

Scott Boettcher

From: Scott Boettcher
Sent: Friday, November 1, 2019 5:39 PM
To: Lee Napier
Cc: Graham Gowing
Subject: FW: Today's Call -- RE: Executive Committee Call in October
Attachments: Staff memo -- 2020 Flood Warning System Costs 11-01-2019.pdf

Hi Lee. The Flood Authority's Executive Committee met today (we held a conference call). The purpose of the call was to review and discuss proposed O&M costs for the flood warning system for 2020. Executive Committee members (Commissioner Menser, Commissioner Fund and Commissioner Raines) were asked whether or not they agreed with the proposed costs for their jurisdiction for 2020. Each of the members did agree with the proposed costs for their jurisdiction as presented (see attached) and did agree to pay those costs for 2020. Further, Executive Committee members agreed that Lewis County as fiscal agent to the Flood Authority should move forward to collect payments. Please let me know if this summary of today's Executive Committee call is satisfactory. Thanks!

Scott

From: Scott Boettcher
Sent: Friday, November 1, 2019 6:42 AM
To: VRaines@co.grays-harbor.wa.us; Edna.Fund@lewiscountywa.gov; Tye Menser <tye.menser@co.thurston.wa.us>
Cc: Lee Napier <Lee.Napier@lewiscountywa.gov>
Subject: Today's Call -- RE: Executive Committee Call in October

All – Here is call in number for our 2:30 p.m. call today (Friday, 11/01/2019):

- Dial-in number: (605) 313-5377
- Access code: 405697

Attached is my staff memo to you with recommendation regarding 2020 Flood Warning System annual O&M costs.

Feel free to call or email with any questions or matters to discuss.

Otherwise, talk with you later today.

Scott

From: Scott Boettcher
Sent: Friday, October 18, 2019 3:00 PM
To: VRaines@co.grays-harbor.wa.us; Edna.Fund@lewiscountywa.gov; Tye Menser <tye.menser@co.thurston.wa.us>; Lee Napier <Lee.Napier@lewiscountywa.gov>
Subject: RE: Executive Committee Call in October

All – Based on everyone’s availability it looks like the only available time common for all is Friday 11/01/2019 after 2 p.m. I will send a meeting invite for 2:30 to 3:15. Hope this date/time works. Thanks!
Scott

From: Scott Boettcher

Sent: Tuesday, October 15, 2019 9:07 AM

To: VRaines@co.grays-harbor.wa.us; Edna.Fund@lewiscountywa.gov; Tye Menser <tye.menser@co.thurston.wa.us>; Lee Napier <Lee.Napier@lewiscountywa.gov>

Subject: Executive Committee Call in October

Executive Committee. Our last Flood Authority meeting in September was cancelled. Our next meeting is 11-21-2019. We (Lee Napier and myself) have a time-sensitive matter we’d like to discuss with you before the next Flood Authority meeting. That is: (1) 2020 Flood Warning System O&M costs; and (2) Lewis County inter-agency reimbursement agreements with Grays Harbor County and Thurston County for those O&M costs. In order for Lewis County (acting as fiscal agent to the Flood Authority) to best sync with the end of the calendar year, Lee and I thought it prudent to meet with you (via conference call) before the end of October. I think 30 to 45 minutes would do. Can you please reply with your general blocks of availability for the weeks of 10/21-25/2019 and 10/28/2019-11/01/2019. Thanks!

Scott

Scott Boettcher, Staff

Chehalis River Basin Flood Authority

360/480-6600

scottb@sbgh-partners.com



November 1, 2019

TO: Flood Authority Executive Committee Members
FROM: Scott Boettcher, Staff
SUBJECT: 2020 Flood Warning System Budget and County Shares

Purpose of this memo is to discuss and allocate 2020 Flood Warning System annual costs (www.chehalisriverflood.com). This will be done via conference call this Friday, 11/01/2019, at 2:30. We walk through the following attachments to this memo:

- Attachment A – Breakdown and Comparison of Annual O & M Costs (2014 through 2023)
- Attachment B – Staff Recommendation
- Attachment C – Draft Outreach Content
- Attachment D – Flood Warning System Usage

Please feel free contact me with any questions (360/480-6600, scottb@sbgh-partners.com).

