Chehalis River Basin Flood Authority

Floodplain Management Assessment

Floodplain Management Assessment

Objective:

1. Assess the status of floodplain management in the Basin.
2. Recommend community and Basin-level efforts.
3. Focus on flood loss prevention and reduction rather than protecting natural floodplain functions.

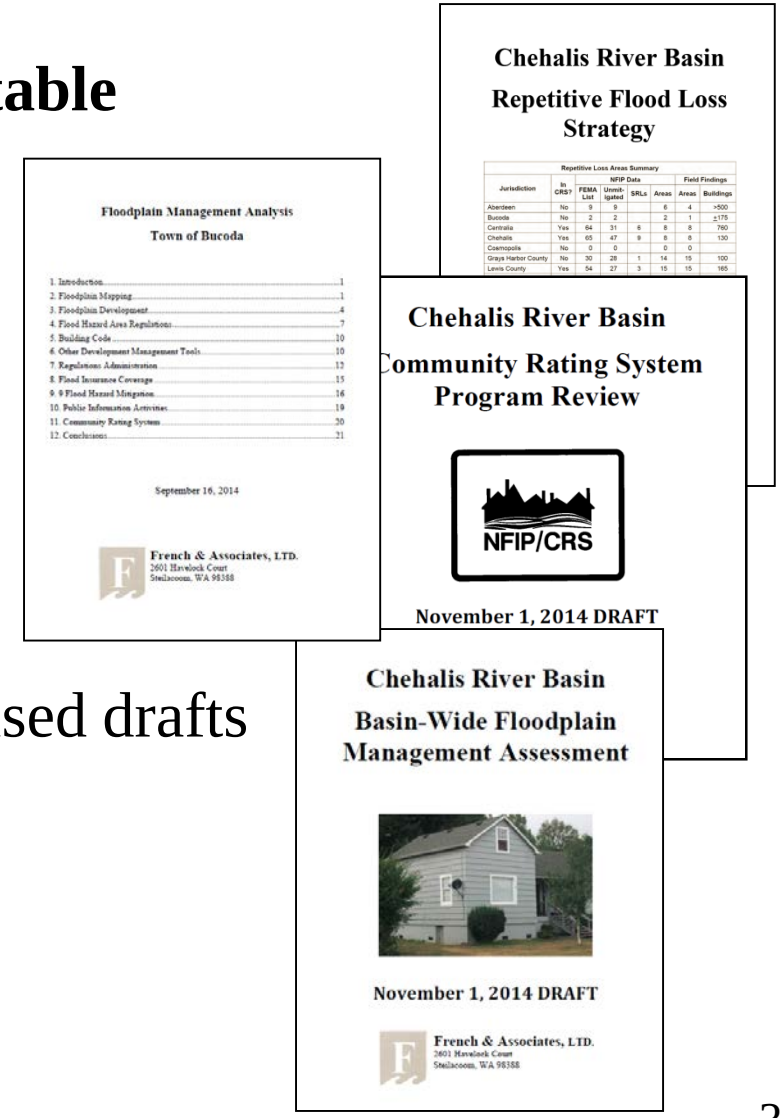
Floodplain Management Assessment

Project Timetable

March – May	Research
June	Community visits
August	Draft reports:

- Community reports
- Repetitive loss report
- CRS report
- Basin-wide report

September	Report feedback, revised drafts
October	Finalize reports
November	Decide next steps



