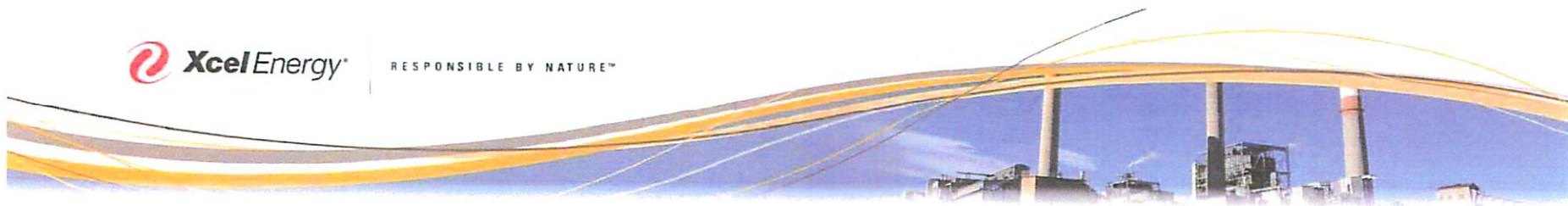




RESPONSIBLE BY NATURE™



CHEROKEE REPOWERING AND NATURAL GAS PIPELINE PROJECTS OVERVIEW

PROJECT OVERVIEW

Xcel Energy is implementing its Colorado Public Utilities Commission-approved **Clean Air-Clean Jobs** plan by making these changes to our Cherokee Generating Station just north of the Denver metro area:

- Retiring three coal-fired units
- Adding a new natural gas plant
- Fuel switching a fourth unit to run on natural gas

A new pipeline is needed to deliver the natural gas to our Cherokee power plant for this conversion.

We are proposing to build a 34 mile, 24" steel gas transmission pipeline from a new Fort Lupton gas metering facility to Cherokee.

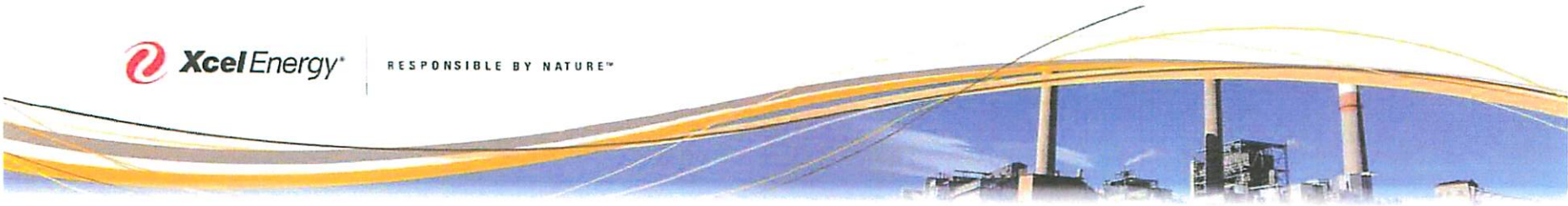
Pipeline construction would begin in 2013 with an in-service date of Oct. 1, 2014.

Get Project Updates

Hotline
1-888-510-3644
Website
xcelenergycherokeepipeline.com
Email
info@xcelenergycherokeepipeline.com

Project Schedule

Timeline	Project Activity	Coal-fired Generation Retired	Natural Gas-fired Generation
Phase I			
October 2011	Retire Unit 2	106 MW	
2012	Retire Unit 1	107 MW	
2013	Pipeline Construction Begins		
2014	Pipeline In-Service		
2015	Retire Unit 3	152 MW	
Total MW of coal-fired generation retired		(365 MW)	
2015	Natural gas, combined cycle plant comes online		569 MW
Phase II			
2017	Fuel switching Unit 4 to burn natural gas		352 MW
		Total Capacity	921 MW



