

ENVIRONMENT COMMITTEE AGENDA

March 14, 2019 – North Conference Room

21630 11th Avenue South – Des Moines 98198

6:00 PM – 6:50 PM

1. Approval of the minutes of 11.8.2018 and 2.21.2019 meetings (Chair to call the meeting to order at 6:00 pm)
2. CIP Project Updates (Informational – 6:00 to 6:40 pm)
Staff will provide a status update on the 2019 SWM capital projects.
3. Poverty Bay Shellfish Protection District Update (Informational - 6:40 to 6:50 pm)
Staff will provide updates from the latest Poverty Bay Technical Committee meeting spanning multiple topics relating to the Shellfish Protection District and the ongoing efforts to reopen the shellfish beds.
4. Emerging Issue

DRAFT MINUTES - ENVIRONMENTAL COUNCIL COMMITTEE MEETING 11.8.2018

The meeting was called to order @ 6:00 PM, Thursday, November 8, 2018, in the North Conference room @ 21630 11th Avenue South, Des Moines with the following in attendance:

Council Members

Traci Buxton (Chair)
Robert Back
Matt Pina

Guest:
Anne Kroeker

City Staff

Brandon Carver, PW Director
Loren Reinhold, SWM Utility Manager
Susan Cesar, Chief Strategic Officer
Matt Hutchins, Assistant City Attorney
Denise Lathrop, P & D Services Manager
Jason Woycke, Planner II
Peggy Volin, Admin Asst. II

AGENDA:

1. Approve minutes of the 10.11.2018 meeting
2. Midway Sewer District Comprehensive Plan
3. Shoreline Management Plan & Potential Policy Changes

MEETING:

1. Approve the minutes of the October 11, 2018 meeting: Unanimously approved.
2. Midway Sewer District Comprehensive Plan – Brandon Carver, PW Director and SWM Utility Manager Loren Reinhold briefed the Committee on a meeting with Midway Sewer District regarding the additional use of low pressure systems (LPS) that are currently unsewered. While LPS are and have been allowed, Midway considers LPS when a gravity system is not viable. Brandon also mentioned that Midway has proceeded to finalize the Comprehensive Plan and that further discussion with Midway on LPS systems would be made separate from their plan.
3. Shoreline Management Plan & Potential Policy Changes: Jason Woycke, Planner II briefed the Committee on the staff proposed amendments to the SMP to comply with new State laws and guidelines, clarify content and allow for additional flexibility in permitting. Staff also coordinated and attended two public participation events, along with provided updates in City Currents, The Waterland Blog, and Westside Seattle and listings on the City's website and Facebook pages. The next step will be to take the proposed amendments to the full Council.

Meeting adjourned at 6:50 pm

Minutes respectfully Submitted by: Peggy Volin, Admin Asst II

DRAFT MINUTES - ENVIRONMENTAL COUNCIL COMMITTEE MEETING 2.21.2019

The meeting was called to order @ 6:00 PM, Thursday, February 21, 2019, in the North Conference room @ 21630 11th Avenue South, Des Moines with the following in attendance:

Council Members

Traci Buxton (Chair)
Robert Back
Matt Pina

Guests:

Bobby Butler – Highline College
Alice Madsen – Highline College

City Staff

Dan Brewer – Chief Operations Officer
Brandon Carver, PW Director
Loren Reinhold, SWM Utility Manager
Tyler Beekley, Civil Engineer II
Susan Cesar, Chief Strategic Officer
Denise Lathrop, P & D Services Manager
Matt Hutchins, Assistant City Attorney
Peggy Volin, Admin Asst. II

AGENDA:

1. 2019 Draft Work Plan
2. Highline College Urban Agriculture
3. Stormfest Interlocal Agreement

MEETING:

