



# **WATER SOURCE ADVISORY COUNCIL MEETING #5**

**November 15, 2022**



# **WELCOME!**



# INTRODUCTIONS

# RULES FOR ENGAGEMENT

- The deliberation process will be collaborative
- Everyone's perspective is valued and respected
- Listen to understand, not to debate
- Be concise
- Be hard on the issues – soft on the people
- Avoid right-wrong paradigms

# RULES FOR ENGAGEMENT

- Everyone should have an equal opportunity to participate
- Respect start and finish times
- Provide your full attention
- Full participation is critical
- Ask questions – don't wait
- Avoid sidebar conversations

# THE LEVELS OF CONSENSUS ARE:

1. I can say an unqualified 'yes' to the decision. I am satisfied that the decision is an expression of the wisdom of the group.
2. I find the decision perfectly acceptable.
3. I can live with the decision; I'm not especially enthusiastic about it.
4. I do not fully agree with the decision and need to register my view about it. However, I do not choose to block the decision. I am willing to support the decision because I trust the wisdom of the group.
5. I do not agree with the decision and feel the need to stand in the way of this decision being accepted.
6. I feel that we have no clear sense of direction or unity in the group. We need to do more work before consensus can be reached.

# AGENDA

# SCHEDULE GOING FORWARD

	OCTOBER		NOVEMBER		DECEMBER		JANUARY
	Discuss Criteria	Score Alternatives	Discuss Criteria	Score Alternatives	Discuss Criteria	Score Alternatives	
Governance						✓	
Environmental Stewardship		✓					
Reliability			✓	✓			
Implementation	✓	✓					
Operations	✓	✓					
Stakeholder Impacts			✓	✓			
Life Cycle Costs					✓	✓	
Final Evaluation and Recommendation							✓