LAND USE AND PUBLIC WORKS PERMITTING REQUIREMENTS

Local, State and Federal Permits

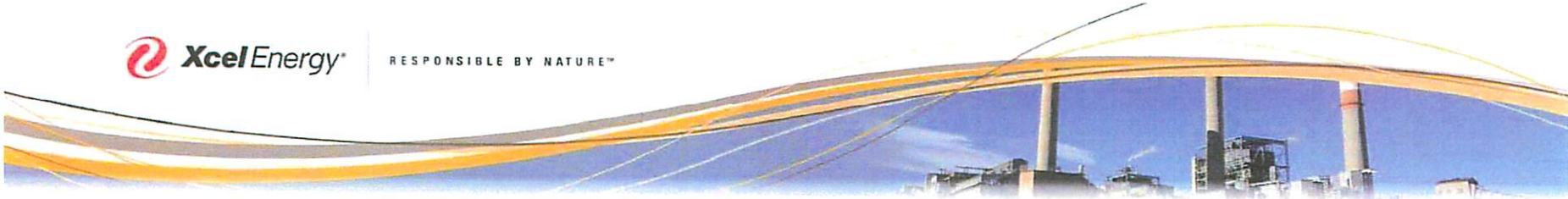
- Brighton and Commerce City
- Adams and Weld counties
- Colorado Department of Transportation and Department of Public Health and Environment
- U.S. Army Corps of Engineers
- Railroads and toll roads require land use and public works permits before construction starts

Permit Requirements

- Engineering and construction details
- Description of impacts to the natural environment and surrounding community
- Description of socioeconomic impact

Permitting Entity	Permit Titles
Adams County	1041 Activities and Areas of State Interest, Conditional Use Permit, Access and Right-of-Way (ROW) Permit and Floodplain Permit
Brighton	Conditional Use Permit, ROW Permit, Erosion and Sediment Control Permit and Grading Permit
Commerce City	Conditional Use Permit, Floodplain Development Permit, Grading Permit and ROW Permit
Weld County	Use by Special Review Permit, Utility Permit/ROW Use Permit and Grading Permit
Colorado Department of Transportation (CDOT)	Utility Permit
Colorado Department of Public Health and Environment (CDPHE)	Air Quality Permit for Construction and Stormwater Permit
U.S. Army Corps of Engineers (USACE)	Nationwide Wetland Permit
Union Pacific and Burlington Northern Santa Fe railroads and the E-470 Express Toll Road	License Agreements and ROW Permits





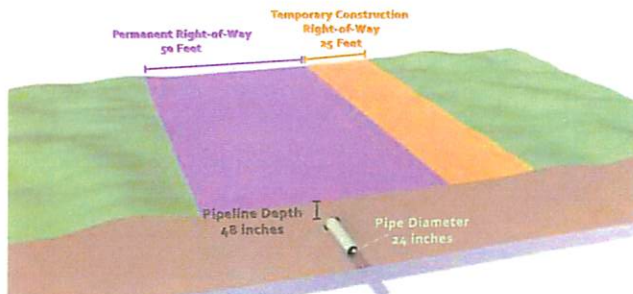
NATURAL GAS PIPELINE FACTS

FORT LUPTON METERING AND ODORIZATION FACILITIES STATION

- Gas metering and pressure regulation
- Gas odorization
- Gas quality and pressure monitoring equipment
- In-line inspection tool (ILI) launcher

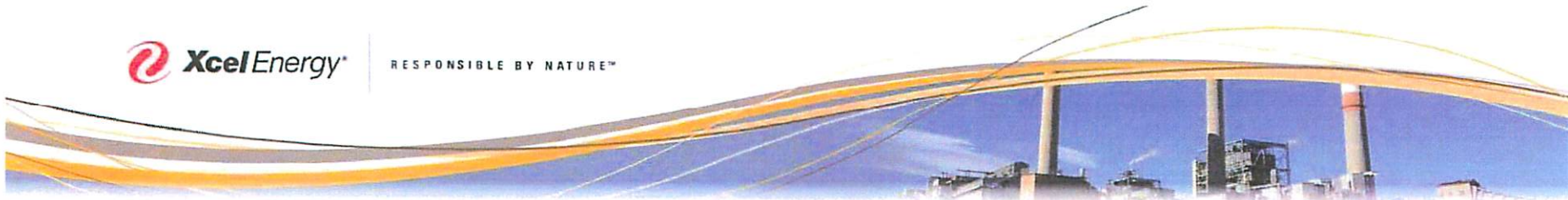
CHEROKEE STATION FACILITIES

- Electric-powered air compressors and tie-in to existing gas system piping for injection of air into the natural gas to be delivered into Xcel Energy's Gas Distribution System
- Pressure regulation
- Custody-transfer metering
- ILI tool receiver



