



Voluntary Stewardship Program

Whitman County

Work Group Meeting



Presented by

Ben Floyd, Anchor QEA

March 2, 2017

Presentation Overview

- Follow-up from Last Work Group Meeting
 - Implementation Lead
- Comment Tracking Document
- Goals, Benchmarks, and Tracking Methods
- Next Steps

February 2, 2017

Follow-up from Last Meeting

Lead Entity for Implementation and Outreach

- County to select VSP Coordinator
- Preliminary list of responsibilities:
 - Conduct outreach to technical assistance providers in accordance with the Work Plan
 - Provide technical guidance on VSP reporting needs
 - Collect data from technical assistance providers on participation in Stewardship Strategies and Practices
 - Conduct Work Plan performance tracking and reporting, adaptive management

Comment Tracking Document

Key Discussion Items

- What was the term “Soil Health” trying to get at?
 - The ecosystem function associated specifically with soil and soil formation, such as;
 - Resistance to erosion
 - Storage and filtration of water
 - Storage and distribution of nutrients
 - Development of structure
 - What are some alternate terms that better describe these functions?
 - Soil processes
 - Soil movement
 - Soil functions

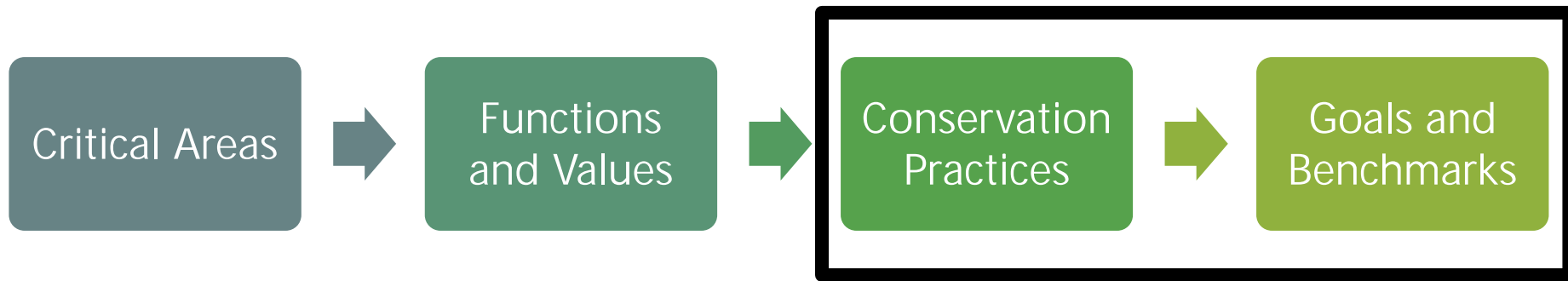
Key Discussion Items

- Technical Providers in Whitman County
 - FSA, NRCS, CDs, WCCA, WCSB, WCWGA
 - Agencies (Local, State and Federal)
 - Private Industry
 - Others?

