



Western Washington University
Western CEDAR

Salish Sea Ecosystem Conference

2018 Salish Sea Ecosystem Conference
(Seattle, Wash.)

Apr 6th, 9:00 AM - 9:15 AM

Efforts of Washington and British Columbia agricultural producers to address fecal coliform bacteria pollution in the lower Nooksack watershed

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Hughes-Games, Geoff; Appel, Rich; and Raymond, Mark, "Efforts of Washington and British Columbia agricultural producers to address fecal coliform bacteria pollution in the lower Nooksack watershed" (2018). *Salish Sea Ecosystem Conference*. 462.

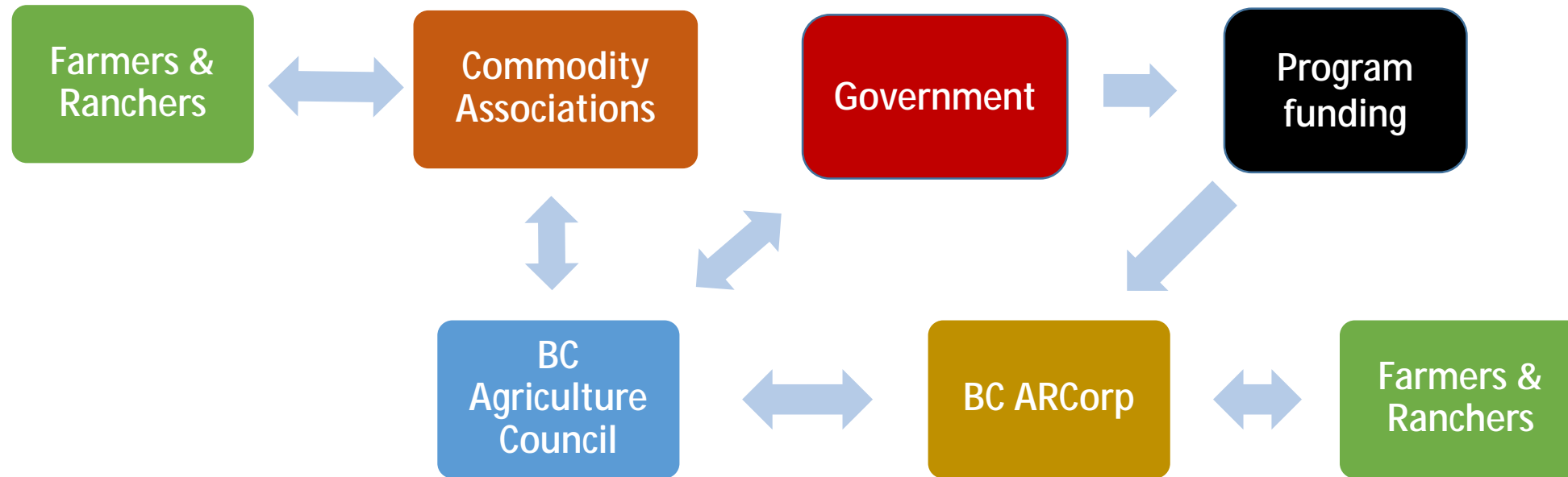
<https://cedar.wwu.edu/ssec/2018ssec/allsessions/462>

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What are British Columbia producers doing to reduce impacts in the Nooksack watershed?

Geoff Hughes-Games, PAg
Acting Program Manager – BC ARDCorp

Producer - Organization Relationships



Primary Regulations – farm/environment interaction

- ***Environmental Management Act*** – Provincial
 - ***Waste Discharge Regulation*** – all sectors
 - ***Agricultural Waste Control Regulation*** – agriculture sector
 - Primary legislation related to manure management
 - currently under review
- ***Water Sustainability Act*** – Provincial
 - Water use and works in and about streams
- ***Fisheries Act*** – Federal
 - Protection of fish and fish habitat
- ***Species at Risk Act*** - Federal
 - Aquatic and terrestrial organism and critical habitat

