Adams County Voluntary Stewardship Plan

Presented by

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February 14, 2017

Agenda

- Welcome and Meeting Purpose
- Recap and follow up from December meeting
- Conceptual Overview of Work Plan
  - Introduction
  - Regional Setting
  - Baseline and Existing Conditions
  - Protection and Enhancement Strategies
  - Goals and Measureable Benchmarks
  - Implementation
- Outreach
- Next Steps

Re-cap

December Work Group Meeting

12/13 Work Group Meeting Re-cap

- Critical Areas Protection Strategies – Conservation Practices Matrix
- Discussed agricultural viability as a major goal
  - Will be addressed through dual benefit conservation practices
- Discussed how conservation practices will be used to track critical areas benefits
  - Additional discussion was had on how to track conservation practices completed privately
- Introduced goals, benchmarks, and indicators
- Brainstormed potential outreach opportunities
- Proposed Conservation Districts (Adams and Grant) lead implementation

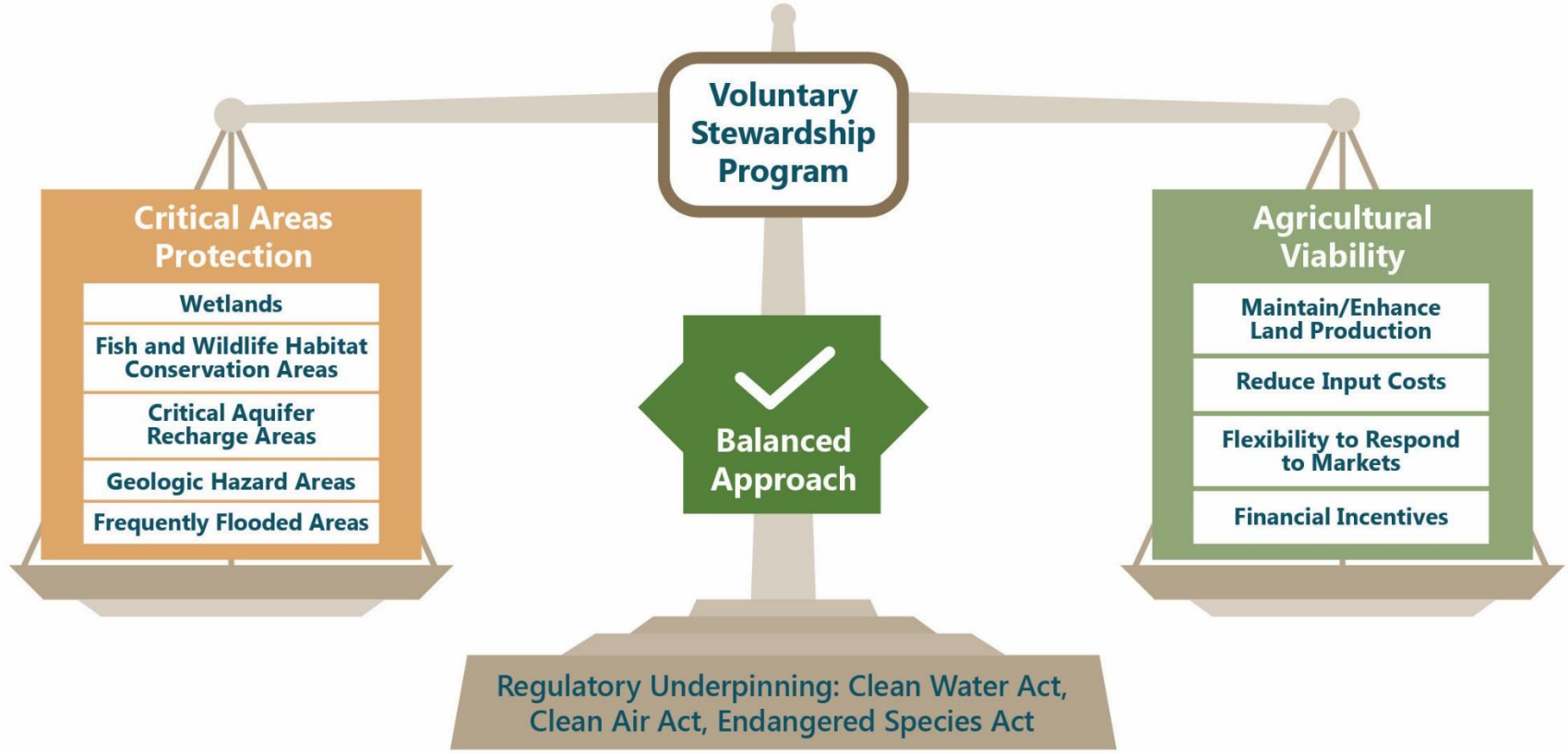
Volume One

Conceptual Overview of Work Plan

Section 1: Introduction

- Introduce VSP Background
  - Discuss main purpose and goals in relation to the Growth Management Act
- Summarize the Work Plan elements
  - Outline consistency with requirements under RCW 36.70A.720
- Roles and Responsibilities for Work Plan Development
  - Define state, local, and individual roles and responsibilities
- FAQs
  - What is meant by voluntary participation? What are baseline conditions? What does it mean to protect and enhance critical areas? What does it mean to maintain agricultural viability?
  - Suggestions for additional questions?