Goals and Measurable Benchmarks



VSP Crosswalk



Goals: Protect – Voluntary Enhancement

Ag.
Viability



Water
Quality



Hydrology



Soil
Health



Habitat



Objectives: Protect Through Conservation Practices



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

Measurable Benchmark: Protect/ Enhance Critical Areas functions and values



CARA



FFA



F & W

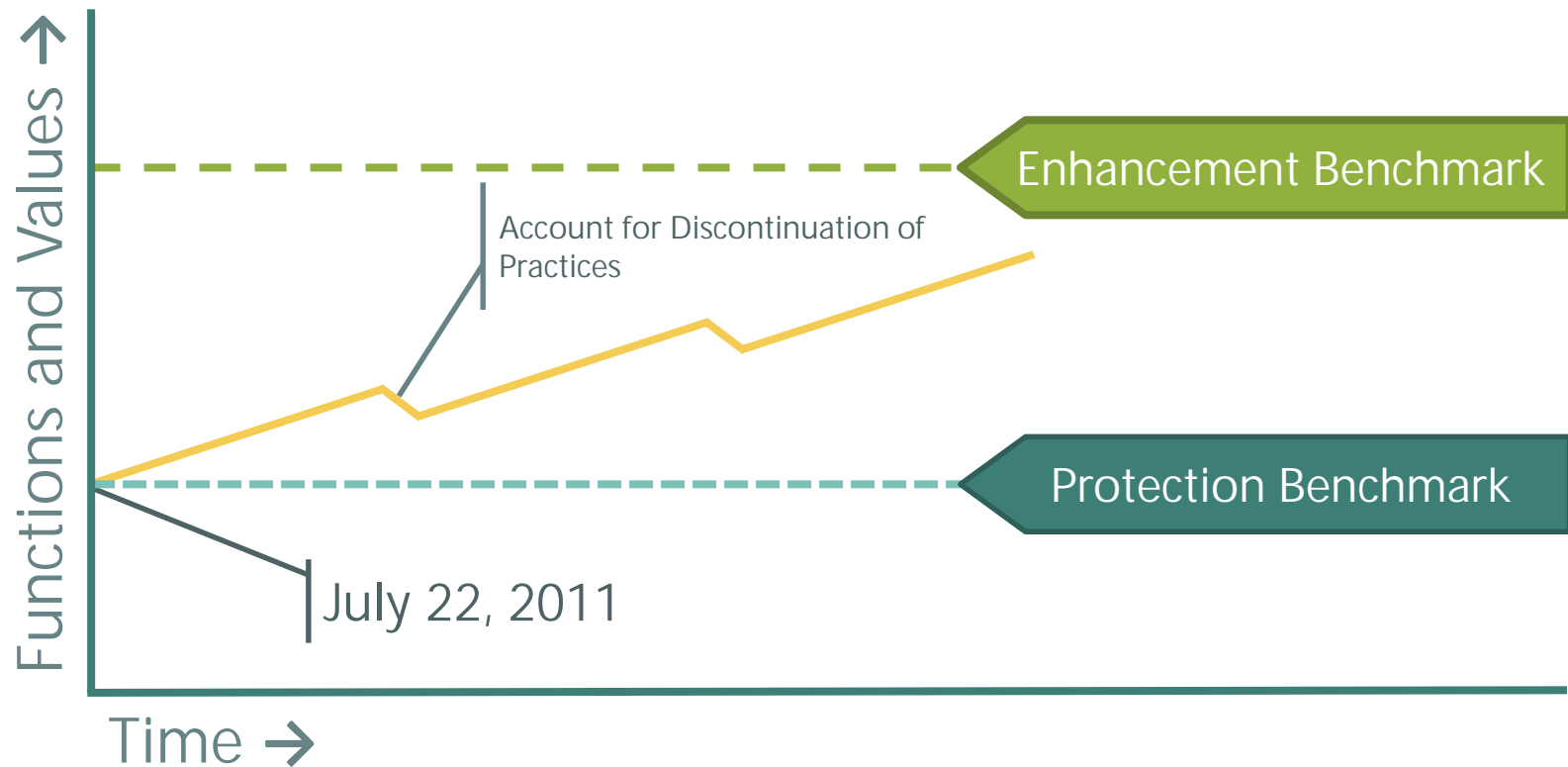


GHA



WET

Measuring Goal Performance using Benchmarks



Goals are Based on Critical Area Functions

Protect ecosystem functions that provide..

- ... water quality
- ... hydrologic storage
- ... groundwater recharge
- ... soil moisture
- ... soil quality
- ... terrestrial habitat
- ... aquatic habitat



- And voluntary enhancement

Tracking Approach

Quantifying Measurable Benchmarks (Steps)

1. Apply methods to relate conservation practices benefits to critical areas functions and values
2. Account for practices implemented, continuing practices, and practices discontinued
3. Tracking implementation and maintenance of conservation practices

Relate Practices to Functions and Values

(Step 1 in Quantifying Measurable Benchmarks)

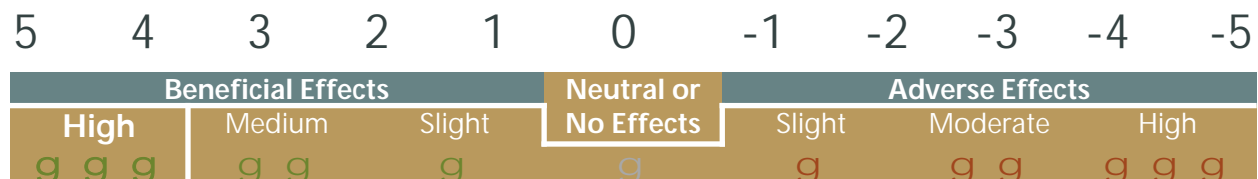
Conservation Practice Physical Effect (CPPE):

