



SCM Maintenance Funding

March 25, 2021



November 2020 Council Meeting:



Costs and Risks

- SCM maintenance - \$400,000 per year
- SCM replacement - \$4,000,000 to rebuild



SCM	Year Built	PV Construction	Conversion Estimate	Bond Amt.	Pond Lot (acre)	Est. Ann. Maintenance
Arran's Cove	2015	57,790	40,532	24,294	1.45	10,075
Bluffs at Treyburn	2015	101,531	65,863	113,804	2.04	14,174
Colinwood Park	2012	64,519	64,772	60,720	1.95	13,549
Heathcliff at Westpoint - Basin 1	2011	241,867	59,828	159,800	1.66	11,534
Heathcliff at Westpoint - Basin 2	2011	0	68,156		1.83	12,715
Highcroft - Phase I	2012	182,575	92,618	49,945	2.26	15,702
Highcroft Phase II	2017	106,107	141,252	10,598	1.14	7,921
Highland Pointe - Basin 1	2011	80,617	39,967	71,576	1.03	7,156
Highland Pointe - Basin 2	2011	73,034	41,882	64,843	0.68	4,725
Knolls Pond - Basin 1	2011	148,397	27,070	22,184	0.67	4,655
Knolls Pond - Basin 2	2011	141,025	39,847	21,464	2.47	17,162
Knolls Pond - Basin 3	2011	136,333	39,311	21,410		0
Liberty Hills	2016	158,643	123,674	94,695	2.72	18,899
Northridge Park	2017	51,095	120,058	48,695	3.70	25,708
Old Bunce Road	2011	58,093	121,133	51,578	0.96	6,670
Palms at Summer Grove	2014	192,957	45,670	32,507	0.96	6,670
Patriot Park Village - Basin 1	2016	39,312	68,178	46,708	1.94	13,479
Patriot Park Village - Basin 2	2016	38,240	154,845	45,435	1.36	9,449
Summer Grove	2012	32,012	50,166	45,192	0.83	5,767
Summer Grove Phase II - Basin 1	2010	159,887	39,116	133,920	1.85	12,854
Summer Grove Phase II - Basin 2	2010	125,978	31,190	21,987		0
Westhaven - Basin A	2014	178,733	20,865	22,300	1.90	13,201
Totals		\$2,368,745	\$1,495,991	\$1,163,653		\$232,063
Averages		\$112,797	\$71,238			\$11,603



November 2020 Council Meeting:

City of
Fayetteville
North Carolina

- SCM maintenance
- SCM replacement

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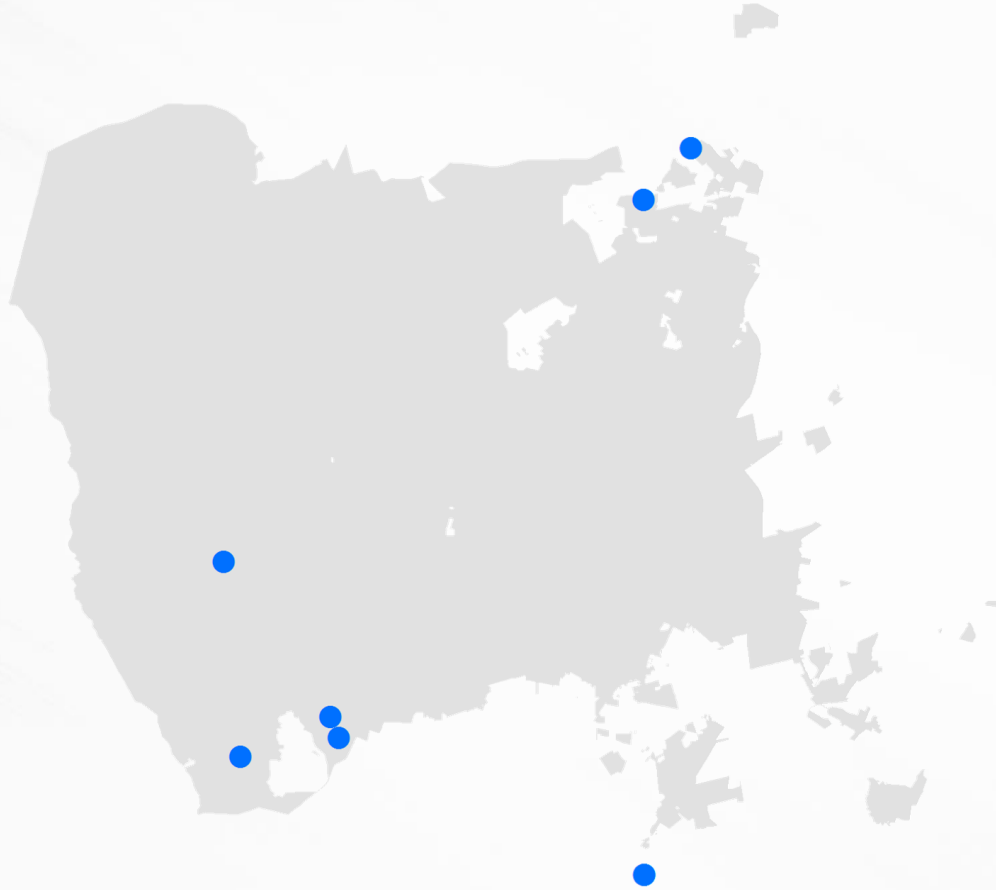
City of
Fayetteville
North Carolina