# SELECTING JANUARY MEETING DATE

- Monday, January 16<sup>th</sup>
- Saturday, January 21<sup>st</sup>



**Reliability**

**Sustainable**



**Governance**



**Life Cycle  
Cost**

**Operations**

**Implementation**

**Environmental  
Stewardship**



**Stakeholder  
Impacts**

**LOOK TO  
THE  
FUTURE**



Sustainability

Technology

Economics

Governance

Social/  
Demographics





# SCORING REFRESHER

# RELIABILITY CRITERIA

# SCORING OF ALTERNATIVES: **RELIABILITY CRITERIA**

# FINAL EVALUATION CRITERIA

**Reliability**

**Governance**

**Life Cycle  
Cost**

**Operations**

**Implementation**

**Environmental  
Stewardship**

**Stakeholder  
Impacts**

**Viable**

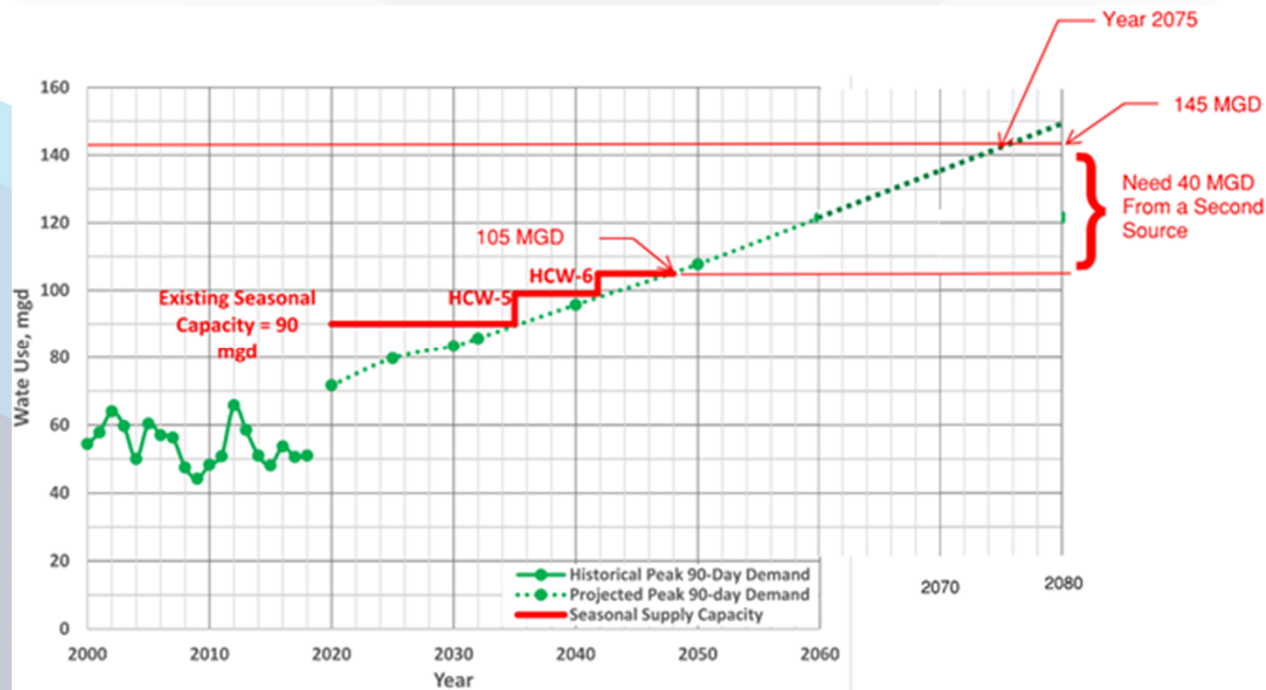
**Sustainable**

**Redundant**

**Capacity**

**Resilient**

# RELIABILITY - PROJECTED PEAK 90-DAY DEMAND/YIELD REQUIREMENTS

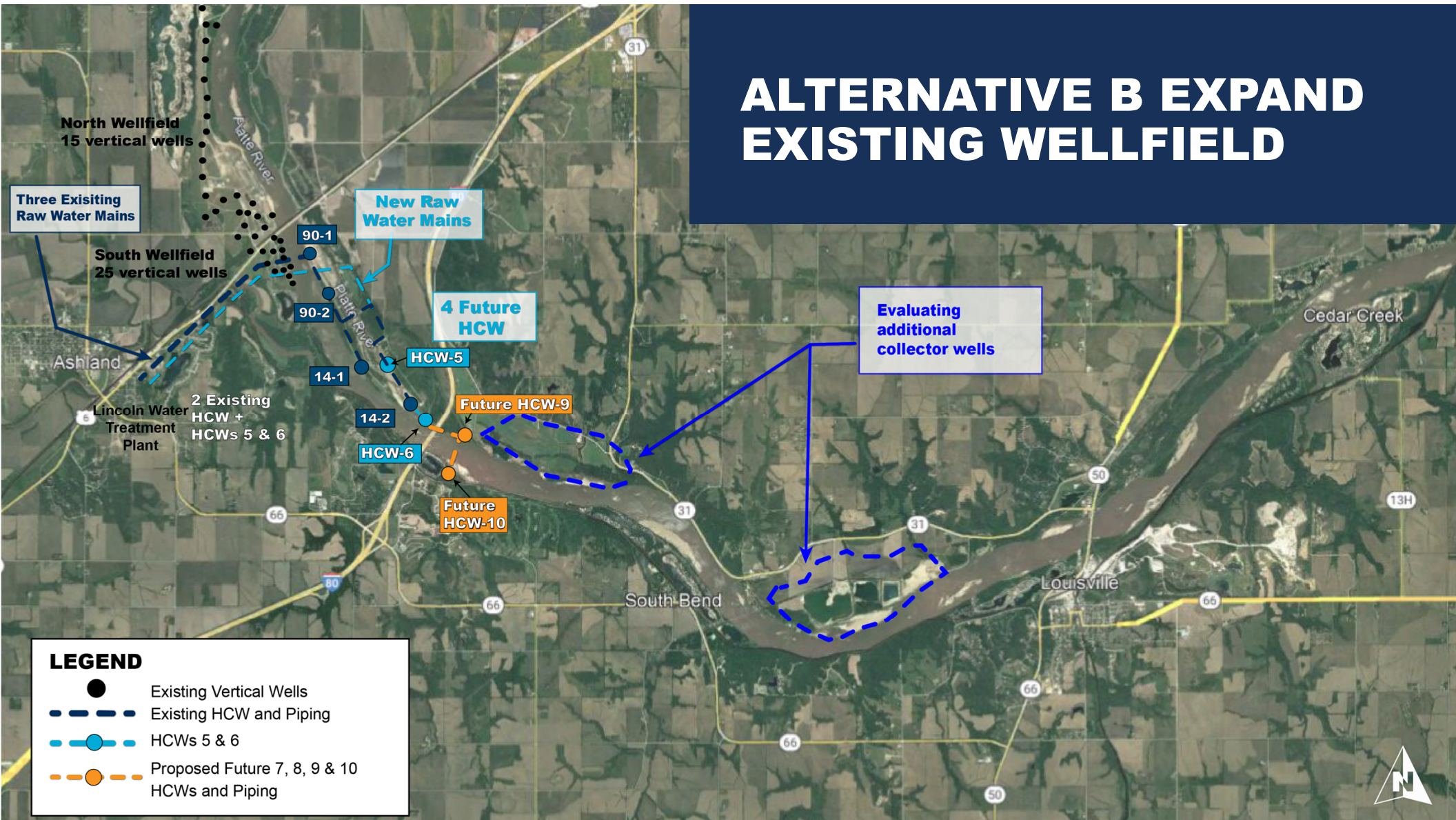


# REDUNDANCY





# ALTERNATIVE B EXPAND EXISTING WELLFIELD



## SCORING SHEET – Reliability Criteria



### Alternative B - Expand Existing Wellfield

Score (1-5) \_\_\_\_\_

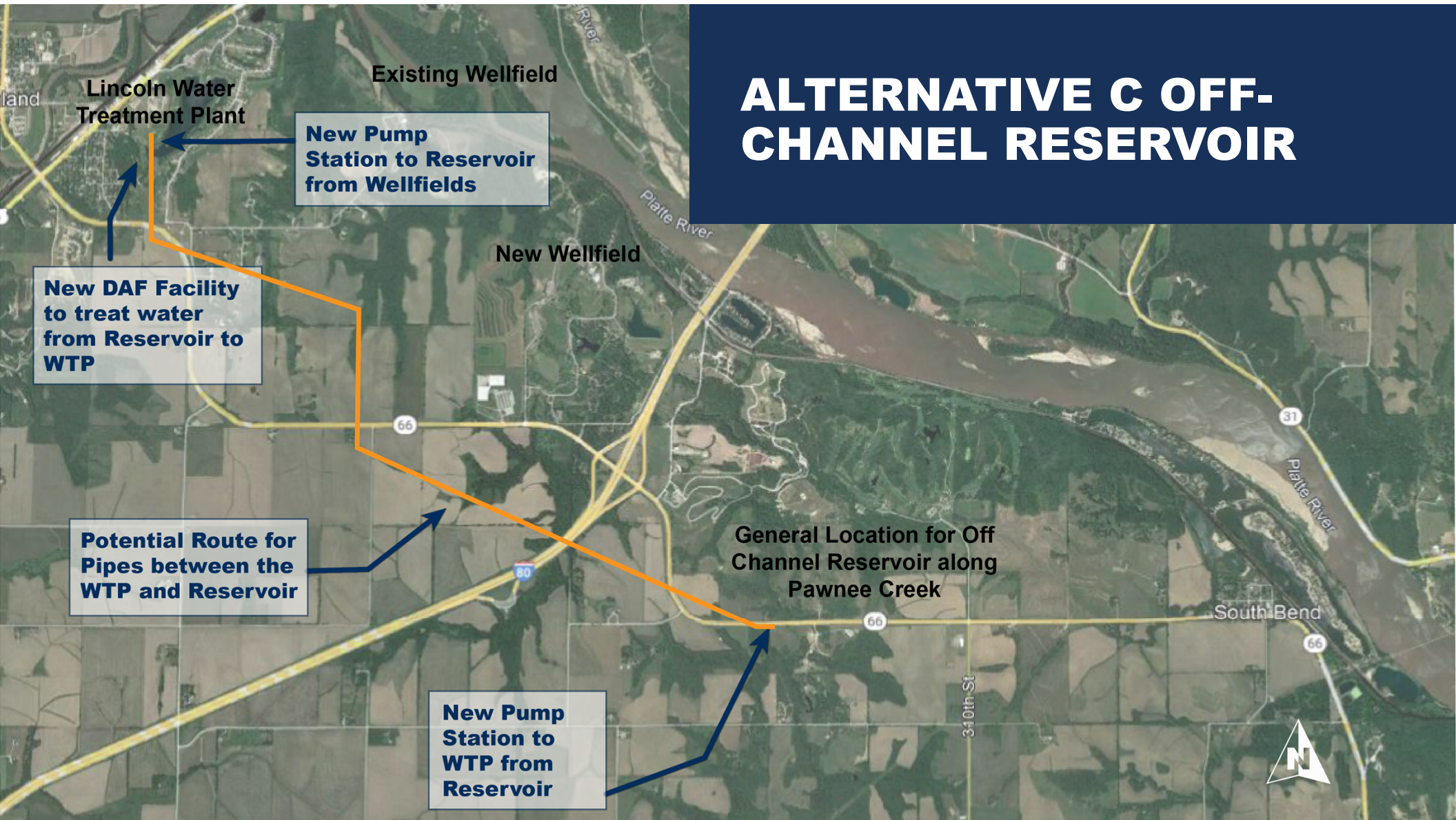
Viability	Overview and Facts	Notes
What is the risk that the project(s) does not provide the required capacity during extreme events?	<ul style="list-style-type: none"> <li>Additional source pipeline to the treatment plant and several HCWs close to the Platte River.</li> <li>An additional Platte River crossing is needed.</li> <li>Increasing the area of the wellfield allows more river length to be influenced by wellfield pumping. It also increases access to water stored in the aquifer.</li> <li>Expanding the wellfield capacity increases reliance on recharge from the Platte River, especially during droughts.</li> <li>Changing stream flow patterns common in the Platte River especially during low flow conditions can significantly reduce wellfield capacity.</li> </ul>	
Sustainable		
<p>Are river flows or aquifer water levels permanently reduced?</p> <p>Do river flow reductions or reduced aquifer levels adversely impact threatened or endangered species?</p>	<ul style="list-style-type: none"> <li>Some depletion of the Platte River may occur. Platte River does have threatened and endangered species that could be impacted by lower flows.</li> </ul>	

#### SCORING KEY

5-Fully meets the criteria definition 4-Meets most of the criteria definition, 3-Meets some of the criteria definition, 2-Meets little of the criteria definition, 1-Meets none of the criteria definition



# ALTERNATIVE C OFF-CHANNEL RESERVOIR



## SCORING SHEET – Reliability Criteria



### Alternative C - Off-Channel Reservoir

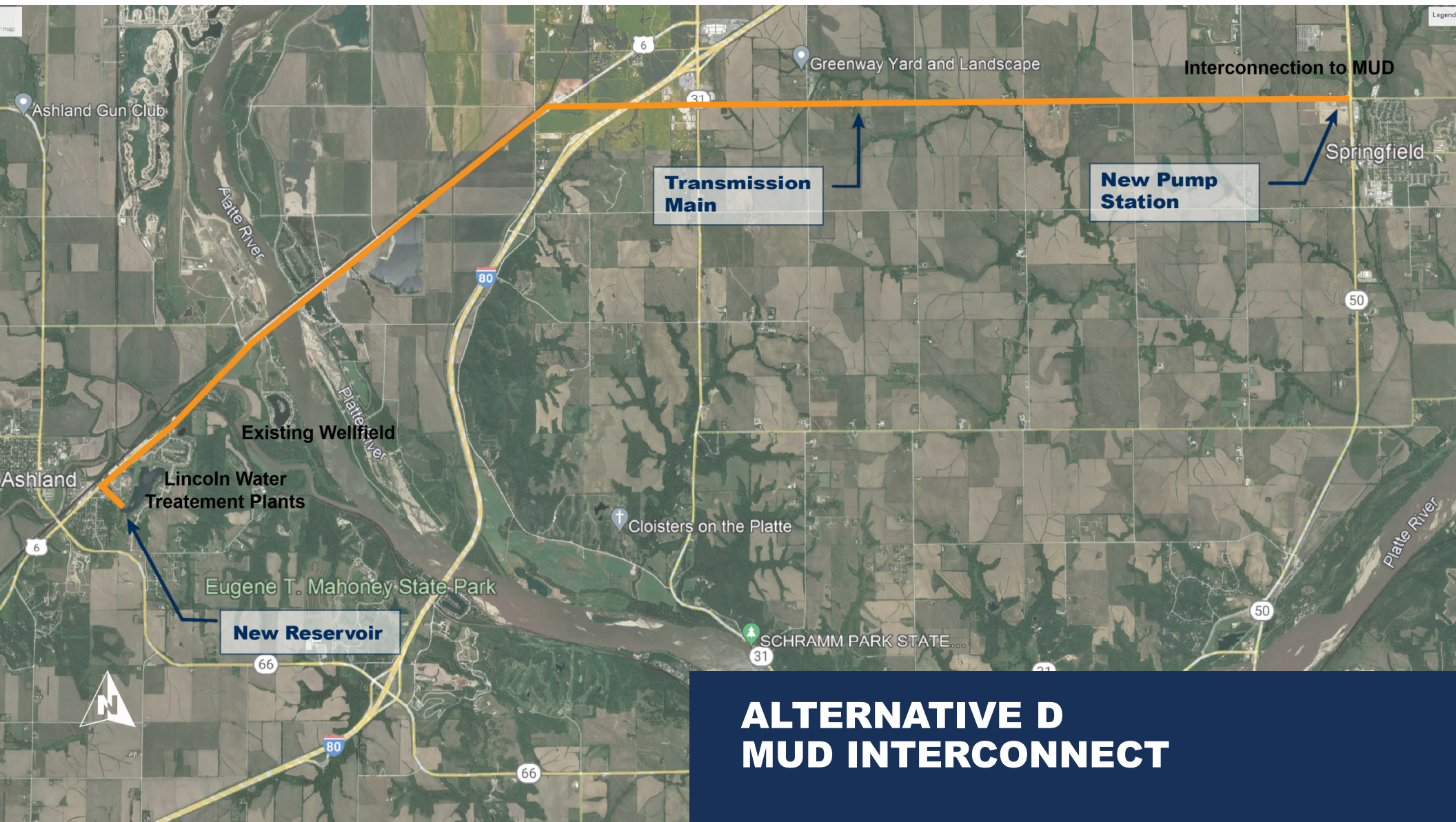
Score (1-5) \_\_\_\_\_

Viability	Overview and Facts	Notes
What is the risk that the project(s) does not provide the required capacity during extreme events?	<ul style="list-style-type: none"> <li>Storing water pumped from the wellfield during lower demands provides a short-term source that can be used to supply water during extreme events.</li> </ul>	
<b>Sustainable</b>		
<p>Are river flows or aquifer water levels permanently reduced?</p> <p>Do river flow reductions or reduced aquifer levels adversely impact threatened or endangered species?</p>	<ul style="list-style-type: none"> <li>Some depletion of the Platte River may occur, but it will be during times of higher flow so impacts will be low.</li> <li>Platte River does have threatened and endangered species that could be impacted by lower flows, but impacts are expected to be low.</li> <li>Depletions during low flows would not increase.</li> </ul>	
<b>Redundant</b>		
Are new sources independent of the Platte River developed?	<ul style="list-style-type: none"> <li>Raw water from the reservoir is somewhat redundant. The source of inflow is primarily from the wellfield, which is not independent. However, once it has been pumped to the reservoir and stored it is independent.</li> <li></li> </ul>	

#### SCORING KEY

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## ALTERNATIVE D MUD INTERCONNECT

## SCORING SHEET – Reliability Criteria



### Alternative D - MUD Interconnect

Score (1-5) \_\_\_\_\_

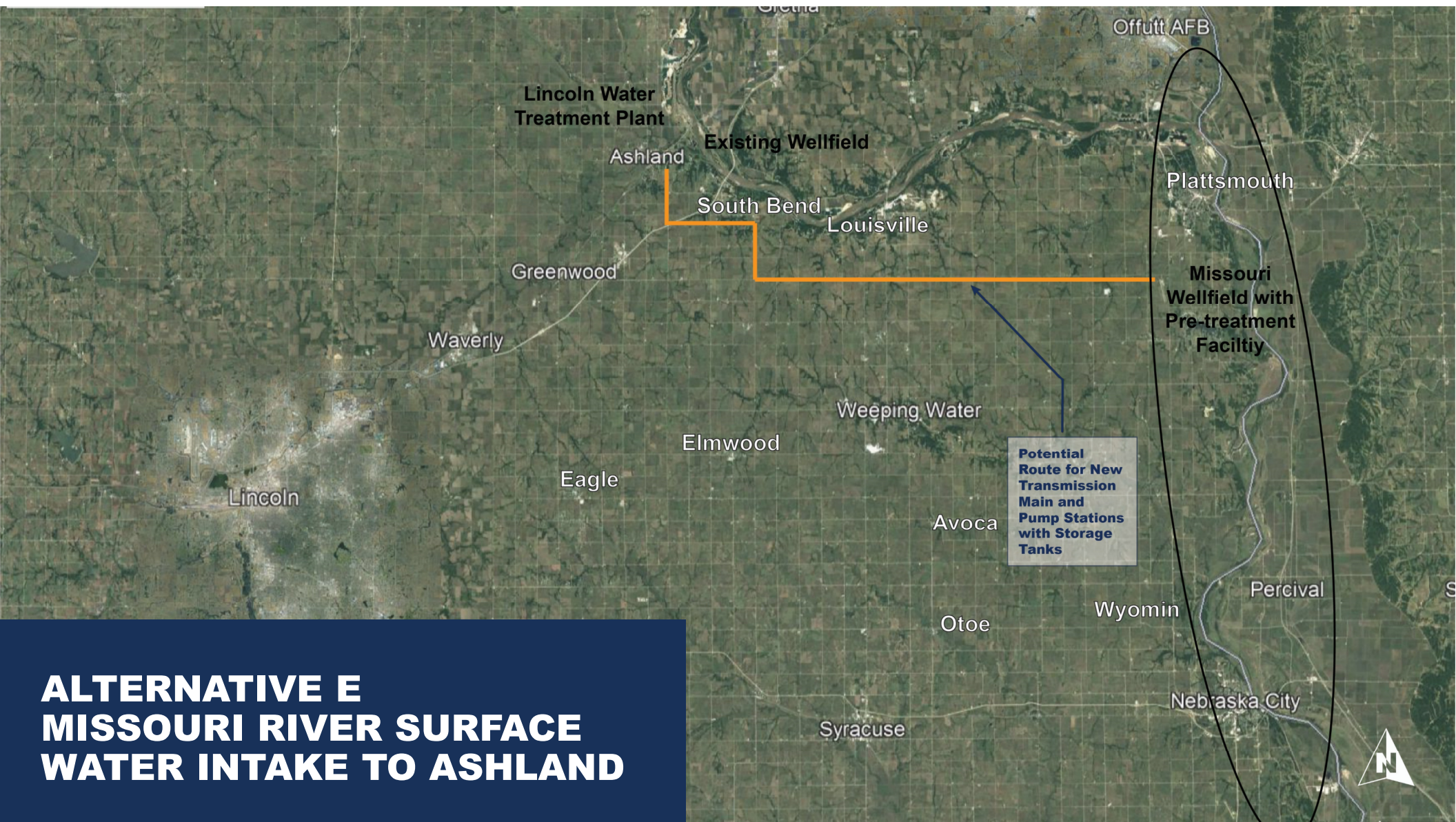
Viabile	Overview and Facts	Notes
What is the risk that the project(s) does not provide the required capacity during extreme events?	<ul style="list-style-type: none"> <li>Provides access to the Missouri River.</li> <li>Diversifies raw water supply infrastructure.</li> <li>Long pipeline from MUD's system to Lincoln's.</li> <li>MUD power source.</li> </ul>	
Sustainable		
<p>Are river flows or aquifer water levels permanently reduced?</p> <p>Do river flow reductions or reduced aquifer levels adversely impact threatened or endangered species?</p>	<ul style="list-style-type: none"> <li>Potentially increasing <del>pumpage</del> from the MUDs wellfields could deplete flows from the Platte River.</li> <li>Platte River does have threatened and endangered species that could be impacted by lower flows.</li> <li>Transferring water pumped from MUD could add flows to the Platte River via discharge from the city's wastewater treatment plants.</li> </ul>	
Redundant		
Are new sources independent of the Platte River developed?	<ul style="list-style-type: none"> <li>Terms of the agreement with MUD will define the degree of redundancy.</li> <li>This would be a redundant supply of the agreement includes language <u>requiring an uninteruptable flow of water at all times.</u></li> </ul>	