1. 2019 Draft Work Plan: Loren Reinhold, SWM Utilities Manager outlined the 2019 work plan which was adopted with one minor change.
2. Highline College Urban Agriculture: Bobby Butler and Alice Madsen from Highline College briefed the Committee on the College's Urban Agriculture Program and how it is looking to partner with the City to utilize land at Sonju, Parkside and Mary Gay Park. With the City's permission, Highline started using land at Sonju Park but in order to satisfy a grant with King County they need an additional 4 acres of property. They have asked the City to look at potentially using space at Parkside and Mary Gay Parks in addition to Sonju Park.
3. Stormfest Interlocal Agreement: Tyler Beekley, Civil Engineer II briefed the Committee on the proposed Interlocal Agreement (ILA) between the cities of Des Moines, Buriem, Normandy Park, SeaTac and King County for the purpose of implementing an annual 6th grade, hands-on interactive, stormwater education program for Highline Public Schools. The first two years of Stormfest was supported by grant funding and was held at the Des Moines Beach Park for the 2017/2018 and 2018/2019 classes of the Highline 6th grade students. This event supports and meets WA State NPDES Permit requirements for public education and outreach and this ILA would provide funding for the annual continuation of the event through 2024.

Meeting adjourned at 6:50 pm

Minutes respectfully Submitted by: Peggy Volin, Admin Asst II

Environment Committee Meeting 3/14/19 Poverty Bay Update:

Overview:

The Poverty Bay Technical Committee Meeting was last held on 11/7/18 at the Des Moines Service Center. In attendance were representatives from Des Moines, Seatac, Kent, King County Public Health, King County Water and Land Resources, State Department of Health, State Department of Transportation, and Puyallup Tribes. Below is a summary of key updates from the meeting and months following.

King County Updates:

- Ordinance and Closure Response Plan
 - An Ordinance (#18840) creating the Poverty Bay shellfish protection district; establishing the district's boundaries; establishing a shellfish protection program; and adding a new chapter to K.C.C. Title 2 was passed on 12/3/2018 by a vote of King County Council passing 9-0. The ordinance was sponsored by Council Member Dave Upthegrove.
 - The passed Ordinance includes Section 7, which outlines the process for dissolving the District. Section 7 states: "When the Washington state Department of Health has reclassified the affected commercial shellfish harvesting area of Poverty Bay to approved status, the department of natural resources and parks shall prepare and transmit to the council a proposed ordinance dissolving the Poverty Bay shellfish protection district and repealing this chapter."
- Grant Funded Source Tracing Work
 - Currently King County is conducting grant funded source tracing work in the Woodmont and McSorely Creek basins, see Appendix A for sampling sites. King County plans to conduct 3-4 wet weather events and 1-2 dry weather events. The outcomes of the sampling will continue to be on future stakeholder meeting agendas.
- Website Development
 - King County has begun the development of a public facing webpage for the Poverty Bay Shellfish Protection District. The webpage would be dedicated to sharing information and updates as well as providing resources to the public.

Washington State Department of Health (WSDOH) Updates:

