

June 14, 2021

M E M O R A N D U M

To: City of White House Stormwater Advisory Board

From: Derek Watson, City Recorder

Re: Meeting of the Stormwater Advisory Board

The Stormwater Advisory Board of the City of White House will meet on Monday, June 14, 2021. The meeting will take place at 4:00 pm in the Boardroom of the Billy S. Hobbs Municipal Center located at 105 College Street.

If you have any questions or are unable to attend please contact me at 615-672-4350, ext. 2111.



CITY OF WHITE HOUSE
Stormwater Advisory Board
Agenda
June 14, 2021
4:00 p.m.

- I. Call to Order by Chairman
- II. Roll Call
- III. Adoption of the Agenda
- IV. Approval of March 8, 2021 Meeting Minutes
- V. Reports
- VI. New Business or Discussion Items
 - a. Current Stormwater Project
 - b. Nominations for chair and vice-chair positions (1-year term)
 - c. Voting for chair and vice-chair positions (1-year term)
- VII. Other Business
- VIII. Adjournment

CITY OF WHITE HOUSE
Stormwater Advisory Board
Minutes
March 8, 2021
4:00 p.m.

I. Call to Order by Chairman

Meeting was called to order at 4:01pm by Chairman Ceagus Clark.

II. Roll Call

Ald. Clif Hutson - Present; Mr. Gerald Herman - Present; Mr. Andy Cieslak – Present; Mr. Drew Christenson – Absent; Mr. Ceagus Clark - Present; Mr. Rob Dorris – Present; Mr. Jason Barnes – Present; **Quorum – Present.**

III. Adoption of the Agenda

Motion was made by Ald. Hutson, second by Mr. Barnes to approve the agenda. A voice vote was called for with all members voting aye. **Motion passed.**

IV. Approval of December 14, 2020 Meeting Minutes

Motion was made by Mr. Herman, second by Mr. Cieslak to approve the minutes from the December 14, 2020 meeting. A voice vote was called for with all members voting aye. **December 14, 2020 minutes were approved.**

V. Reports

Motion was made by Ald. Hutson, second by Mr. Barnes to approve the reports. A voice vote was called for with all members voting aye. **Motion passed.**

VI. New Business or Discussion Items

a. Current Stormwater Project List

Stormwater Manager Ajuah Jackson was present and reviewed stormwater projects that have been completed in White House since the last Board meeting.

VII. Other Business

a. None

VIII. Adjournment

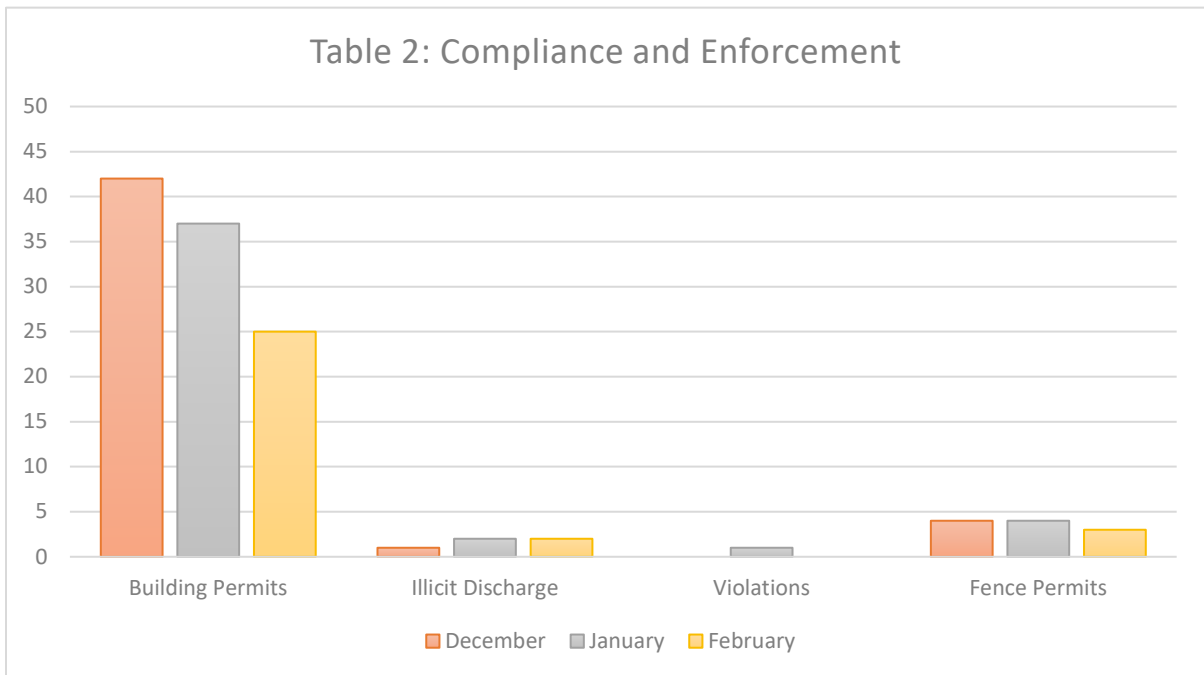
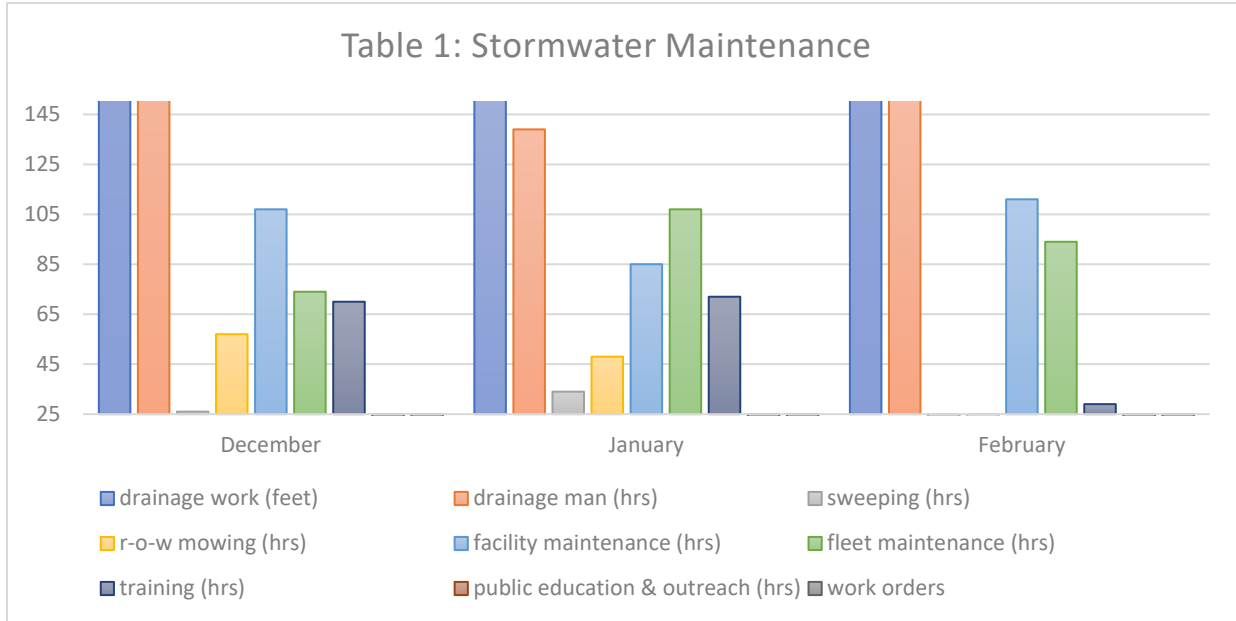
Meeting adjourned at 5:32 pm.

