

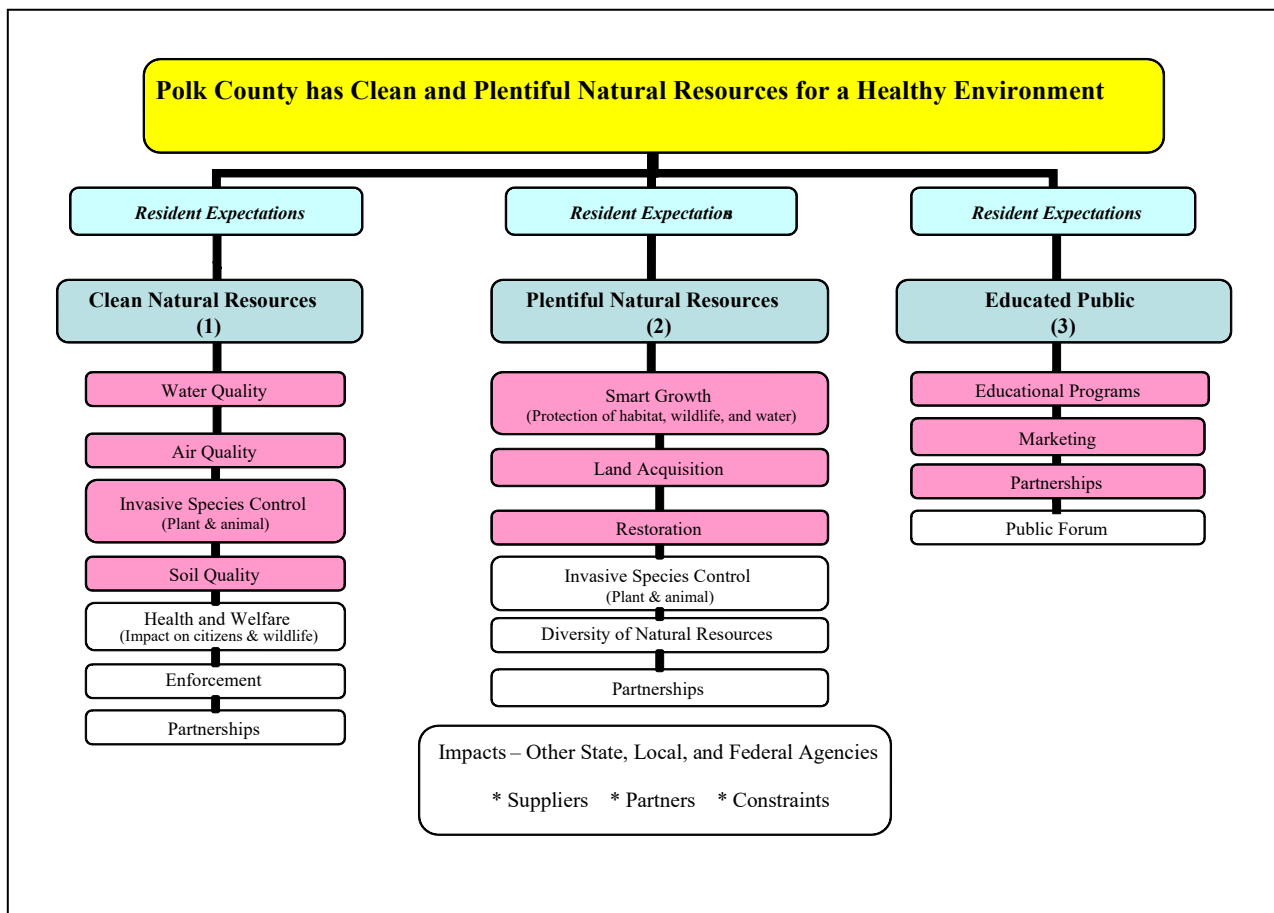
# Natural Resources and Environment

**“Polk County has clean and plentiful natural resources for  
a healthy environment.”**

## Primary Factors for Achieving the Result

As shown below on the Natural Resources and Environment causal map, the primary factors affecting the Polk County Board of County Commissioners’ (BoCC) ability to meet the residents’ expectations are:

1. Clean Natural Resources
2. Plentiful Natural Resources
3. Educated Public



### **Strategies for Achieving the Result**

The programs in this result area are in our Parks and Natural Resources Division and Waste and Recycling Division. They were submitted to the Natural Resources and Environment Result Area because they help the County achieve the result through one or more of the following strategies:

1. Maintain and/or improve clean natural resources of the County.
2. Provide, maintain, and restore plentiful natural resources of the County.
3. Provide programs that educate the public on the character and value of natural resources, initiatives that help protect those resources, and the public's role in providing good stewardship.

**NATURAL RESOURCES AND ENVIRONMENT  
DIVISION PROGRAM SUMMARY**

Program (number listed is the program number)	FTE	Adopted FY 22/23			Plan FY 23/24		
		General Fund	Other Funds/ Sources	Total	General Fund	Other Funds/ Sources	Total
<b>Parks and Natural Resources</b>							
Parks and Natural Resources Administration - 67	9.00	620,030	12,520	632,550	634,633	12,958	647,591
Environmental Lands Mgmt. Reserves/Other - 334	0.00	-	38,120,513	38,120,513	-	37,239,651	37,239,651
Natural Resources CIP - 211	0.00	-	10,075,577	10,075,577	-	7,712,500	7,712,500
Environmental Lands Acquisition CIP - 72	0.00	-	2,000,237	2,000,237	-	601,125	601,125
Environmental Lands Acqu. Reserves/Transfers - 335	0.00	-	904,540	904,540	-	322,752	322,752
Environmental Lands Mgmt. - 78	8.30	-	2,476,625	2,476,625	-	2,139,984	2,139,984
Invasive Plant Management - 71	7.00	1,521,943	-	1,521,943	1,530,844	-	1,530,844
Mosquito Control - 69	14.00	2,140,620	101,376	2,241,996	2,048,030	101,376	2,149,406
Water Resources - 1162	11.70	1,256,085	2,858,220	4,114,305	1,277,329	1,392,008	2,669,337
Natural Resources Reserves/Oth - 226	0.00	-	10,179,289	10,179,289	-	5,150,579	5,150,579
<b>Subtotal</b>	<b>50.00</b>	<b>5,538,678</b>	<b>66,728,897</b>	<b>72,267,575</b>	<b>5,490,836</b>	<b>54,672,933</b>	<b>60,163,769</b>
<b>Waste and Recycling</b>							
Community Clean-Up Reserves - 377	0.00	-	-	-	-	-	-
Waste Recycling Operations CIP - 288	0.00	-	25,194,332	25,194,332	-	7,682,808	7,682,808
Waste Recycling Closure CIP - 323	0.00	-	-	-	-	-	-
Landfill Operations - 1187	44.00	-	5,078,680	5,078,680	-	5,580,969	5,580,969
Residential Waste Management Collection - 1188	15.00	-	33,966,946	33,966,946	-	35,437,203	35,437,203
Community Clean-Up - 98	0.00	195,000	-	195,000	195,000	-	195,000
Waste Recycling Reserves/Other - 287	0.00	-	172,454,304	172,454,304	-	177,972,458	177,972,458
<b>Subtotal</b>	<b>59.00</b>	<b>195,000</b>	<b>236,694,262</b>	<b>236,889,262</b>	<b>195,000</b>	<b>226,673,438</b>	<b>226,868,438</b>
<b>TOTAL BoCC</b>	<b>109.00</b>	<b>5,733,678</b>	<b>303,423,159</b>	<b>309,156,837</b>	<b>5,685,836</b>	<b>281,346,371</b>	<b>287,032,207</b>