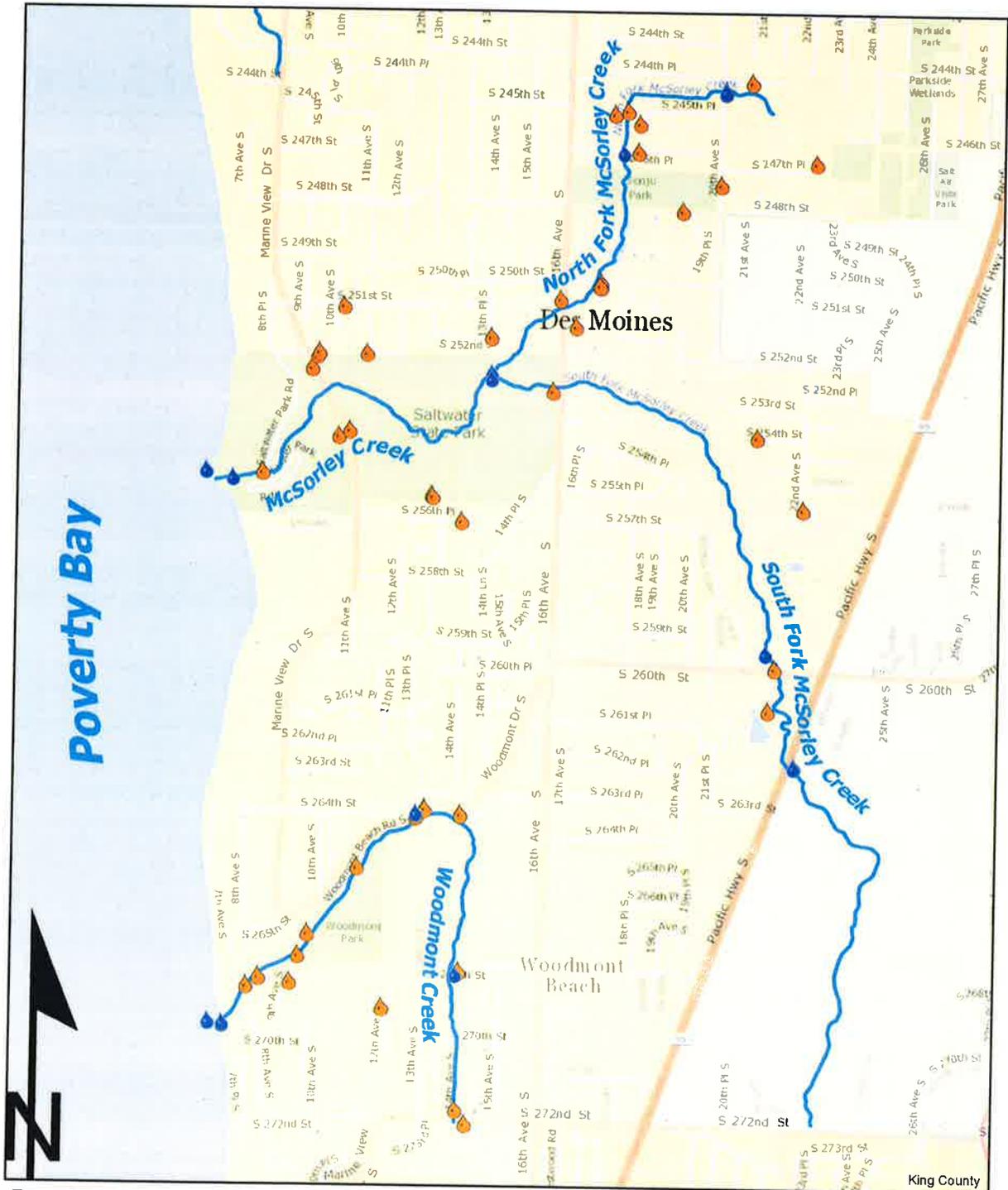
- Marine Station Sampling
 - At the November 11th 2018 technical committee meeting WSDOH shared the most recent station data and noted that the monitoring stations associated with the downgrade are trending in a positive direction. The downgraded stations last 30 sample metrics have returned to within approval range standards. See Appendix B for the latest station data.

- Station metrics for the closed harvesting period (June - November) are still exceeding the 30 sample standard. WSDOH looks at the closed period metrics heavily when considering an upgrade reclassification.
- Dilution Calculations
 - WSDOH derived dilution calculations through modeling efforts for three Poverty Bay creeks (Woodmont, Redondo, and Cold), see Appendix C for detailed information regarding the dilution calculations. The creeks were chosen by their potential to impact the monitoring stations. Dilution calculations help show how bacteria loading rates in the creek impact the marine monitoring stations.
 - WSDOH described how these dilution calculations might be used. There was conversation about using these numbers in combination with other actions being implemented on the ground, collecting samples to measure fecal coliform during the next closure period, targeting rainfall events during drier weather, and considering a 6-event sample size with no more than one event exceeding ½ inch rainfall. It was acknowledged that DOH would be relying on these loading limits to inform decisions about reclassification of the shellfish beds.

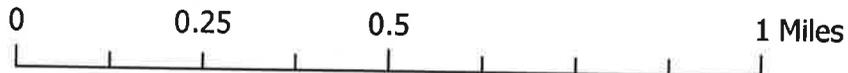
Next Steps:

- Continued Source Tracing in Woodmont and McSorely Creek basins by King County.
- The launch of the Poverty Bay Shellfish Protection District webpage that will be dedicated to sharing information about the district.
- Closure period sampling during rainfall events to determine actual loading rates in the creeks to compare to the dilution calculations.
- Next Poverty Bay Technical Committee Meeting will be held in April.
- Each year WSDOH evaluates commercial shellfish growing area to make sure they still meet their classification status. These are produced at the end of each calendar year.

