

Hazen *Memorandum*

May 10, 2024

To: Hamid Nikvan, Acting Utilities Director
City of Cooper City, Florida

From: Grace Johns, Ph.D. Senior Economist
Jamie Leonard, Economist
Janeen Wietgreffe, P.E., Vice President

Subject: Cooper City Stormwater Utility System Rate Assessment

As you requested, this memorandum provides an assessment of the City of Cooper City's stormwater utility system fees currently being charged by the City for its stormwater services and provides two interim alternative updates to these fees to better reflect the cost of service to its customers.

1. Background

According to State Law¹, the Florida Department of Environmental Protection, the water management districts, and local governments have the responsibility to develop mutually compatible stormwater management programs. A county or municipality may create one or more stormwater utilities, adopt stormwater utility fees, and establish and set aside, as a continuing revenue source, funds sufficient to plan, construct, operate, and maintain stormwater management systems pursuant to its comprehensive plan.

The City of Cooper City, Florida (Cooper City or City) serves about 34,000 residents, in addition to its commercial, industrial, and institutional sectors. The City's stormwater utility provides the full range of stormwater management services to its customers unless the customer is served by a private stormwater system, such as that managed by a homeowner's association. In this latter case, the City's stormwater service is limited to stormwater management of City-owned roads that provide important traffic flow within the City. The former customer is referred to as a "direct" customer and the latter is called an "indirect" customer.

The stormwater utility is funded by a monthly rate per equivalent residential unit (ERU) defined as 1,750 square feet of impervious area. A residential single-family property, which comprises most of the properties in Cooper City, is one ERU. This rate is charged to stormwater customers through their monthly utility bill that includes water, wastewater, recycling, stormwater, and sanitation fees for services provided by the City. The current monthly stormwater utility fees were established by the City Commission in 2021 and have been in effect since FY 2021/2022. The rate schedule in effect as of May 2024 is presented in **Table 1**.

¹ Sections 403.0891 and 403.0893, Florida Statutes

Table 1 - Schedule of Monthly Rates for the City of Cooper City, FL Stormwater Management Utility System as of May 2024 (a)

Customer Type	Direct Benefit	Indirect Benefit
Single-Family Residence	\$5.58	\$1.02
Duplex (per housing unit)	\$2.74	\$0.52
Condo/Multi-Family (per housing unit)	\$1.39	\$0.29
Commercial (per 1,750 sq.ft.)	\$5.58	\$1.02
Industrial (per 1,750 sq.ft.)	\$5.58	\$1.02
Institutional (per 1,750 sq.ft.)	\$5.58	\$1.02

(a) Source of data: City of Cooper City Resolution No 21-45, Amending Stormwater Management Utility System Schedule of Rates for FY 2021 / 2022. Rates have not been changed since this resolution was passed. One ERU is equal to 1,750 square feet of impervious area. As of FY 2023 / 2024, Stormwater Fees are paid through the City's monthly utility bill.

This memorandum provides a comparison of these rates, specifically the single family residential rate of \$5.58 per housing unit per month, to other similar stormwater utilities and presents two alternative rate updates that reflect the best available information regarding the City's cost of service. This memorandum concludes with a recommendation for the City to budget for preparation of a formal stormwater cost of service and rate study which would be an update of the study conducted in 2020. The rate study would be prepared following completion of the City's stormwater modeling and master plan development.

2. Statewide Stormwater Utility Rate Comparisons

The rate comparisons were accomplished by analyzing the results of the 2022 stormwater rate survey provided in the most recent Florida Stormwater Association (FSA) Stormwater Utility Report (referred to as the "FSA report" or "FSA survey"). Comparisons were made among utilities with similar rate methodologies, populations served, and geographic location.

Every two years the FSA surveys Florida stormwater utilities regarding benchmarking characteristics and publishes the results in the FSA Stormwater Utility Report. The report may be used as an industry benchmarking tool for the implementation of potential stormwater fees. The data used in the figures of this memorandum were taken from the most recent FSA Stormwater Utility Report (2022) and represent results based on 110 responding Florida stormwater utilities² (referred to as "responding utilities").

