



## Two Rivers Sand, Gravel and Reservoir Project





# Southwest Corner Looking Northeast





- The need for local construction materials drives what we do. Northern Colorado is growing, and demand for materials is growing along with it. Geologic conditions determine where we can find suitable materials. Distance to the projects that need our products also determines the feasibility of a mine site. We manufacture materials locally for local projects.
- The Project is transitional, as Raptor's East Greeley Reserves deplete, we will move to the Two Rivers site. This ensures that our employees continue working and projects continue to get construction materials.
- The back-end of the project creates a multi-benefit land use. Water storage is also necessary for growing communities. At the same time, we create a permanent buffer and protect riparian areas permanently.



## Technical Slides (Mining & Reclamation)



Southeast Corner Looking North



# Two Rivers Project

- Extraction area of approximately 204 acres within a permit area of 409 acres
- Extraction of essential construction material for approximately 25 years (demand driven) in small footprints with progressive reclamation
- Extraction uses small (typical of road work) excavators and trucks
- Processing and handling of damp material with additional dust suppression on roads to minimize dust
- Conversion to lined water storage reservoirs upon completion providing wildlife habitat and creating 5,375 acre-feet of water storage.

## The Mining Process

- Excavation
  - Topsoil is stripped and set aside for reclamation.
  - Alluvial sands and gravels are dug from the ground using an excavator.





- Processing

- The sands and gravels are moved via haul truck, conveyor or a combination of both to the processing site.
- Material is processed by screening, washing and crushing.
- Processing creates numerous products necessary for construction. Washed rock and sand, road base and fill material.
- These products are the basis for everything constructed in our community.









# Two Rivers Project Permitting Process

**We wish it were simpler too...**

- Permitting is a multilayered process involving numerous agencies at federal, state and local level issuing several permits.
- The **Colorado Division of Reclamation, Mining and Safety** (DRMS) is the lead state agency for issuing mining and reclamation permits and for enforcing acts and regulations in Colorado.
- The mission of the DRMS is to protect the public, miners and the environment during current mining operations, restore abandoned mines, and to ensure that all mined land is reclaimed to beneficial use.



# Two Rivers Project Permitting Process

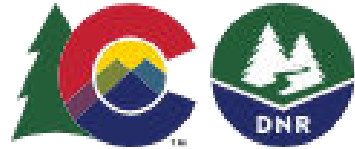
- Permits/clearances are also required from:
  - The **Colorado Department of Public Health and Environment** which has jurisdiction in enforcing air, surface and ground water quality standards.
  - The **Division of Water Resources** has jurisdiction over water rights and water quantity related issues for both surface water and groundwater.
  - History Colorado (State Historic Preservation Office) – clearance pending
  - U.S. Department of the Army Corps of Engineers regulates certain activities in Waters of the US – “No Permit Required” verification received



**COLORADO**  
Department of  
Natural Resources



**COLORADO**  
Division of Water Resources  
Department of Natural Resources



**COLORADO**  
Division of Reclamation,  
Mining and Safety  
Department of Natural Resources



**COLORADO**  
Department of Public  
Health & Environment



Clean water permits



Air Emissions





# Two Rivers Project DRMS Permit (Approved)

- Addresses mining and reclamation activities with particular attention to:
  - Minimizing impacts to surface and groundwater
  - Minimizing impacts on wildlife
  - Management of soils and vegetation, including weed management
  - Protection of man-made structures near the operation
  - Establishing the amount of financial warranty to be posted to ensure reclamation is completed
- Thorough review (5 rounds of adequacy correspondence) by DRMS with extensive input from CO Parks & Wildlife and water specialists.
- You can review the permit application as deemed adequate and approved on our website.
- <https://tworiversproject.coloradowise.com/>



# Two Rivers Project Other Permits

A common question is why or how can the DRMS approve mining if other permits are not in place.

- Simply, the permit is issued which allows some other permitting processes to move forward.
- The DRMS permit requires that other permits be in place before mining commences.
- Other permits required are detailed in Exhibit M of the permit application and include:
  - Various air emission and water discharge permits from CDPHE,
  - Division of Water Resources permit addressing groundwater disturbance,
  - History Colorado clearance based on completed archeology survey, and
  - Appropriate approvals from the City of Evans.



# Two Rivers Project Accountability

Primary accountability for adhering to regulations or where permit stipulations exceed regulatory requirements lies with the DRMS, however other agencies will be actively engaged.

