

# Washington State Resource Based Performance Planning



Resource Based Planning  
Process

What is the Washington State process?

## Resource Based Performance Planning for 2012

Based on the State Resource Profile and Local  
Work Group Resource Assessments

### Develop Strategic Plan with Multi-year Goals

Plan developed with partnership input and  
state specific information

Plan with targeted goals and objectives in  
addressing resource priorities

Plan that is aligned with the NRCS strategic  
plan mission goals, overarching strategies and  
strategic and management initiatives

Goals that are outcome-based with  
environmental benefits

Goals that have clearly defined targets in terms  
of practices and resource systems and FA  
dollars

## NRCS State RBPP process: FY 2011

Washington RBPP process based on RWA methodology

RWA plan models will be based at Team/LWG scale

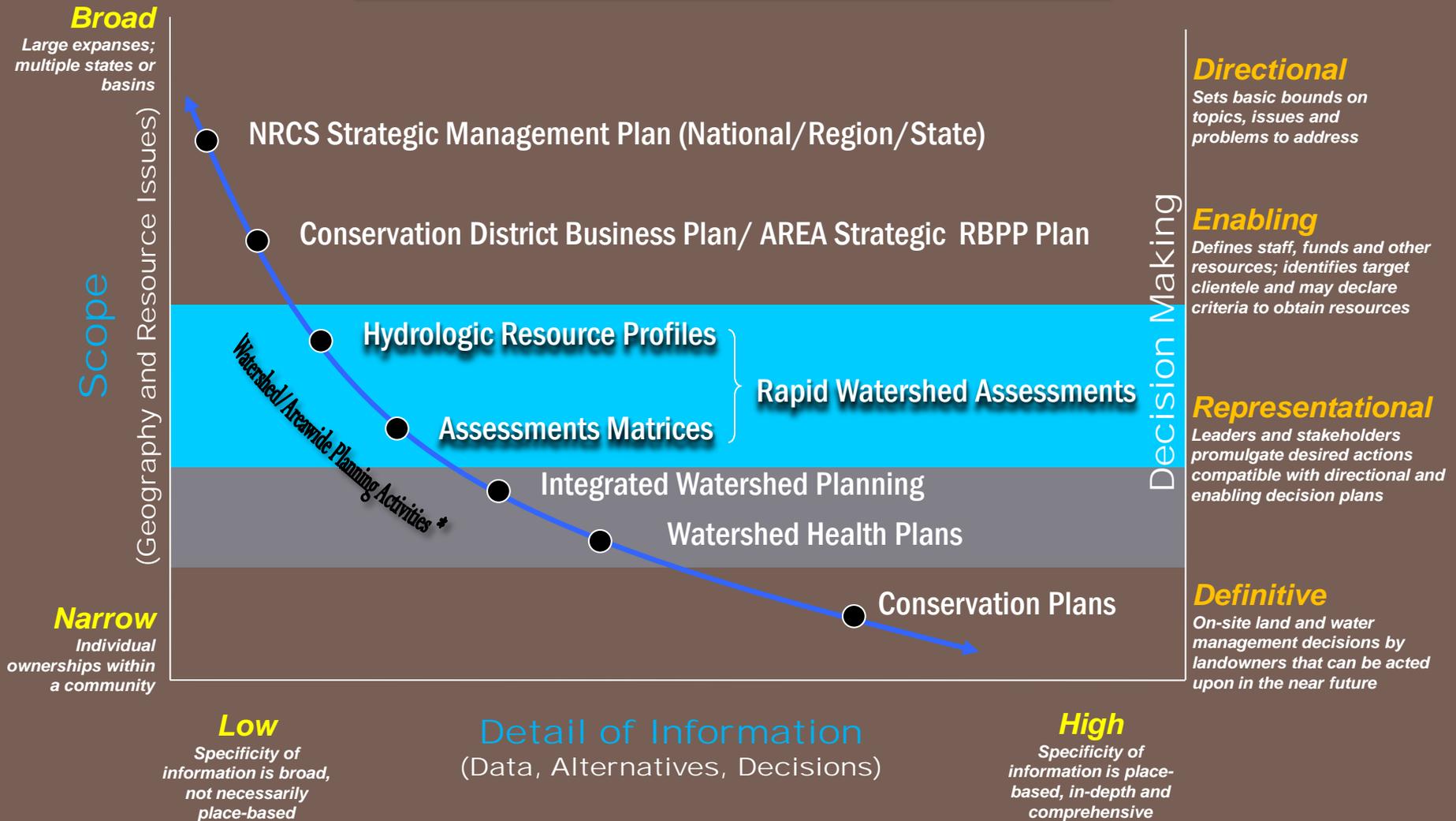
LWG (CD and partners) input on prioritizing resource concerns and proposed goals

Teams will produce Assessments utilizing the RWA process :  
Resource Profiles and Matrix Evaluation Tool

Areas Plans (RBPP) will be developed based on Team (RWA) Assessment

State RBPP Plan will be developed from Area Plans

# NRCS Planning Continuum\*



\* Watershed/Area-wide Planning includes activities that gather resource data, analyze resource conditions, recommend alternatives and evaluate their effects.

