

March 8, 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, March 8, 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
March 8, 2021
4:00 p.m.

- I. Call to Order by Chairman
- II. Roll Call
- III. Adoption of the Agenda
- IV. Approval of December 14, 2020 Meeting Minutes
- V. Reports
- VI. New Business or Discussion Items
 - a. Current Stormwater Project List
- VII. Other Business
- VIII. Adjournment

CITY OF WHITE HOUSE
Stormwater Advisory Board
Minutes
December 14, 2020
4:00 p.m.

I. Call to Order by Chairman

Meeting was called to order at 4:07pm by Chairman Ceagus Clark.

II. Roll Call

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

III. Adoption of the Agenda

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

IV. Approval of September 14, 2020 Meeting Minutes

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

V. Reports

Motion was made by Mr. Herman, second by Mr. Christenson 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 Ajuuah Jackson was present and reviewed stormwater projects that have been completed in White House since the last Board meeting.

VII. Other Business

a. Stormwater Manager Ajuuah Jackson stated that the TDEC annual report has been submitted.

b. Mr. Ceagus Clark discussed the Board of Mayor and Aldermen approved the ordinance for FEMA’s new Flood Plan Management requirements.

VIII. Adjournment

Meeting adjourned at 4:3 pm.

ATTEST:

Ceagus Clark, Chairperson

Derek Watson, City Recorder

**Public Services Department – Stormwater Division
November 2020**

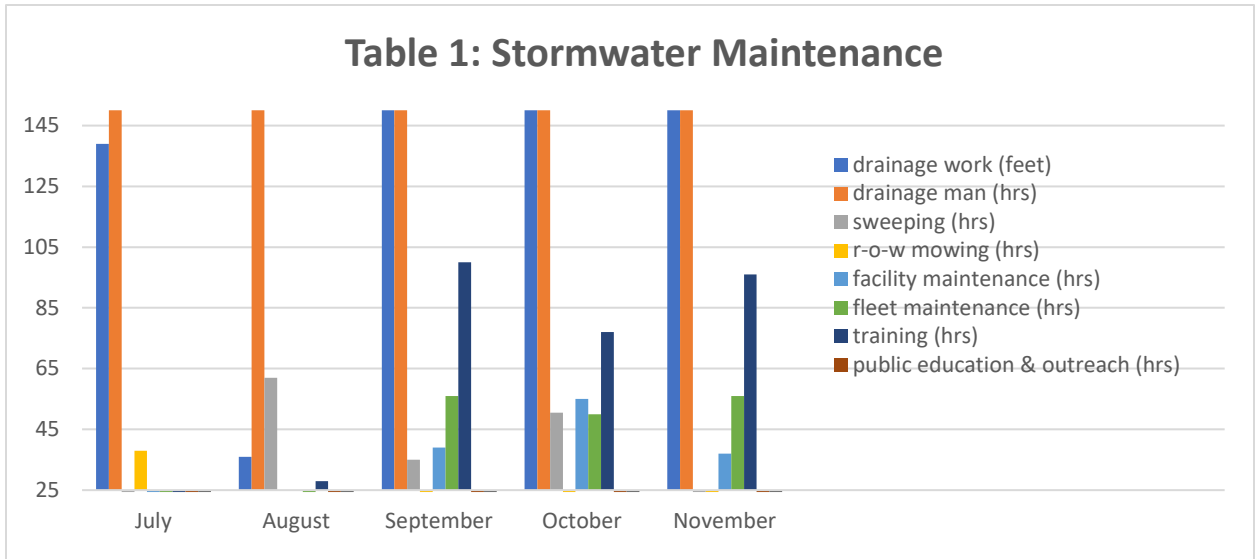


Table 1: Adequate stormwater management can result in a reduction in flooding, property damage, excessive soil erosion, degraded open space, and unacceptable water quality. The goal is to maintain the existing drainage infrastructure and provide sufficient infrastructure capacity to meet the future needs of the City through culvert replacements, ditch rehabilitations, catch basin cleanings, dry basin mowing, and stormwater mitigation projects.