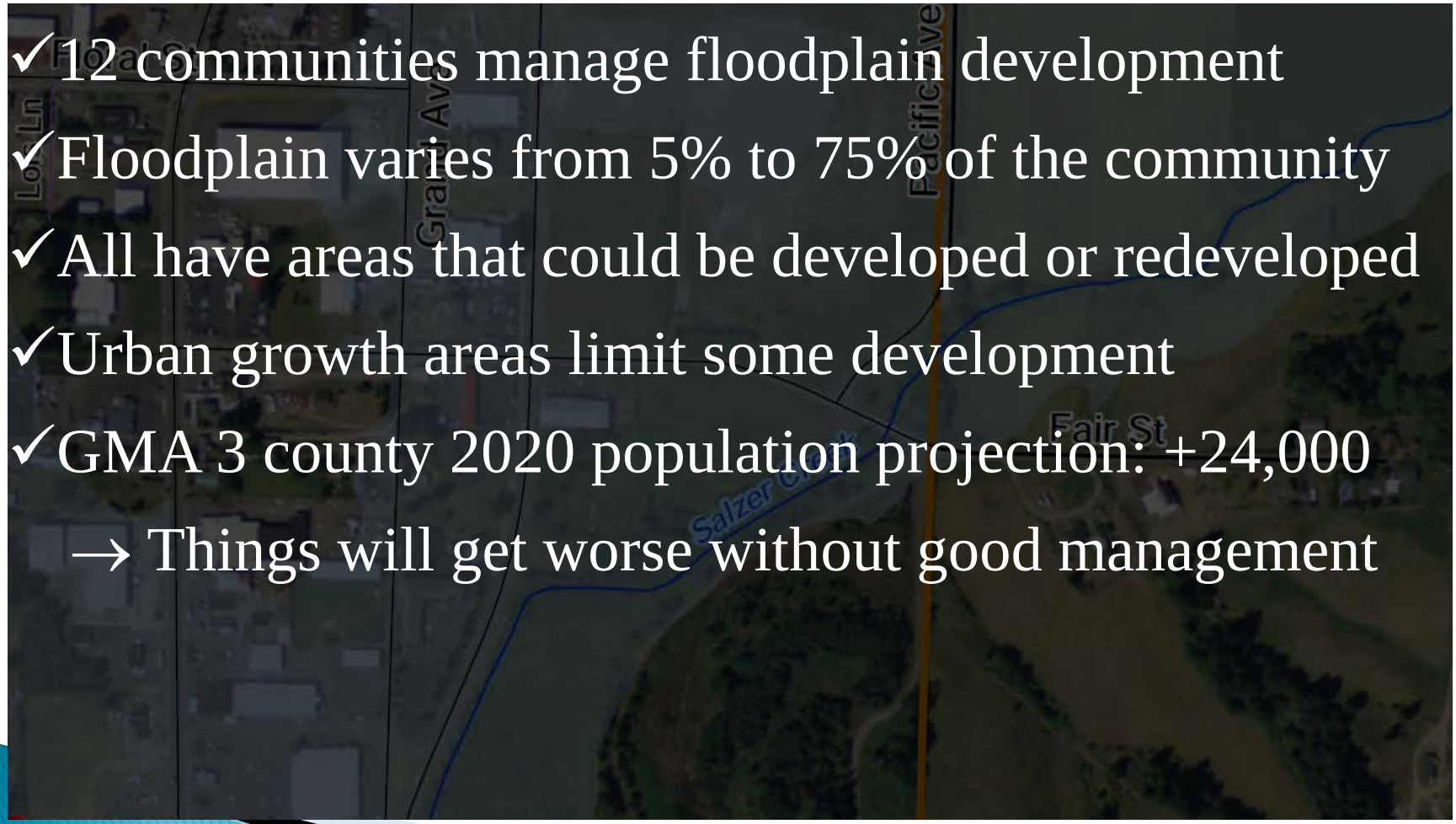
Floodplain Management Assessment

The Flood Problem

- ✓ Floods in 1990, 1996, 2007, 2009
- ✓ Lewis County: 13 declarations, 1971 – 2012
- ✓ $82,254,992 in flood insurance payments since 1978

Floodplain Management Assessment

The Flood Problem



- ✓12 communities manage floodplain development
- ✓Floodplain varies from 5% to 75% of the community
- ✓All have areas that could be developed or redeveloped
- ✓Urban growth areas limit some development
- ✓GMA 3 county 2020 population projection: +24,000