- Describes (in great detail) how each practice affects agricultural viability, and natural resource critical functions
- Positive scores have beneficial effect, negative scores have adverse effect

5	4	3	2	1	0	-1	-2	-3	-4	-5
Beneficial Effects					Neutral or No Effects	Adverse Effects				
High		Medium	Slight			Slight	Moderate	High		
g g g		g g	g		g	g	g g	g g g		

CPPE Habitat Example

Fish & Wildlife Problem	Inadequate Food	Inadequate Cover/Shelter	Inadequate Water	Inadequate Space	Habitat Fragmentation	Population Imbalance
Conservation Cover	5	5	0	3	5	1



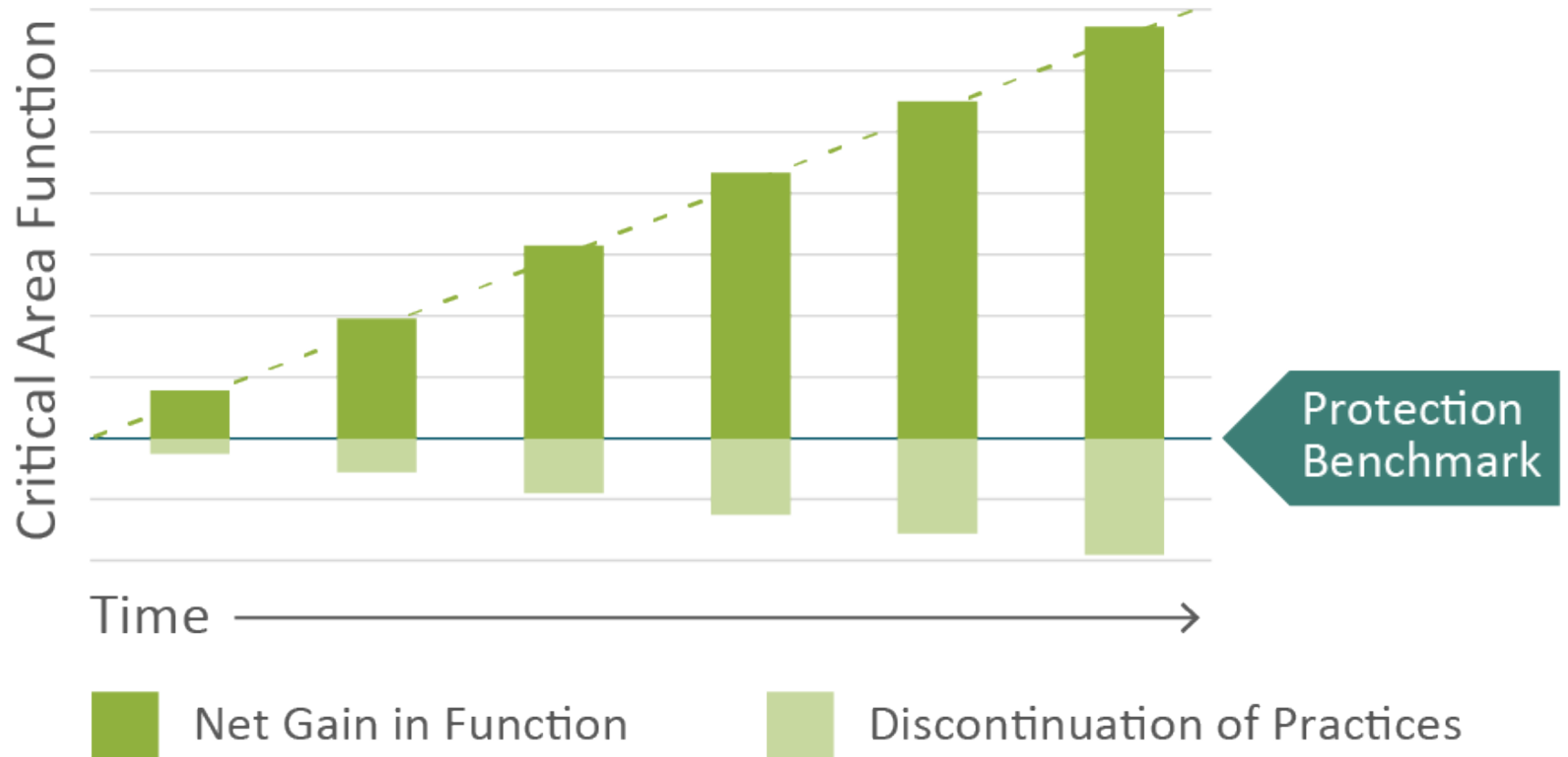
Using CPPE to relate conservation practices benefits to critical areas functions and values (Step 1 in Quantifying Measurable Benchmarks)