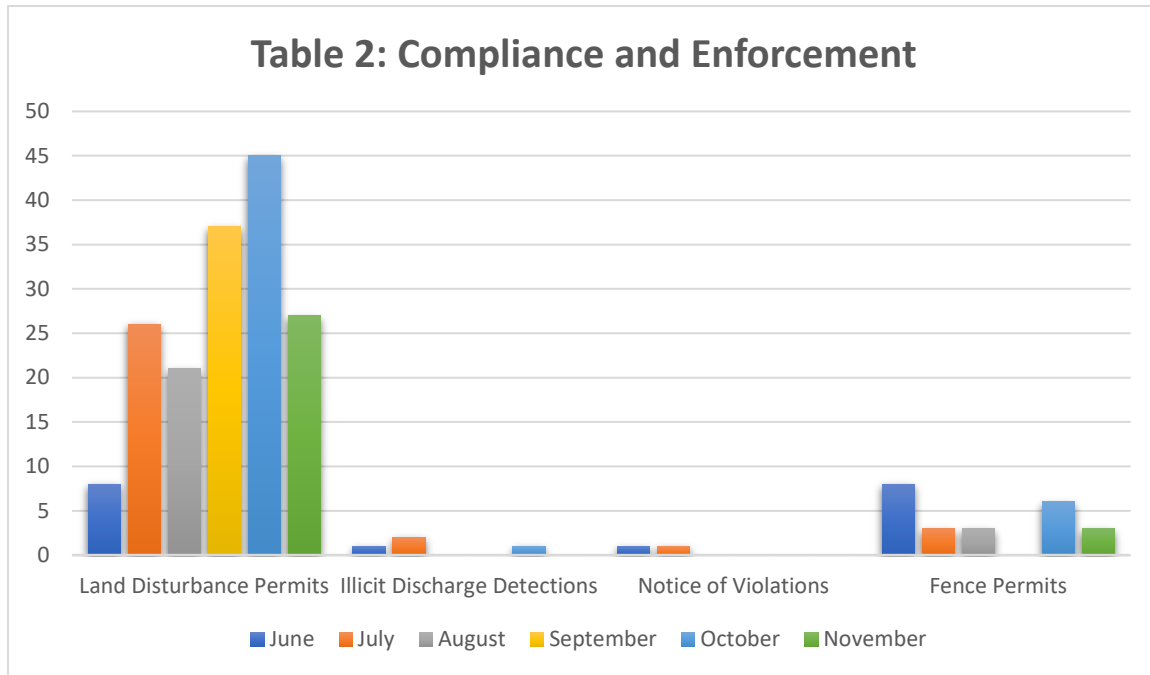


Table 2: Our goal is to ensure compliance with all applicable federal and local water quality regulations related to stormwater runoff, including and in particular, new development construction permits and the detection and elimination of illicit discharges. The City employs a series of enforcement actions to deter and/or address stormwater violations from residential, commercial and/or industrial facilities.

**Public Services Department – Stormwater Division
November 2020**

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 priorities and work summaries

<i>Address</i>	<i>Scope of Work</i>	<i>Status</i>	<i>Notes</i>
214 Eastside Dr	The team excavated drainage easement to recondition ditch and installed new driveway culvert.	WO#01102004 Complete	
Sage Road	the task to remove buildup of sediment and open driveway culverts to allow positive flow in the right of way conveyance. The team successfully removed 5 loads in their dual tandem International Dump Truck using the teams 18000 lb. Kubota Excavator. After the ditch line was cut down to a positive grade for drainage, the team stabilized the bare soils with double net straw matting and applied contractors blend fescue/rye grass seed.	WO#-0901200001 Complete	
106 Sugar Tree Ct	The team installed and extended a concrete flume to convey runoff in watershed area.	WO#-113020008 Complete	
112 Holly Lane	The crew opened 30 out of 32 accessible catch basins and removed excess debris and materials to prohibit obstructions to water flow and quality.	WO# -110420005 Complete	
107 Copperfield Dr	Upgrade infrastructure to handle inflow of water during rain events; prevent flooding		Propose FY21-22 CIP