→ Things will get worse without good management

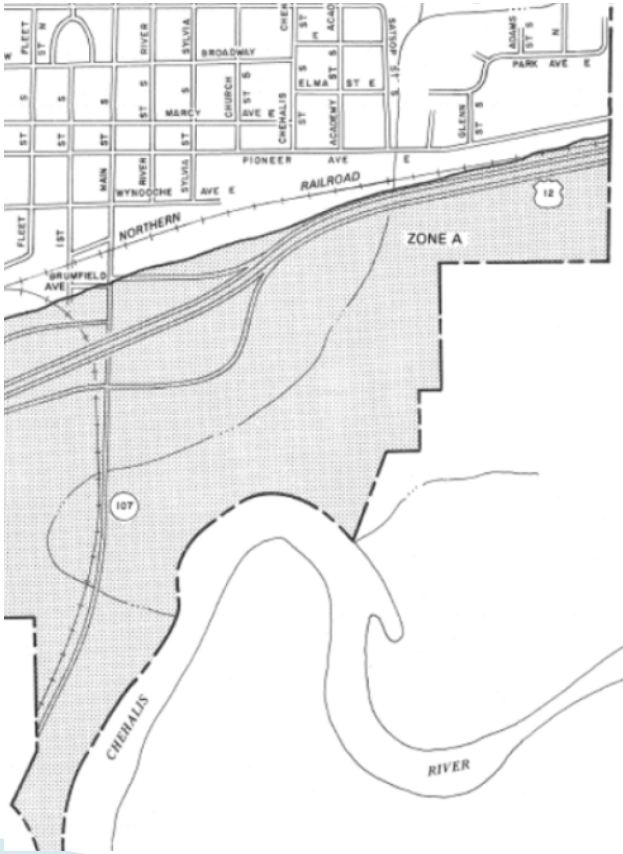
Floodplain Management Assessment

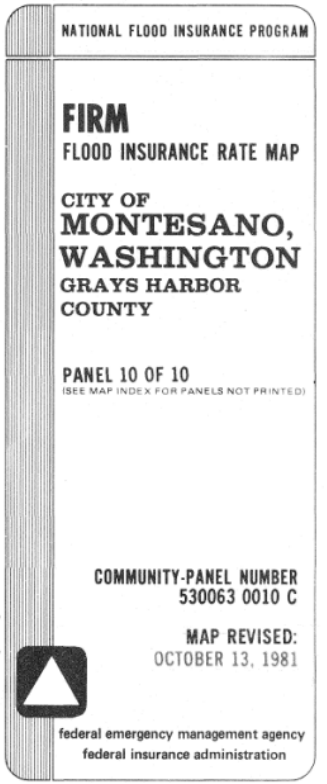
Mapping Floodprone Areas

- ✓ First step to management is mapping the problem area
- ✓ FEMA's maps are not accurate

Recommendations:

- ✓ New maps should be sought
- ✓ Until then: Manage to the flood of record where > BFE





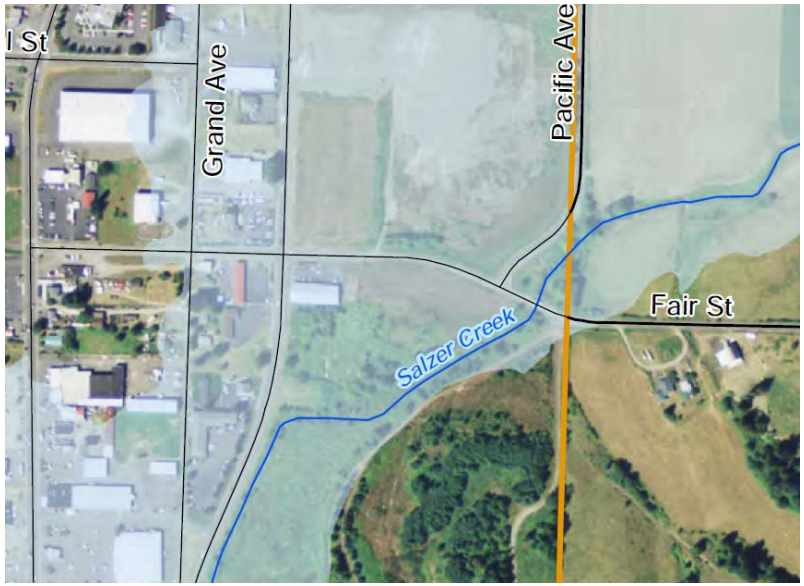
Guiding New Development

Basin communities have:

- ✓ Significant amounts of vacant floodplain land
- ✓ Comprehensive plans that do not address floodplain development
- ✓ Zoning ordinances that do not have floodplain or low density uses

Recommendations:

- ✓ Guide damage-prone development away from the flood problem
- ✓ Preserve areas as open space using public ownership, tax incentives, and regulations