# Utilize the Rapid Watershed Assessment (RWA) process

Current resource conditions on private lands (Benchmark)

Quantification of future conservation needs and opportunities (Desired Future Conditions)

Quantification of future conservation costs

Qualitative estimates (CPPE) of on-farm effects of adopted Conservation Management System's and Practices on state or county basis

Identification of Programs to assist farmers and ranchers with conservation implementation

FOCUS AREA NAME & CODE	6 -				LANDUSE ACRES	205						
LANDUSE TYPE	STREAM CORRIDORS (INSTREAM & RIPARIAN)				TYPICAL UNIT SIZE ACRES	0.25						
ASSESSMENT INFORMATION					ESTIMATED PARTICIPATION	28%						
CONSERVATION SYSTEMS BY TREATMENT LEVELS	CURRENT CONDITIONS	FUTURE CONDITIONS			RESOURCE CONCERNS							
	Total Units	Existing Unchanged Units	New Treatment Units	Total Units	Water Quality - Harmful Temperatures	Water Quality - Harmful Levels of Pathogens	Fish and Wildlife - T & E Fish/Wildlife	Fish and Wildlife - T & E Species:				
<b>Baseline System</b>					<b>System Rating -&gt;</b>				<b>0</b>	<b>0</b>	<b>1</b>	<b>1</b>
<b>Total Acreage at Baseline Level</b>					<b>164</b>	<b>115</b>	<b>0</b>	<b>115</b>				
Animal Trails and Walk ways (ac.) 575	0	0	0	0	0	1	2	2				
<b>Progressive System</b>					<b>System Rating -&gt;</b>				<b>4</b>	<b>4</b>	<b>5</b>	<b>5</b>
<b>Total Acreage at Progressive Level</b>					<b>31</b>	<b>25</b>	<b>41</b>	<b>66</b>				
Animal Trails and Walk ways (ac.) 575	0	0	0	0	0	1	2	2				
Fence (ft.) 382	4,920	3,936	6,560	10,496	1	1	2	2				
Filter Strip (ac.) 393	1	0	1	1	1	2	1	1				
Fish Passage (no.) 396	12	10	16	26	3	0	5	5				
Forest Site Preparation (ac.) 490	1	1	1	2	3	2	3	3				
Heavy Use Area Protection (ac.) 561	0	0	0	1	1	3	0	0				
Mulching (ac.) 484	1	1	1	2	3	1	3	3				
Structure for Water Control (no.) 587	31	25	41	66	0	0	5	5				
Tree/Shrub Establishment (ac.) 612	3	2	4	7	4	4	3	3				
Watering Facility (no.) 614	12	10	16	26	0	3	2	2				
<b>Resource Management System (RMS)</b>					<b>System Rating -&gt;</b>				<b>5</b>	<b>4</b>	<b>5</b>	<b>5</b>
<b>Total Acreage at RMS Level</b>					<b>10</b>	<b>10</b>	<b>14</b>	<b>25</b>				
Animal Trails and Walk ways (ac.) 575	0	0	0	0	0	1	2	2				
Fence (ft.) 382	7,790	8,774	9,922	18,696	1	1	2	2				
Filter Strip (ac.) 393	0	0	0	0	1	2	1	1				
Fish Passage (no.) 396	41	43	55	98	3	0	5	5				
Forest Site Preparation (ac.) 490	1	1	1	1	3	2	3	3				
Heavy Use Area Protection (ac.) 561	0	0	0	0	1	3	0	0				
Mulching (ac.) 484	1	1	1	1	3	1	3	3				
Pipeline (ft.) 516	5,740	5,740	8,036	13,776	3	3	2	2				
Riparian Forest Buffer (ac.) 391	1	1	1	2	4	1	4	4				
Stream Habitat Improvement and Management (ac.) 395	1	1	1	1	3	0	3	3				
Streambank & Shoreline Protection (ft.) 580	5,740	5,740	8,036	13,776	5	0	3	3				
Structure for Water Control (no.) 587	41	47	51	98	0	0	5	5				
Tree/Shrub Establishment (ac.) 612	3	3	3	6	4	4	3	3				
Use Exclusion (ac.) 472	3	3	4	6	1	2	2	2				
Watering Facility (no.) 614	31	33	41	74	0	3	2	2				

# Utilizing the RWA process can also:

- Provide information to develop business plans and strategies
- Assist NRCS & others to obtain technical & financial assistance
- Provide information to prioritize available funding and staff
- Provide focus for forming effective partnerships

