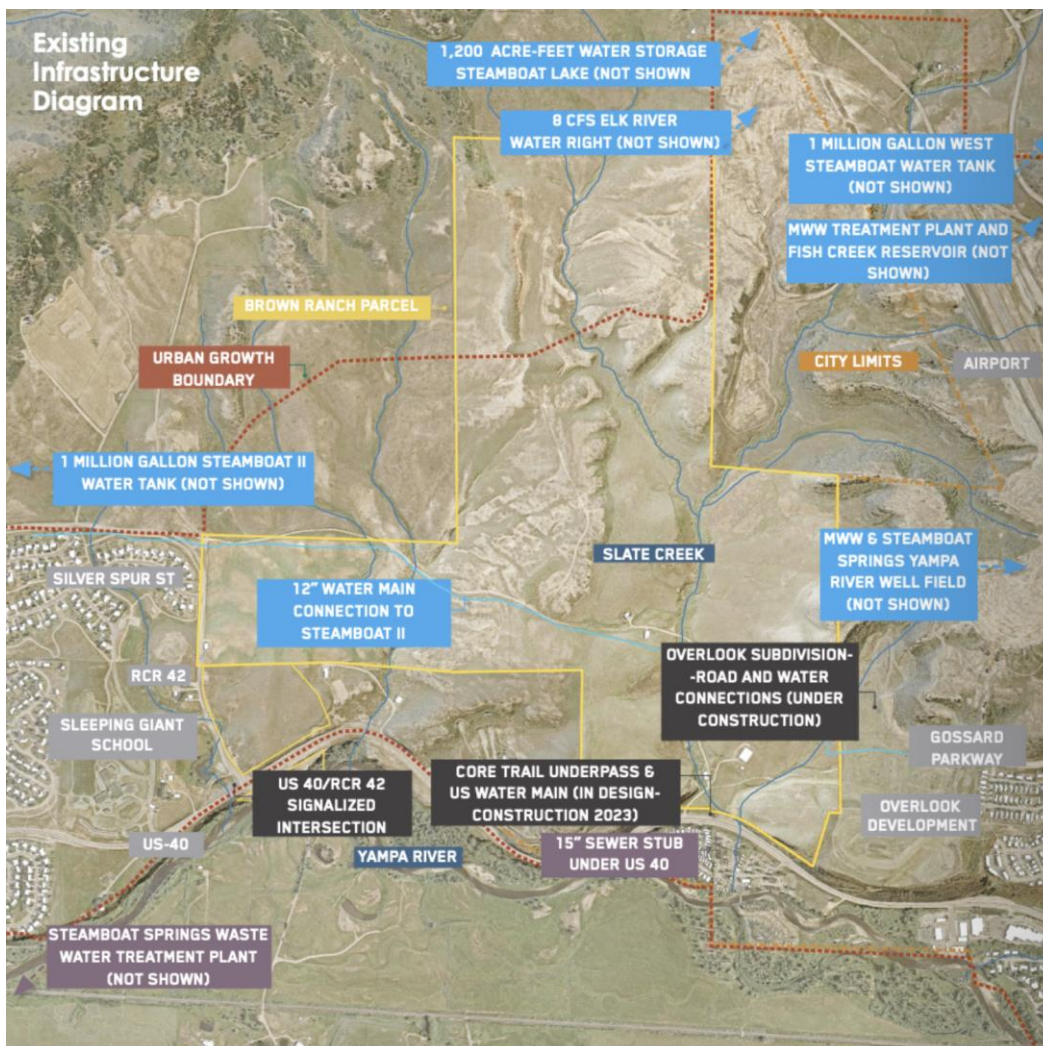


# BL BROWN RANCH



## *Brown Ranch Community Development Plan* Issue Area: Water, wastewater, and stormwater



**Background/History:** The Yampa Valley Housing Authority (YVHA) spent a year in 2022 engaging the community to understand local housing needs, as well as community

members' hopes and concerns about Brown Ranch. To date, YVHA has connected with over 3,300 community members. YVHA paired this unprecedented community input with technical study by local and national experts and consultants. The result is the *Brown Ranch Community Development Plan*, a comprehensive vision to guide development of the Brown Ranch. The Plan is available for review [using this link](#). As the Brown Ranch Annexation Committee (BRAC) members discuss topics integral to the annexation agreement, it is important to include the priorities already identified by the community during the Brown Ranch community outreach efforts, as well as sustainability measures YVHA has built into the vision for Brown Ranch.