Conservation Practice	Habitat Effect	Hydrology Effect	Water Quality Effect	Soil Health Effect
Nutrient Management	g	g	g g	g
Pest Management	g	g	g g g	g
Residue and Tillage Management	g	g	g	g
Prescribed Grazing	g g	g g	g g	g g
Cover Crop	g	g	g	g
Access Control	g	g	g	g
Habitat Management	g g g	g	g	g

Beneficial Effects			Neutral or No Effects	Adverse Effects		
High	Medium	Slight		Slight	Moderate	High
g g g	g g	g	g	g	g g	g g g



Relate Conservation Practices Benefits to Critical Areas Functions and Values



Account for practices implemented, continuing practices, and practices discontinued

(Step 2)

- 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

Track Implementation and Maintenance of CPs

(Step 3)

- Rely on technical assistance providers and VSP coordinator to track implementation and continuation of conservation practices
- Individual agricultural producers apply stewardship strategies and practices
- Voluntary annual reporting by agricultural producers

Residue and Tillage Management



Chemical or Nutrient Management



Soil Management



Water Management and Filtration



Livestock Management



Habitat Creation or Management

Residue and Tillage Management

- No-till/Strip Till/Direct Seed
- Mulch Till

Chemical or Nutrient Management

- Pest Management
- Nutrient Management
- Agrichemical Handling Facility

Soil Management

Water Management and Filtration

Livestock Management

Habitat Creation or Management



Residue and Tillage Management

- No-till/Strip Till/Direct Seed
- Mulch Till



Chemical or Nutrient Management



Soil Management

- Mulching
- Tree/Shrub Planting



Water Management and Filtration

- Channel Stabilization/Grassed Waterway
- Cover Crop



Livestock Management

- Prescribed Grazing
- Stock Watering Facilities

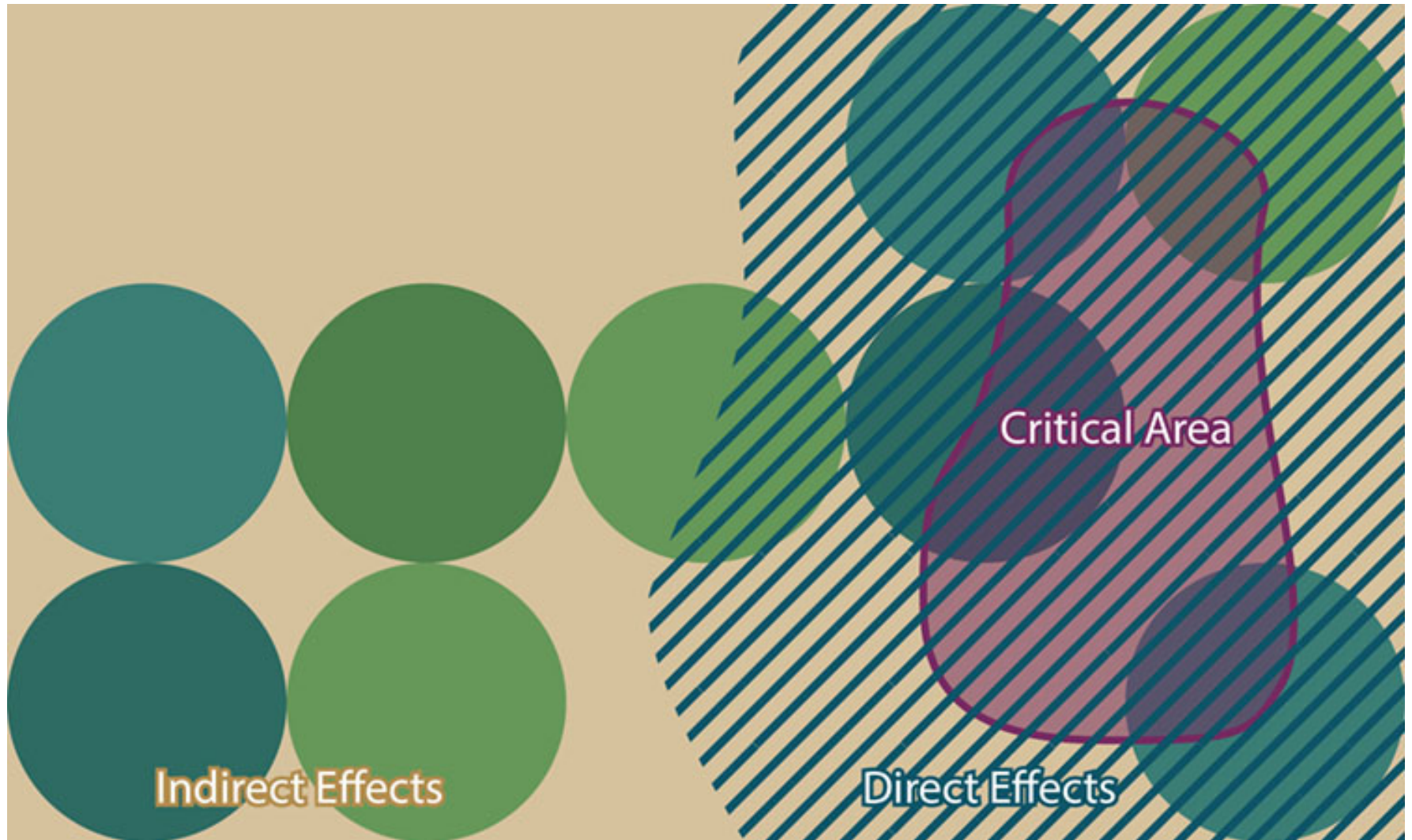


Habitat Creation or Management

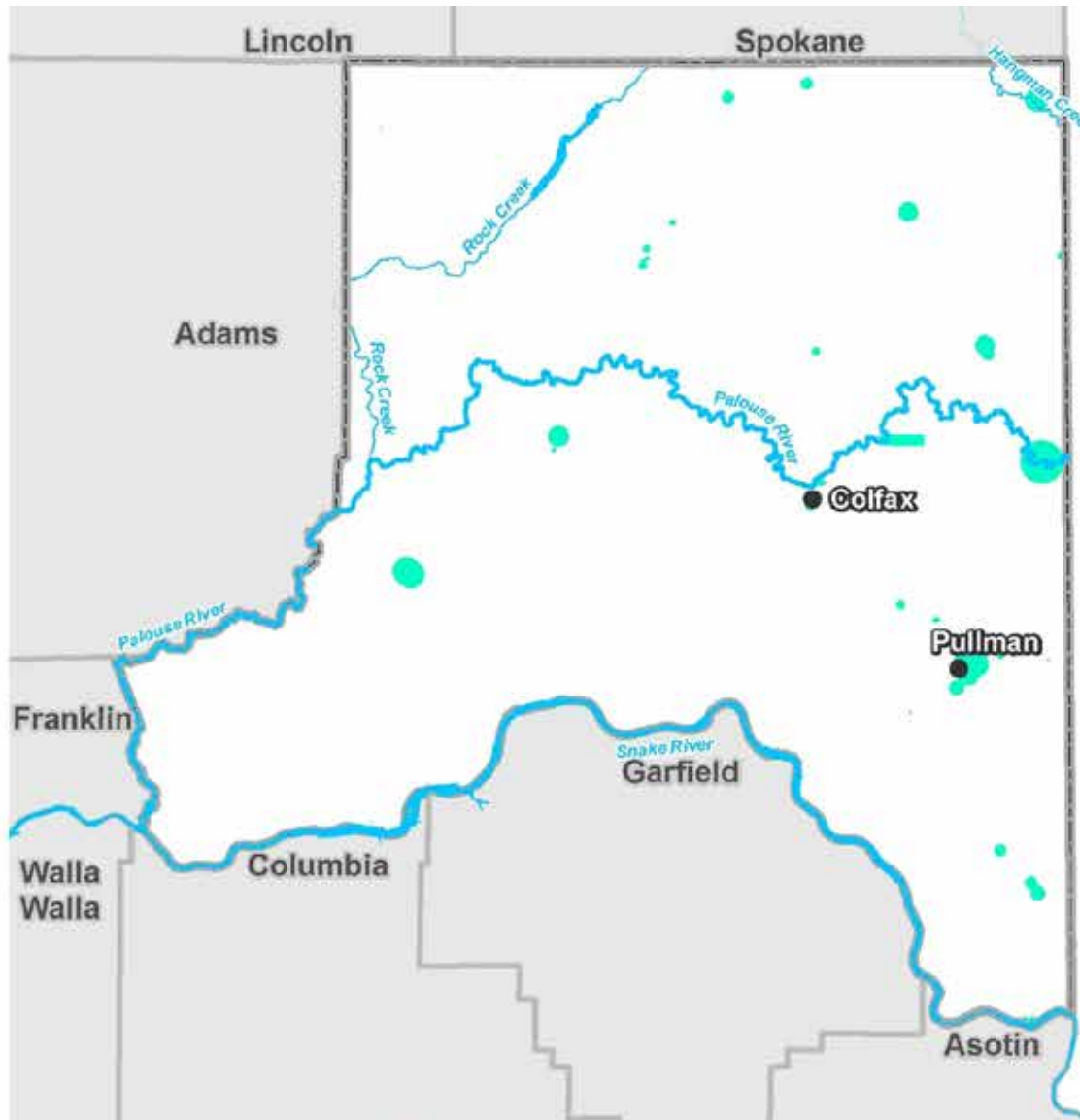
Conservation Practice Benefits – “where” matters