ATTEST:

Ceagus Clark, Chairperson

Derek Watson, City Recorder

**Public Services Department – Stormwater Division
February 2021**



**Public Services Department – Stormwater Division
February 2021**

Stormwater Project List

Our objective is to establish and maintain a proactive approach to minimize any potential for localized flooding within City limits. This includes but is not limited to ditch maintenance. In addition, a large part of this objective is to respond to citizen complaints in a timely manner.

Below are the departments top priorities and work summaries:

<i>Address</i>	<i>Scope of Work</i>	<i>Status</i>	<i>Notes</i>
<i>Fields at Oakwood</i>	Erosion Inspection	Work Order: 022521009 Complete	
<i>676 North Palmers Chapel</i>	Single family residential? inspection of driveway culvert	W/O # 022521006 Complete	

**Public Services Department – Stormwater Division
February 2021**

**212
Hobbs
Drive**

Driveway replacement; extend culvert 14ft using corrugated metal pipe in ROW; replace headwall

WO#- 021021007
Complete



**103
Spicer
Court**

Increased infrastructure elevation and excavated material from conveyance in ROW; redressed with seed & straw

WO# - 020921001
Complete



Rainfall

Most recent rain event occurred on weekend of February 26th-28th. The City received approximately **5.41** inches of rain.

7 complaints received. 2 determined for residential flooding. Calista pond is undergoing dewatering and Villages is scheduled for CIP.



**Public Services Department – Stormwater Division
February 2021**

***100 Oak
Park Ct.***

Replace
headwall and
culvert

WO# -
020221001

Complete



***North
Palmer's
Chapel***

Open trench
inspection for
new drainage
system at the
Reserve at
Palmer's
Crossings for
phase 2.

WO# -
020321001

Complete



SWEEPER LOG

Monthly Report

4 cu.yd hopper/ actual usage- 3.0 cu.yd=4.5 tons

Date	Time	Mileage	Tons	Streets
02/24/21	8	30	9	Hwy 76, Raymond Hirsch, College St, 31W South
02/25/21	4	21	4	31W North and South
Totals:	12	54	13	<i>(detailed listing of all streets on file)</i>

