



Proposed Platte-Republican Diversion Project

Oxford Landowner Meeting
January 6th, 2016



Agenda and Discussions Items

- ✓ Partners
- ✓ Project Overview
 - Platte River Excess Flows
 - Turkey Creek Flows
- ✓ Project Purpose and Status
- ✓ Landowner Concerns and Stream Hydrology Study
- ✓ Temporary Easement Request



Partners

- Lower Republican Natural Resources District (LRNRD)
- Tri-Basin NRD (TBNRD)
- Central Nebraska Public Power and Irrigation District (CNPPID)
- Landowners

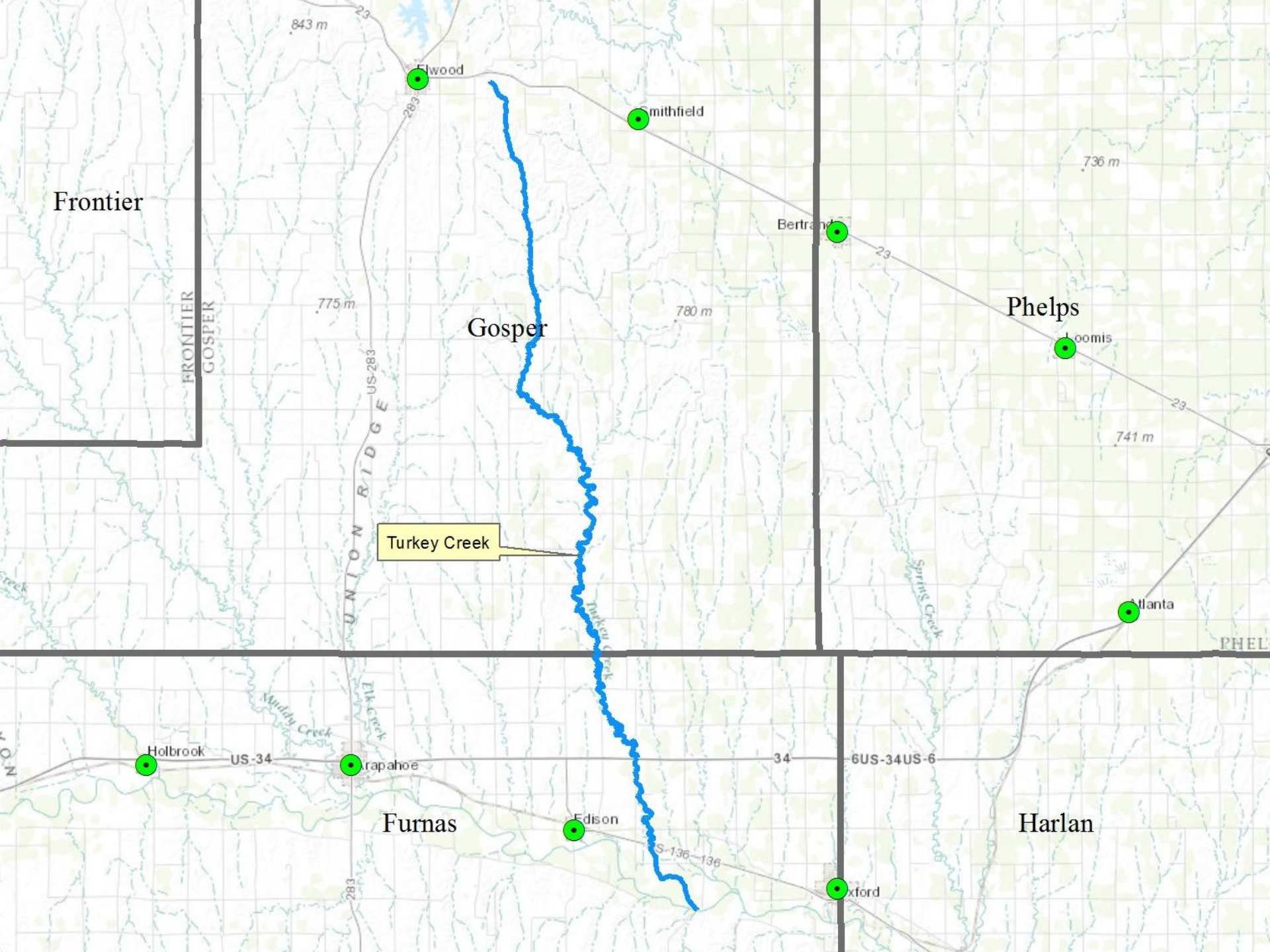


Project Overview

Overview:

- Divert floodwaters (excess flows) from the Platte River to into the Republican Basin.
 - Excess flows/floodwaters
 - Recent flooding events are becoming more frequent.

- Utilize existing water infrastructure (CNPPID) as the diversion point.
 - E-65 Canal between Smithfield and Elwood
 - 24 inch Diversion Pipe with proposed 40 CFS discharge



E-65 Canal



E-65 Canal



Outfall Location



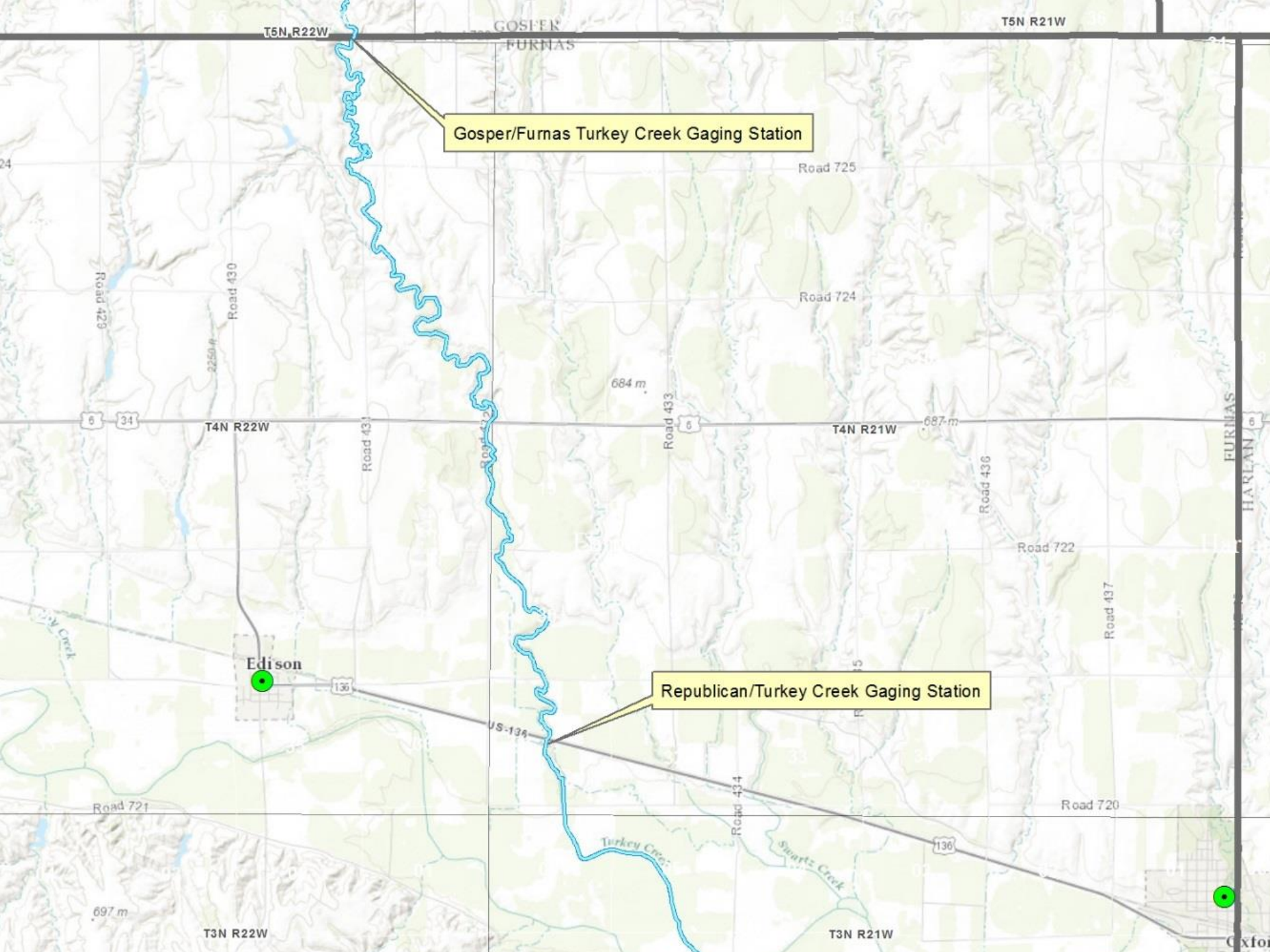
Turkey Creek Drainage adjacent to E-65





Turkey Creek Flows

Gosper County / Furnas County Line



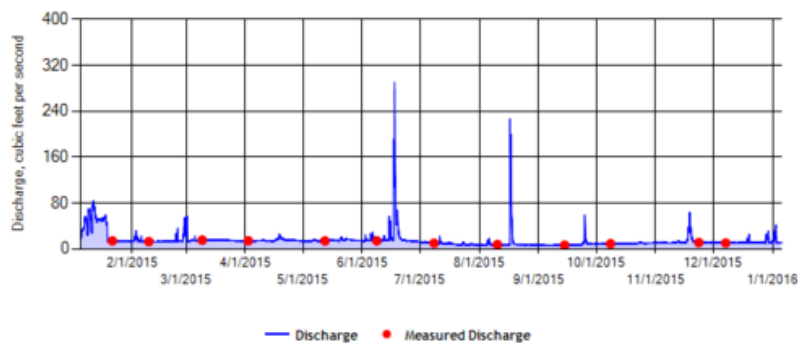
Current Streamflow **Daily Data** Measurement/Shift Data Hydrographic Reports Rating Curve