#### SCORING KEY

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# ALTERNATIVE E MISSOURI RIVER SURFACE WATER INTAKE TO ASHLAND



## SCORING SHEET – Reliability Criteria



### Alternative E - Missouri River Surface Water Intake to Ashland

Score (1-5) \_\_\_\_\_

Viability	Overview and Facts	Notes
What is the risk that the project(s) does not provide the required capacity during extreme events?	<ul style="list-style-type: none"><li>Missouri River is an abundant supply.</li><li>Long pipelines will be required which may be susceptible to flood damage.</li><li>Likely a different power source from the existing wellfield and treatment plant reducing risk of power outage.</li><li>Surface water intake may be susceptible to damage from ice flows and riverbed degradation.</li></ul>	
Sustainable		
Are river flows or aquifer water levels permanently reduced?	<ul style="list-style-type: none"><li>No significant impacts are anticipated.</li></ul>	
Do river flow reductions or reduced aquifer levels adversely impact threatened or endangered species?		
Redundant		
Are new sources independent of the Platte River developed?	<ul style="list-style-type: none"><li>Missouri River is an independent source.</li></ul>	
Capacity		
Can the alternative be expanded to meet demands beyond 2075?	<ul style="list-style-type: none"><li>Provisions for expansion can be included in the initial design of the facilities.</li></ul>	

#### SCORING KEY

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# ALTERNATIVE F MISSOURI RIVER WELLFIELD TO ASHLAND



## SCORING SHEET – Reliability Criteria



### Alternative F - Missouri River Wellfield to Ashland

Score (1-5) \_\_\_\_\_

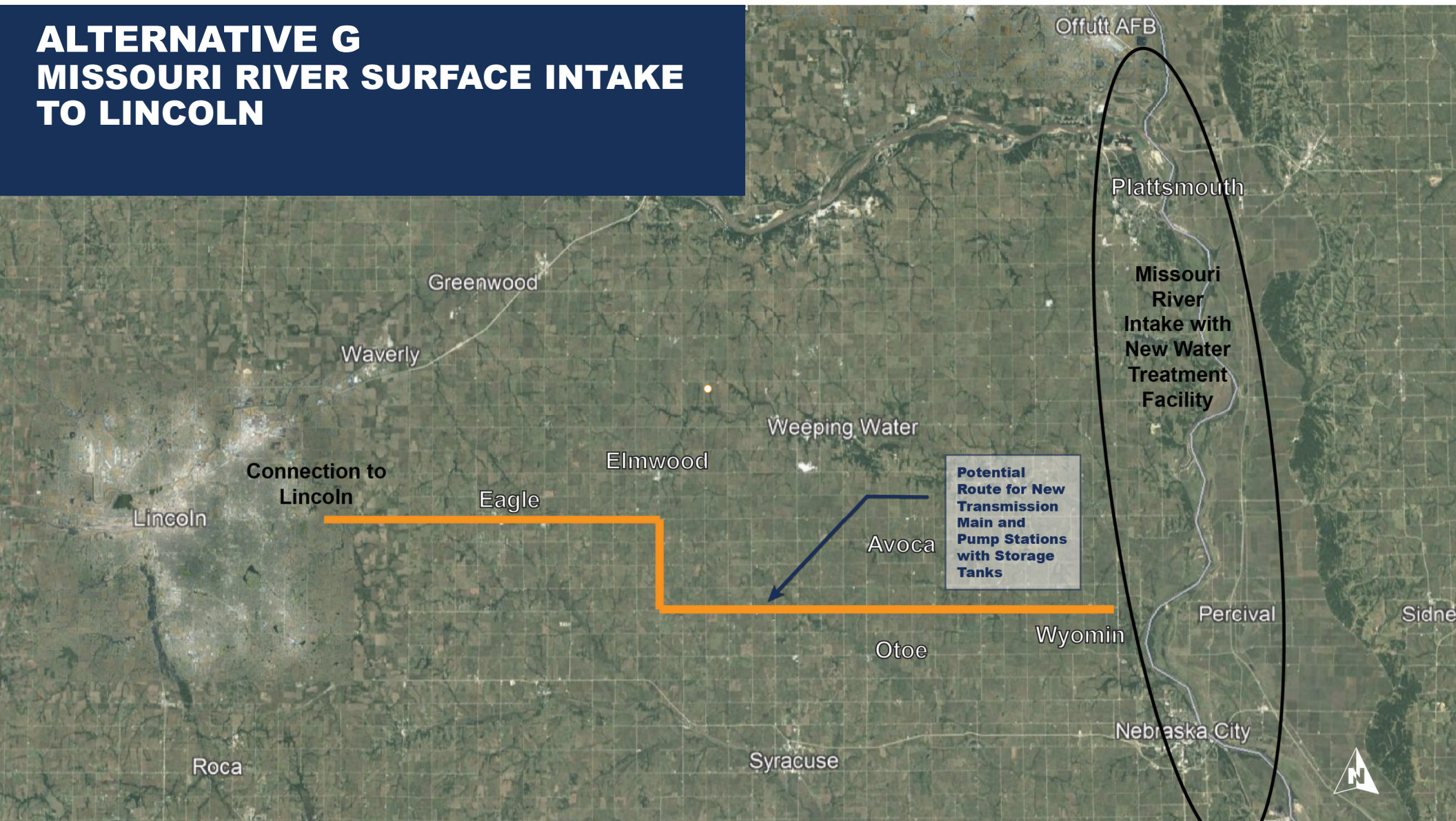
Viability	Overview and Facts	Notes
What is the risk that the project(s) does not provide the required capacity during extreme events?	<ul style="list-style-type: none"><li>Missouri River is an abundant supply.</li><li>Long pipelines will be required which may be susceptible to flood damage.</li><li>Likely a different power source from the existing wellfield and treatment plant reducing risk of power outage.</li><li>Wellfield may be susceptible to flood damage</li></ul>	
Sustainable		
Are river flows or aquifer water levels permanently reduced?	<ul style="list-style-type: none"><li>No significant impacts are anticipated</li></ul>	
Do river flow reductions or reduced aquifer levels adversely impact threatened or endangered species?		
Redundant		
Are new sources independent of the Platte River developed?	<ul style="list-style-type: none"><li>Missouri River alluvium is an independent source.</li></ul>	
Capacity		
Can the alternative be expanded to meet demands beyond 2075?	<ul style="list-style-type: none"><li>Provisions for expansion can be included in the initial design of the facilities.</li></ul>	

#### SCORING KEY

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# ALTERNATIVE G MISSOURI RIVER SURFACE INTAKE TO LINCOLN



## SCORING SHEET – Reliability Criteria



### Alternative G - Missouri River Surface Water Intake to Lincoln

Score (1-5) \_\_\_\_\_

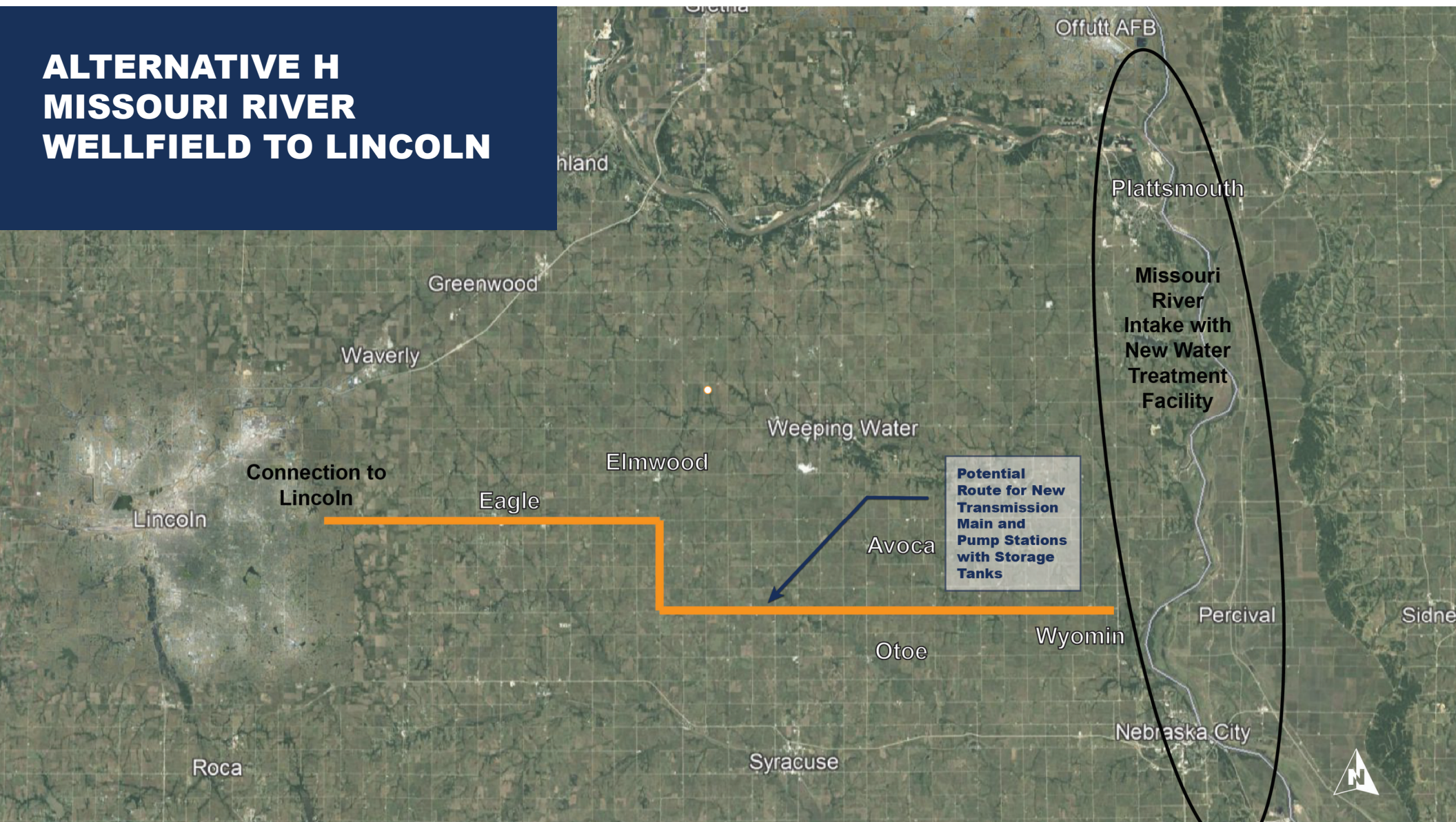
Viability	Overview and Facts	Notes
What is the risk that the project(s) does not provide the required capacity during extreme events?	<ul style="list-style-type: none"><li>Missouri River is an abundant supply.</li><li>Long pipelines will be required which may be susceptible to flood damage.</li><li>Likely a different power source from the existing wellfield and treatment plant reducing risk of power outage.</li><li>Surface water intake may be susceptible to damage from ice flows and riverbed degradation.</li></ul>	
Sustainable		
Are river flows or aquifer water levels permanently reduced?	<ul style="list-style-type: none"><li>No significant impacts are anticipated.</li></ul>	
Do river flow reductions or reduced aquifer levels adversely impact threatened or endangered species?		
Redundant		
Are new sources independent of the Platte River developed?	<ul style="list-style-type: none"><li>Missouri River is an independent source.</li></ul>	
Capacity		
Can the alternative be expanded to meet demands beyond 2075?	<ul style="list-style-type: none"><li>Provisions for expansion can be included in the initial design of the facilities.</li></ul>	