Background and Purpose

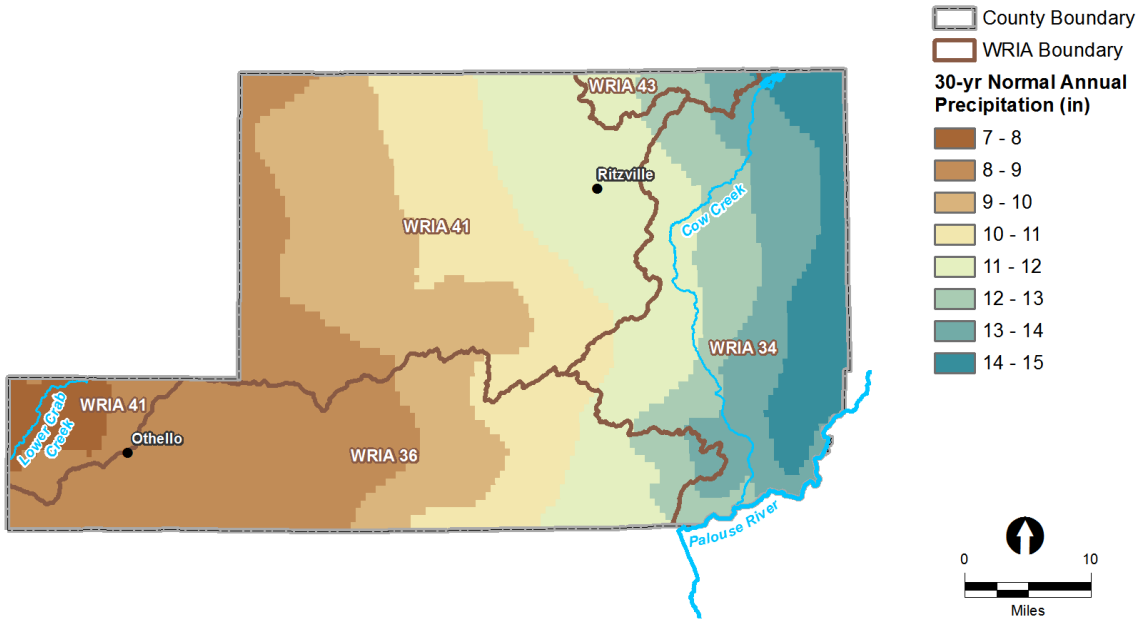


Section 2

Regional Setting

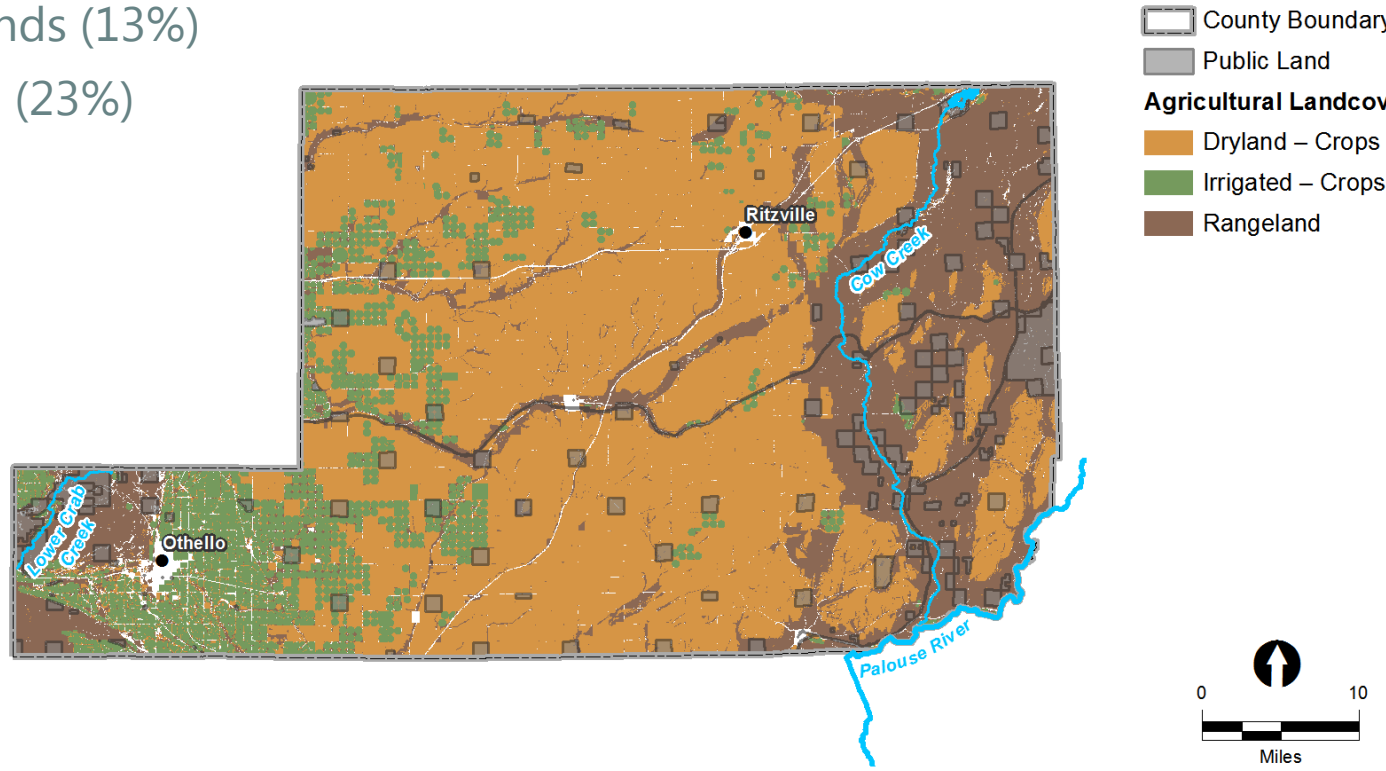
County Profile

- Unincorporated ag lands make up most of County
- Precipitation ranges from less than 8" of annual precipitation (southwest) to 15" (northeast)
- Soils in the County are characterized as deep, silty, and well drained



Agricultural Land

- Private agriculture is the major land use in County (91%)
- Major types of agricultural activity includes:
  - Dryland (55%)
  - Rangelands (13%)
  - Irrigated (23%)



Agriculture in Adams County

- In 2012 the market value of agricultural products produced in Adams County was approximately $430 million
  - 79% was crops
  - 21% was livestock
- By value, grains were top commodity followed by vegetables and potatoes
- There were approximately 700 farms

Sales (Dollars)	% of Farms
Less than 10,000	50%
10,000 to 100,000	11%
100,000 to 250,000	9%
250,000 to 500,000	9%
Greater than 500,000	21%

Census of Agriculture 2012

Critical Areas

FWHCA

Wetlands

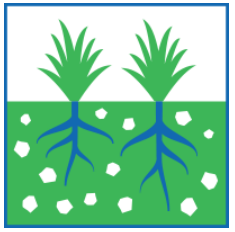
Geologic Hazards (Erosion)