Recommendation

- Amend current Ordinance Sec. 23-38 to remove option for City ownership/maintenance of newly permitted residential SCMs
- Establish a sunset clause for previously permitted SCMs that are eligible for conversion from sediment basin but have not yet been converted – 2 years
- Continue maintenance of those SCMs the City has accepted, and for those converted by the sunset date

- If the City continues to take over functional maintenance of residential stormwater control measures (SCMs)...
- how much might functional maintenance and periodic reconstruction efforts cost over the long haul?
- how might these costs be recovered and what would the charges be?

Approach for Analysis



- Representative sample of neighborhoods where required data exists

- Summergrove
- Little River Farms
- Patriot Park
- Arran's Cove
- Oakridge Estates
- Colinwood
- Fairfield Farms



Four Cost Estimating Approaches

- Developer-provided annual maintenance costs
- NSCU Extension maintenance estimates
- Peer NC city maintenance estimates
- WERF SCM maintenance estimation tools



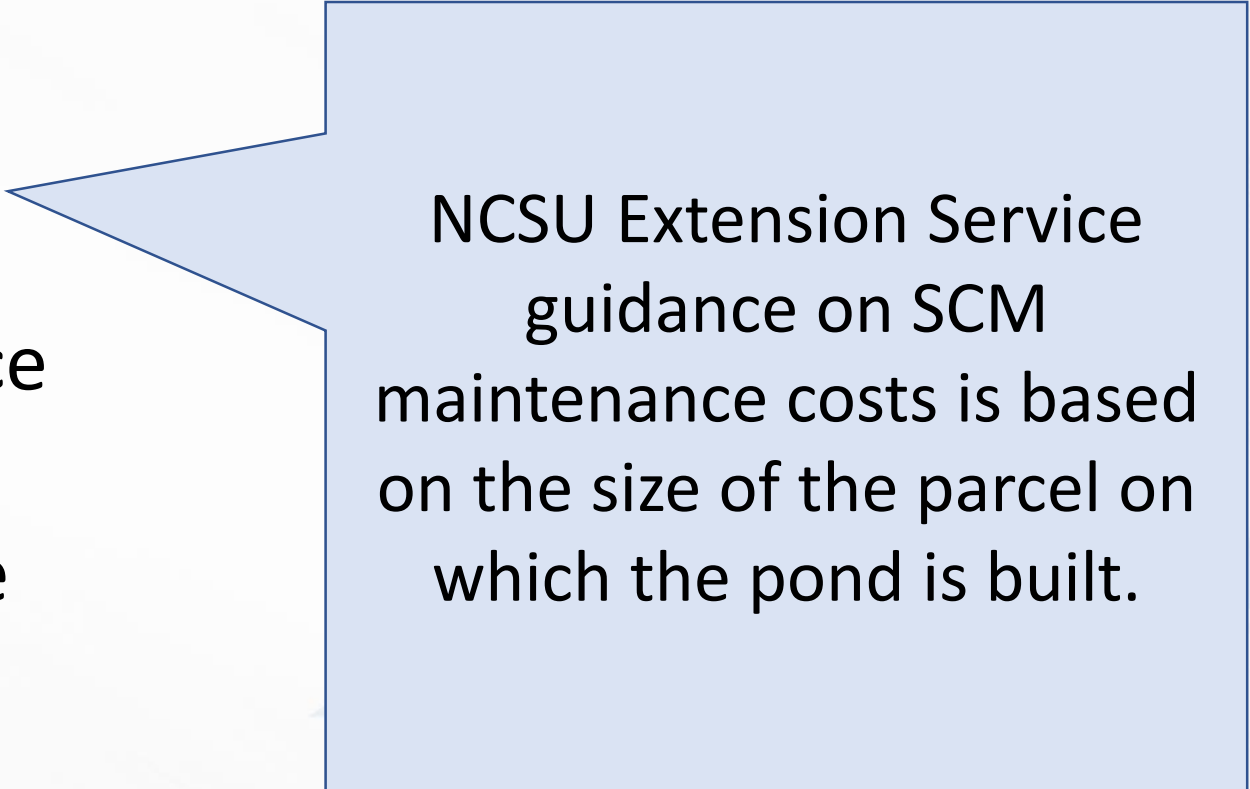
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Developers have provided annual maintenance cost estimates for some SCMs. There is no guidance from the City on provision of these estimates.

Four Cost Estimating Approaches

- Developer-provided annual maintenance costs
- **NCSU Extension maintenance estimates**
- Peer NC city maintenance estimates
- WERF SCM maintenance estimation tools



NCSU Extension Service guidance on SCM maintenance costs is based on the size of the parcel on which the pond is built.