FOCUS ARE NAME & CODE		6 -				LANDUSE ACRES		205	
LANDUSE TYPE		STREAM CORRIDORS (INSTREAM & RIPARIAN)				TYPICAL UNIT SIZE ACRES		0.25	
CONSERVATION INVESTMENT INFORMATION						ESTIMATED PARTICIPATION		28%	
CONSERVATION SYSTEMS BY TREATMENT LEVELS	FUTURE	USDA INVESTMENT				PRIVATE INVESTMENT			
	New Treatment Units	Installation Cost 100%	Management Cost - 3 yrs 100%	Technical Assistance 50%	Total Present Value Cost	Installation Cost 0%	Annual O & M + Mgt Costs 100%	Total Present Value Cost	
<b>Progressive System Acres Treated</b>	<b>41</b>								
Animal Trails and Walkways (ac.) 575	0	\$1	\$0	\$1	\$2	\$0	\$0	\$0	
Fence (ft.) 382	6,560	\$22,960	\$0	\$11,480	\$34,440	\$0	\$459	\$1,934	
Filter Strip (ac.) 393	1	\$156	\$0	\$78	\$234	\$0	\$3	\$13	
Fish Passage (no.) 396	16	\$82,000	\$0	\$41,000	\$123,000	\$0	\$1,640	\$6,908	
Forest Site Preparation (ac.) 490	1	\$0	\$554	\$277	\$770	\$0	\$185	\$284	
Heavy Use Area Protection (ac.) 561	0	\$15	\$0	\$7	\$22	\$0	\$1	\$3	
Mulching (ac.) 484	1	\$0	\$16,074	\$8,037	\$22,358	\$0	\$5,358	\$8,248	
Structure for Water Control (no.) 587	41	\$492,000	\$0	\$246,000	\$738,000	\$0	\$9,840	\$41,450	
Tree/Shrub Establishment (ac.) 612	4	\$5,658	\$0	\$2,829	\$8,487	\$0	\$57	\$238	
Watering Facility (no.) 614	16	\$16,400	\$0	\$8,200	\$24,600	\$0	\$492	\$2,072	
<b>Subtotal</b>		<b>\$619,190</b>	<b>\$16,627</b>	<b>\$317,908</b>	<b>\$951,913</b>	<b>\$0</b>	<b>\$18,034</b>	<b>\$61,151</b>	
<b>Resource Management System (RMS) Acres Treated</b>	<b>14</b>								
Animal Trails and Walkways (ac.) 575	0	\$1	\$0	\$0	\$1	\$0	\$0	\$0	
Fence (ft.) 382	9,922	\$34,727	\$0	\$17,364	\$52,091	\$0	\$695	\$2,926	
Filter Strip (ac.) 393	0	\$31	\$0	\$16	\$47	\$0	\$1	\$3	
Fish Passage (no.) 396	55	\$274,700	\$0	\$137,350	\$412,050	\$0	\$5,494	\$23,143	
Forest Site Preparation (ac.) 490	1	\$0	\$240	\$120	\$334	\$0	\$80	\$123	
Heavy Use Area Protection (ac.) 561	0	\$3	\$0	\$1	\$4	\$0	\$0	\$1	
Mulching (ac.) 484	1	\$0	\$6,965	\$3,483	\$9,689	\$0	\$2,322	\$3,574	
Pipeline (ft.) 516	8,036	\$25,715	\$0	\$12,858	\$38,573	\$0	\$514	\$2,166	
Riparian Forest Buffer (ac.) 391	1	\$1,808	\$0	\$904	\$2,712	\$0	\$54	\$228	
Stream Habitat Improvement and Management (ac.) 395	1	\$3,659	\$0	\$1,830	\$5,489	\$0	\$73	\$308	
Streambank & Shoreline Protection (ft.) 580	8,036	\$562,520	\$0	\$281,260	\$843,780	\$0	\$11,250	\$47,391	
Structure for Water Control (no.) 587	51	\$615,000	\$0	\$307,500	\$922,500	\$0	\$12,300	\$51,812	
Tree/Shrub Establishment (ac.) 612	3	\$4,102	\$0	\$2,051	\$6,153	\$0	\$41	\$173	
Use Exclusion (ac.) 472	4	\$43	\$0	\$22	\$65	\$0	\$1	\$5	
Watering Facility (no.) 614	41	\$40,590	\$0	\$20,295	\$60,885	\$0	\$1,218	\$5,129	
<b>Subtotal</b>		<b>\$1,562,899</b>	<b>\$7,205</b>	<b>\$785,052</b>	<b>\$2,354,371</b>	<b>\$0</b>	<b>\$34,043</b>	<b>\$136,982</b>	
<b>TOTAL ACRES TREATED / ESTIMATED TREATMENT COSTS</b>	<b>0.1271</b>	<b>\$2,182,089</b>	<b>\$23,832</b>	<b>\$1,102,961</b>	<b>\$3,306,284</b>	<b>\$0</b>	<b>\$52,077</b>	<b>\$198,133</b>	

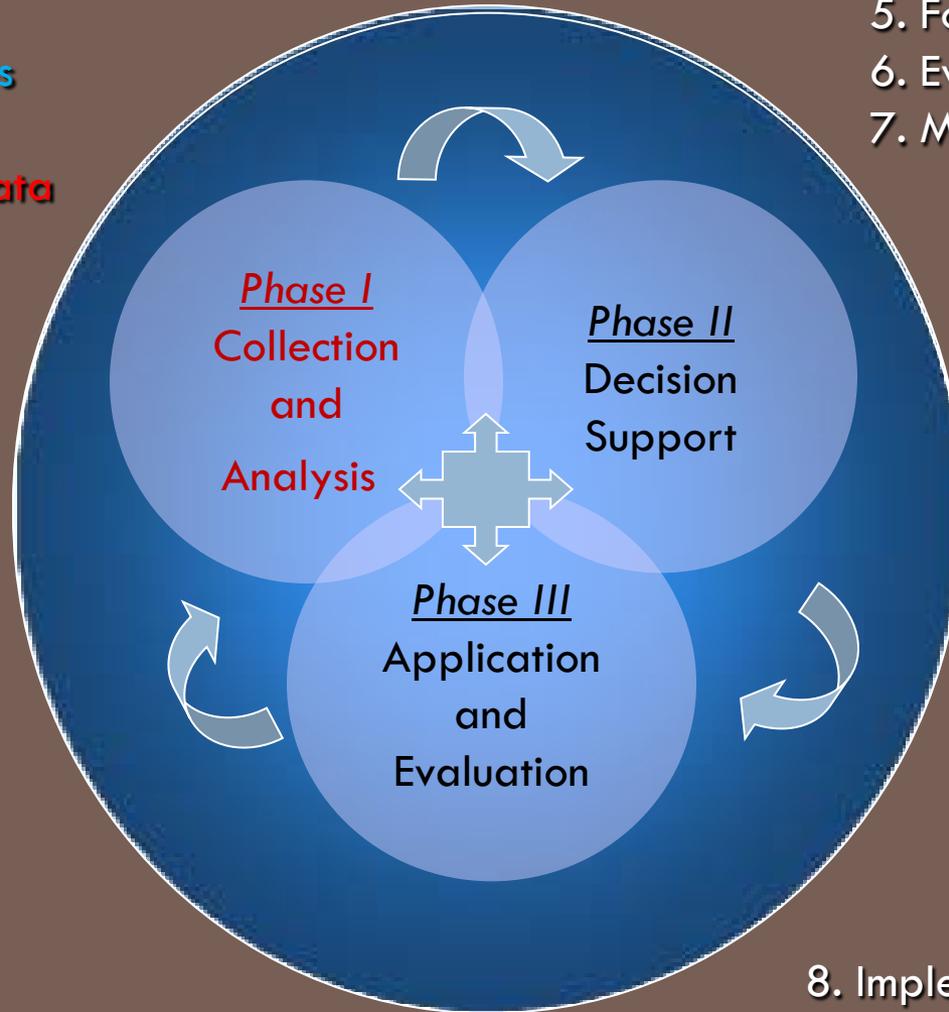
**Conservation Status Chart**

System	Current	Future
Baseline	80%	56%
Progressive	15%	32%
RMS	5%	12%

Chart Refers To	
Landuse Type	AM CORRIDORS (INSTREAM & RIPARIAN)
Estimated Participation Rate	28%
Average PV Costs per Ac	
System	Federal
Prog	\$23,217
RMS	\$164,068
	Private
	\$1,491
	\$9,546
Estimated FTE per Year	
	2.2