CARA

FFA

Critical Area Functions and Values

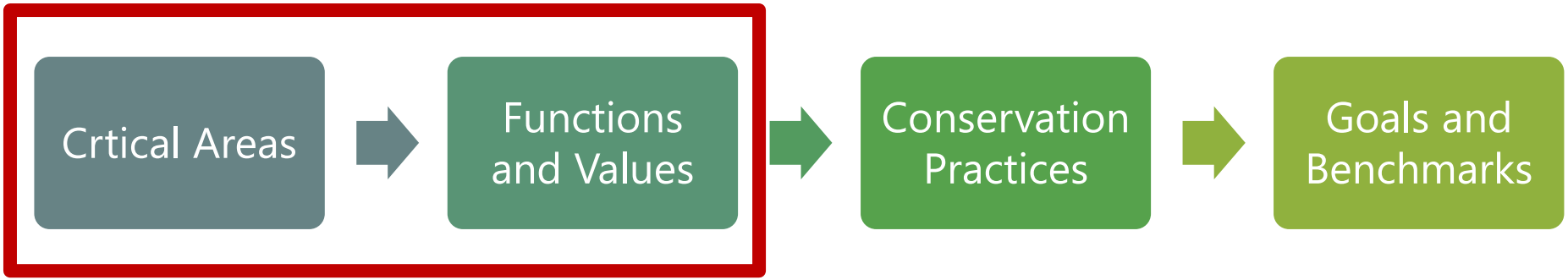
Critical Areas Functions

Critical Areas	Hydrology 	Soil Health 	Habitat 
Wetlands			
Fish and Wildlife Habitat Conservation Areas			
Critical Aquifer Recharge Areas			
Geologically Hazardous Areas			
Frequently Flooded Areas			

Section 3

Baseline Conditions

VSP Crosswalk



Critical Areas Intersection with Agriculture

- Critical areas occur mostly on agricultural lands
- Small intersects with agriculture:
  - Wetlands
  - Critical aquifer recharge areas
  - Frequently flooded areas
  - Fish and wildlife habitat conservation areas
  - Water erosion potential (Ringold Erosive Soils)
- Larger intersects with agriculture:
  - Wind and water erosion potential (NRCS) – neither are designated critical areas in Adams County
- Conservation practices do not need to intersect with physical critical areas to protect and enhance critical areas functions and values

Wetlands Example

- 1.2% of the County's total agricultural lands have wetlands, which represents a majority (approximately 79%) of the wetlands found within the County.

Distribution of Wetlands in Each Agricultural Type

Dryland	8%
Irrigatated	<1%
Rangeland	92%

Wetland Functions and Values

Key Functions	Wetland Functions
Hydrology 	• Stores water to reduce flooding and contributes to base flows
Habitat 	• Provides aquatic and woody vegetated habitat for fish and wildlife • Provides water filtration, reduces sedimentation • Moderates water temperature

Critical Aquifer Recharge Areas

Agricultural Viability – Regional Perspective

The ability of a region to sustain agricultural economy and production over time

Concept	Detail
Stable and secure agricultural land base	Land conversion
	Stable water rights
Infrastructure and services	Utilities/irrigation
	Market access/transportation
Support for best farm management practices	Economically viable solutions
	Balanced approach
Education, training, and succession planning	Apprenticeships/training
	Interconnectivity with end users
Welcoming business environment	Stable regulatory environment
	Partnership based environmental protection
Market Trends/Viability	Changing livestock and commodity prices can effect the number of producers that support economy
	Value added measures to make products more marketable

Agricultural Viability – Farm Perspective

The ability of a farm to meet financial obligations and make profit

Concept	Detail
Reduce Input Costs	Energy (power, fuels)
	Chemicals/fertilizers
	Labor
Maintain/Enhance Land Production Capacity	Soil health
	Water systems and moisture management
	Nutrient management
	Promoting/adopting new technology
Flexibility to Respond to Market Conditions	Changing land in production
	Individual schedule for implementing conservation practices
	Cropping choices
Incentives	Payment for measures
	Tax breaks
Managed Farmland Conversion	Urban development (limited)
	Maintain resource lands
"No Surprises" Regulatory Environment	Federal - CWA, CAA, ESA, etc.
	State and Local Permitting
Protect Private Property Rights	Recognize and respect rights
Environmental Variation	Rainfall, temperature, etc. affects activities

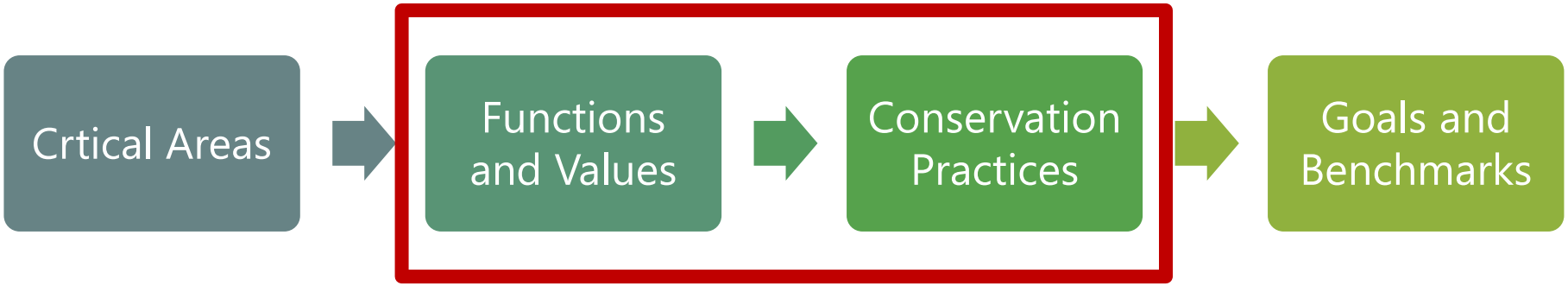
Agricultural Interviews – SWOT Analysis

- Conduct a SWOT analysis with agricultural producers in the County
- Would you like to be interviewed?
- Do you know of a good person to interview?

