

Presented to the City Council on April 25, 2023
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City of Craig: Water Rights Analysis

Overview

- Water Right Analysis Goals
 - Progress Report
- Key Take-Home Points
- Next Steps



Water Right Analysis – Project Tasks and Progress Report

Goals, Tasks and Progress

- Document the City's water rights portfolio
- Secure the City's water rights against future challenges
- Analyze the ability of the City's water rights portfolio to meet future demands
- Set up the City for future success

Task	Status
1. Kick-off Meeting and Coordination	Completed October 2022
2. Review Water Rights and SEO Reporting	85% Complete
3. Water Rights Yield Modeling	Completed March 2023
4. Scope Additional Studies	50% Complete
5. Final Report	95% Complete



Task 2: Review Water Rights and SEO Reporting

85% Complete

Task 2: Review Water Rights and SEO Reporting

- City holds 4 direct diversion rights that can be used at the Water Treatment Plant
- WWG created a new accounting form for the City that tracks diversions by water rights
- This provides a record of use and helps prevent abandonment in the future
- Preliminary approval by DWR

Name	Amount (cfs)	Appropriation Date	Case No.
Fortification Creek Irrigating Ditch	7.00	5/18/1884	W-821-75
Deep Cut Irrigation Ditch	8.29	12/1/1884	W-823
Craig Irrigation Ditch	1.33	3/31/1890	W-820-75
Craig Water Supply Pipeline	7.92	12/31/1915	W-822-75

Task 2: Review Water Rights and SEO Reporting

- In Elkhead Reservoir, the City holds:
 - 1 absolute storage right
 - 1 conditional storage right, known as the California Park Reservoir
- Risk to the City of not showing sufficient progress toward developing the California Park Reservoir right in the next diligence case
- Working with the River District to enhance Elkhead Reservoir accounting spreadsheet to show the City is storing and using the California Park Reservoir right
 - Need DWR approval

In-reservoir: Not a useful municipal supply

Name	Amount (acre-feet)	Priority Date	Case No.	Beneficial Uses
Absolute Right	5,389	10/1/1966	CA2259 & W0973	fish propagation, wildfowl habitat, production of fur-bearing mammals and other recreational uses
California Park Reservoir	4,945	8/7/1962	CA2259 & 93CW131 & 18CW3032	irrigation, domestic, stock watering, municipal, industrial, power generation, recreational

Useful municipal supply!



Task 3: Water Rights Yield Modeling

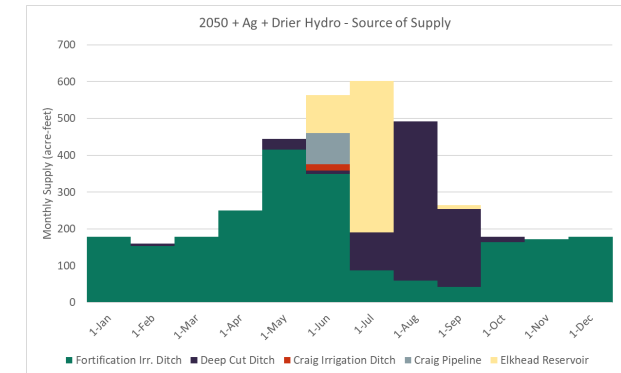
Completed March 2023

Task 3: Water Rights Yield Modeling

- Refined the State of Colorado's water rights allocation model (StateMod) to represent the details of the City's water right portfolio, including California Park Reservoir.
- Create 2050 Demands for the City
- Test under a variety of potential future conditions
- 1,000 acre-foot lease to agriculture from Elkhead Reservoir

