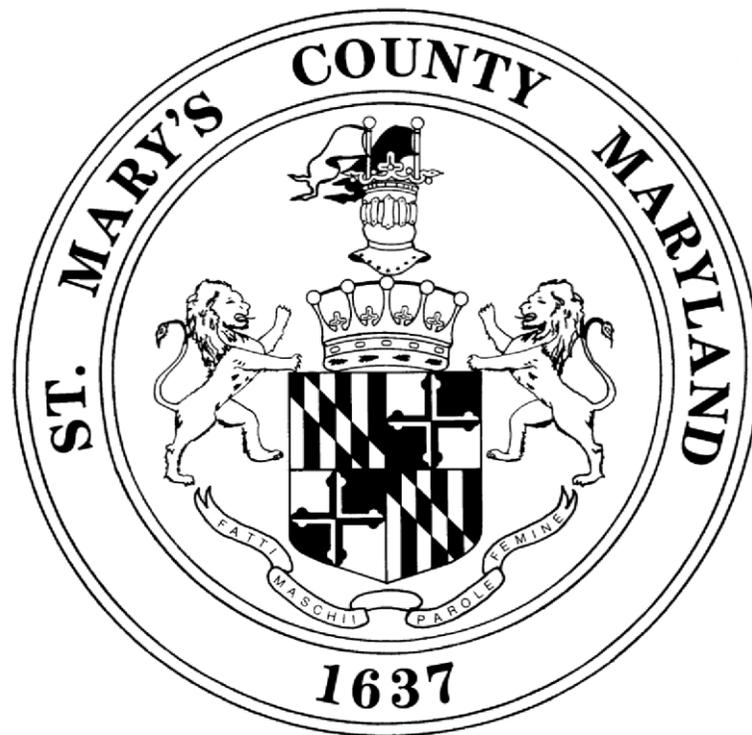


# St. Mary's County Hazard Mitigation Planning Committee



# 2020 Annual Report

## ST. MARY'S COUNTY HAZARD MITIGATION PLANNING COMMITTEE 2020 ANNUAL REPORT

### *Introduction*

The Disaster Mitigation Act of 2000 (DMA 2000) requires state and local governments to prepare and adopt hazard mitigation plans as a condition for receiving Pre- Disaster Mitigation (PDM) grant assistance and Hazard Mitigation Grant Program (HMGP) assistance. St. Mary's Hazard Mitigation Plan was adopted in 2006, updated May 27, 2011 – Resolution No. 2006-35.

The Committee shall serve in an advisory capacity to the Commissioners of St. Mary's County by addressing all matters related to planning and mitigation due to natural hazards, community outreach, coordination of resources and agencies, and any other issues relating to hazard mitigation that the Commissioners of St. Mary's County deem appropriate.

The membership of the Hazard Mitigation Planning Committee consists of ten (10) members.

<b>Current Members</b>	<b>Representing</b>
Gerald Gardiner	Emergency Services
Tony Wheatly	Town of Leonardtown
Bill Hunt	Land Use and Grow Management
John Deatrick	DPW&T
Ed Hogan	METCOM
Frederick Wyant	SMCPS
Mark Stancliff	Information Tech.
Philip Burch	MDOT – Leonardtown
Stephen Walker	Emergency Services
Vince Whittles	Business Owner in St. Mary's County

### *Meetings*

The Hazard Mitigation Planning Committee has quarterly meetings. The Committee had two meetings in 2020 (February 20 and November 18). The regularly scheduled meetings in May and August of 2020 were canceled due to state and county restrictions put in place during the Coronavirus response. Meetings for 2021 are February 17, May 19, August 18, and November 17.

### ***Elections***

Election for Chair, Vice-Chair, and Secretary positions were held on November 18, 2020. Gerald Gardiner was elected Chairperson; John Deatruck was elected Vice-Chair.

### ***By-Laws***

The St. Mary's County Hazard Mitigation Planning Committee approved the By-Laws on November 18, 2021 and have submitted them to the Commissioners of St. Mary's County.