Programs highlighted in gray are not printed

## Natural Resources and Environment

Appropriations	Actual FY 20/21	Budget FY 21/22	Adopted FY 22/23	Plan FY 23/24
Personal Services Expenses	6,053,743	7,763,874	8,871,135	9,196,988
Operating Expenses	33,084,721	35,682,126	37,791,631	38,250,123
Capital Expenses	3,665,988	35,695,370	39,655,493	17,744,239
Grants And Aids	78,054	116,016	126,019	126,023
Interfund Transfers	6,029,551	9,174,701	4,608,838	4,232,319
Indirect Expense	555,906	817,835	697,076	697,076
InKind Expense	520,242	183,418	4,604,418	2,123,418
Reserves	0	233,376,069	212,802,227	214,662,021
<b>County Total</b>	<b>49,988,205</b>	<b>322,809,409</b>	<b>309,156,837</b>	<b>287,032,207</b>
FFWCC Herbicide	1,208,926	1,400,000	1,400,000	1,400,000
<b>Total Result Area</b>	<b>51,197,131</b>	<b>324,209,409</b>	<b>310,556,837</b>	<b>288,432,207</b>

Revenue by Fund	Actual FY 20/21	Budget FY 21/22	Adopted FY 22/23	Plan FY 23/24
00100 General Fund	5,752,335	7,516,436	5,733,678	5,685,836
10150 Special Revenue Grants	638,591	1,263,028	12,062,262	6,225,006
15010 Land Management Nonexpendable Trust Funds	1,509,984	41,445,657	40,274,252	39,156,005
18000 Stormwater MSTU	2,399,306	10,128,238	11,337,606	8,368,045
30200 Drainage and Water Quality Fund	46,543	0	0	0
30800 General Capital Improvement Funds	0	0	200,000	0
31200 Environmental Land Acquisition Funds	472,333	3,030,415	2,854,777	923,877
41010 Solid Waste Funds	18,455,295	127,476,212	114,259,722	101,153,738
41110 Landfill Closure Funds	216,436	86,404,741	80,022,828	83,154,472
41210 Universal Solid Waste Collection Funds	29,101,100	45,528,882	42,411,712	42,365,228
41310 Community Cleanup Funds	312,500	15,800	0	0
<b>County Total</b>	<b>58,904,423</b>	<b>322,809,409</b>	<b>309,156,837</b>	<b>287,032,207</b>
FFWCC Herbicide	1,208,926	1,400,000	1,400,000	1,400,000
<b>Total Result Area</b>	<b>60,113,349</b>	<b>324,209,409</b>	<b>310,556,837</b>	<b>288,432,207</b>

### Personnel

Full Time Equivalents	106	106	109	109
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## **TRENDS AND ISSUES**

The programs in this Result Area are from the Parks and Natural Resources Division and the Waste and Recycling Division. Residents have stated that they expect Polk County to have clean and plentiful natural resources for a healthy environment. To address these expectations, these programs focus on clean natural resources, such as water quality, air quality, and soil quality; plentiful natural resources through smart growth, land acquisition, and restoration; and educating the public with partnerships, marketing, and other educational programs. The narrative below presents the trends and issues affecting the natural resources and environment related divisions and programs.

### **Parks and Natural Resources**

In 2011, Polk County received a National Pollutant Discharge Elimination System (NPDES) permit, which placed multiple new requirements on the County such as street sweeping, outfall location and evaluation, public education, additional restoration projects, pet waste control, fertilizer regulation, and more roadway pipe inspections. To continue enhancing services required by the permit, Parks and Natural Resources Division received additional funding through a Stormwater MSTU established in FY 13/14 and continues this budget year. The permit was reissued in 2016 with the same requirements, in 2022 a new permit will be issued with additional requirements. The MSTU is estimated to generate about \$2.78 million in FY 22/23 to fund some of the permit requirements and enhance water quality in Polk County. The Board established a Stormwater Technical Advisory Committee to assist in providing oversight in selecting projects and monitor permit implementation. The Advisory Committee's first round of water quality enhancement Community Investment Plan (CIP) projects have been included in the County's CIP and work continues to progress. The County is partnering with municipalities, Southwest Florida Water Management District, and others whenever feasible. The current funding level is anticipated to be sufficient for this part of the Water Resources program for the foreseeable future. Significant progress will be reported over the next few years on various projects; in 2021 the County completed the construction/restoration of Lake Gwyn Stormwater Treatment Wetland and in partnership with the City of Winter Haven, the County completed the Lake Conine Stormwater Treatment Wetland.

State and Federal Agencies have recognized the immediate shortfall in resiliency planning. Funding through grants have become available for local governments to assist with resiliency planning and associated infrastructures.

Through Legislative, approval of HB 53, the County will conduct a needs assessment report for stormwater in regard to quality and quantity. This report will address gaps in funding and projects to address water quality concerns in Polk.

As a special note, the COVID Pandemic and related issues will continue to impact the way the Division does business for the foreseeable future. Workload and service methods continue to be examined and adjusted as new information becomes available and based on the available resources at the time.

## **Waste and Recycling**

The Waste and Recycling Division's budget focuses on four key areas: People, Customers, Environment, and Economic Vitality. These four pillars are supported by a strong emphasis on fiscal responsibility and transparency.

Under the people facet, the budget reflects a commitment to value-added activities such as professional development, equity, and workload balance. The customer service emphasis is closely related to the people factor, which prepares employees to resolve any service issues in the field and in the office. Emphasis is also placed on 100 percent environmental compliance which includes people and customers. Without sound environmental programs, the Waste and Recycling enterprise will cease to exist. To continue to excel in financial performance, it is critical to instill a strong commitment to the monetary aspects of Waste and Recycling to accomplish this, the budget reflects a continuous improvement process of best management practices and balancing its workforce to meet the core business needs and better serve customers.

As the final budget illustrates, Waste & Recycling will be able to significantly control service costs. These control measures would continue to allow Waste and Recycling to offer competitive tipping fees, assessment rates, and dividend allocation without sacrificing service levels.

