

City of Roswell

Shared Stormwater Facilities

SESWA April 24, 2020

Sharon Izzo, PE / Deputy Director, City of Roswell
Laurie Hawks / President, Hawks Environmental



Agenda

- Introduction
- Stormwater background
- Shared Stormwater Facility Policy
- Example projects
- Benefits and challenges
- Questions



Introduction

- Incorporated in 1854
- Northern Suburb of Atlanta, population of ~95,000
- Historic downtown area with aging storm infrastructure
- Vibrant community with cultural events, festivals, business community
- Quality of life
- 2017 GMA Live Work Play



Shared Stormwater Facilities

- Recognized need for creative solutions to stormwater management
- Around 2015
 - Shared Stormwater Facilities policy established
 - BMP Revolving Fund and Green Infrastructure Implementation project (USEPA 319(h) grant)



Shared Stormwater Facilities Policy

Established policy that allows

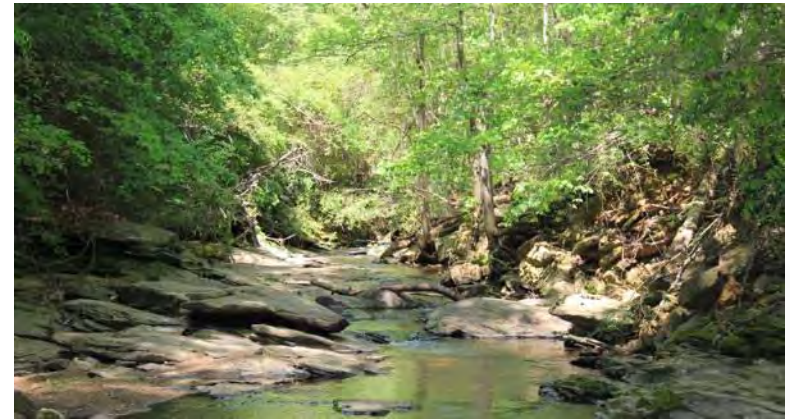
- Two or more private entities to share in establishment and/or maintenance of stormwater management facility
- The City may establish a facility and provide credits for private entity to voluntarily purchase
- The City and one or more private entities to share in establishment and/or maintenance of stormwater management facility



Shared Stormwater Facilities Policy

Private Applicants

- Application/approval process
- Hydrology study/design criteria
- Impervious acre treated is unit of benefit
- Project cost based on fair market value and contribution of each partner
- MOA with all parties – plan, responsibilities, ROW, funding, ownership, O&M
- Implementation



Shared Stormwater Facilities Policy

City Projects

- Modify ordinance to allow purchase of credits in-lieu of on-site stormwater treatment
- Set up separate fund
- Sell and track credits – credit unit, value, use, tracking, approved sub-basin



BMP Revolving Fund

USEPA 319(h) grant

- BMP Revolving Fund and Green Infrastructure Implementation
- Demonstrate Green Infrastructure
- Install project in City property/ROW
- Build facility in area experiencing redevelopment
- Provide voluntary credits for sale
- Set up a “Revolving Fund”



Shared Facilities Examples

Project Name	Type of Project	Partners
Sun Valley Drive	Detention pond and WQ BMPs	City developed, commercial partners
Myrtle/Zion Street	Permeable Pavers	City developed, credits for sale
City Hall Pond	Pond maintenance and expansion	City developed, private developer partner



Myrtle Street/Zion Circle

- USEPA 319(h) grant (BMP Revolving Fund and Green Infrastructure Implementation)
- Permeable paver project in the historic area
- Impaired Hog Waller Creek watershed
- Demonstrate green infrastructure
- City Right of Way
- Underground gravel reservoir to hold and treat stormwater
- County library purchased credit



