

*Update on Implementation of Waters/Wetlands Program  
Critical Areas Ordinance  
Mount Vernon, Washington  
March 18, 2009*



# *Presentation Outline*

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1. Restoration Design and Permitting
2. Acquisitions
3. Training and Coordination
4. Changes in Ecosystem Functioning
5. Peer Reviews to Date
6. Technical Tools – Stream Surveys
7. Managed Ecosystem Alternative Summary
8. Conclusions

# 1. Restoration Design and Permitting

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**KULSHAN CREEK**

# *Bakerview Park*

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**BEFORE**  
(Aug. 23, 2007)



**AFTER**  
(April 4, 2008)



# *Logan Creek*



# *Kulshan Creek*



## 2. *Land Acquisitions*

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Scrupps property in Upper Logan Creek

\$10,000

### *3. Training and Coordination*

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A. Logan Creek Restoration  
Design: Skagit Valley  
Community College



B. Streamwalking: Skagit Valley Community  
College Interns

C. Training for City Staff: Two sessions led by  
Lyndon Lee and Don Lergen

D. HGM Training for Skagit Conservation  
District (Lori Kyle)

# 4. Changes in Ecosystem Functioning

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Hydrogeomorphic Assessments have been conducted in the following sites:

1. Bakerview Park
2. Little
3. MV Herald
4. Digby Heights
5. Smith-Burkland
6. Skagit County Admin Building Addition
7. Hidden Lakes

Draft Operational Guidebook to Assessment of  
Riverine, Slope and Depressional Waters/Wetlands  
Functions in the City of Mount Vernon, Washington



DRAFT

March 2008

Developed for:

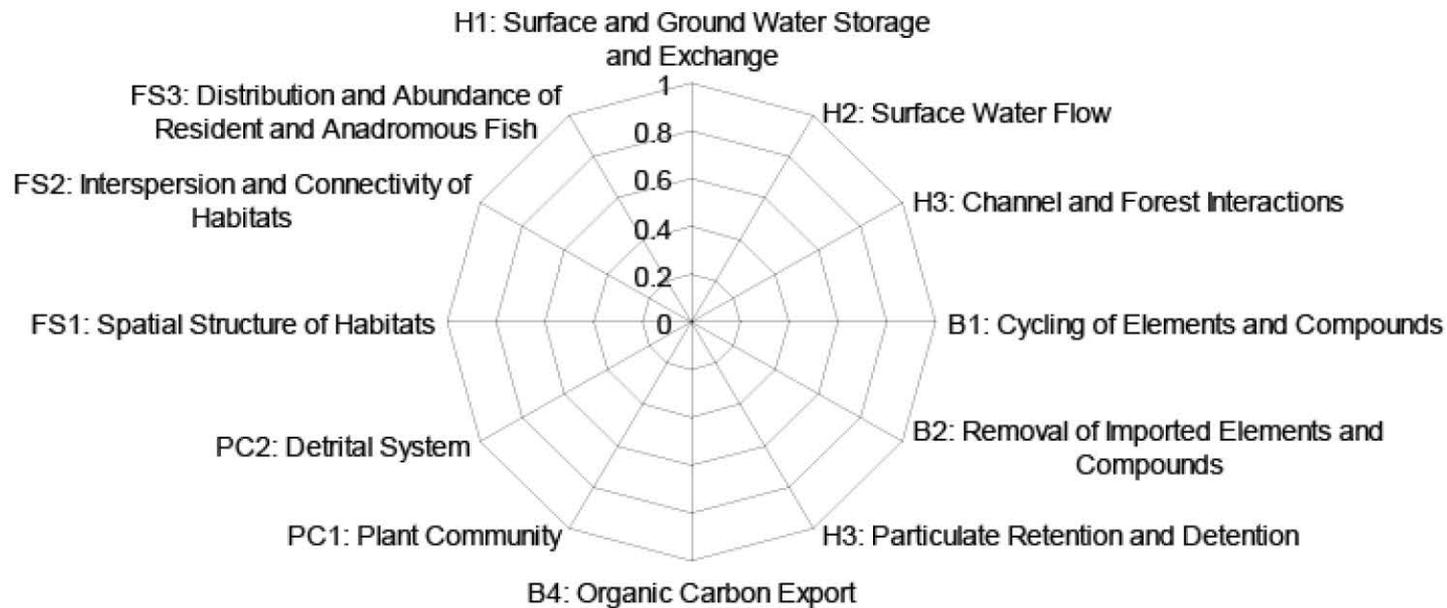
City of Mount Vernon  
P.O. Box 809  
910 Cleveland Ave.  
Mount Vernon, WA 98273

