

FILE UNDER AB 2019 - 539-1 10/22/2019

DATE RECEIVED: 10/22/2019

SUBMITTED BY: Paula Harris

Public Works

☐ COUNCIL MEETING

☒ Natural Resources COMMITTEE

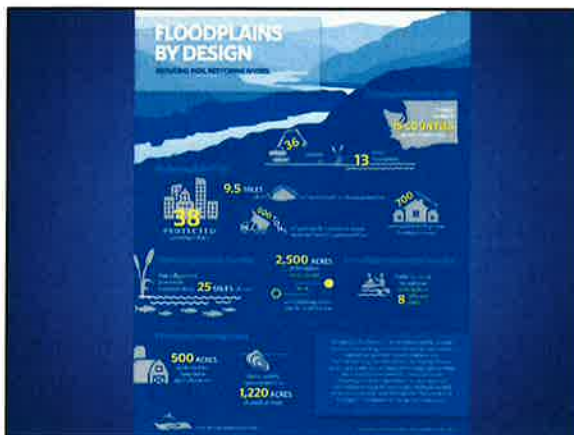
EXHIBIT: _____

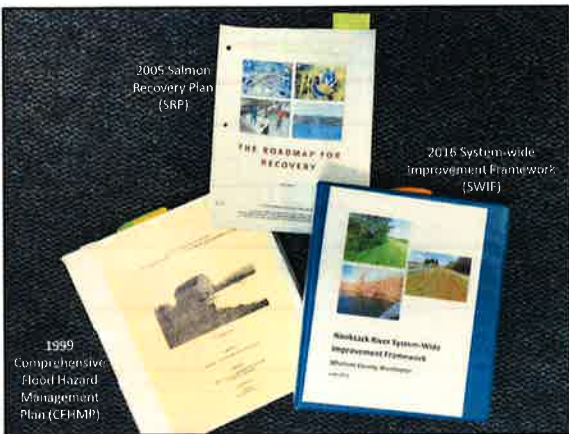
Floodplain Integrated Planning (FLIP)

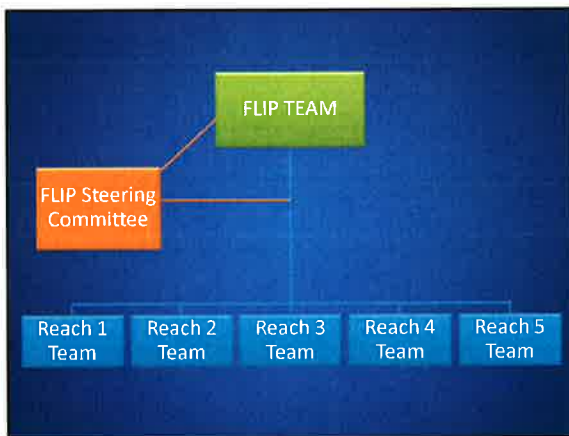
Natural Resources Committee
October 22, 2019

River and Flood Programs

- Early warning and flood response
 - Comprehensive planning
 - SWIF
 - CFHMP
 - FLIP
 - National Flood Insurance Program
 - Technical Assistance
- Repair & Maintenance Projects
Flood Hazard Reduction (FHR) Projects
Integrated (FHR) Projects



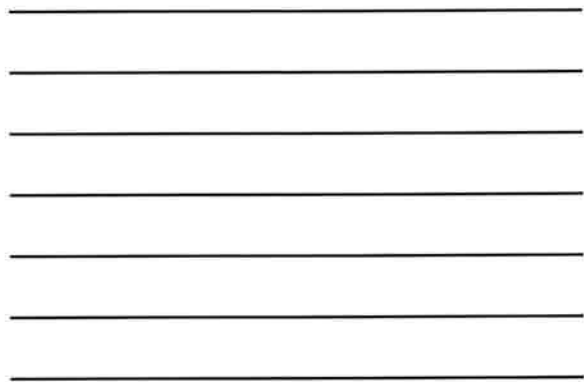
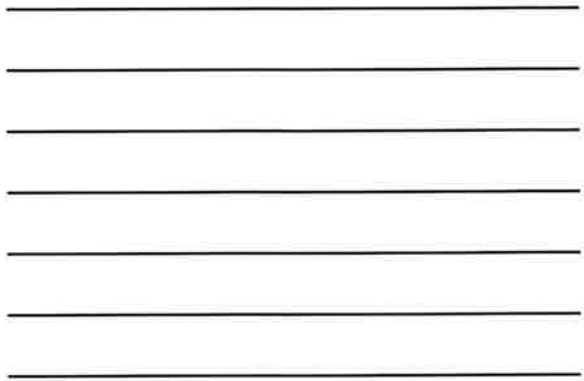