Myrtle Street/Zion Circle

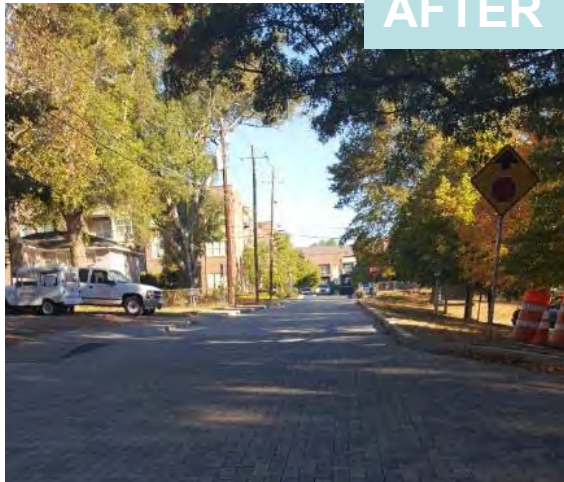


Myrtle/Zion Shared Stormwater Quality Facility Credit Tracking

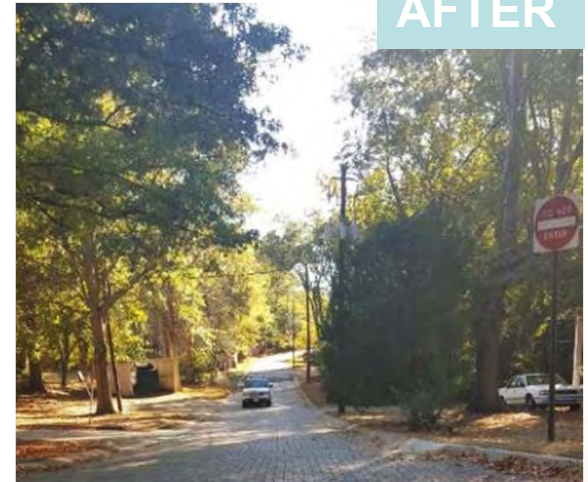
Parcel ID*	Total Parcel Acreage**	Parcel Acreage In Basin	Impervious Acreage Credits Purchased	W. Q. Volume Purchased (cf)	Parcel Address	Purchaser	Date Credits Purchased
190404130027	3.76	1.04	0.13	1100	115 Norcross Street	Fulton County (Robert L. Pitts)	?
190404130191	28.94	0.47			38 Hill Street		
200104250064	0.57	0.57			953 Forrest Street		
200104250080	0.62	0.62			941 Forrest Street		
200104250106	0.47	0.47			923 Forrest Street		
200104250114	0.52	0.52			922 Myrtle Street		
200104250122	0.44	0.33			913 Forrest Street		
200104250130	0.33	0.31			914 Myrtle Street		
200104250155	0.38	0.08			908 Myrtle Street		
200104250312	0.49	0.49			913 Myrtle Street		
200104250320	0.26	0.26			916 Zion Circle		
200104250338	0.32	0.32			932 Zion Circle		
200104250353	0.38	0.38			943 Myrtle Street		
200104250361	0.68	0.68			955 Myrtle Street		
200104250387	0.93	0.82			183 Norcross Street		
200104250411	0.52	0.07			961 Zion Circle		
200104250486	0.34	0.34			937 Myrtle Street		
200104250502	0.61	0.61			927 Myrtle Street		
200104250510	0.35	0.35			960 Zion Circle		
200104250528	0.20	0.20			914 Zion Circle		
200104250601	2.30	0.31			888 Zion Circle		
200104250718	0.29	0.29			169 Norcross Street		
200104250726	0.30	0.30			956 Zion Circle		
200104250734	0.45	0.45			946 Zion Circle		
200104250775	0.55	0.55			966 Myrtle Street		
200104250841	0.38	0.38			964 Myrtle Street		
200104250858	0.38	0.38			954 Myrtle Street		
200104250866	0.40	0.40			944 Myrtle Street		
200104250874	1.27	1.14			Zion Circle		
200104250890	0.23	0.23			161 Norcross Street		
200104250916	0.22	0.22			974 Myrtle Street		
200104250940	0.69	0.45			205 Norcross Street		
200104250999	0.50	0.50			924 Myrtle Street		
200104251005	0.45	0.45			935 Forrest Street		
200104251021	1.02	0.10			935 Zion Circle		
200104251120	0.31	0.31			934 Zion Circle		
200104251138	0.32	0.32			930 Zion Circle		
200104251583	1.16	1.16			125 Norcross Street		
200804250018	1.73	0.10			Courtyard Terrace		
Totals		16.97	0.13	1100.00			
	Total Water Quality Capacity (cf)***/*		7578				
	Water Quality Volume Purchased (cf)		1100				
	Total W. Q. Capacity Available (cf)		6478				

