid Waste Equip Maint Superv NR 15 Scale House Supervisor 0

0

Waste Management

If services were to be combined, we will not need to hire the Equipment Operator II (x3) and Equipment Operator III(x2) in Annapolis. Also we will not need Public Works Supervisor in Annapolis because the duty can be performed by Public Works Deputy Directors of Anne Arundel County. The combination of these positions would ensure maximum efficiency from employees, while providing the same quality of services.

Stormwater Management

In **Anne Arundel County,** Bureau of Highways is responsible for Storm Water Maintenance. It manages the inventory, inspection and program development for maintenance of the County's storm drain/storm water infrastructure. Activities to include: pipe cleaning and repair, machine cleaning drainage structures, and ditch cleaning by hand and machine.

In the **City of Annapolis**, the division of Stormwater Management is responsible for the maintenance of public storm drainage systems including pipes, inlets, manholes, drainage ways, and stormwater management facilities.

Stormwater Management

Personnel before combining::

Anne Arundel County

Dep	artment of Public V	/orks					FY201	7 Approve	d Budget
Gen	eral Fund								
		Personnel Sur	nmary - I	Positions in th	e County	Classified S	ervice		
				FY2015	FY2016	FY2016	FY2016	FY2017	1
Job C	ode - Title	Plan	Grade	Approved	Request	Approved	Adjusted	Budget	Variance
0212	Office Support Assistant II	os	4	3	3	3	3	3	0
213	Office Support Specialist	os		1	1	1	1	1	0
2222	Secretary II	OS	4	4	4	4	4	4	0
223	Secretary III	OS	6	4	4	4	4	4	0
241	Management Assistant I	NR.	15	3	3	3	3	3	0
242	Management Assistant II	NR	17	1	1	1	1	1	0
261	Deputy Director, Public Works	NR	24	2	2	2	2	2	0
264	Program Manager	NR	19	3	3	3	3	3	0
266	Program Specialist II	NR	17	2	2	2	2	2	0
0463	Financial Clerk II	NR	11	2	2	2	2	2	0
0541	Title Abstractor	NR	9	1	1	1	1	1	0
0551	Property Acquisition Agent	NR	15	3	3	3	3	3	0
571	Chief, Rights-Of-Way	NR	19	1	1	1	1	1	0
0872	GIS Technician	NR.	11	9	9	9	9	9	0
0873	GIS Specialist	NR	15	3	3	3	3	3	0
1105	Space Permits Facilitator	os	7	1	1	1	1	1	0
2001	Equipment Operator I	LM	6	36	36	36	36	36	0
2002	Equipment Operator II	LM	7	20	20	20	20	20	0
2003	Equipment Operator III	LM	9	1	1	1	1	1	0
2004	Senior Equipment Operator	LM	10	3	3	3	3	3	0
2006	Vacuum/Rodder Operator	LM	8	2	2	2	2	2	0
2022	Automotive Mechanic II	LM	9	5	5	5	5	5	0
205	Survey Technician	NR	14	1	1	1	1	1	0
2210	Survey Field Technician	LM	8	3	3	3	3	3	0
2211	Survey Crew Chief	NR	14	4	4	4	4	4	0
2212	Assistant Chief, Surveys	NR.	16	2	2	2	2	2	0
2221	Chief, Surveys	NR	19	1	1	1	1	1	0
2270	Quality Control Inspector	NR	16	1	1	1	1	1	0
272	Construction Inspector	LM	12	4	4	4	4	4	0
275	Construction Inspection Supvsr	NR	17	1	1	1	1	1	0
2311	Traffic Analyst I	LM	10	3	3	3	3	3	0
2312	Traffic Analyst II	LM	12	1	1	1	1	1	0
2333	Assistant Director Public Work	NR	24	1	1	1	1	1	0
2343	Engineer III	NR	18	9	8	8	8	8	0

City of Annapolis

Storm	water Management:
	Equipment Operator III
	Equipment Operator I
	PW Maintenance Worker I

Stormwater Management

Both county and city have only one Equipment Operator III for each. After combination of services and personnel, there will be no need to hire Equipment Operator I in Annapolis city, meaning the Salaries and Benefits Expenditures could be reduced. By eliminating a grade 6 salary, Anne Arundel County can take total control of the machinery use, which means Annapolis City will reduce the operating expenditure in equipment.

