

*September 13, 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

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The Stormwater Advisory Board of the City of White House will meet on Monday, September 13, 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**  
**September 13, 2021**  
**4:00 p.m.**

- I. Call to Order by Chairman
- II. Roll Call
- III. Adoption of the Agenda
- IV. Approval of June 14, 2021 Meeting Minutes
- V. Reports
- VI. New Business or Discussion Items
  - a. Current Stormwater Project
- VII. Other Business
- VIII. Adjournment

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

I. Call to Order by Chairman

Meeting was called to order at 4:00pm by Chairman Ceagus Clark.

II. Roll Call

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

III. Adoption of the Agenda

Motion was made by Ald. 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 March 8, 2021 Meeting Minutes

Motion was made by Mr. Christenson, second by Mr. Herman to approve the minutes from the March 8, 2021 meeting. A voice vote was called for with all members voting aye. **March 8, 2021 minutes were approved.**

V. Reports

Motion was made by Mr. Herman, second by Mr. Cieslak 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

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

b. Nominations for chair and vice-chair positions (1-year term)

Motion was made by Ald. Hutson, second by Mr. Herman to nominate Mr. Andy Cieslak for Chair and Mr. Ceagus Clark for vice-chair. No other nominations were mentioned.

c. Voting for chair and vice-chair positions (1-year term)

Motion was made by Mr. Herman, second by Mr. Barnes to approve nominations for chair and vice-chair. A voice vote was called for with all members voting aye. **Motion passed.**

VII. Other Business

VIII. Adjournment

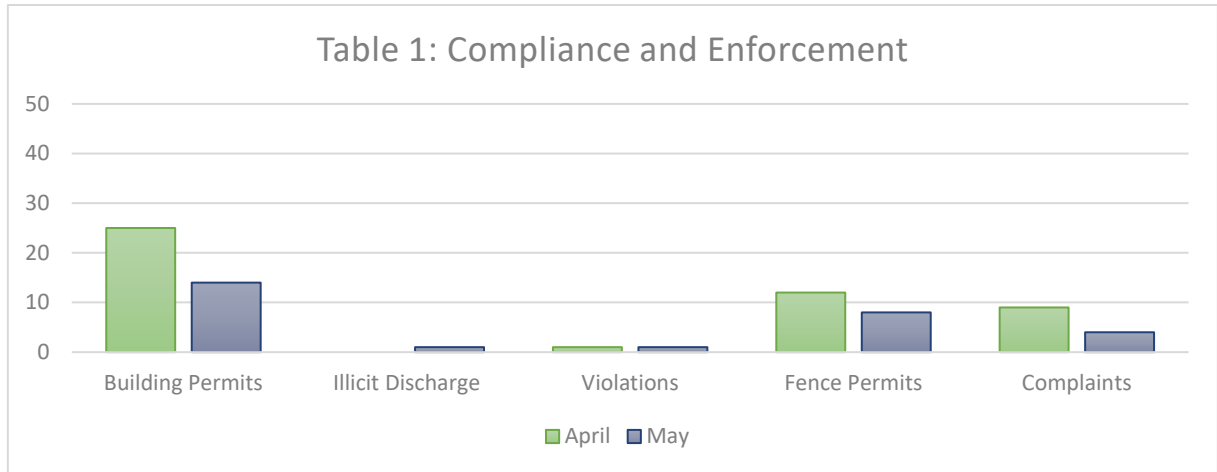
**Meeting adjourned at 4:55 pm.**

**ATTEST:**

\_\_\_\_\_  
Ceagus Clark, Chairperson

\_\_\_\_\_  
Derek Watson, City Recorder

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



**Directors Notes**




- The City received 4 complaints during the month of May. None were related to localized flooding.
- There was 1 workplace related incident with maintenance crew.
- Eight (8) fence permits were reviewed and granted approval.
- The maintenance crew attended the TAUD operator EXPO for on-the-job training and updates on operating supplies.
- A new fee schedule is being proposed for land disturbance/grading. Study session scheduled for August 19<sup>th</sup> with BMA. Additional resources will support the department in upgrading infrastructure and rectifying pre-existing drainage issues.
- One (1) illicit discharge was reported and inspected. Willow Springs subdivision advised to enhance erosion control measures to prevent discharge into Honey Run Creek. Accela #[10048874](#)
- The Stormwater Department has 2 proposed capital improvement projects for infrastructure along Copperfield Drive and Wilkinson Lane. The Springbrook Drainage Improvement is scheduled for bid for the second week of July. The bid number is 22-1079SW.