#### SCORING KEY

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# ALTERNATIVE H MISSOURI RIVER WELLFIELD TO LINCOLN



## SCORING SHEET – Reliability Criteria



### Alternative H - Missouri River Wellfield to Lincoln

Score (1-5) \_\_\_\_\_

Viable	Overview and Facts	Notes
What is the risk that the project(s) does not provide the required capacity during extreme events?	<ul style="list-style-type: none"> <li>Missouri River is an abundant supply.</li> <li>Long pipelines will be required which may be susceptible to flood damage</li> <li>Likely a different power source from the existing wellfield and treatment plant reducing risk of power outage.</li> <li>Wellfield may be susceptible to flood damage</li> </ul>	
Sustainable		
<p>Are river flows or aquifer water levels permanently reduced?</p> <p>Do river flow reductions or reduced aquifer levels adversely impact threatened or endangered species?</p>	<ul style="list-style-type: none"> <li>No significant impacts are anticipated</li> </ul>	
Redundant		
Are new sources independent of the Platte River developed?	<ul style="list-style-type: none"> <li>Missouri River alluvium is an independent source.</li> </ul>	
Capacity		
Can the alternative be expanded to meet demands beyond 2075?	<ul style="list-style-type: none"> <li>Provisions for expansion can be included in the initial design of the facilities.</li> </ul>	

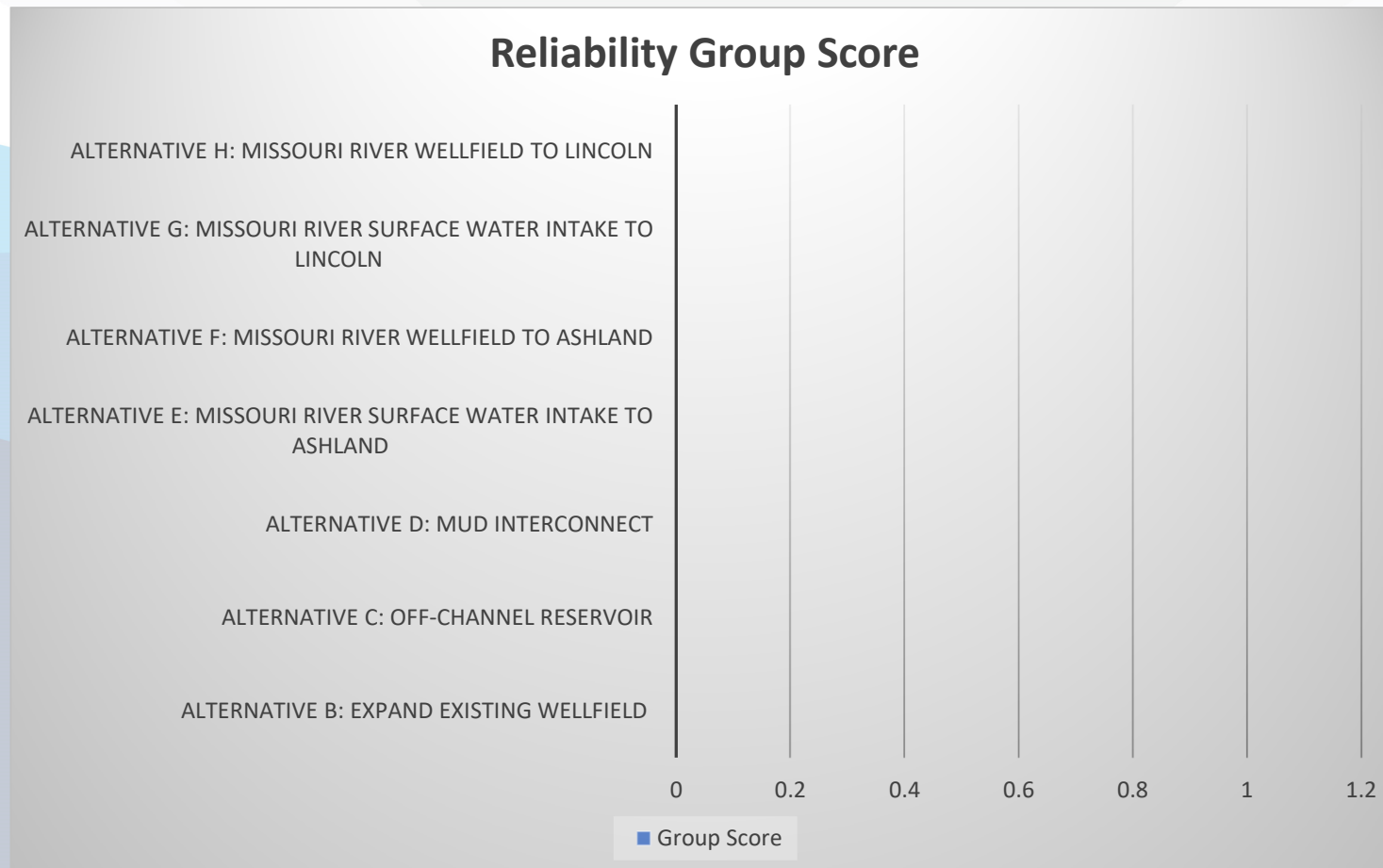
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# SCORING OF ALTERNATIVES: **RELIABILITY CRITERIA**



# SCORING OF ALTERNATIVES: RELIABILITY CRITERIA





# STAKEHOLDER IMPACTS CRITERIA



# SCORING OF ALTERNATIVES: **STAKEHOLDER IMPACTS CRITERIA**



# FINAL EVALUATION CRITERIA

**Reliability**

**Governance**

**Life Cycle  
Cost**

**Operations**

**Implementation**

**Environmental  
Stewardship**

**Stakeholder  
Impacts**

**Economic  
impacts**

**Community  
impacts**

**Equity**

**Environmental  
justice**



# DEFINITION: **STAKEHOLDER IMPACTS CRITERIA**

# STAKEHOLDER IMPACTS CRITERIA

## List of Potential Community Stakeholders

- City of Lincoln ratepayers -residential, business, other customers
- Other groundwater well owners / groundwater users in vicinity of LWS wells
- Property owners surrounding potentially affected sand pit lakes (Alt B)
- Landowners within potential reservoir footprint and surrounding area (Alt C)
- Small communities / landowners along transmission line routes
- Residential communities along the I-80 corridor
- Present and future businesses along I-80 corridor
- State of Nebraska – Department of Economic Development
- Lancaster, Cass, Otoe, Saunders, Sarpy, Douglas
- Metropolitan Utilities District



# STAKEHOLDER IMPACTS CRITERIA

## Construction Impacts

	Alternative B	Alternative C	Alternative D	Alternative E	Alternative F	Alternative G	Alternative H
Construction Duration	3 - 5 years	5 – 7 years	4 – 6 years	4 – 7 years	4 – 7 years	5 – 8 years	5 – 8 years
Total Employment (FTEs)	1,763	2,991	2,519	2,550	2,519	3,652	3,778
Annual Employment (FTEs)	441	499	504	464	458	562	581

Notes: (1) FTEs are full-time equivalent positions.

(2) Total employment is FTEs over the entire construction period.

(3) Annual employment was estimated using the mid-point of the estimated construction duration.





# STAKEHOLDER IMPACTS CRITERIA

## Prospective Development of the I-80 Corridor

- I-80 Corridor a central element of growth anticipated for the Lincoln-Omaha Region<sup>1</sup>, projected to grow by 18 percent by 2050.
- I-80 Corridor communities of Ashland, Waverly, Greenwood and Gretna have together experienced 21 percent population growth since 2010.
- Population and economic growth in the Region can occur organically but at a measured pace, or at an accelerated rate, including mega projects.
- Major auto and battery plants have considered locating in the I-80 Corridor but went elsewhere

<sup>1</sup>Includes counties of Lancaster, Sarpy, Cass and Douglas.

# STAKEHOLDER IMPACTS CRITERIA

## Water Availability and Development of the I-80 Corridor

- Nebraska has done much to support new businesses through the 2011 Talent and Innovation Initiative and Business Innovation Act, but regional approach represents an opportunity
- For example, major economic impact if mega-projects attracted:
  - Two mega-projects of 2,500 employees
  - Annual wage and salary income of \$300 M<sup>2</sup>
  - Capital Investment of \$3.0 B<sup>3</sup>
  - Additional employment, income and economic activity generated by project construction and operations throughout the region via the multiplier effect
- Potable water is a necessary but insufficient ingredient to attract mega projects and growth, need to “lean in” with coordinated investment.
  - Ample quantities of potable water need to be readily accessible
- Merits consideration of State support

<sup>2</sup>Assuming \$60,000 average annual compensation.

<sup>3</sup>Assuming \$1.5 B investment per project.