Section 4

Protection and Enhancement Strategies

VSP Crosswalk



Conservation Practices

Example Practice	Ag Type	Description	Critical Areas Function			Agricultural Viability
			Hydrology	Soil Health	Habitat	
Residue and Tillage Management	Dryland Rangeland	Managing crop and plant residue and limit soil disturbance (e.g. no- or reduced-till, direct seed, and mulch tillage)				• Soil quality and conservation • Weed management • Increased yield and fertility
Integrated Pest Management	Dryland Rangeland	Managing pesticide use to reduce runoff				• Soil quality • Weed management • Pollinator/beneficial organisms
Nutrient Management	Dryland	Managing application of nutrients to minimize loss to runoff				• Soil quality • Increased yield and fertility • Reduced input costs
Water Management	Irrigation	Controlling the timing, amount, frequency and application rate of irrigation water				• Soil quality and conservation
Prescribed Grazing	Rangeland	Managing grazing and vegetation harvest to improve plant communities and manage weeds				• Soil quality and conservation • Weed management • Increased yield and fertility

NRCS Practices Implemented (2011 – 2016)

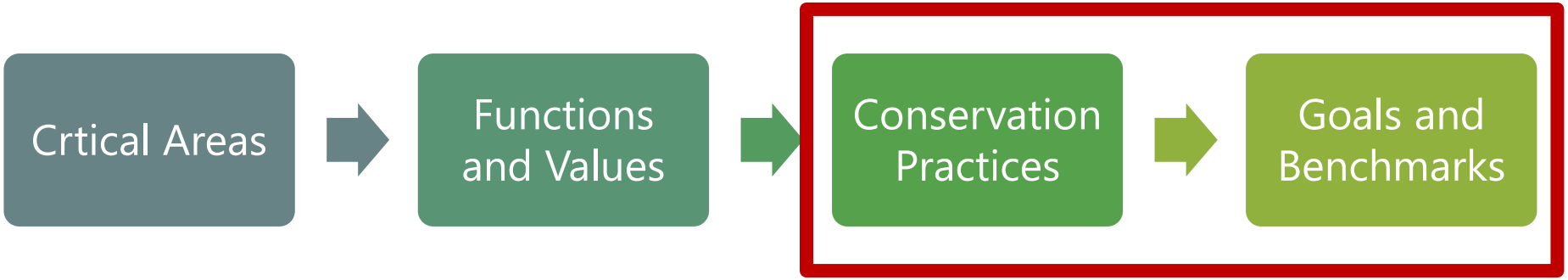
Conservation Practice	Acres Affected	Projects Implemented	Land use
Residue Management, Mulch Till	60,211 acres	109	D I R
Agricultural Energy Management	53,150 acres	28	D I R
Pest Management	38,784 acres	78	D I R
Nutrient Management	29,025 acres	60	D I R
Residue and Tillage Management, No-Till/Strip Till/Direct Seed	20,811 acres	54	D I R
Watering Facility	15,000 acres	25	D I R
Irrigation Pipeline	7,560 acres	51	D I R
Pumping Plant	6,723 acres	52	D I R
Irrigation Water Management	6,723 acres	25	D I R
Prescribed Grazing	6,519 acres	37	D I R

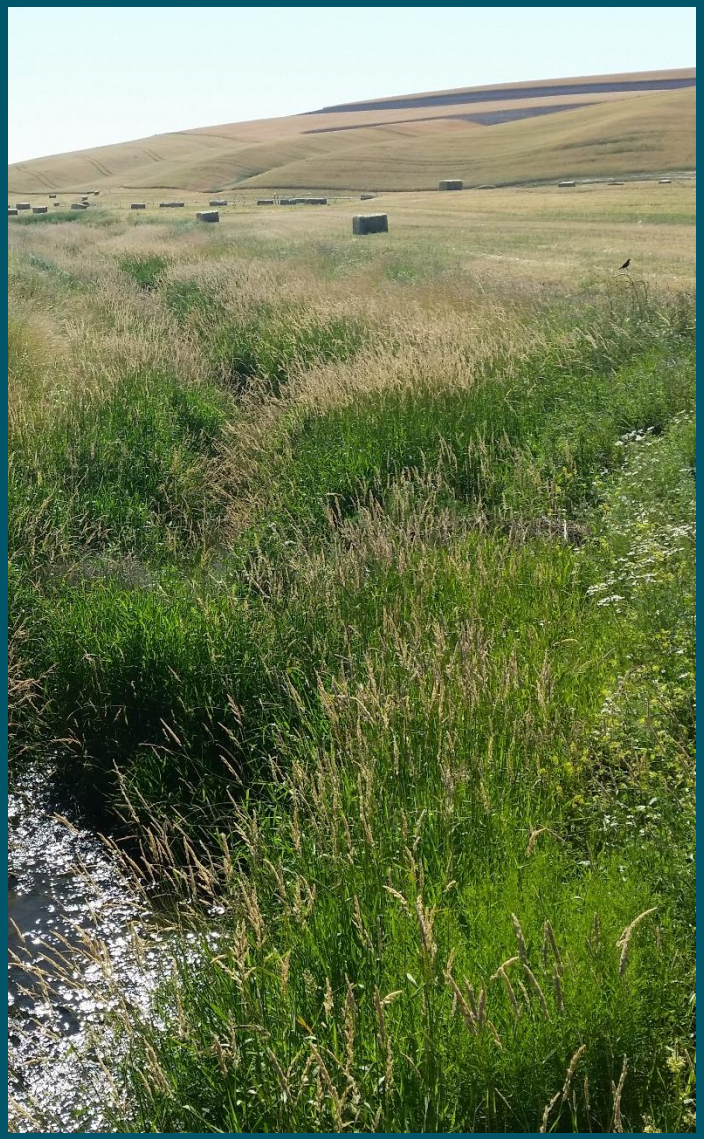
10,000 Acres
1,000 Acres
100 Acres
D Dryland Crops
I Irrigated Crops
R Rangeland

Section 5

Goals and Benchmarks

VSP Crosswalk





- Benchmarks
  - Countywide
  - Critical Area
    - Protection
    - Enhancement
- Goals
  - Based on our 4 Ecosystem Functions
  - Define our enhancement trajectory
- Objectives
  - Based on conservation practices
  - Define the focus of implementation

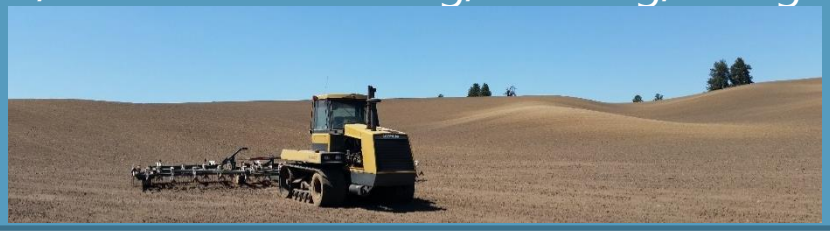
Benchmark: Protect/ Enhance Critical Areas functions and values

Goals: Protect and Improve –Enhance – Increase

Ag. Viability | Water Quality | Hydrology | Soil Health | Habitat

Objectives:

Direct Seed, Mulch Till/ Range Watering/Nutrient Management/ Pest Management/ Prescribed Grazing/ Fencing/ Range Planting…..