Myrtle Street/Zion Circle

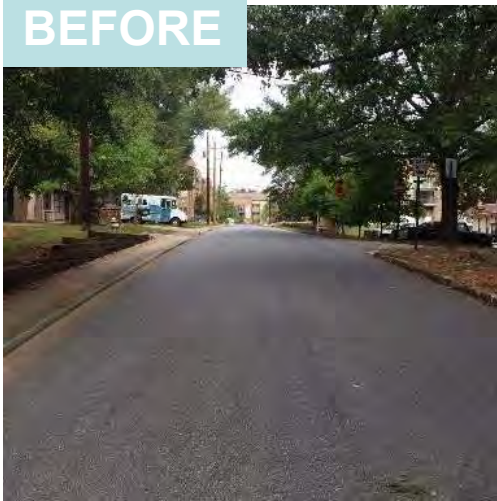
AFTER



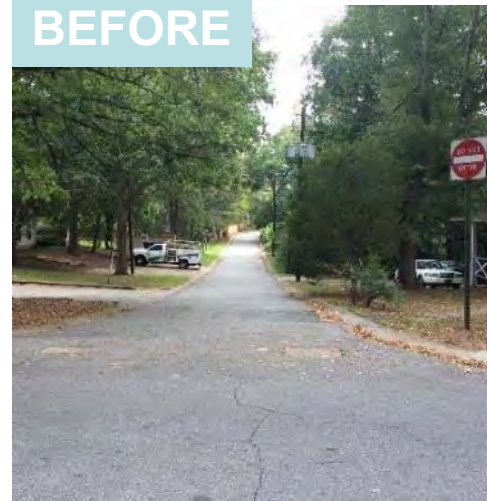
AFTER



BEFORE



BEFORE



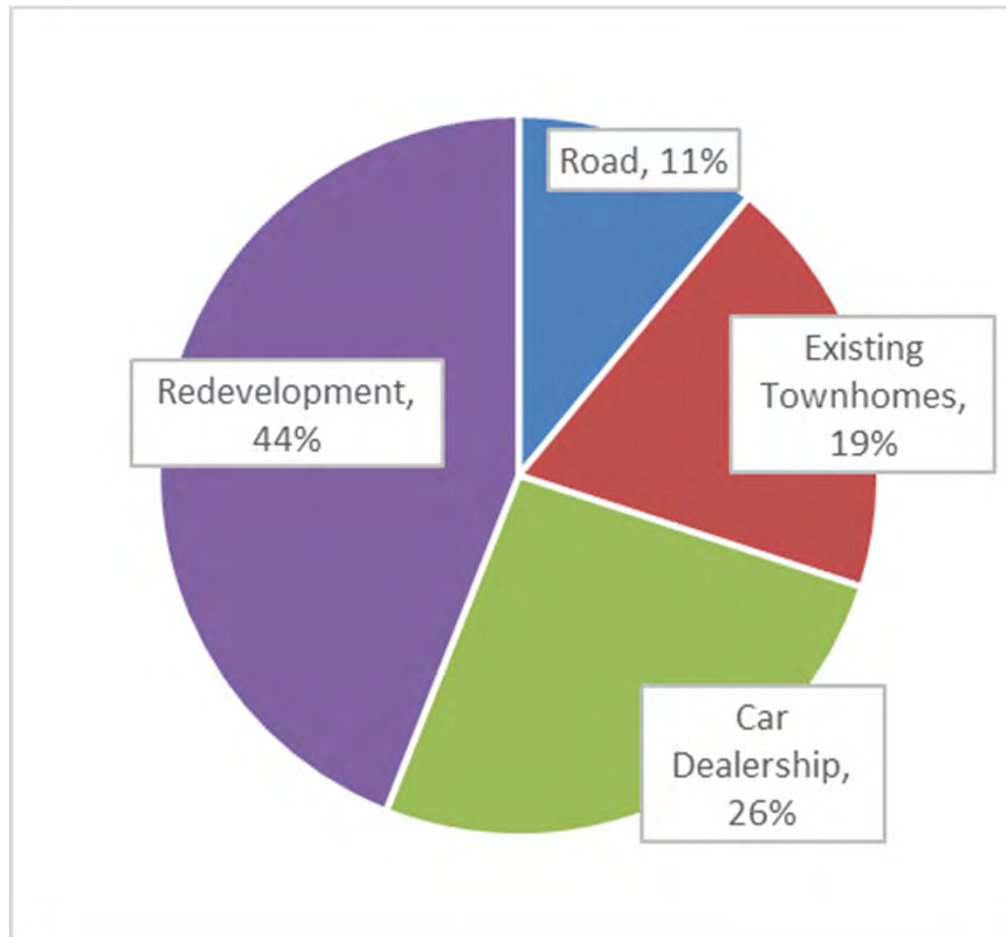
Sun Valley Drive

- Existing stormwater pond expanded to accommodate road expansion, new dealership expansions, other future development
- Residential developments nearby, existing treatment
- City road expansion, new stormwater treatment needed
- Car dealership planning expansion, future treatment needed



Sun Valley Drive

Stormwater Treatment Capacity



Sun Valley Drive Shared Stormwater Facility Credit Tracking

Parcel ID*	Total Parcel Acreage**	Parcel Acreage In Basin	Curve Number**	Impervious Acreage in Bas	Impervious Acreage Credits Purchased***	Excess Credit Acreage Available for Purchase	Parcel Address	Purchaser	Date Credits Purchase
07004830150	0.44	0.44	73	0.21			10955 Alpharetta Highway		
07004831380	0.39	0.39	73	0.31			11030 Alpharetta Highway		
07004840431	0.48	0.48	73	0.38			10903 Alpharetta Highway		
07004840456	0.5	0.50	73	0.44			10895 Alpharetta Highway		
07004840480	1.56	0.81	73	0.8			10887 Alpharetta Highway		
07004840704	0.37	0.37	73	0.29			10915 Alpharetta Highway		
07004840712	0.46	0.46	73	0.37			10895 Alpharetta Highway		
07004840761	1.11	0.68	73	0.59			10889 Alpharetta Highway		
16005190332	5.07	3.02	82	2.61			11195 Alpharetta Highway		
17005060483	47.19	47.19	73	4.98			10933 Alpharetta Highway		
17005060491	0.39	0.39	73	0.17			Mansell Rd (Cemetery Exit)		
17005060509	0.63	0.63	73	0.54			850 Mansell Road		