**Public Services Department – Stormwater Division
February 2021**

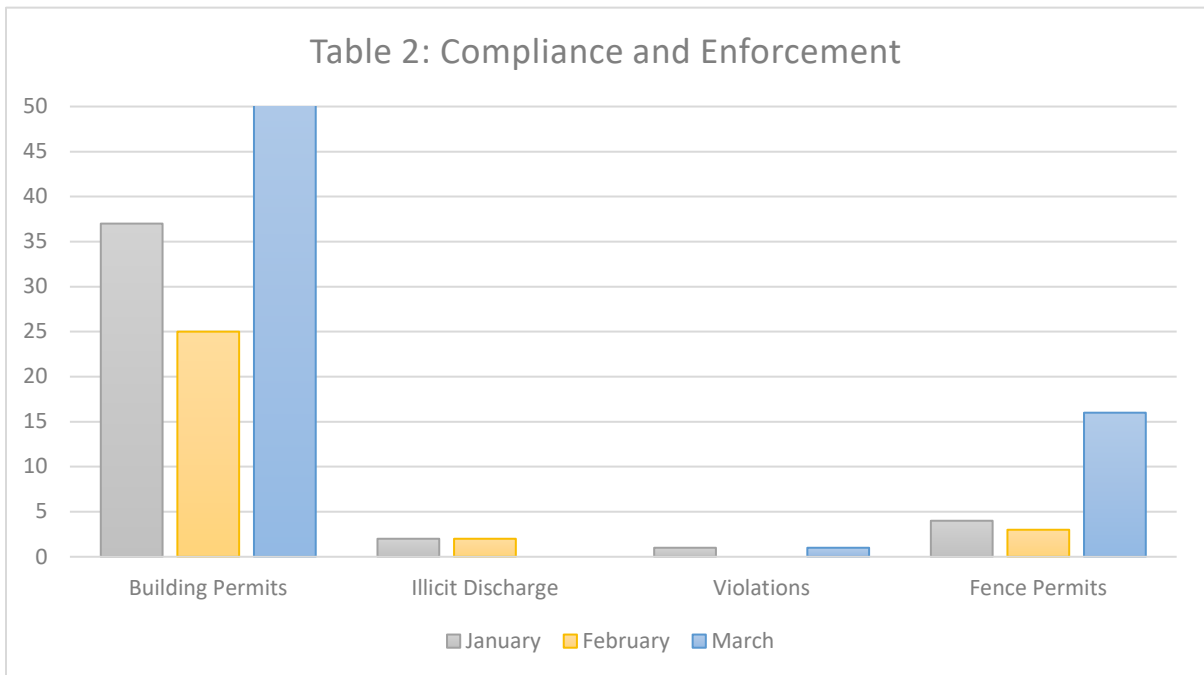
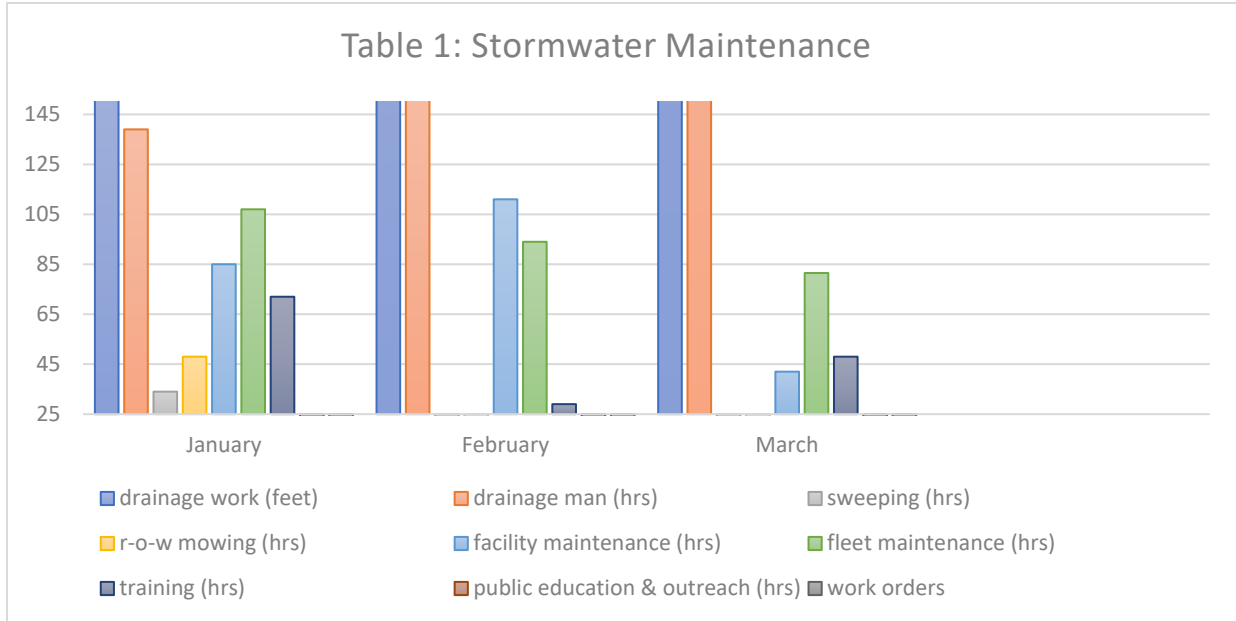
Stormwater Division

Total Hours Worked	FY 15/16	FY 19/20	31-Dec	31-Jan	28-Feb	YTD 20/21
Stormwater	5,744	7,204	982	832	853	7531
Work Orders	0	69	11	4	13	96
Overtime	508.5	262	26	6	23	137
Facility Maintenance	3,494	638	107	85	112	464
Fleet Maintenance	1,034	314	74	107	94	473
Administrative	385	1,138	116	145	128	1127
Drainage Work (feet)	0	3,988	545	116	510	2576
Drainage Man Hours	0	1,371	228	139	163	2002
Debris Removed Load	0	188	6	6	6	164
Sweeping Man Hours	0	309	26	34	21	207
Mowing Hours	0	102	0	0	0	3
R-O-W Hours	0	1,506	57	48	10	166
Shoulder/Curb Hrs	0	0	0	0	0	40

The Stormwater crew assisted Public Work salting and plowing the roadway between February 15th-21st. There was a total of **79 salt hours worked**.

Catch Basin: Object ID:	Neighborhood	Location:	Date:
456/457	Northwoods	Pinewood	02/24/21
146	Northwoods	Magnolia	02/24/21
147	Northwoods	Magnolia	02/24/21
58	Northwoods	Hunterwood	02/24/21
465/466	Northwoods	Hunterwood	02/24/21
450	Northwoods	Hunterwood	02/24/21
136	Northwoods	Pembroke	02/24/21
135	Northwoods	Pembroke	02/24/21
120	Northwoods	Highland	02/24/21
122	Northwoods	Highland	02/24/21
123	Northwoods	Highland	02/24/21
121	Northwoods	Timberwood	02/24/21
118	Northwoods	Hunterwood Ct.	02/24/21

**Public Services Department – Stormwater Division
March 2021**





**Public Services Department – Stormwater Division
March 2021**

Stormwater Project List

Our objective is to establish and maintain a proactive approach to minimize any potential for localized flooding within City limits. This includes but is not limited to ditch maintenance. In addition, a large part of this objective is to respond to citizen complaints in a timely manner.

Below are the work order requests and summaries that have been completed:

<i>Address</i>	<i>Scope of Work</i>	<i>Status</i>	<i>Notes</i>
210 Robert Ave.	Ditch rehabilitation from 201-214. Redistributed extracted soil to back fill and stabilize embankments	Work Order: 030321001 Complete	
311 Hobbs Dr.	Stabilized driveway culvert	W/O # 031121003 Complete	

Public Services Department – Stormwater Division
March 2021

**341
Aller
Drive**

Rehabilitated cross drain and stabilized ditch line to counter excessive erosion.

WO#-
042320009

Complete



**100 &
101
Hobbs
Dr.**

Removed Built up sediment, re-shaped ditch line, installed Rip rap in areas to slow the velocity.