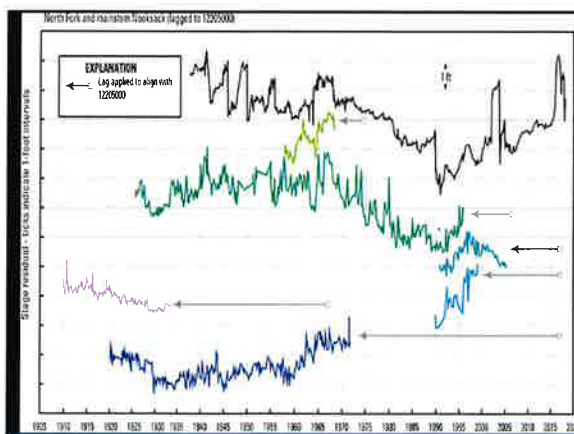
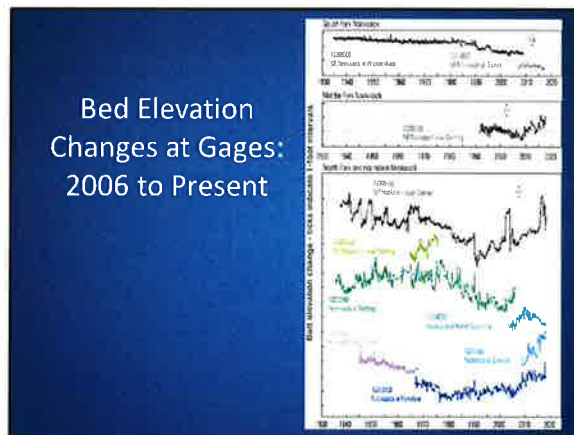
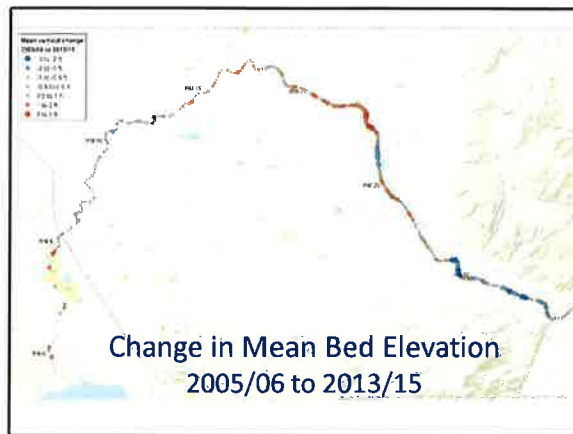


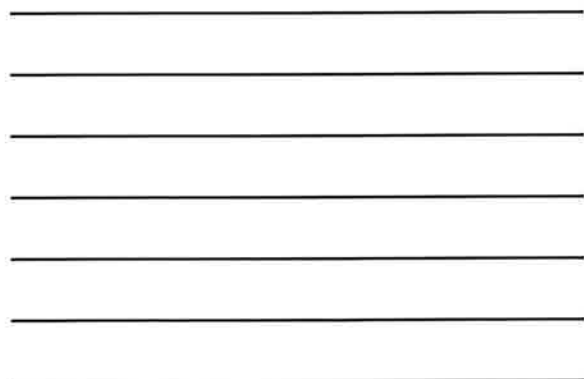
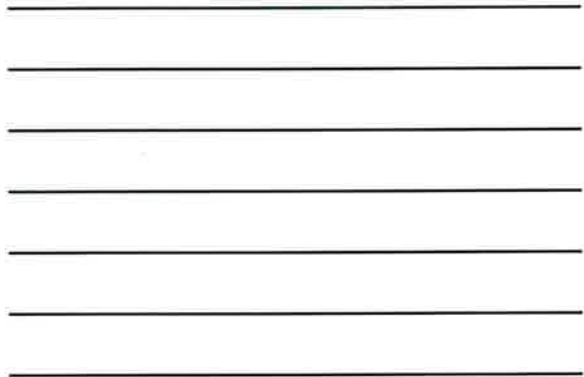
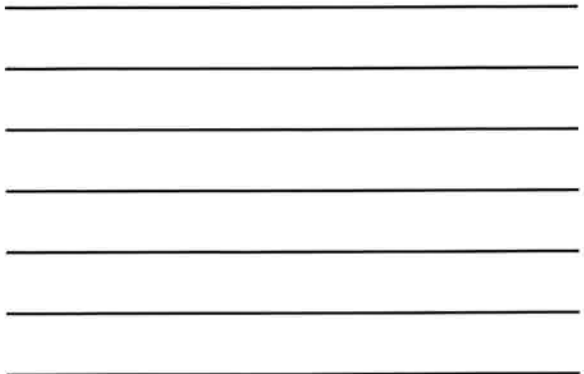
Slide 6