17005060517	4.46	4.46	73	3.59			900 Mansell Road		
17005070078	0.82	0.82	73	0.41			11033 Alpharetta Highway		
17005070268	2.22	2.22	73	1.99			1000 Sun Valley Drive		
17005070276	0.97	0.97	73	0.9			11053 Alpharetta Highway		
17005070284	0.78	0.78	73	0.56			10997 Alpharetta Highway		
17005070318	2.99	2.99	73	2.37			900 Sun Valley Drive		
17005070334	0.48	0.48	73	0.32			11007 Alpharetta Highway		
17005070359	0.41	0.41	73	0.35			11005 Alpharetta Highway		
17005070367	1.68	1.68	73	1.26			11003 Alpharetta Highway		
17005070391	2.34	2.34	73	1.85			950 Sun Valley Drive		
17005070409	1.02	1.02	73	0.84			950 Sun Valley Drive		
17005070417	0.42	0.42	73	0.33			11011 Alpharetta Highway		
17005080374	0.51	0.51	88	0.42	0.42		11055 Alpharetta Highway	Northside Automotive Holdings, LLC	10/10/2018
17005080432	2.27	2.27	88	1.9	1.9		1007 Sun Valley Drive	Northside Automotive Holdings, LLC	10/10/2018
17005080457	0.74	0.74	88	0.68	0.68		11065 Alpharetta Highway	Northside Automotive Holdings, LLC	10/10/2018
17005080465	4.67	4.01	88	4.1	4.1		11085 Alpharetta Highway	Northside Automotive Holdings, LLC	10/10/2018
17005200527	3.81	3.81	82	2.37			11195 Alpharetta Highway		
17005200535	9.86	9.86	73	2.97			Regency At Mansell THMS		
17005200543	3.28	3.28	73	1.38			1020 Sun Valley Drive		
17005200592	29.96	10.30	73	5.14			Creekside at Mansell THMS		
17005200618a	10.45	1.18	73	0			Sun Valley Dr Detention Pond		
17005200618b	10.45	6.56	73	0			Sun Valley Dr Detention Pond		
17005210559	22.71	22.71	73	16.68			970 Mansell Road		
Totals	175.89	139.15		62.10	7.10	0.00			

