



# INTRO

## SYSTEM SAFETY AND INTEGRITY RIDER

Black Hills Colorado Gas (BHCG) is undertaking extensive efforts to ensure the safety, integrity and reliability of its natural gas system. The areas of focus captured within the Safety System and Integrity Rider (SSIR) include the following programs:

- Data Infrastructure Improvement Program
- Problematic Pipe Replacement Program
- Miscellaneous Programs
- At-Risk Meter Relocation and Customer-Owned Yard Line Replacement Program
- Transmission Integrity Program

BHCG is dedicated to identifying the location and condition of its assets, many of which were installed decades ago and have been buried in locations for which there are no known maps, material records or tracer wires.

### To ensure the continued safe and reliable delivery of natural gas, infrastructure should be:

- Comprised of acceptable materials
- In a safe location
- In good operating condition
- Locatable
- Documented regarding installation and maintenance

## RATE AREA INFORMATION

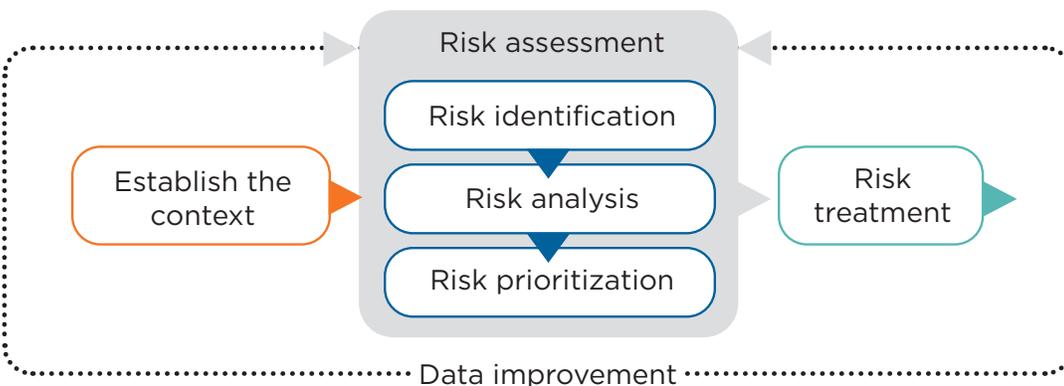
**Rate Area 1** includes communities located in Delta, Eagle, Garfield, Larimer, Montrose, Ouray, Pitkin, San Miguel and Weld counties, including the towns of Aspen, Basalt, Dacono, Delta, Erie, Firestone, Frederick, Glenwood Springs, Hotchkiss, Montrose, Olathe, Paonia, Telluride and Wellington.

**Rate Area 2** includes communities in Bent, Crowley and Otero Counties, including the towns of Fowler, La Junta, Las Animas, Rocky Ford, and Swink; in communities in Archuleta, La Plata and Mineral Counties, including the towns of Pagosa Springs and Bayfield; and in communities in Cheyenne, Logan, Morgan, Phillips, Sedgwick, Washington, Weld and Yuma Counties, including the towns of Akron, Wray and Yuma.

**Rate Area 3** includes areas in and around Castle Rock and surrounding communities, south to Monument, Fountain and Woodland Park, east to Kiowa, Limon and Burlington, and the surrounding areas to these communities.

## RISK ASSESSMENT

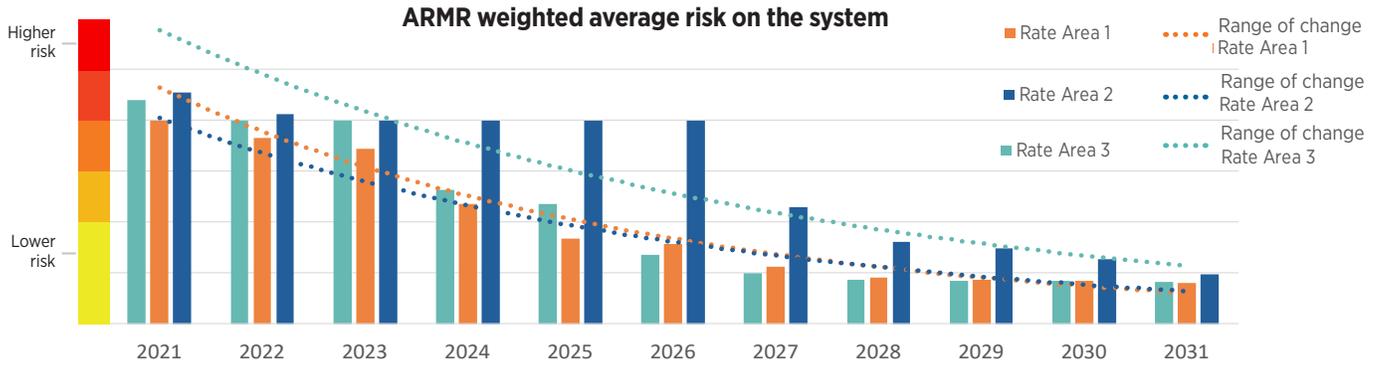
BHCG has developed a risk model, guided by the Pipeline and Hazardous Materials Safety Administration standards, and established procedures that allow for the prioritization of projects within the SSIR programs in order to mitigate risks and secure the system. The relative risk prioritization will evolve as system records are improved and projects are completed.