This commitment to people, customers, environment, and economic vitality translates to safe, reliable, and effective public services to Polk County residents and customers.

Industry trends have influenced the County to restructure the Recyclable Materials Collection Program. The County's goal is to harvest only those items with the highest environmental and economic value hence increasing the potential to be recycled into new products. Recycling proceeds are ear-marked for new or additional recycling opportunities and to help increase customer participation and product quality.

As in previous years the Waste and Recycling Division will provide an annual dividend to the General Fund to assist in the funding of general needs of other County divisions.

The Waste and Recycling Division has begun to implement its revised future landfill expansion plan, with Phase V being opened in the spring 2017 and the design of Phase VI underway. The restructuring of the expansion plan also includes finding a beneficial use for the gas collected from the Phase III landfill and other potential expansion areas that will provide the greatest economic benefit for the County. The updated development plan extends the life of the landfill approximately 150 years.

## Environmental Lands Management

<b>Program Number:</b>	78
<b>Result Area:</b>	Natural Resources and Environment
<b>Division:</b>	Parks and Natural Resources
<b>Section:</b>	N/A

### I. Program Offer Description:

Manage acquired environmentally-sensitive lands for the purpose of preserving, protecting, and restoring important water, wildlife, and wilderness resources in Polk County, increase natural resource knowledge, and manage compatible passive outdoor recreation for appropriate sites, in accordance with Ordinances 94-40 and 08-003. This program assists with providing important natural resources for a healthy environment. This program may participate in emergencies through complaint investigation and environmental/drainage repair if necessary.

### II. Contribution to Result:

Environmental Lands Management Program (ELMP) contributes Natural Resources/Environment results area by:

Strategy 1: The ELMP meets strategy 1 by maintaining and improving the natural resources of the County. Managing the natural vegetation allows the plants to clean the air of pollutants and prevent soil erosion. The practice of fencing secures the sites to reduce illegal dumping, better protecting the soil from hazardous contamination. Managing the marshes assists with the wetlands serving as filters of pollutants from water, creating better water quality. By maintaining the majority of the environmental lands free of infrastructure, recharge for drinking water is allowed to occur on the property. Prescribed fire and invasive plant management encourages native vegetation growth, which provides for healthy wildlife environment. Managing environmental lands assists in providing clean natural resources.

Strategy 2: ELMP in reference to strategy 2 maintains plentiful natural resources and environmental space. The management of Polk County's environmental lands increases diverse natural resources through restoration projects, prescribed burning, and invasive species removal. The ELMP monitoring program assists with obtaining knowledge of important species and provides direction for adaptive management to protect those species and create plentiful diversity in plants and animals.

Strategy 3: The ELMP meets strategy 3 by providing programs that educate the public on the character and value of natural resources through Polk's Nature Discovery Center Programming. Conservation classes are taught, guided tours are given explaining the importance of natural resources, and youth are reached through special environmental education projects. Initiatives have been undertaken to explain the public's role in assisting with providing good stewardship to natural resources. Special emphasis has been on informing the public on the effect of actions on natural resources and environmental space and encouraging citizens to take positive action for the protection of the environment. Partnerships with organizations both public and private have been used to reach this objective. Coordination with volunteers has increased the environmental education programs available to the public and youth.

**This Program is:**                      **Not Mandated ( )**                      **Mandated: Federal ( ) State ( ) Local ( X )**

### III. Performance Objectives:

- 1 Develop and update natural resource/recreation management plans on acquired sites
- 2 Coordinate management activities on all sites
- 3 Provide direct management activities on sites designated as lead managing agency (security, habitat enhancement, etc.)
- 4 Provide and manage for appropriate nature-based recreation opportunities
- 5 Coordinate and conduct community outreach programs, educational tours, presentations, and volunteer workdays on acquired sites
- 6 Control invasive, exotic species on acquired sites, as needed
- 7 Perform prescribed burns (fires) on acquired sites, as needed if weather conditions allow

### IV. Measures:

	Key Obj.	Actual FY 20/21	Budget FY 21/22	Adopted FY 22/23	Plan FY 23/24
<b>Workload Indicators:</b>					
# of different site inspections and/or trailhead maintenance	2	375	400	400	400
# of monitoring surveys completed	2	5	2	5	5
# of acres directly managed by the County	3	17,525	17,525	17,525	17,525
# of acres where nature-based recreation opportunities are	4	18,961	18,961	18,961	18,961
# of presentations regarding community outreach programs, volunteer workdays, educational tours, & special events	5	148	300	200	200
# of surveys for invasive species	6	103	120	110	110
# of acres managed with prescribed burns	7	129	500	500	500
<b>Effectiveness Indicators:</b>					
% of sites maintained and inspected for site security every 30 days	3	85%	85%	85%	85%
% of sites with nature based recreation open a minimum of 330	4	90%	90%	90%	90%
% of implemented prescribed burns that met fire management	7	85%	80%	80%	80%
<b>Efficiency Indicators:</b>					
Natural resource management cost/acre	2	\$21	\$18	\$21	\$21
Nature-based recreation management cost/acre	4	\$25	\$23	\$25	\$25



## Environmental Lands Management

### Significant Changes

There are no significant changes to this program.

<b>Personnel:</b>	<b>Actual FY 20/21</b>	<b>Budget FY 21/22</b>	<b>Adopted FY 22/23</b>	<b>Plan FY 23/24</b>
Full Time Equivalents	9.90	9.25	8.30	8.30
<b>Funding Sources:</b>	<b>Actual FY 20/21</b>	<b>Budget FY 21/22</b>	<b>Adopted FY 22/23</b>	<b>Plan FY 23/24</b>
General Fund Subsidy	0	310,110	0	0
Land Management Nonexpendable Trust Funds	0	0	2,153,739	1,916,354
Interest	7,297	4,545	0	0
Interfund Transfer	1,501,364	1,507,000	104,544	79,730
Intergovernmental	12,068	128,495	140,962	66,520
Miscellaneous	123,203	63,688	4,650	4,650
Others (Centrl I/D Inkind/Othr)	0	72,730	72,730	72,730
Total Program	1,643,932	2,086,568	2,476,625	2,139,984
<b>Revenue by Fund:</b>	<b>Actual FY 20/21</b>	<b>Budget FY 21/22</b>	<b>Adopted FY 22/23</b>	<b>Plan FY 23/24</b>
General Fund	1,626,922	1,873,668	0	0
Special Revenue Grants	17,010	212,900	322,886	223,630
Land Management Nonexpendable Trust Funds	0	0	2,153,739	1,916,354
Total Program	1,643,932	2,086,568	2,476,625	2,139,984
<b>Appropriations:</b>	<b>Actual FY 20/21</b>	<b>Budget FY 21/22</b>	<b>Adopted FY 22/23</b>	<b>Plan FY 23/24</b>
Personal Services Expenses	571,610	639,487	610,662	632,450
Operating Expenses	800,454	1,219,351	1,473,689	1,355,074
Capital Expenses	65,572	155,000	215,000	0
Interfund Transfers	269	0	104,544	79,730
InKind Expense	0	72,730	72,730	72,730
Total Program	1,437,905	2,086,568	2,476,625	2,139,984