Floodplain Management Assessment

Regulating New Construction

- ✓ Communities' floodplain construction regulations can be found in
  - Flood hazard area ordinance
  - Building code
  - Critical areas ordinance
  - Shoreline management regulations
- ✓ Standards differ in the different ordinances
- ✓ Some do not meet all current NFIP requirements
- ✓ Minimum national NFIP standards are minimums

Floodplain Management Assessment

Regulating New Construction

Recommendation:

- ✓ Review higher standards
  - Hazardous materials storage
  - Critical facilities standards
  - Substantial improvement tracking
  - Fill restrictions/compensatory storage
  - Flood elevations in unstudied areas
- ✓ Freeboard example:
  - NFIP standard: build to the base flood elevation (BFE)
  - 2007 or 2009 floods were up to 2 feet above the BFE
  - Freeboard: build higher for better protection

Floodplain Management Assessment

Regulating New Construction

PREMIUM AT BASE FLOOD ELEVATION	PREMIUM AT 3 FEET ABOVE BASE FLOOD ELEVATION
$1,410/year	$427/year
$14,100/10 years	**$4,270/10 years**

- 3 communities have no freeboard
- 7 communities have 1 foot of freeboard for residences
- 2 communities have 2 feet of freeboard for residences
- 0 communities have 3 feet of freeboard for residences
- 6 communities have different freeboards for commercial buildings and critical facilities

Floodplain Management Assessment

Administering the Regulations

- ✓ Smaller communities issue few floodplain permits
- ✓ Few regulatory staff have been to floodplain management training
- ✓ Only 3 of 28 staff are Certified Floodplain Managers (CFM)

  → Mistakes will be made

Recommendations:

- ✓ Staff training
- ✓ Model procedures and records
- ✓ On-call assistance

Floodplain Management Assessment

Mitigating Existing Problems

Chehalis River Basin

Repetitive Flood Loss Strategy

Repetitive Loss Areas Summary

Jurisdiction	In CRS?	NFIP Data				Field Findings	
		FEMA List	Unmit-igated	SRLs	Areas	Areas	Buildings
Aberdeen	No	9	9		6	4	>500
Bucoda	No	2	2		2	1	±175
Centralia	Yes	64	31	6	8	8	760
Chehalis	Yes	65	47	9	8	8	130
Cosmopolis	No	0	0		0	0	
Grays Harbor County	No	30	28	1	14	15	100
Lewis County	Yes	54	27	3	15	15	165
Montesano	No	2	2		2	0	
Napavine	No	0	0		0	0	
Oakville	No	2	2		2	1	16
Pe Ell	No	0	0		0	0	
Thurston County	Yes	21	3		2	3	6
		249	151	19	59	55	>1,850

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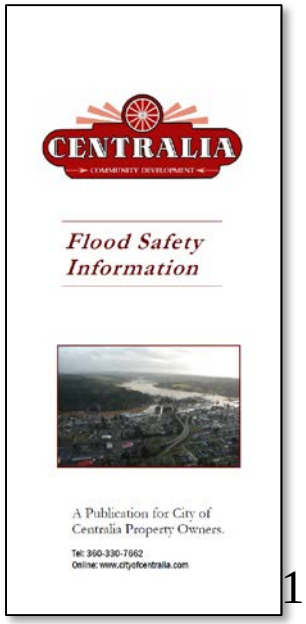
Mitigation tools

1. Regulations
2. Flood control
3. Retrofitting
4. Public information



Floodplain Management Assessment

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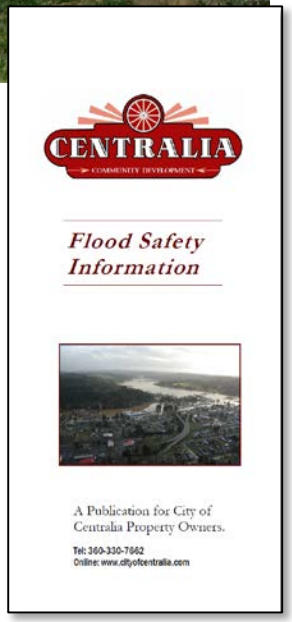
Mitigating Existing Problems

Recommendations

- ✓ Funding of flood vent retrofits
- ✓ Funding of building retrofits
  - Priority to repetitive loss areas
  - Prerequisite: area analysis
- ✓ Information and technical assistance