# STAKEHOLDER IMPACTS CRITERIA

## Environmental Justice - Disproportionate impacts to low income or minority populations

- Collected low-income and minority population data at the County level from U.S. Census
- Identified smaller geographic areas (Census Tracts) encompassing Project facilities for each Alternative; collected same demographic and economic data for each smaller area
- For each Alternative, average Census Tract data compared with applicable County level data to identify differences in demographic and economic characteristics
- Where Census Tract data was more racially diverse or had lower economic measures, an Environmental Justice issue might stem from facility construction
- However, final determination of Environmental Justice issues will depend on exact location of facilities

# STAKEHOLDER IMPACTS CRITERIA

## Environmental Justice - County Level Demographic and Economic Characteristics

	Lancaster County	Cass County	Sarpy County	Saunders County	Otoe County
Median Age	33.8 years	41.3 years	34.8 years	41.1 years	42 years
% White Alone, not Hispanic or Latino	80.5%	93%	80.1%	94.9%	88.5%
Median Household Income	\$62,500	\$73,700	\$83,100	\$70,400	\$64,800
% Households Below Poverty Level	11.9%	6.4%	5.6%	6.2%	11.8%
Median Home Value	\$190,000	\$195,500	\$211,400	\$171,600	\$145,100

Note: The percent of households below the poverty level is not available at the Census Tract level in the American Community Survey  
Source: US Census Bureau, American Community Survey, 2020 5-Year Estimates



# STAKEHOLDER IMPACTS CRITERIA

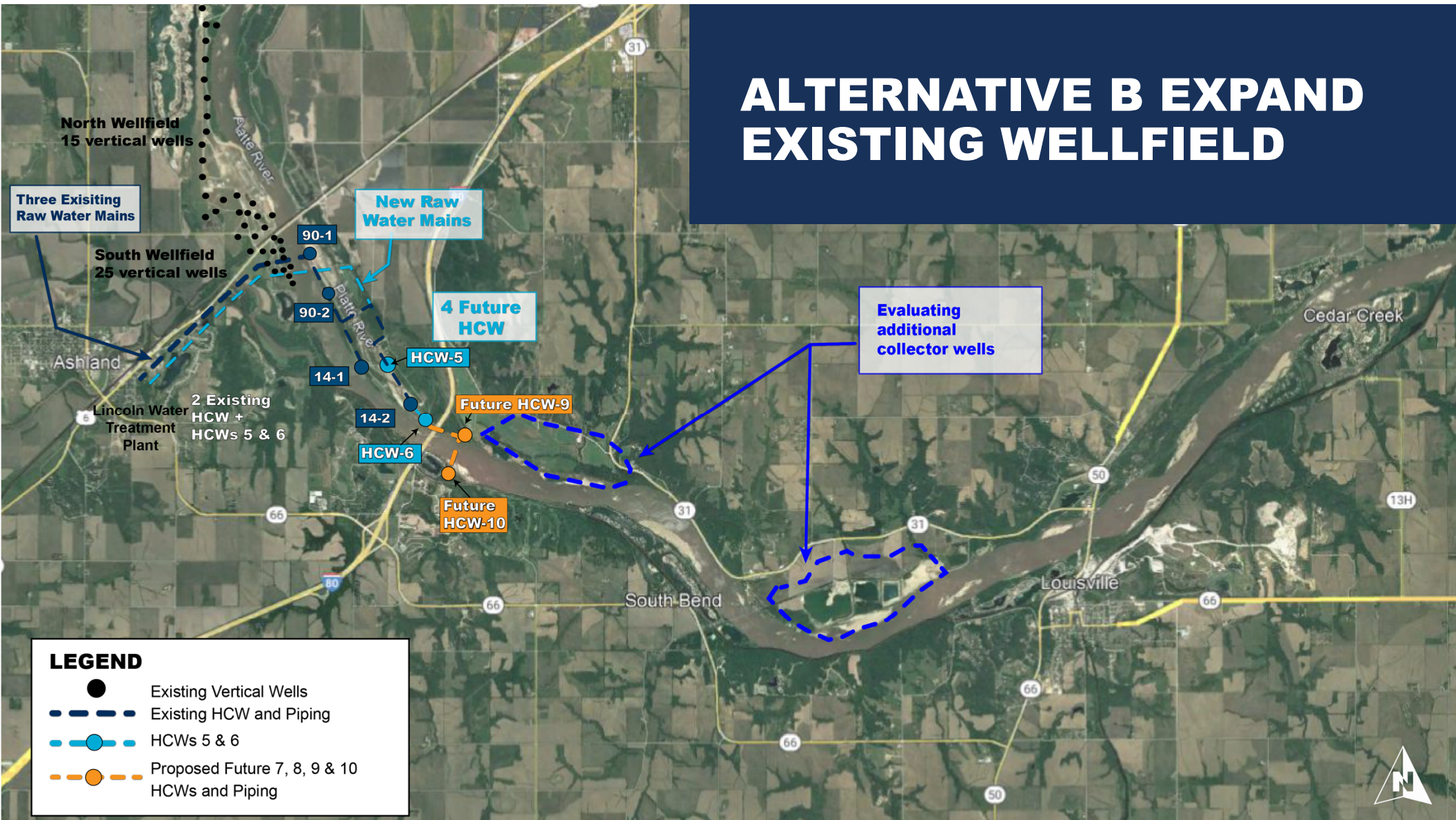
## Environmental Justice Concerns – Alternatives B-H

	Alternative B: Expand Existing Wellfield	Alternative C: Off-Channel Reservoir	Alternative D: MUD Interconnect	Alternative E: Missouri River Surface Water Intake to Ashland <sup>(1)</sup>	Alternative F: Missouri River Wellfield to Ashland <sup>(1)</sup>	Alternative G: Missouri River Surface Water Intake to Lincoln <sup>(2)</sup>	Alternative H: Missouri River Wellfield to Lincoln <sup>(2)</sup>
Median Age	No	No	No	No	No	No	No
% White Alone, not Hispanic or Latino	No	No	No	No	No	No	No
Median Household Income	No	No	No	10.5% lower income in the Missouri River area	10.5% lower income in the Missouri River area	No	No
Median Home Value	No	No	No	13.1% lower home value in the Missouri River area	13.1% lower home value in the Missouri River area	No	No

Notes: (1) Alternatives E and F will affect three different Census Tracts for the Missouri River surface water intake, wellfield, pre-treatment plant and transmission lines to Ashland as compared to the other Alternatives. The determination of actual Environmental Justice issues will depend on the exact locations of these facilities.

(2) Alternatives G and H will impact different Census Tracts than evaluated for Alternatives E and F.

# ALTERNATIVE B EXPAND EXISTING WELLFIELD



## SCORING SHEET – Stakeholder Impacts Criteria



### Alternative B - Expand Existing Wellfield

Score (1-5) \_\_\_\_\_

Economic Impacts	Overview and Facts	Notes
How much economic stimulus would be generated by construction activities?	<ul style="list-style-type: none"> <li>Least amount of construction stimulus (jobs, income, local spending), will be temporary</li> </ul>	
Will the City be able to reliably meet service area growth and demands?	<ul style="list-style-type: none"> <li>Supply can match demand, but is vulnerable to interruption</li> </ul>	
What is the potential for the City to serve areas outside of the current service area boundaries?	<ul style="list-style-type: none"> <li>Little to none – follows the existing supply corridor</li> </ul>	
What is the potential for stimulating and supporting regional growth (e.g. along the I-80 corridor)?	<ul style="list-style-type: none"> <li>Yes, represents opportunity to support new development and growing communities in I-80 corridor</li> </ul>	
Community Impacts		
What is the extent of land use changes?	<ul style="list-style-type: none"> <li>Minimal, small number of acres along the Platte River</li> </ul>	
What social impacts would occur in rural areas?	<ul style="list-style-type: none"> <li>None, limited interface with rural area</li> </ul>	
Would regional demographic character be affected?	<ul style="list-style-type: none"> <li>Yes, potential for younger population with higher incomes attracted to region</li> </ul>	
What is the threat of interference to other groundwater users?	<ul style="list-style-type: none"> <li>Possible issue for LWS to resolve</li> </ul>	
Would property values be affected?	<ul style="list-style-type: none"> <li>Potential for negative effects around existing sand pit lakes due to lake surface variation</li> <li>Property values likely to increase in I-80 corridor.</li> </ul>	
What recreational benefits or impacts would occur?	<ul style="list-style-type: none"> <li>Potential for additional water level variation in several sand pit lakes adjacent to the Platte River</li> </ul>	

#### SCORING KEY

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## SCORING SHEET – Stakeholder Impacts Criteria



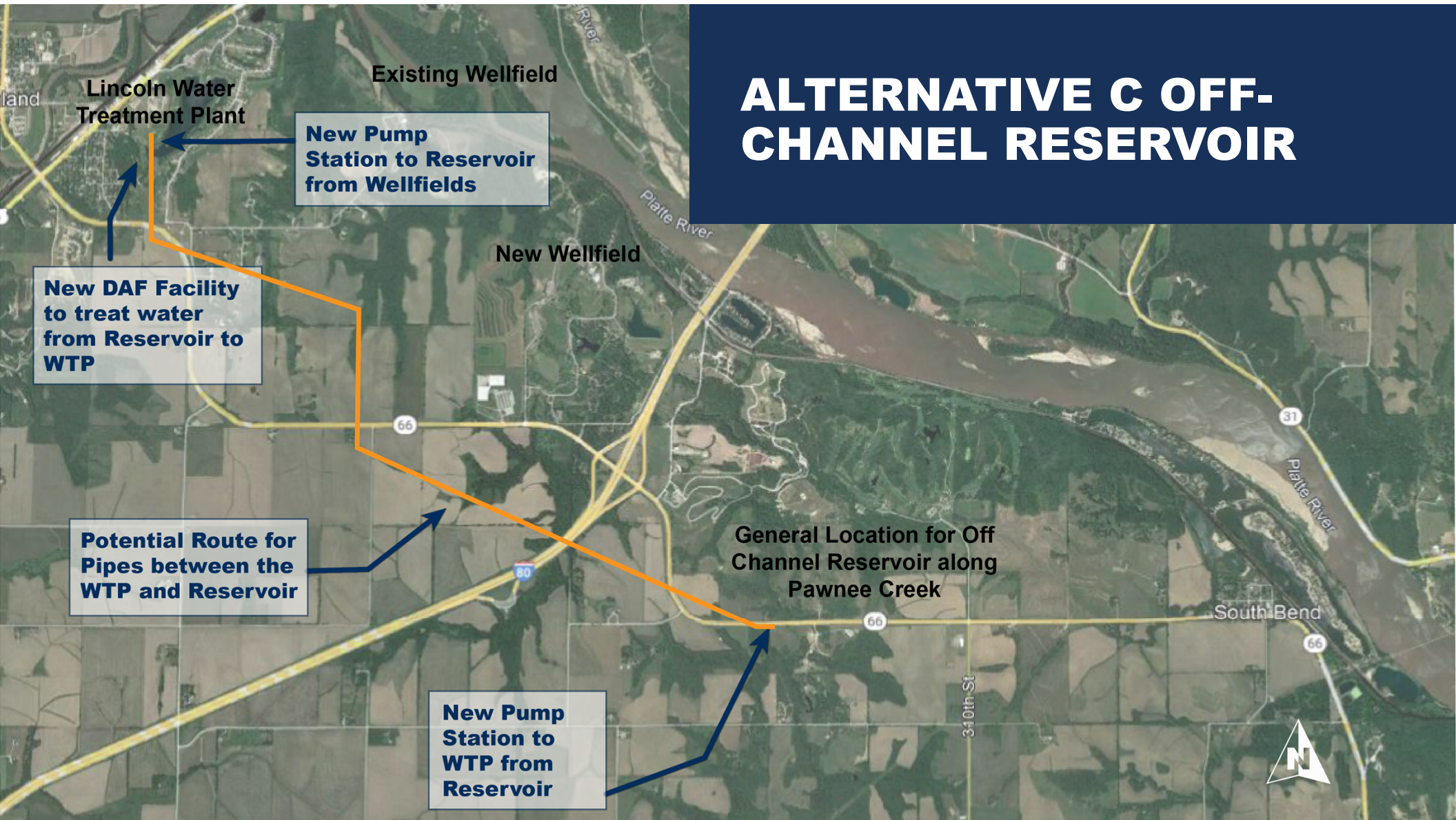
Equity		
Is there a Not In My BackYard (NIMBY) feel from any communities?	<ul style="list-style-type: none"> <li>Unlikely since few landowners would be affected</li> </ul>	
Do certain subsets of the region benefit more than others?	<ul style="list-style-type: none"> <li>Equivalent regional effects of additional supply</li> </ul>	
Are certain subsets of the region adversely impacted more than others?	<ul style="list-style-type: none"> <li>Equivalent regional impacts (minimal)</li> </ul>	
Environmental Equity / Justice		
Are there disproportionate impacts to low-income communities from construction or operations?	<ul style="list-style-type: none"> <li>Little to none</li> </ul>	
Are there disproportionate impacts to minority communities from construction or operations?	<ul style="list-style-type: none"> <li>Little to none</li> </ul>	

### SCORING KEY

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# ALTERNATIVE C OFF-CHANNEL RESERVOIR