— Provisional Data Subject to Revision —

Data Range: — OR — Begin Date:
End Date:
Last five years of instantaneous data available,
retrievable one year at a time.

Instantaneous Discharge

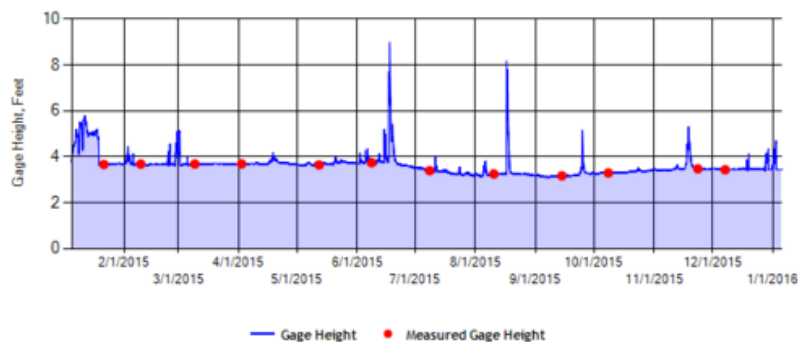
231700 – Turkey Creek at Furnas-Gosper Co. Line
1/5/2016



Data/Table

Instantaneous Stage

231700 – Turkey Creek at Furnas-Gosper Co. Line
1/5/2016



Data/Table

Provisional Data Subject to Revision

Data Range:

OR

Begin Date: 12/29/2015

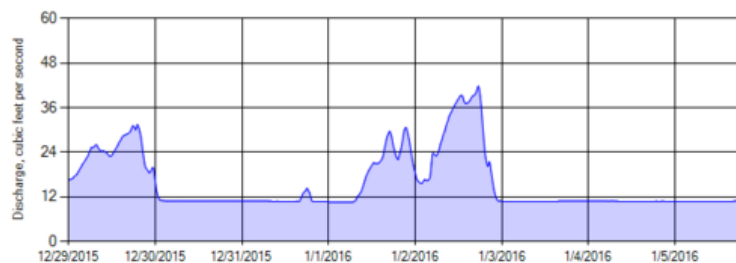
End Date: 01/05/2016

Last five years of instantaneous data available,
retrievable one year at a time.