- As mentioned, a financial warranty will be held by the DRMS until reclamation of the site is completed. The current amount exceeds \$1.2M and the DRMS will review and adjust as needed over time.
- The DRMS and other agencies will conduct inspections of the property to ensure operations are in full compliance with the regulations and permit conditions.
- If Raptor fails to meet its obligations, penalties may include fines and if not rectified, the ultimate consequence may be loss of the permit.
- Raptor will submit an annual report to DRMS detailing activity within the permit. Water level and quality information is also submitted.



Approx 409-acre  
Permit Area

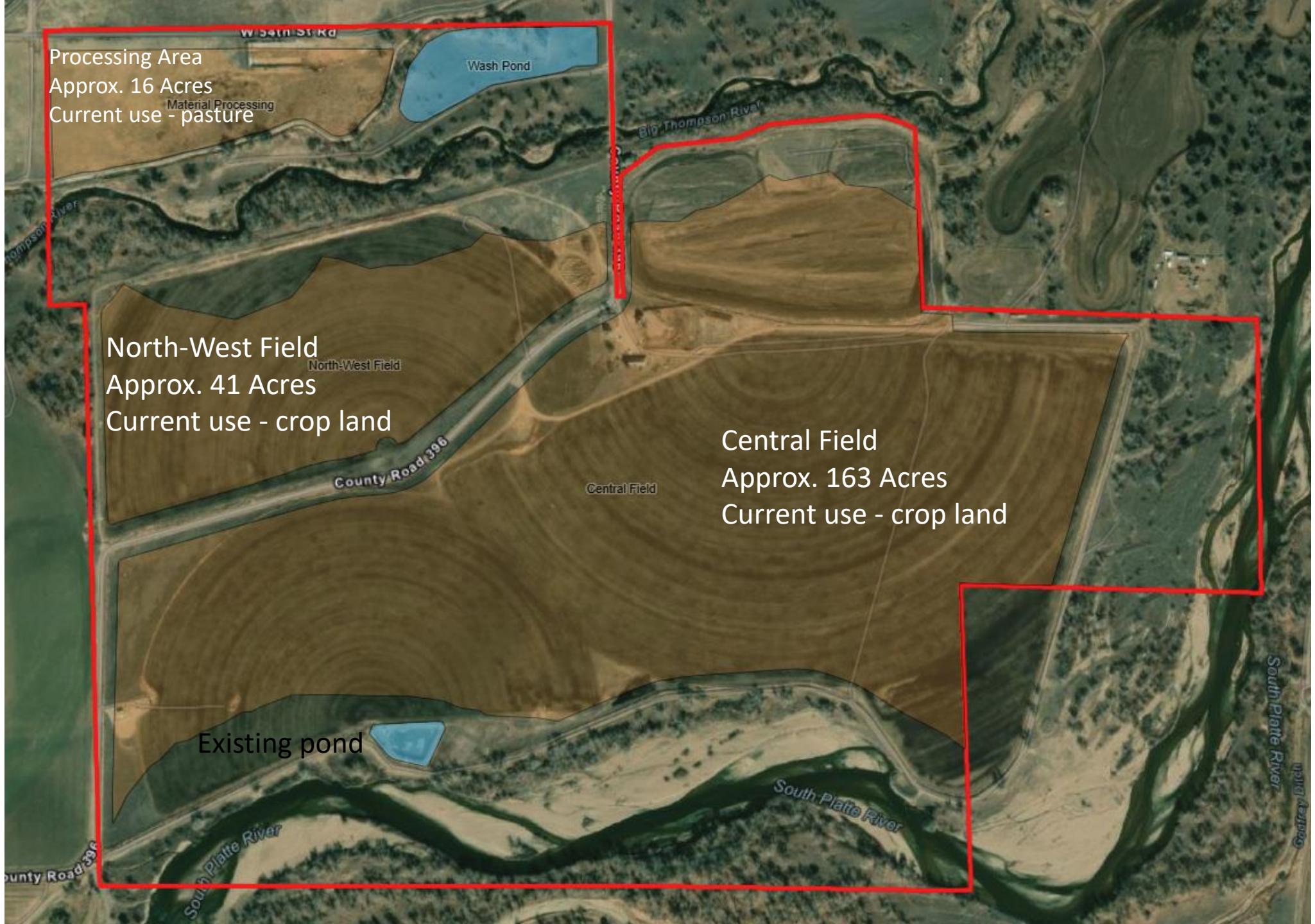


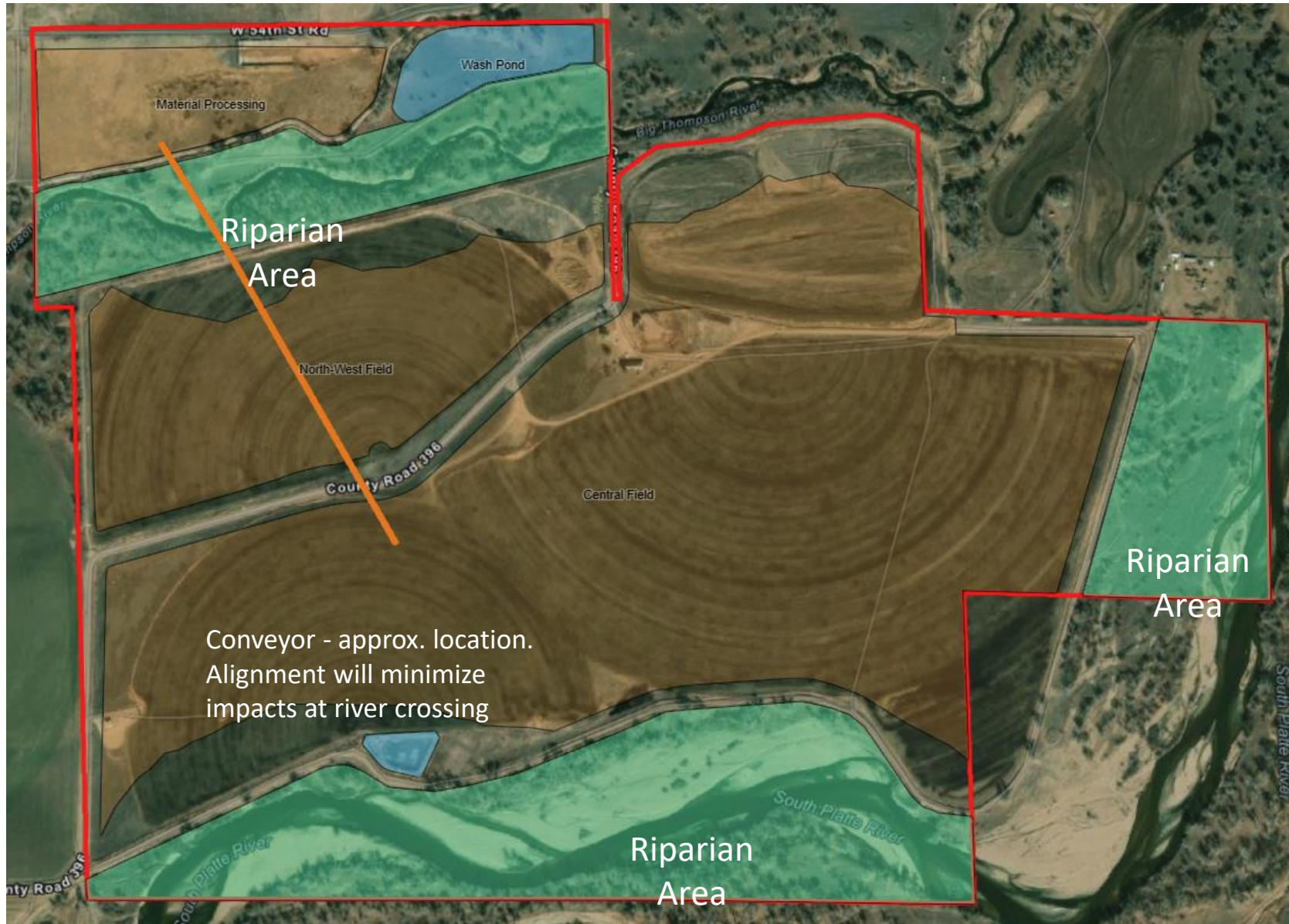
Processing Area  
Approx. 16 Acres  
Current use - pasture