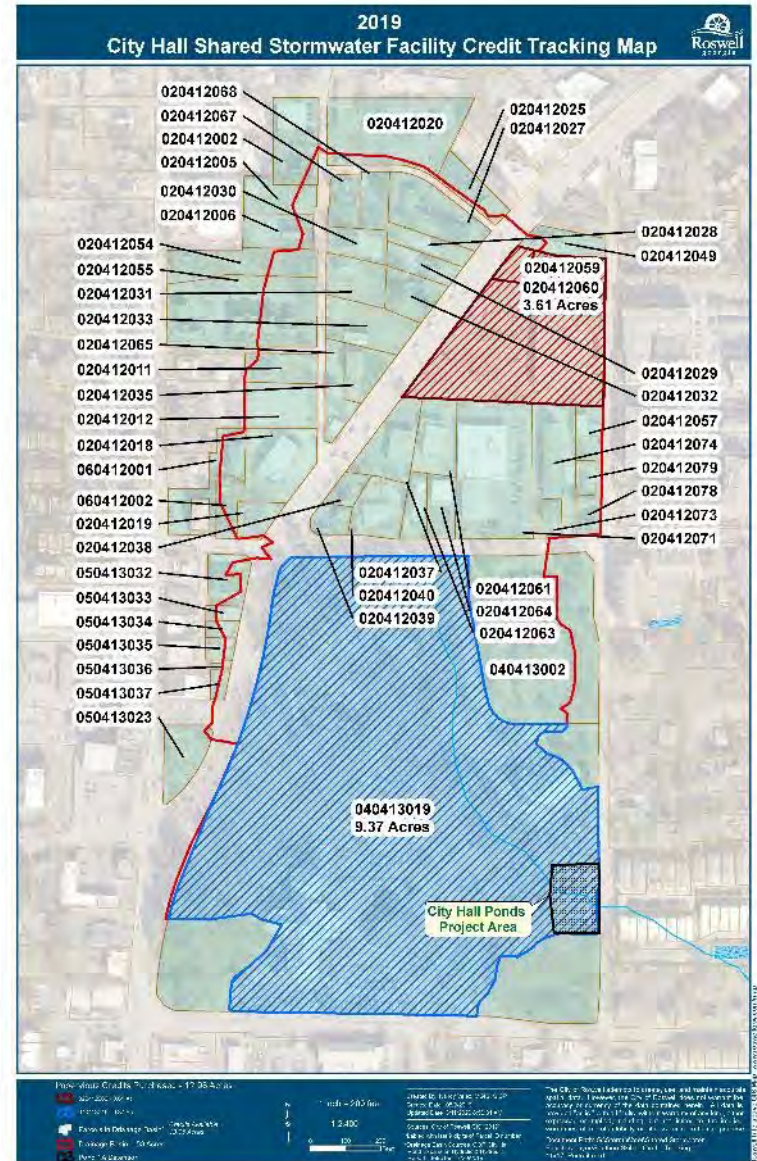


City Hall Pond

- Existing detention pond built for Municipal Complex - City Hall and cultural arts center
- Historic District, lots of growth/redevelopment
- Needed maintenance, vegetation growing in pond
- “Skillet” property upstream/ city sold/redeveloped
- Opportunity to expand to provide additional treatment