Floodplain Management Assessment

Flood Insurance Coverage

4,788 flood insurance policies in the 12 communities

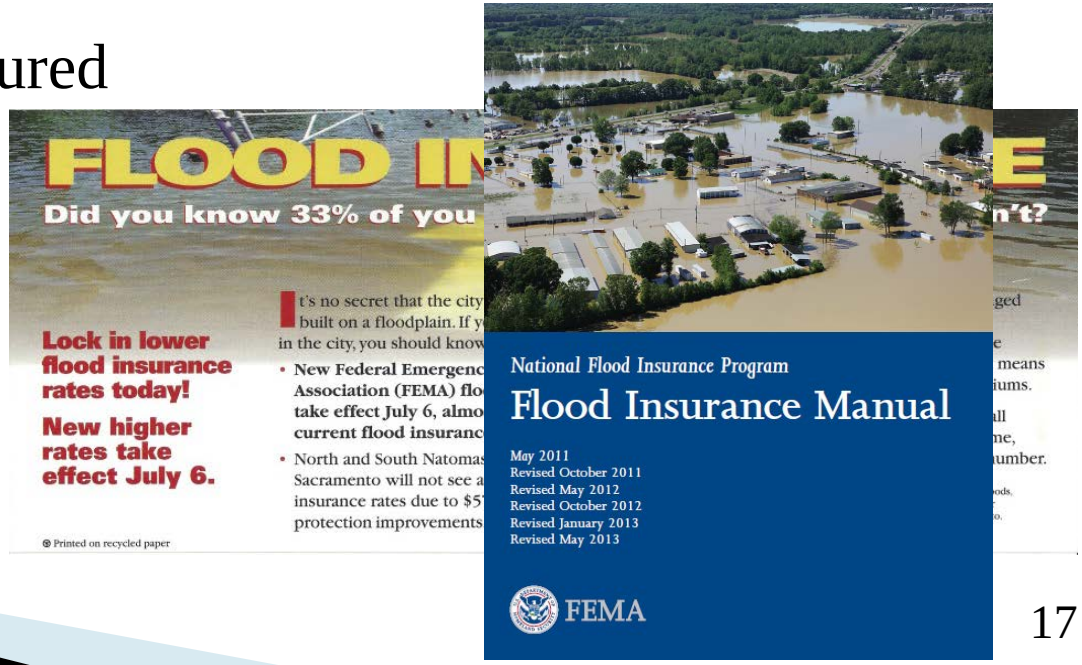
$4,074,345 total annual premium

$985,958,300 total coverage

- ✓ Flood insurance policies listed under the wrong community
- ✓ Many areas still under insured

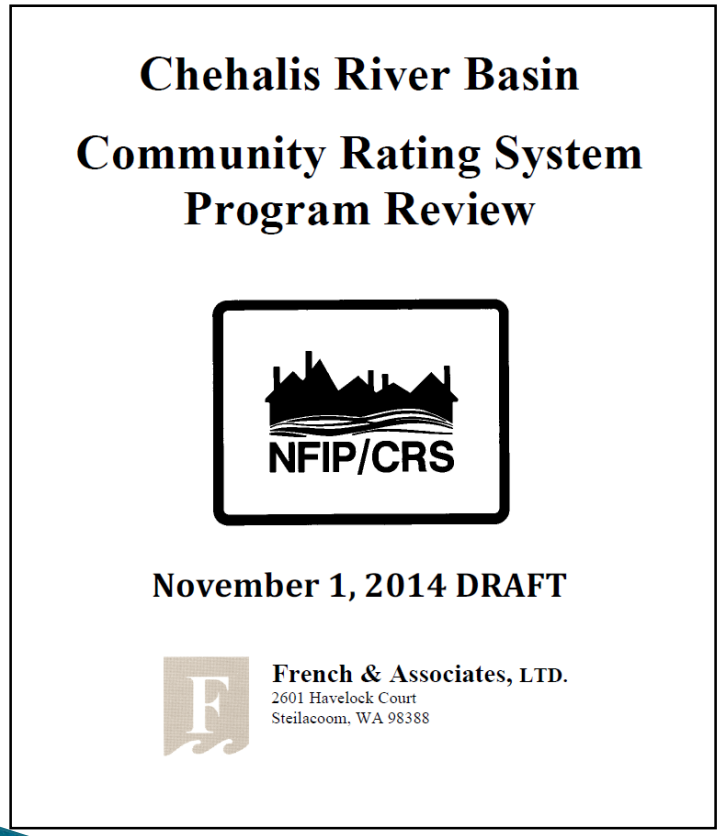
Recommendations

- ✓ Promote flood insurance
- ✓ Train insurance agents



Floodplain Management Assessment

Community Rating System



- ✓ Voluntary program
- ✓ Reduces flood insurance premiums based on floodplain management activities
- ✓ 10 classes, class 1 is best
  - Lewis County: Class 7 (15% reduction)
  - Chehalis: Class 6 (20%)
  - Centralia: Class 5 (25%)
  - Thurston County: Class 4 (30%)