By:

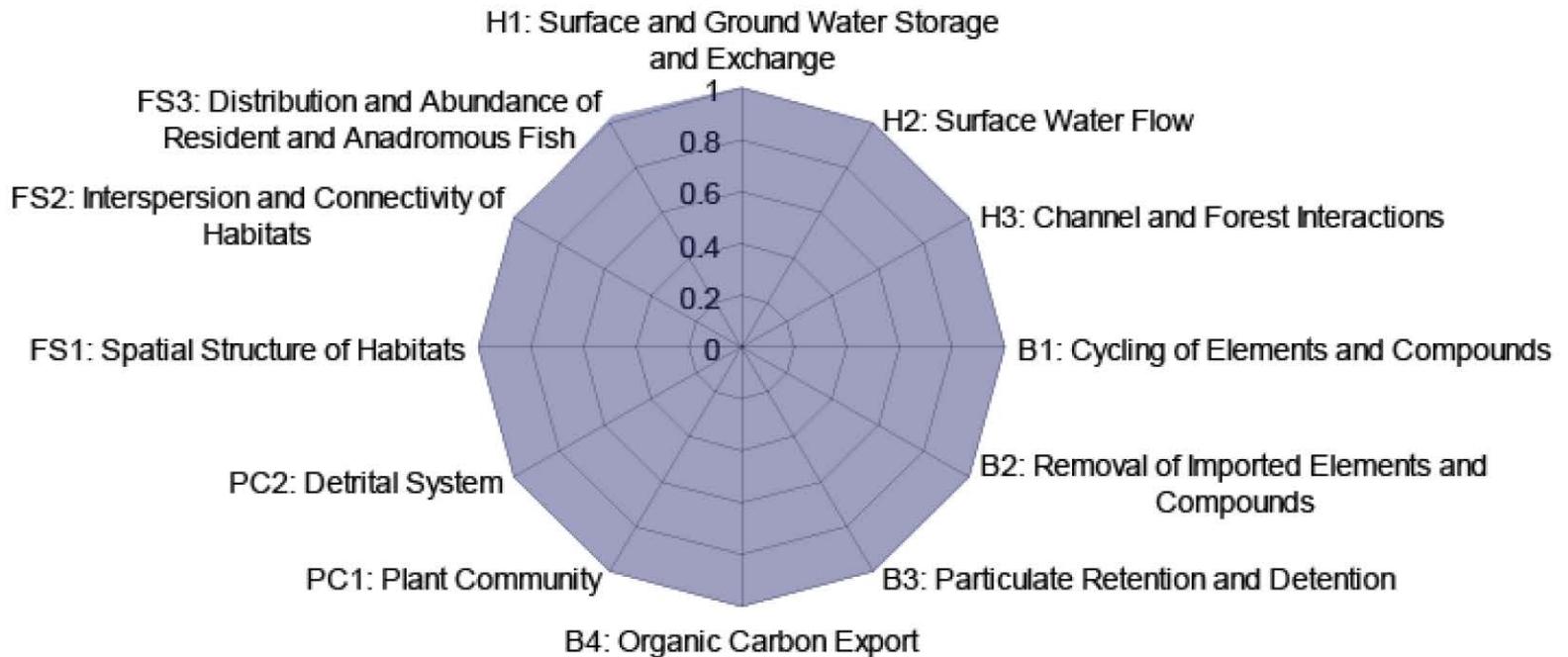


Ecosystem Science and Natural Resource  
Management Services  
2324 Eastlake Ave. E, Ste. 505  
Seattle WA, 98102