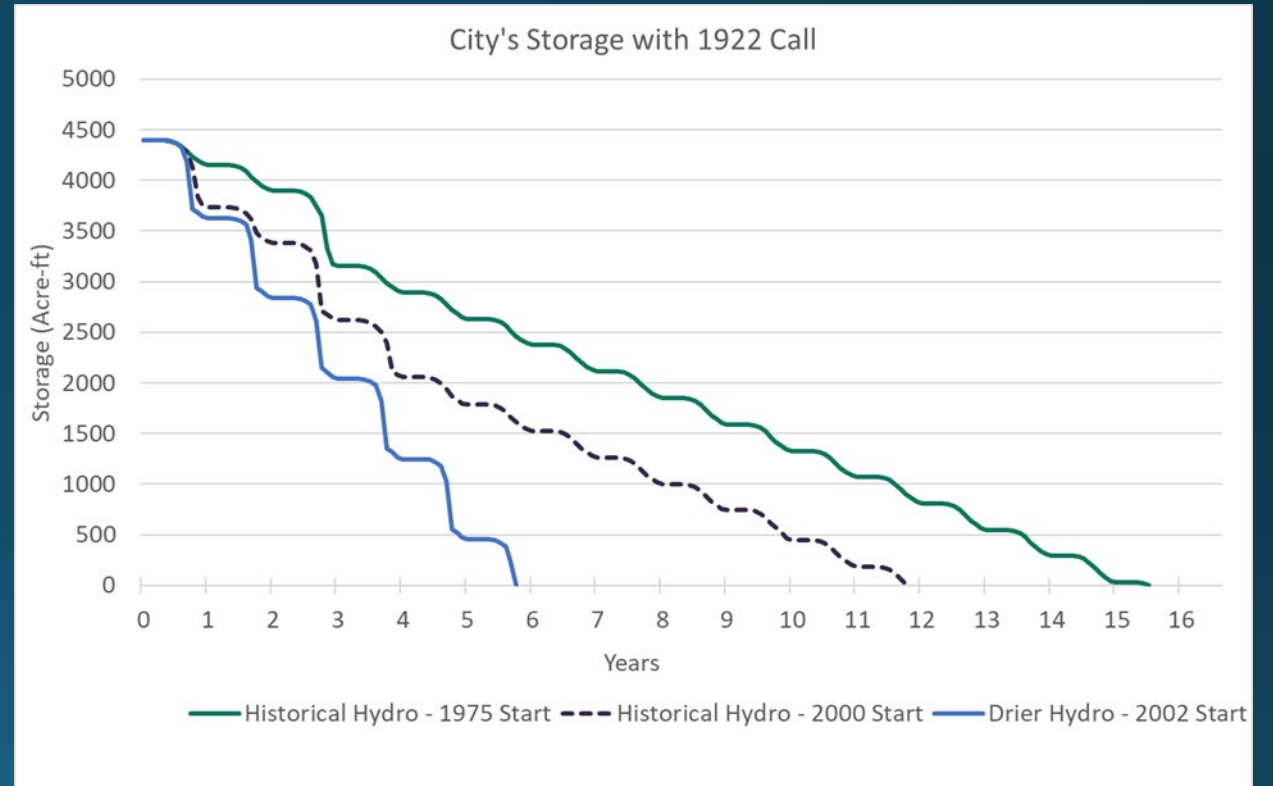
Task 3: Water Rights Yield Modeling

- Key point:
- City's water supplies are sufficient to meet 2050 potable demands and 1,000 acre-foot agricultural lease, even with 2002 hydrology multiple years in a row and an extended Lily Park call
 - Municipal demands are met mostly by river diversions
 - Municipal uses about 530 acre-feet per year from Elkhead Reservoir



Task 3: Water Rights Yield Modeling

- What if there was a 1922 call year-round?
- Storage in Elkhead Reservoir could not refill
 - Assume the City starts with a full pool
 - Suspend leasing to agriculture





Task 4: Scope Additional Studies

50% Complete

Task 4: Scope Additional Studies

- As part of the updated diversion accounting, the City needs to track low-flow conditions on Fortification Creek
- Preferred solution is real-time stage measurement connected to City's SCADA system
- WWG assisted with grant writing for the Yampa-White-Green BRT
- Grant Committee has recommended the BRT approve the City's request for \$10,000 to fund necessary equipment
- Outstanding task – develop SOW for Drought Mitigation and Response Plan



Task 5: Final Report

95% Complete

Task 5: Final Report

- WWG has provided a draft report to the City
 - Details of the water rights yield modeling
 - Whitewater park considerations
 - User's guide to the accounting form
 - Related documentation
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- Outstanding task – respond to any comments from the City

Next Steps

- Finalize Elkhead Reservoir accounting to include California Park Reservoir Right
 - Lead → WWG
- Develop SOW for Drought Mitigation and Response Plan
 - Lead → WWG
- Install measurement device on Fortification Creek
 - Lead → City
- Met terms and conditions for diligence for California Park Reservoir
 - Lead → City

Questions?

Thank you!

Lisa Brown

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