## SCORING SHEET – Stakeholder Impacts Criteria



### Alternative C - Off-Channel Reservoir

Score (1-5) \_\_\_\_\_

Economic Impacts	Overview and Facts	Notes
How much economic stimulus will be generated by construction activities?	<ul style="list-style-type: none"> <li>Substantial amount of construction stimulus (jobs, <u>income</u> and local spending) but temporary</li> </ul>	
Will the City be able to reliably meet service area growth and demands?	<ul style="list-style-type: none"> <li>Yes. Storage can buffer GW supply interruption. Reduced economic risk</li> </ul>	
What is the potential for the City to serve areas outside of the current service area boundaries?	<ul style="list-style-type: none"> <li>No change from present</li> </ul>	
What is the potential for stimulating and supporting regional growth (ie along the I-80 corridor)?	<ul style="list-style-type: none"> <li>Yes, represents opportunity to support new development and growing communities in I-80 corridor.</li> </ul>	
Community Impacts		
What is the extent of land uses changes?	<ul style="list-style-type: none"> <li>Reservoir footprint – 524 +/- acres from farming. Potential conversion of land around lake to recreation or residential</li> <li>Easements required along transmission line route</li> </ul>	
What social impacts would occur in rural areas?	<ul style="list-style-type: none"> <li>Potential traffic, additional human activity in Pawnee Creek area during construction and operation.</li> <li>Temporary disruption due to Highway 66 closure / detour</li> </ul>	
Would regional demographic character be affected?	<ul style="list-style-type: none"> <li>Yes, potential for younger population with higher incomes attracted to region</li> </ul>	
What is the threat of interference to other groundwater users?	<ul style="list-style-type: none"> <li>None</li> </ul>	
Would property values be affected?	<ul style="list-style-type: none"> <li>Yes, reservoir footprint acquired. Land around new reservoir might be higher value.</li> </ul>	

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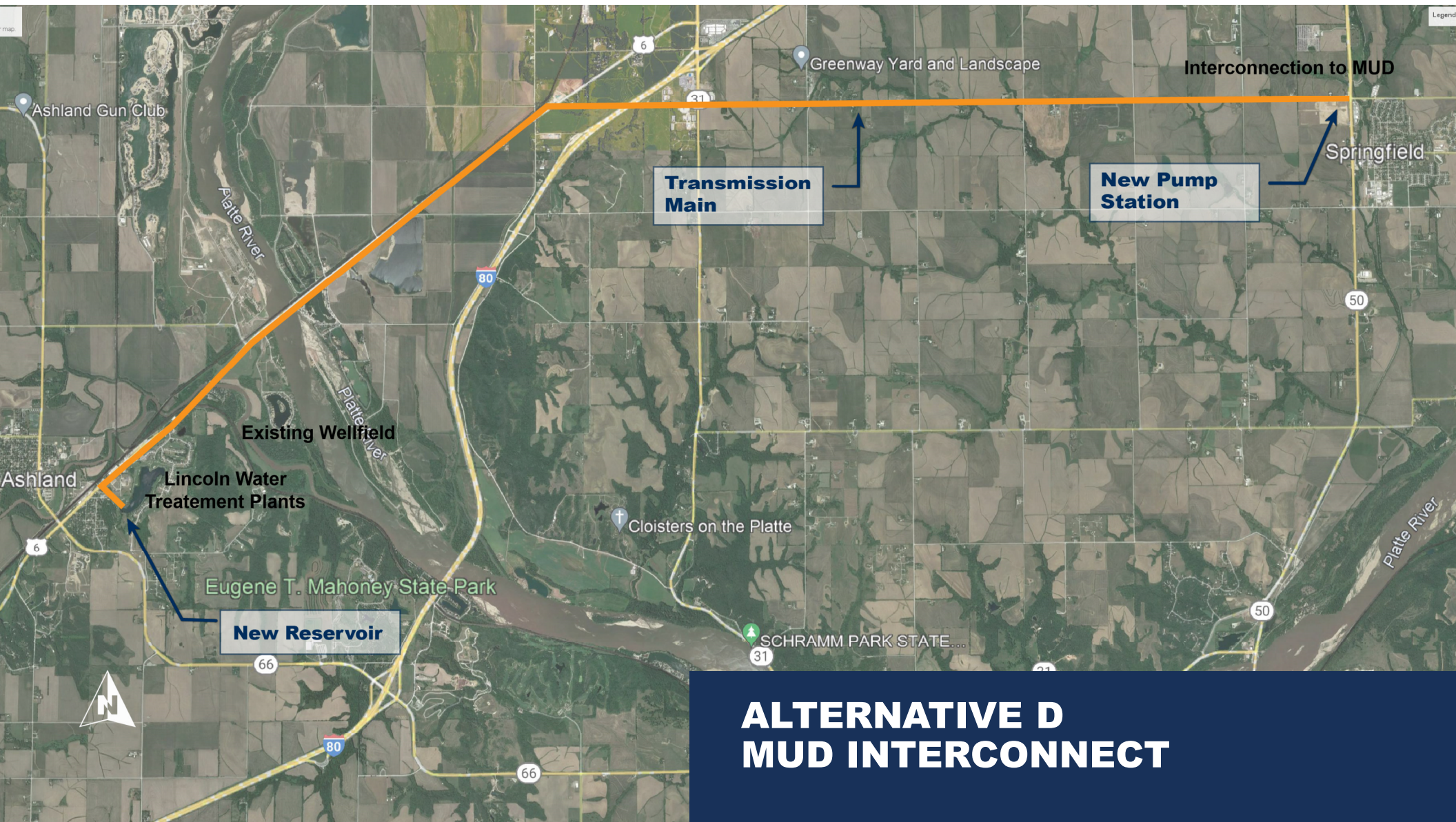
## SCORING SHEET – Stakeholder Impacts Criteria



	<ul style="list-style-type: none"> <li>Property values in I-80 corridor could increase.</li> </ul>	
What recreational benefits or impacts would occur?	<ul style="list-style-type: none"> <li>Potential recreational benefit around reservoir and possibly limited flatwater recreation depending on LWS operating criteria</li> </ul>	
<b>Equity</b>		
Is there a Not In My BackYard (NIMBY) feel from any communities?	<ul style="list-style-type: none"> <li>Potential for NIMBY response from local landowners in Pawnee Creek area</li> </ul>	
Do certain subsets of the region benefit more than others?	<ul style="list-style-type: none"> <li>Yes, landowners in the Pawnee Creek area might perceive economic and recreational benefit.</li> <li>I-80 corridor region can benefit</li> </ul>	
Are certain subsets of the region adversely impacted more than others?	<ul style="list-style-type: none"> <li>Potential issue for displaced landowners in reservoir footprint</li> </ul>	
<b>Environmental Equity / Justice</b>		
Are there disproportionate impacts to low-income communities from construction or operations?	<ul style="list-style-type: none"> <li>Little to none</li> </ul>	
Are there disproportionate impacts to minority communities from construction or operations?	<ul style="list-style-type: none"> <li>Little to none</li> </ul>	

### SCORING KEY

5-Fully meets the criteria definition 4-Meets most of the criteria definition, 3-Meets some of the criteria definition, 2-Meets little of the criteria definition, 1-Meets none of the criteria definition



## ALTERNATIVE D MUD INTERCONNECT

## SCORING SHEET – Stakeholder Impacts Criteria



### Alternative D - MUD Interconnect

Score (1-5) \_\_\_\_\_

Economic Impacts	Overview and Facts	Notes
How much economic stimulus will be generated by construction activities?	<ul style="list-style-type: none"> <li>Substantial amount of construction stimulus (jobs, <u>income</u> and local spending) but temporary</li> </ul>	
Will the City be able to reliably meet service area growth and demands?	<ul style="list-style-type: none"> <li>Yes, full diversification of supply, must be non-interruptible</li> </ul>	
What is the potential for the <u>City</u> to serve areas outside of the current service area boundaries?	<ul style="list-style-type: none"> <li>Yes, opportunity to serve present and future population centers along transmission corridor</li> </ul>	
What is the potential for stimulating and supporting regional growth ( <u>ie</u> along the I-80 corridor)?	<ul style="list-style-type: none"> <li>Yes, represents opportunity to support new development and growing communities in I-80 corridor</li> </ul>	
Community Impacts		
How would current land uses change?	<ul style="list-style-type: none"> <li>Reservoir footprint – 5 to 10 acres from farming.</li> <li>Easements required along transmission line route</li> <li>Potential for development along transmission line corridor.</li> </ul>	
What social impacts would occur in rural areas?	<ul style="list-style-type: none"> <li>Construction workers, traffic along transmission corridor</li> <li>Potential for new residents if new water service along transmission line</li> </ul>	
Would regional demographic character be affected?	<ul style="list-style-type: none"> <li>Possible in-migration where new water service may occur</li> </ul>	
What is the threat of interference to other groundwater users?	<ul style="list-style-type: none"> <li>None</li> </ul>	
Would property values be affected?	<ul style="list-style-type: none"> <li>Yes, potential for higher property values where new water service occurs</li> </ul>	

#### SCORING KEY

5-Fully meets the criteria definition 4-Meets most of the criteria definition, 3-Meets some of the criteria definition, 2-Meets little of the criteria definition, 1-Meets none of the criteria definition



## SCORING SHEET – Stakeholder Impacts Criteria



	<ul style="list-style-type: none"> <li>Property values likely to increase in I-80 corridor</li> </ul>	
What recreational benefits or impacts would occur?	<ul style="list-style-type: none"> <li>None</li> </ul>	
<b>Equity</b>		
Is there a Not In My BackYard (NIMBY) feel from any communities?	<ul style="list-style-type: none"> <li>Unlikely from existing residents along transmission corridor</li> </ul>	
Do certain subsets of the region benefit more than others?	<ul style="list-style-type: none"> <li>Yes, opportunity for reliable new water service and economic opportunity along the transmission corridor and in I-80 corridor</li> </ul>	
Are certain subsets of the region adversely impacted more than others?	<ul style="list-style-type: none"> <li>Equivalent regional impacts (minimal)</li> </ul>	
<b>Environmental Equity / Justice</b>		
Are there disproportionate impacts to low-income communities from construction or operations?	<ul style="list-style-type: none"> <li>Little to none</li> </ul>	
Are there disproportionate impacts to minority communities from construction or operations?	<ul style="list-style-type: none"> <li>Little to none</li> </ul>	

### SCORING KEY

5-Fully meets the criteria definition 4-Meets most of the criteria definition, 3-Meets some of the criteria definition, 2-Meets little of the criteria definition, 1-Meets none of the criteria definition





## SCORING SHEET – Stakeholder Impacts Criteria



### Alternative E - Missouri River Surface Water Intake to Ashland

Score (1-5) \_\_\_\_\_

Economic Impacts	Overview and Facts	Notes
How much economic stimulus will be generated by construction activities?	<ul style="list-style-type: none"> <li>Substantial amount of construction stimulus (jobs, <u>income</u> and local spending) but temporary</li> </ul>	
Will the City be able to reliably meet service area growth and demands?	<ul style="list-style-type: none"> <li>Yes, low economic risk with diversification of supply</li> </ul>	
What is the potential for the <u>City</u> to serve areas outside of the current service area boundaries?	<ul style="list-style-type: none"> <li>Offers limited potential for water service to existing small communities along the transmission line route</li> </ul>	
What is the potential for stimulating and supporting regional growth ( <u>ie</u> along the I-80 corridor)?	<ul style="list-style-type: none"> <li>Yes, represents opportunity to support new development and growing communities in I-80 corridor</li> </ul>	
Community Impacts		
How would current land uses change?	<ul style="list-style-type: none"> <li>Development in I-80 corridor and land around existing communities could be converted from rural to industrial, light commercial or residential</li> </ul>	
What social impacts would occur in rural areas?	<ul style="list-style-type: none"> <li>Increased traffic, workers during construction.</li> <li>In-migrating population would change rural character of I-80 corridor.</li> </ul>	
Would regional demographic character be affected?	<ul style="list-style-type: none"> <li>Yes, potential for younger population with higher incomes attracted to region</li> </ul>	
What is the threat of interference to other groundwater users?	<ul style="list-style-type: none"> <li>None</li> </ul>	
Would property values be affected?	<ul style="list-style-type: none"> <li>Yes, property values likely to increase in I-80 corridor</li> </ul>	
What recreational benefits or impacts would occur?	<ul style="list-style-type: none"> <li>None</li> </ul>	