This paper includes highlights from the *Brown Ranch Community Development Plan*, as well as topically relevant [recommendations from the Urban Land Institute](#). More information can be found on the Brown Ranch website: [www.brownrachsteamboat.org](http://www.brownrachsteamboat.org)

## **BROWN RANCH COMMUNITY DEVELOPMENT PLAN HIGHLIGHTS**

### **WATER**

#### **a. Sustainability Framework (pp. 108 - 113):**

- Buildings should be designed to meet the highest standards for indoor water efficiency:
  - Use low-flow fixtures for all buildings.
  - Minimize installation of hose-bibs to discourage outdoor water use.
  - Minimize water waste while waiting for hot water by using on-demand water heaters, loop systems or water-saving levers on faucets and shower heads.
  - Consider rain barrels for irrigation, car washing, etc. Maintenance program required to prevent mosquito breeding and algae.
- Limit irrigation water to public spaces only. Limit new turf to areas when turf is needed for the public function (no decorative turf).
- Prevent irrigation of private open spaces in Single Family Attached and Single Family Detached homes. Limit irrigation in multi-family buildings.
- Use drought tolerant native and adaptive landscapes throughout the development.
- Explore the potential use of non-potable water for public irrigation.
- Follow the *Climate Action Plan* and *Water Conservation Plan*.

#### **b. Distribution Strategies (p. 128):**

- The Brown Ranch on-site water distribution plans to include water mains, fire hydrants, pressure boosting pumps and pressure reducing valves. The size, phasing and cost of the on-site distribution will be determined in a subsequent scope of work. Suggestions include:

- **Grid Network:** Locate the water mains within the street network to allow for ongoing access, as is typical. Use a traditional street grid (as opposed to cul-de-sacs) which will allow for water distribution efficiency.
- **Adaptive re-use of grey water:** Create a grey-water or non-potable irrigation system to irrigate public parks that reduces demand.
- **Valve and Metering:** Create a valve and metering system to allow for two-way flow to the Steamboat II metro District and full use of the one-million-gallon water tank located in Steamboat II.

