



November 17, 2021

TO: Flood Authority Members

FROM: Scott Boettcher, Staff

SUBJECT: 2022 Flood Warning System Budget and County Shares

Purpose of this memo is to discuss and allocate 2022 Flood Warning System annual operations and maintenance costs (www.chehalisriverflood.com). We will discuss at tomorrow's Flood Authority meeting. Please feel free to contact me with questions (360/480-6600; scottb@sbgh-partners.com).

We walk through the following attachments:

- Attachment A – Breakdown and Comparison of Annual O & M Costs (2014 through 2023)
- Attachment B – Staff Recommendation

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)

TABLE 1

O&M (showing 2% annual WEST cost-increase starting 2018)

		2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
WEST Consultants	Gage maintenance -- 12 gages (including 4 stream gages) located across basin.	\$ 38,438	\$ 38,438	\$ 38,438	\$ 38,438	\$ 39,207	\$ 39,991	\$ 46,391	\$ 53,031	\$ 54,091	\$ 55,173
WEST Consultants	Operational support -- 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	Spare parts inventory -- Extra parts in event of broken or malfunctioning gages.	\$ -	\$ 6,000	\$ 2,000	\$ 2,000	\$ 2,000	\$ 2,000	\$ 2,000	\$ 3,000	\$ 3,000	\$ 3,000
Blu Telecomm	Webcam cell fees -- 3 cell data plans (\$125/month).							\$ 1,500	\$ 1,500	\$ 1,500	\$ 1,500
OneRain	Webcam subscription fees -- 3 subscriptions (\$105/month).							\$ 1,260	\$ 1,260	\$ 1,260	\$ 1,260
OneRain	Website -- One-rain annual subscription (285 sensors in and near Chehalis Basin).	\$ 3,811	\$ 3,811	\$ 5,261	\$ 5,261	\$ 5,500	\$ 5,877	\$ 6,000	\$ 6,500	\$ 6,500	\$ 6,500
WEST Consultants	Removal -- Removal of gage, webcam infrastructure TBD at time of request.							\$ -	\$ -	\$ -	\$ -
Lewis County	Billing and processing.	\$ -	\$ 900	\$ 900	\$ 900	\$ 900	\$ 900	\$ 900	\$ 900	\$ 900	\$ 900
Total -->		\$ 53,585	\$ 60,485	\$ 57,935	\$ 57,935	\$ 59,169	\$ 60,562	\$ 70,081	\$ 78,461	\$ 79,767	\$ 81,099

TABLE 2

O&M (showing 2% and 6% for 2022)

		2021	2022 (2%)	2022 (6%)	Difference
WEST Consultants	Gage maintenance -- 12 gages (including 4 stream gages) located across basin.	\$ 53,031	\$ 54,091	\$ 56,212	\$ 2,121
WEST Consultants	Operational support -- On-going support for website monitoring and updates for	\$ 12,270	\$ 12,516	\$ 13,007	\$ 491
WEST Consultants	Spare parts inventory -- Extra parts in event of broken or malfunctioning gages.	\$ 3,000	\$ 3,000	\$ 3,000	\$ -
Blu Telecomm	Webcam cell fees -- 3 cell data plans (\$125/month).	\$ 1,500	\$ 1,500	\$ 1,500	\$ -
OneRain	Webcam subscription fees -- 3 subscriptions (\$105/month).	\$ 1,260	\$ 1,260	\$ 1,260	\$ -
OneRain	Website -- One-rain annual subscription (285 sensors in and near Chehalis Basin).	\$ 6,500	\$ 6,500	\$ 6,500	\$ -
WEST Consultants	Removal -- Removal of gage, webcam infrastructure TBD at time of request.	\$ -	\$ -	\$ -	\$ -
Lewis County	Billing and processing.	\$ 900	\$ 900	\$ 900	\$ -
Total -->		\$ 78,461	\$ 79,767	\$ 82,379	\$ 2,612

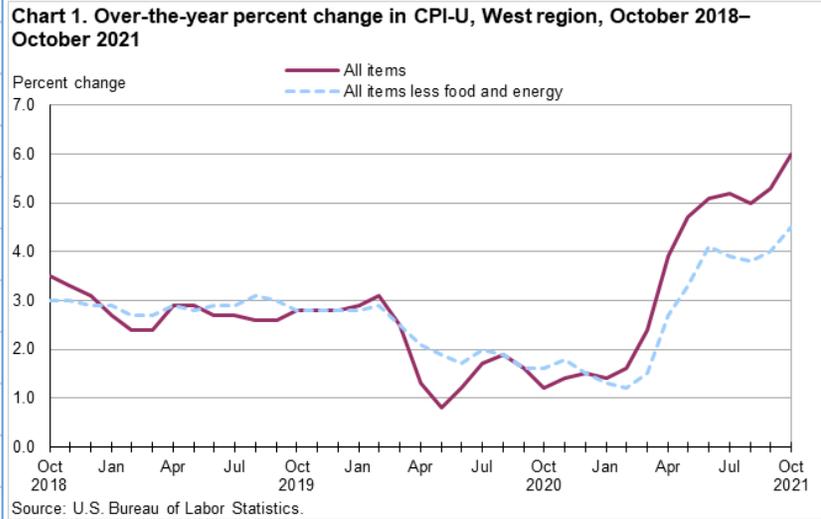


TABLE 3 (2%)

	Grays	Lewis	Thurston
2021	\$ 17,261	\$ 50,215	\$ 10,985
2022 (2%)	\$ 17,549	\$ 51,051	\$ 11,167

TABLE 4 (6%)

	Grays	Lewis	Thurston
2021	\$ 17,261	\$ 50,215	\$ 10,985
2022 (6%)	\$ 18,123	\$ 52,723	\$ 11,533

Consumer Price Index, West Region — October 2021

(2%) vs. (4%)	\$ 575	\$ 1,672	\$ 366
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**Attachment B
Staff Recommendation**

I. Recap of 2014-2021 Allocation Approach

Annual cost for 2014, 2015, 2016, 2017, 2018, 2019, 2020, and 2021 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

- a. Flood Authority agrees to use the same allocation approach as last year (see [here](#)) on the basis that relatively little 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.
- b. 2022 annual costs are proposed in the same manner as 2021 with Grays Harbor County paying 22% of costs, Lewis County paying 64% of costs, and Thurston County paying 14% of costs; however, for 2022, staff recommends Flood Authority members agree to a 6% increase (instead of 2% as has been the case since 2018) to account for current inflation rates as previously described and shown below in Table 4.

TABLE 4 (6%)			
	Grays Harbor County	Lewis County	Thurston County
2021	\$ 17,261	\$ 50,215	\$ 10,985
2022 (6%)	\$ 18,123	\$ 52,723	\$ 11,533

- c. Staff and Lewis County (as fiscal agent) are directed to implement and prepare payment schedules (1st half due 3/31/2022; 2nd half due 7/31/2022).

Note: Lewis County, acting as Flood Authority’s fiscal agent, has historically handled billing and processing for costs with Flood Warning System. It is assumed this practice will continue for 2022.