**Public Services Department – Stormwater Division  
May 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
125 Brooklawn Drive	Installed earth berm	Work Order: 052421003  Complete	
149 Willowleaf Lane	Installed buffer zone to mitigate runoff from open field	Work Order: 052421001  Complete	
115 Slate Court	Installed check dam and EPSC to filter runoff from established community and into detention system	W/O # 051921005 Complete	

Public Services Department – Stormwater Division  
May 2021

<p>Orchard Park</p> <p>Catch basin cleaning; removed debris and aggregates from drainage system</p>	<p>WO#- 051121001</p> <p>Complete</p>	
<p>Union Road</p> <p>Assisted PW with flagging operations</p>	<p>WO# 050621003</p> <p>Complete</p>	

Public Services Department – Stormwater Division  
May 2021

Fields of  
Oakwood  
Ph 2 Section 1.2

Open trench  
inspection

WO#-  
052621009  
Complete



City Limits

Post-storm  
clean-up

WO# -  
050421001  
Complete



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

Stormwater Division

<b>Total Hours Worked</b>	<b>FY 15/16</b>	<b>FY 19/20</b>	<b>30-Apr</b>	<b>31-May</b>	<b>YTD 20/21</b>
Stormwater	5,744	7,204	899	854	10,258
Work Orders	0	69	15	9	138
Overtime	508.5	262	15	0	162
Facility Maintenance	3,494	638	15	82	603
Fleet Maintenance	1,034	314	83	40	678
Administrative	385	1,138	207	138	1,646
Drainage Work (feet)	0	3,988	925	366	5,247
Drainage Man Hours	0	1,371	375	212	2,976
Debris Removed Load	0	188	10	4	189
Sweeping Man Hours	0	309	140	16	377
Mowing Hours	0	102	18	4	25
R-O-W Hours	0	1,506	0	53	237
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

<b>Date</b>	<b>Time</b>	<b>Mileage</b>	<b>Tons</b>	<b>Subdivision / Street</b>
05/19/2021	18	21	4.5	31W North and South
Totals:	18	21	4.5	

**RIGHT-OF-WAY MOWING**

Monthly

<b>Work Order #</b>	<b>Type of SCM</b>	<b>Location:</b>	<b>Date:</b>
050421001	Swale	Hillwood Drive	05/04/21
050421001	Swale	Pleasant Grove Road, Union Rd	05/05/21



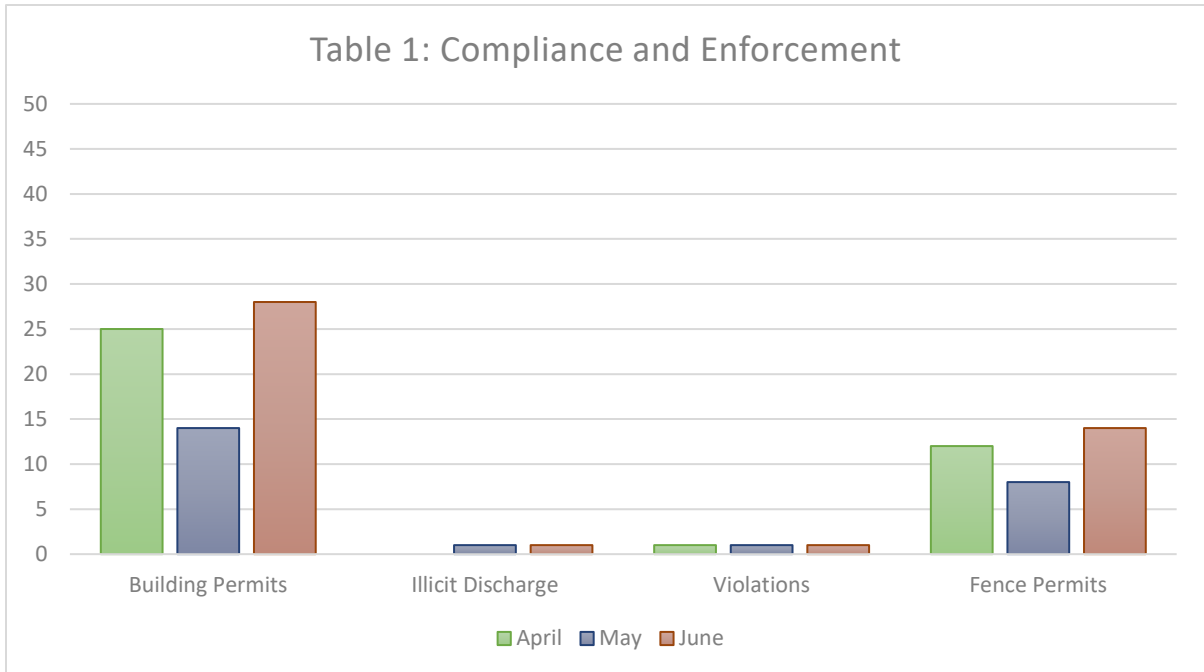
**Public Services Department – Stormwater Division  
May 2021**