### ***Hazard Mitigation Plan***

The Hazard Mitigation plan was approved by FEMA on November 21, 2017. Per requirement, the plan must be updated every five years. Emergency Services is working on the requirements with potential contractors for obtaining quotes to update the plan. The goal of Emergency Services is to have a contractor in place by July of 2021, and to start the process by early fall of 2021, with a projected draft for public comments by August of 2022.

### ***Tropical Storm Isaias***

Tropical Storm Isaias caused record flooding events throughout the county and historical amounts in Leonardtown with McIntosh Run.

On July 30, 2020 we started receiving forecast models showing from the National Hurricane Center the probable path of Isaias to impact the Mid-Atlantic on Monday through Tuesday. A Tropical Storm Watch was issued on Sunday, August 3, 2020 and was upgraded to Tropical Storm Warning on Monday, August 3, 2020. Weather predictions were for possible 40 mph wind gusts, 3 – 5 inches of rain and no storm surge.

It started raining around midnight and ended by 10:00 AM with the heaviest rains in the early morning. From 4:00 AM – 8:30 AM St. Mary's County was placed under four different Tornado Warnings from the National Weather Service.

St. Mary's County rainfall amounts from Tropical Storm Isaias were from 6" to over 9". During the height of the storm we had many roads that were closed due to flooding and or damage. We had two major areas that you could not enter or exit; they were Brenton Bay, Compton area and County Lakes, all for approximately 4 hours you could not enter or exit these areas. The following roads; Route 5 in Leonardtown, Route 5 in Morganza and south bound Route 235 at Thompson Corner Road were closed due to flooding; this affected our transportation routes but also caused our first responders to re-route or take alternate routes for calls of service and transports to MedStar St. Mary's Hospital and caused delays

We were fortunate that we did not get the winds that had been predicted; with the soil already being saturated from previous rains and the rainfall amounts we received, it would have been much worse with trees down and electrical outages. SMECO reported 10,500+/- without electricity in the early afternoon and by 10:00 PM all services were restored.

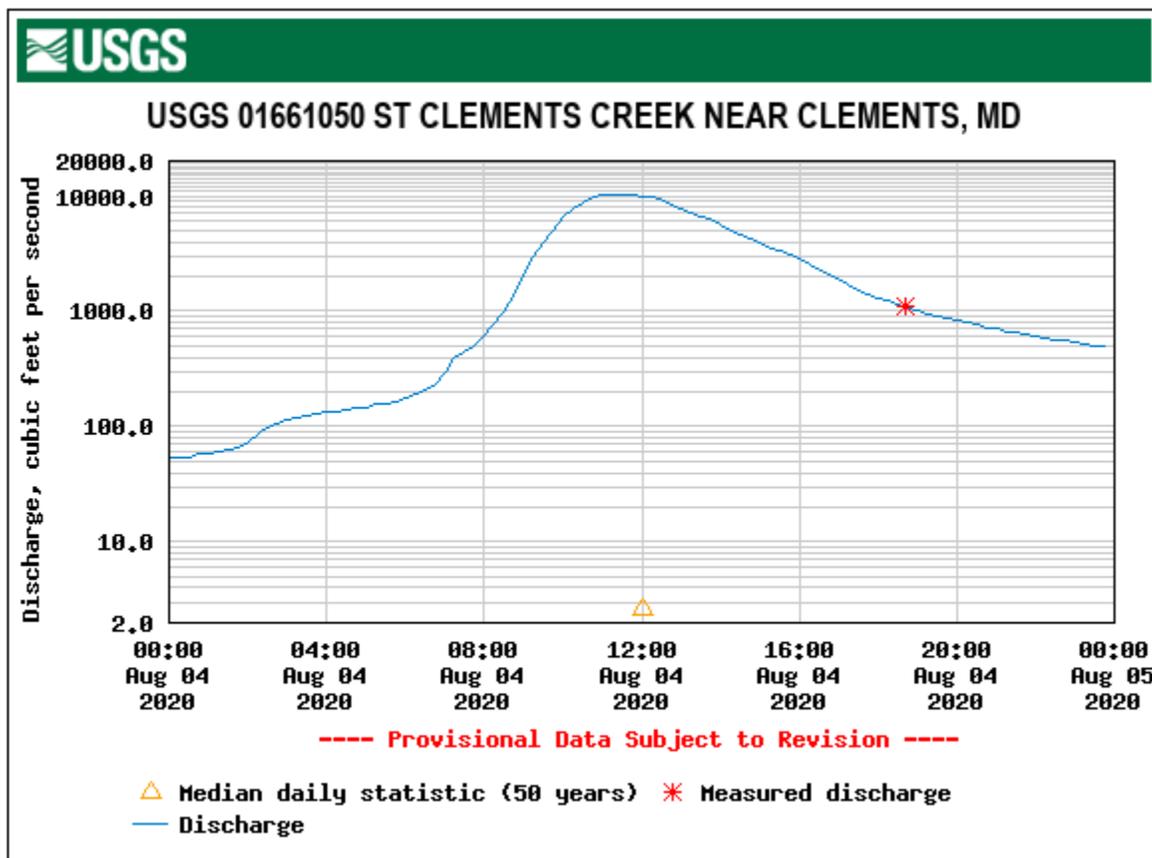
The St. Mary's County Board of Commissioners declared a State of Emergency on Tuesday August 3, 2020 at approximately 3:00 PM.