- Conservation practices with **direct** effects on critical areas
 - Use the conservation practices that are geographically related to critical areas
 - Riparian planting
 - Wetland restoration
- Conservation practices with **indirect** effects on critical areas
 - Reduced tillage/Direct seed
 - Nutrient and pest management

Direct and Indirect Effects



Critical Aquifer Recharge Areas (CARA)



- County Boundary
- Critical Aquifer Recharge Area

Chemical or Nutrient Management

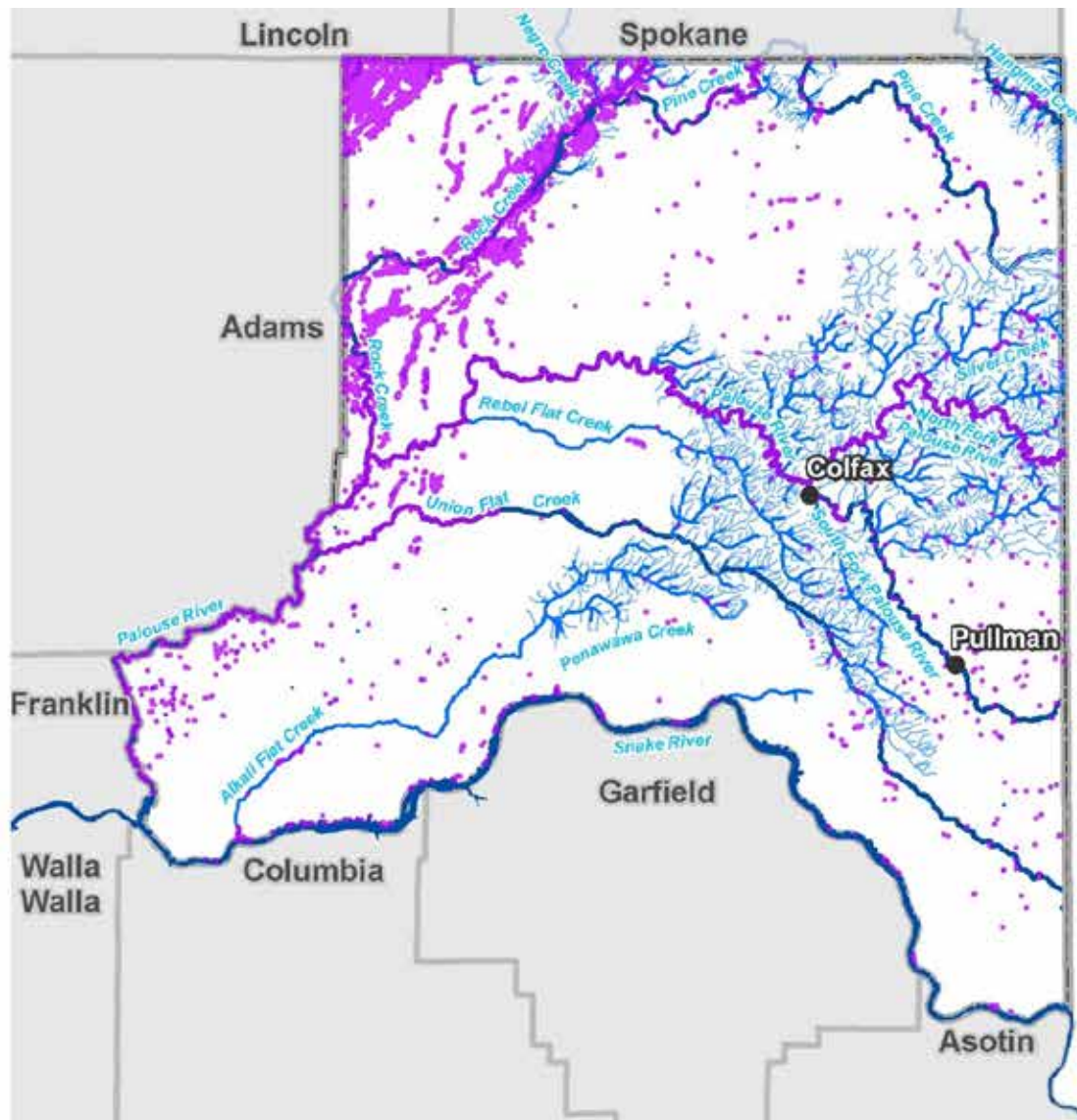
- Pest Management
- Nutrient Management

Residue and Tillage Management

- No-till/Strip Till/Direct Seed
- Mulch Till



Wetlands



▭ County Boundary

■ Wetlands

DNR Streams and Rivers

— Shoreline of the State

— Fish Use or Potential Use

— No Fish Use

Chemical or Nutrient Management

- Pest and Nutrient Management

Water Filtration