Stormwater Division

Total Hours Worked	FY 15/16	FY 19/20	30-Sep	31-Oct	30-Nov	YTD 20/21
Stormwater	5,744	7,204	887	848	819	4,864
Work Orders	0	69	13	15	13	81
Overtime	508.5	262	3	0	0	82
Facility Maintenance	3,494	638	39	55	37	160
Fleet Maintenance	1,034	314	56	50	56	198
Administrative	385	1,138	181	108	96	738
Drainage Work (feet)	0	3,988	283	367	413	1,405
Drainage Man Hours	0	1,371	336	178	192	1,472
Debris Removed Load	0	188	31	9	10	146
Sweeping Man Hours	0	309	35	51	24	126
Mowing Hours	0	102	3	0	0	3
R-O-W Hours	0	1,506	0	12	1	51
Pothole Hours	0	0	0	0	0	0
Shoulder/Curb Hrs	0	0	1	1	0	40

**Public Services Department – Stormwater Division
December 2020**

Table 1: Stormwater Maintenance

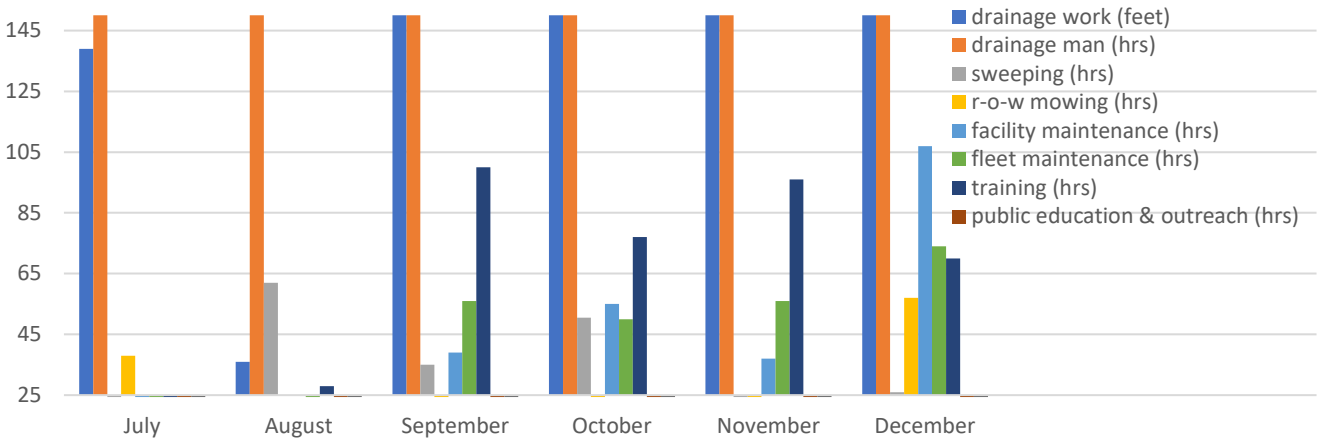


Table 1: Adequate stormwater management can result in a reduction in flooding, property damage, excessive soil erosion, degraded open space, and unacceptable water quality. The goal is to maintain the existing drainage infrastructure and provide sufficient infrastructure capacity to meet the future needs of the City through culvert replacements, ditch rehabilitations, catch basin cleanings, dry basin mowing, and stormwater mitigation projects.