1. Identify problems
2. Determine objectives
3. Inventory resources
4. Analyze resource data

5. Formulate alternatives
6. Evaluate alternatives
7. Make decisions



8. Implement the plan
9. Evaluate the plan

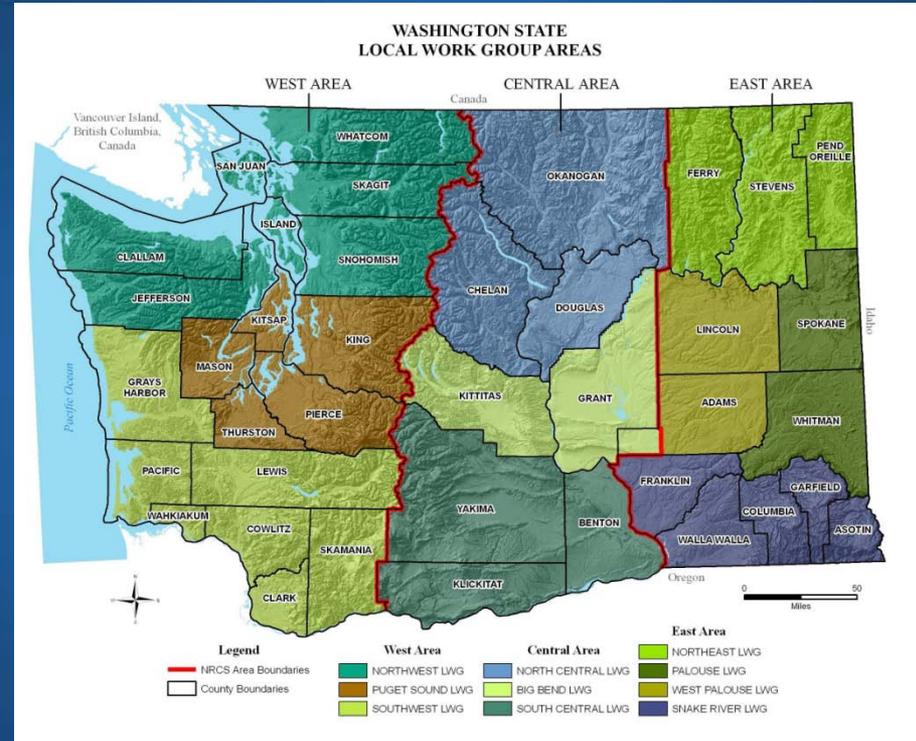
# LWG Resource Profile - Inventory

Developed a picture of existing  
local conditions, trends, problems  
and opportunities

Physical Descriptions of LWG  
Areas

Social and Economic Resource  
Issues and Observations

Local Resource Concerns  
Prevalence by Land Use



## Local Work Group Resource Concerns Worksheet

### Physical Descriptions of LWG Areas

#### Physical Description

The Northeast Washington LWG covers an area from the Okanogan Highlands in the west into the Selkirk Mountains on its eastern border with Idaho. The area is bounded by the Canadian border to the north and the Columbia and Spokane Rivers at its southern reach.

Most of the area is part of the Northern Rocky Mountain province, dominated by interior coniferous forest. There are significant acreages of rangeland, cropland and pasture.

Agricultural uses are dominated by hay and beef cattle production. Other crops include small grains, orchard and vineyard and a significant number of small organic producers. Many of these operations are dryland (all water for production is from precipitation only). However, there are a significant number and acreage of operations that are partially or totally dependent up irrigation water for production.

Private forest lands are a mixture of smaller, non-industrial landowners and a few very large industrial forest land owners.

Annual rainfall levels range from 13-45 inches. Elevations range from 1,200 to 7,100 feet above sea level.

## Local Work Group Resource Concerns Worksheet

### Social and Economic Resource Issues and Observations

SOCIAL AND ECONOMIC RESOURCE ISSUES	OBSERVATIONS
Full Time vs. Part Time Agricultural Communities	Most ag-operations have at least one member of the household with a job off of the farm. There is a significant organic farming community in the area. Beef cattle producers, hay growers and small forestland owners all have active local groups.
Innovation Needs	Crop production techniques that require fewer or reduced inputs.
Non-Traditional Land Uses	Small farmettes definitely increasing as larger ag-operations are broken up and sub-divided.
Population Demographics, Changes and Trends	Populations in each county tend to be rising due to increased rural residential homes. These are a mixture of retirees and families that have jobs in local towns or Spokane.
Size of Operating Units	Tend to be smaller than state averages.
Marketing of Resource Products	Alternative local markets need to be developed for both wholesale and direct retail opportunities. Alternative crops are being grown and continue to appear - mostly through organic producers.
Cultural Resources	The area has a high number of known historic sites. In addition, much of the area contains traditional cultural places that are highly valued by Indian tribes. There is a