- Residue and Tillage Management
- Cover Crops

Livestock Management

- Stock Watering Facilities
- Prescribed Grazing

Habitat Management

- Tree/Shrub Establishment
- Wildlife Habitat Management

Fish and Wildlife Habitat Conservation Areas

- County Boundary
- Priority Habitats and Species (PHS)**
 - American White Pelican
 - Prairies And Steppe
 - Bald Eagle
 - Cliffs/Bluffs
 - Giant Palouse Earthworm
 - Waterfowl Concentrations
- PHS - Species of Recreational, Commercial, or Tribal Importance**
 - Chukar
 - Elk and Rocky Mountain Elk
 - Mule Deer
 - Moose
 - Northwest White-tailed Deer
 - Ring-necked Pheasant



Livestock Management

- Stock Watering Facilities
- Prescribed Grazing

Habitat Management

- Wildlife Habitat Management
- Conservation Cover
- Tree/Shrub Establishment

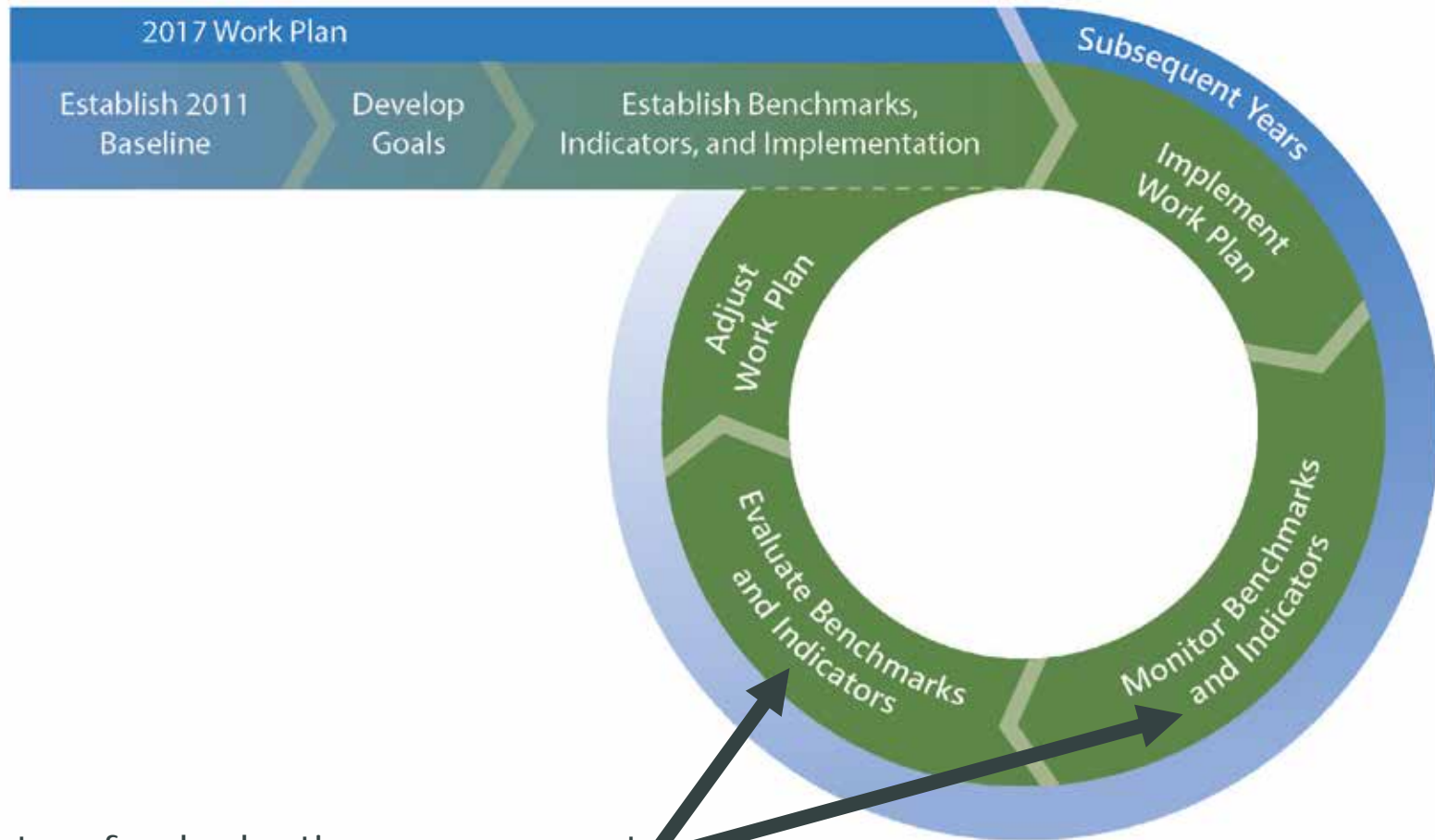
Calculating Discontinuation of Practices