Table 2: Compliance and Enforcement

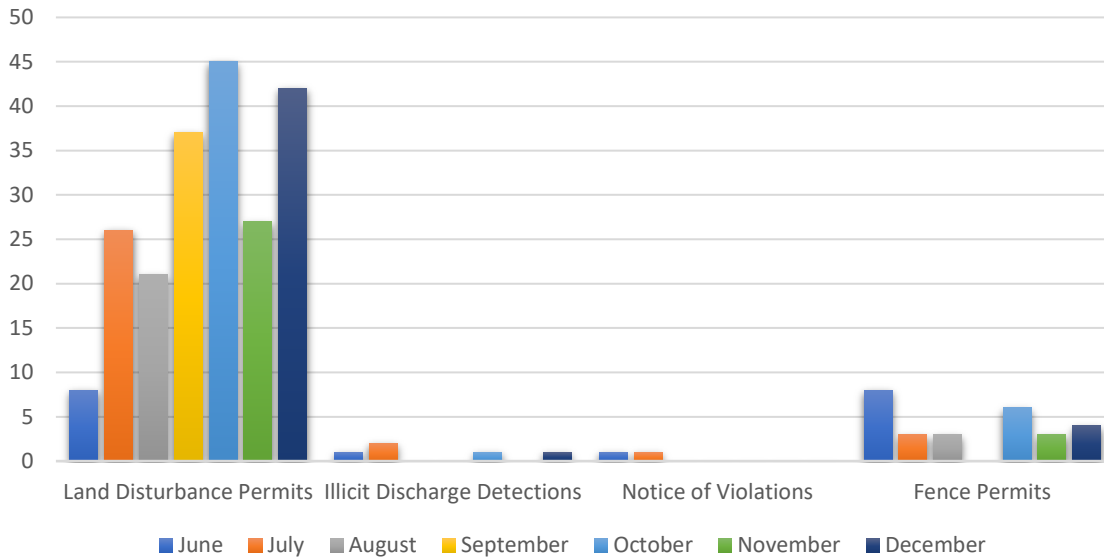


Table 2: Our goal is to ensure compliance with all applicable federal and local water quality regulations related to stormwater runoff, including and in particular, new development construction permits and the detection and elimination of illicit discharges. The City employs a series of enforcement actions to deter and/or address stormwater violations from residential, commercial and/or industrial facilities.

**Public Services Department – Stormwater Division
December 2020**

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>
318 Walnut Ct.	Work Order: 113020006 The pipe downstream from the culvert was undersized and restricting the flow rate causing the back flow. A swale was cut in on the left of the property from the driveway culvert to the wet weather conveyance, operating in the designated easement associated with this parcel. Soil was excavated and used to backfill depressions in the homeowner's yard. Site was stabilized with 4 rolls of double net straw matting and 1 bale of straw.	Work Order: 113020006 Complete	
120 Strassle Dr.	Failing Infrastructure (concrete box and a 20' section of the 24" pipe) was replaced and tightly sealed with sections of 6 oz geotextile fabric around the joints to ensure that soil could not enter and undermine the new system. The pipe and structures were bedded with 3/4"stone and backfilled for support with soil to existing grade. The site was stabilized with contractor blend seed and mulched with 5 bales of straw and 1 roll of straw matting.	W/O # 072820006: Complete	
212 Hillwood Dr.	8ft of concrete was installed to extend driveway culvert to convey runoff away from residence along designated pathway.	WO#-113020008 Complete	