## Local Work Group Resource Concerns Worksheet

## Local Resource Concerns Prevalence by Land Use

Northeast LWG Summary of National Resource Concerns  
Irrigated Crop

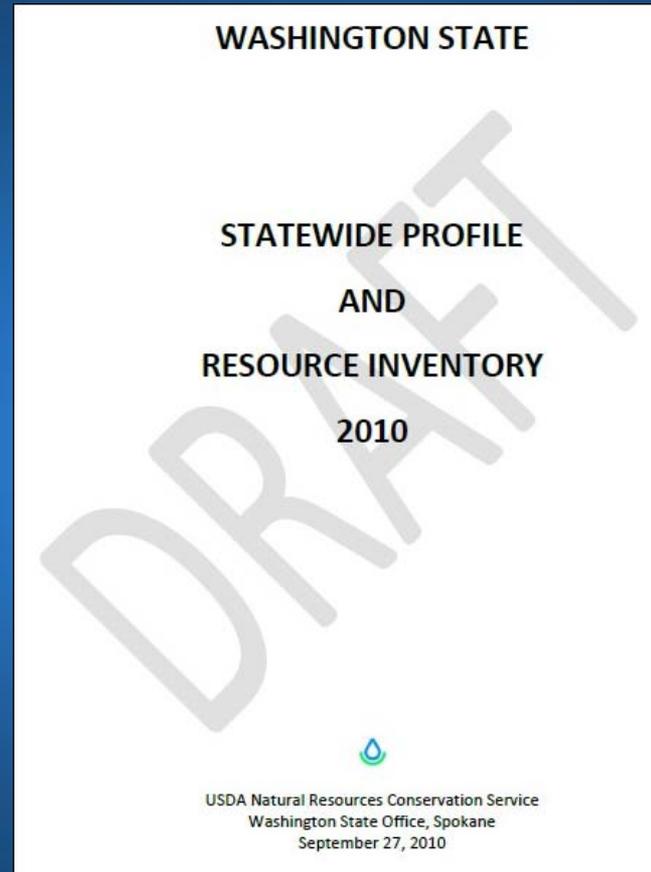
National Resource Concern	Standard Definition or Description for this Concern	Crop - Irr
Water Quantity - Inefficient Water Use on Irrigated Land	Limited water supplies are not optimally utilized.	8
Water Quality - Harmful Levels of Pesticides in Surface Water	Pest control chemicals present in toxic amounts degrade surface water quality.	7
Water Quality - Excessive Nutrients and Organics in Surface Water	Pollution from natural or human induced nutrients such as N, P, and S (Including animal and other wastes) degrades surface water quality.	7
Soil Condition – Contaminants: Residual Pesticides	Residual pesticides in the soil have an adverse effect on non-targeted plants and animals.	7
Soil Condition - Compaction	Compressed soil particles and aggregates caused by mechanical compaction adversely affect plant-soil-moisture relationships.	7
Water Quantity - Insufficient Flows in Water Courses	Water flows are not consistently available in sufficient quantities to support ecological processes and land use and management.	7
Air Quality - Chemical Drift	Materials applied to control pests drift downwind and contaminate/injure non-targeted fields, crops, soils, water, animals and humans.	6
Soil Erosion - Irrigation-induced	Improper irrigation water application and equipment operation are causing soil erosion that degrades soil quality.	6
Soil Erosion - Streambank	Accelerated loss of streambank soils restricts land and water use and management.	5
Soil Condition - Organic Matter Depletion	Soil organic matter has lowered or will diminish to a level that degrades soil quality.	5

## NRCS Statewide Resource Assessment

Developed a Statewide Resource  
Inventory –FY 2010

Compiled Descriptions of State  
Resources and Issues

Researched, Obtained and  
Developed Geospatial Information  
and Maps



# Description of State Resources and Issues

## Major Topics

### SECTION 2: State Profile and Resource Inventory

State Overview .....	Page 1
Landscape .....	Page 2
Demographics .....	Page 7
Population Centers and Transportation .....	Page 8
Urbanized Areas .....	Page 12
Land Ownership and Management .....	Page 16
Geology .....	Page 21
Soils .....	Page 27
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# Description of State Resources and Issues

## Example - Particulates: PM<sup>10</sup>

### Particulates: PM<sub>10</sub>

Controlling wind erosion and blowing dust has been an agricultural issue on the Columbia Plateau ever since farming began in the region some 120 years ago. This has been a particularly difficult problem because of the natural dustiness of the region due to its dry environments, scant vegetation, unpredictable high winds, and soils which contain substantial quantities of PM<sub>10</sub> size and smaller particulates.

PM<sub>10</sub> refers to particles that are 10 microns in diameter (0.0004 inch, about 1/7 the diameter of a human hair). These minute particles, especially the very small size (e.g. PM<sub>2.5</sub> and smaller) are now recognized as a serious health concern because they are readily inhaled and can accumulate in lung tissue and cause respiratory ailments.

Soil dust is just one of many sources of fine particulates that become suspended and are transported in the atmosphere, but within the Columbia Plateau region it is often attributed to wind erosion of farm fields.

The potential impact of wind erosion from croplands on dust emissions and air quality has not been well defined. It is commonly observed, however, that regional air quality is usually at its worst during dust storm days. During these events, downwind concentrations of PM<sub>10</sub> can be 3 to 5 times the maximum allowable 24-hour average national air quality standard.

Use of traditional tillage practices in years of below normal precipitation can result in several exceedances per year of the national air quality standard.

Wind erosion is a very serious form of soil degradation and has permanently damaged the productive capacity for millions of cropland acres worldwide. If not controlled the same fate awaits the Columbia Plateau farmlands and other erosion prone areas of the western U.S. Erosion reduces soil quality through the selective removal of plant nutrients and organic matter, and loss of fine particulates that can lead to soil compaction, poor soil tilth, and loss of crop productivity.

The Columbia Plateau and its irrigated counterpart, the Columbia Basin, are defined as Major Land Resource Areas (MLRA) B7 and B8 (see MLRAs with Croplands Susceptible to Wind Erosion Map, page 79). Together these comprise a land area of about 30,000 square miles lying mostly in Central Washington and North central Oregon. These mapping units make up the core of the cropland area with high farming density on lands that are most susceptible to wind erosion.