DS1 When did the FLIP start?
Deborah Stewart, 10/11/2019



-
-
-
-
-
-





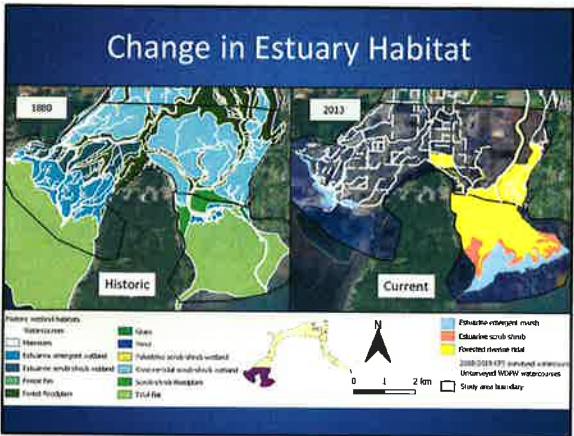


Table 9-6. Recommended Restoration Actions for South Fork Reaches (adapted from Beechie et al. 2012).

Category	Restoration Goal	Anticipated Climate Change Effects*						Priority of Action by Reach				
		Increased Precipitation	Increased Temperature	Increased Sea Level	Increased Flood Frequency	Increased Salinity	Increased Turbidity	1	2	3	4	5
Physical/Structural	Remove barriers to channel migration	●	○	○	○	○	○	High	High	High	High	High
	Reconnect channels to floodplain	●	○	○	○	○	○	High	High	High	High	High
Vegetation	Plant native vegetation	●	○	○	○	○	○	High	High	High	High	High
	Plant native vegetation	●	○	○	○	○	○	High	High	High	High	High
Bank and Channel	Plant native vegetation	●	○	○	○	○	○	High	High	High	High	High
	Plant native vegetation	●	○	○	○	○	○	High	High	High	High	High
Wetland Function	Plant native vegetation	●	○	○	○	○	○	High	High	High	High	High
	Plant native vegetation	●	○	○	○	○	○	High	High	High	High	High
Wetland Function	Plant native vegetation	●	○	○	○	○	○	High	High	High	High	High
	Plant native vegetation	●	○	○	○	○	○	High	High	High	High	High

* Based on a 2012 study of climate change impacts on the South Fork River. Data is based on the projected changes in precipitation, temperature, and sea level rise. The study also found that increased precipitation and temperature will lead to increased evaporation and decreased water availability. Increased sea level rise will lead to increased saltwater intrusion and decreased freshwater availability.


Legend:

- High priority
- Low priority
- Medium priority
- High priority



FLIP Story Mapping

What are we doing?



FLIP is a multi-agency partnership that is working to improve the lives of floodplain farmers and their communities. We are doing this by providing them with the tools and resources they need to manage their land and water resources more effectively. This includes providing them with information about the latest floodplain management techniques, as well as helping them to develop and implement their own floodplain management plans. We are also working to improve the way that floodplain farmers are represented in the decision-making process, so that their voices are heard and their needs are met.

Why are we doing it?

Floodplains are some of the most productive and valuable land resources in the United States. They provide a wide range of ecosystem services, including flood protection, water filtration, and wildlife habitat. However, floodplains are also some of the most vulnerable to human impacts, such as development, agriculture, and climate change. This has led to a significant loss of floodplain habitat and a decline in the services that floodplains provide. We are doing this because we believe that floodplains should be managed in a way that protects their ecological integrity and the services they provide. We are also doing this because we believe that floodplain farmers should be given the tools and resources they need to manage their land and water resources more effectively. This will help them to protect their livelihoods and the floodplains that they depend on.

Who is Attending FLIP Meetings?

Date	Meeting Type	Total Attendees	# of Community Members	% Community Members
Apr 12, 2018	FLIP Team	54	13	24%
Mar 27, 2018	Technical FLIP	42	9	21%
Dec 13, 2017	Fish Chat	12	7	58%
Nov 2, 2017	FLIP Team	51	13	25%
Jun 28, 2017	FLIP Team	37	7	19%

Most of the community members attending are floodplain farmers

FLIP Funding Obtained (2017 – 2021) How Much and Where From?

FLIP Project Component	Grant Funding Type	Grant \$ Amount	Estimated Total \$ Amount	% Grant Funding
Geomorphic Assessment	NOAA via TNC	\$100,000	\$150,000	67%
Habitat Assessment	RCO SRFB	\$237,000	\$247,000	96%
FLIP Planning Process	EPA NEP	\$425,000	\$593,000	72%
Benefit-Cost Analysis	EPA NEP USACE Silver Jackets	\$150,000	\$150,000	100%
USGS Reach 1 Study	EPA NEP	\$250,000	\$250,000	100%
Total Planning		\$1,162,000	\$1,390,000	84%
Project Implementation (2019-2021)	Floodplains by Design	\$4,832,000	\$6,040,000	80%

Amendment Scope of Work

- Support to FLIP Steering Committee (2 years)
- Technical products as requested
 - Flood and erosion risk mapping
 - Story maps
- Flood damage analysis assistance
- Technical support at FLIP meeting by technical leads (geomorphology, habitat and hydraulics)
- Draft documentation of plan