STREET SWEEPER

Monthly Time Log

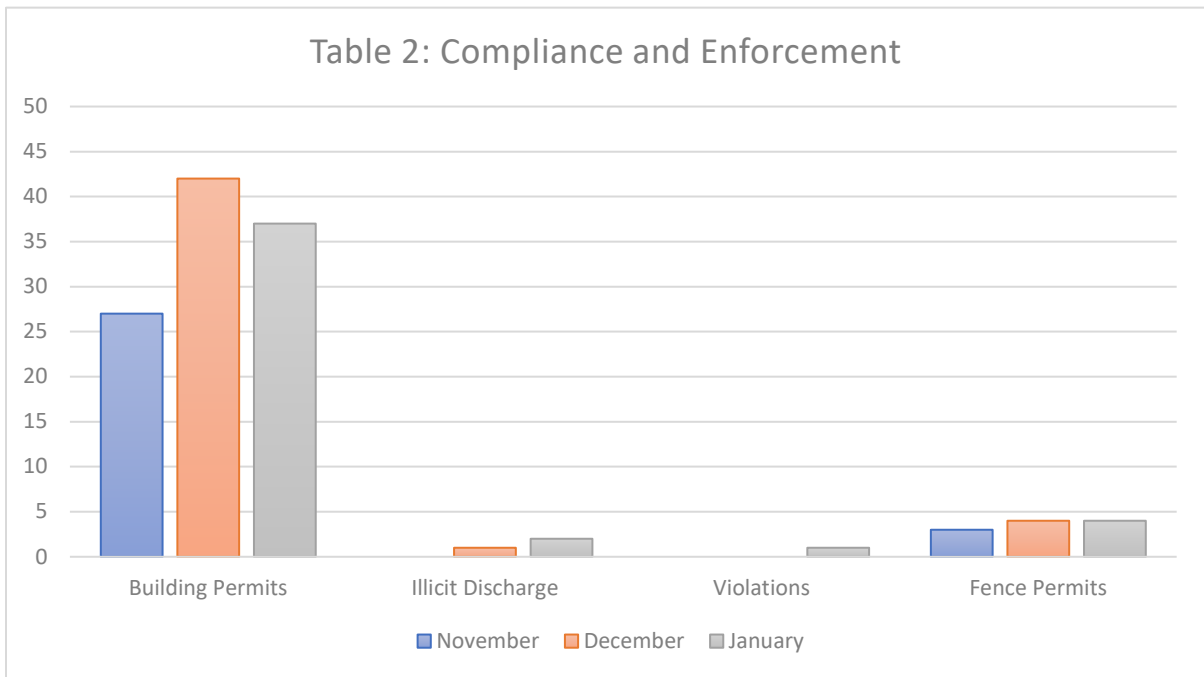
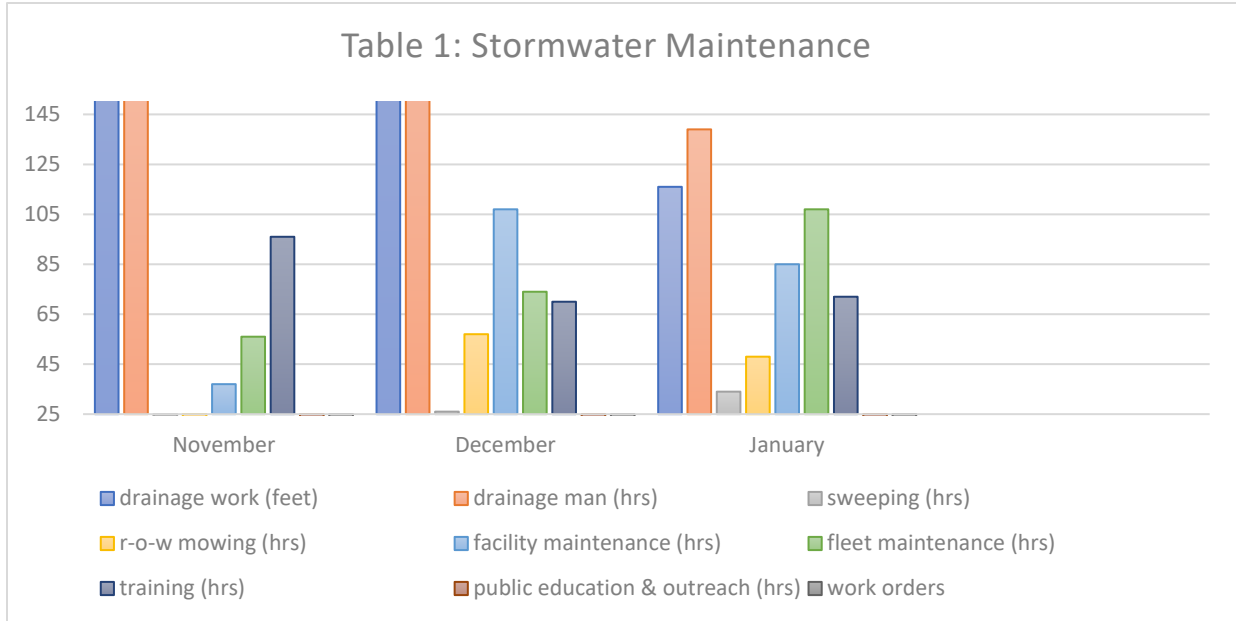
Date	Time (Hrs)	Mileage	Tons	Streets
12/02/20	4	10	7	Highway 31W & Raymond Hirsch
12/03/20	7	23	11	Highway 76 & Parade Route, Industrial Dr.
12/22/20	4	12	9	Northwoods Subdivision, City Hall
Totals:	15	45	27	