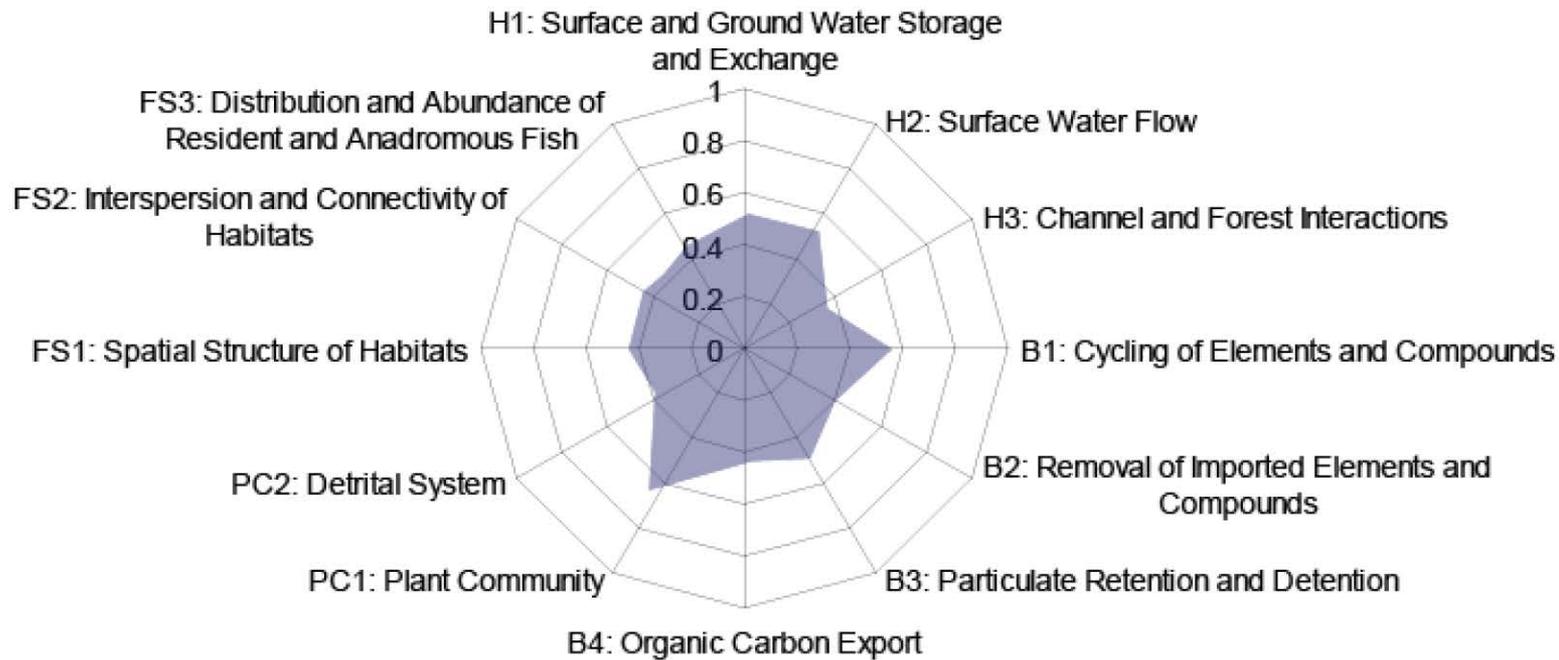
### EXAMPLE "SPIDER" DIAGRAM



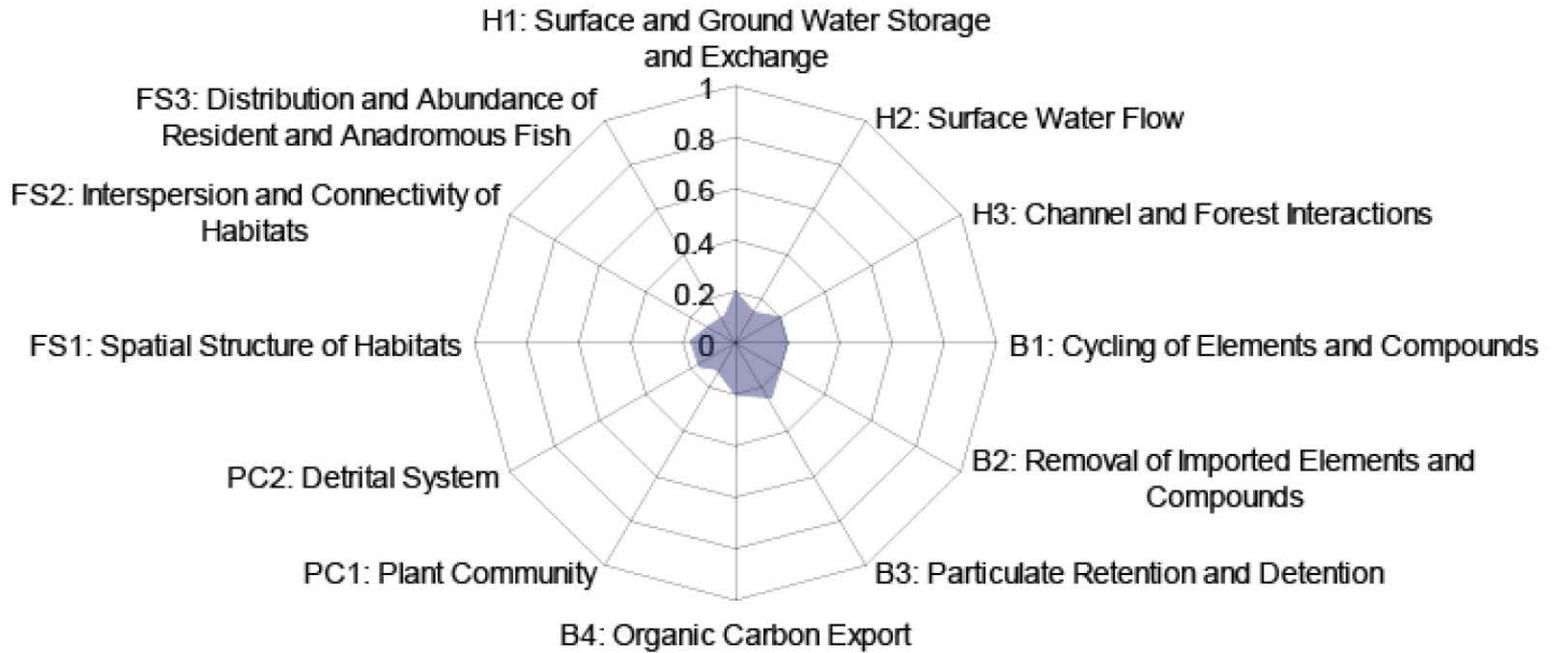
EXAMPLE- REFERENCE STANDARD SITE



### EXAMPLE- MODERATELY FUNCTIONING SITE

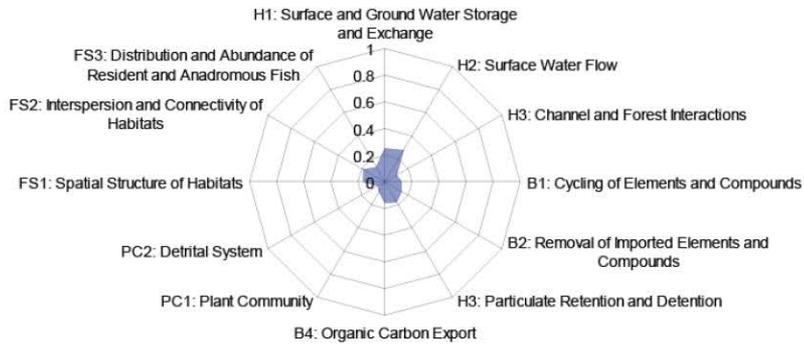


### EXAMPLE- POORLY FUNCTIONING SITE

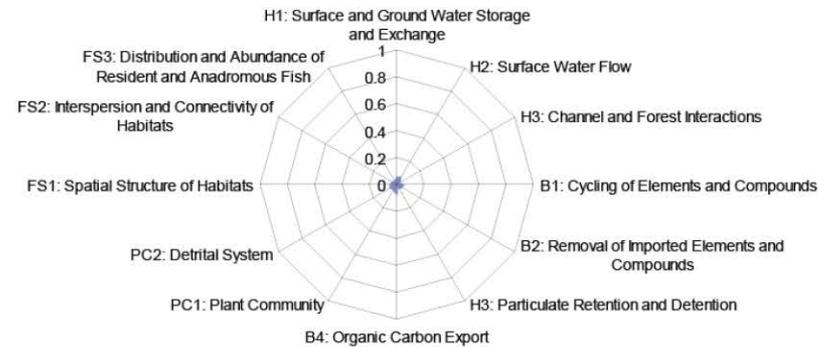


# HGM Assessment Results on 4 sites in the City of Mount Vernon (SCD, WSP)

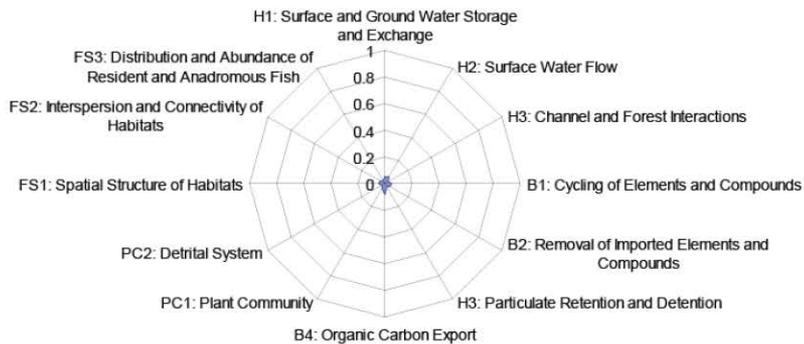
DIGBY SITE