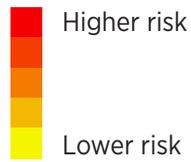
# AT-RISK METER RELOCATION AND CUSTOMER-OWNED YARD LINE REPLACEMENT PROGRAM

The At-Risk Meter Relocation (ARMR) and Customer-Owned Yard Line Replacement Program proactively mitigates risks associated with the distribution system. Under this program, meters located at a customer property line are relocated to the customer structure, excess flow valves are installed, bypass meter bars are installed, customer-owned yard lines are replaced and BHEG-owned service lines and risers will also be replaced.

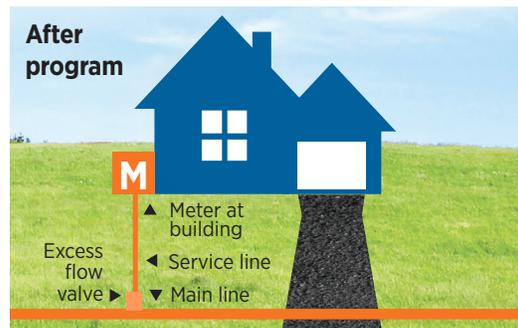
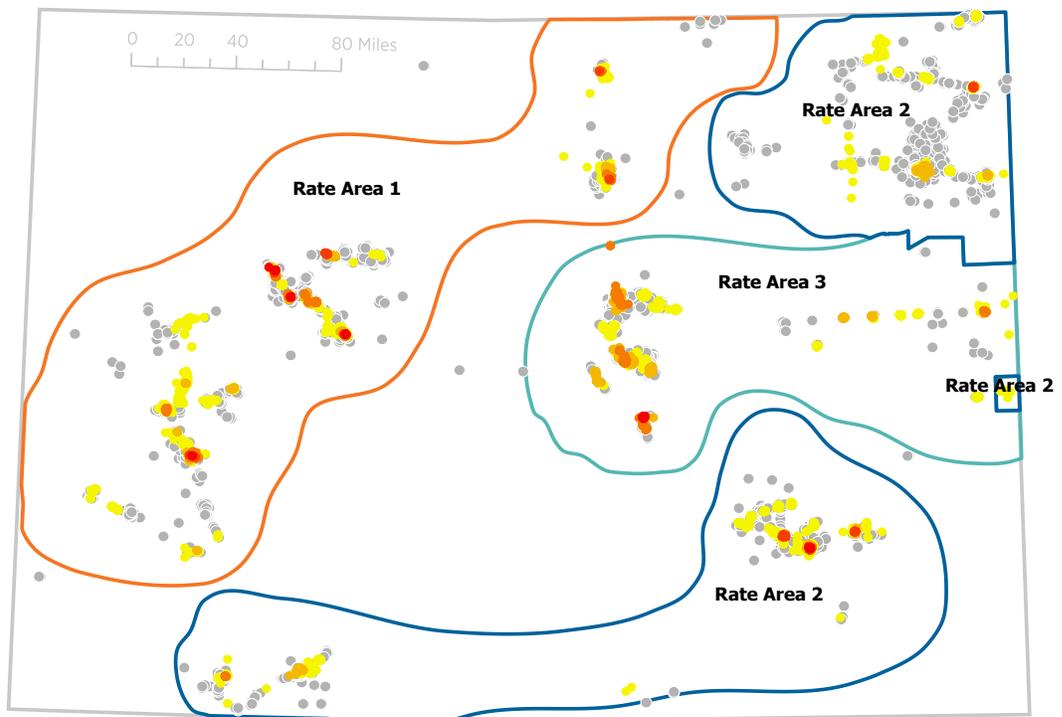