**CATCH BASIN CLEANING**

Monthly

<b>ID:</b>	<b>Neighborhood:</b>	<b>Location:</b>	<b>Date:</b>	<b>Notes:</b>
76	Orchard Park	Orchard Park Dr.	May 11th	Heavy debris/Cleaned
77	Orchard Park	Orchard Park Dr.	May 11th	"
78	Orchard Park	Orchard Park Dr.	May 18th	Inspected-Clean
79	Orchard Park	Orchard Park Dr.	May 18th	Inspected-Clean
80	Orchard Park	Appl Ct.	May 18th	Inspected-Clean
75	Orchard Park	Peachtree Dr.	May 18th	Heavy debris. Cleaned.
74	Orchard Park	Peachtree Dr.	May 18th	Inspected-Clean. Unknown Beginning of system, holes in yard.
73	Orchard Park	Peachtree Dr.	May 18th	Heavy debris. Cleaned. Pipe jetted & Conveyance Cleaned
72	Orchard Park	Peachtree Dr.	May 18th	Inspected-Clean
69	Orchard Park	Blueberry	May 18th	Heavy debris. Cleaned. Pipe will need to be jetted Inspected-Clean. Large Channel
68	Orchard Park	Blueberry	May 18th	
67	Orchard Park	Blueberry	May 18th	
66	Orchard Park	Blueberry	May 18th	
589	Orchard Park	Cider Mill	May 18th	Minor Debris, Cleaned
81	Orchard Park	Applewood Ct.	May 18th	Inspected
82	Orchard Park	Applewood Ct.	May 18th	Inspected
83	Orchard Park	Cherry Lane	May 18th	Inspected
84	Orchard Park	Cherry Lane	May 18th	Inspected
85	Orchard Park	Cherry Lane	May 18th	Inspected
86	Orchard Park	Cherry Lane	May 18th	Apart of the large Channel, holding water
87	Orchard Park	Cherry Lane	May 18th	
88	Orchard Park	Cherry Lane	May 18th	Minor Debris
89	Orchard Park	Cherry Lane	May 18th	

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



**Directors Notes**

- The City received 5 complaints during the month of May. None were related to localized flooding. Work orders scheduled for driveway culvert replacements and redefining swales.
- No workplace incidents.
- Fourteen fence permits were reviewed and granted approval.
- The stormwater and wastewater crews became certified in CPR/AED on June 28<sup>th</sup>. Training was provided by the American Red Cross Association.
- A new fee schedule is being proposed for land disturbance/grading. Study session scheduled for August 19<sup>th</sup> with BMA. Additional resources will support the department in upgrading infrastructure and rectifying pre-existing drainage issues.
- One (1) illicit discharge was observed involving improper concrete washout at The Villas of Honey Run Springs. A notice of non-compliance was mailed to Garrott Bros Ready Mix.
- The Stormwater Department has 2 proposed capital improvement projects for infrastructure along Copperfield Drive and Wilkinson Lane. The Springbrook Drainage Improvement is scheduled for bid for the second week of July. The bid number is 22-1079SW.