The ERU is used to determine the monthly stormwater payment. The size of an ERU is not standardized across utilities and may vary depending on the methodology used to determine the measurement and the distribution of impervious area across property classifications within a service area. **Figure 1** presents the number of stormwater utilities in Florida by the definition of one ERU. It demonstrates the diversity of

² Utilities not using an equivalent residential unit billing structure (fifteen responding utilities) were excluded from the comparisons in this memorandum.

ERU definitions throughout Florida. The ERU square foot range corresponding to Cooper City's ERU (1,750 square feet) is highlighted in yellow.

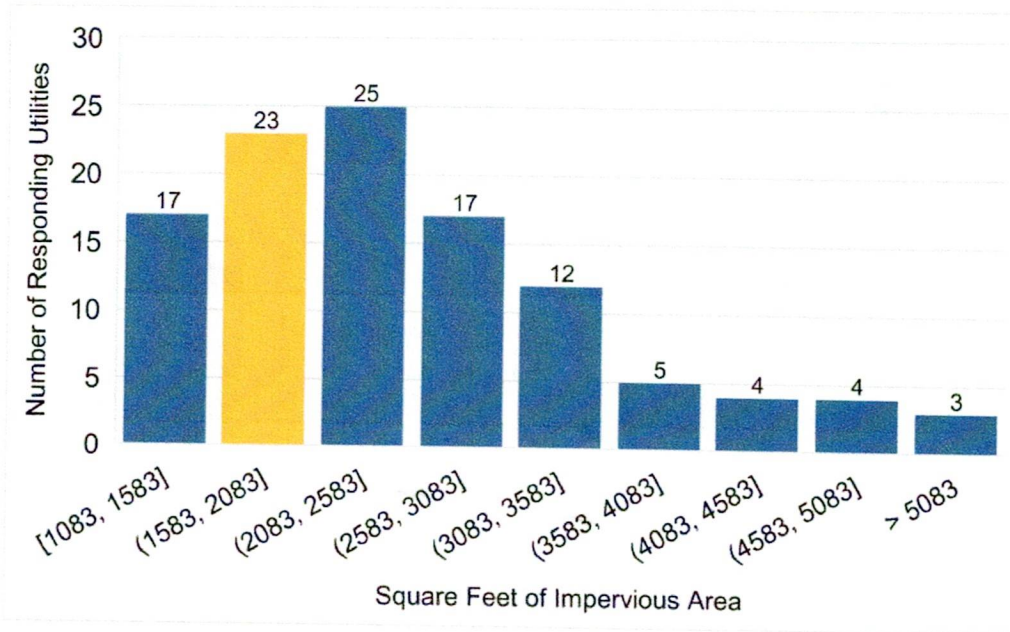
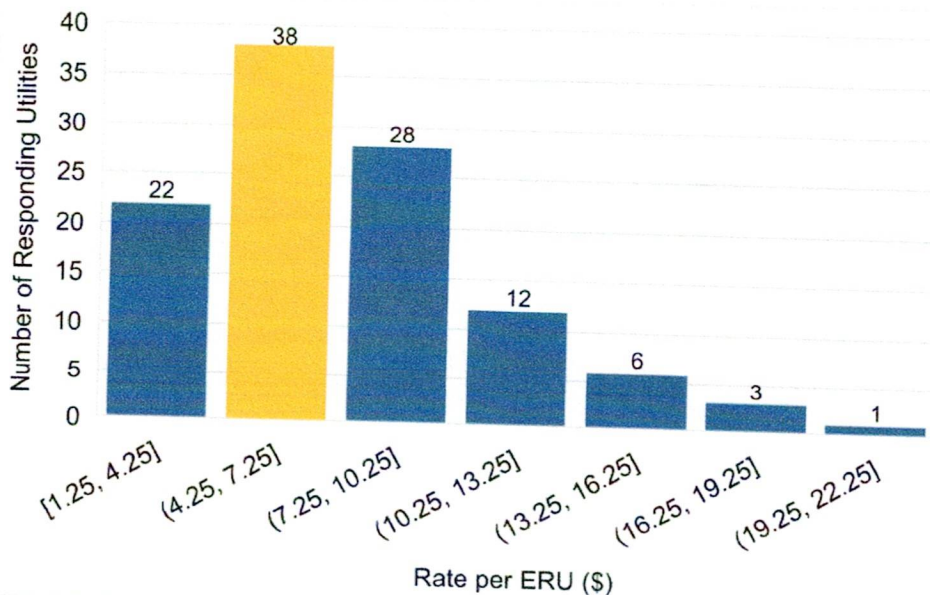