Goals are Based on Critical Area Functions

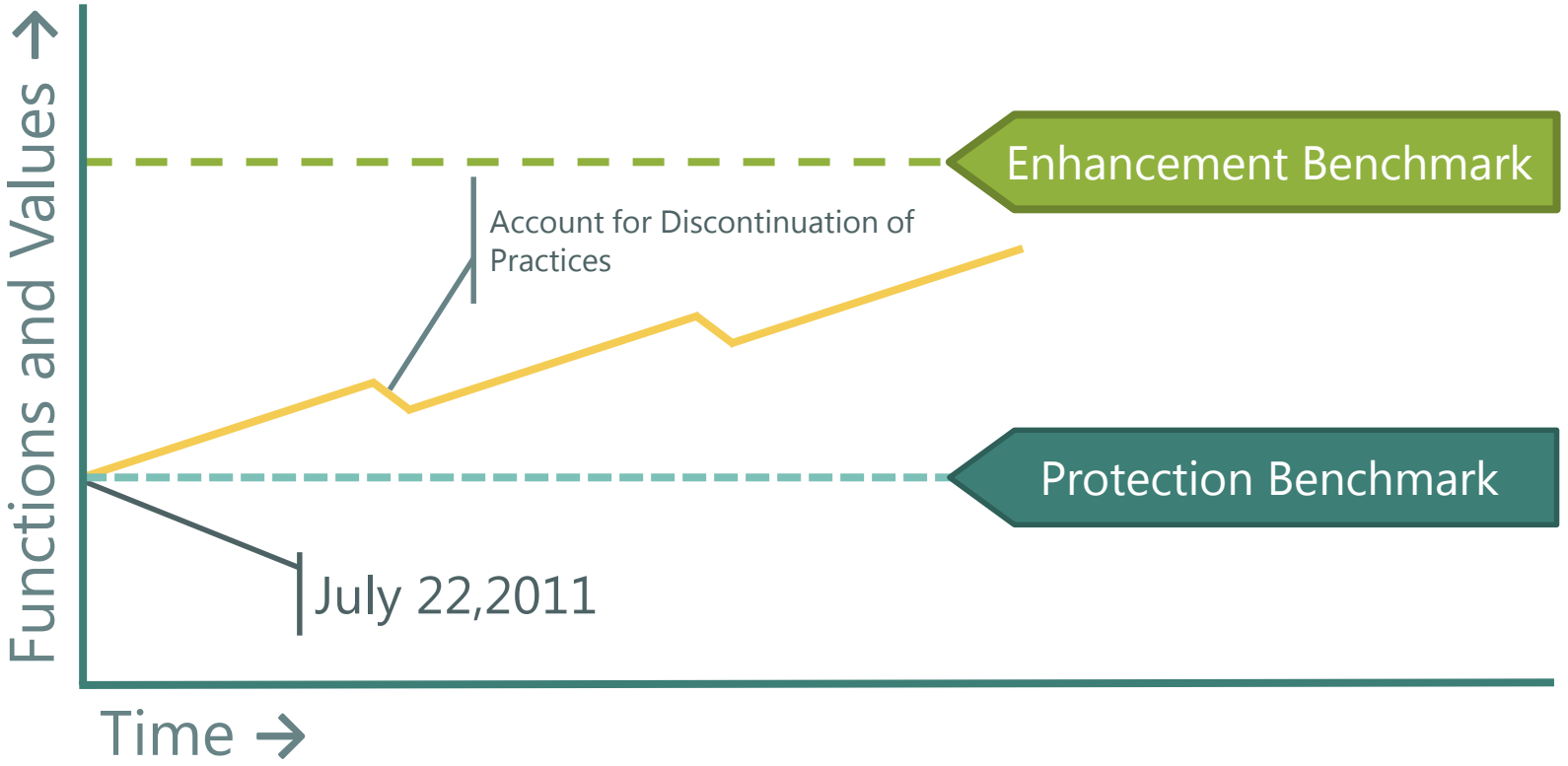
- Protect and…
  - … Improve surface water quality
  - … Improve groundwater quality
  - … Increase hydrologic storage
  - … Increase groundwater recharge
  - … Increase soil moisture
  - … Enhance soil quality
  - … Enhance terrestrial habitat
  - … Enhance aquatic habitat