Appendix A



Sampling Sites

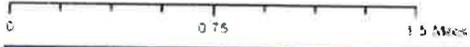


Legend

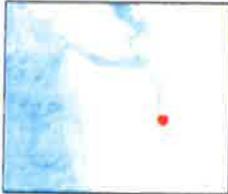
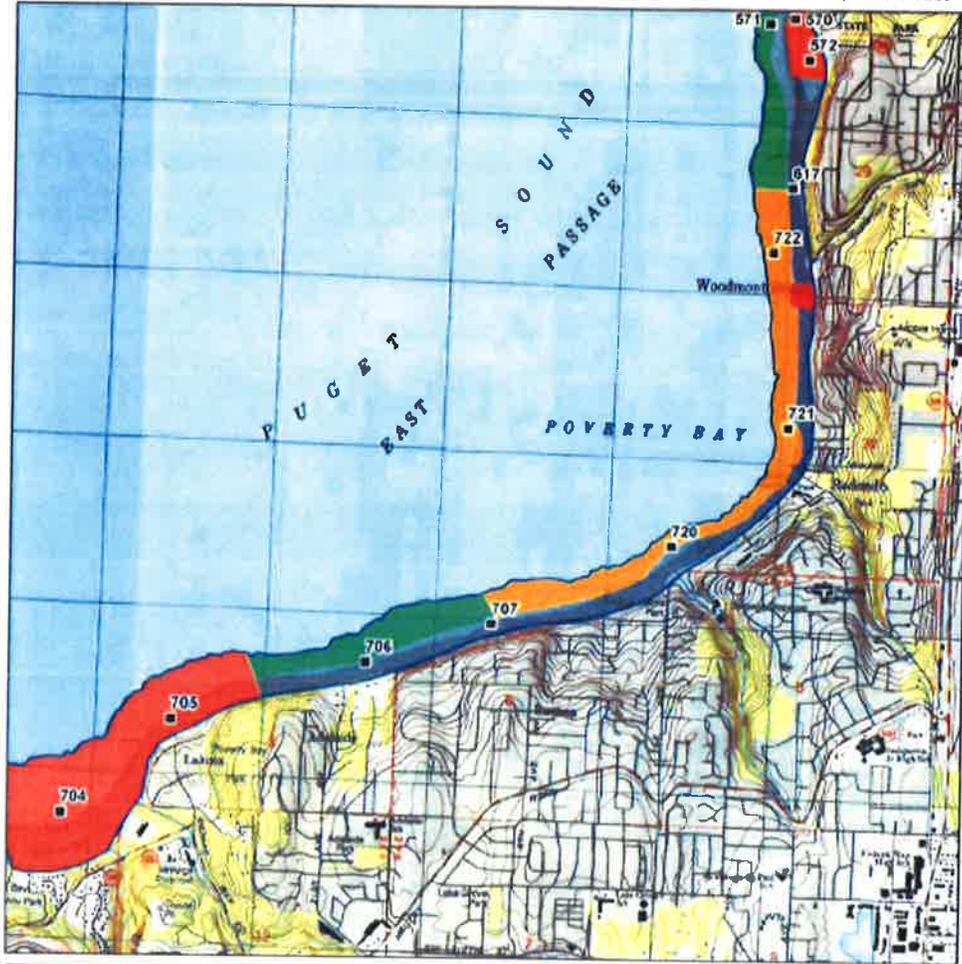
-  Freshwater Site
-  MS4 Site

Appendix B

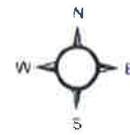
Poverty Bay (2 of 3)



Washington State
Health
 Date Updated: 7/11/2018



Classification	Sampling Stations
■ Approved	■
■ Conditional	■
■ Prohibited	
■ Restricted	
■ Unclassified	



Some sampling stations are depicted with grey box for state of loading.