Figure 1: Number of Florida Stormwater Utilities by ERU Definition in Square Feet

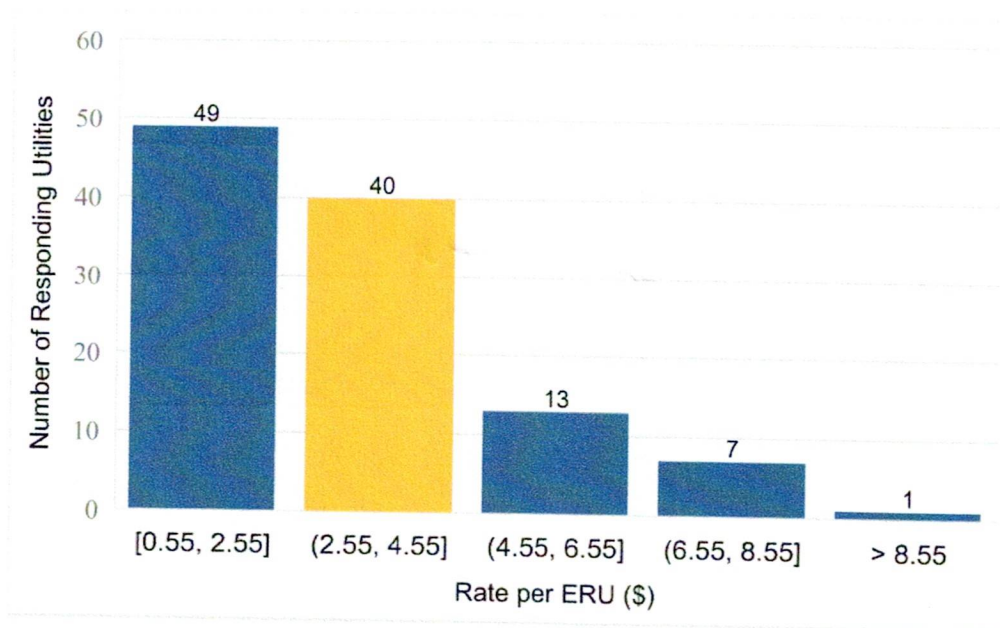
Figure 2 presents the number of stormwater utilities by dollar rate per ERU. The range that includes Cooper City is highlighted in yellow. Cooper City charges a monthly rate of \$5.58 per ERU compared to the average of the 110 responding Florida utilities of \$7.66 per month.

Figure 2: Number of Florida Stormwater Utilities by Monthly Stormwater Rate Range (Dollars per ERU)



The dollar value of the rates per ERU as reported in **Figure 2** were standardized to 1,000 square feet of impervious area for a comparison of utility fees for the same quantity of impervious area. **Figure 3** presents the number of Florida stormwater utilities by the rate per 1,000 square feet with the range that includes Cooper City highlighted in yellow. Cooper City charges \$3.19 per month per 1,000 square feet, which is below the average of the 110 utilities of \$3.30 per month per 1,000 square feet.

Figure 3: Number of Florida Stormwater Utilities by Monthly Stormwater Rate Dollars per 1,000 Square Feet of Impervious Area



Cooper City’s monthly rate per 1,000 square feet was further analyzed in comparison to responding stormwater utilities with similar populations served. This provides further insight because similarly sized stormwater utilities may have similar costs per customer while larger utilities might benefit from economies of scale (resulting in a lower cost per customer).

Population data for 2023 was downloaded from the University of Florida Bureau of Economic and Business Research (UF BEBR) for 28 Florida cities that had responded to the FSA survey. **Table 2** provides a comparison of the Cooper City stormwater rate per 1,000 square feet of impervious area alongside a selection of Florida utilities with similar populations.³ Cooper City has the median of the stormwater rates per 1,000 square feet and median of the populations.