WO# -
031121002

Complete



**Public Services Department – Stormwater Division
March 2021**

Rainfall

Most recent rain event occurred on weekend of March 27th and 28th. The City received approximately 4.55 inches of rain for the month of March.

2 *NEW* complaints received.



Issues

300 Orchard Park Dr
110 Beechbrook Ct.

Scheduled for June



Calista Pond

Dewatered on 03/26 and 03/30

Removed 67,800 gallons of water to prevent localized flooding

WO# 030121019
Complete



Public Services Department – Stormwater Division
March 2021

**101-173
Highland
Drive**

Re-defining
ditch

WO#03302100
1
Complete



**135
Villages
Court**

Removed
debris and
obstructions
from
headwall
causing
ponding
during heavy
rain events.

WO# -
030121016
Complete



**Public Services Department – Stormwater Division
March 2021**

Stormwater Division

Total Hours Worked	FY 15/16	FY 19/20	31-Jan	28-Feb	31-Feb	YTD 20/21
Stormwater	5,744	7,204	832	853	974	8508
Work Orders	0	69	4	13	18	114
Overtime	508.5	262	6	23	10	147
Facility Maintenance	3,494	638	85	112	42	506
Fleet Maintenance	1,034	314	107	94	82	505
Administrative	385	1,138	145	128	174	1301
Drainage Work (feet)	0	3,988	116	510	1400	3976
Drainage Man Hours	0	1,371	139	163	387	2389
Debris Removed Load	0	188	6	6	11	175
Sweeping Man Hours	0	309	34	21	14	221
Mowing Hours	0	102	0	0	0	3
R-O-W Hours	0	1,506	48	10	18	184
Shoulder/Curb Hrs	0	0	0	0	0	40

SWEEPER LOG

Monthly Report

4 cu.yd hopper/ actual usage- 3.0 cu.yd=4.5 tons

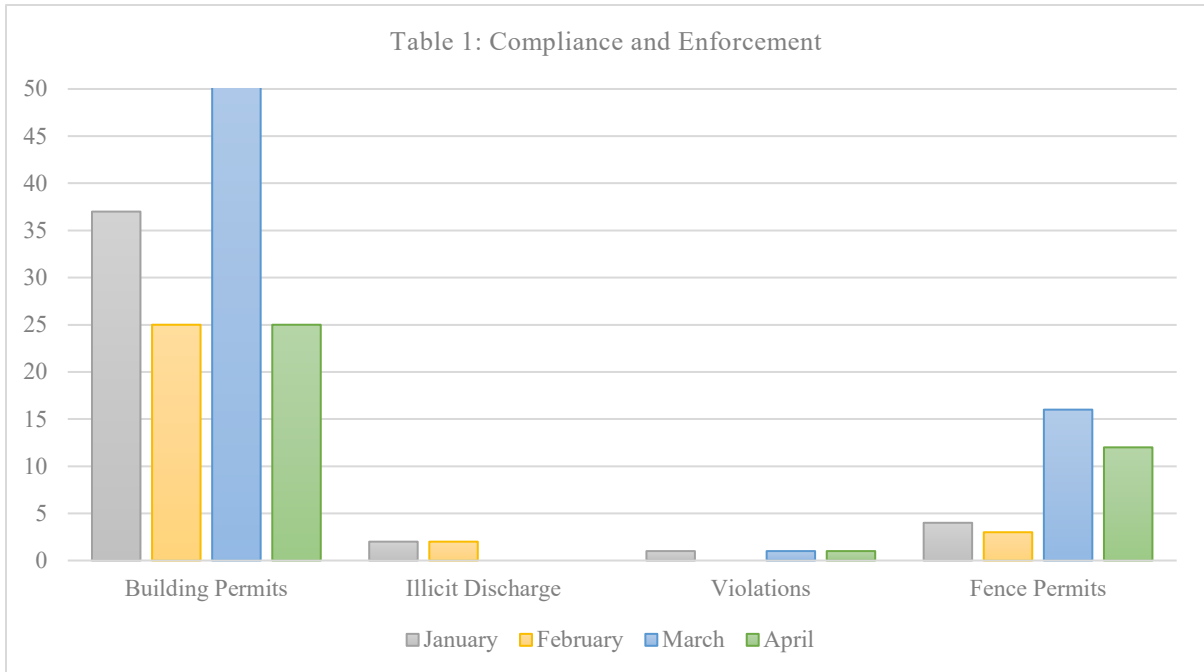
Date	Time	Mileage	Tons	Streets
03/11/21	3	12	4.5	Orchard Park and Hampton Village
Totals:	3	12	4.5	<i>(detailed listing of all streets on file)</i>

Public Services Department – Stormwater Division
March 2021

Catch Basin Cleaning

Work Order #	Neighborhood	Location:	Date:
033121005		Villages Ct.	03/31/21
033121005		Apache Trail	03/31/21
033121005		S. Aztec Dr.	03/31/21
033121005		Heritage Dr.	03/31/21
033121005		Whitson Ct.	03/31/21
033121005		Hobbs Dr.	03/31/21
033121005		N. Palmers Chapel	03/31/21
033121005	Covington Heights	Covington Bend	03/31/21
033121005		Sumner Crossings	02/24/21
033121005		Strassle Dr	03/31/21
033121005		Brooklawn	03/31/21
033121005	Orchard Park	Cherry Lane	02/24/21
033121005	Holly Tree	Willowleaf Ln	02/24/21