## Invasive Plant Management

<b>Program Number:</b>	71
<b>Result Area:</b>	Natural Resources and Environment
<b>Division:</b>	Parks and Natural Resources
<b>Section:</b>	N/A

### I. Program Offer Description:

This program safeguards water, reduces pollution, helps the environmental health of lakes and creeks, conserves/promotes native vegetation for wildlife/fish habitats, and provides recreational opportunities for residents. Unwanted invasive weeds grow extremely fast and have no natural enemies to keep them under control without intervention. Without this program, every public access lake would ultimately be covered with undesirable invasive weeds, choking the lake's life and ruining opportunities for recreation. Polk's lakes are a prime attractor for residents, new residents, and tourists to engage in outdoor activities, which keep millions of dollars flowing through the local economy. Water quality is enhanced with long-term invasive plant control. This program also provides a clean and balanced environment by assisting in managing natural lands under the Environmental Lands Program.

### II. Contribution to Result:

IPM Program contributes to Natural Resources and Environment results area by:

**STRATEGY 1: Maintain and/or Improve Clean Natural Resources of the County.**

IPM is crucial for maintaining and keeping natural resources clean by improving the quality of lakes and creeks and promoting healthy native plant communities through managing invasive plants. IPM's rapid response to new invasive plant infestations prevents spreading. Healthy and diverse native plant communities are allowed to thrive following invasive plant control, creating valuable habitat for fish, birds, and other wildlife. IPM also increases environmental health by controlling invasive plant infestations that add to lake bottom muck layers improving water quantity and quality. IPM also prevents the erosion and contamination of soils by using responsible herbicide application methods on shorelines and canals to preserve and enhance native plant populations that help to hold soils in place. IPM has increased effectiveness and efficiency because normal operations are in routine maintenance mode. IPM focuses on prevention rather than dealing with severe problems after they occur. IPM creates swimming opportunities by managing invasive plants that create stagnant conditions that cause growth of slimy green algae and associated potential disease-causing microbes. IPM assists with maintaining lakes and creeks to prevent blockages that may cause home flooding, unsanitary conditions, and stagnant pools that can breed disease-causing microorganisms, as well as reducing mosquito breeding areas therefore reducing threat of mosquito-transmitted diseases to humans. IPM complies with all local regulations and State and Federal guidelines. IPM seeks out and is actively involved in research with UF, the Army Corps of Engineers, FFWCC, and chemical corporations to find new herbicides, innovative application methods, and best management practices including bio-control.

**STRATEGY 2: Provide, Maintain, and Restore Plentiful Natural Resources and Environmental Space**

IPM's practice of maintaining and restoring natural plant diversity around lakes and on environmental lands through reduction of invasive species allows native plant communities to increase and provides habitat for abundant wildlife. IPM is involved in management of natural areas for protection of plentiful resources, assists in design, setup, and maintenance of re-vegetation along lakeshores, restores native vegetation on natural lands through invasive plant treatment, assists with prescribed fires, and performs a wide range of environmental land management. As the population of the County grows, stress on the ecology of lakes and natural areas grow as well. IPM strives to meet resident expectations of a clean, healthy environment containing plentiful natural resources. Priorities include reducing invasive plant numbers in the short term, encouraging environmental conditions supporting the recruitment of native plant communities which increase an array of wildlife abundance in the midterm, and promote success of diverse native plant communities and wildlife in the long term.

**STRATEGY 3 - Provide Programs That Educate the Public**

IPM encourages sense of individual responsibility of one's own effect on the environment by educating the public on understanding the negative role of invasive plants and how they personally can reduce the introduction of new invasive plant species. Resident contact is maximized by participation in special events and daily contact with the public. Resident input is obtained through public presentations and from lakeshore neighbors and user groups.

<b>This Program is:</b>	<b>Not Mandated ( )</b>	<b>Mandated: Federal ( )</b>	<b>State ( )</b>	<b>Local ( X )</b>
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### III. Performance Objectives:

- |   |  |
|---|--|
| 1 | Keep exotic vegetation at desired maintenance control levels; hydrilla control at 90% and floating plants (water lettuce, water hyacinth) at 90% of the County's 84 public access lakes and provide habitat for native vegetation and associated wildlife                        |
| 2 | Continue to support the Environmental Lands program by providing assistance with invasive plant management, prescribed fires, property maintenance, and other related duties   |
| 3 | Conduct community outreach program, educational tours, presentations, respond to resident inquiries regarding aquatic ecosystem management, and solicit resident opinion concerning their satisfaction with management of the environment with emphasis on the aquatic ecosystem |
| 4 | Allow for opportunities for recreation on lakes and streams and reduce potential home flooding adjacent to lakes and streams   |

## Invasive Plant Management

### IV. Measures:

	Key Obj.	Actual FY 20/21	Budget FY 21/22	Adopted FY 22/23	Plan FY 23/24
<b>Workload Indicators:</b>					
# of public access lakes under maintenance control for water hyacinth, water lettuce, and hydrilla	1	83	80	83	83
Miles of lake shore surveyed/treated for invasive aquatic weeds	1	1,549.25	1,600	1,600	1,600
Acres of upland invasive plants treated on Polk County Environmental Lands	2	172.38	80	120	120
# of responses to resident inquiries on invasive aquatic plant program	3	113	150	125	125
<b>Effectiveness Indicators:</b>					
% of public access lakes under maintenance control for water hyacinth and water lettuce	1	98%	95%	95%	95%
% of public access lakes under maintenance control for hydrilla	1	98%	90%	90%	90%
% of resident inquiries responded to within 48 business hours	3	94%	95%	90%	90%
% of lakeshore miles treated/surveyed	1	25%	45%	40%	40%
# special events conducted on public access lakes due to lakes under maintenance control	4	137	150	150	150
<b>Efficiency Indicators:</b>					
Total cost per acre of water hyacinths/water lettuce treated	1	\$132.57	\$290	\$300	\$300
Total cost per acre of hydrilla treated	1	\$221.02	\$956	\$1,000	\$1,000

### Significant Changes

There are no significant changes to this program.