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

**Stormwater Work Orders**

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:

<i>Address</i>	<i>Scope of Work</i>	<i>Status</i>	<i>Notes</i>
<b><i>123 Pleasant Lane</i></b>	Repair discharge washout and headwall. Install rip rap apron to dissipate runoff	Work Order: <a href="#"><u>062921005</u></a>  <b>Complete</b>	
<b><i>Calista, SCT Dr., Dee Cee Ct.</i></b>	Right-of-way mowing	Work Order: <a href="#"><u>062421001</u></a>  <b>Complete</b>	

Public Services Department – Stormwater Division  
June 2021

**318  
Wilkinson  
Lane**

Preventative.  
Repair voids  
in soil and  
stabilized  
culvert

Work Order:  
[062321008](#)  
**Complete**



**403 Rolling  
Acres Dr.**

Removed  
obstruction  
from driveway  
to allow  
positive  
flow/discharge

Work Order:  
[062321002](#)  
**Complete**



Public Services Department – Stormwater Division  
June 2021

*Legacy  
Farms  
Advanex  
Park Ph. 3*

Assisted PW  
with flagging  
operations

Work Order:  
[062221005](#)  
[062221004](#)  
**Complete**



*2732 US  
HWY31W*

Dewatered  
meter vault at  
Christ  
Worship  
Center

Work Order:  
[061421003](#)  
**Complete**



Public Services Department – Stormwater Division  
June 2021

**Industrial Drive**

Culvert or Catch Basin Repair

Work Order: [060821002](#)  
Complete



**202 Kiowa Ct.**

Storm Drain & Litter Clean Up

Work Order: [060221004](#)  
Complete



**725 Industrial Drive**

Post-storm clean-up and facility maintenance

Work Order: [060921001](#)  
Complete



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

Stormwater Division

<b>Total Hours Worked</b>	<b>FY 15/16</b>	<b>FY 19/20</b>	<b>31-May</b>	<b>30-June</b>	<b>YTD 20/21</b>
Stormwater	5,744	7,204	854	944	11,202
Work Orders	0	69	9	20	158
Overtime	508.5	262	0	0	162
Facility Maintenance	3,494	638	82	72	675
Fleet Maintenance	1,034	314	40	81	759
Administrative	385	1,138	138	133	1,779
Drainage Work (feet)	0	3,988	366	200	5,467
Drainage Man Hours	0	1,371	212	162	3,138
Debris Removed Load	0	188	4	1	190
Sweeping Man Hours	0	309	16	25	402
Mowing Hours	0	102	4	40	65
R-O-W Hours	0	1,506	53	17	254
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

<b>Date</b>	<b>Time</b>	<b>Mileage</b>	<b>Tons</b>	<b>Subdivision / Street</b>
06/03/2021	8	29	4.5	31W North and South
06/14/2021	7	15	7	Cambria, Meadowbrook, Love Ln, Tyree Springs
06/21/2021	7	22	8	Orchard Park, Springbrook
<b>Totals:</b>	<b>22</b>	<b>66</b>	<b>19.5</b>	

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

**RIGHT-OF-WAY MOWING**

Monthly

<b>Work Order #</b>	<b>Type of SCM</b>	<b>Location:</b>	<b>Date:</b>
<a href="#">062421001</a>	Swale	Hobbs Dr & Cliff Garrett	06/24/2021
<a href="#">062421001</a>	Detention Pond	Shady Lane	06/24/2021