³ Population data downloaded from the University of Florida Bureau of Economic and Business Research, available online at: https://www.bibr.ufl.edu/wp-content/uploads/2023/12/estimates_2023.pdf

Table 2 - Comparison of Stormwater Utility Rates Per 1,000 Square Feet of Impervious Area for Florida Municipalities With Populations Similar to Cooper City (20,000 to 50,000 residents)

No.	Municipality	County	Rate Per 1000 Sq. Ft. of Impervious Area in 2022 \$ (a)	Population (b)
1	City of Fort Walton Beach	Okaloosa	1.56	21,120
2	City of Rockledge	Brevard	1.71	28,774
3	City of West Melbourne	Brevard	1.73	29,739
4	City of DeLand	Volusia	1.97	41,264
5	City of Aventura	Miami-Dade	2.26	40,247
6	City of Titusville	Brevard	2.32	49,982
7	City of Ormond Beach	Volusia	2.33	44,953
8	City of Clermont	Lake	2.50	47,456
9	Town of Cutler Bay	Miami-Dade	2.58	45,472
10	City of Fort Pierce	St. Lucie	2.63	49,508
11	City of Altamonte Springs	Seminole	2.71	47,420
12	City of Sunny Isles Beach	Miami-Dade	2.80	22,783
13	City of North Lauderdale	Broward	2.81	44,971
14	City of Tavares	Lake	2.86	21,003
15	City of Cooper City	Broward	3.19	34,878
16	City of Cocoa	Brevard	3.39	20,670
17	City of Sweetwater	Miami-Dade	3.43	20,571
18	City of Lake Worth Beach	Palm Beach	3.73	43,432
19	City of Casselberry	Seminole	3.99	30,061
20	City of Ocoee	Orange	4.02	49,711
21	City of New Smyrna Beach	Volusia	4.36	32,131
22	City of Tarpon Springs	Pinellas	4.45	25,849
23	City of Oakland Park	Broward	4.64	45,065
24	City of Riviera Beach	Palm Beach	4.69	38,795
25	City of Winter Park	Orange	4.97	30,706
26	City of DeBary	Volusia	5.47	27,750
27	City of Edgewater	Volusia	6.41	24,334
28	City of Key West	Monroe	6.42	26,767
29	City of Dunedin	Pinellas	7.17	36,083

(a) Stormwater Rate Source: FSA Stormwater Utility Report, 2022

(b) Population Source: University of Florida Bureau of Economic and Business Research

Next, Cooper City's stormwater rate per ERU was compared to ten stormwater utilities located near Cooper City. Geographically close municipalities may experience similar climate conditions, which is a driver of stormwater utility cost. To map this comparison, a U.S.A. Major Cities GIS layer was downloaded from the ESRI ArcGIS Hub⁴ to identify the location of the municipalities.

At first, major cities were considered for the comparison but obvious nearby choices like Coral Springs, Davie, and Hollywood did not participate in the FSA survey, and Fort Lauderdale does not use an ERU system for their stormwater rate (and was therefore excluded from this analysis). Cities near to Cooper City were searched against the FSA survey for participation and ERU methodology, and the first ten to match were selected. **Figure 5** is a map comparing Cooper City's monthly rate per ERU to ten nearby utilities that participated in the FSA survey and use an ERU stormwater rate methodology. These values represent the fee per single-family household. The median of these rates is \$5.55 per single-family property per month, which is very close to Cooper City's rate of \$5.58.

Figure 5: Cooper City Monthly Rate per ERU Compared to Nearby Stormwater Utilities



⁴ USA Major Cities downloadable shapefile, available online at: <https://hub.arcgis.com/datasets/esri::usa-major-cities/explore>

3. Alternative Stormwater Utility System Rate Adjustments

In the interim, prior to performing an updated stormwater cost of service and rate study, Cooper City has two options at its discretion that could be used to justify a rate increase for FY 2024/2025. The first is the recommendation from the 2020 Stormwater Utility Rate Study prepared by Raftelis.⁵ The study’s report includes a table of proposed rate adjustments each year from FY 2020 to 2029 as provided in **Table 3**.