**Public Services Department – Stormwater Division
April 2021**



Directors Notes

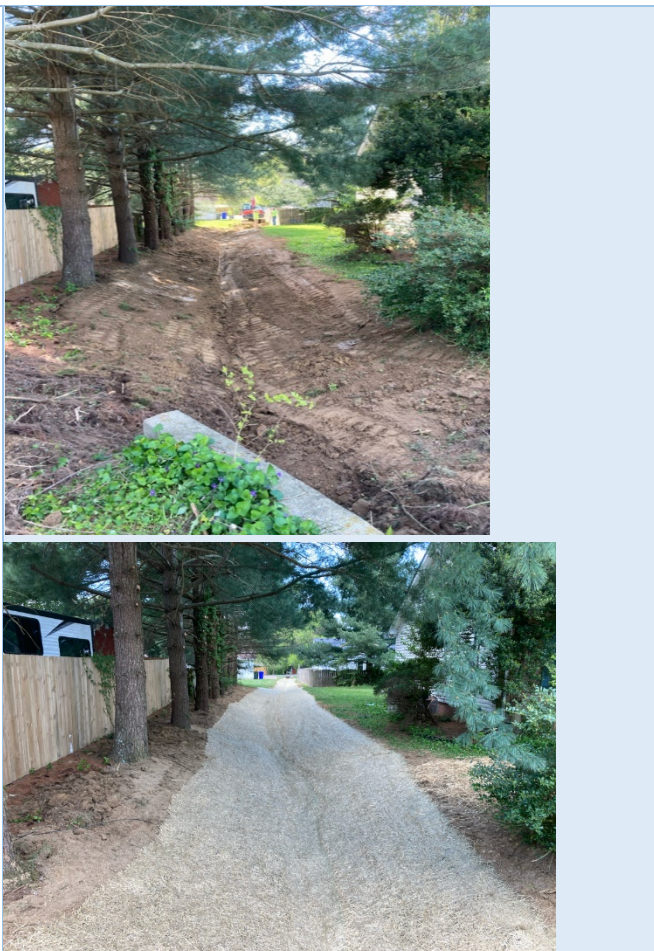
- No new stormwater complaints have been reported.
- Incident: Employee sustained bodily injury from impact with tree limb during routine vegetation maintenance. Reported on 04/28 and cleared for duty on 05/03.
- On April 22nd, The City issued 4 fence removal letters to residents in the Northwoods Subdivision. Chain linked fencing is located within the City easement and obstruct runoff. Work order has been generated to rehabilitate the swales in that area and route drainage to retention pond.
- The City was nominated for a public education and outreach award. This stems from recognition of the departments' participation in the tree giveaway and WOW newsletter that aids to empower the public and reduce stormwater pollution.
- On April 27th, a new fee schedule was proposed for land disturbance/grading to City Administrator and Planning and Codes Director. Study session scheduled for August 19th with BMA.
- Grading permits have been approved for Doris Farms and Lennar Homes: Willow Springs and Willow Grove.
- Streamside salamander was impacted by sediment from Fields of Oakwood subdivision development. Developers will be issued a notice of non-compliance and TDEC and TWRA will schedule a site visit.
- On April 22nd, we have requested a bid proposal from CSR in preparation of the Springbrook drainage improvement project.
- Legacy Farms have submitted mass grading revisions for Phase 2 which are currently under review.

**Public Services Department – Stormwater Division
April 2021**

Stormwater Project List

Our objective is to establish and maintain a proactive approach to minimize any potential for localized flooding within City limits. This includes but is not limited to ditch maintenance. In addition, a large part of this objective is to respond to citizen complaints in a timely manner.

Below are the work order requests and summaries that have been completed for the month of April:

Address	Scope of Work	Status	Notes
102 Bridlewood Court	Excavated ditch to appropriate slope from Laura Drive to Bridlewood and stabilized for positive flow.	Work Order: 041221003 Complete	

Public Services Department – Stormwater Division
April 2021

223 Rolling
Acres Drive

Illicit
Discharge –
sump pump

Work Order:
040521003

Complete



309 Valley View
Drive.

Undergrowth
and
vegetation
extracted
from
conveyance
and repaired
washouts

W/O #
041221003
Complete



Public Services Department – Stormwater Division
April 2021

524 North
Palmers Chapel
Road

Pave
secondary
entrance to
the Reserve.
Sheet flow
impacting
downstream
neighbors.
Future
widening
project to
route
discharge to
Honey Run
Creek

WO#-
040421006

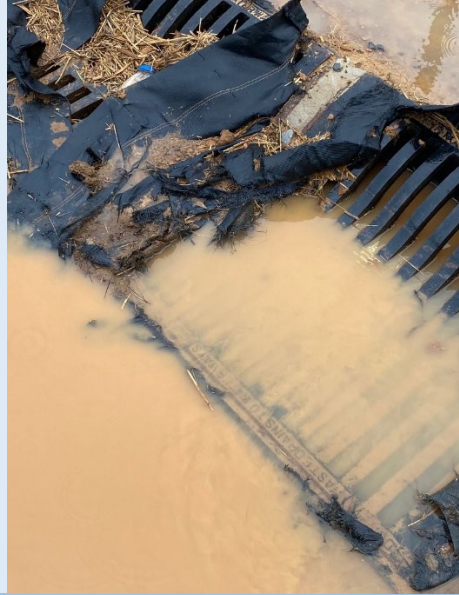
Complete



Fields of
Oakwood

Stormwater
construction
inspection
for erosion
control

ongoing



The Parks



Open trench
inspection

WO#-
040721008

Complete



Public Services Department – Stormwater Division
April 2021

<p>100 Baylee Court</p> <p>Installed 30' of 12" ADS into existing catch basin.</p>	<p>WO# - 040721001</p> <p>Complete</p>	
<p>403 Autumn Wood Drive</p> <p>Repaired voids in homeowners' yard. Excavated excess and built-up fill obstructing conveyance. Bare areas stabilized. Culverts jettied to efficacy.</p>	<p>WO# - 040521007</p> <p>Complete</p>	

**Public Services Department – Stormwater Division
April 2021**

Stormwater Division

Total Hours Worked	FY 15/16	FY 19/20	31-Mar	30-Apr	YTD 20/21
Stormwater	5,744	7,204	974	899	9404
Work Orders	0	69	18	15	129
Overtime	508.5	262	10	15	162
Facility Maintenance	3,494	638	42	15	521
Fleet Maintenance	1,034	314	82	83	638
Administrative	385	1,138	174	207	1508
Drainage Work (feet)	0	3,988	1400	925	4901
Drainage Man Hours	0	1,371	387	375	2764
Debris Removed Load	0	188	11	10	185
Sweeping Man Hours	0	309	14	140	361
Mowing Hours	0	102	0	18	21
R-O-W Hours	0	1,506	18	0	184
Shoulder/Curb Hrs.	0	0	0	0	40