**CATCH BASIN CLEANING**

Monthly

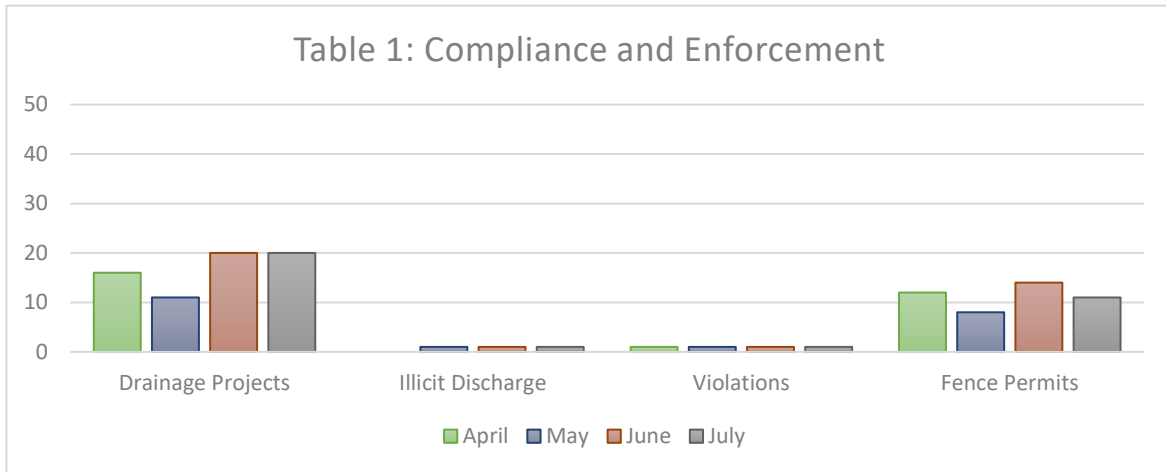
<b>ID:</b>	<b>Neighborhood:</b>	<b>Location:</b>	<b>Date:</b>	<b>Notes:</b>
230	Northwoods	Honeysuckle Dr	June 1 <sup>st</sup>	Heavy debris/Cleaned
229	Northwoods	Honeysuckle Dr	June 1 <sup>st</sup>	"
228	Northwoods	Honeysuckle Dr	June 1 <sup>st</sup>	Inspected-Clean
233	Northwoods	Honeysuckle DR	June 1 <sup>st</sup>	Inspected-Clean
232	Northwoods	Honeysuckle Dr	June 1 <sup>st</sup>	Inspected-Clean
231	Northwoods	Honeysuckle Dr	June 1 <sup>st</sup>	Heavy debris. Cleaned.
159	Northwoods	Honeysuckle Dr	June 1 <sup>st</sup>	Inspected-Clean. Unknown Beginning of system, holes in yard.

Stormwater Division

<b>Total Hours Worked</b>	<b>FY 15/16</b>	<b>FY 19/20</b>	<b>31-May</b>	<b>30-Jun</b>	<b>YTD 20/21</b>
<b>Stormwater</b>	5,744	7,204	854	944	11,202
<b>Work Orders</b>	0	69	9	20	158
<b>Overtime</b>	508.5	262	0	0	162
<b>Facility Maintenance</b>	3,494	638	82	72	675
<b>Fleet Maintenance</b>	1,034	314	40	81	759
<b>Administrative</b>	385	1,138	138	133	1,779
<b>Drainage Work (feet)</b>	0	3,988	366	200	5,467
<b>Drainage Man Hours</b>	0	1,371	212	162	3,138
<b>Debris Removed Load</b>	0	188	4	1	190
<b>Sweeping Man Hours</b>	0	309	16	25	402
<b>Mowing Hours</b>	0	102	4	40	65
<b>R-O-W Hours</b>	0	1,506	53	17	254
<b>Shoulder/Curb Hrs</b>	0	0	0	0	40