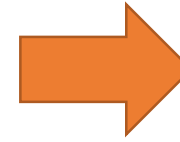


ENVIRONMENTAL FARM PLAN

Planning
Advisors



Farmers and
Ranchers



Resources

Funding

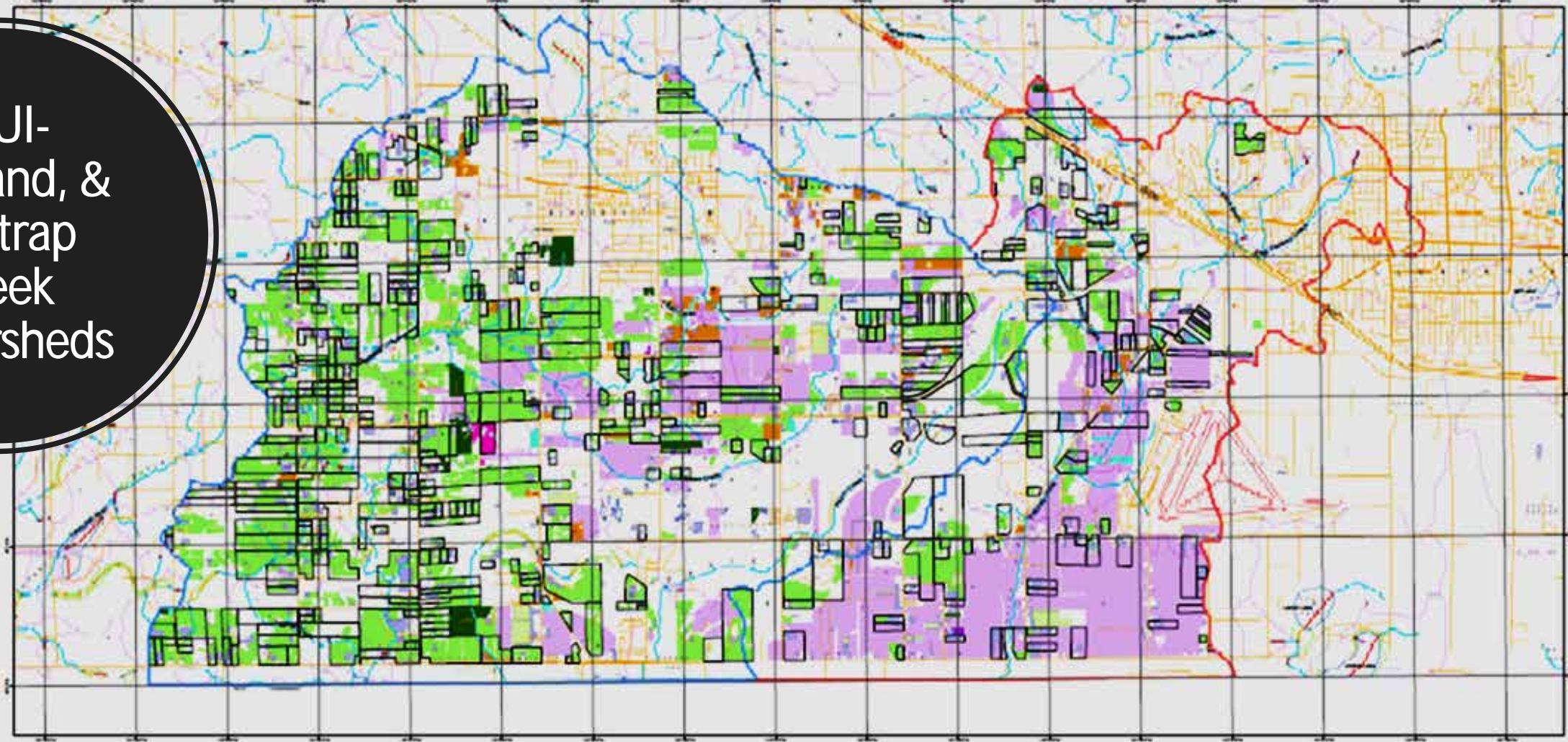
- Yes – from BMP Program
- No – complete using own resources or resources or guidance from others