From MDOT

The judgment on storm event intensity was based on the field data, its comparison to the preliminary model results concerning the 100-yr flood and MDOT SHA studies regarding MD 6 at Persimmon Creek (location where bridge approaches were washed out) hydrology which included the estimate of Isaias. The MD 6 report estimates Isaias as 200 – 500 yr. storm.

USGS Stream gages nearby were reviewed including St. Clements Creek (attached). The USGS gage# 01661050 on St. Clements Creek showed approximately 11,000 to 12,000 CFS for the Aug. 4 storm (attached is the discharge plot). The previous maximum for that gage was 5900 CFS on Aug 28, 2011. That gage has records since 1968 and is approximately 5 miles from the MD5 crossing.

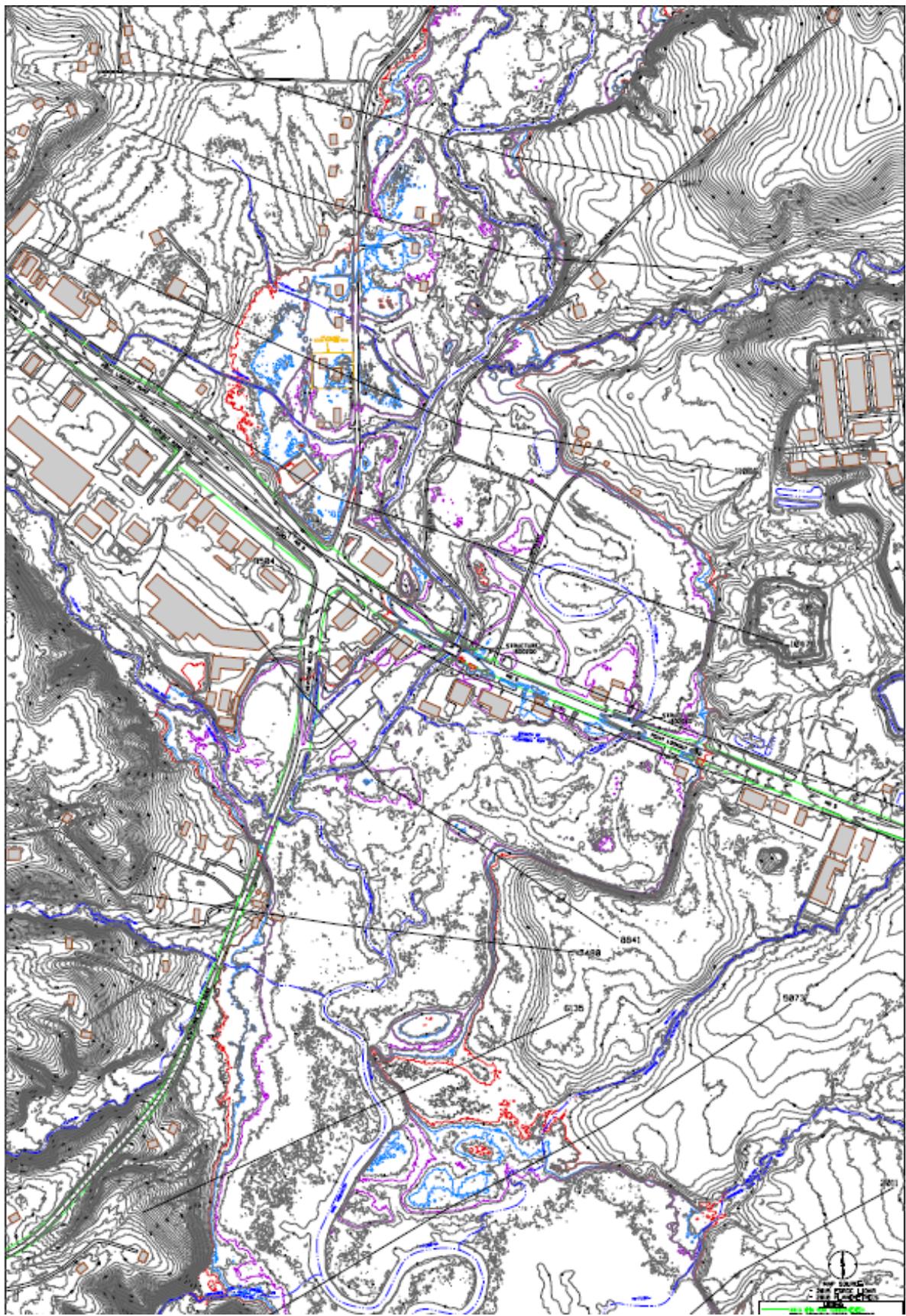
Also attached is a summary table showing elevations for McIntosh Run in the area at cross section 11066 highlighted in blue (this is Maypole Road area). It shows the 100- yr elevation is 13.67 ft and it was estimated that the Isaias elevation in the area of Maypole Road was about 15 ft.