Public Services Department – Stormwater Division  
July 2021



**Directors Notes**

- The city received 2 complaints through the online portal. One was related to a clogged storm drain and the other to a wet ditch due to a leaking fire hydrant. Both requests have been addressed and completed.
- No workplace incidents or accidents sustained or reported this month.
- Eleven (11) fence permits were reviewed and granted approval.
- Springbrook Drainage Improvement project opening bid is August 9<sup>th</sup> at 2pm. The Department mailed notice of construction letters to the neighborhood two weeks ago.
- Capital improvement planning and projections meeting was held with CSR to determine the best management practice to pre-existing and outstanding drainage issues to include Hobbs Dr, Villages Ct and Apache Trail.
- For youth engagement and public education and outreach, the stormwater department has adopted a mascot. Sonny the Salamander will make his debut at Discover White House. The species is unique to our community.
- The Stormwater Prevention Plan and Notice of Intent has been reviewed and recommended for submission to TDEC to begin construction activity for the wastewater treatment plant upgrades.
- Upcoming work orders are 110-116 Beechbrook Drive and 1015 Piccadilly Drive which will include installing infrastructure to route runoff to creek. Once completed, the fiscal year 2020-2021 project list will be 100% completed.
- Potential land acquisition along 412 S Aztec Drive. Lot is not viable for development. Stormwater is proposing purchasing the land and maintaining for retention pond. Retention ponds can provide both stormwater attenuation and treatment because they have high potential for ecological, aesthetic and amenity benefits. This can also be used as a tool for public education and outreach.
- Completed work orders include: 114 Cranor Drive and 300 Autumnwood Drive and 300 Orchard Park Drive. Homeowner at 300 Orchard Park called and expressed his gratitude to the City and the stormwater crew for their hard work, positive attitude and quick response time.
- Two mass grading land disturbance permits were issued to Summerlin for phase 8 and Temple Baptist Church.
- The City of White House will be featured at the 17<sup>th</sup> Annual Water Professionals Conference. A talk on effective stormwater management will be presented by Ajuuah Jackson.

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





**Stormwater Work Orders**

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:

<i>Address</i>	<i>Scope of Work</i>	<i>Status</i>	<i>Notes</i>
114 Cranor Drive	Install driveway culvert	Work Order: <u>070121009</u>  Complete	
300 Autumnwood Drive	Repair drainage conveyance	Work Order: <u>070121012</u>  Complete	

Public Services Department – Stormwater Division  
July 2021

<p>300 Orchard Park Dr</p>	<p>Extend infrastructure to divert runoff to creek; prevent flooding</p>	<p>Work Order: <u>050421008</u>  Complete</p>	
<p>211 Westchester Dr</p>	<p>Install drainage swale</p>	<p>Work Order: <u>050420021</u>  Complete</p>	
<p>Street Sweeping</p>	<p>Debris removed from roadway</p>	<p>Work Order: ID <u>072921003</u> Complete</p>	
<p>Willow Grove</p>	<p>Illicit Discharge – Sanitary Sewer Overflow</p>	<p>Work Order: <u>072821004</u> Complete</p>	

Public Services Department – Stormwater Division  
July 2021

Byrum Drive	Open trench – Kroger Expansion	Work Order: <u>072221002</u>  Complete	
123 Calista Rd	Public Education – No Dumping	Work Order: <u>072021006</u>  Complete	
725 Industrial Drive	Wastewater Treatment Plant - Expansion	Work Order: <u>080221006</u>  Complete	

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

<u>Stormwater Division</u>					
Total Hours Worked	FY 15/16	FY 19/20	30-Jun	31-Jul	YTD 20/21
Stormwater	5,744	7,204	944	865	12,067
Work Orders	0	69	20	20	178
Overtime	508.5	262	0	5	167
Facility Maintenance	3,494	638	72	49	724
Fleet Maintenance	1,034	314	81	121	880
Administrative	385	1,138	133	190	1,969
Drainage Work (feet)	0	3,988	200	1,093	6,560
Drainage Man Hours	0	1,371	162	301	3,439
Debris Removed Load	0	188	1	11	201
Sweeping Man Hours	0	309	25	17	419
Mowing Hours	0	102	40	3	68
R-O-W Hours	0	1,506	17	0	254
Shoulder/Curb Hrs	0	0	0	0	40

Public Services Department – Stormwater Division  
July 2021

**RIGHT-OF-WAY MOWING**

Monthly

Work Order #	Type of SCM	Location:	Date:
<u>072921003</u>	Swale	Tyree Springs Rd	07/26/2021
<u>072921003</u>	Detention Pond	S. Palmers Chapel Rd.	07/29/2021

**SWEEPER LOGS**

Monthly

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

Date	Time	Mileage	Tons	Subdivision / Street
07/10/2021	4.75	20	2	31W North and South “Americana Fest”
07/19/2021	12	32	3	Walnut, Kennedy, Sumner Crossing, 31W
Totals:	16.75	52	5	

## Stormwater Project List FY20-21

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.