**Public Services Department – Stormwater Division
December 2020**

Stormwater Division

Total Hours Worked	FY 15/16	FY 19/20	31- Oct	30- Nov	31- Dec	YTD 20/21
Stormwater	5,744	7,204	848	819	982	5,846
Work Orders	0	69	15	13	11	79
Overtime	508.5	262	0	0	26	108
Facility Maintenance	3,494	638	55	37	107	267
Fleet Maintenance	1,034	314	50	56	74	272
Administrative	385	1,138	108	96	116	854
Drainage Work (feet)	0	3,988	367	413	545	1,950
Drainage Man Hours	0	1,371	178	192	228	1,700
Debris Removed Load	0	188	9	10	6	152
Sweeping Man Hours	0	309	51	24	26	152
Mowing Hours	0	102	0	0	0	3
R-O-W Hours	0	1,506	12	1	57	108
Shoulder/Curb Hrs	0	0	1	0	0	40

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






**Public Services Department – Stormwater Division
January 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>
538 North Palmers Chapel Rd	Work Order: 113020006 Opened channel from obstructed driveway culvert due to aggressive erosion.	Work Order: 122120001 Complete	
Sage Rd & Union Rd	Provided traffic control assistance for road repair to PW and force main break to WW.	W/O # 011421006 Complete	
400 Highland Dr.	Replaced damaged drainage grate	WO#- 011321006 Complete	

Public Services Department – Stormwater Division
January 2021

312 Walnut Ct

Removed access debris from roadway and redressed with seed and straw

WO# - 010421001

Complete



Rainfall

Most recent rain event occurred on Monday, January 25th. The City received approximately **1.67** inches of rain.

No flooding observed or complaints filed. Hots spots secured.



749 Wilkinson Lane

Fields of Oakwood developer, Mike Stanton, issued **\$2000** penalty for illicit discharge into unnamed tributary of endangered salamanders.

City of White House partnered with TDEC and TWRA to assist with compliance.



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

SWEEPER TRUCK

Monthly Time Log

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

Date	Time	Mileage	Tons	Streets
01/13/21	4	30	4.5	31W North and South
01/26/21	9	22	4.5	31W, Indian Ridge Sub.
01/27/21	7	14	4.5	Orchard Park
Totals:	20	66	13.5	<i>(detailed listing of all streets on file)</i>

Stormwater Division

Total Hours Worked	FY 15/16	FY 19/20	30-Nov	31-Dec	31-Jan	YTD 20/21
Stormwater	5,744	7,204	819	982	832	6,678
Work Orders	0	69	13	11	4	83
Overtime	508.5	262	0	26	6	114
Facility Maintenance	3,494	638	37	107	85	352
Fleet Maintenance	1,034	314	56	74	107	379
Administrative	385	1,138	96	116	145	999
Drainage Work (feet)	0	3,988	413	545	116	2,066
Drainage Man Hours	0	1,371	192	228	139	1,839
Debris Removed Load	0	188	10	6	6	158
Sweeping Man Hours	0	309	24	26	34	186
Mowing Hours	0	102	0	0	0	3
R-O-W Hours	0	1,506	1	57	48	156
Shoulder/Curb Hrs	0	0	0	0	0	40

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

Catch Basin: Object ID# (VueWorks)	Neighborhood	Location:	Date Cleaned:
9	Northwoods	Belle Rive Dr.	1/13/2021
10	Northwoods	Indian Point Dr.	1/13/2021
11	Northwoods	Indian Point Dr.	1/13/2021
12	Northwoods	Highland Dr.	1/13/2021
14	Northwoods	Highland Dr.	1/13/2021
15	Northwoods	Highland Dr.	1/13/2021
18	Northwoods	Highland /Northwoods Dr.	1/20/2021
19	Northwoods	Highland /Northwoods Dr.	1/20/2021
21	Northwoods	Highland /Northwoods Dr.	1/20/2021
69	Northwoods	Sycamore Dr.	1/20/2021
70	Northwoods	Sycamore Dr.	1/20/2021
68	Northwoods	Sycamore Dr.	1/20/2021
67	Northwoods	Sycamore Dr.	1/20/2021
66	Northwoods	Sycamore Dr.	1/20/2021
64	Northwoods	Sycamore Dr.	1/20/2021
61	Northwoods	Sycamore Dr.	1/20/2021
62	Northwoods	Sycamore Dr.	1/20/2021
43	Northwoods	Hunterwood Dr.	1/20/2021
50	Northwoods	Hunterwood Dr.	1/20/2021
51	Northwoods	Hunterwood Dr.	1/20/2021



Before



After

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.

