Adams County Voluntary Stewardship Plan

Presented by

Ben Floyd and John Small, Anchor QEA

November 8, 2016

Agenda

- Recap and Follow-up from September Meeting
  - Confirm Ground Rules
- VSP Requirements and Work Plan Outline
- Discuss Potential Analysis/Implementation Areas
- Baseline Conditions Review
- Work Group Roundtable
- Next Steps

Re-cap

September Work Group Meeting

9/13 Work Group Meeting Re-cap

- Overview of VSP concept and regulatory background was presented
- Critical areas baseline mapping was introduced
  - It was noted that mapping is only representative of existing critical areas. Disclaimer will be added to maps that critical areas are regulated based on descriptions in the code and not what is depicted on maps
- Reviewed the elements of the Work Plan
- Reviewed draft ground rules and requested feedback at this meeting
- Work Group continuing to look for new members

VSP Requirements

Work Plan Elements

The Work Plan will:

- Evaluate existing information and resource condition
  - Both agriculture and critical areas
- Establish goals and measureable benchmarks
- Provide a framework for monitoring and reporting
- Help facilitate participation and landowner outreach

Roles and Responsibilities

- State – Approval and Administration
  - WSCC – Approves or rejects Work Plan
  - VSP Technical Panel - Provides technical assistance
  - VSP Statewide Advisory Committee - Revise rejected draft Work Plans
- Local – Administration and Implementation
  - Work Group – Develops Work Plan
  - Conservation Districts or Others – Provide technical assistance, lead entity for outreach and implementation
  - County – Administers funds for plan development
- Landowners – Voluntary Stewardship Implementers

Work Plan Overview

- Volume One
  - User friendly document with high level analysis of County
  - Focus on positive changes in County
  - VSP Checklist
    - Outreach and implementation tool
- Volume Two
  - Technical Appendices
  - Coordinating implementation by Conservation Districts

Volume One - Work Plan Outline

Volume One - Work Plan Outline

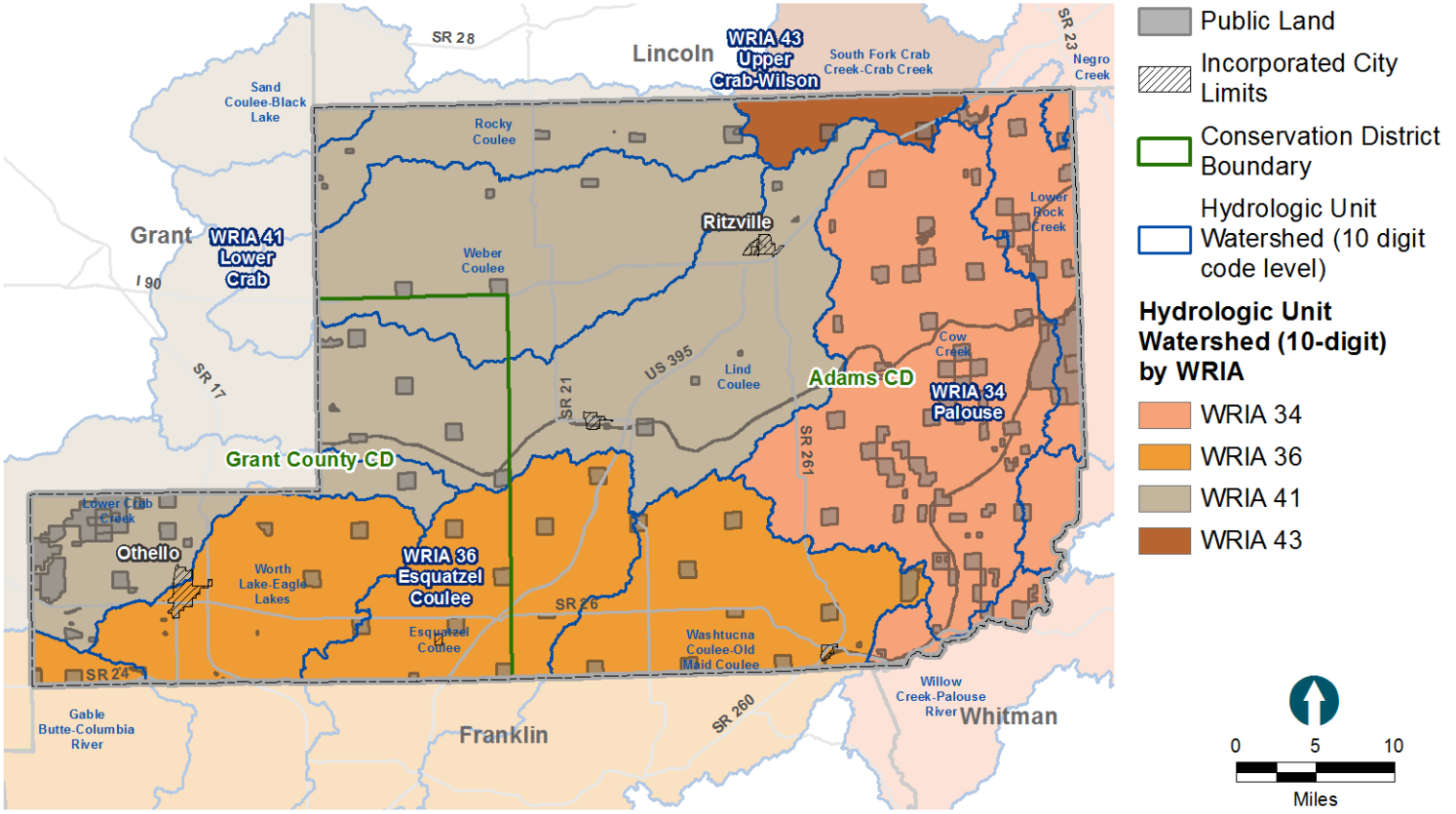
Volume Two – Technical Appendices

- Baseline Conditions
  - Map Folio
  - Critical Areas Functions Documentation
  - Existing Agricultural Land and Intersect with Critical Areas
  - Provides baseline analysis for Technical Panel
- Implementation Plan
- Goals and Measurable Benchmarks
- Monitoring and Adaptive Management
  - Participation
  - Critical Areas Function and Values