Habitat Goal Example

Protect and enhance existing terrestrial habitat areas

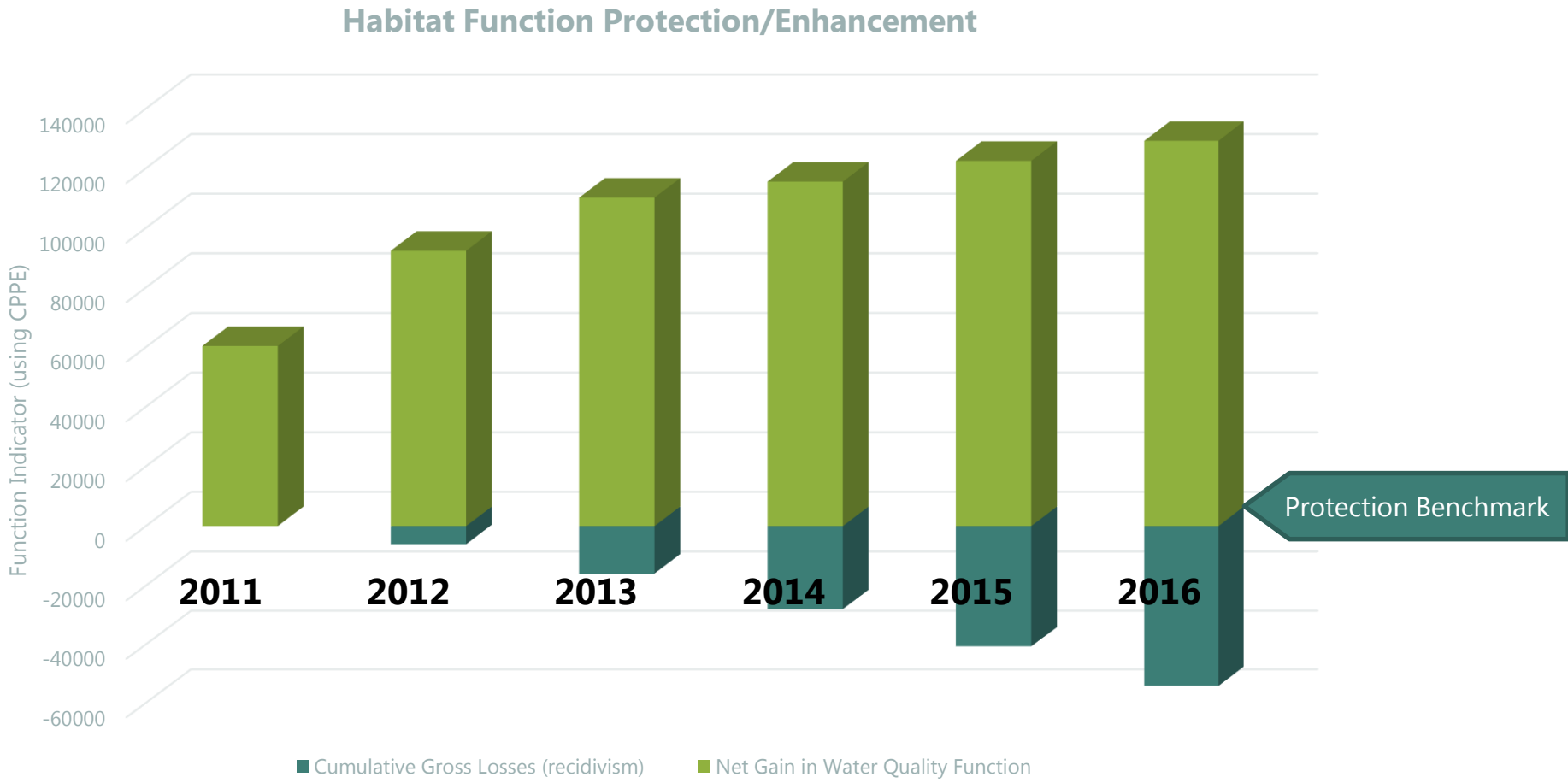
- Protection and/or Enhancement through:
  - Limiting soil compaction or trampling of habitat
  - Promoting water management to prevent unintentional conversion of shrub steppe habitat
- Enhancement through:
  - Restoring or creating new habitat or habitat structures
- Objectives:

Measuring Goal Performance using Benchmarks



Example

Habitat Function: Measurable Benchmarks 2011-2016



Measurable Benchmarks

- Conservation practices with **direct** effects on critical areas
  - Use the conservation practices are inherently geographically related to critical areas
    - Riparian planting
    - Wetland restoration
- Conservation practices with **indirect** effects on critical areas
  - Reduced tillage
  - Irrigation water management

Quantifying Measurable Benchmarks

1. Apply methods to relate conservation practices benefits to critical areas functions and values
2. Set benchmarks based on conservation practices direct and indirect effects on critical areas functions and values
3. Account for practices implemented, continuing practices, and practices discontinued

Using CPPE to relate conservation practices benefits to critical areas functions and values

(Step 1 in Quantifying Measurable Benchmarks)

• Conservation Practice[1]	Projects	Acres Affected 2011-16	Habitat Effect	Hydrology Effect	Water Quality Effect	Soil Health Effect
Residue and Tillage Management (reduced- and no-till)	100	57,423	■	■	■	■
Pest Management	62	36,540	■	■	■ ■ ■	■
Nutrient Management	49	27,384	■	■	■ ■	■
Irrigation Management[2]	27	20,274	■ ■ ■	■ ■	■ ■ ■	■
Prescribed Grazing	15	13,201	■ ■	■ ■	■ ■	■ ■
Cover Crop	13	1,825	■	■	■	■
Access Control	2	1,516	■	■	■	■
Habitat Management[3]	59	1,396	■ ■ ■	■	■	■

Key

Benchmark quantities for conservation practice enrollment are provided in 5-year reporting

Setting a Protection Benchmark with CPPE
(Step 2 in Quantifying Measurable Benchmarks)

- Quantify the benefit of stewardship we know has been implemented
  - conservation practices under contract to NRCS
- Estimate future practices for the first 10 years of VSP implementation
- Evaluate if critical area functions and values will be protected through expected net changes in agricultural land stewardship

Account for Implemented and Continuing Practices

(Step 3 in Quantifying Measurable Benchmarks)

- Rely on Conservation Districts to track implementation and continuation of conservation practices
- Use Farm Stewardship Plans for individual agricultural producers
- Other tracking options – website, checklist, etc.

Account for Discontinuation of Practices
(Step 3 in Quantifying Measurable Benchmarks)

Understanding Voluntary Stewardship from the Producer Perspective to Account for Recidivism

Stewardship Investments

Versus

Stewardship Actions

Understanding how Different Agricultural Business Models Affect Discontinuation of Practices

- Operators on their own land
- Operators who typically lease land annually
- Operators who typically lease land for several years
- Landowners who typically lease their land to operators

Calculating Discontinuation of Practices

Recidivism Rate	Recidivism Category	Example Practices
No Recidivism	• Permanent Conservation Practices	• Permanent Easements • Major Infrastructure