Attachment A
Breakdown and Comparison of Annual O & M Costs (2014 through 2023)

ORIGINAL O&M (showing 2% annual WEST cost-increase starting 2018)							ADDITIONAL O&M (outlined in red)				
Breakdown of Annual O & M Costs		2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
WEST Consultants	<i>Gage maintenance</i> -- 10 gages (including 2 stream gages) located across basin.	\$ 38,438	\$ 38,438	\$ 38,438	\$ 38,438	\$ 39,206.76	\$ 39,991	\$ 40,791	\$ 41,607	\$ 42,439	\$ 43,287
	<i>Gage maintenance</i> -- 2 additional stream gages.							\$ 5,600	\$ 11,424	\$ 11,652	\$ 11,886
WEST Consultants	<i>Operational support</i> -- On-going support for website monitoring and updates for both routine operations and during potential flood events.	\$ 11,336	\$ 11,336	\$ 11,336	\$ 11,336	\$ 11,563	\$ 11,794	\$ 12,030	\$ 12,270	\$ 12,516	\$ 12,766
WEST Consultants	<i>Spare parts inventory</i> -- Extra parts in event of broken or malfunctioning gages.	\$ -	\$ 6,000	\$ 2,000	\$ 2,000	\$ 2,000	\$ 2,000	\$ 2,000	\$ 2,000	\$ 2,000	\$ 2,000
	<i>Spare parts inventory</i> -- 2 additional stream gages.							\$ -	\$ 1,000	\$ 1,000	\$ 1,000
Blu Telecomm	<i>Webcam cell fees</i> -- 3 cell data plans (\$125/month).							\$ 1,500	\$ 1,500	\$ 1,500	\$ 1,500
OneRain	<i>Webcam subscription fees</i> -- 3 subscriptions (\$105/month).							\$ 1,260	\$ 1,260	\$ 1,260	\$ 1,260
OneRain	<i>Website</i> -- One-rain annual subscription (260 sensors in and near Chehalis Basin).	\$ 3,811	\$ 3,811	\$ 5,261	\$ 5,261	\$ 5,500	\$ 5,877	\$ 6,000	\$ 6,000	\$ 6,000	\$ 6,000
WEST Consultants	<i>Removal</i> -- Removal of gage, webcam infrastructure TBD at time of request.							\$ -	\$ -	\$ -	\$ -
Lewis County	<i>Billing and processing.</i>	\$ -	\$ 900	\$ 900	\$ 900	\$ 900	\$ 900	\$ 900	\$ 900	\$ 900	\$ 900
Total --> (Existing)		\$ 53,585	\$ 60,485	\$ 57,935	\$ 57,935	\$ 59,169	\$ 60,562	\$ 61,721	\$ 62,777	\$ 63,855	\$ 64,954
							Total --> (New)	\$ 70,081	\$ 77,961	\$ 79,267	\$ 80,599
							Difference (Additional)	\$ 8,360	\$ 15,184	\$ 15,412	\$ 15,646

Note 1 -- ADDITIONAL O&M = 3 new webcams (2019), 2 new stream gages (2017).
Note 2 -- O&M projection for 2020 to 2023 based on 2 additional stream gages being installed summer 2017. State Capitol Budget pays for installation and calibration through June 2020. Flood Authority pays for O&M starting July 2020. 2020 cost will be for half the year. First full year of O&M for 2 additional stream gages will be 2021. See 2017 Flood Authority memo at following link: [https://www.ezview.wa.gov/Portals/1492/images/Staff%20memo%20-%20New%20gages%20%20-%203152017\(1\).pdf](https://www.ezview.wa.gov/Portals/1492/images/Staff%20memo%20-%20New%20gages%20%20-%203152017(1).pdf)

Attachment B Staff Recommendation

I. Recap of 2014-2019 Allocation Approach

Annual cost for 2014, 2015, 2016, 2017, 2018 and 2019 were allocated among Flood Authority counties as follows:

- Grays Harbor County -- 22%.
- Lewis County -- 64%.
- Thurston County -- 14%.

The method behind this allocation was as follows:

- 50% of the allocation was based on populations of communities prone to flooding.
- 50% was based on historic FEMA flood insurance payments.

This allocation approach was unanimously supported by Flood Authority beginning in 2014 (see [here](#)).