Discontinuation Rate	Discontinuation Category	Example Practices
None (0%)	<ul style="list-style-type: none"> • Permanent Conservation Practices 	<ul style="list-style-type: none"> • Permanent Easements • Major Infrastructure
Lower (1-5%)	<ul style="list-style-type: none"> • High Barriers to Entry/Exit <ul style="list-style-type: none"> ○ Conservation investments ○ Maintenance cost ○ Effectiveness • Increases Land Productivity • Lowers Cost 	<ul style="list-style-type: none"> • Direct Seed • Tillage Management • Pest Management • Nutrient Management • Fencing
Higher (6-10%)	<ul style="list-style-type: none"> • Low Barriers to Entry/Exit <ul style="list-style-type: none"> ○ Easily removed • Reduced land in production • Rotational use <ul style="list-style-type: none"> ○ Market driven rotation • Reliance on unstable conservation funding or incentives (e.g., CRP) 	<ul style="list-style-type: none"> • Habitat Restoration • Prescribed Grazing • Cover Crop • Range Planting

Indicators – Existing Data Collection Programs

- Indicators include info expected to be collected during implementation
 - Water quality monitoring (North Fork Palouse)
 - Flow data
 - Priority Habitat and Species data/Area Habitat Biologist, etc.
- Help to understand if conservation practices are affecting physical indicators of functions and values
- Effect of agriculture on indicators is not easily distinguished
- Indicators may not reflect benefits from stewardship actions for many years or even decades

Adaptive Management



Indicators feed adaptive management

Plan Framework Discussion

Work Plan - Two volume approach

Volume 1: Work Plan (for producers/general public)

- User-friendly layout with summary level information
 - **VSP Introduction and FAQs**
 - **Regional setting**
 - **Introduction to critical areas and functions/
baseline conditions**
 - Agricultural viability
 - **Protection and enhancement strategies**
 - Goals and benchmarks
 - Implementation
- **Stewardship Checklist**

Volume 2: Technical Appendices

- Appendix A - 2011 Existing Conditions Summary
- Appendix B – Goals, Benchmarks, and Measurements
- Appendix C – Analysis Unit Profiles
- Appendix D – Outreach and Implementation Plan
- Appendix E – Existing Plans and Regulations

Next Steps

Next Steps

- Photographs needed of Conservation Practices
- April Meeting
 - Updated Work Plan and Stewardship Checklist
 - Goals and benchmark values
- Work Plan Schedule
 - Work to completed before and after June 30th
- Outreach

Next Work Group Meetings:

April 6, 2017, discuss time

May 4, 2017, discuss time