Potential Analysis/ Implementation Areas

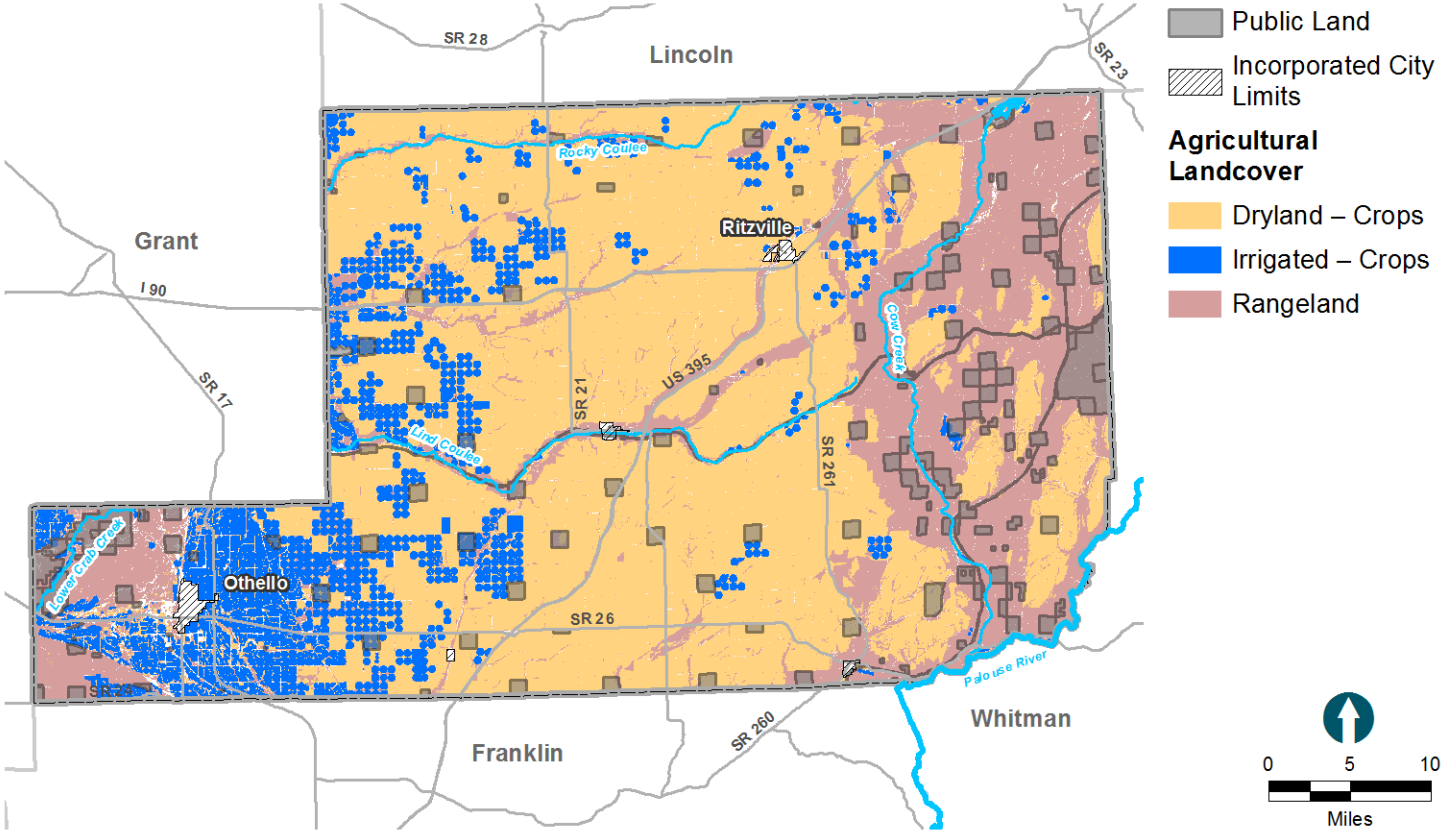
Potential Analysis/Implementation Areas

By Watershed



Potential Analysis/Implementation Areas

By Agricultural Land Cover



Agricultural Activities and Critical Areas Intersect

Baseline Conditions

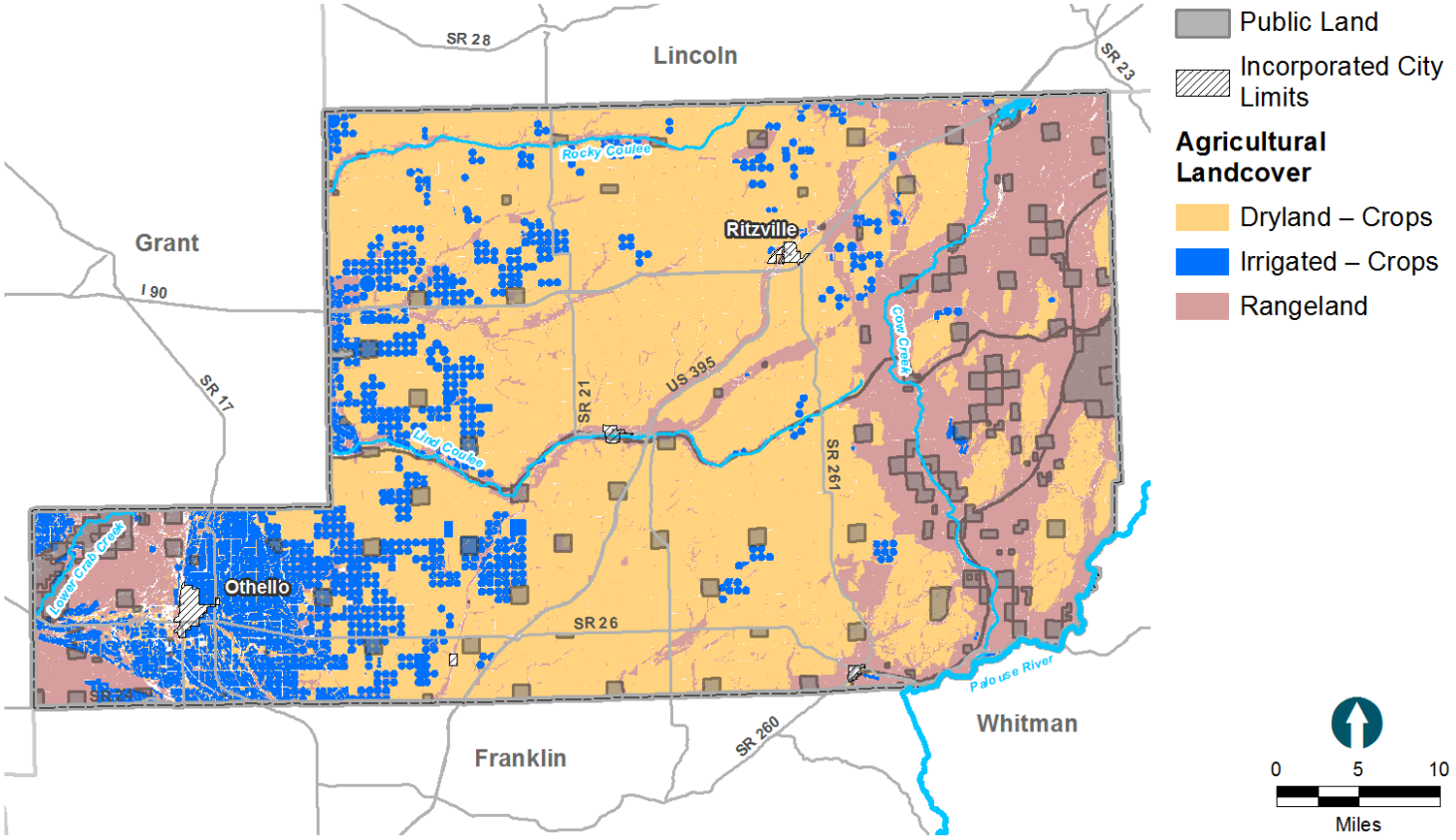
Critical Areas – Presence and Functions/Values

- July 2011 Baseline – Ag activities and critical areas
- Intersection of critical areas with agriculture lands
  - Type
  - Quantity (area)
  - Functions and values (applicable to Adams County)
    - System (for context)
    - Ag-intersects (for focus of conservation measures)
- Identify applicable conservation measures to protect functions and values, and enhance
- Identify applicable goals and benchmarks
- Looking at County (and specific geographic areas)

Critical Areas Intersect with Agricultural Activities

Agricultural Landcover

Agricultural Landcover



Agricultural Landcover Percentages

Agricultural Practice	Agricultural Landcover
Dryland – Crops	55%
Irrigated – Crops	13%
Rangelands	23%
Total	**91%**