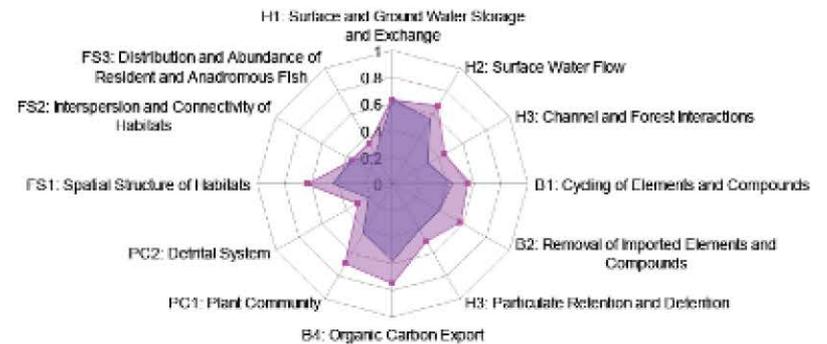
LITTLE SITE



SMITH-BURKLAND SITE



BAKERVIEW PARK



## *5. Peer Reviews*

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Since the adoption of Critical Areas Ordinance No. 3353 in 2007 ? peer reviews for developer projects have been performed.

10 sites have successfully completed the goals and objectives of their mitigation plans.

# 6. Stream Surveys



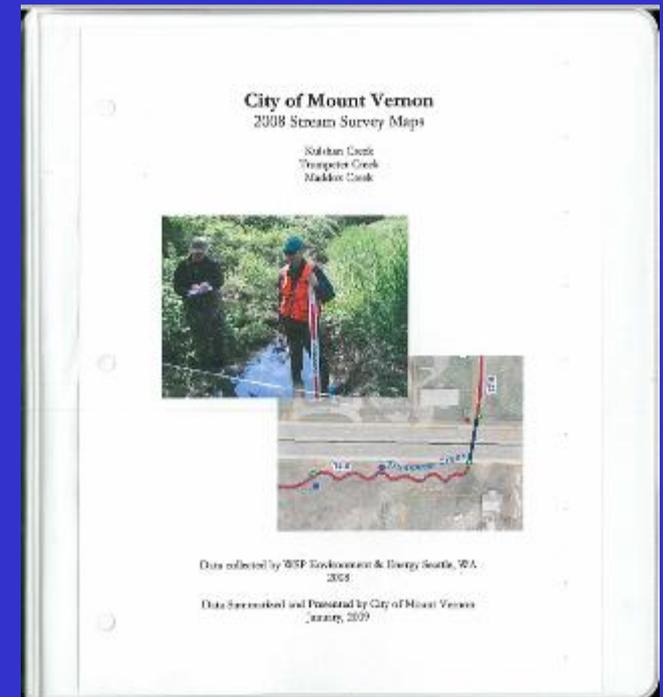
# 2008 Stream Survey Maps

## Kulshan, Trumpeter, and Maddox Creeks

- Updated stream lines based on existing stream data, aerial photos and WSP GPS data.
- Mapped features from 2008 survey include identified reaches, fish barriers, and outfalls.
- Notebook includes:
  1. Maps
  2. Stream survey data
  3. Fish barrier data
  4. Outfall data
  5. Description of Stream Survey Methods
- Additional information available including stream cross section graphs and stream walking photographs.