Marine Water Quality Summary Table (All Data)

Station Number	Classification	Date Range	Range (FC/100 mL)	GeoMean (FC/100 mL)	Est 90th Percentile (FC/100 mL)	Meets Standard
571	Approved	8/16/2014 - 8/30/2018	1.7 - 49.0	2.2	5.0	Yes
701	Approved	11/18/2013 - 8/30/2018	1.7 - 2400.0	4.3	30.0	Yes
702	Approved	9/5/2013 - 8/30/2018	1.7 - 49.0	2.9	10.4	Yes
856	Approved	7/23/2014 - 8/30/2018	1.7 - 110.0	5.0	22.9	Yes
857	Approved	7/23/2014 - 8/30/2018	1.7 - 33.0	4.5	16.2	Yes
720	Conditionally Approved	9/9/2015 - 9/13/2018	1.7 - 350.0	3.7	19.1	Yes
721	Conditionally Approved	9/9/2015 - 9/13/2018	1.7 - 49.0	3.8	15.1	Yes
722	Conditionally Approved	8/18/2015 - 9/13/2018	1.7 - 33.0	2.8	6.9	Yes
755	Conditionally Approved	6/1/2015 - 9/13/2018	1.7 - 1800.0	4.2	30.0	Yes
857	Conditionally Approved	2/1/2016 - 9/13/2018	1.7 - 4.5	1.9	2.6	*N/A
579	Prohibited	6/16/2014 - 8/30/2018	1.7 - 920.0	2.8	14.0	Yes
572	Prohibited	6/16/2014 - 8/30/2018	1.7 - 46.0	2.5	6.7	Yes
703	Prohibited	9/5/2013 - 8/30/2018	1.7 - 14.0	2.5	5.0	Yes
704	Prohibited	9/5/2013 - 8/30/2018	1.7 - 130.0	3.4	14.4	Yes
705	Prohibited	9/5/2013 - 8/30/2018	1.7 - 240.0	3.0	11.9	Yes
838	Prohibited	7/23/2014 - 8/30/2018	1.7 - 540.0	4.7	26.8	Yes
567	Unclassified	6/16/2014 - 8/30/2018	1.7 - 33.0	2.6	7.6	Yes
568	Unclassified	6/16/2014 - 8/30/2018	1.7 - 220.0	3.4	14.8	Yes
817	Unclassified	10/22/2014 - 8/30/2018	1.7 - 46.0	2.6	7.1	Yes
706	Unclassified	1/26/2015 - 9/13/2018	1.7 - 49.0	2.1	4.8	Yes
707	Unclassified	9/9/2015 - 9/13/2018	1.7 - 33.0	2.5	6.5	Yes

The standard for approved shellfish growing waters is fecal coliform geometric mean not greater than 14 organisms / 100 mL with an estimated 90th percentile not greater than 43 organisms / 100 mL. The above table shows bacteriological results in relation to program standards.

* N/A - SRS criteria require a minimum of 30 samples from each station. * 14 Samples collected at Station 857

Conditional Stations Water Quality Summary

Station Number	Classification	Date Range	Range (FC/100 mL)	GeoMean (FC/100 mL)	Est 90th Percentile (FC/100 mL)	Meets Standard
OPEN PERIOD (December - May)						
720	Conditionally Approved	1/11/2011 - 5/3/2018	1.7 - 350.0	2.9	11.8	Yes
721	Conditionally Approved	1/11/2011 - 5/3/2018	1.7 - 33.0	2.3	5.5	Yes
722	Conditionally Approved	12/2/2010 - 5/3/2018	1.7 - 7.8	2.2	3.9	Yes
756	Conditionally Approved	12/5/2012 - 5/3/2018	1.7 - 33.0	3.3	11.9	Yes
CLOSED PERIOD (June - November)						
720	Conditionally Approved	7/27/2011 - 9/13/2018	1.7 - 350.0	6.2	49.7	No
721	Conditionally Approved	7/27/2011 - 9/13/2018	1.7 - 920.0	7.0	50.9	No
722	Conditionally Approved	11/3/2011 - 9/13/2018	1.7 - 1600.0	5.3	50.0	No
756	Conditionally Approved	10/1/2012 - 9/13/2018	1.7 - 1600.0	9.2	166.2	No

The standard for approved shellfish growing waters is fecal coliform geometric mean not greater than 14 organisms / 100 mL with an estimated 90th percentile not greater than 43 organisms / 100 mL. The above table shows bacteriological results in relation to program standards.