Profile Output Table - Standard Table 1

File Options Std. Tables User Tables Locations Help

Reach	River Sta	Profile	Q Total (cfs)	Min Ch El (ft)	W.S. Elev (ft)	Crit W.S. (ft)	E.G. Elev (ft)	E.G. Slope (ft/ft)	Vel Chnl (ft/s)	Flow Area (sq ft)	Top Width (ft)	Froude # Chl
Main	12190	P101yr	10538.00	5.08	15.94	13.62	16.18	0.001923	5.73	4400.08	1004.40	0.36
Main	11066	P100yr	7794.00	3.18	13.67	11.38	13.80	0.001135	4.42	3359.18	1188.33	0.27
Main	11066	FW	7794.00	3.18	14.50	11.61	14.65	0.001111	4.66	3167.56	640.00	0.27
Main	11066	P10yr	3040.00	3.18	11.71	9.45	11.80	0.000988	3.44	1810.94	741.60	0.24
Main	11066	P25yr	4547.00	3.18	12.55	10.62	12.65	0.000950	3.67	2449.04	865.08	0.24
Main	11066	P50yr	5992.00	3.18	13.14	10.97	13.24	0.001003	3.97	2912.92	1038.83	0.25
Main	11066	P500yr	13427.00	3.18	15.08	12.19	15.28	0.001343	5.34	4762.63	1658.56	0.30
Main	11066	P101yr	10538.00	3.18	14.43	11.80	14.59	0.001234	4.89	4097.56	1633.15	0.29
Main	10476	P100yr	7794.00	1.88	13.24	9.73	13.27	0.000432	2.69	6991.75	2252.03	0.17
Main	10476	FW	7794.00	1.88	14.20	9.91	14.23	0.000300	2.42	7346.38	1346.00	0.14
Main	10476	P10yr	3040.00	1.88	11.38	8.55	11.41	0.000309	1.90	4179.51	1828.76	0.14
Main	10476	P25yr	4547.00	1.88	12.22	9.12	12.25	0.000317	2.10	5416.60	1910.52	0.14
Main	10476	P50yr	5992.00	1.88	12.77	9.42	12.80	0.000356	2.34	6266.43	2130.14	0.15
Main	10476	P500yr	13427.00	1.88	14.53	10.53	14.59	0.000579	3.44	9026.86	2407.59	0.20
Main	10476	P101yr	10538.00	1.88	13.95	10.18	13.99	0.000500	3.06	8104.43	2328.43	0.18
Main	9677	P100yr	7794.00	1.02	12.83	10.23	12.92	0.000606	3.55	4510.99	1665.39	0.21
Main	9677	FW	7794.00	1.02	13.78	10.17	13.91	0.000668	3.98	3663.62	1004.00	0.22
Main	9677	P10yr	3040.00	1.02	10.72	7.19	10.95	0.001210	4.23	937.66	932.41	0.28
Main	9677	P25yr	4547.00	1.02	11.88	8.39	11.96	0.000526	3.08	3003.45	1432.60	0.19
Main	9677	P50yr	5992.00	1.02	12.42	9.49	12.50	0.000536	3.24	3832.31	1606.16	0.19
Main	9677	P500yr	13427.00	1.02	14.09	11.57	14.19	0.000625	3.93	6626.13	1709.70	0.21