Table 3 - Proposed Rate Adjustments and Residential Bill Impacts from Raftelis' 2020 Stormwater Rate Study for Cooper City, FL

Fiscal Year	Rate Adjustment	Residential Direct Rate		Residential Indirect Rate	
		\$/Month	\$ Change	\$/Month	\$ Change
2020	--%	\$3.22	N/A	\$0.59	N/A
2021	65.00%	\$5.31	\$2.09	\$0.97	\$0.38
2022	2.00%	\$5.42	\$0.11	\$0.99	\$0.02
2023	2.00%	\$5.53	\$0.11	\$1.01	\$0.02
2024	2.00%	\$5.64	\$0.11	\$1.03	\$0.02
2025	2.00%	\$5.75	\$0.11	\$1.05	\$0.02
2026	2.00%	\$5.87	\$0.12	\$1.07	\$0.02
2027	2.00%	\$5.98	\$0.11	\$1.10	\$0.03
2028	2.00%	\$6.10	\$0.12	\$1.12	\$0.02
2029	2.00%	\$6.23	\$0.13	\$1.14	\$0.02

The proposed residential direct rate for FY 2025 as recommended by Raftelis in 2020 is \$5.75, which is \$0.17 higher than today’s rate of \$5.58. The proposed residential indirect rate is \$1.05 which is \$0.03 higher than today’s rate of \$1.02. If this alternative is used to update the stormwater rates, the rate schedule would be as indicated in **Table 4**. These rates would continue to keep Cooper City in the median of Florida’s stormwater rates.

Table 4 - Proposed Rate Schedule Based on Recommendations from the 2020 Stormwater Rate Study

Customer Type	Direct Benefit	Indirect Benefit
Single-Family Residence	\$5.75	\$1.05
Duplex (per housing unit)	\$2.82	\$0.54
Condo/Multi-Family (per housing unit)	\$1.43	\$0.30
Commercial (per 1,750 sq.ft.)	\$5.75	\$1.05
Industrial (per 1,750 sq.ft.)	\$5.75	\$1.05
Institutional (per 1,750 sq.ft.)	\$5.75	\$1.05

⁵ Raftelis, City of Cooper City Stormwater Utility Rate Study, prepared for the City of Cooper City, FL, July 28, 2020.

An alternative method of adjusting the rate considers the fact that recent inflation was much higher than was projected by Raftelis in the 2020 rate study (2.5 percent annually). Today’s rate reflects the estimated costs as of May 2021.⁶ The percent change in the US Consumer Price Index (CPI) from May 2021 through February 2024 was 15.28 percent⁷. The annualized average of this value is 5.0 percent, which is double the 2.5 percent annual inflation rate used in the Raftelis study.

If the rates were adjusted to include price inflation from May 2021 through February 2024, then the stormwater rate schedule would be as presented in **Table 5**. The result is a \$0.85 increase in the single-family residence direct benefit rate and a \$0.16 increase in the indirect benefit rate. The \$6.43 per ERU (1,750 square feet) is equal to \$3.67 per 1,000 square feet. Both values are near the median of the rates charged by other utilities in Florida including those with similar population size.

Table 5 - Rate Schedule Based on Adjustments to include U.S. Inflation from May 2021 through February 2024

Customer Type	Direct Benefit	Indirect Benefit
Single-Family Residence	\$6.43	\$1.18
Duplex (per housing unit)	\$3.16	\$0.60
Condo/Multi-Family (per housing unit)	\$1.60	\$0.33
Commercial (per 1,750 sq.ft.)	\$6.43	\$1.18
Industrial (per 1,750 sq.ft.)	\$6.43	\$1.18
Institutional (per 1,750 sq.ft.)	\$6.43	\$1.18

4. Recommendation

Hazen recommends that, for FY 2025, the City consider adjusting the current stormwater rate based on the alternatives provided in Section 3 of this memorandum. At the same time, the City should budget \$75,000 for an updated stormwater utility system cost of service and rate study to guide rate making decisions after FY 2025. Hazen further recommends that this rate study be prepared following the completion of the City’s stormwater modeling and master planning efforts so that the stormwater rates will incorporate the City’s future stormwater management efforts. The City should budget \$250,000 to complete the modeling and master plan. Therefore, the total recommended budget for the stormwater modeling, master planning, and rate study would be \$325,000.

⁶ City Commission Ordinance Resolution: City Manager recommendation to the Cooper City Commission regarding Resolution 21-45 (Utilities) establishing a 5.0 percent stormwater rate increase for FY 2021 / 2022.

⁷ Monthly US CPI is from the U.S. Bureau of Labor Statistics.