### LEGEND

PURPLE	No further issues discovered or owner declined service
GREEN	Work order completed
YELLOW	Proposed capital improvement project
RED	Outstanding or not started
ORANGE	Unidentified scope or on hold pending hydraulic analysis or
BLUE	In progress or scheduled

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

			<p>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 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	<input type="checkbox"/> Complete Date: _____ <input type="checkbox"/> Photos	Springbrook Subdivision – CCTV line requested; ongoing; scheduled for FY21-22 CIP



	convey runoff		
612 Sage Rd	Remove excess soils in drainage conveyance	<input checked="" type="checkbox"/> Complete Date: 11/10/20 <input checked="" type="checkbox"/> Photos	Up to Hampton Village
 <del>2500 HWY 31W</del>	<del>Repair drainage pipe for Super Stop Market</del>	<del><input type="checkbox"/> Complete Date: _____ <input type="checkbox"/> Photos</del>	<del>Owner must order parts. City will perform labor. Several attempts to contact owner and initiate project no response</del>
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.
<del>209 Rolling Acres Dr</del>	<del>Re-establish swale</del>	<del><input type="checkbox"/> Complete Date: _____ <input type="checkbox"/> Photos</del>	<del>Northwoods</del>
<del>215 Rolling Acres Dr</del>	<del>Re-establish swale</del>	<del><input type="checkbox"/> Complete Date: _____ <input type="checkbox"/> Photos</del>	<del>Northwoods</del>
<del>301 Rolling Acres Dr</del>	<del>Re-establish swale</del>	<del><input type="checkbox"/> Complete Date: _____ <input type="checkbox"/> Photos</del>	<del>Northwoods</del>
<del>102 Rolling Forrest Dr</del>	<del>Re-establish swale</del>	<del><input type="checkbox"/> Complete Date: _____ <input type="checkbox"/> Photos</del>	<del>Northwoods</del>
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 <a href="#">042021002</a> 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 checked="" type="checkbox"/> Complete Date: 08/23/2021 <input checked="" type="checkbox"/> Photos	Restructure detention pond for positive drainage; grade work to allow discharge at outfall

<b>160 Blueberry St</b>	Ditch cleaning	<input type="checkbox"/> Complete Date: _____ <input type="checkbox"/> Photos	Orchard Park; offsite improvement for future development; propose to CSR
<b>100 Baylee Ct</b>	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
<b>125 Brooklawn Dr</b>	Re-establish swale	<input checked="" type="checkbox"/> Complete Date: 05/24/21 <input checked="" type="checkbox"/> Photos	Installed earth berm
<b>110 Beechbrook Ct</b>	Re-establish swale	<input type="checkbox"/> Complete Date: _____ <input type="checkbox"/> Photos	Off of SPC; ditch cleaning entire roadway
<b>218 South Palmers Chapel</b>	Install catch basin within ROW	<input type="checkbox"/> Complete Date: _____ <input type="checkbox"/> Photos	SPC; incorporate within Springbrook plan submittal
<b>149 Willowleaf Lane</b>	Improve watershed; flooding from open field behind property	<input checked="" type="checkbox"/> Complete Date: 05/24/21 <input checked="" type="checkbox"/> Photos	ID <a href="#">052421001</a> 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.
<b>103 Spicer Dr</b>	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.
<b>100 Oak Park Ct</b>	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
<b>128 Oak Park Ct</b>	Redefine easement between homes to Strasse Dr	<input type="checkbox"/> Complete Date: _____ <input type="checkbox"/> Photos	Off of Meadows Ct. Residents should remove trees in easement
<b>100 – 102 Hobbs Dr</b>	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.
<b>205 Hobbs Dr</b>	Re-establish swale	<input checked="" type="checkbox"/> Complete Date: _____	Ditch cleanout to inlet; Removed reel formation and positive flow to cross drain