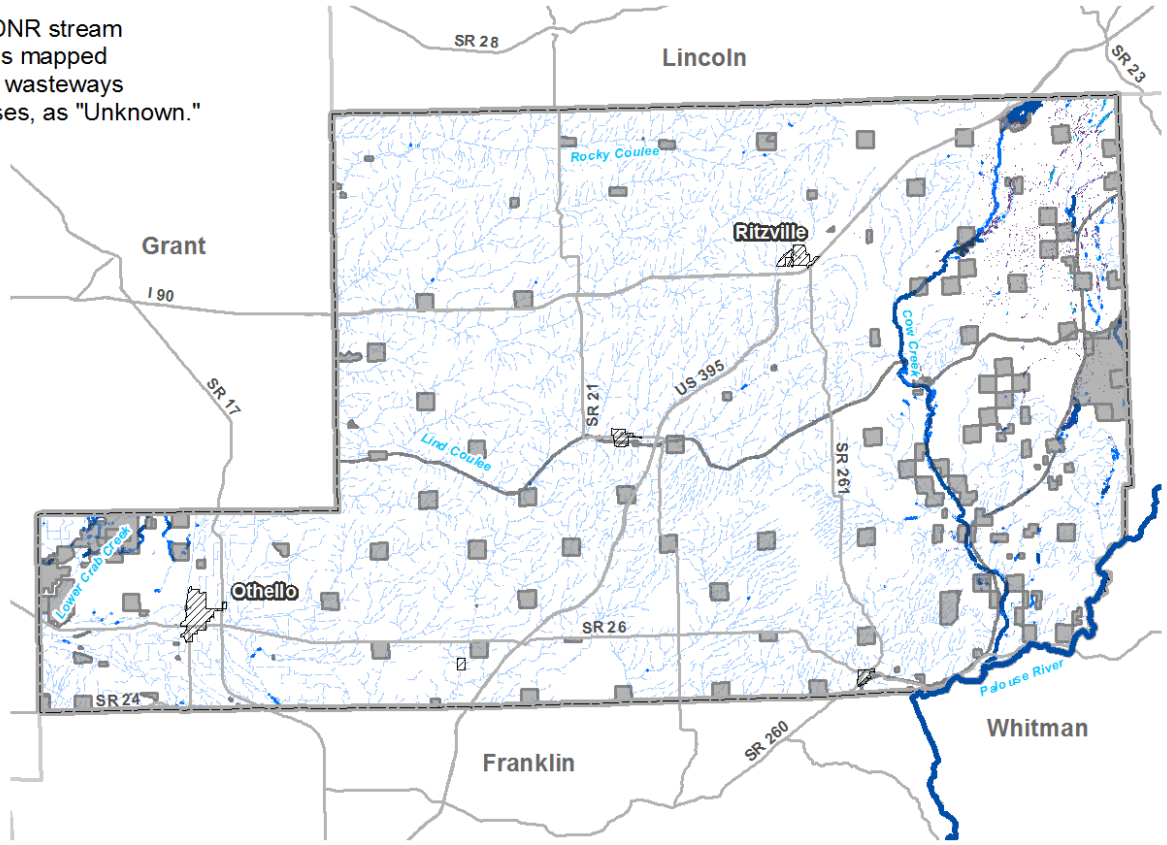
Total of 1,128,162 acres of agricultural land

Critical Areas Intersect with Agricultural Activities

Streams

Streams and Wetlands Map

Note:
It appears DNR stream mapping has mapped canals, and wasteways in some cases, as "Unknown."



Public Land
Incorporated City Limits

NWI Wetland Type
Freshwater Emergent Wetland
Freshwater Forested/Shrub Wetland
Lake/Pond
Riverine
Other

DNR Streams and Rivers
Shoreline of the State
Fish Use or Potential Use
No Fish Use
Unknown

0 5 10
Miles

Stream Miles Percentages

Agriculture Type	Length of Mainstem (miles) in Ag Land	By Stream Type			
		Shoreline of the State	Fish Use or Potential	No Fish Use	Unknown
All Types	**3,251**	**1%**	**<1%**	**<1%**	**98%**
Dryland	2,043	<1%	<1%	<1%	99%
Irrigated	307				
Range	901	4%	3%	<1%	93%

Riparian Vegetation Types Percentages

Agriculture Type	Length of Mainstem (miles) in Ag Land	Riparian Vegetation (% of Stream Miles)		
		Deciduous	Evergreen	Shrub
All Types	**3,251**	**0%**	**<1%**	**<1%**
Dryland	2,043	0%	<1%	<1%
Irrigated	307			
Range	901	0%	<1%	2%