SWEEPER LOG

Monthly Report

4 cu.yd hopper/ actual usage- 3.0 cu.yd=4.5 tons

Date	Time	Mileage	Tons	Subdivision / Street
04/01/21	18	39	6	31W S, Meadowbrook, RHPK, Bridle Creek
04/12/21	18	25	9	Beechbrook, Springbrook, 31W N
04/13/21	18	28	6	Covington Heights, Heritage Farms, Tison Est.
04/14/21	18	31	6	Highway 76, Briarwood, Kennedy, Walnut
04/15/21	18	25	6	Highway 76, Soccer Complex, Greystone
04/21/21	18	12	6	Magnolia Village
04/22/21	18	24	6	Holly Tree, Indian Ridge
04/26/21	18	19	6	Indian Ridge, Northwoods
04/27/21	16	19	6	Northwoods
Totals:	160	228	60	

Public Services Department – Stormwater Division
April 2021

Right-of-Way Mowing

Work Order #	Type of SCM	Location:	Date:
042721001	Detention Pond	North Palmers Chapel Road	04/26/21
042721001	Detention Pond	Shady Lane	04/27/21

Stormwater Project List


Our objective is to establish and maintain a proactive approach to minimize any potential for localized flooding within City limits. This includes but is not limited to ditch maintenance, right of way mowing, and infrastructure improvements. In addition, a large part of this objective is to respond to citizen complaints in a timely manner.

Please be advised that this is an operative working list. It is organized to transition based on feasibility and severity. This list is subject to change at the discretion of the Stormwater Manager, Public Services Director or City Administrator. Please notify your supervisor when projects are complete or if any materials are needed to complete a particular project.

Address	Scope of Work	Status	Comments / Notes
612 Calista Rd.	Re-channel ditch line to divert water off property with infrastructure	<input checked="" type="checkbox"/> Complete Date: 10/05/20 <input checked="" type="checkbox"/> Photos	WO: 08312005: The team had to remove an existing headwall at the cross drain to connect to the infrastructure and set a junction box to also intercept a newly installed cross drain from the neighborhood of Fields of Oakwood. After the team removed the 24" headwall from Calista's cross drain, we connected 4 feet of 24' RCP and inserted into the junction box. Then the team connected 20' of 15" to the cross drain from fields of Oakwood and inserted it into the junction box. Then 104' of the 24" discharge line was installed to carry the storm water east into the property to discharge off site into a channel that was developed per plans by Land Development for the neighborhood of Fields of Oakwood.
212 Hillwood Dr.	Establish swale off driveway to channel water downstream	<input checked="" type="checkbox"/> Complete Date: 12/14/2020 <input checked="" type="checkbox"/> Photos	Extended existing driveway pipe to divert runoff from property
120 Strassle Dr.	Repair damages in infrastructure; upgrade piping	<input checked="" type="checkbox"/> Complete Date: 12/15/2020 <input checked="" type="checkbox"/> Photos	The team removed the concrete box and a 20' section of the 24" pipe and replaced with 1 24" Nyloplast drop inlet and 17' of 24" HDPE pipe with 3 24" couplers. The team took extra precautions with a soil tight seal at each joint with the couplers by installing a section of 6 oz geotextile fabric around the joints to ensure that soil could not enter the infrastructure.

			<p>The pipe and structure was bedded in 3/4" stone and backfilled with the same sized stone to support the pipe to the spring line/ hunch and then backfilled with soil to existing grade.</p> <p>The team imported 10 tons of 3/4" stone and exported 1.5 loads of excess soil then stabilized with contractor blend seed and mulched with 5 bales of straw and 1 roll of straw matting.</p>
212 Morgan Trace Ct.	Divert inflow to existing drainage system	<input checked="" type="checkbox"/> Complete Date: 08/27/2020 <input checked="" type="checkbox"/> Photos	<p>work order number 082420001</p> <p>The team began their operation by removing thick vegetation and trees to gain access to the conveyance and detention pond. After removing all the undergrowth and trees, the team discovered that there was several rock check dams and silt fence still in place in the conveyance and alongside the detention area from development of the site and was successfully removed in order to allow the watershed to be continuous to the outfall structure. After the team regraded the conveyance, pond banks and the rear property of 212 (behind porch) with imported topsoil, all bare areas were stabilized with seed along with double net straw matting on the slopes and loose straw on the flat areas.</p>
3123 Pleasant Grove Rd	Install 2 turn lanes at intersection of Hwy 76	<input checked="" type="checkbox"/> Complete Date: 08/15 <input checked="" type="checkbox"/> Photos	Curb and gutter to be installed week of 09/30 followed by paving
112 Ravenwood Ct.	Repair damages in infrastructure; address disjoints	<input checked="" type="checkbox"/> Complete Date: 11/24/20 <input checked="" type="checkbox"/> Photos	Alleviate potholes in soil; seal inlet pipe to catch basin
107 Copperfield Dr	Upgrade piping size in infrastructure to better convey runoff	<input type="checkbox"/> Complete Date: _____ <input type="checkbox"/> Photos	Springbrook Subdivision – CCTV line requested; ongoing; scheduled for FY21-22 CIP
612 Sage Rd	Remove excess	<input checked="" type="checkbox"/> Complete	Up to Hampton Village