		01/07/2021 <input checked="" type="checkbox"/> Photos	
<b>401 Hobbs Dr</b>	Re-establish swale	<input type="checkbox"/> Complete Date: _____ <input type="checkbox"/> Photos	Box culvert (csr report)
<b>210 Spring St</b>	Re-establish swale	<input type="checkbox"/> Complete Date: _____ <input type="checkbox"/> Photos	Install 2 catch basins and 80ft pipe
<b>200 Covington Bend</b>	Ditch cleaning; repair and/or clean-out culvert	<input type="checkbox"/> Complete Date: _____ <input type="checkbox"/> Photos	CIP
<b>309 Covington Bend</b>	Re-establish swale; repair and/or cleanout culvert	<input type="checkbox"/> Complete Date: _____ <input type="checkbox"/> Photos	CIP
<b>105 Winchester Ct</b>	Rehabilitate drainage infrastructure to provide positive flow	<input type="checkbox"/> Complete Date: _____ <input type="checkbox"/> Photos	WO#033020004- Extend infrastructure to outfall, negative slope; proposed piping of conveyance series
<b>210-214 Robert Ave</b>	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.
<b>214 Eastside Dr</b>	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
<b>125 Villages Ct</b>	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
<b>207 S Aztec Dr</b>	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 checked="" type="checkbox"/> Complete Date: _____ <input checked="" 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.
<b>Wilkinson/ Hickerson Dr</b>	Ditch cleaning; upgrade infrastructure	<input type="checkbox"/> Complete Date: _____ <input type="checkbox"/> Photos	
<b>121 Industrial Dr</b>	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
<b>7016 Indian Ridge Blvd</b>	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
<b>229 Cherry Ln</b>	Repair voids in soil and damaged underground infrastructure	<input checked="" type="checkbox"/> Complete Date: 05/06/21 <input checked="" type="checkbox"/> Photos	ID <a href="#">090820007</a> : 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.
<b>403 Autumn Wood Dr</b>	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 <a href="#">040521007</a> : 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 <a href="#">041221003</a> : Removed vegetative and aggregated undergrowth from channel. It is recommended to extend concrete flume.

# STORMWATER PROJECT LIST

Project Start  Totals Budget \$ 727,844 Actual 1,063,984 Act.Hours 549.75

TASK	OWNER	PRIORITY	START	END	% COMPLETE	DONE	BUDGET	Work Order	ACTUAL HOURS	NOTES
<b>PROJECT TITLE</b>						<input type="radio"/>	\$ 8,569			
408 Hunterwood Drive	Dorothy Montao	HIGH	7/27/2021	8/17/2021	100%	<input checked="" type="radio"/>	\$ 6,577	72721002	323.75	installed frech drain system to mitigate flooding
1015 Picadilly Drive	Mildred Burton	MEDIUM	8/19/2021	8/23/2021	90%	<input type="radio"/>	\$ 573	81221005	30	retrofit existing coveyance with infrastructure
114 Cranor Drive	Amanda Dunnagun	LOW	7/6/2021	8/18/2021	75%	<input type="radio"/>	\$ 1,227	70121009	88	installed driveway culvert and rehabilitated coveyance along right-of-way
725 Industrial Drive	COWH	MEDIUM	8/20/2021	8/22/2021	100%	<input checked="" type="radio"/>	\$ 192	81921004		mow wastewater ponds at treatment facility
2760 US 31W	Soccer Complex	LOW	8/3/2021	8/26/2021	30%	<input type="radio"/>	\$ 16	80321001	1	hydro excavate curb inlet to remove blockage of sediment
300 Autumnwood Drive	Brad Hill	MEDIUM	7/6/2021	7/20/2021	100%	<input checked="" type="radio"/>	\$ 1,562	70121012	24	exacvate excessive buildup in swale to allow positive drainage
Villas at Honey Run Springs	Brad Edwards	HIGH	8/23/2021	8/23/2021	100%	<input checked="" type="radio"/>	\$ 969	82321005	3	emergency response to trackout at construction site
Springbrook Drainage Improvement (Copperfield Ct)	John Mechler	MEDIUM	9/13/2021	#####	5%	<input type="radio"/>	\$ 298,056	CIP		upgrade existing 24" pipe to 30" infrastructure to mitigate localized flooding
210 Beechbrook Court	Alex Benefield	LOW	8/30/2021	9/13/2021	5%	<input type="radio"/>	\$ 18,399	082321003	80	outfit infrastructure (30", 18", and 15") to discharge to creek; repair scour and erosion along channel
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