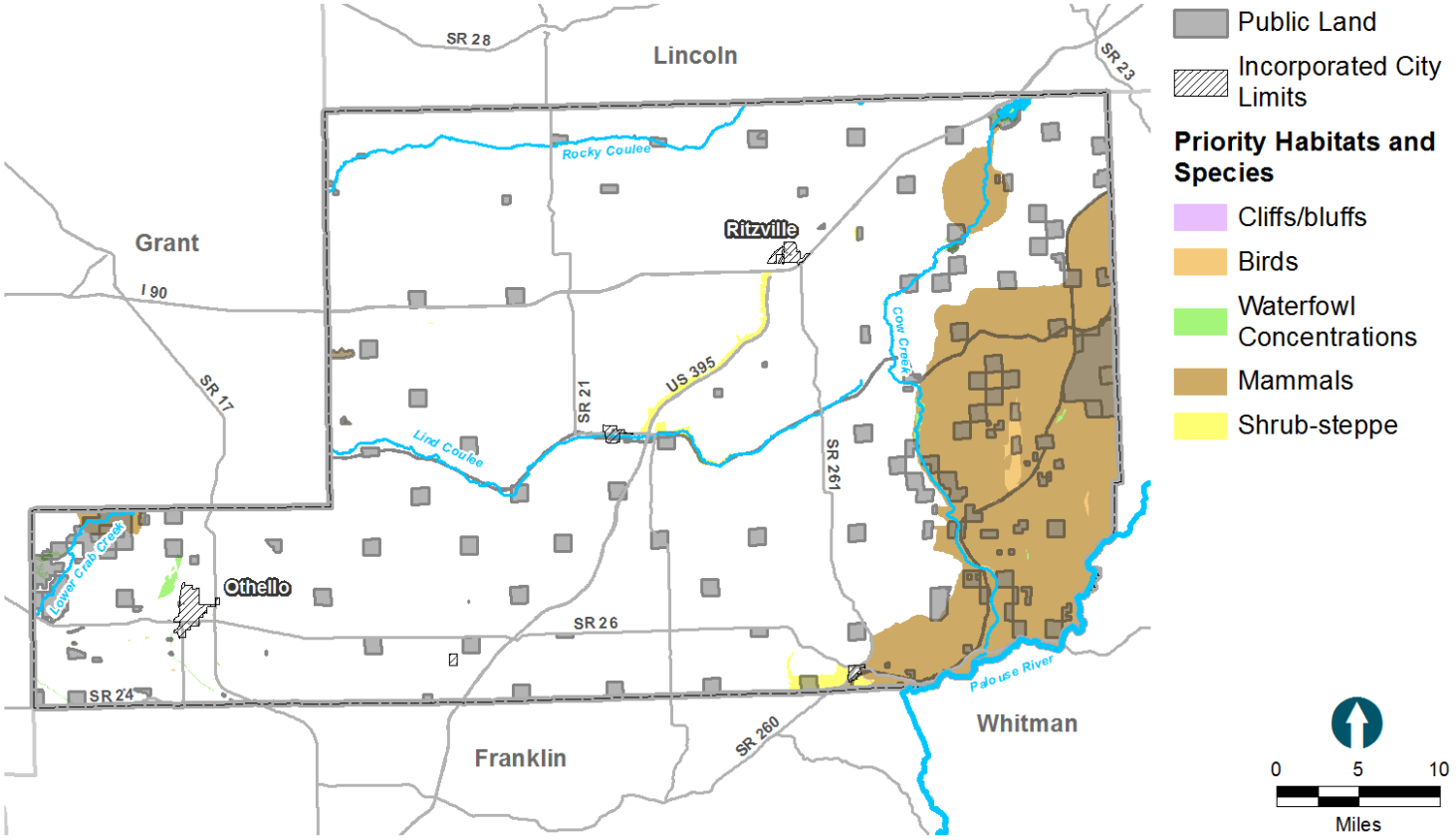
Findings

- Spatially, limited intersection with agricultural activities and fish bearing rivers and streams
- Unknown (historic topographic lows) are typically either agricultural drains or farmed areas lacking stream characteristics
- Water management affects stream presence/area and functions
- Runoff and water quality are considerations

Critical Areas Intersect with Agricultural Activities

Fish and Wildlife Habitat Conservation Areas

Priority Habitat Species Map



Priority Habitat Species Percentages

Agriculture Type	Percent of Ag land with PHS	Percent of Intersect with PHS*				
		Birds	Cliffs and Bluffs	Mammals	Shrub-Steppe	Waterfowl Concentrations
Dryland	7	<1	0	99	<1	<1
Irrigated	2	5	0	95	0	2
Range	37	3	<1	94	6	1
All Types	**14**	**2**	**<1**	**96**	**4**	**1**

*Some species/habitat categories overlap and this is why some agriculture types add up to more than 100 percent

Findings

- The largest interest of species habitat it with mammals in the southeast corner of the county
  - Very small intersect with other species
- Upland habitat intersect primarily in range lands

Critical Areas Intersect with Agricultural Activities

Wetlands

Wetlands Percentages

Agriculture Type	Percent of Ag Land with Wetlands
Dryland	<1
Irrigated	<1
Range	2
All Types	**1**