Chacteristics

Length	Maximum 34 miles
Diameter	24 Inches
Fabrication	Steel
Maximum allowable operating pressure (MAOP)	1,020 pounds per square inch guage (psig)
Initial upstream pressure	750 psig
Delivery pressure from pipeline to Cherokee Station	550 psig
Cherokee natural gas usage per day	195 MMSCFD (million standard cubic feet per day)
Intermediate pressure system augmentation	125 MMSCFD
Right-of-way (ROW) width	50 feet permanent 25 feet temporary for construction
Buried depth	Minimum of 48 inches
Above-ground structures	Mainline valves, metering and odorization facilities, and compressor facility



NATURAL GAS PIPELINE SAFETY

CHEROKEE NATURAL GAS PIPELINE TO BE DESIGNED, CONSTRUCTED AND OPERATED TO MEET OR EXCEED FEDERAL AND STATE STANDARDS AND SAFETY REQUIREMENTS

- Patrolled on annual, semi-annual, and quarterly intervals to check for leaks and all pipeline components and facilities equipment for operational integrity
- Pipeline inspected at least every seven years with In-line inspection tools such as pipeline inspection gauges or "pigs" (shown below)



Pipeline inspection gauge

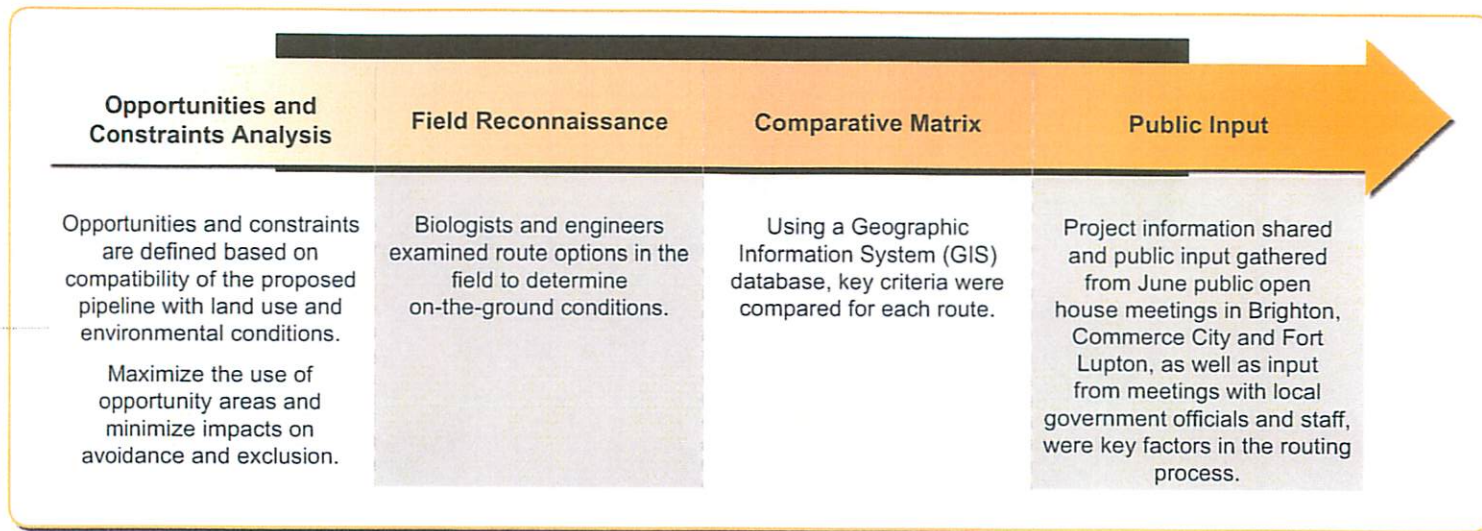
Safety measures include:

- Independent third party x-ray of all pipe welds to verify integrity prior to the pipe being lowered into the trench
- Pipeline installation includes corrosion prevention system designed to eliminate metal loss during the life of the pipeline
- Perform hydrostatic pressure testing on pipeline before it is put into service by filling the completed pipeline with water and testing it at a pressure 1.5 times the design maximum allowable operating pressure (MAOP) it would be operating under when transporting natural gas to verify that there are no leaks or other issues
- Conduct baseline In-line inspection of the entire pipeline as reference for future In-line inspections
- Extra, remote-controlled mainline valves
- Continuous remote monitoring of pipeline and all facility operations by our manned Gas Control Center

For more information visit xcelenergycherokeepipeline.com and select the Natural Gas Safety tab.



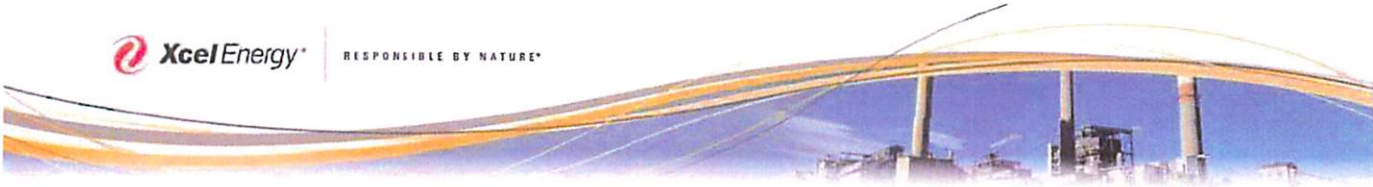
ROUTE ANALYSIS AND SELECTION



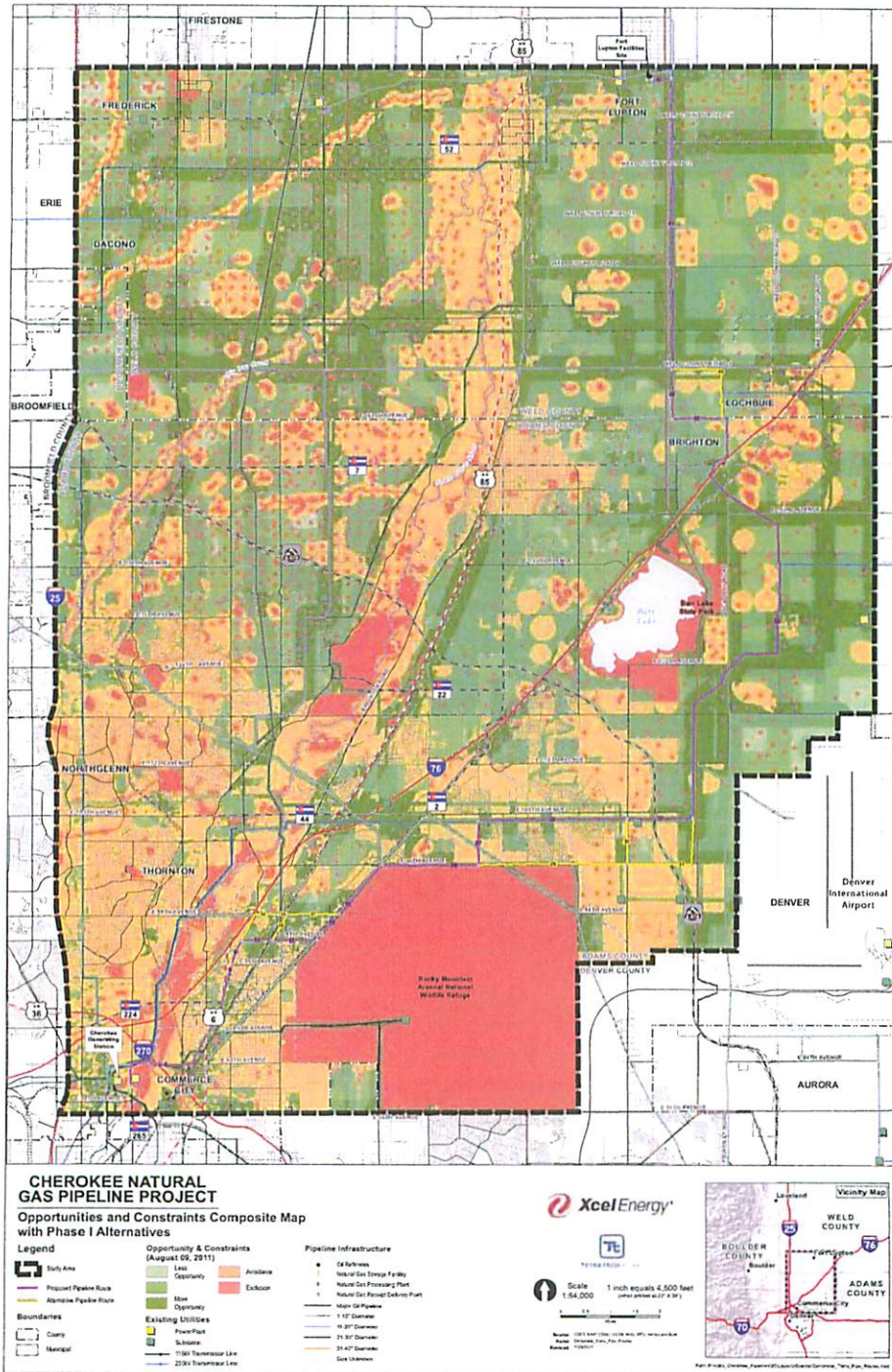
GOAL

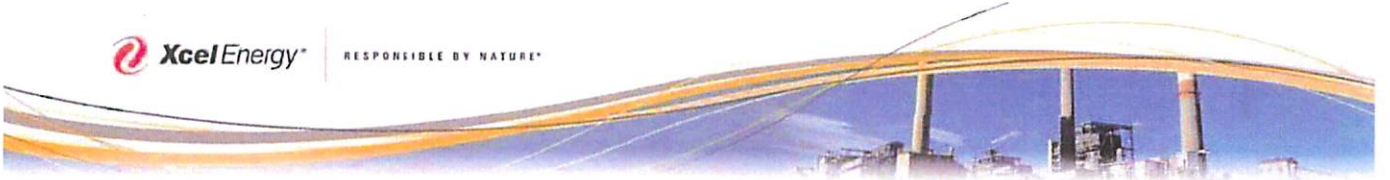
- Balance engineering needs, the environment, public input and land use considerations.
- Other considerations include county and local permitting processes and regulations such as the **National Wildlife Refuge System Administration Act**, the **Clean Water Act** and the **Pipeline and Hazardous Materials Safety Administration's Minimum Federal Safety Standards**.