# Survey Stats

Results in notebook



### Wetland Mitigation Tracking

<b>Project #</b>	<b>Project Name</b>	<b>Type</b>	<b>Basin</b>	<b>Amount</b>
LU05-085	Montreaux	wetland	Trumpeter Creek	\$4,804
LU08-026	NW Eye Surgeons	wetland/stream	Kulshan Creek	\$31,778
LU07-048	Skagit County Admin Building Addition	stream	North Fork Kulshan	\$9,770
LU06-060	Smith-Burkland	stream restoration	Trumpeter Creek	\$12,285
LU07-052	Skagit Valley Herald	wetland/stream	Maddox Creek	\$23,286
LU07-037	Hanson Plat	Corps of Engineers required mitigation	Trumpeter Creek	\$20,000
LU09-019	Scott Short Plat	stream	Trumpeter and Logan Creek	\$16,425
LU10-009	B&T Short Plat	stream	Maddox and Flowers Creek	\$21,225

Total \$142,657

## 8. *Conclusions and Recommendations*

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*Revision of CAO is in Progress*

The original CAO (code) was the first of its kind in the state.

We had to run it in real circumstances to iron out glitches and make the formatting more user-friendly.

Status: Complete and up for approval 3/18.

# *Mount Vernon's CAO . . . is a model for success*

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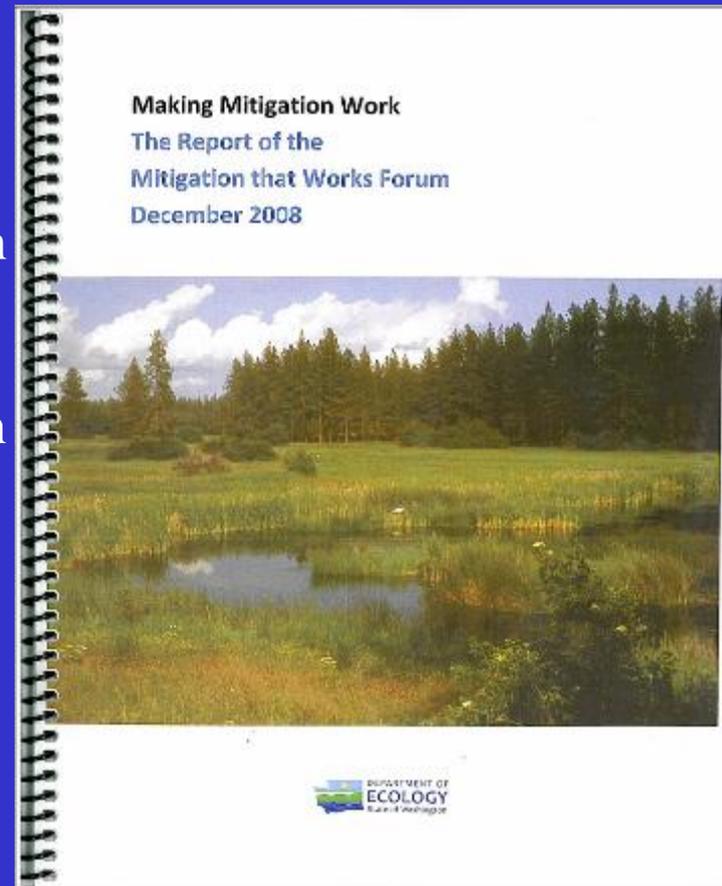
Reinforcing importance of avoiding and minimizing impacts to valuable, difficult-to-replace resources.

Establishing a watershed-based approach to mitigation.

Developing and implementing a wide variety of compensatory mitigation tools.

Developing more coordinated, predictable approaches to reviewing development projects and associated mitigation plans.

Support for “making mitigation work.”



*Please recall....*

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Although some may argue that the Mount Vernon CAO process is inconvenient and cumbersome, it's important to remember that:

- (a) the ecosystem alternative is optional, and
- (b) the alternative is the standard “big buffer” approach.