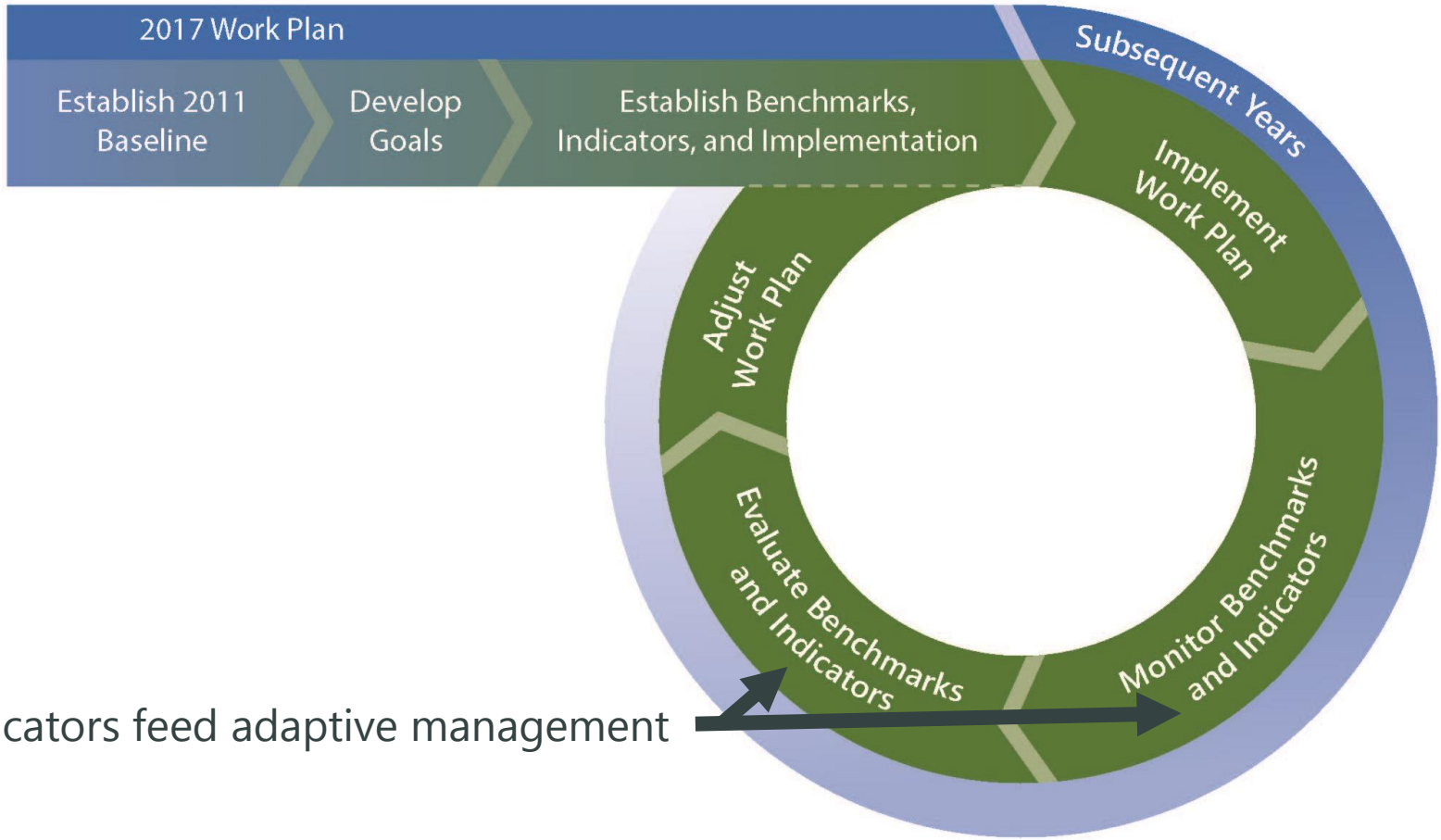
Lower Recidivism	• High Barriers to Entry/Exit
	  ○ Conservation investments
	  ○ Maintenance cost
	  ○ Effectiveness
	• Increases Land Productivity
	• Lowers Cost
		• Tillage Management
		• Pest Management
		• Nutrient Management
		• Irrigation Management
		• Fencing

Higher Recidivism	• Low Barriers to Entry/Exit
	  ○ Easily removed
	• Reduced land in production
	• Rotational use
	  ○ Market driven rotation
	• Reliance on unstable conservation funding or incentives (e.g., CRP)
		• Habitat Restoration
		• Prescribed Grazing
		• Cover Crop
		• Range Planting

Indicators

- Indicators include information collected through existing programs
  - Water quality monitoring
  - Flow data
  - Priority Habitat and Species data, etc.
- Help to understand if conservation practices are effecting physical indicators of functions and values
- Affect of agriculture on indicators in not easily distinguished
- Indicators may not reflect benefits from stewardship actions for many years or even decades

Adaptive Management



Indicators feed adaptive management

Chapter 6

Implementation

Implementation Framework

- Expected to continue largely through established programs and organizations
- Work Plan implementation responsibilities include:
  - agricultural producer participation and outreach
  - technical assistance
  - program performance tracking and reporting
  - adaptive management
- Reporting timeline
  - 2 years: Report on progress
  - 5 years: Performance Review
- Proposed implementation lead: Adams CD
  - Adams CD: Tracking and reporting to WSCC
  - Adams and Grant CDs: Coordinate implementation with private industry and local, state, and federal agencies