	soils in drainage conveyance	Date: 11/10/20 <input checked="" type="checkbox"/> Photos	
2500 HWY 31W	Repair drainage pipe for Super Stop Market	<input type="checkbox"/> Complete Date: _____ <input type="checkbox"/> Photos	Owner must order parts. City will perform labor. Several attempts to contact owner and initiate project no response
164 Honeysuckle Dr	Re-establish swale	<input checked="" type="checkbox"/> Complete Date: 02/08/2020 <input checked="" type="checkbox"/> Photos	Northwoods Catch basin cleaning Excavated sediment from inlet; verified positive flow (3") between inverts; ditch line rehabilitated and seeded with straw for repair
122 Sycamore Dr	Re-establish swale	<input checked="" type="checkbox"/> Complete Date: 05/05/20 <input checked="" type="checkbox"/> Photos	We excavated the buildup material that was restricting the flow that and preventing the full use of volume for the storm drain infrastructure.
209 Rolling Acres Dr	Re-establish swale	<input type="checkbox"/> Complete Date: _____ <input type="checkbox"/> Photos	Northwoods
215 Rolling Acres Dr	Re-establish swale	<input type="checkbox"/> Complete Date: _____ <input type="checkbox"/> Photos	Northwoods
301 Rolling Acres Dr	Re-establish swale	<input type="checkbox"/> Complete Date: _____ <input type="checkbox"/> Photos	Northwoods
102 Rolling Forrest Dr	Re-establish swale	<input type="checkbox"/> Complete Date: _____ <input type="checkbox"/> Photos	Northwoods
102-109 Bridlewood Dr.	Re-define swale in back yards	<input checked="" type="checkbox"/> Complete Date: 04/20/21 <input checked="" type="checkbox"/> Photos	ID 042021002 Excavated ditch to appropriate slope from Laura Dr. to Bridlewood. Grade work to move material 16.5 " in 275' and stabilized.
341 Allers Dr	Rehabilitate cross drain/easement	<input checked="" type="checkbox"/> Complete Date: 04/28/2020 <input checked="" type="checkbox"/> Photos	WO:# 042320009 - Regraded ditch line for positive flow fill in and compacting washout locations. all excess soil extracted and reused to create earth berms on either side of ditch line
408 Hunterwood Dr	Rehabilitate detention pond	<input type="checkbox"/> Complete Date: _____ <input type="checkbox"/> Photos	
160 Blueberry St	Ditch cleaning	<input type="checkbox"/> Complete Date: _____ <input type="checkbox"/> Photos	Orchard Park; offsite improvement for future development; propose to CSR

100 Baylee Ct	Upgrade drainage pipe; improve swale	<input checked="" type="checkbox"/> Complete Date: 04/16/20 <input checked="" type="checkbox"/> Photos	Off of SPC; upgraded 4" to 18" divert to existing infrastructure
125 Brooklawn Dr	Re-establish swale	<input checked="" type="checkbox"/> Complete Date: 05/24/21 <input checked="" type="checkbox"/> Photos	Installed earth berm
210 Beechbrook Ct	Re-establish swale	<input type="checkbox"/> Complete Date: _____ <input type="checkbox"/> Photos	Off of SPC; ditch cleaning entire roadway
218 South Palmers Chapel	Install catch basin within ROW	<input type="checkbox"/> Complete Date: _____ <input type="checkbox"/> Photos	SPC; incorporate within Springbrook plan submittal
149 Willowleaf Lane	Improve watershed; flooding from open field behind property	<input checked="" type="checkbox"/> Complete Date: 05/24/21 <input checked="" type="checkbox"/> Photos	ID 052421001 Earth berm to divert in line flow to house from off site to property line drainage easement. Imported 2 loads of topsoil. Graded back of property to divert watershed. Seed and straw to stabilize.
103 Spicer Dr	Re-establish swale	<input checked="" type="checkbox"/> Complete Date: 02/09/2020 <input checked="" type="checkbox"/> Photos	Conveyance excavated in ROW to existing invert elevation from culvert to driveway. Excessive buildup and debris removed from cross drain. Homeowner requested soil.
100 Oak Park Ct	Improve rip rap apron by roadway	<input checked="" type="checkbox"/> Complete Date: 02/02/2021 <input checked="" type="checkbox"/> Photos	Bedrock added to culvert and established up to ground level of roadway. Repaired gully erosion at orifice of outlet structure
 128 Oak Park Ct	Redefine easement between homes to Strassle Dr	<input type="checkbox"/> Complete Date: _____ <input type="checkbox"/> Photos	Off of Meadows Ct. Residents should remove trees in easement
100 – 102 Hobbs Dr	Re-establish swale	<input checked="" type="checkbox"/> Complete Date: 03/10/21 <input checked="" type="checkbox"/> Photos	WO# 031121002 - Culverts jetted to remove excess buildup of silt, reshaped ditch line, installed rip rap apron to slow velocity of runoff.
205 Hobbs Dr	Re-establish swale	<input checked="" type="checkbox"/> Complete Date: 01/07/2021 <input checked="" type="checkbox"/> Photos	Ditch cleanout to inlet; Removed reel formation and positive flow to cross drain
401 Hobbs Dr	Re-establish	<input type="checkbox"/> Complete	Box culvert (csr report)

	swale	Date: _____ <input type="checkbox"/> Photos	
210 Spring St	Re-establish swale	<input type="checkbox"/> Complete Date: _____ <input type="checkbox"/> Photos	Install 2 catch basins and 80ft pipe
200 Covington Bend	Ditch cleaning; repair and/or clean-out culvert	<input type="checkbox"/> Complete Date: _____ <input type="checkbox"/> Photos	CIP
309 Covington Bend	Re-establish swale; repair and/or cleanout culvert	<input type="checkbox"/> Complete Date: _____ <input type="checkbox"/> Photos	CIP
105 Winchester Ct	Rehabilitate drainage infrastructure to provide positive flow	<input type="checkbox"/> Complete Date: _____ <input type="checkbox"/> Photos	CIP
210-214 Robert Ave	Re-establish swale	<input checked="" type="checkbox"/> Complete Date: 03/23/21 <input checked="" type="checkbox"/> Photos	WO #: 030321001 - Removed built up material from culverts and drainage conveyance and installed 4 tons of class A for a rip rap apron, with fabric, at discharge point from the cul-de-sac. 03/23/21 - back-filled exposed fiber line 03/23/21- Jetted culverts as needed.
214 Eastside Dr	Improve drainage and rehabilitate ditch line	<input checked="" type="checkbox"/> Complete Date: 11/18/20 <input checked="" type="checkbox"/> Photos	Installed and Elevated driveway culvert of property to reduce impact of flow from cross drain; concrete driveway replaced
125 Villages Ct	Clean inlet channel and fill in ditch line as necessary	<input checked="" type="checkbox"/> Complete Date: 09/21/20 <input checked="" type="checkbox"/> Photos	Created an open channel for drainage; removed vegetation to allow natural flow of stream
207 S Aztec Dr	Redefining ditch. Remove trees from 211 affecting drainage pathway	<input checked="" type="checkbox"/> Complete Date: 02/03/21 <input checked="" type="checkbox"/> Photos	Work Order # 010721001 The conveyance generates a significant amount of watershed and creates high velocity runoff. The effects of this watershed had eroded the swale creating voids and undermining the properties fencing in the area. The conveyance was excavated and Rip rap sized stone installed to control the