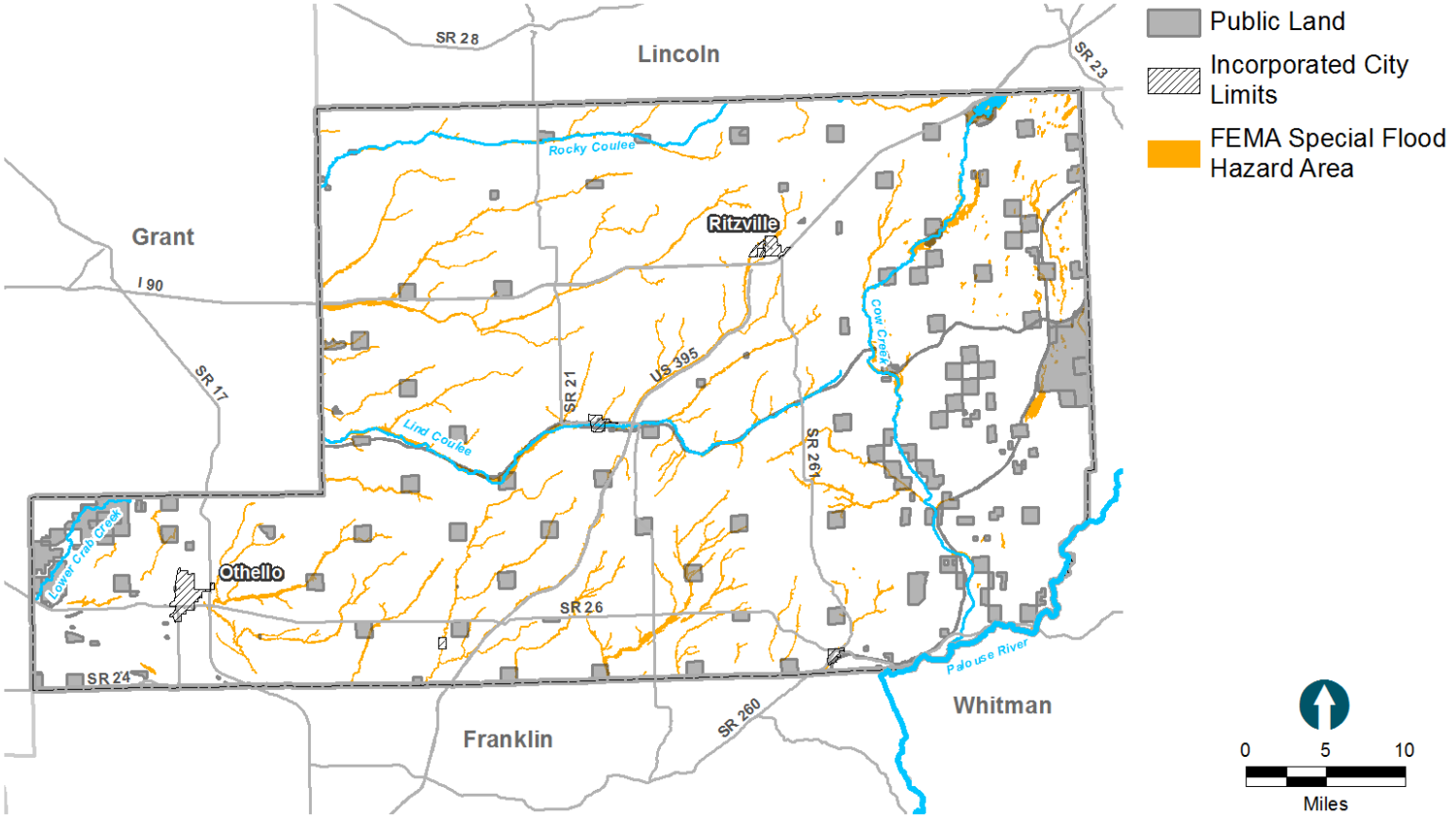
Findings

- Spatially, limited intersection with agricultural activities and wetlands
- Water management affects wetland presence/area and functions
- Runoff and water quality are considerations

Critical Areas Intersect with Agricultural Activities

Frequently Flooded Areas

Frequently Flooded Areas Map



Frequently Flooded Areas Percentages

Agriculture Type	Percent of Ag Land with FFA
Dryland	2
Irrigated	3
Range	5
All Types	**3**

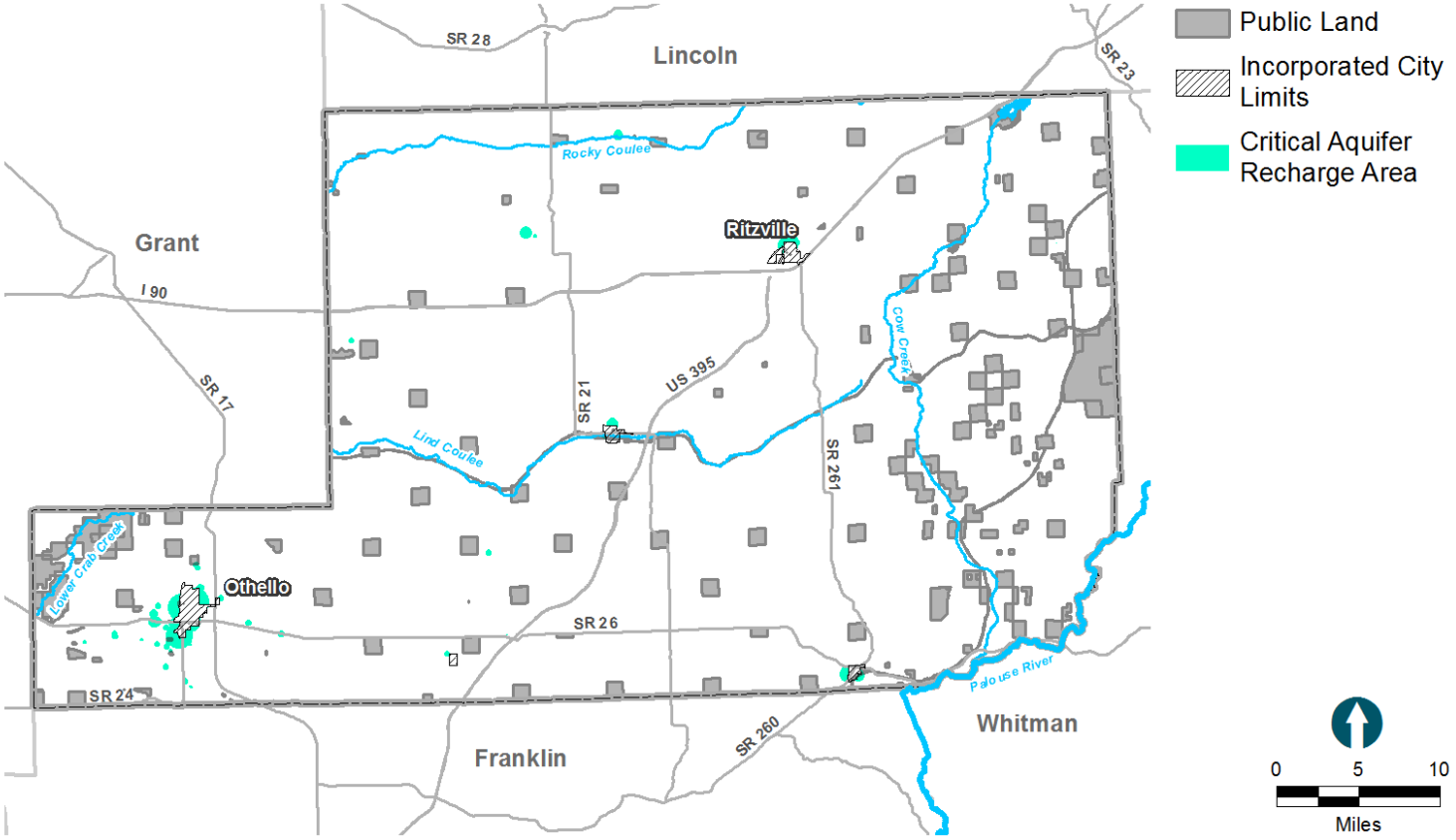
Findings

- Intersection of Agriculture and Frequently Flooded Areas more likely to affect Ag Viability than flood hazard risks as traditionally considered under critical areas
- Significant spatial overlap with Fish and Wildlife Habitat Conservation Areas (Streams)