Beneficial Management Practices

- Legal Requirements
- Recommended

ALUI- Bertrand, & Fishtrap Creek Watersheds



Bertrand Creek and Fishtrap Creek Watershed - Fecal Levels

Freshwater Atlas - Watershed

- Blue outline: Bertrand Creek
- Red outline: Fishtrap Creek
- Purple outline: Watersheds

FWA - Stream Network - Lines

- Blue line: Stream - Main Flow
- Light blue line: Stream - Secondary Flow
- Yellow line: Wetland - Main Flow
- Orange line: Wetland - Secondary Flow

Downstream direction from _SP

- Red line: Lake Skeleton - Main Flow
- Dark red line: Lake Skeleton - Secondary Flow
- Light red line: Lake Arm Skeleton - Secondary Flow
- Blue line: River Skeleton - Main Flow
- Light blue line: River Skeleton - Secondary Flow
- Purple line: Flow Connector

- Dark purple line: Isolated Waterbody Skeleton - Main flow
- Light purple line: Underground Connector - Main Flow
- Dotted purple line: Inferred Connector
- Green line: Manmade - Main Flow
- Light green line: Manmade - Secondary Flow
- Black line: Flow Connector - Outside BC

Agriculture Structures

- White box: Parcels with Livestock
- Purple box: Poly greenhouse
- Light green box: Glass greenhouse
- Orange box: Crop barn
- Blue box: Farm

Cultivated Field Crops

- Yellow box: Cereals & Oilseeds
- Purple box: Tree fruits
- Light purple box: Vines & berries
- Green box: Forage, pasture
- Dark green box: Vegetables
- Light yellow box: Floriculture
- Pink box: Specialty, Turf, Nut trees
- Orange box: Nursery & Tree plantations
- Cyan box: Other

Map Information:

- Coordinate System: NAD 1983 BC Albers (Metric)
- Projection: Albers
- Datum: North American 1983
- Created by: Innovation and Adaptive Services Branch
- Created on: 01/10/2018
- Source: FWA, GIS, Field Observations, etc.

Scale: 0 to 4 Kilometers





ENVIRONMENTAL FARM PLAN

EFP History

Number of EFPs Conducted in Bertrand, Cave, Pepin and Fishtrap Creek Watersheds since 2004

	Langley	Abbotsford	Total
Cattle	5	-	5
Poultry	16	12	28
Other Livestock	9	1	10
Berries/Vegetables	13	65	78
Mushroom	2	-	2
Nursery	1	2	3
Forage	4	-	4
Greenhouse	-	5	5
Mixed	2	2	4
	52	87	139