Main	9677	P101yr	10538.00	1.02	13.54	11.27	13.62	0.000593	3.69	5685.33	1680.39	0.21
Main	9590		Full Open									
Main	9504	P100yr	7794.00	1.31	11.18	10.19	11.55	0.002704	6.64	2260.97	952.26	0.42
Main	9504	FW	7794.00	1.31	11.67	10.82	12.44	0.004075	8.49	1537.68	597.44	0.52
Main	9504	P10yr	3040.00	1.31	9.33	7.43	9.90	0.003652	6.42	567.02	510.14	0.47
Main	9504	P25yr	4547.00	1.31	10.08	8.85	10.44	0.002650	5.93	1369.14	696.10	0.41
Main	9504	P50yr	5992.00	1.31	10.61	9.58	10.98	0.002701	6.30	1751.76	780.48	0.42
Main	9504	P500yr	13427.00	1.31	12.45	11.24	12.81	0.002589	7.19	3685.59	1176.43	0.42
Main	9504	P101yr	10538.00	1.31	11.89	10.60	12.25	0.002594	6.89	3026.72	1162.83	0.42
Main	8841	P100yr	7794.00	1.48	9.61	7.40	9.75	0.002125	4.78	3524.80	1340.46	0.35
Main	8841	FW	7794.00	1.48	10.46	7.73	10.59	0.001387	4.24	3586.01	930.00	0.29
Main	8841	P10yr	3040.00	1.48	7.47	6.04	7.61	0.003391	4.40	1317.78	781.56	0.41
Main	8841	P25yr	4547.00	1.48	8.26	6.52	8.40	0.002849	4.62	1993.20	1029.06	0.39
Main	8841	P50yr	5992.00	1.48	8.91	7.02	9.05	0.002460	4.71	2685.06	1215.75	0.37
Main	8841	P500yr	13427.00	1.48	11.28	8.38	11.40	0.001343	4.52	6134.05	1441.69	0.29
Main	8841	P101yr	10538.00	1.48	10.51	7.95	10.65	0.001718	4.75	4723.80	1426.40	0.33
Main	7480	P100yr	8783.00	0.57	8.55		8.60	0.000862	3.53	5883.04	1130.82	0.23
Main	7480	FW	8783.00	0.57	9.37		9.47	0.001211	4.50	4572.01	750.00	0.28
Main	7480	P10yr	3479.00	0.57	6.26		6.29	0.000833	2.68	3324.49	1097.34	0.22
Main	7480	P25yr	5167.00	0.57	7.13		7.16	0.000821	2.97	4285.05	1112.28	0.22
Main	7480	P50yr	6778.00	0.57	7.82		7.86	0.000833	3.23	5056.73	1121.95	0.23
Main	7480	P500yr	14966.00	0.57	10.32		10.40	0.000973	4.35	7904.60	1156.19	0.26
Main	7480	P101yr	11875.00	0.57	9.51		9.57	0.000915	3.96	6968.90	1143.20	0.25
Main	6135	P100yr	8783.00	-0.97	7.47	4.06	7.55	0.000964	3.84	5442.41	1059.23	0.25
Main	6135	FW	8783.00	-0.97	8.02	4.22	8.13	0.001111	4.32	4442.81	711.00	0.27
Main	6135	P10yr	3479.00	-0.97	5.34	3.13	5.38	0.000724	2.65	3242.73	1008.13	0.20
Main	6135	P25yr	5167.00	-0.97	6.17	3.48	6.22	0.000797	3.07	4086.83	1027.12	0.22