<b>Personnel:</b>		<b>Actual FY 20/21</b>	<b>Budget FY 21/22</b>	<b>Adopted FY 22/23</b>	<b>Plan FY 23/24</b>
Full Time Equivalents		6.40	6.60	7.00	7.00
<b>Funding Sources:</b>		<b>Actual FY 20/21</b>	<b>Budget FY 21/22</b>	<b>Adopted FY 22/23</b>	<b>Plan FY 23/24</b>
General Fund Subsidy		476,811	517,497	822,743	831,644
Interest		2	0	0	0
Intergovernmental		215,310	526,200	526,200	526,200
Miscellaneous		167,550	207,601	173,000	173,000
County Total		859,673	1,251,298	1,521,943	1,530,844
FFWCC Herbicide		1,208,926	1,400,000	1,400,000	1,400,000
Total Program		2,068,599	2,651,298	2,921,943	2,930,844
<b>Revenue by Fund:</b>		<b>Actual FY 20/21</b>	<b>Budget FY 21/22</b>	<b>Adopted FY 22/23</b>	<b>Plan FY 23/24</b>
General Fund		859,673	1,251,298	1,521,943	1,530,844
County Total		859,673	1,251,298	1,521,943	1,530,844
FFWCC Herbicide		1,208,926	1,400,000	1,400,000	1,400,000
Total Program		2,068,599	2,651,298	2,921,943	2,930,844
<b>Appropriations:</b>		<b>Actual FY 20/21</b>	<b>Budget FY 21/22</b>	<b>Adopted FY 22/23</b>	<b>Plan FY 23/24</b>
Personal Services Expenses		411,020	455,188	526,566	547,767
Operating Expenses		448,653	754,110	827,377	815,077
Capital Expenses		0	42,000	168,000	168,000
County Total		859,673	1,251,298	1,521,943	1,530,844
FFWCC Herbicide		1,208,926	1,400,000	1,400,000	1,400,000
Total Program		2,068,599	2,651,298	2,921,943	2,930,844

## Mosquito Control

<b>Program Number:</b>	69		
<b>Result Area:</b>	Natural Resources and Environment		
<b>Division:</b>	Parks and Natural Resources		
<b>Section:</b>	N/A		
<b>I. Program Offer Description:</b>			
<p>Since 1958, the mission of Mosquito Control has been to achieve and maintain effective Countywide mosquito control levels in order to protect human health and safety, foster environmental health and quality of life, and facilitate the enjoyment of natural resources and attractions by reducing the number of disease-carrying and nuisance mosquitos. The program accomplishes this by conducting comprehensive and integrated mosquito management program using scientifically-sound practices to reduce the numbers of nuisance and mosquito-borne disease-carrying species. Program services meet local, state, and federal regulations.</p>			
<b>II. Contribution to Result:</b>			
<p>Strategy #1: The program has maintained and improved the environmental health and safety of the County by:</p> <p>A) Integrated Mosquito Management measures are undertaken year-round to ensure that mosquito populations are reduced and mosquito-borne diseases do not become a major public health threat in the County. Polk County has over 45 species of mosquitos, and many are capable of transmitting mosquito-borne diseases such as Zika, Chikungunya, West Nile Virus, Dengue fever, Eastern Equine Encephalitis, St. Louis Encephalitis, etc. These mosquitos require intervention to keep them at a manageable, low level.</p> <p>B) Integrated Mosquito Management efforts include the Countywide reduction of mosquito breeding sources and biological or chemical control efforts. All residents and visitors in Polk County receive benefit.</p> <p>C) The program educates the public about littering and illegal dumping of materials such as tires, buckets, and containers which can hold water and form breeding habitats for mosquitos.</p> <p>Strategy #2: The program provides and maintains the natural resources of the County by:</p> <p>A) Maintaining and/or improving native wildlife species by reducing mosquito-borne diseases which affect them. Various species of birds and horses are very susceptible to West Nile Virus (WNV) and Eastern Equine Encephalitis (EEE), respectively.</p> <p>B) Preserving environmentally-sensitive lands and ecosystems by using environmentally-sustainable pesticides and/or environmental management techniques including breeding source reduction when controlling mosquitos in sensitive areas.</p> <p>Strategy # 3: The program continues to educate the public on mosquito control and promote partnerships with private and public organizations by:</p> <p>A) Public educational tools, such as Mosquito Awareness Week, press releases, Town Hall meetings, Homeowners Association Outreach, printed materials, media interviews, and others. These outreach programs educate residents and homeowners on how to protect themselves from mosquitos and how to reduce or eliminate mosquito breeding habitats in their community. The program will continue to reduce potential community risks of mosquito-borne diseases and raise mosquito awareness through speaking engagements, pamphlets, and direct contact with residents.</p> <p>B) Offsetting costs and increasing effectiveness by partnering with agencies such as the State of Florida Departments of Health and of Agriculture and Consumer Services (FDACS), from whom the County receives \$41,646 in mosquito control annual grant money. This money is only available to state-approved mosquito control programs. The Polk County Mosquito Control Program collaborates with state and county health departments, the Florida Mosquito Control Association, Florida Department of Agriculture and Consumer Services, the American Mosquito Control Association, and Tampa Virology Laboratory. Mosquitos are submitted to Tampa Virology to be tested for West Nile Virus, Eastern Equine Encephalitis, St. Louis Encephalitis, Highlands J. Virus, and others.</p> <p>C) Partnering with the Code Enforcement Division and others so that Polk County will continue to have reduced levels of mosquito breeding sources and diseases. In this way, the program helps to eliminate illegal tire and trash dumping which create poor environmental health conditions. This also reduces the risks of diseases, such as Dengue Fever and Zika Virus, which affects 50,000,000 people per year worldwide.</p> <p>D) Mosquito Control ranked in the top ten of property tax-based services in Polk County that residents regard as absolutely critical in an independent study conducted by Dr. Susan MacManus of the University of South Florida's Institute of Government in 2008. This program also implements the Board's Mosquito Control Policy adopted in 2009.</p>			
<b>This Program is:</b>	<b>Not Mandated ( )</b>	<b>Mandated: Federal ( ) State ( )</b>	<b>Local ( X )</b>

## Mosquito Control

### III. Performance Objectives:

1	Conduct Countywide control measures by source reduction, biological and chemical controls to reduce mosquito numbers, and protecting public health
2	Quick response time (within seven days) to resident service requests while continuing to answer inspection requests within three days
3	Evaluate effectiveness of control strategies and monitor mosquitos for resistance to pesticides
4	Track mosquito numbers by using mosquito traps and larval mosquito inspections as required by state law (Chapter5E-13036 FAC)
5	Educate the County's residents and visitors by outreach, public education, public events, press releases, and speaking engagements
6	Partner with agencies to optimize collaborative mosquito reduction efforts, thereby leveraging costs and reducing disease outbreaks (Code Enforcement, State Virology Lab, FDACS, and Health Department)