Water & Wastewater Operations

Anne Arundel County: Anne Arundel County Water Infrastructure division maintains 1,463 miles of sanitary sewer system infrastructure, 1,260 miles of water distribution system infrastructure, 1,000+ valves (sanitary sewer system) and more than 200,000 water/sewer service connections. The Water Operations division operates and maintains 120 water production, distribution, and storage facilities.

Annapolis: The City of Annapolis' sewage treatment is performed at a single, jointly-owned plant site controlled and operated by Anne Arundel County. The City has a fifty percent ownership of the property, plants, and equipment, but does not have joint control of the financial or operating policies, thus the arrangement is not considered a joint venture. The current agreement calls for the City to share in actual costs for fifty percent of capital improvements and a flow-based percentage of operational costs.

Water & Wastewater Operations

Personnel:

Before-combining:

Anne Arundel County $\rightarrow 378$ job positions @ \$29.7 million/yr.

The City of Annapolis \rightarrow 31 job positions @ 3.1 million/yr.

<u>After-combining</u>: While the City of Annapolis does not provide detailed job descriptions for each of the 31 available positions, one can use the information available from Anne Arundel County to extrapolate the appropriate ratios of personnel to service needs. With this in mind, in combining the services one should eliminate the difference in pay grade for the following positions:

- Office Support Assistant (x2)
- Secretary (x2)
- Management Assistant (x2)
- Program Specialist (x2)
- Meter Technician (x3)
- Equipment Operator (x2)
- Engineer (x3)

- Utility Systems Technician (x3)
- Utilities Support Worker (x2)
- Electrical Technician (x2)
- Instrumentation Technician (x2)
- Mechanical Technician (x2)
- Generator Technician (x3)
 - Water/Wastewater System Technician (x3)

Water & Wastewater Operations

Moreover, when combining the services one should reduce or maintain the number of employees serving the following roles:

- Office Support Assistant (x13)
- Equipment Operator (x11)
- Utilities Team Manager (x12)
- Utilities Support Worker (x34)
- Utilities Maintenance Crew Leader (x13)
- Utilities Repair Crew Leader (x10)
- Mechanical Technician (x19)
- Water/Wastewater Systems Technician I (x13)
- Water/Wastewater Systems Technician II (x56)

When combining services between the City and Anne Arundel County one can save in operating expenses by reducing the number of employees, and eliminating the difference in pay for the jobs that serve similar functions.

Conclusion

In conclusion, the services discussed in this proposal would benefit from being combined with a focus on cost minimization and reduced expenditures. In alignment with our goals and with current environmental and economic constraints in mind, we believe we have reallocated personnel, services, and equipment more efficiently.

Works Cited

ADDITIONAL ANNE ARUNDEL COUNTY BUDGET SOURCES

Garrett, R. Current Budget. Retrieved November 29, 2016, from http://www.aacounty.org/departments/budget-office/current-budget/

http://www.aacounty.org/departments/public-works/highways/

ADDITIONAL ANNAPOLIS BUDGET SOURCES

Mayor's 2016 Proposed Operating Budget. Retrieved November 19, 16, from http://www.ci.annapolis.md.us/docs/default-source/finance-department-documents/2015-fy-comprehensive-annual-financial-report.pdf?sfvrsn=6

BALTIMORE CITY INFO

Baltimore City Fiscal 2016 Preliminary Budget Plan. Retrieved November 19, 16, from http://finance.baltimorecity.gov/sites/default/files/Prelim Budget Book_0.pdf

Thank You!