II. Staff Recommendation

Flood Authority agrees to use the same allocation approach as last year (see [here](#)) on the basis that relatively not a lot has changed in the Basin in terms of population shifts and/or exposure to flood risk, i.e., Lewis County still has largest population and risk exposure in the Basin.

2020 annual costs are proposed in the same manner as 2019 with Grays Harbor County paying 22% of costs, Lewis County paying 64% of costs, and Thurston County paying 14% of costs. 2020 costs are:

	2019	2020	Difference (increase)
Grays Harbor County (22%)	\$13,323.73	\$15,417.72	\$2,093.99
Lewis County (64%)	\$38,759.94	\$44,851.56	\$6,091.62
Thurston County (14%)	\$8,478.74	\$9,811.28	\$1,332.54

Increased costs are due to increased O&M from recent Flood Authority approved expansions to Flood Warning System (new gages, new webcams). Costs are warranted, especially given consistently increasing usage of system (discussed further in Attachments C and D).

Staff and Lewis County (as fiscal agent) are directed to implement and prepare payment schedules (1st half due 3/31/2020; 2nd half due 7/31/2020).

Note: Lewis County, acting as fiscal agent for the Flood Authority, has historically handled billing and processing for payments associated with the Flood Warning System. It is assumed this practice will continue for 2020. It should be noted however that Lewis County's role could be modified/adjusted as further thought and consideration is put into ownership, operation and maintenance of the Flood Warning System in light of the Office of Chehalis Basin and Lewis County Flood Control Zone District assuming more prominent roles.

**Attachment C
Draft Outreach Content**

I. Flood Warning System Usage (1)

Increasing annual O&M costs are warranted when Flood Warning System usage increases. One measure of usage is email gage alert sign-ups. As alert sign-ups increase, per capita costs decrease.

Flood Season	Gage Alert Sign-Ups	Annual O&M Cost	Per Sign-Up Cost
2013/14	n/a	\$ 53,585	
2014/15	379	\$ 60,485	\$ 159.59
2015/16	845	\$ 57,935	\$ 68.56
2016/17	951	\$ 57,935	\$ 60.92
2017/18	984	\$ 59,169	\$ 60.13
2018/19	1037	\$ 60,562	\$ 58.40
2019/20	1500	\$ 70,081	\$ 46.72
2020/21	1600	\$ 77,961	\$ 48.73
2021/22	1700	\$ 79,267	\$ 46.63
2022/23	1800	\$ 80,599	\$ 44.78

II. Draft Outreach Content (for letter or email)

To continue to increase gage alert sign-ups, as (1) an inexpensive way to keep citizens, businesses, first-responders, etc. informed of changing river conditions and (2) a way of continuing to lower per capita costs, a targeted outreach campaign for the month of November 2019 is planned. First on the order is outreach to churches and faith communities in the Basin to increase gage alert sign-ups.

DRAFT email outreach content . . .
<p>Dear **name**:</p> <p>My name is Scott Boettcher. I am staff to the Chehalis River Basin Flood Authority.</p> <p>I am contacting you to raise your awareness of the Chehalis River Basin Flood Warning System (www.chehalisriverflood.com) and would like to ask that you share the attached with your congregation.</p> <p>The Chehalis River Basin Flood Warning System provides an email alert flood notification program. The email alert flood notification program allows individuals and organizations to sign-up to receive automatic email alerts from select river gages once those river gages reach elevated and potentially threatening flood levels. The Chehalis River Basin Flood Warning System is one way the Chehalis River Basin Flood Authority is working to ensure Basin residents are flood aware and flood prepared.</p> <p>Here are some additional resources:</p>

- 2019-20 Flood Alert Sign-Up Information --> Click [here](#).
- Interactive Gage Alerts map --> Click [here](#).
- Flood Warning System icon for posting to your website --> Click [here](#) (option 1), [here](#) (option 2).

Thank you for your consideration and feel free to contact me to discuss further.