#### SCORING KEY

5-Fully meets the criteria definition 4-Meets most of the criteria definition, 3-Meets some of the criteria definition, 2-Meets little of the criteria definition, 1-Meets none of the criteria definition

## SCORING SHEET – Stakeholder Impacts Criteria



Equity		
Is there a Not In My BackYard (NIMBY) feel from any communities?	<ul style="list-style-type: none"> <li>Possible with new development potential in I-80 corridor</li> </ul>	
Do certain subsets of the region benefit more than others?	<ul style="list-style-type: none"> <li>Yes, a clear economic benefit to the I-80 corridor</li> </ul>	
Are certain subsets of the region adversely impacted more than others?	<ul style="list-style-type: none"> <li>Raw water transmission line minimal benefit to small communities nearby</li> </ul>	
Environmental Equity / Justice		
Are there disproportionate impacts to low-income communities from construction or operations?	<ul style="list-style-type: none"> <li>Small potential for disproportionate effects</li> </ul>	
Are there disproportionate impacts to minority communities from construction or operations?	<ul style="list-style-type: none"> <li>Little to none</li> </ul>	

### SCORING KEY

5-Fully meets the criteria definition 4-Meets most of the criteria definition, 3-Meets some of the criteria definition, 2-Meets little of the criteria definition, 1-Meets none of the criteria definition







## SCORING SHEET – Stakeholder Impacts Criteria



### Alternative F - Missouri River Wellfield to Ashland

Score (1-5) \_\_\_\_\_

Economic Impacts	Overview and Facts	Notes
How much economic stimulus will be generated by construction activities?	<ul style="list-style-type: none"> <li>Substantial amount of construction stimulus (jobs, <u>income</u> and local spending), but temporary</li> </ul>	
Will the City be able to reliably meet service area growth and demands?	<ul style="list-style-type: none"> <li>Yes, low economic risk with diversification of supply</li> </ul>	
What is the potential for the <u>City</u> to serve areas outside of the current service area boundaries?	<ul style="list-style-type: none"> <li>Offers limited potential for water service to existing small communities along the transmission line route</li> </ul>	
What is the potential for stimulating and supporting regional growth ( <u>is</u> along the I-80 corridor)?	<ul style="list-style-type: none"> <li>Yes, represents opportunity to support new development and growing communities in I-80 corridor</li> </ul>	
Community Impacts		
How would current land uses change?	<ul style="list-style-type: none"> <li>Development in I-80 corridor and land around existing communities could be converted from rural to industrial, light commercial or residential,</li> <li>For wellfield and facilities, 160 acres changed from agriculture.</li> </ul>	
What social impacts would occur in rural areas?	<ul style="list-style-type: none"> <li>Increased traffic, workers during construction. In-migrating population would change rural character of I-80 corridor</li> </ul>	
Would regional demographic character be affected?	<ul style="list-style-type: none"> <li>Yes, potential for younger population with higher incomes attracted to region</li> </ul>	
What is the threat of interference to other groundwater users?	<ul style="list-style-type: none"> <li>None</li> </ul>	
Would property values be affected?	<ul style="list-style-type: none"> <li>Yes, property values likely to increase in I-80 corridor</li> </ul>	

#### SCORING KEY

5-Fully meets the criteria definition 4-Meets most of the criteria definition, 3-Meets some of the criteria definition, 2-Meets little of the criteria definition, 1-Meets none of the criteria definition

## SCORING SHEET – Stakeholder Impacts Criteria

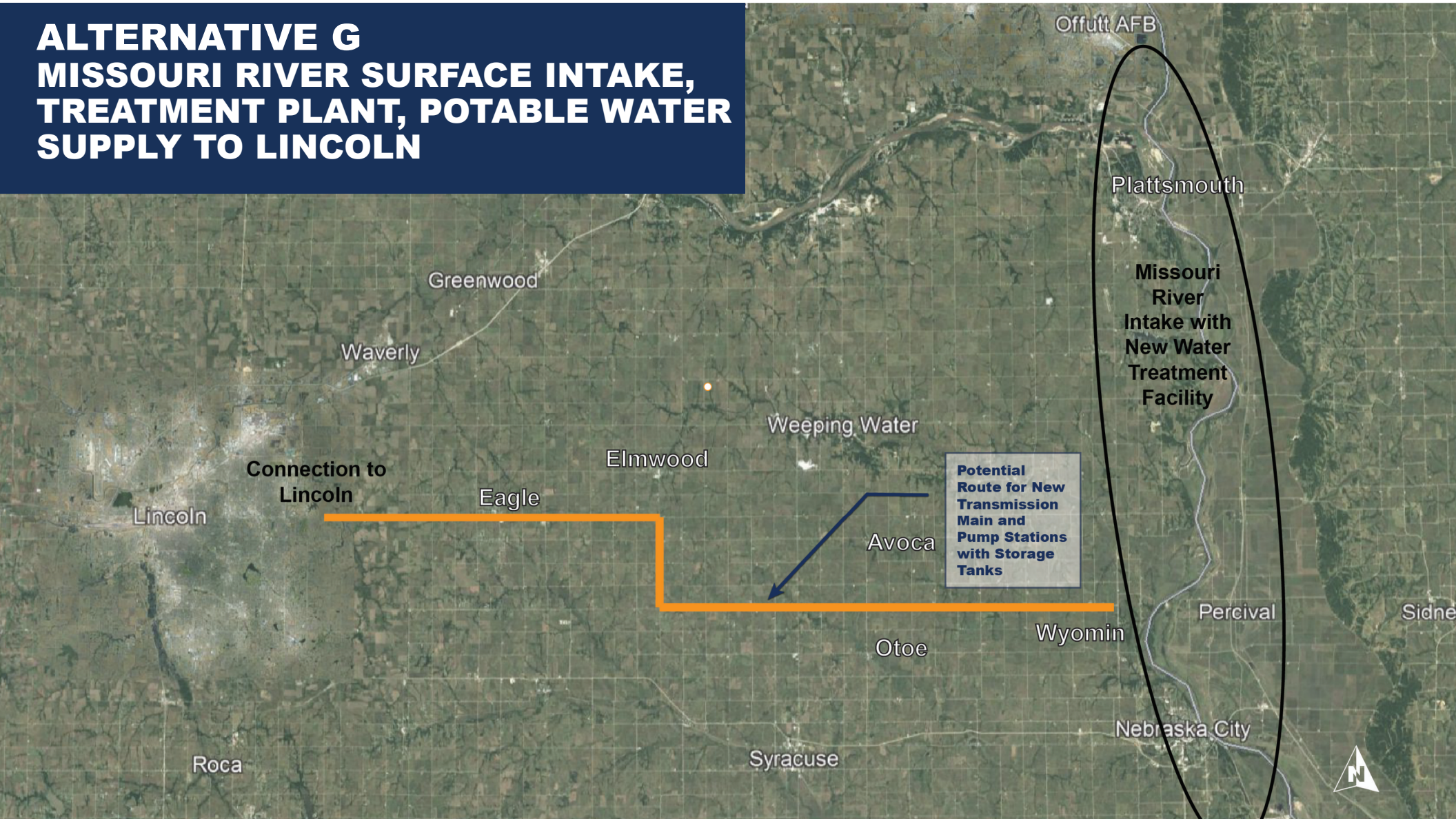


What recreational benefits or impacts would occur?	<ul style="list-style-type: none"> <li>• None</li> </ul>	
<b>Equity</b>		
Is there a Not In My Back Yard (NIMBY) feel from any communities?	<ul style="list-style-type: none"> <li>• Possible, with new development potential in I-80 corridor</li> </ul>	
Do certain subsets of the region benefit more than others?	<ul style="list-style-type: none"> <li>• Yes, a potential economic benefit to the I-80 corridor</li> </ul>	
Are certain subsets of the region adversely impacted more than others?	<ul style="list-style-type: none"> <li>• Raw water transmission line minimal benefit to small communities nearby</li> </ul>	
<b>Environmental Equity / Justice</b>		
Are there disproportionate impacts to low-income communities from construction or operations?	<ul style="list-style-type: none"> <li>• Small potential for disproportionate effects</li> </ul>	
Are there disproportionate impacts to minority communities from construction or operations?	<ul style="list-style-type: none"> <li>• Little to none</li> </ul>	

### SCORING KEY

5-Fully meets the criteria definition 4-Meets most of the criteria definition, 3-Meets some of the criteria definition, 2-Meets little of the criteria definition, 1-Meets none of the criteria definition

# ALTERNATIVE G MISSOURI RIVER SURFACE INTAKE, TREATMENT PLANT, POTABLE WATER SUPPLY TO LINCOLN





## SCORING SHEET – Stakeholder Impacts Criteria



### Alternative G - Missouri River Surface Water Intake to Lincoln

Score (1-5) \_\_\_\_\_

Economic Impacts	Overview and Facts	Notes
How much economic stimulus will be generated by construction activities?	<ul style="list-style-type: none"> <li>Substantial amount of construction stimulus (jobs, <u>income</u> and local spending), but temporary</li> </ul>	
Will the City be able to reliably meet service area growth and demands?	<ul style="list-style-type: none"> <li>Yes, low economic risk with diversification of supply</li> </ul>	
What is the potential for the City to serve areas outside of the current service area boundaries?	<ul style="list-style-type: none"> <li>Yes, offers potential for water service to existing small communities along the transmission line route,</li> </ul>	
What is the potential for stimulating and supporting regional growth ( <u>ie</u> along the I-80 corridor)?	<ul style="list-style-type: none"> <li>Little to none. No additional treated water at Ashland or that transmission corridor.</li> </ul>	
Community Impacts		
How would current land uses change?	<ul style="list-style-type: none"> <li>Minimal; new water treatment plant footprint (10+ acres) changed from agriculture</li> </ul>	
What social impacts would occur in rural areas?	<ul style="list-style-type: none"> <li>Increased traffic, workers during construction.</li> </ul>	
Would regional demographic character be affected?	<ul style="list-style-type: none"> <li>No, evolution in regional demographic character would continue</li> </ul>	
What is the threat of interference to other groundwater users?	<ul style="list-style-type: none"> <li>None</li> </ul>	
Would property values be affected?	<ul style="list-style-type: none"> <li>No</li> </ul>	
What recreational benefits or impacts would occur?	<ul style="list-style-type: none"> <li>None</li> </ul>	

#### SCORING KEY

5-Fully meets the criteria definition 4-Meets most of the criteria definition, 3-Meets some of the criteria definition, 2-Meets little of the criteria definition, 1-Meets none of the criteria definition