Source: "Wind Erosion and Air Quality Research in the Northwest U.S. Columbia Plateau: Organization and Progress"; Saxton, Chandler and Salinger; 2001.

Entire document: <http://www.tucson.ars.ag.gov/isco/isco10/SustainingTheGlobalFarm/P183-Saxton.pdf>

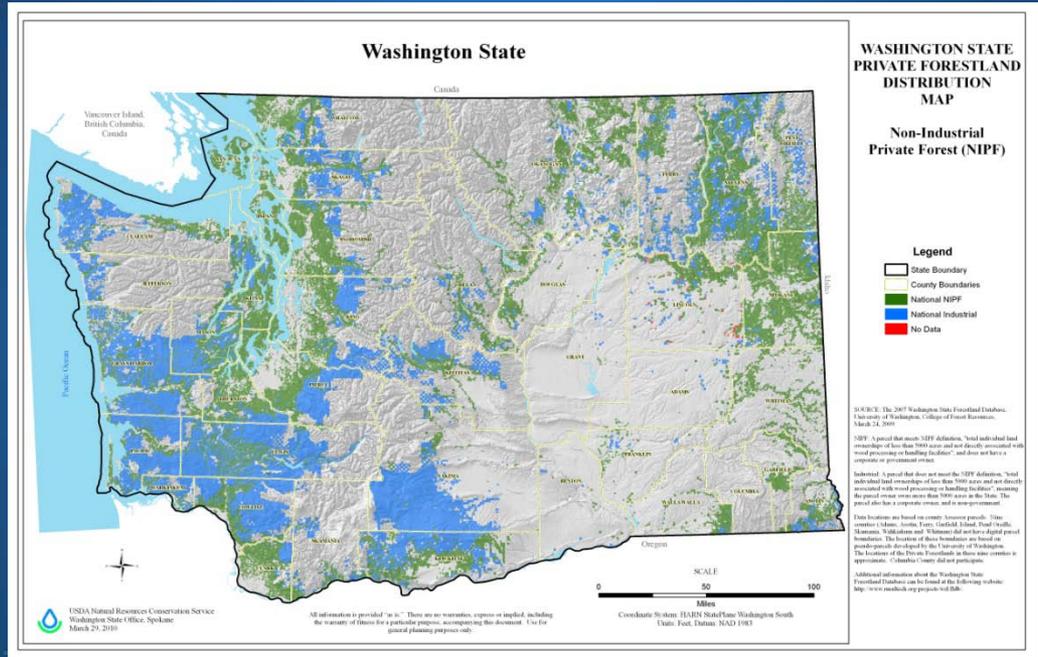






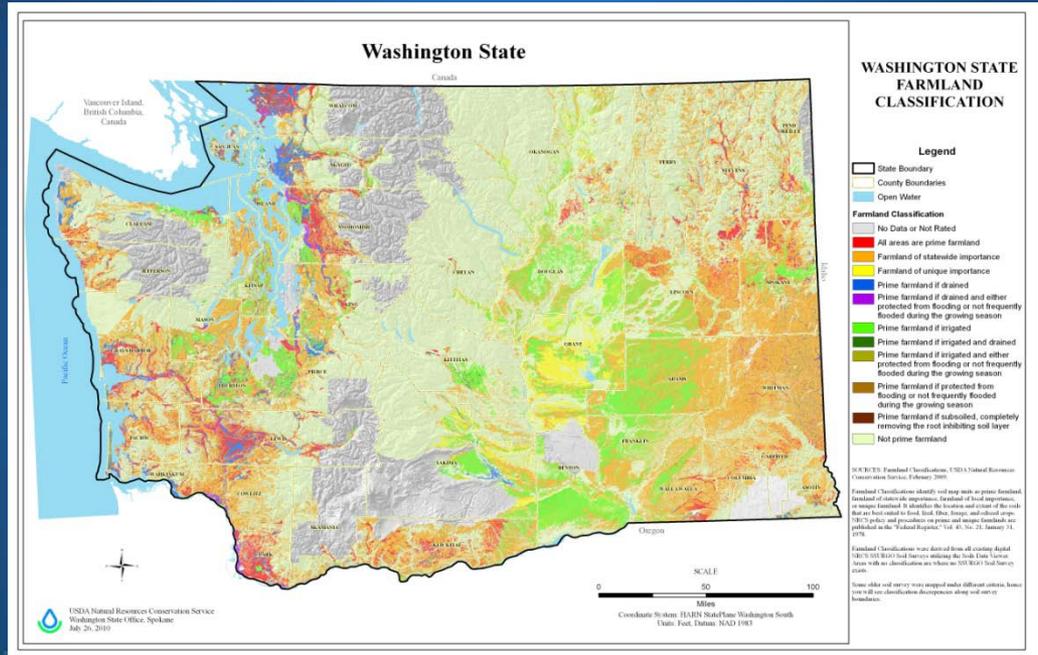
# Researched, Obtained and Developed Geospatial Information and Maps

Example - Non-Industrial Private Forest (Source: University of Washington)