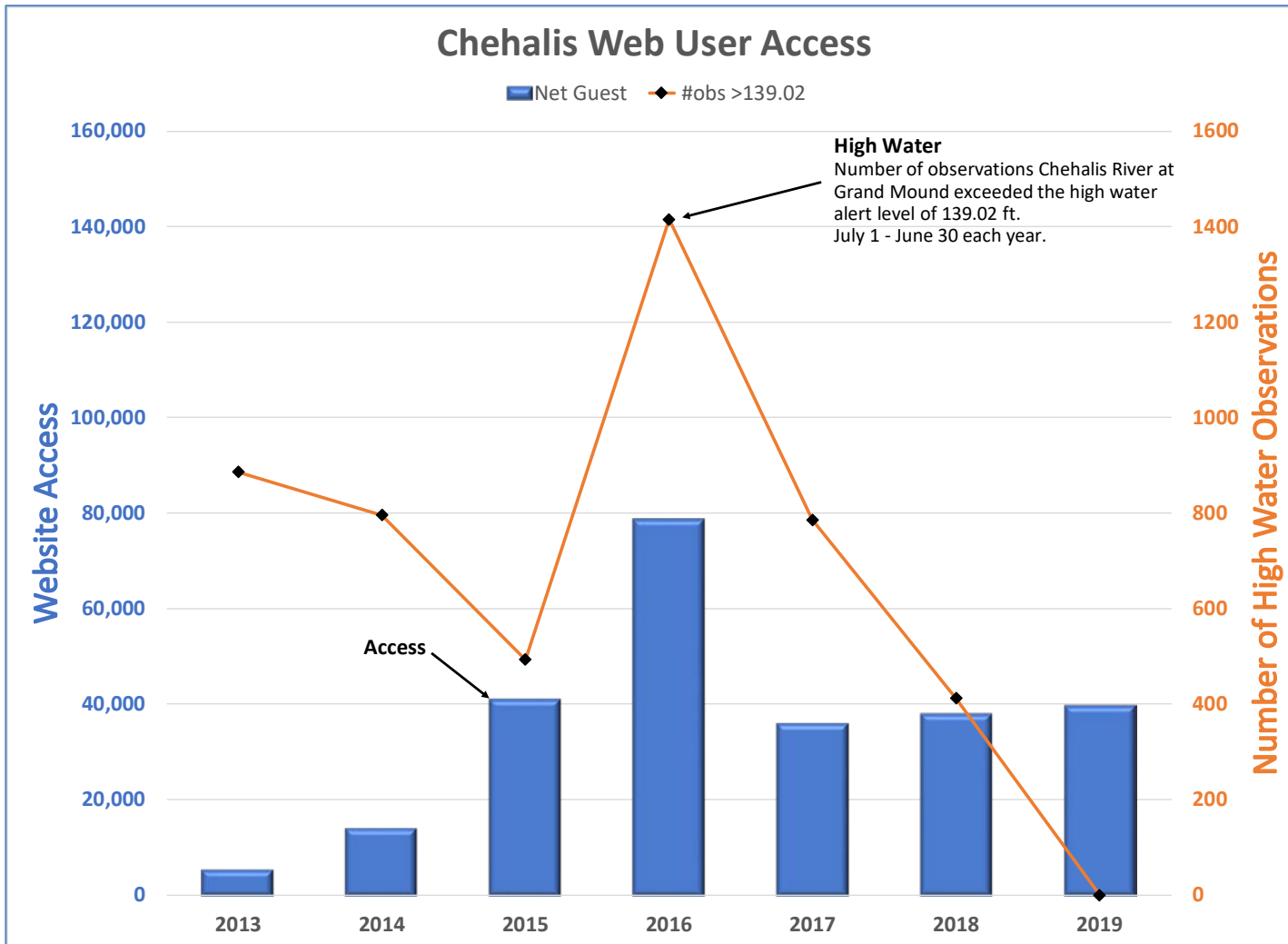
Scott

Be Aware, Be Prepared.

Scott Boettcher, Staff
Chehalis River Basin Flood Authority
360/480-6600
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Attachment D Flood Warning System Usage (2)

As river levels rise (orange), Flood Warning System website usage rises (blue). Usage has been steady to slightly growing, even with recent drier flood seasons. Website usage appears to be becoming in-grained in the community.



- ✓ 2013 -2015 -- Initial growth as website awareness spreads.
- ✓ 2016 – Usage spiked as high-water observations spiked.
- ✓ 2017-2019 – Slow, steady growth in usage despite drop in high-water observations.