Conditional Stations Water Quality Summary (6/1/2015 - 9/13/2018)

Station Number	Classification	Date Range	Range (FC/100 mL)	GeoMean (FC/100 mL)
OPEN PERIOD (December - May)				
720	Conditionally Approved	2/1/2016 - 5/3/2018	1.7 - 350.0	3.1
721	Conditionally Approved	2/1/2016 - 5/3/2018	1.7 - 33.0	2.2
722	Conditionally Approved	2/1/2016 - 5/3/2018	1.7 - 6.8	2.1
756	Conditionally Approved	2/1/2016 - 5/3/2018	1.7 - 33.0	3.0
857	Conditionally Approved	2/1/2016 - 5/3/2018	1.7 - 4.5	1.9
CLOSED PERIOD (June - November)				
720	Conditionally Approved	6/11/2015 - 9/13/2018	1.7 - 49.0	4.0
721	Conditionally Approved	6/11/2015 - 9/13/2018	1.7 - 70.0	6.5
722	Conditionally Approved	6/11/2015 - 9/13/2018	1.7 - 33.0	3.0
756	Conditionally Approved	6/1/2015 - 9/13/2018	1.7 - 1600.0	5.4
857	Conditionally Approved	6/8/2016 - 9/13/2018	1.7 - 4.0	1.9

Appendix C

Email from Scott Berbells on Dilution Calculations (9/28/18):

We've completed our initial dilution evaluation of the drainages to the Poverty Bay Shellfish Growing Area and calculated fecal coliform loading rates for Massey, Woodmont, Redondo, and Cold creeks. These loads will be used to evaluate the impact from the upland area to the Conditionally Approved portion of the growing area.

To determine these loading rates we used a CORMIX computer model with the following assumptions:

- Stream water density similar to that in the receiving water (for mixing considerations in the wave zone);
- No fecal coliform die off;
- Shallow offshore depth with a 5% beach slope; and
- A relatively slow along-shore net current speed.

Based on the information available, the dilution factors and loading limits are calculated as shown in the table below.

Creek Name	Dilution Factor	Loading Limit (FC/day)
Massey	91:1	3.12×10^{10}
Woodmont	150:1	5.14×10^{10}
Redondo	30:1	1.03×10^{10}
Cold	135:1	4.62×10^{10}

To give you an idea of what these loading limits mean for an individual sampling event we've created the table below that gives fecal coliform sampling results based on the flow of the creek.

Flow (cfs)	Massey Creek (FC/100ml)	Woodmont Creek (FC/100ml)	Redondo Creek (FC/100ml)	Cold Creek (FC/100ml)
1	1,274	2,100	420	1,890
2	637	1,050	210	945
3	425	700	140	630
4	319	525	105	473

5	255	420	84	378
6	212	350	70	315

Our intention is to use these loading values to evaluate the conditions in the upland area and determine if the subtidal shellfish growing area may be impacted. We'll use the following items to evaluate the area for a classification upgrade:

- Projects aimed at correcting pollution sources in the watershed have been implemented.
- Effectiveness sampling is completed in the creeks and shows that the load remains below the defined loading limit. The evaluation of the targeted monitoring for a classification upgrade should include a minimum of six rainfall events during the closure period with no more than one event exceeding the loading limit.

Meeting these conditions above will result in a classification upgrade as long as the growing area continues to meet other requirements defined in the National Shellfish Sanitation Program Model Ordinance.

We're currently evaluating the flow conditions in these streams during rainfall events to get a better idea about their potential impact. Our goal is to measure the flows during this closure season and perhaps into the open period. After pollution identification and correction projects are implemented we will measure flows and collect fecal coliform samples during rainfall events 0.50" or greater to calculate the loading rate (Hopefully during the June – November 2019 closure season).

Please let us know if you have any questions.

Scott

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