Instantaneous Discharge

231700 - Turkey Creek at Furnas-Gosper Co. Line

1/5/2016



Discharge Measured Discharge

Data/Table

Instantaneous Stage

231700 - Turkey Creek at Furnas-Gosper Co. Line

1/5/2016

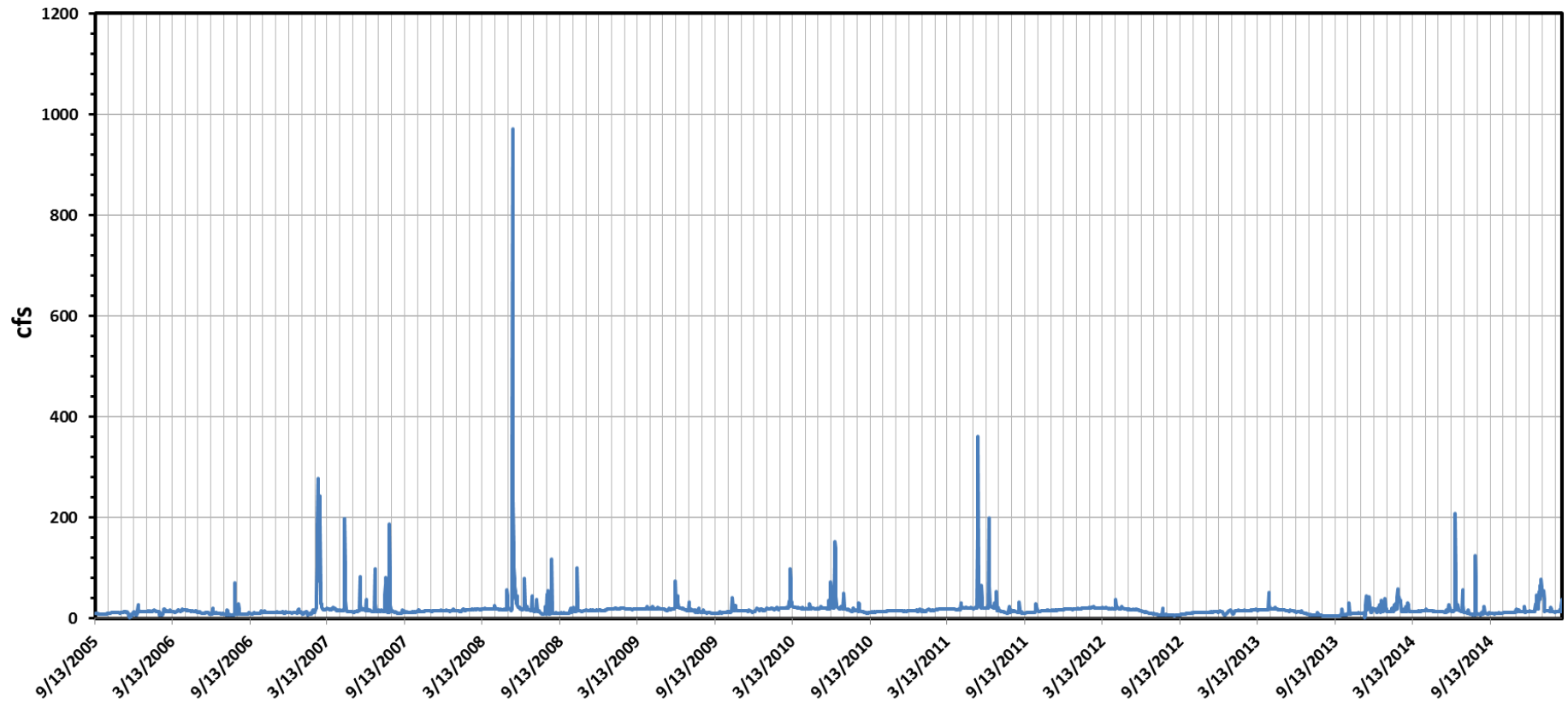


Gage Height Measured Gage Height

Data/Table

2005-2015 Turkey Creek Flows

Turkey Creek at
Gosper-Furnas Cty. Line





Turkey Creek Flows

Turkey Creek at Edison

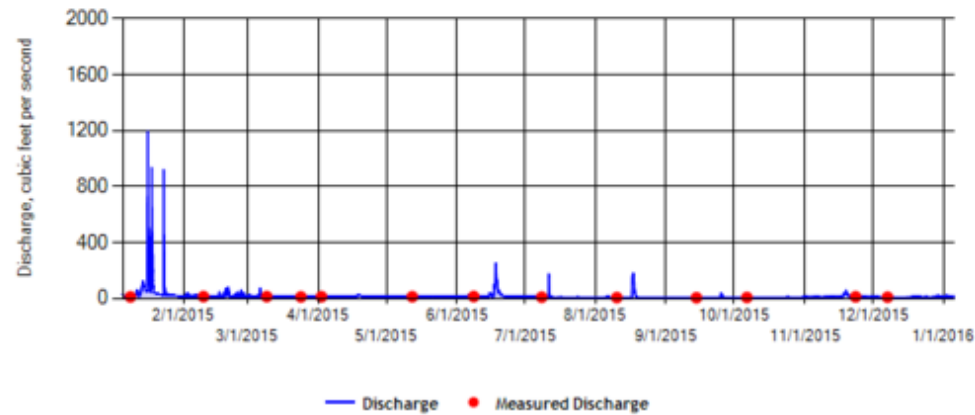
End Date: 01/05/2016

Last five years of instantaneous data available,