## ARMR inside 11-year program

Risk Score (relative)



## ARMR outside 11-year program



Customer-owned fuel line ⋯⋯⋯  
 BHEG-owned fuel line —





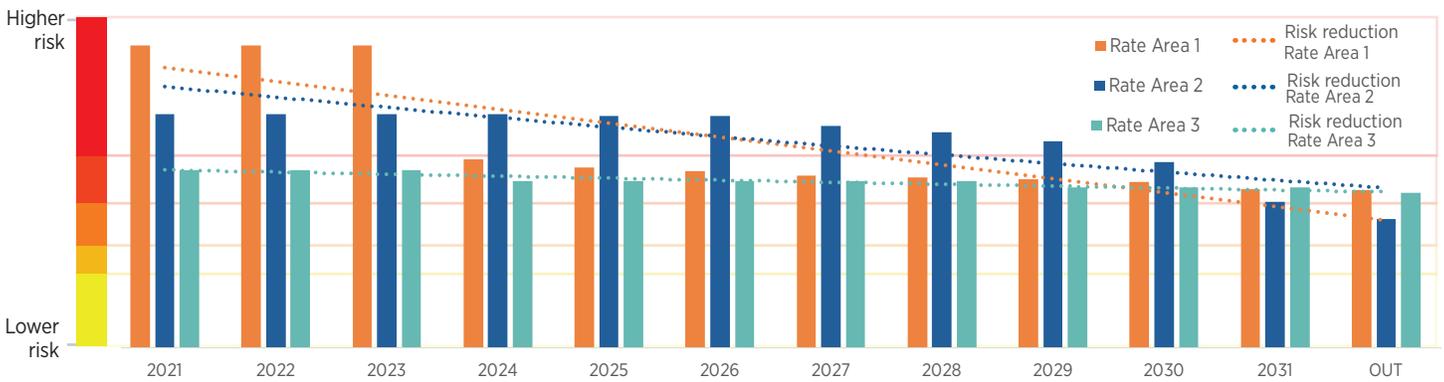
# PROBLEMATIC PIPE REPLACEMENT PROGRAM

The Problematic Pipe Replacement Program is intended to mitigate risk associated with materials that are prone to leaks and no longer used in modern gas system construction.

Currently, the following materials and issues have been identified and will be addressed under this program:

- Bare steel with cathodic protection
- Poorly coated steel
- PVC
- Thin-walled steel
- Thin-walled tubing
- Spans and exposed pipe