North-West Field  
Approx. 41 Acres  
Current use - crop land

Central Field  
Approx. 163 Acres  
Current use - crop land

Existing pond



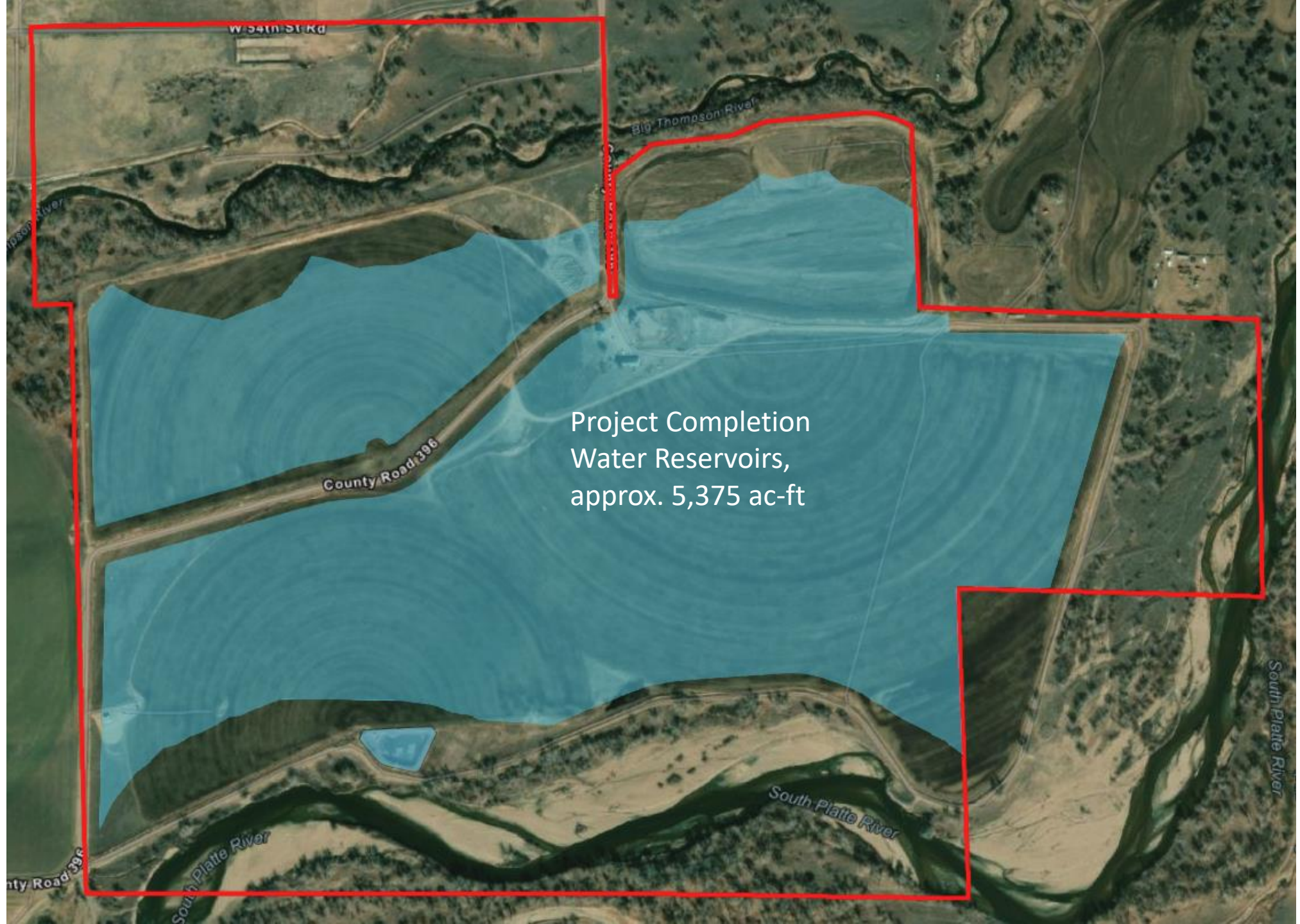


Riparian Area

Riparian Area

Riparian Area

Conveyor - approx. location.  
Alignment will minimize  
impacts at river crossing



Project Completion  
Water Reservoirs,  
approx. 5,375 ac-ft



49th St

49th St

49th St

Two Rivers Pkwy

77th Ave

77th Ave

County Road 27-112

County Road 378

County Road 396

County Road 394

Elm

Dos Rios

Caballo Trl

W 54th St Rd

W 54th St Rd

South Platte River

Project Completion  
Water Reservoirs,  
approx. 5,375 ac-ft