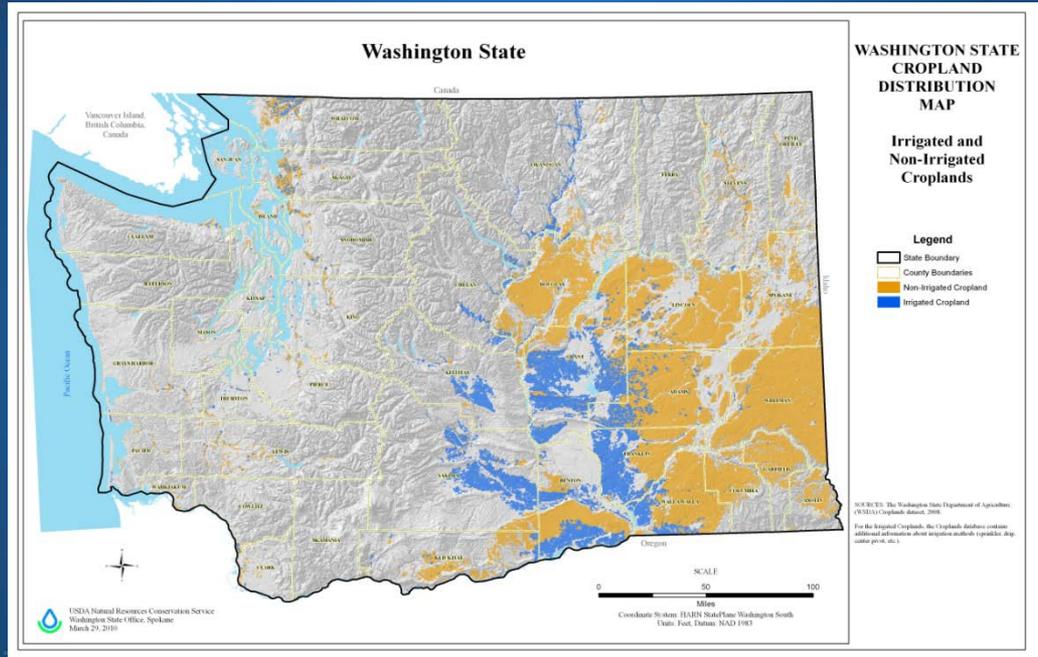
# Researched, Obtained and Developed Geospatial Information and Maps

## Example - Farmland Classification (Source: USDA)



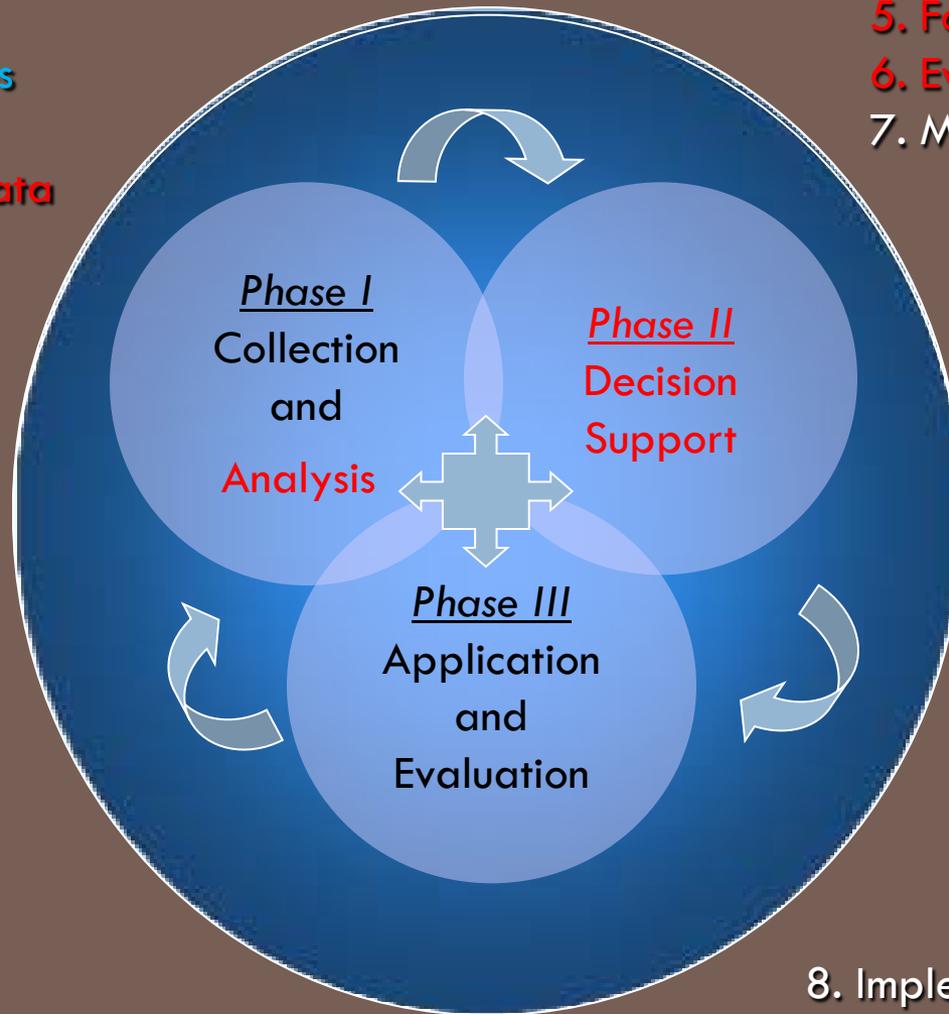
# Researched, Obtained and Developed Geospatial Information and Maps

Example - Irrigated and Non-Irrigated Croplands (Source: WSDA)



1. Identify problems
2. Determine objectives
3. Inventory resources
4. Analyze resource data

5. Formulate alternatives
6. Evaluate alternatives
7. Make decisions



8. Implement the plan
9. Evaluate the plan

## Resource Based Performance Planning for 2011

Based on State Resource Profile and Local  
Work Group Resource Assessments

Implement Strategy

**Phase 1** - State Resource Profile and LWG  
Inventory - **completed 2010**

**Phase 2** - LWG Resource Priorities  
( Feb-March 2011)

**Phase 3** - Team (LWG) RWA Plan  
development (Mar-April 2011)

**Phase 4** - Area Resource Based Plan  
(May-June 2011)

**Phase 5** - State Resource Based Performance  
Plan (July-August 2011)

## Next Steps for LWG in FY 2011

### LWG Defining and Prioritizing of Defined Resource Concerns:

- Identify and Describe Resource Concerns:
- Goal Statement: Desired conditions related to resource concern
- Provide Measurable Objectives.