### IV. Measures:

	Key Obj.	Actual FY 20/21	Budget FY 21/22	Adopted FY 22/23	Plan FY 23/24
<b>Workload Indicators:</b>					
# acres treated for adult mosquitos	1	496,776	750,000	700,000	700,000
# acres treated for mosquito larvae	1	7,128	10,500	12,000	15,000
# of citizen service requests	2	1,740	1,750	1,600	1,600
# traps set and counted	4	2,975	3,300	3,400	3,500
# public educational events/# of people contacted	5	9/1357	8/850	8/900	10/1000
<b>Effectiveness Indicators:</b>					
% acres treated: mosquito adults	1	87%	90%	90%	95%
% acres treated: mosquito larvae	1	70%	90%	90%	95%
% requests responded to in timely manner	2	100%	90%	100%	100%
% public educational events	5	100%	90%	100%	100%
<b>Efficiency Indicators:</b>					
Aerial adulticide direct cost/acre	1	\$1.73	\$1.50	\$1.80	\$1.30
Aerial larvicide direct cost/acre	1	\$25.70	\$22.00	\$25.00	\$28.00
Ground adulticide direct cost/acre	1	\$0.22	\$0.30	\$0.30	\$0.40
Ground larviciding direct cost/acre	1	\$21.90	\$22.25	\$25.00	\$18.00

### Significant Changes

There are no significant changes to this program.

<b>Personnel:</b>		<b>Actual FY 20/21</b>	<b>Budget FY 21/22</b>	<b>Adopted FY 22/23</b>	<b>Plan FY 23/24</b>
Full Time Equivalents		14.00	14.00	14.00	14.00
<b>Funding Sources:</b>		<b>Actual FY 20/21</b>	<b>Budget FY 21/22</b>	<b>Adopted FY 22/23</b>	<b>Plan FY 23/24</b>
General Fund Subsidy		1,817,455	1,978,521	2,131,120	2,038,530
Intergovernmental		50,689	50,688	50,688	50,688
Miscellaneous		0	9,500	9,500	9,500
Others (Centrl I/D Inkind/Othr)		50,689	50,688	50,688	50,688
Total Program		1,918,833	2,089,397	2,241,996	2,149,406
<b>Revenue by Fund:</b>		<b>Actual FY 20/21</b>	<b>Budget FY 21/22</b>	<b>Adopted FY 22/23</b>	<b>Plan FY 23/24</b>
General Fund		1,817,455	1,988,021	2,140,620	2,048,030
Special Revenue Grants		101,378	101,376	101,376	101,376
Total Program		1,918,833	2,089,397	2,241,996	2,149,406
<b>Appropriations:</b>		<b>Actual FY 20/21</b>	<b>Budget FY 21/22</b>	<b>Adopted FY 22/23</b>	<b>Plan FY 23/24</b>
Personal Services Expenses		913,095	1,062,710	1,094,795	1,135,758
Operating Expenses		955,049	917,999	1,030,963	962,960
Capital Expenses		0	58,000	65,550	0
InKind Expense		50,689	50,688	50,688	50,688
Total Program		1,918,833	2,089,397	2,241,996	2,149,406

## Water Resources

<b>Program Number:</b>	1162
<b>Result Area:</b>	Natural Resources and Environment
<b>Division:</b>	Parks and Natural Resources
<b>Section:</b>	N/A

### I. Program Offer Description:

The Water Resources Program enhances quality of life and protects human health and safety by protecting, restoring, and monitoring the water quality of lakes and streams. Water quality conditions are assessed through chemical analysis of lake and stream samples on a quarterly basis. Results are used to identify trends which can be used to assist in prioritizing projects to improve water quality through restoration and the completion of stormwater treatment projects. The continuing monitoring program is essential to tracking lake and stream conditions.

Good water quality supports a diversity of wildlife, plants, and fish. The Water Resources Program protects and improves water quality through pollution abatement by responding to reports of illicit discharges of potentially toxic chemicals. Pollution prevention is emphasized by inspecting point source facilities and stormwater treatment systems to confirm that they are operating properly. Public education on the value of water resources is accomplished through public events and multi-media presentations. The Water Resources Program also operates and maintains several water quality treatment facilities across the County and conducts scientific studies to better understand surface water resources.

### II. Contribution to Result:

The Program tracks annual activities through the development of an annual report for the County's NPDES Stormwater permit.

#### Strategy #1: MAINTAIN / IMPROVE NATURAL RESOURCES

Protecting water quality is accomplished by inspecting wastewater treatment and industrial facilities for discharge of pollutants in stormwater runoff. Maintaining stormwater treatment best management practices (BMPs) ensures pollutant removal occurs prior to discharging to lakes or streams. Reports of poor water quality are investigated, and any illicit discharges that are discovered are eliminated through enforcement of County and State regulations. Brochures distributed at public events and stormwater public presentations are used to educate the public on the problems associated with illegal discharge and dumping.

Water quality is monitored at over 145 sites quarterly by analyzing water samples from lakes and streams to identify pollution sources. Results are evaluated annually for the DEP NPDES MS4 permit annual report. This is used to prioritize those with declining water quality for restoration. Water quality is improved through implementation of stormwater BMPs and completion of lake restoration and stormwater treatment projects. Native vegetation that is planted to provide habitat for fish and wildlife helps filter nutrients to improve water quality and limits the growth of invasive exotic plants. Completed projects sites are accessible to the public and provide an opportunity for educational signage to encourage personal responsibility to reduce the pollution.

#### Strategy #2: PROVIDE / MAINTAIN / RESTORE NATURAL RESOURCES

Purchasing land for stormwater treatment projects protects the quality of natural areas that may otherwise be lost to development and provides buffers to adjacent surface waterbodies. This promotes native vegetation and provides habitat to improve wildlife diversity. Restoration activities are conducted to comply with state and federally-mandated Total Maximum Daily Loads (TMDLs) which require monitoring to show improvement in water quality. The Water Resources Laboratory is staffed with competent, cross-trained staff for sampling, analysis, and reporting which is vital to project success.

#### Strategy #3: PUBLIC EDUCATION

Public education encourages citizens to be good stewards of water resources. This is accomplished through multi-media presentations, such as the Polk Water Atlas and participation at public events. Kiosks constructed at the stormwater treatment and restoration project sites provide signage with educational information on water quality and the impact of pollutants from stormwater runoff. Erosion and sediment control certification and illicit discharge training is provided to contractors and construction site inspectors to educate them on how to reduce contamination of soil, groundwater, and surface waters during construction.

Cooperative partnerships with state and local governments provide funding for projects and public education. Non-profit organizations that have public education programs with similar goals, such as the Lakes Education Action Drive, IFAS, and Keep Polk County Beautiful, allows Water Resources to partner and reach more people in raising public awareness.