### Relative risk of the problematic pipe on the system

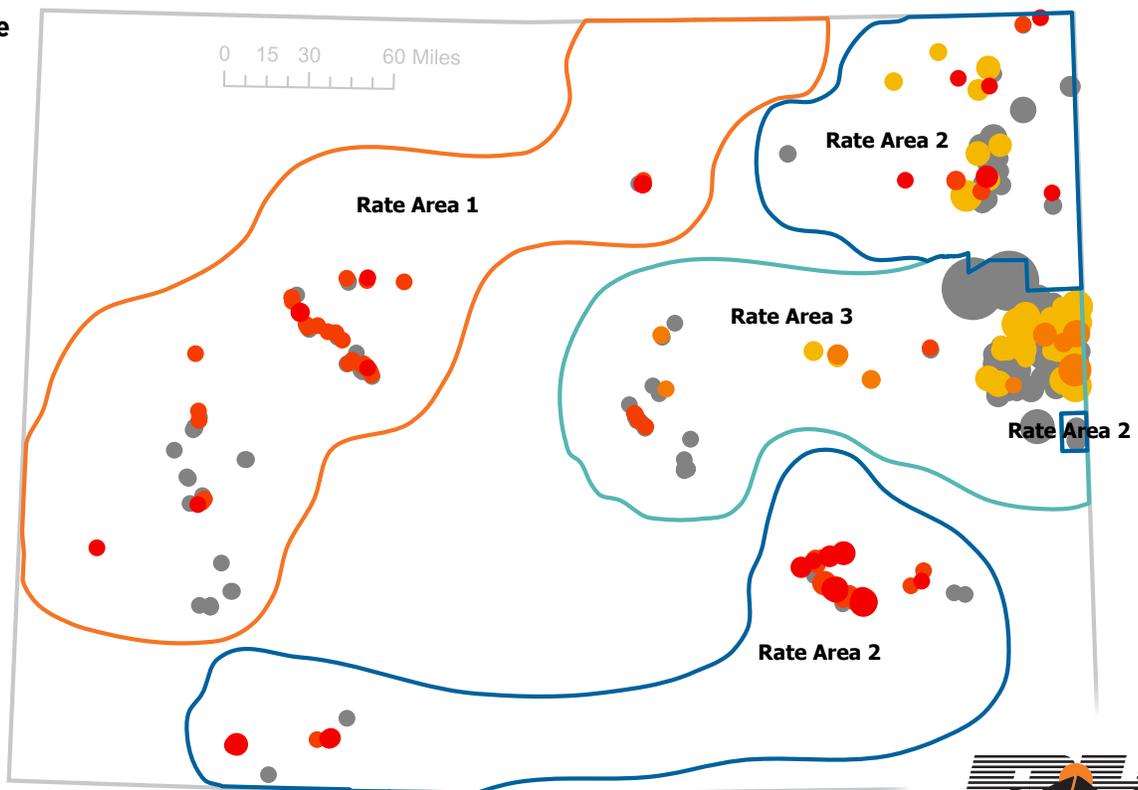


### Pipeline Footage

- 62,443.9
- 66,488.4
- 132,914
- 199,340

### Risk priority level

- Higher risk (red)
- Lower risk (yellow)
- Projects outside 11-year program (grey)

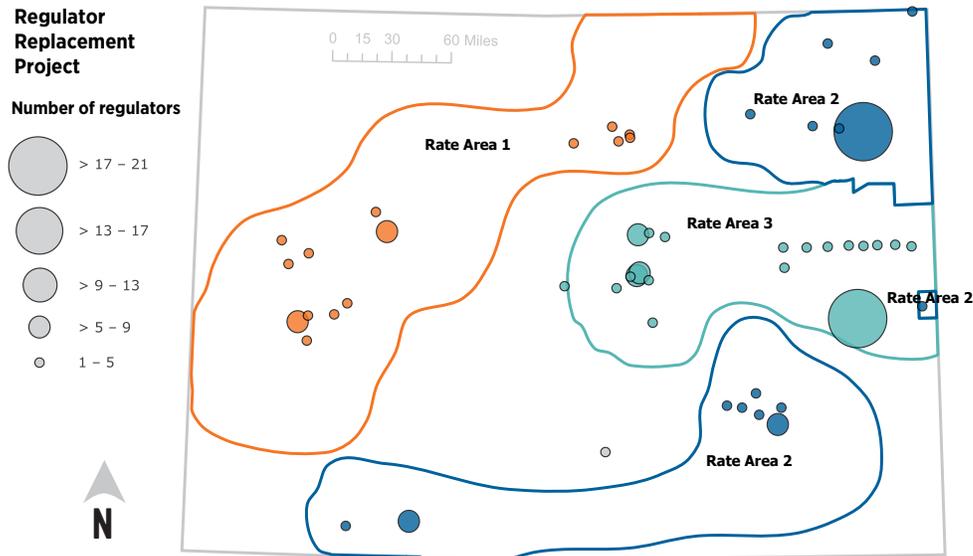




# MISCELLANEOUS PROGRAMS

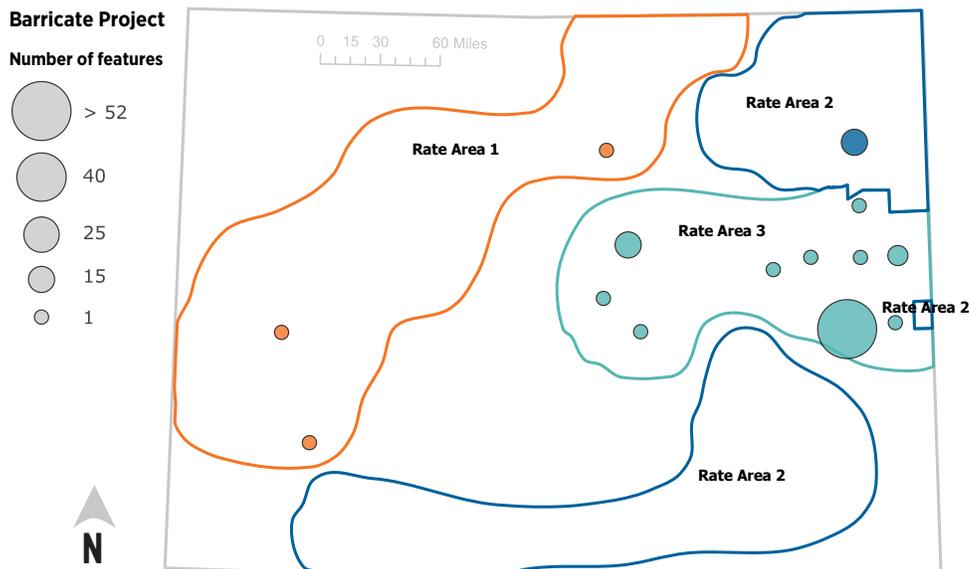
## Vintage Town Border Station and District Regulation Station Equipment Replacement Project