Critical Areas Intersect with Agricultural Activities

Critical Aquifer Recharge Areas (pending info from Kevin Lindsey)

Critical Aquifer Recharge Area



Critical Aquifer Recharge Area Percentages

Agriculture Type	Percent of Ag Land with CARA
Dryland	<1
Irrigated	1
Range	<1
All Types	**<1**

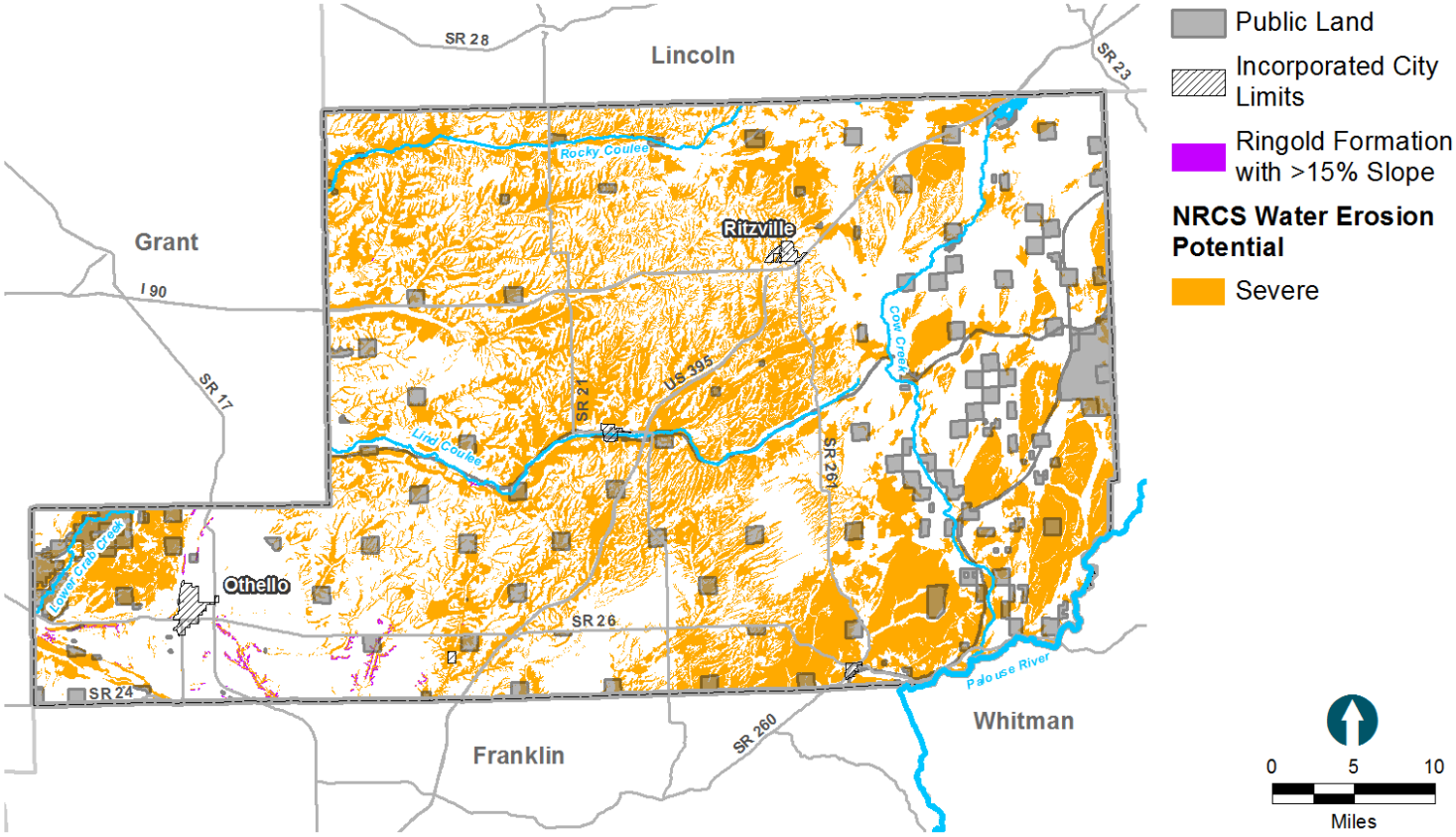
Findings

- Defined CARAs in the County
  - Areas identified by Columbia Basin GWMA as being "critical aquifer recharge areas"
- Water management measures affect recharge
  - Quantity
  - Quality
  - Soil types

Critical Areas Intersect with Agricultural Activities

Geologic Hazards (More Applicable as Agricultural Viability Consideration)