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 department 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
<p>1. 612 Calista Rd.</p>	<p>Re-channel ditch line to divert water off property with infrastructure</p>	<p><input checked="" type="checkbox"/> Complete Date: 10/05/20 <input checked="" type="checkbox"/> Photos</p>	<p>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.</p>
<p>2. 212 Hillwood Dr.</p>	<p>Establish swale off driveway to channel water downstream</p>	<p><input checked="" type="checkbox"/> Complete Date: 12/14/2020 <input checked="" type="checkbox"/> Photos</p>	<p>Extended existing driveway pipe to divert runoff from property</p>
<p>3. 120 Strassle Dr.</p>	<p>Repair damages in infrastructure; upgrade piping</p>	<p><input checked="" type="checkbox"/> Complete Date: 12/15/2020 <input checked="" type="checkbox"/> Photos</p>	<p>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. The pipe and structure was bedded in 3/4" stone and</p>

			<p>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>
4. 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 out fall 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>
5. 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
6. 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
7. 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
8. 612 Sage Rd	Remove excess soils in drainage	<input checked="" type="checkbox"/> Complete Date: 11/10/20	Up to Hampton Village

	conveyance	<input checked="" type="checkbox"/> Photos	
9. 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.
10. 164 Honeysuckle Dr	Re-establish swale	<input type="checkbox"/> Complete Date: _____ <input type="checkbox"/> Photos	Northwoods Catch basin cleaning
11. 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.
12. 209 Rolling Acres Dr	Re-establish swale	<input type="checkbox"/> Complete Date: _____ <input type="checkbox"/> Photos	Northwoods
13. 215 Rolling Acres Dr	Re-establish swale	<input type="checkbox"/> Complete Date: _____ <input type="checkbox"/> Photos	Northwoods
14. 301 Rolling Acres Dr	Re-establish swale	<input type="checkbox"/> Complete Date: _____ <input type="checkbox"/> Photos	Northwoods
15. 102 Rolling Forrest Dr	Re-establish swale	<input type="checkbox"/> Complete Date: _____ <input type="checkbox"/> Photos	Northwoods
16. 109 Bridlewood Dr.	Re-define swale in back yards	<input type="checkbox"/> Complete Date: _____ <input type="checkbox"/> Photos	Northwoods – fencing intercepts inflow
17. 302-303 Allers Dr	Rehabilitate cross drain/easement	<input type="checkbox"/> Complete Date: _____ <input type="checkbox"/> Photos	
18. 408 Hunterwood Dr	Rehabilitate detention pond	<input type="checkbox"/> Complete Date: _____ <input type="checkbox"/> Photos	
19. 125 Brooklawn Dr	Re-establish swale	<input type="checkbox"/> Complete Date: _____ <input type="checkbox"/> Photos	Corner of 31W

20. 160 Blueberry St	Ditch cleaning	<input type="checkbox"/> Complete Date: _____ <input type="checkbox"/> Photos	Orchard Park; offsite improvement for future development; propose to CSR
21. 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; upgrade 4" to 18" divert to existing infrastructure
22. 210 Beechbrook Ct	Re-establish swale	<input type="checkbox"/> Complete Date: _____ <input type="checkbox"/> Photos	Off of SPC; ditch cleaning entire roadway
23. 218 South Palmers Chapel	Install catch basin within ROW	<input type="checkbox"/> Complete Date: _____ <input type="checkbox"/> Photos	SPC; incorporate within springbrook plan submittal
24. 103 Spicer Dr	Re-establish swale	<input type="checkbox"/> Complete Date: _____ <input type="checkbox"/> Photos	Meadows Ct
25. 100 Oak Park Ct	Improve rip rap apron by roadway	<input type="checkbox"/> Complete Date: _____ <input type="checkbox"/> Photos	Off of Meadows Ct; add stone
26. 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
27. 100 – 102 Hobbs Dr	Re-establish swale	<input type="checkbox"/> Complete Date: _____ <input type="checkbox"/> Photos	Redress ditch line and add stone; verify easement
28. 205 Hobbs Dr	Re-establish swale	<input type="checkbox"/> Complete Date: _____ <input type="checkbox"/> Photos	Ditch cleanout to inlet; associate with 309 valley view
29. 401 Hobbs Dr	Re-establish swale	<input type="checkbox"/> Complete Date: _____ <input type="checkbox"/> Photos	Box culvert (csr report)