This program is intended to replace obsolete equipment that can no longer be repaired.



## Regulator Station Barricades Project

This program is intended to protect aboveground facilities such as regulators and valve settings that are susceptible to outside force damage through the installation of barricades.



**Cathodic Protection Project** This program will place cathodic protection on steel pipelines as required by PHMSA. This protection is necessary for any steel pipelines contacting soil, including underground pipe.

## Spans and Exposed Pipe Replacement Project

This program is intended to replace high-risk exposed segments of pipeline.

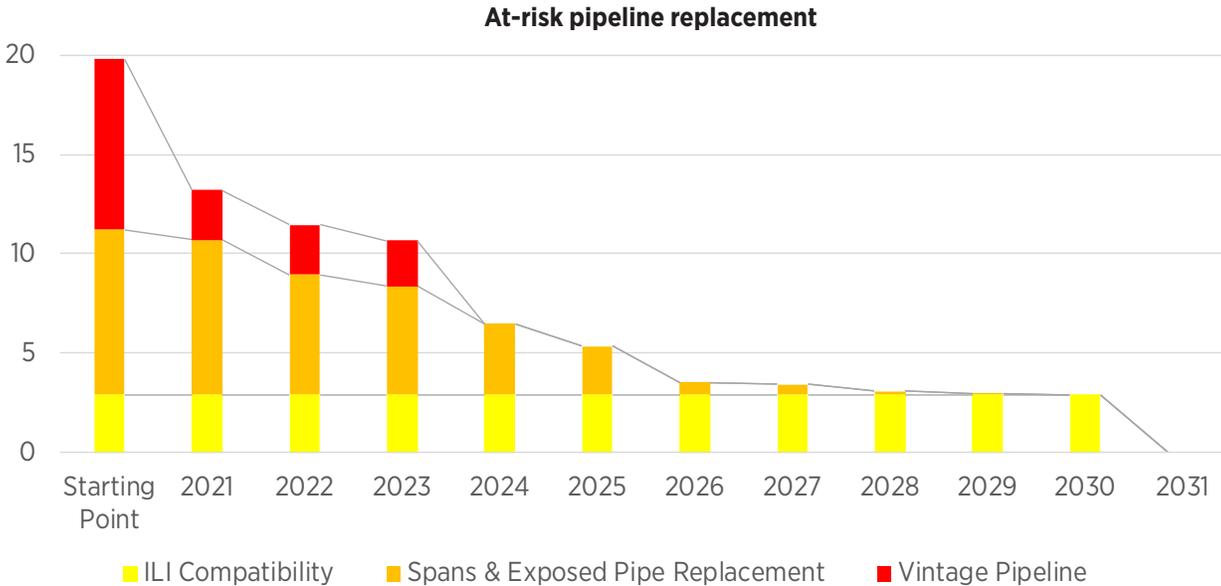




# TRANSMISSION INTEGRITY PROGRAM

## The Transmission Integrity Program

This program includes projects designed to replace at-risk pipe and aging infrastructure, evaluate specific segments of the transmission pipeline to improve data, and evaluate and eliminate issues in high consequence areas.



# DATA INFRASTRUCTURE IMPROVEMENT PROGRAM

## Data Infrastructure Improvement Program

This program is directed at advancing development of the data infrastructure for collecting and maintaining information regarding BHCG's assets. The continues system knowledge improvement initiative closes data gaps and allows BHCG to identify and mitigate risks.