## SCORING SHEET – Stakeholder Impacts Criteria

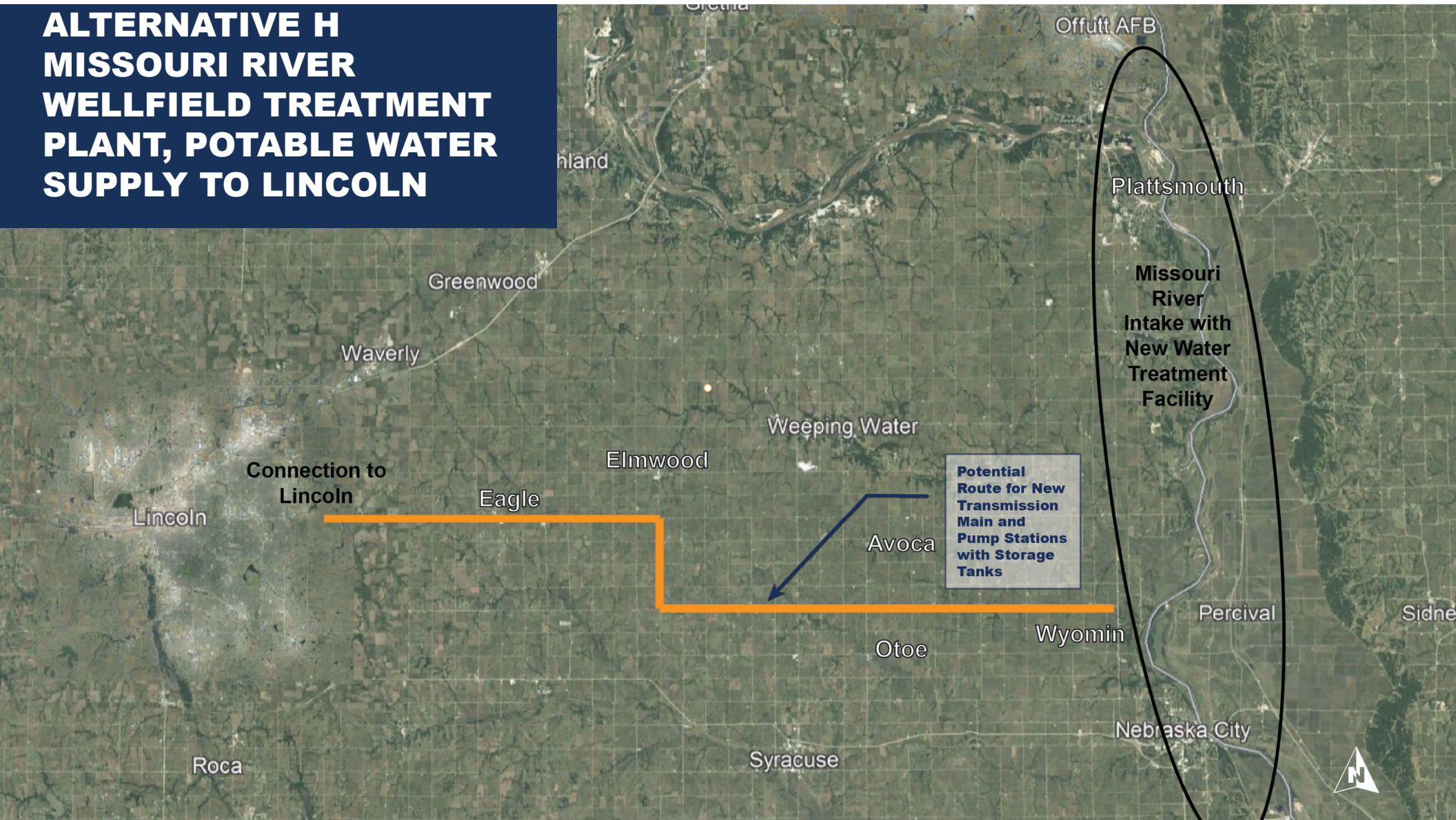


Equity		
Is there a Not In My BackYard (NIMBY) feel from any communities?	<ul style="list-style-type: none"> <li>Unlikely around new water treatment plant</li> </ul>	
Do certain subsets of the region benefit more than others?	<ul style="list-style-type: none"> <li>Small communities along treated water transmission line might have access to additional water</li> </ul>	
Are certain subsets of the region adversely impacted more than others?	<ul style="list-style-type: none"> <li>No</li> </ul>	
Environmental Equity / Justice		
Are there disproportionate impacts to low-income communities from construction or operations?	<ul style="list-style-type: none"> <li>Little to none</li> </ul>	
Are there disproportionate impacts to minority communities from construction or operations?	<ul style="list-style-type: none"> <li>Little to none</li> </ul>	

### SCORING KEY

5-Fully meets the criteria definition 4-Meets most of the criteria definition, 3-Meets some of the criteria definition, 2-Meets little of the criteria definition, 1-Meets none of the criteria definition

# ALTERNATIVE H MISSOURI RIVER WELLFIELD TREATMENT PLANT, POTABLE WATER SUPPLY TO LINCOLN



## SCORING SHEET – Stakeholder Impacts Criteria



### Alternative H - Missouri River Wellfield to Lincoln

Score (1-5) \_\_\_\_\_



Economic Impacts	Overview and Facts	Notes
How much economic stimulus will be generated by construction activities?	<ul style="list-style-type: none"> <li>Substantial amount of construction stimulus (jobs, <u>income</u> and local spending) but temporary</li> </ul>	
Will the City be able to reliably meet service area growth and demands?	<ul style="list-style-type: none"> <li>Yes, low economic risk with diversification of supply</li> </ul>	
What is the potential for the <u>City</u> to serve areas outside of the current service area boundaries?	<ul style="list-style-type: none"> <li>Yes, offers potential for water service to existing small communities along the transmission line route,</li> </ul>	
What is the potential for stimulating and supporting regional growth ( <u>is</u> along the I-80 corridor)?	<ul style="list-style-type: none"> <li>Little to none. No additional treated water at Ashland or that transmission corridor.</li> </ul>	
Community Impacts		
How would current land uses change?	<ul style="list-style-type: none"> <li>Minimal; new water treatment plant footprint (10+ acres) plus 160 acres for well field changed from agriculture</li> <li></li> </ul>	
What social impacts would occur in rural areas?	<ul style="list-style-type: none"> <li>Increased traffic, workers during construction.</li> </ul>	
Would regional demographic character be affected?	<ul style="list-style-type: none"> <li>No, evolution in regional demographic character would continue.</li> </ul>	
What is the threat of interference to other groundwater users?	<ul style="list-style-type: none"> <li>None</li> </ul>	
Would property values be affected?	<ul style="list-style-type: none"> <li>No</li> </ul>	
What recreational benefits or impacts would occur?	<ul style="list-style-type: none"> <li>None</li> </ul>	

#### SCORING KEY

5-Fully meets the criteria definition 4-Meets most of the criteria definition, 3-Meets some of the criteria definition, 2-Meets little of the criteria definition, 1-Meets none of the criteria definition

## SCORING SHEET – Stakeholder Impacts Criteria



Equity		
Is there a Not In My Back Yard (NIMBY) feel from any communities?	<ul style="list-style-type: none"> <li>Unlikely around new water treatment plant</li> </ul>	
Do certain subsets of the region benefit more than others?	<ul style="list-style-type: none"> <li>Small communities along treated water transmission line might have access to additional water.</li> </ul>	
Are certain subsets of the region adversely impacted more than others?	<ul style="list-style-type: none"> <li>No</li> </ul>	
Environmental Equity / Justice		
Are there disproportionate impacts to low-income communities from construction or operations?	<ul style="list-style-type: none"> <li>Little to none</li> </ul>	
Are there disproportionate impacts to minority communities from construction or operations?	<ul style="list-style-type: none"> <li>Little to none</li> </ul>	

### SCORING KEY

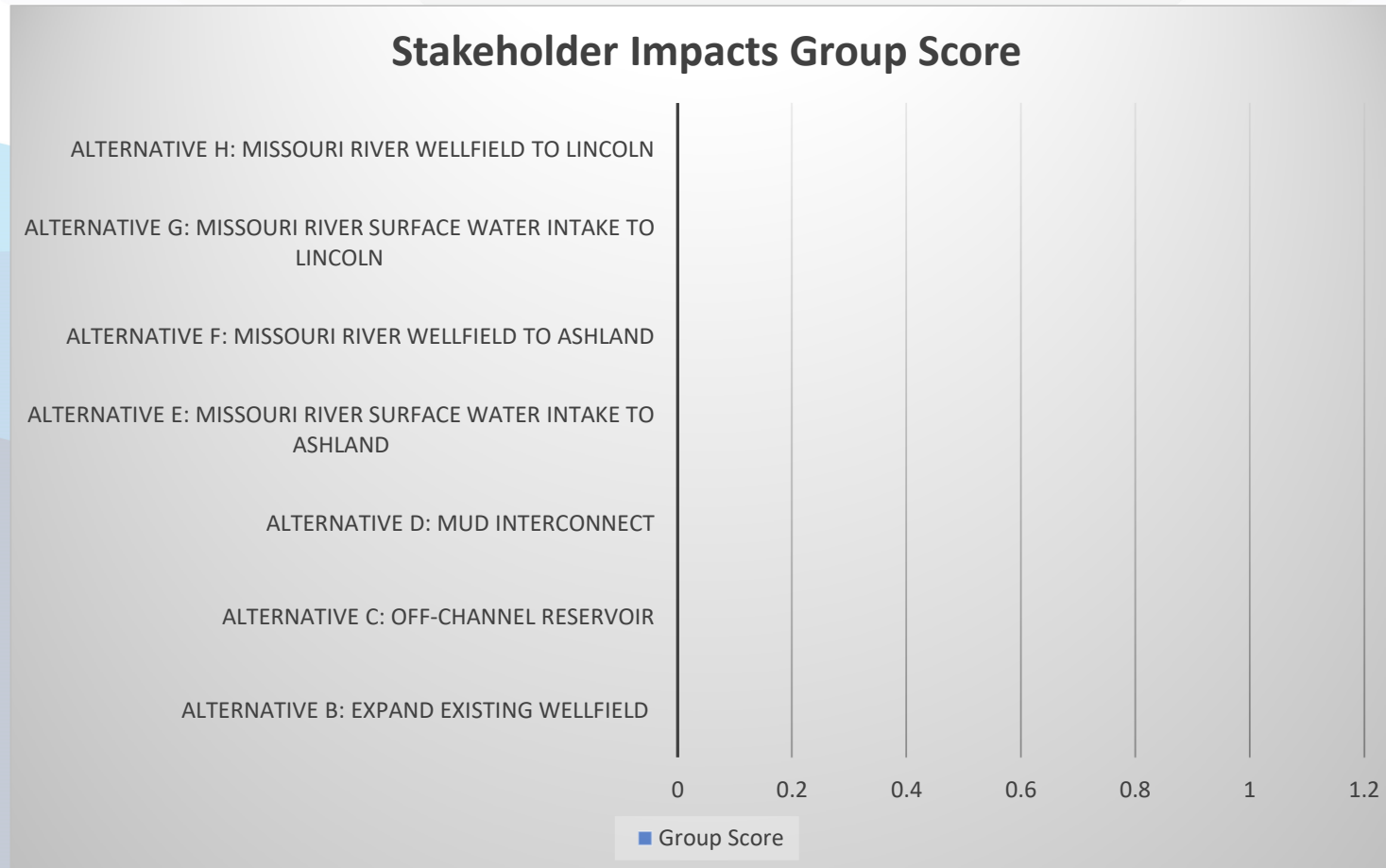
5-Fully meets the criteria definition 4-Meets most of the criteria definition, 3-Meets some of the criteria definition, 2-Meets little of the criteria definition, 1-Meets none of the criteria definition



# ALTERNATIVE SCORING STAKEHOLDER IMPACTS CRITERIA



# SCORING OF ALTERNATIVES: STAKEHOLDER IMPACTS CRITERIA



# QUESTIONS

# CLOSING THOUGHTS