			velocity. The disturbed areas were stabilized with double net straw matting and baled straw with seed.
318 Walnut Ct	Re-establish swale and ditch cleaning	<input checked="" type="checkbox"/> Complete Date: 12/17/2020 <input checked="" type="checkbox"/> Photos	Work Order: 113020006 the pipe downstream from the culvert was undersized and restricting the flow rate causing the back flow. The team began to cut in a swale located on the left of the property from the driveway culvert to the wet weather conveyance, operating in the designated easement associated with this parcel. The Team was able to use the excavated soil from the newly installed conveyance system onsite to assist the homeowner with voids in the rear of the property and to provide the option to the property owner to use the soil as needed.
100 Heritage Dr	Re-establish swale and extend wing wall	<input type="checkbox"/> Complete Date: _____ <input type="checkbox"/> Photos	
303 Hillwood Dr	Re-establish swale and apply rip rap to prevent wash outs	<input type="checkbox"/> Complete Date: _____ <input type="checkbox"/> Photos	
109 Meadows Ct	Re-establish swale and ditch cleaning	<input type="checkbox"/> Complete Date: _____ <input type="checkbox"/> Photos	Conjunction with hickerson/Wilkinson CIP
302 Valley View Rd	Install ROW drainage pipe between lots to alleviate open ditch	<input checked="" type="checkbox"/> Complete Date: 6/02/20 <input checked="" type="checkbox"/> Photos	The stormwater received a request to install drainage pipe in a conveyance to connect two driveways together and eliminate the open conveyance. Once lines were lowered we installed 36" HDPE drainage pipe and connected it to the existing culverts, backfilled half of the pipe with 1 load ¾" stone and imported 2 loads of Topsoil, graded and seed and straw bare soils. Installed a bag of concrete on damaged area drain grate to secure it to the infrastructure.
Wilkinson/ Hickerson Dr	Ditch cleaning;	<input type="checkbox"/> Complete	

	upgrade infrastructure	Date: _____ <input type="checkbox"/> Photos	
121 Industrial Dr	Re-establish swale	<input checked="" type="checkbox"/> Complete Date: 04/06/20 <input checked="" type="checkbox"/> Photos	Ease driveway flooding; 4 hours of Labor for 3 employees Dump Truck (removed 2 loads of fill material) Excavator 100' of ditch for double netting straw matting w/ 5 lbs. of contractor blend seed
7016 Indian Ridge Blvd	Create conveyance within ditch to prevent erosion	<input checked="" type="checkbox"/> Complete Date: 11/23/20 <input checked="" type="checkbox"/> Photos	102720001: Displace velocity of runoff; ditch rehabilitated from HW to existing concrete channel to offset erosion. The team began operations by trimming low lying branches from trees in the conveyance and then excavated the ditch line down 18 inches and 4 feet wide, 6-inch sides to anchor the 6 oz geo-textile fabric, and Installed 22 tons of Class A stone to displace the velocity being discharged into the conveyance. The bare soils after installation were seeded and straw
229 Cherry Ln	Repair voids in soil and damaged underground infrastructure	<input checked="" type="checkbox"/> Complete Date: 05/06/21 <input checked="" type="checkbox"/> Photos	ID 090820007 : Excavated pipe and wrapped couplers with 4 oz geotextile fabric to prevent any soils from entering the infrastructure causing the voids in the yard. Pipe was found to have a separation from the coupler installed. Backfilled with the native soil and the team will import topsoil to preform the finish grade work when weather allows.
403 Autumn Wood Dr	Define swale at culvert orifice; backfill sinkholes in front yard	<input checked="" type="checkbox"/> Complete Date: 04/08/21 <input checked="" type="checkbox"/> Photos	ID 040521007 : removed the built up material from the conveyance and placed the excess material in a void in the homeowners yard per their request.stabilized the bare areas with seed a, straw and matting. discovered a 10" pvc pipe placed between the two drives to connect the 15' pipe culverts which was removed; Jetting culverts on 4/06; WHUD found leak on 05/24 and

			uncovered water meter.
538 NPC Rd.	Eroded embankments of creek impacting integrity of driveway	<input checked="" type="checkbox"/> Complete Date: 01/07/21 <input checked="" type="checkbox"/> Photos	The team removed the tree debris from along the conveyance that had been collecting at or near the culvert invert causing a blockage to the outfall. The blockage resulted in the water beginning redirected to sides of the culvert causing the soil material to become more susceptible to eroding. After the team removed the debris from the conveyance and exported 3 loads of material, the team imported 2 loads of compactable fill material to repair the void above the culvert. The team placed, compact the soil and stabilized the bank with seed and double net straw matting and lose straw.
309 Valley View Dr	Rehabilitate channel	<input checked="" type="checkbox"/> Complete Date: 04/12/21 <input checked="" type="checkbox"/> Photos	ID 041221003 : Removed vegetative and aggregated undergrowth from channel. It is recommended to extend concrete flume.