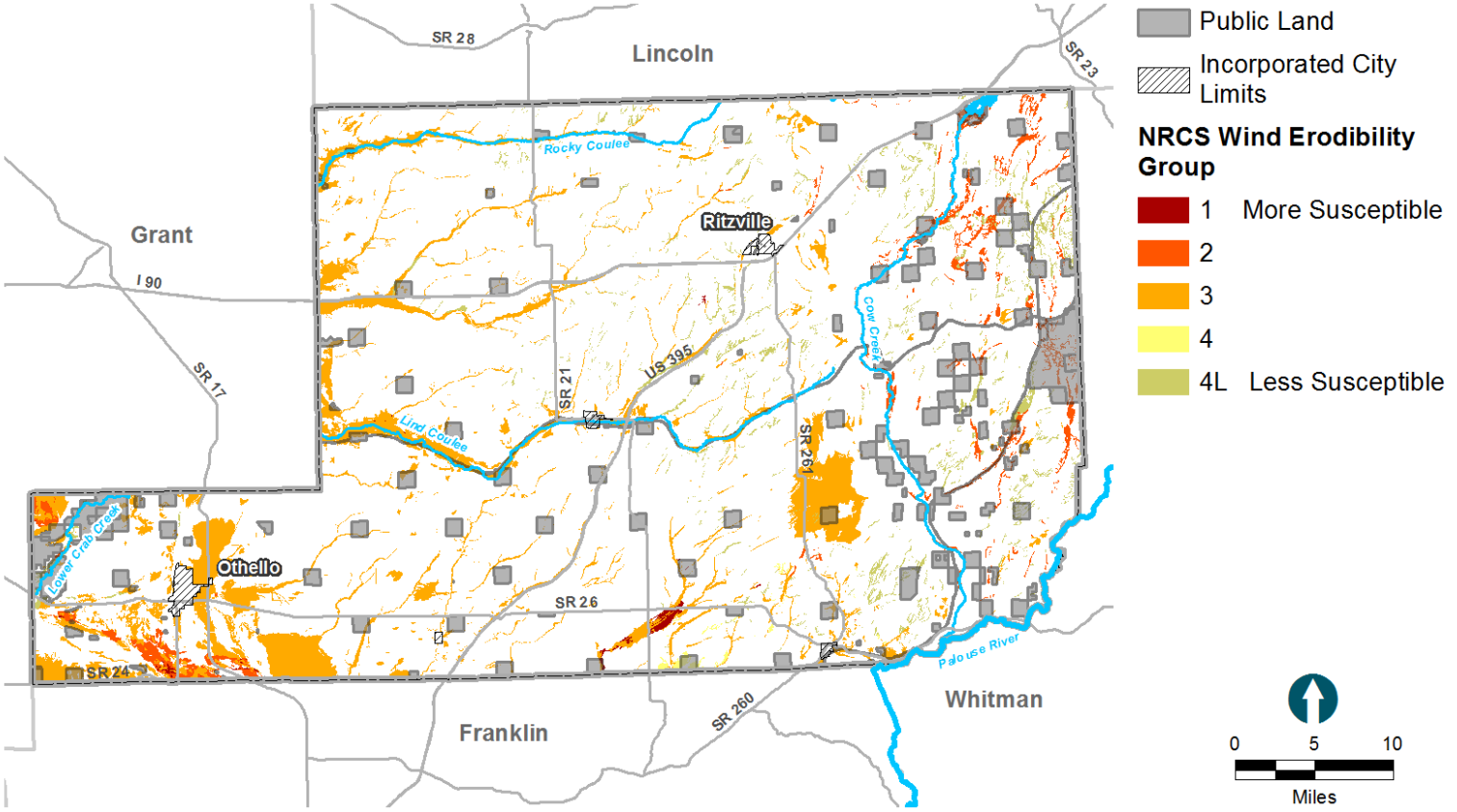
Water Erosion Potential Areas Map



Water Erosion Potential Percentages

Agriculture Type	Percent of Ag Land with Water Erosion Potential Area	Percent of Intersect	
		Ringold Erosive Slopes	Severe to Very Severe
All Types	**38**	**<1**	**99**
Dryland	44	Consistent with above	
Irrigated	19		
Range	33		

Wind Erosion Susceptibility Map



Wind Erosion Susceptibility Percentages

Agriculture Type	Percent of Ag Land with Wind Erosion (1 to 4)
Dryland	8
Irrigated	24
Range	14
All Types	**12**

Findings

Update

- Irrigation induced erosion could potentially overshadow wind and precipitation erosion risks – not mapped
- Conservation measures can address these risks

Critical Areas Intersect with Agricultural Activities

Summary of Critical Areas

Percent of Critical Area that Intersect with Ag

Critical Areas		Dryland[1]	Irrigated[1]	Rangeland[1]	**All Ag Types[1]**
Fish and Wildlife Habitat Conservation Areas (PHS)		31	1	65	**97**
Wetlands		6	<1	68	**74**
Frequently Flooded Areas		36	12	42	**91**
Critical Aquifer Recharge Areas		24	31	25	**80**
Geo Hazards	Water Erosion Potential	70	7	22	**99**
	Wind Erosion Potential (1 to 4)	41	26	29	**96**

Summary

- Most Critical Areas are located in agricultural lands
- A small portion agricultural lands are intersecting with critical areas
- Protecting critical areas on agricultural lands is crucial to protecting critical areas functions and values
- Conservation practices only need to be implemented on a small portion of agricultural land to enhance those functions and values

Roundtable Discussion

Next Steps

Expected Next Steps

- Next Meeting: December 13, 2016
  - Verify existing work and plans
  - Introduce Conservation Practices
  - Virtual Tour
- January/February
  - Discuss goals, benchmarks, and measurements
  - Outreach Strategies
  - Conceptual Overview of Work Plan
- March – AQ Prepare Work Plan (no meeting)
- April/May – Review and Comment on Work Plan