retrievable one year at a time.

Instantaneous Discharge

6844210 - Turkey Creek at Edison

1/5/2016

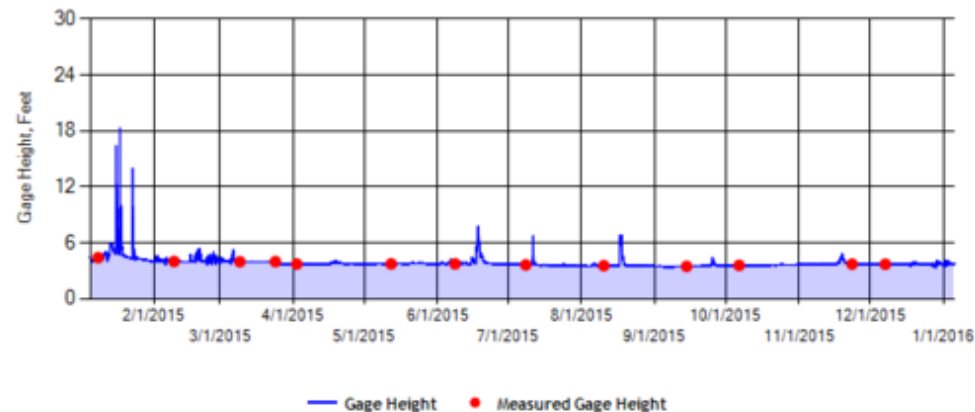


Data/Table

Instantaneous Stage

6844210 - Turkey Creek at Edison

1/5/2016



Data/Table

[Current Streamflow](#)[Daily Data](#)[Measurement/Shift Data](#)[Hydrographic Reports](#)[Rating Curve](#)

— Provisional Data Subject to Revision —

Data Range:

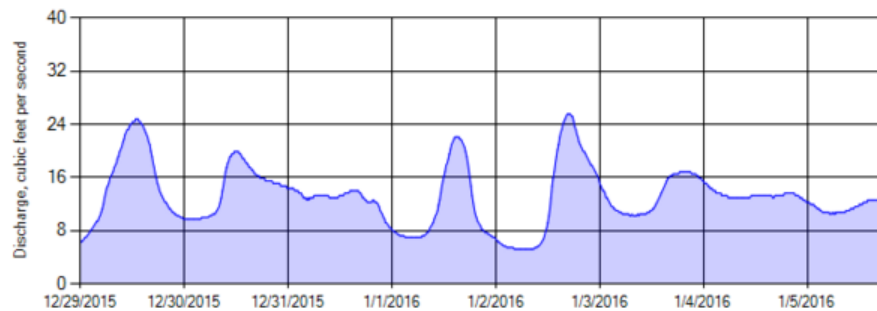
— OR —

Begin Date: End Date: Last five years of instantaneous data available,
retrievable one year at a time.