*Information from the National Weather Service Forecast Office  
Baltimore/Washington*

<b>Monthly Total Precipitation for MECHANICSVILLE 5 NE, MD</b>													
<b>Year</b>	<b>Jan</b>	<b>Feb</b>	<b>Mar</b>	<b>Apr</b>	<b>May</b>	<b>Jun</b>	<b>Jul</b>	<b>Aug</b>	<b>Sep</b>	<b>Oct</b>	<b>Nov</b>	<b>Dec</b>	<b>Annual</b>
2020	2.77	2.71	2.53	4.49	4.68	2.35	13.95	19.55	7.33	7.80	6.20	6.30	80.86
2018	2.43	6.73	3.07	3.68	11.59	7.06	12.88	4.28	8.98	8.27	6.89	4.92	80.78
2003	1.71	7.41	5.36	2.96	6.80	6.13	3.03	4.76	8.68	3.51	6.17	4.64	61.16
2009	2.39	0.35	3.19	4.93	4.65	4.38	2.22	6.49	3.65	6.92	6.91	10.05	56.13
2015	4.00	4.52	4.22	4.47	3.06	9.56	3.12	1.94	7.84	3.98	2.11	5.73	54.55
1996	5.91	3.07	3.93	2.68	4.72	4.99	7.72	2.89	3.95	5.13	2.54	6.28	53.81
1994	4.88	6.06	9.20	2.60	1.55	5.27	5.90	6.02	6.14	1.01	2.65	1.17	52.45
2016	3.73	3.56	1.29	2.57	9.26	3.94	3.55	3.27	12.42	3.75	0.47	3.10	50.91
2000	3.90	1.56	4.64	4.25	2.98	4.08	9.44	5.35	5.32	0.03	2.62	4.58	48.75
1990	3.66	2.04	3.37	4.08	8.88	5.60	3.98	6.81	1.53	3.49	1.17	3.95	48.56
1992	2.04	2.24	5.93	1.61	4.26	3.60	6.95	4.29	7.63	2.33	3.14	4.43	48.45
2006	3.43	1.73	0.06	3.51	1.87	6.70	4.25	1.14	13.56	5.10	5.65	1.43	48.43
2013	3.03	2.20	3.96	4.49	2.52	7.09	3.06	6.99	0.89	4.74	3.37	5.66	48.00
1999	5.20	2.20	4.82	3.17	0.63	2.23	2.21	6.61	11.75	3.50	1.45	2.25	46.02
2019	3.08	3.90	4.08	1.86	4.34	5.49	6.82	4.61	0.71	5.18	2.04	3.14	45.25
2008	1.27	3.05	2.58	3.92	10.68	6.12	1.89	1.06	4.14	1.17	2.86	5.93	44.67
1993	3.04	2.73	8.81	3.90	4.16	2.20	0.66	4.37	3.50	2.66	4.25	4.07	44.35
2005	3.44	1.70	5.38	3.71	5.13	3.36	2.68	4.46	0.13	7.90	2.46	3.87	44.22
1998	7.31	7.45	6.36	4.04	4.68	6.68	1.23	0.76	0.50	1.28	1.17	2.50	43.96
2004	2.35	2.02	1.52	4.67	5.18	5.97	5.38	2.88	4.03	1.64	5.42	2.86	43.92
1997	2.36	3.00	5.29	3.43	1.33	3.21	4.73	4.92	1.95	3.10	7.28	2.38	42.98
2001	2.86	2.30	5.00	1.61	6.73	5.27	7.73	5.01	2.54	0.88	0.97	1.98	42.88
2017	3.13	0.41	3.16	3.48	6.73	2.50	7.01	9.29	1.18	2.81	2.21	0.56	42.47
2010	2.50	4.27	4.91	1.84	2.36	1.46	1.79	5.61	8.63	3.15	2.13	3.36	42.01