<b>This Program is:</b>	<b>Not Mandated (   )</b>	<b>Mandated: Federal ( X ) State ( X ) Local ( X )</b>
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### III. Performance Objectives:

- 1 Collect water quality samples from lakes and streams or project sites as needed
- 2 Analyze samples to measure pollutant levels and report water quality data to federal and state databases
- 3 Educate the public about water quality and safety of lakes, streams, and stormwater through presentations and literature distributions at schools, public events, training sessions, and kiosks at stormwater management and restoration projects/sites
- 4 Inspect industrial sites for compliance with NPDES stormwater quality regulations and County ordinances with regard to illicit discharges
- 5 Inspect and maintain stormwater treatment facilities to improve water quality to the maximum extent practicable as required by the US Environmental Protection Agency and the County's NPDES MS4 permit issued by the Florida Department of Environmental Protection
- 6 Conduct stormwater sampling to assess representative surface water runoff quality
- 7 Update and submit an annual report to the Florida Department of Environmental Protection for the NPDES Program

## Water Resources

### IV. Measures:

	Key Obj.	Actual FY 20/21	Budget FY 21/22	Adopted FY 22/23	Plan FY 23/24
<b>Workload Indicators:</b>					
# water quality samples collected/received	1	1,044	1,000	1,000	1,000
# water quality analyses performed and reported	2	17,542	15,330	15,330	15,330
# education events and stormwater presentations conducted (County only)	3	1	10	2	2
# priority industrial facility inspections conducted	4	16	18	16	16
# structural controls and outfalls inspected and maintained	5	791	325	700	700
# training classes for illicit discharge and erosion control	3	9	5	8	8
# citizen water quality complaints	N/A	47	40	40	40
# storm event samples collected	6	0%	-	0%	0%
<b>Effectiveness Indicators:</b>					
% analyses completed within holding time	2	99.8%	95%	95%	95%
% industrial facility inspections conducted	4	100%	100%	100%	100%
% stormwater facilities inspections completed	5	100%	100%	100%	100%
% lakes maintaining or improving water quality (from NPDES annual report)	6	84%	60%	N/A	N/A
NPDES annual report submitted	7	yes	Yes	yes	yes
% storm event samples collected	6	0%	0%	0%	0%
<b>Efficiency Indicators:</b>					
average direct cost per sample collection	1	\$138.98	\$176.20	\$181.42	\$187.77
average direct cost per sample analysis	2	\$11.68	\$13.41	\$13.70	\$14.18
average direct cost of industrial inspection	4	\$162.75	\$162.75	\$170.89	\$179.43
average direct cost for inspection/maintenance of stormwater management facilities	5	\$94.50	\$94.50	\$99.23	\$104.19
average direct cost of storm event sampling	6	\$798.00	\$798.00	\$837.90	\$879.80
<b>Significant Changes</b>					
There are no significant changes to this program.					

<b>Personnel:</b>	<b>Actual FY 20/21</b>	<b>Budget FY 21/22</b>	<b>Adopted FY 22/23</b>	<b>Plan FY 23/24</b>
Full Time Equivalents	10.70	11.15	11.70	11.70
<b>Funding Sources:</b>	<b>Actual FY 20/21</b>	<b>Budget FY 21/22</b>	<b>Adopted FY 22/23</b>	<b>Plan FY 23/24</b>
General Fund Subsidy	974,327	1,146,048	1,251,130	1,272,374
Stormwater MSTU	577,273	2,161,138	1,805,650	1,246,725
Charges For Services	0	669	669	669
Interest	26,736	20,639	136,070	135,783
Interfund Transfer	17,500	0	552,000	0
Intergovernmental	0	355,000	355,000	0
Miscellaneous	28,111	18,050	13,786	13,786
Others (Centrl I/D Inkind/Othr)	0	60,000	0	0
Total Program	1,623,947	3,761,544	4,114,305	2,669,337
<b>Revenue by Fund:</b>	<b>Actual FY 20/21</b>	<b>Budget FY 21/22</b>	<b>Adopted FY 22/23</b>	<b>Plan FY 23/24</b>
General Fund	992,438	1,155,267	1,256,085	1,277,329
Special Revenue Grants	0	415,000	707,000	0
Stormwater MSTU	631,509	2,191,277	2,151,220	1,392,008
Total Program	1,623,947	3,761,544	4,114,305	2,669,337
<b>Appropriations:</b>	<b>Actual FY 20/21</b>	<b>Budget FY 21/22</b>	<b>Adopted FY 22/23</b>	<b>Plan FY 23/24</b>
Personal Services Expenses	745,648	911,177	1,023,622	1,063,016
Operating Expenses	640,886	2,292,450	2,610,370	1,542,709
Capital Expenses	190,673	445,000	427,000	10,000
Grants And Aids	15,013	21,016	21,019	21,023
Interfund Transfers	31,727	31,901	32,294	32,589
InKind Expense	0	60,000	0	0
Total Program	1,623,947	3,761,544	4,114,305	2,669,337

## Landfill Operations

<b>Program Number:</b>	1187
<b>Result Area:</b>	Natural Resources and Environment
<b>Division:</b>	Waste and Recycling
<b>Section:</b>	N/A

### I. Program Offer Description:

Manage County-owned landfill operations while maintaining compliance with State-regulated operating permits. This program is mandated at the Local, State, and Federal levels. State: 403.706 & 403.7265. Local: Polk County Ordinances 82-20 & 13-069.

### II. Contribution to Result:

This program provides County residents a facility which provides for solid waste disposal in a safe, efficient, and environmentally-responsible manner.

**This Program is:** ☐ Not Mandated ☐ Mandated: ☒ Federal ☒ State ☒ Local

### III. Performance Objectives:

- 1 Provide landfill operations that meet state mandated waste disposal capacity for all solid waste generated in Polk County
- 2 Maintain 100% compliance with operating permits and all state agencies
- 3 Divert 100% of household hazardous waste from entering landfills

### IV. Measures:

	Key Obj.	Actual FY 20/21	Budget FY 21/22	Adopted FY 22/23	Plan FY 23/24
<b>Workload Indicators:</b>					
Total Tons Processed	1	737,664.61	641,676.63	737,664.61	700,000.00
Cummulative Compaction Ratio (lb./CY)	3	1,600	1,600.00	1,600.00	1,600.00
% Tons Reused	2	700%	7.00%	7.00%	7.00%
Total Scalehouse Transactions	1	228,653	206,404.14	228,653.00	210,000.00
Daily Scalehouse Transactions	1	815	736	815	750

### Significant Changes

There are no significant changes to this program.