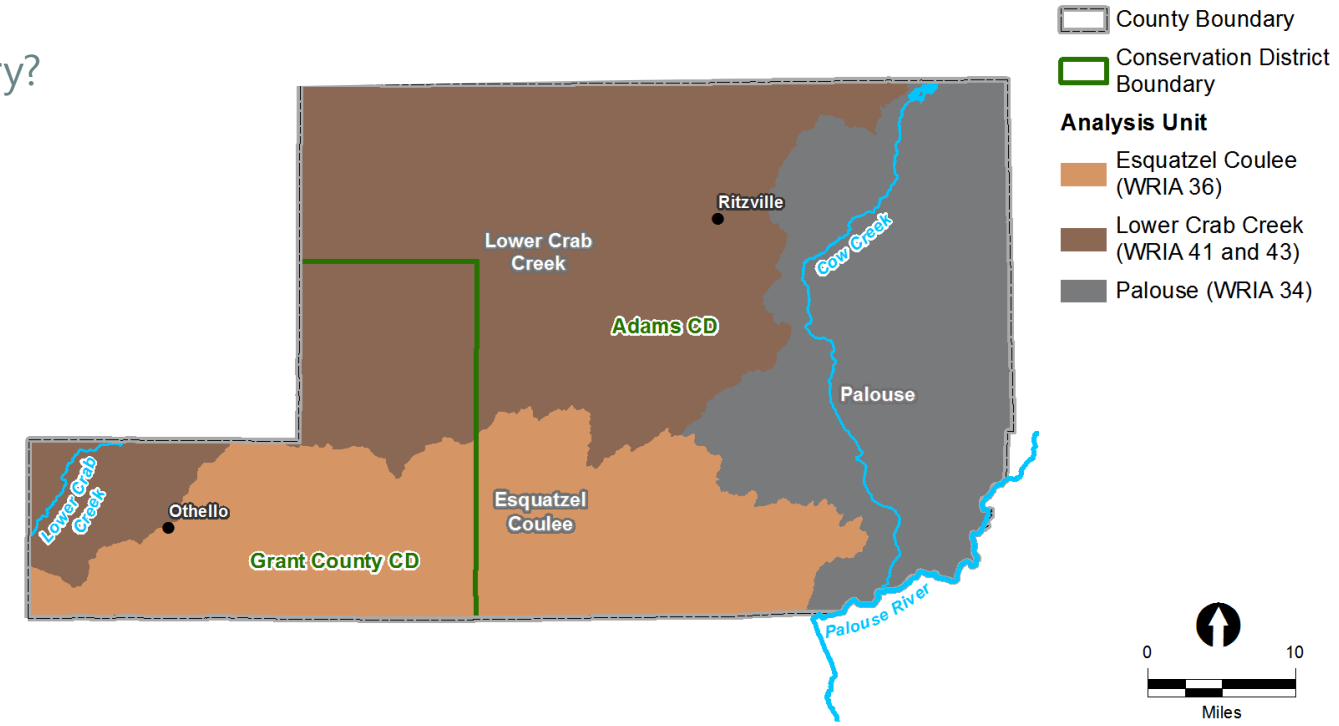
Analysis Units

Major Drainage Areas (4 major watersheds)

- Mostly within Lower Crab (WRIA 41), Palouse (WRIA 34) and Esquatzel Coulee (WRIA 36)
- Small portion in Upper Crab-Wilson (WRIA 43)

VSP Watershed Analysis Units

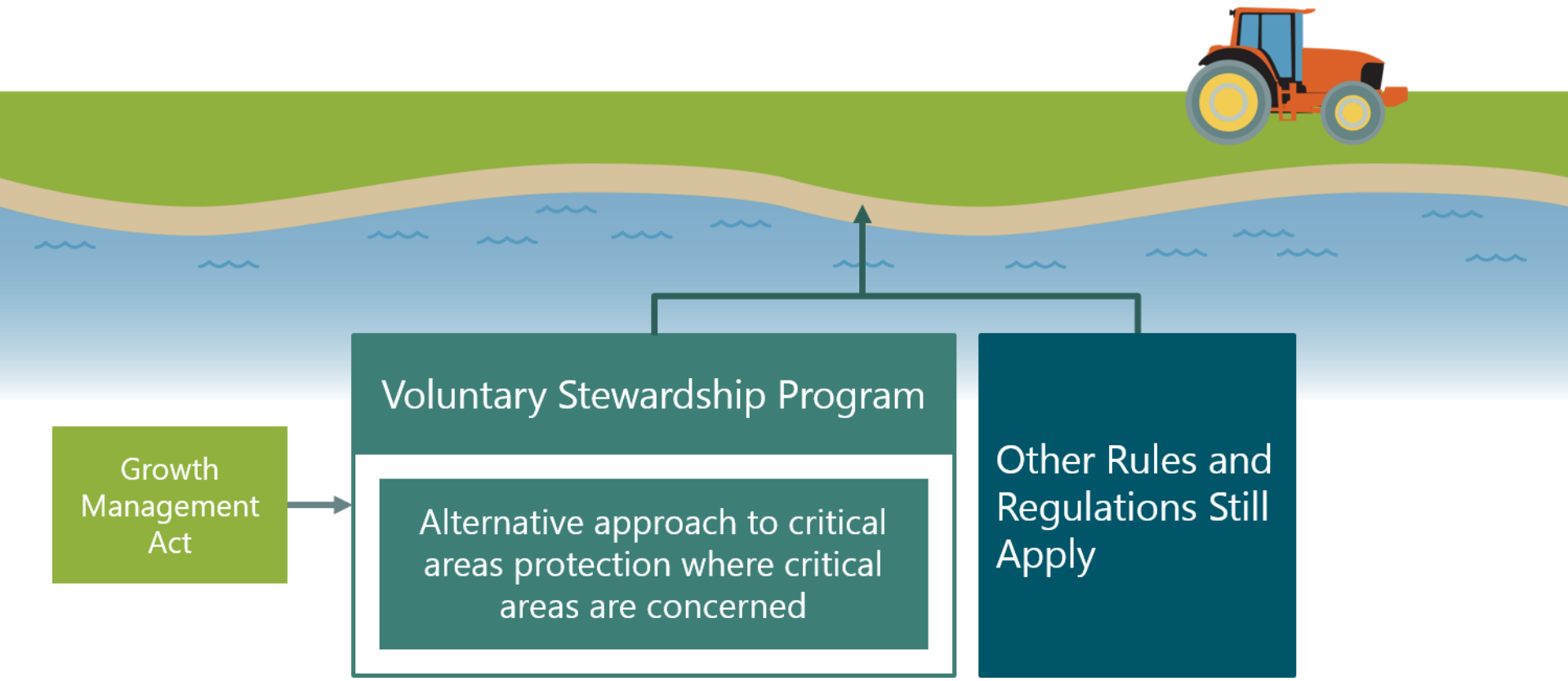
- By watershed?
- By CD boundary?



Integrated with Existing Programs and Plans

- Groundwater Management Plans
- Environmental Quality Incentives Program (EQIP)
- Conservation Stewardship Program (CSP)
- Wetland Reserve Program (WRP)
- Conservation Reserve Program (CRP)
- Private Lands Conservation Program (WDFW-led)
- Private sector
- Others

Regulatory Environment



Outreach

Outreach During Plan Development

- Adams Conservation District Annual Meeting (January 24th) – Done!
- Industry meetings, agricultural shows
- Other meetings where producers already meet (monthly coffee hours)
- E-mail announcements or postcard notifications
  - Conservation District
  - Washington Cattle Breeders
  - Others?
- Articles in the Othello Newspaper, others?
- 1-page VSP FAQs/Summary of Work Plan – In development

Outreach During Plan Implementation

Venue	Description
Meetings	• Conservation Districts • Industry meetings • Others?
Media	• CDs websites and newsletters • Adams County website • WSCC news and announcement webpage • Articles, announcements, and advertisements with local newspapers (Othello, others?) • E-mail distribution lists (CDs) • Others?
Others	• Informational booths and displays at fairs and agricultural shows • Individual outreach • VSP Self-assessment Checklist

Next Steps

Expected Next Steps

- March 14, 2017
  - Review and comment on Work Plan
- April – June
  - Continue to review and comment on Work Plan
- After June – TBD