1995	3.78	1.64	2.24	3.16	3.55	3.40	3.59	0.45	2.47	9.55	4.23	2.46	40.52
2014	3.33	4.04	4.86	4.29	5.32	2.56	1.70	1.22	2.27	4.08	2.91	3.67	40.25
2002	2.29	0.61	4.74	2.95	1.82	2.91	1.74	3.47	1.86	7.11	5.01	4.72	39.23
1991	3.65	1.06	4.55	1.33	2.19	2.15	2.02	2.92	2.65	2.98	0.86	5.79	32.15
2007	3.89	3.43	3.14	3.59	1.23	1.46	1.97	1.96	1.35	4.79	1.64	2.87	31.32
2021	1.96	M	M	M	M	M	M	M	M	M	M	M	M
2012	1.62	M	2.37	2.32	M	2.42	3.86	6.06	1.64	8.24	0.89	4.20	M
2011	3.27	1.13	6.07	3.74	2.87	1.22	4.11	12.55	8.47	3.05	3.74	4.66	M
<b>Mean</b>	3.26	2.97	4.21	3.33	4.53	4.24	4.55	4.90	4.77	4.17	3.27	3.98	48.24
<b>Max</b>	7.31 1998	7.45 1998	9.20 1994	4.93 2009	11.59 2018	9.56 2015	13.95 2020	19.55 2020	13.56 2006	9.55 1995	7.28 1997	10.05 2009	80.86 2020
<b>Min</b>	1.27 2008	0.35 2009	0.06 2006	1.33 1991	0.63 1999	1.22 2011	0.66 1993	0.45 1995	0.13 2005	0.03 2000	0.47 2016	0.56 2017	31.32 2007

<https://w2.weather.gov/climate/xmacis.php?wfo=lwx>

## *Conclusion*

The Hazard Mitigation Planning Committee is dedicated to serving the citizens of our community by advising the Commissioners of St. Mary's County on all-hazards that have or could have an impact on St. Mary's County. The state and county restrictions put in place during the Coronavirus response has had an impact on the time that was dedicated to Hazard Mitigation.

This past year has been like no other in the past. Emergency Services has been activated for COVID-19 Response and Recovery since February. With that, we had numerous rain events this summer that caused major flooding throughout the County. The areas and the level of flooding we believe are historical. The committee will be looking at ways to mitigate flooding in the future. This is not one agency's or department's responsibility. It is going to take all parties involved to not only come up with solutions but to look at past solutions/regulations/ordinances to make sure they are being followed and updated.

The committee is eager for 2021 in not only starting the update of our plan but to come up with solutions to mitigate potential disasters.