30. 210 Spring St	Re-establish swale	<input type="checkbox"/> Complete Date: _____ <input type="checkbox"/> Photos	Install 2 catch basins and 80ft pipe
31. 200 Covington Bend	Ditch cleaning; repair and/or clean out culvert	<input type="checkbox"/> Complete Date: _____ <input type="checkbox"/> Photos	CIP
32. 309 Covington Bend	Re-establish swale; repair and/or cleanout culvert	<input type="checkbox"/> Complete Date: _____ <input type="checkbox"/> Photos	CIP
33. 105 Winchester Ct	Rehabilitate drainage infrastructure to provide positive flow	<input type="checkbox"/> Complete Date: _____ <input type="checkbox"/> Photos	CIP
34. 214 Robert Ave	Re-establish swale	<input type="checkbox"/> Complete Date: _____ <input type="checkbox"/> Photos	Converse with homeowner
35. *214 Eastside Dr	Improve drainage and rehabilitate ditch line	<input checked="" type="checkbox"/> Complete Date: 11/18/20 <input checked="" type="checkbox"/> Photos	Elevate driveway culvert of neighboring property
36. 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
37. 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	<p>Work Order # 010721001</p> <p>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.</p> <p>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.</p>

<p>38. 318 Walnut Ct</p>	<p>Re-establish swale and ditch cleaning</p>	<p><input checked="" type="checkbox"/> Complete Date: 12/17/2020 <input checked="" type="checkbox"/> Photos</p>	<p>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.</p>
<p>39. 100 Heritage Dr</p>	<p>Re-establish swale and extend wing wall</p>	<p><input type="checkbox"/> Complete Date: _____ <input type="checkbox"/> Photos</p>	
<p>40. 303 Hillwood Dr</p>	<p>Re-establish swale and apply rip rap to prevent wash outs</p>	<p><input type="checkbox"/> Complete Date: _____ <input type="checkbox"/> Photos</p>	
<p>41. 109 Meadows Ct</p>	<p>Re-establish swale and ditch cleaning</p>	<p><input type="checkbox"/> Complete Date: _____ <input type="checkbox"/> Photos</p>	<p>Conjunction with hickerson/Wilkinson CIP</p>
<p>42. 302 Valley View Rd</p>	<p>Install ROW drainage pipe between lots to alleviate open ditch</p>	<p><input checked="" type="checkbox"/> Complete Date: 6/02/20 <input checked="" type="checkbox"/> Photos</p>	<p>The stormwater received an 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.</p>
<p>43. Wilkinson/Hickerson Dr</p>	<p>Ditch cleaning; upgrade infrastructure</p>	<p><input type="checkbox"/> Complete Date: _____ <input type="checkbox"/> Photos</p>	

44. 506 Foster Dr	Re-establish swale	<input checked="" type="checkbox"/> N/A	Ease driveway flooding: forwarded to public works for remediation
45. 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
46. 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 was seeded and straw
47. 229 Cherry Ln		<input type="checkbox"/> Complete Date: _____ <input type="checkbox"/> Photos	Eroding front yard; further evaluation needed; sinkhole back fill 09/21/20; cctv footage received 11/30/20 and under review
48. 403 Autumn Wood Dr	Define swale at culvert orifice; backfill sinkholes in front yard	<input type="checkbox"/> Complete Date: _____ <input type="checkbox"/> Photos	Resident should sign waiver and temporary easement agreement; private property
49. 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.
50. 309 Valley View Dr	Rehabilitate channel		