# Big Bend Team – Irrigated Cropland, Soil Erosion - Irrigation induced

## #1 – Priority resource concern

### Description of concern

Irrigation induced erosion in the SE portion of Grant County and the Adams County panhandle (Irrigation Blocks 43-47 of the CBIP) include approximately 100,000 acres of rill irrigated lands eroding at 10-20 tons per acre per year. Lands in excess of 3% slopes have shown erosion rates as high as 30 tons/acre/year. This has been occurring since the start of the irrigation project in 1950's. Erosion has reduced crop yields, conveyance capacity, surface water quality & negatively impacted wildlife and recreation. If nothing is done to correct the erosion issues there will be continued soil degradation, further reductions of irrigation conveyance and impaired water quality.

### Goal statement

Reduce or eliminate irrigation induced erosion through three primary methods:

- Convert from annual cropping to perennial cropping rotations.
- Increase continued conversions from rill irrigation to sprinkler or drip.
- Encourage the use of Polyacrylamide and straw mulch to reduce irrigation induced erosion on lands where rill irrigation is continued.

# West Area - Identify and Describe the Resource Concern (draft)

## 2005 List Resource Concerns:

**Water Quality – Excessive Suspended Sediment and Turbidity in Surface Water**

**Fish and Wildlife - Habitat Fragmentation**

**Soil Erosion - Road, road sides and Construction Sites**

Western Washington’s major land use is forestry. In the Puget Sound region alone, 58 percent of the watershed is forestland. The high subalpine forests are in National Park Service, US Forest Service and state ownership. As elevation decreases in the watershed the industrial timberlands are the major land use. Just in the Puget Sound region, the combined private non-industrial and tribal forest lands make up 1.4 million acres.

Resource concerns of: Water Quality – excessive suspended sediment and turbidity in surface water; Fish & Wildlife - fragmented habitat for wildlife; and Soil Erosion – road, road sides and construction sites occur on this landscape, mainly due to forest roads. The proposal is to treat those forest roads with accelerated erosion that are depositing increased sediment into waters of the state that affect anadromous and local fisheries. The practices include road shaping, management of road water and road decommissioning, as well as replacing fish passage barriers within the forest road systems. These practices mirror those that the US Forest Service implements on their upper Puget Sound watershed lands. In addition to treating forest roads this proposal will include traditional NRCS forestry practices such as pre-commercial thinning and stand release. Riparian forest buffers will be included, and will also include establishment of woody species diversity and large wood recruitment along the waterways. Outreach activities with local farm forestry groups, state Department of Natural Resources foresters, tribes and conservation districts are anticipated through this proposal.

Soil erosion originating from forest access road systems is a contributor to increased sediment load and turbidity in surface waters of the watersheds. Many of the stream and river segments flowing through forestland contain populations of salmonid species, several of which are threatened or endangered. Surface water quality will be improved by treating eligible road segments in close proximity to streams, rivers, and wetlands. A variety of access road improvements such as water bars, culverts, road surface restoration, ditches, cross drains, out-sloping, and in-sloping will be installed. Correction of fish passage barriers will also be offered. Decommissioning critical sections of road and completing rehabilitation to prevent further soil erosion will also be employed. The following list of conservation practices includes the principal practices to be used to facilitate improvements in identified resource concerns.

Conservation Practice	Practice Code	Units
Riparian Forest Buffer	391	acre
Fish Passage	396	miles
Access Control	472	acre
Access Road	560	feet
Open Channel	582	feet
Channel Bed Stabilization	584	feet
Forest Stand Improvement	666	acre

## Identify and Describe the Resource Concern

Answer the following questions. Select other questions you think are relevant.

### **PALOUSE LWG in EAST AREA - EXAMPLE**

#### **1. What is the resource concern?**

Soil Erosion- Sheet and Rill on Cropland: Detachment and movement of soil on non-irrigated cropland by water. When soils are exposed to weather then rain and snowmelt events move soil in broad sheets and numerous rills. The non-irrigated cropland landscape is sloped and comprised of soil types prone to erosion

#### **2. How large is the problem?**

Estimated at over 650,000 acres in Spokane and Whitman counties, with the bulk in Whitman county.

#### **3. How severe are the effects?**

Soil transport degrades water quality in streams and rivers through sedimentation, affecting aquatic habitat, and reducing lifespan of water control structures or requiring costly dredging. Sediment transport to roads and highway structures creates safety hazards increasing costs for road, culvert, and ditch cleaning for local government. It also harms or destroy crops when deposited on adjoining land. Considerable improvement has occurred over time with adoption of crop residue management practices, but the problem and effects are seen annually and after seasonal erosion events.

#### **4. How long has it been a concern?**

Nearly 100 years, since farming practices in the Palouse began to move to steep lands. Intensive treatment began in the 1970's, at first structural and then to management.

#### **5. What people are affected? How are they affected?**

Farmers suffer loss of productivity. Neighbors are impacted by sediment deposits on their cropland, their roads, their ditches. Recreational and irrigation users of streams and rivers are impacted by degraded water quality from degraded fish habitat and silty water in irrigation facilities and equipment.

#### **6. What geographical area is affected?**

Whitman and Spokane counties are affected, but also counties upstream in Idaho and downstream in Adams and Lincoln counties in WA.

#### **7. What impacts does it have on other natural resources?**

Soil loss directly degrades water quality and then runoff increases from exposed subsoils which carry eroded soil and also nutrients and pesticides.

#### **8. What will happen if nothing is done to correct the problem?**

Continued reduction in water quality from sediment, nutrients, and pesticides washed downstream.

**9. Why should the general public be concerned about this problem?** Considerable public funds are expended cleaning up roads, culverts, ditches, and shipping lanes. Land values decrease when land productivity decreases from loss of productivity from long-term soil loss. Land for food and fiber production is lost.

# Washington State Resource Based Performance Planning