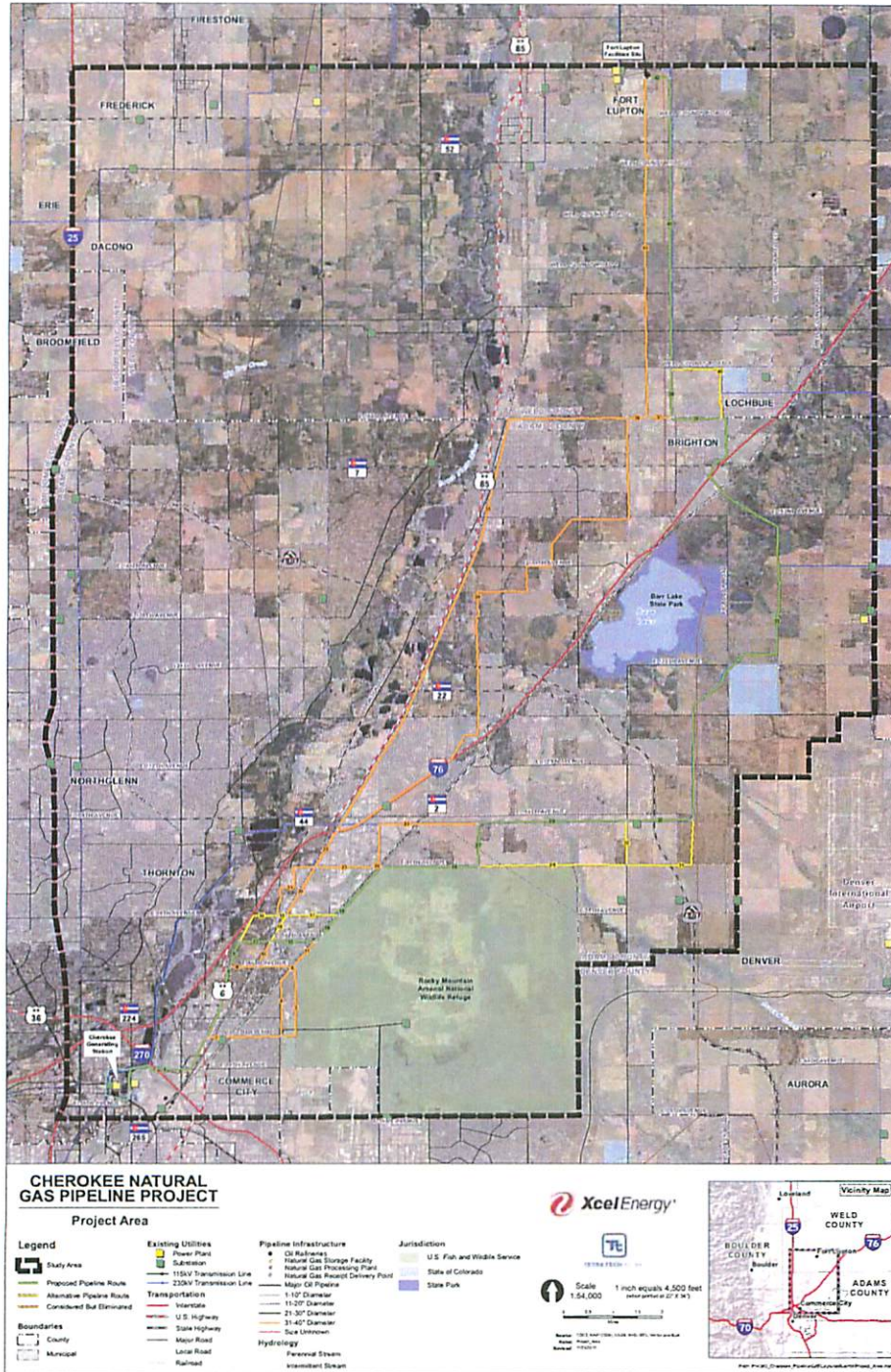


OPPORTUNITIES AND CONSTRAINTS ANALYSIS





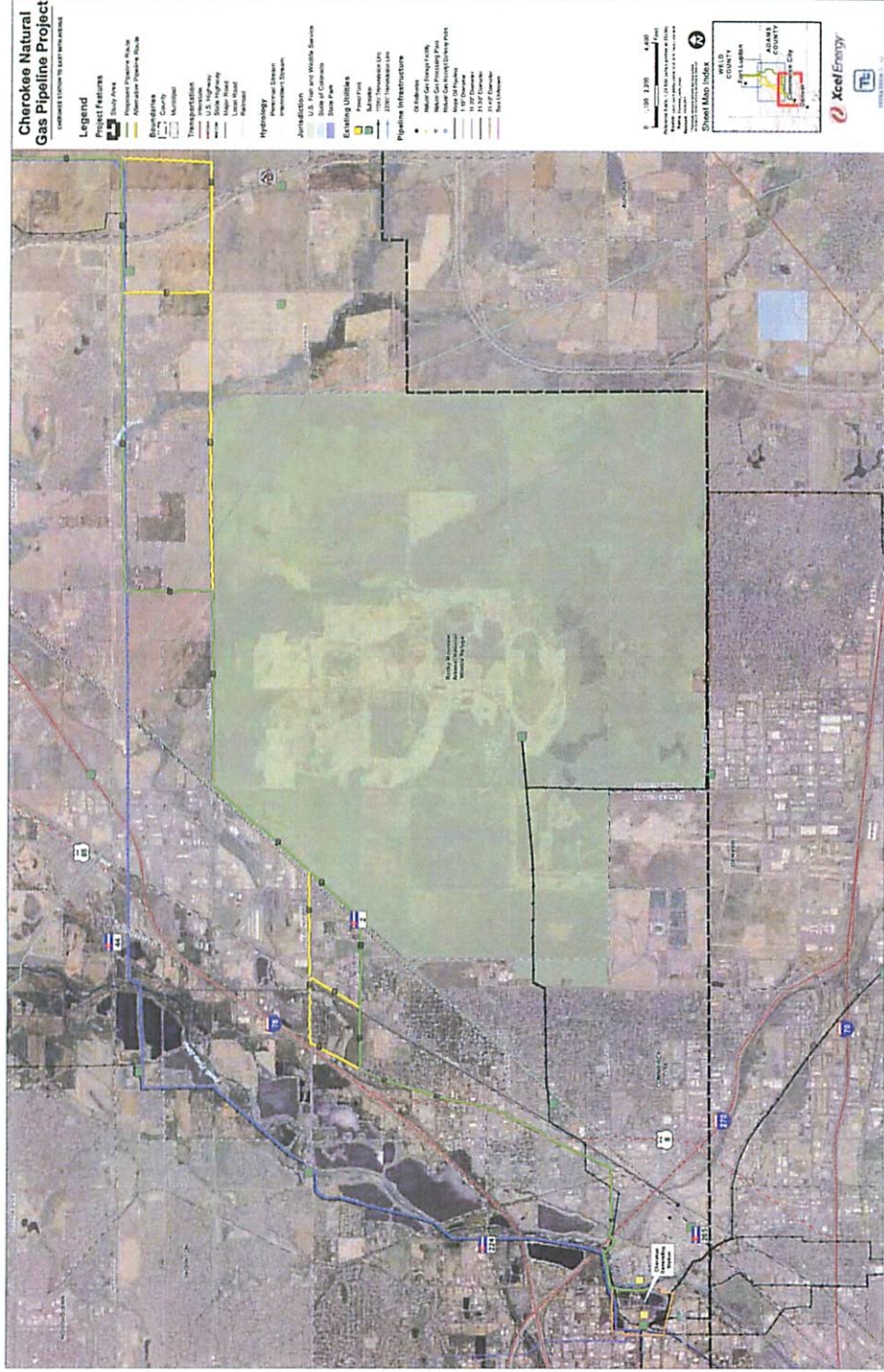
CHEROKEE NATURAL GAS PIPELINE PROJECT AREA

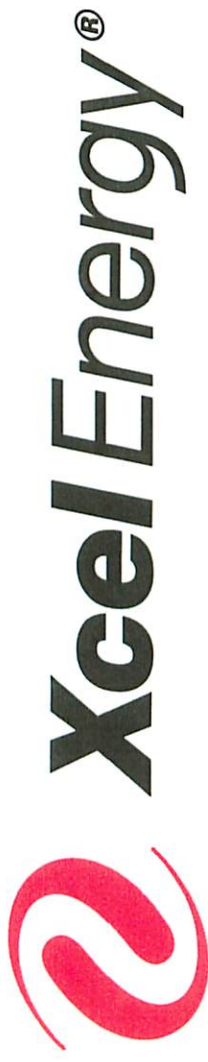




RESPONSIBLE BY NATURE™

CHEROKEE GENERATING STATION TO EAST 96TH AVENUE





**Cherokee Natural Gas Pipeline and
Generating Station Repowering Project**

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1-888-510-3644

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