Four Cost Estimating Approaches

- Developer-provided annual maintenance costs
- NSCU Extension maintenance estimates
- **Peer NC city maintenance estimates**
- WERF SCM maintenance estimation tools

Peer city is Durham. Their SCM maintenance cost estimation guidance is based on the surface area of the pond.

Four Cost Estimating Approaches

- Developer-provided annual maintenance costs
- NSCU Extension maintenance estimates
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- **WERF SCM maintenance estimation tools**

The Water Research Foundation guidance on SCM maintenance cost is based on the impervious area that drains to the pond.

Four Funding Approaches

- Special Assessment Districts for benefitting residential ad valorem taxpayers
- Stormwater Fee Surcharges for benefitting residential ratepayers
- Citywide tax increase
- Citywide stormwater fee increase



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One special assessment district per neighborhood with SCMs maintained by the City. These would be established over time. Properties pay varying amounts based on tax value, but together would generate the required revenues.

Four Funding Approaches

- Special Assessment Districts for benefitting residential ad valorem taxpayers
- **Stormwater Fee Surcharges for benefitting residential ratepayers**
- Citywide tax increase
- Citywide stormwater fee increase

A stormwater fee surcharge above and beyond the current stormwater charge (currently at \$72 per year) would be applied to each residential ratepayer in neighborhoods with SCMs maintained by the City

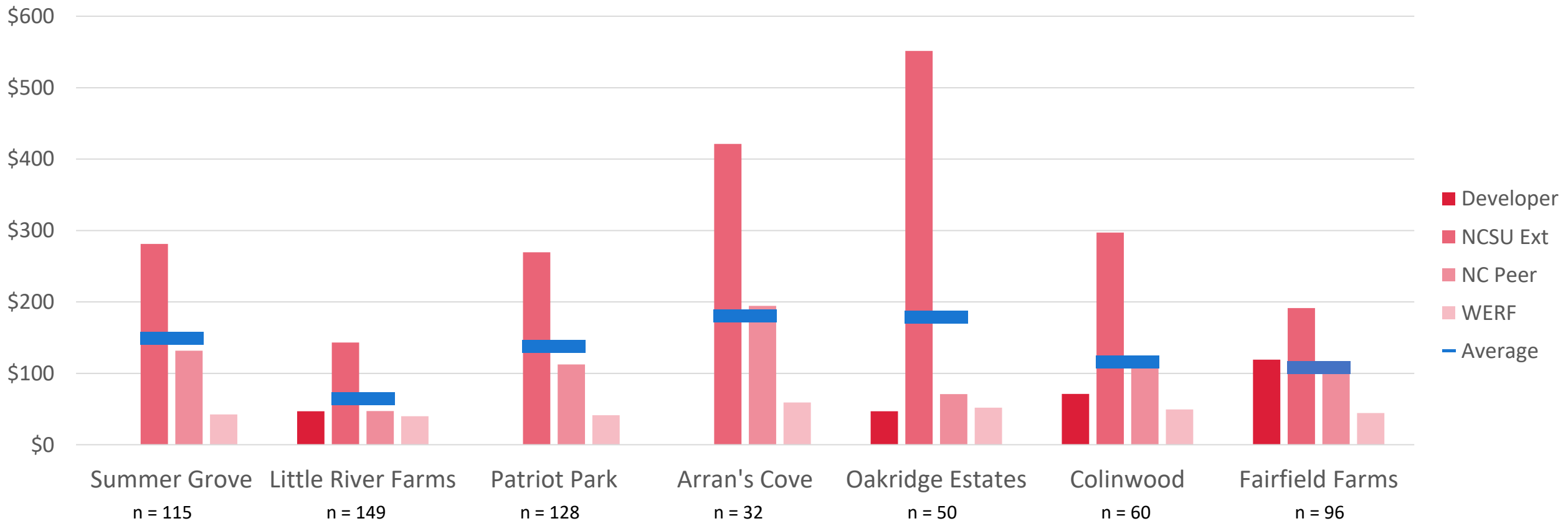
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Because functional maintenance for SCMs would be taken over by the City over a long period of time, Citywide increases would need to occur over and over, not all at once. This was not modeled in our current analysis.

- Periodic reconstruction occurs on average every 25 years
- Reconstruction costs are assumed to be 50% of original construction costs
- Inflation is 3% per year
- Revenue generation from taxes or fees increases 3% per year
- Amount developers will have contributed to maintenance fund is accounted for in estimated revenue requirements

Comparison of Annual Maintenance + Periodic Replacement Cost Estimate Methodologies (Cost per Home)



- Per home revenue needed varies significantly by method and neighborhood
 - This is because estimation approaches vary
- Average annual revenue needed is \$121 per house draining to an SCM
- Average tax value of homes in these seven neighborhoods is \$232,000 (varies from \$96,000 to \$348,000)
 - 5.2c special assessment district tax will generate \$121 per house on average
- Stormwater fee surcharge of \$121 per house per year will generate needed revenue

- Consider amending ordinance sec. 23-38 to remove the option for City ownership/functional maintenance of newly-permitted residential SCMs
- If the City will continue allowing the SCM option,
 - Establish a stormwater fee surcharge for residential ratepayers who benefit from the program and set the surcharge at \$121 per home per year.