Instantaneous Discharge

6844210 – Turkey Creek at Edison

1/5/2016



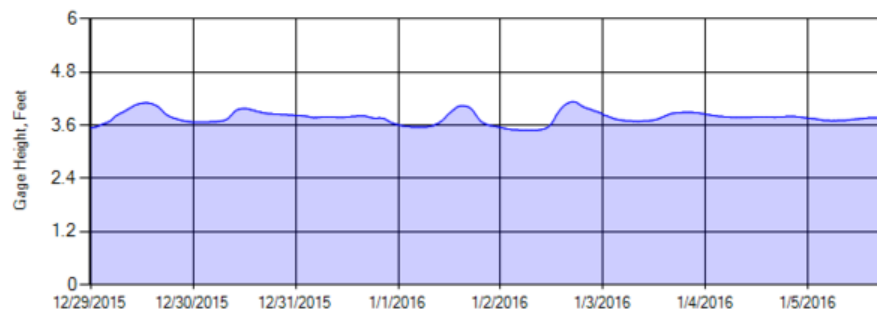
— Discharge • Measured Discharge

[Data/Table](#)

Instantaneous Stage

6844210 – Turkey Creek at Edison

1/5/2016





Project Purpose

Purpose:

- Republican River Compact Compliance / LRNRD and TBNRD Integrated Management Plan (IMP).
- LRNRD IMP Requires:
 - Assist with ensuring long-term Compact compliance, provide for a 20% reduction in pumping from the 98-02 pumping volume using a combination of regulatory and supplemental programs.
- LRNRD IMP can achieve objectives through projects that include:
 - a) Leasing or purchasing surface water and/ groundwater,
 - b) Augmentation wells, both within and outside of the Republican River Basin,
 - c) Exploring trans-basin diversion projects,**
 - d) Conjunctive management of surface water irrigation projects.



Project Purpose (cont.)

- TBNRD IMP Requires:
 - Maintain groundwater levels at or above 1981-85 average levels
 - Reduce impacts to streamflows resulting from groundwater pumping by 1000 acre-feet per year (2017) and 2000 acre-feet per year (2022)

- TBNRD IMP objectives can be achieved by either:
 - Reducing groundwater pumping
 - Reducing irrigated acres
 - Augmenting streamflows (directly or indirectly)



Project Status

- Meeting with Landowners
- TBNRD and LRNRD agreement and development of an engineering scope of services. Discussions with CNPPID.


Next Step

- Consider landowner concerns, suggestions, and recommendation.
- Select and Engineering/Hydrologist to evaluate conditions and concerns.



Landowner Concerns and Stream Hydrology Study

- Erosion
- Low Water Crossings
- Cattle
- Wildlife Impacts/Deer Hunting/Vegetation Removal
- Bridges/Culverts/Roads
- Request for a permanent easement at this time
- Vegetation Removal



Selection of an Engineering Firm /Hydrologist

- Determine acceptable stream flow and necessary engineering structures.
- Identify features of concerns.
 - Bridges /Culverts, low water crossings,
 - Erosion points, high bank,
 - Vegetation stabilization.
- Construction timing considerations.
 - Coordinate with individual landowners to consider agriculture or recreational interest (hunting).
- Develop permits and regulatory compliance efforts.
- Develop Project Cost and Timeline.



Temporary Easement / Access Request

Landowner Easement included with the letter dated 12/23/2015 has changed.

- Per suggestions from landowners we would like to only pursue a temporary easement.
- Temporary Easement would allow us (engineering firm) to gain access to your property for surveying, soil sampling and other exploratory activities.
- The Temporary Easement is proposed at eighteen months.



Thank you

Scott Dicke

Lower Republican NRD

30 North John Street

Alma, Nebraska 68920

308.928.2182