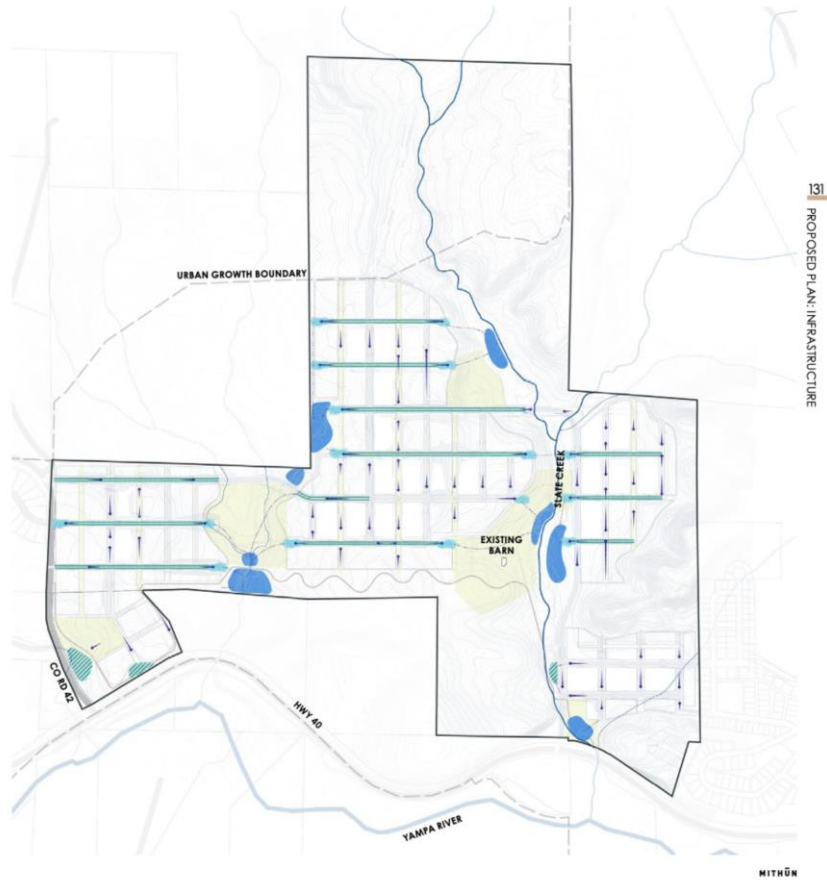
**WASTEWATER (p. 129):**

- The current treatment plant is operating at 70% capacity. Design of an expansion is required when 80% capacity is reached.
- Service to the west basin of Brown Ranch requires coordination and cooperation with the Steamboat II Metro District or lift station to pump sewage to the east basin of Brown Ranch.
- A grey water system that reduces loading the treatment plant is also a possibility but will come with additional plumbing or infrastructure costs.
- Brown Ranch will be required to construct all on-site collection infrastructure - including mains, manholes and lift stations. The scope, phasing, size and cost is dependent on the physical footprint of the Brown Ranch.
- The Overlook Subdivision has a sewer easement across the Brown Ranch connecting Emerson Trail to US 40. Overlook is required to construct a sewer main in this easement to service their project.

**STORMWATER (pp. 130-131):**

- **Sustainability principles (pp. 148-150):**
  - Integrate stormwater strategies with creek restoration to achieve water quality and channel protection goals.
  - Reduce impervious surfaces.
  - Deliver quality water to Yampa River.
  - Integrate solutions with urban design & open space.
  - Design for retention vs. conveyance.
  - Pursue long-term runoff barrier solutions.
  - Maximize groundwater recharge.
- **Drainage (pp. 130-131):** The overall drainage and stormwater approach for Brown Ranch is focused on regional water quality and detention.
  - Large detention areas are strategically located within open space and natural drainage corridors.
  - Water quality is handled throughout the site, including within seals along the east-west streets and at key discharge points.
  - This regional approach requires an early investment in drainage infrastructure but provides the benefit of development flexibility for each block.

- Improvements to the Slate Creek drainage corridor and the western drainage area will be essential in incorporating areas for detention while improving these areas for people, recreation, and open space.
- See Drainage map below.



**URBAN LAND INSTITUTE RECOMMENDATIONS AND HIGHLIGHTS:**

Between December 4<sup>th</sup>-9<sup>th</sup>, Yampa Valley Housing Authority hosted the Urban Land Institute and a panel of national experts and practitioners in development, affordable housing, public policy, and finance to kickstart implementation of the *Brown Ranch Community Development Plan*. This weeklong intensive process included a detailed and critical review of the Plan, interviews with local leaders and stakeholders, and the development of recommendations related to funding, the construction labor force,

engagement with the private sector, and other major issues associated with making Brown Ranch a reality.

The following are ULI recommendations that relate to the issue of water, wastewater, and stormwater.

**City Services/Capacity:**

- The capacity of municipal services to meet demand of *Brown Ranch Community Development Plan* implementation needs to be built before it is needed.
- Consider the need for short-term operational capacity to process entitlements and issue permits, consider partnering with Routt County for PW inspections. Consider contract services with City oversight.
- Water: *Community Development Plan* considers non-potable water irrigation for landscaping. Retain water on-site for landscaping. Consider the cost/revenue options of installing wastewater treatment systems to generate non-potable water to use for landscaping.