NFIP/CRS

Floodplain Management Assessment

Aberdeen

		TOTAL	SFHA *	X-STD/AR/A99 **	PRP ***
	PIF	921	878	6	37
	PREMIUM	$1,143,994	$1,120,825	$6,507	$16,662
	AVERAGE PREMIUM	$1,242	$1,277	$1,084	$450
CRS Class					
09	Per Policy	$61	$64	$54	$0
	Per Community	$56,367	$56,042	$325	$0
08	Per Policy			$54	$0
	Per Community	$112,408	$112,083	$325	$0
07	Per Policy	$183	$191	$54	$0
	Per Community	$168,450	$168,125	$325	$0
06	Per Policy	$244	$255	$108	$0
	Per Community	$224,816	$224,166	$651	$0
05	Per Policy	$305	$319	$108	$0
	Per Community	$280,858	$280,208	$651	$0
04	Per Policy	$366	$383	$108	$0
	Per Community	$336,899	$336,249	$651	$0

Each class = $50 - $90 per SFHA policy

Floodplain Management Assessment

Community Rating System

Costs

- ✓ Implementing credited activities
- ✓ CRS documentation

Benefits

- ✓ Direct dollar savings
- ✓ Better organized programs
- ✓ Reason to keep implementing good programs
- ✓ Incentive to improve programs

Recommendations

- ✓ Get the most from the CRS

NFIP/CRS

Floodplain Management Assessment

Chehalis River Basin

Basin-Wide Floodplain Management Assessment

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Recommendations	Community Assessments	Rep Loss Strategy	CRS Review
Host meetings for communities			
On regulatory standards	✓	✓	✓
On the Community Rating System			✓
Sponsor training on administering floodplain management regulations	✓	✓	✓
Prepare templates, models, and examples			
Regulatory language for consistency and for higher standards	✓	✓	✓
Regulatory procedures and records	✓		✓
Permit review and inspection checklists	✓		✓
Drainage maintenance and other mitigation programs		✓	✓
Public information materials	✓	✓	✓
Budget $1,500,000 to mitigate flood losses			
Develop criteria to fund $1,400,000 to retrofit repetitive loss properties		✓	
Provide technical assistance to repetitive loss communities		✓	✓
Develop a central website that all communities can link to	✓	✓	✓
Provide on call technical assistance to community staff			
On regulatory issues, such as permit review and records	✓		✓
On advising interested repetitive loss property owners	✓	✓	✓
On conducting repetitive loss area analyses		✓	✓
On Community Rating System requirements and documentation			✓
Assist communities in dealing with State and Federal agencies			
With FEMA on improving local maps	✓		
With the Emergency Management Division on mitigation grants		✓	
With the Department of Ecology on credit for its dam safety program			✓

Floodplain Management Assessment

Recommendations for Communities

- ✓ Fix the maps/regulate to the flood of record
- ✓ Update plans and zoning to reflect the flood hazard
- ✓ Preserve open space in the floodplain
- ✓ Adopt appropriate higher regulatory standards
- ✓ Support staff with training
- ✓ Use all tools to mitigate flood damage
- ✓ Inform property owners on retrofitting and flood insurance
- ✓ Use the CRS to support these efforts

Floodplain Management Assessment

Recommendations for the Flood Authority

- ✓ Provide training for floodplain management staff
- ✓ Provide model templates, procedures, and checklists
- ✓ Provide on-call assistance to local floodplain managers
- ✓ Fund retrofitting projects to rectify improper venting
- ✓ Fund retrofitting of repetitive loss properties
- ✓ Provide model public information materials
- ✓ Coordinate and support Basin-wide efforts
- ✓ Use the CRS to support these efforts