City Hall Pond



City Hall Pond Facility Credit Tracking

Parcel ID	Total Parcel Acreage**	Parcel Acreage In Basin	Curve Number	Impervious Acreage in Basin	Impervious Acreage Credits Purchased	Excess Credit Acreage Available for Purchase
020412002	0.73	0.06	89	0.05		
020412005	0.46	0.11	89	0.09		
020412006	0.49	0.09	89	0.07		
020412011	0.40	0.37	89	0.29		
020412012	0.61	0.61	89	0.54		
020412018	0.90	0.90	89	0.75		
020412019	0.21	0.25	89	0.22		
020412020	1.70	0.16	89	0.12		
020412025	0.39	0.06	89	0.01		
020412027	0.87	0.87	89	0.70		
020412028	0.30	0.30	89	0.22		
020412029	0.32	0.32	89	0.25		
020412030	0.35	0.35	89	0.31		
020412031	0.48	0.48	89	0.28		
020412032	0.42	0.42	89	0.07		
020412033	0.67	0.67	89	0.05		
020412035	0.37	0.37	89	0.18		
020412037	0.64	0.64	86	0.57		
020412038	0.18	0.18	86	0.15		
020412039	0.21	0.21	86	0.16		
020412040	0.53	0.53	86	0.44		
020412049	0.36	0.05	86	0.05		
020412054	0.86	0.23	89	0.00		
020412055	1.94	0.73	89	0.36		
020412057	0.28	0.28	95	0.23		
020412059	0.19	0.19	61	0.00	0	
20412060	4.08	4.08	61	3.97	3.61	0.36
020412061	0.61	0.61	86	0.56		
020412063	0.31	0.31	86	0.23		
020412064	0.37	0.37	86	0.24		
020412065	0.39	0.39	89	0.29		
020412067	0.36	0.36	89	0.20		
020412068	0.30	0.30	89	0.23		
020412071	1.91	1.91	86	1.86		
020412073a	0.15	0.07	86	0.07		
020412073b	0.15	0.06	95	0.06		
020412074a	0.94	0.44	96	0.44		
020412074b	0.94	0.44	95	0.44		
020412078	0.19	0.19	95	0.10		
020412079	0.17	0.17	95	0.11		
040413002	3.76	2.72	78	1.47		
040413019a	28.95	8.65	83	5	5	
040413019b	28.95	10.01	79	3.28	3.28	
040413019c	28.95	3.45	71	0.54	0.54	
040413019d	28.95	3.16	78	0.55	0.55	
050413023	0.49	0.01	79	0		
050413032	0.38	0.12	79	0.12		
050413033	0.10	0.07	79	0.07		
050413034	0.11	0.06	79	0.05		
050413035	0.12	0.04	79	0.04		
050413036	0.03	0.01	79	0.01		
050413037	0.09	0.05	79	0.04		
060412001	0.62	0.20	89	0.14		
060412002	0.28	0.17	89	0.06		
Totals		47.85		26.33	12.98	0.36
		Average Credits Available		13.35		



Shared Facilities Examples

Project Name	Total Credits	Purchased to Date
Sun Valley Drive	19.20 Imp. Acres	7.10 Imp. Acres
Myrtle Street	7,264 ft ³	1,100 ft ³ or 0.13 Imp. Acres
City Hall Pond	26.33 Imp. Acres	3.61 Imp. Acres

City Revolving BMP Fund over \$600,000



Shared Facilities Policy

Lesson Learned

- Benefits
 - Flexibility for developers and city to meet stormwater requirements
 - Option for re-development, difficult sites
 - Ease of permitting
 - Expanded use of land on site
- Challenges
 - City staff time, policy, and fund set up
 - Negotiations
 - Developers and City work on different time frames (City needs Mayor and Council approval)



Thank you.

Questions?

Sharon Izzo, PE / Deputy Director, City of Roswell
sizzo@roswellgov.com

Laurie Hawks / President, Hawks Environmental
lhawks@hawks-env.com