<b>Personnel:</b>	<b>Actual FY 20/21</b>	<b>Budget FY 21/22</b>	<b>Adopted FY 22/23</b>	<b>Plan FY 23/24</b>
Full Time Equivalents	44.00	44.00	44.00	44.00
<b>Funding Sources:</b>	<b>Actual FY 20/21</b>	<b>Budget FY 21/22</b>	<b>Adopted FY 22/23</b>	<b>Plan FY 23/24</b>
Solid Waste Funds	0	5,113,519	1,550,910	5,297,135
Landfill Closure Funds	108,348	225,312	237,784	245,834
Enterprise Funds	18,065,294	0	0	0
Fines And Forfeitures	22	0	0	0
Interfund Transfer	12,500	2,500,000	3,251,986	0
Miscellaneous	109,901	87,500	38,000	38,000
Others (Centrl I/D Inkind/Othr)	(472)	0	0	0
Special Assessment/Impact Fees	14,526	0	0	0
Total Program	18,310,119	7,926,331	5,078,680	5,580,969
<b>Revenue by Fund:</b>	<b>Actual FY 20/21</b>	<b>Budget FY 21/22</b>	<b>Adopted FY 22/23</b>	<b>Plan FY 23/24</b>
Solid Waste Funds	18,201,771	5,201,019	4,840,896	5,335,135
Landfill Closure Funds	108,348	2,725,312	237,784	245,834
Total Program	18,310,119	7,926,331	5,078,680	5,580,969
<b>Appropriations:</b>	<b>Actual FY 20/21</b>	<b>Budget FY 21/22</b>	<b>Adopted FY 22/23</b>	<b>Plan FY 23/24</b>
Personal Services Expenses	351,850	691,779	1,578,894	1,732,885
Operating Expenses	3,318,679	1,931,500	1,326,453	1,614,751
Capital Expenses	1,016,424	1,010,000	1,515,600	1,575,600
Grants And Aids	220	0	0	0
Interfund Transfers	125,055	3,620,000	120,000	120,000
Indirect Expense	510,363	673,052	537,733	537,733
Total Program	5,322,591	7,926,331	5,078,680	5,580,969



### Residential Waste Management Collection

<b>Program Number:</b>	1188
<b>Result Area:</b>	Natural Resources and Environment
<b>Division:</b>	Waste and Recycling
<b>Section:</b>	N/A

#### I. Program Offer Description:

Monitor the performance of contracted trash vendors while maintaining the solid waste assessment data base for the County's taxing authority. This program is mandated by Florida Statue 403.7049 & 403.706 and Local Statue- Polk Ordinances: 82-20 & 13-069.

#### II. Contribution to Result:

Provides the residents of unincorporated Polk County safe and efficient waste collection and disposal. Processes solid waste assessments on the tax bills for the residents of unincorporated Polk County.

**This Program is:** **Not Mandated ( )** **Mandated: Federal ( X ) State ( X ) Local ( X )**

#### III. Performance Objectives:

- 1 Monitor performance of contracted haulers
- 2 Maintain the data base for solid waste assessment for taxing authority of Polk County
- 3 Provide weekly collection services (garbage (1), yard waste (1), and recyclables (1) for residential customers

#### IV. Measures:

	Key Obj.	Actual FY 20/21	Adopted FY 21/22	Budget FY 22/23	Plan FY 23/24
<b>Workload Indicators:</b>					
Number of Residential Units Receiving Curbside Collection Services	1,2,3	151,147	151,147	155,054	155,054
Number of Tons of Waste Transported by Contracted Haulers	1,2,3	189,464	272,064.60	279,097.20	279,097.20
Generation of Solid Waste per Household Unit (lb./day)	1,2,3	9.64	9.86	9.86	9.86
Collection Cost per Scheduled Residential Pick-up *	1,2,3	\$ 0.93	\$0.93	\$0.93	\$0.93
<b>Effectiveness Indicators:</b>					
Annual Garbage Disposal Cost	1,2,3	\$ 52.16	\$52.16	\$62.00	\$62.00
Weekly Garbage Disposal Cost	1,2,3	\$ 1.00	\$1.00	\$1.19	\$1.19
Annual Yardwaste Disposal Cost	1,2,3	\$ 9.86	\$9.86	\$9.86	\$9.86
Weekly Yardwaste Disposal Cost	1,2,3	\$ 0.19	\$0.19	\$0.19	\$0.19
Percentage of Diverted Dry Waste	1,2,3	9%	9%	9%	9%
Percentage of Diverted Dry Waste and Organics	1,2,3	30%	30%	30%	30%
<b>Efficiency Indicators:</b>					
Number of Inbound Calls	1,2,3	235,041	181,019	235,041	235,041
Average Number of Agents	1,2,3	9	8.00	9.00	9.00
Average Number of Calls by Agent	1,2,3	26,115	22,627	26,115	26,115
Average Call Duration	1,2,3	0:02:50	0:02:50	02:50:00	02:50:00
Calls Answered (%)	1,2,3	90%	95%	90%	90%
Calls Abandoned (%)	1,2,3	10%	7%	10%	10%
Calls Associated to Missed Collections (%)	1,2,3	25%	25%	25%	25%

#### Significant Changes

There are no significant changes to this program.

<b>Personnel:</b>	<b>Actual FY 20/21</b>	<b>Budget FY 21/22</b>	<b>Adopted FY 22/23</b>	<b>Plan FY 23/24</b>
Full Time Equivalents	12.00	12.00	15.00	15.00
<b>Funding Sources:</b>	<b>Actual FY 20/21</b>	<b>Budget FY 21/22</b>	<b>Adopted FY 22/23</b>	<b>Plan FY 23/24</b>
Solid Waste Funds	0	26,203	26,754	27,318
Universal Solid Waste Collection Funds	0	22,321,477	24,531,789	25,990,410
Enterprise Funds	20,715,784	0	256,962	0
Interest	1,952	0	0	0
Miscellaneous	306,728	70,000	0	0
Special Assessment/Impact Fees	7,951,665	9,576,442	9,151,441	9,419,475
<b>Total Program</b>	<b>28,976,129</b>	<b>31,994,122</b>	<b>33,966,946</b>	<b>35,437,203</b>
<b>Revenue by Fund:</b>	<b>Actual FY 20/21</b>	<b>Budget FY 21/22</b>	<b>Adopted FY 22/23</b>	<b>Plan FY 23/24</b>
Solid Waste Funds	0	26,203	26,754	27,318
Universal Solid Waste Collection Funds	28,976,129	31,967,919	33,940,192	35,409,885
<b>Total Program</b>	<b>28,976,129</b>	<b>31,994,122</b>	<b>33,966,946</b>	<b>35,437,203</b>
<b>Appropriations:</b>	<b>Actual FY 20/21</b>	<b>Budget FY 21/22</b>	<b>Adopted FY 22/23</b>	<b>Plan FY 23/24</b>
Personal Services Expenses	2,683,140	3,601,300	3,597,820	3,629,957
Operating Expenses	26,146,002	28,265,360	30,233,202	31,671,322
Indirect Expense	44,021	127,462	135,924	135,924
<b>Total Program</b>	<b>28,873,163</b>	<b>31,994,122</b>	<b>33,966,946</b>	<b>35,437,203</b>

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