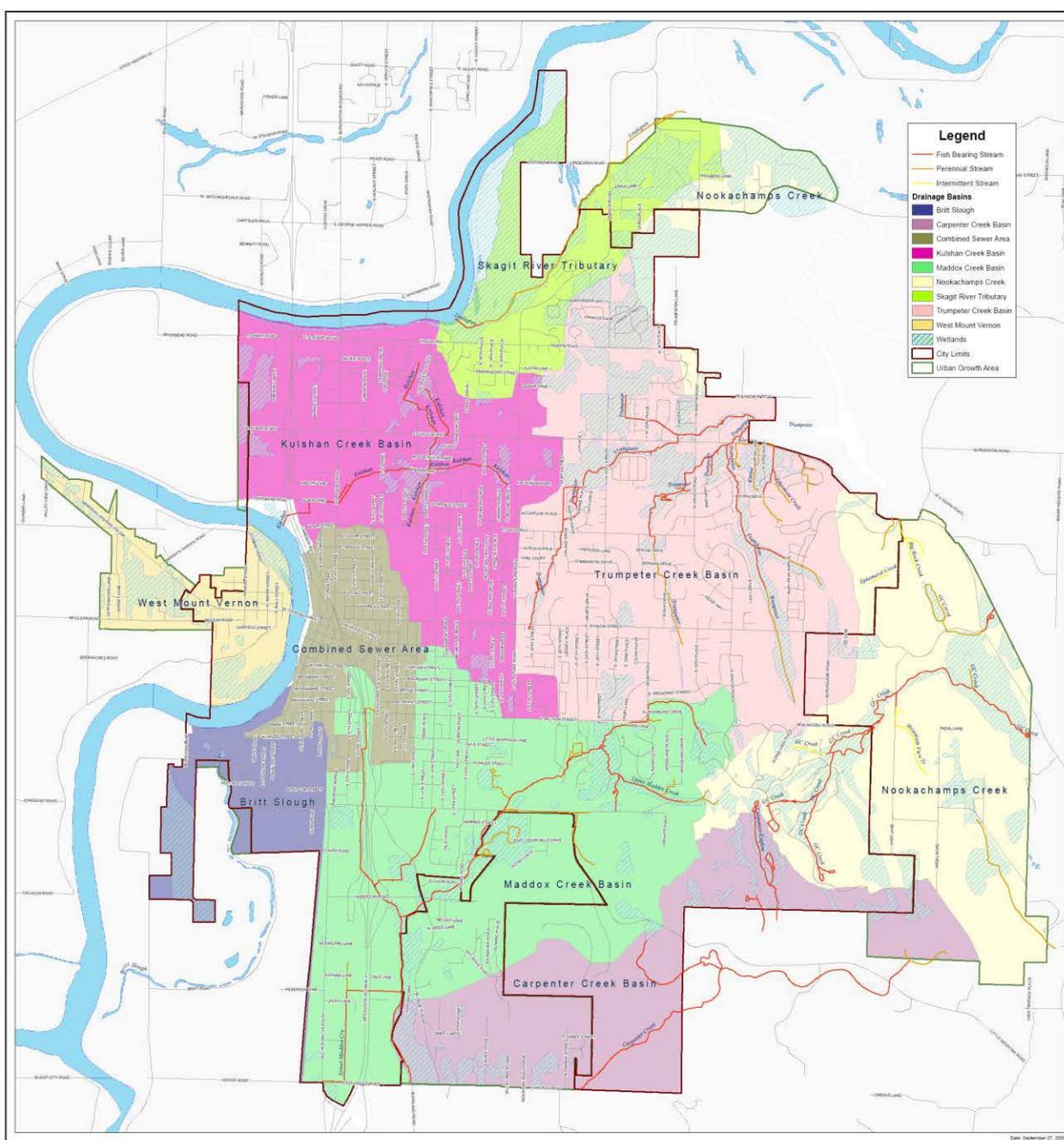




## *“BEST AVAILABLE SCIENCE” (BAS)*

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- Carefully apply recent guidance and recommendations
- Be aware of new studies and/or interpretations of BAS
- When formulating a CAO – Examine local conditions & tailor science-based CAO solutions



**Legend**

- Fish Bearing Stream
- Perennial Stream
- Intermittent Stream

**Drainage Basins**

- Britt Slough
- Carpenter Creek Basin
- Combined Sewer Area
- Kulshan Creek Basin
- Maddox Creek Basin
- Nookachamps Creek
- Skagit River Tributary
- Trumpeter Creek Basin
- West Mount Vernon
- Wetlands
- City Limits
- Urban Growth Area

**City of Mount Vernon**

910 Cleveland Avenue • Mount Vernon, WA 98273 • Phone: 360.336.6214 • Website: [www.ci.mount-vernon.wa.us](http://www.ci.mount-vernon.wa.us)



**4**

**Drainage Basins & Critical Areas**

Date: September 27, 2008

# Buffer Zone Options

Passive

Low Risk

Few BMP's

Low Maintenance

Active

High Risk

Many BMP's

High Maintenance

Decreasing Buffer Width →

Default  
Buffer  
(175 – 200 Ft.)

Minimum  
Buffer  
(~ 25 Ft.)

No  
Buffer  
(0 Ft.)

*City-Owned Parks/Open Space = Opportunity*



*Trumpeter Creek - Main Stem In Roadside Ditch*