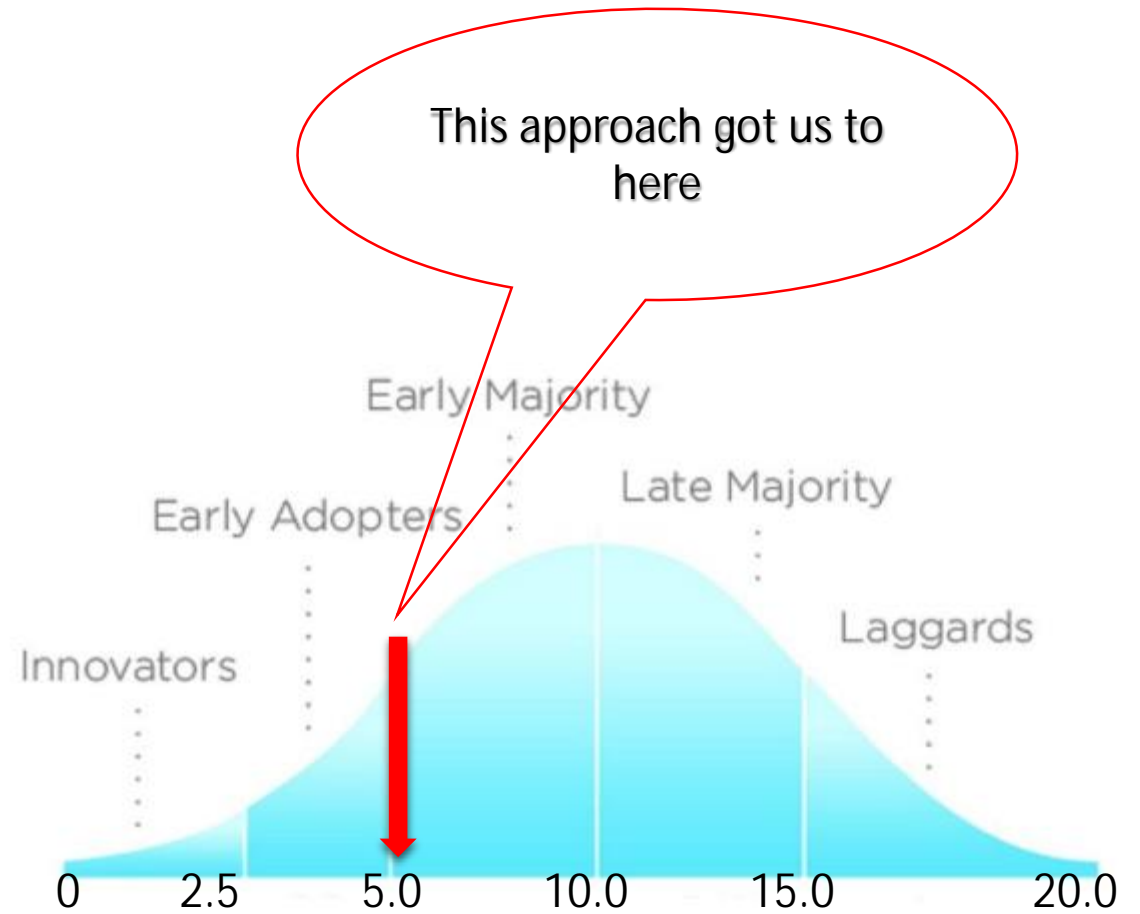
* Count based on home address location within watershed

Number and Type Funded BMP Projects Completed
in Bertrand, Cave, Pepin and Fishtrap Creek Watersheds since 2004

	Langley	Abbotsford	Program Funds*
Project BMPs			
Manure Management	9	8	\$110,985
Riparian or Buffer Establishment	7	6	\$162,858
Irrigation supply / distribution	11	55	\$365,078
Farmyard runoff	3	1	\$26,334
Nutrient recycling	0	4	\$16,668
Product/Waste management	9	17	\$129,516
CO ₂ Emission Reduction	1	2	\$28,938
Planning BMPs			
Nutrient Management Plan	15	5	\$87,969
Pest Management Plan	1	5	\$7,000
Water Management Plan	5	4	\$25,974
Vegetative Buffer Plan	2	2	\$8,899
* Average Producer investment \$2.50/ \$1.00 from Program			

Progress to date.... EFP Program focused on benefits to farmers.....

- u Confidential review
- u Voluntary participation
- u Compliance with environmental regulations
- u Providing financial benefits thru BMP Program to support on-farm actions



We need to take a different approach!



Different Approach.....

*Take a closer look at who is working agricultural operators in the watersheds?
How can these programs cooperate?
New Funding Agreement – Canadian Agricultural Partnership 2018-2023*

Organization/Program	Focus	Activities
Langley Sustainable Agriculture Foundation Farmland Advantage Program	Ag Industry	<ul style="list-style-type: none">• Workshops/seminars• Pilot - ESI
Langley Environmental Partners Society (LEPS)	Rural land owners	<ul style="list-style-type: none">• Education/data collection• Projects on private land
Bertrand Creek Enhancement Society	Watershed users	<ul style="list-style-type: none">• Education/Projects• Work w/LEPS
BC Horse Council	Horse Owners	<ul style="list-style-type: none">• Education• Work w/LEPS
BC Environmental Farm Plan Program	Farmers	<ul style="list-style-type: none">• Agri-Env Risk Assessments• On-farm cost share funding

her, Vale Farms
by, BC

5,000

 FARM PLAN
COMPLETED



No Charge – Confidential – No Obligation

1-866-522-3447

www.bcefp.ca