

# CITY OF ABERDEEN WASTEWATER IMPROVEMENTS

March 3, 2021

## Land Application System and Winter Storage Lagoon Proposal

### BACKGROUND

The City of Aberdeen currently treats the City's residential, commercial, and industrial wastewater at the City's Wastewater Treatment Plant (WWTP). Following treatment, the wastewater is discharged to Hazard Creek under a NPDES permit issued by the US Environmental Protection Agency (EPA). This permit requires the City to meet strict discharge limits for phosphorus by 2026. The City's existing WWTP cannot remove enough phosphorus to comply with these permit limits. Because of this, the City must implement upgrades to prevent the discharge of the phosphorus to the creek.

### PROPOSED ALTERNATIVE

To meet the required phosphorus limits, the City can either upgrade the WWTP to remove phosphorus, or the City can eliminate discharge to Hazard Creek altogether and use the treated wastewater for irrigation of farm fields east of town in a process known as land application. The City's preferred alternative is to apply the treated wastewater as irrigation to farm fields for the following reasons:

#### Lowest Risk

- Decreases risk of need for additional WWTP upgrades in the future due to more stringent discharge limits (e.g. Ammonia limit)
- Eliminates risk of regulatory fines due to discharge violations

#### Reduced Burden on WWTP Operators

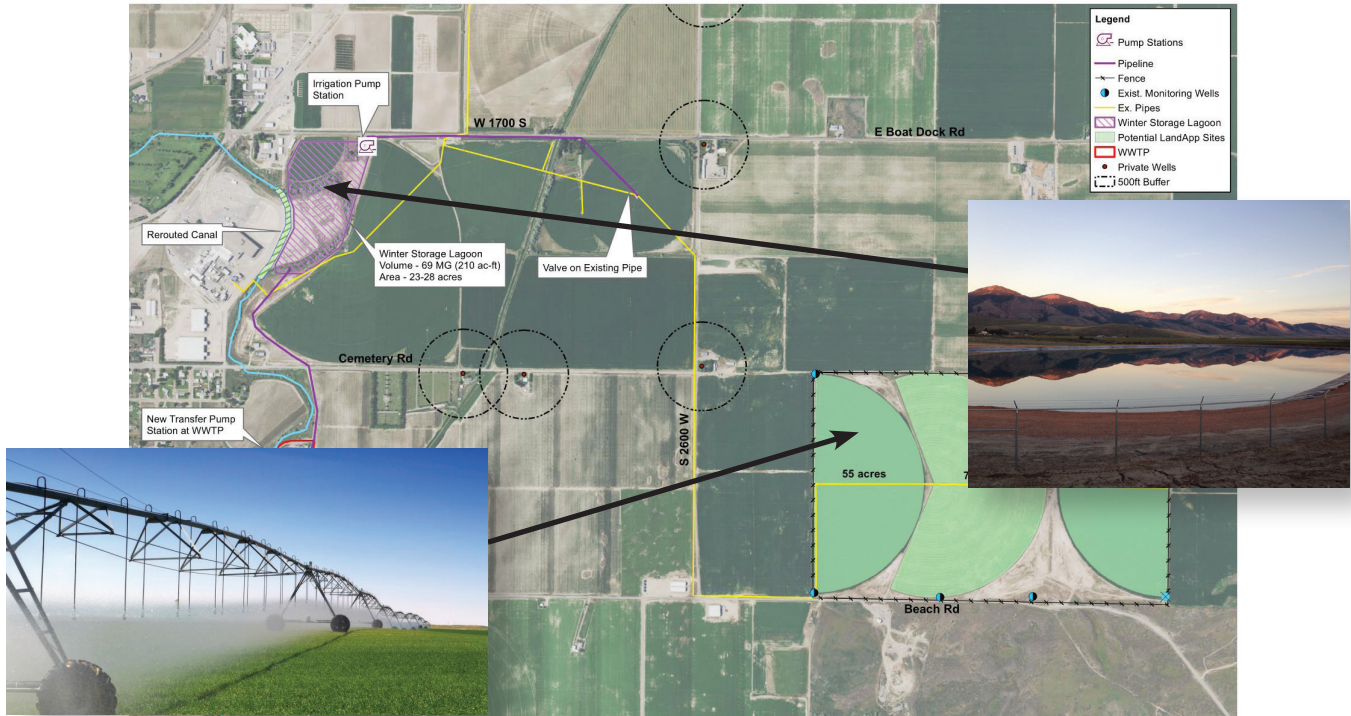
- Avoids highly technical WWTP upgrades

**Cost of alternative was reduced significantly due to long-term land lease offer by Simplot**

**Most sustainable alternative – treats phosphorus as fertilizer in the water to grow appropriate crops rather than a pollutant to be removed**

## ALTERNATIVE DESCRIPTION

The City's preferred alternative is to eliminate the discharge of treated wastewater and begin using the treated wastewater in a land application system and winter storage lagoon. This alternative entails rerouting a short section of Hazard Creek along Simplot's property south of E Boat Dock Road, constructing an approximately 28-acre, HDPE-lined winter storage lagoon to store the treated wastewater during the winter months, and then pumping the water during the irrigation season from the lagoon to irrigate 182-acres of leased land on Beach Road. The lagoon and land application site will have buffer zones, fencing, and signage to inform the public that treated wastewater is being used for irrigation. Groundwater, soil, and crops will be regularly sampled and monitored as required by the Idaho Department of Environmental Quality (DEQ). Also included in the project will be an improved solids handling facility at the WWTP.



### FUNDING AND IMPACT TO USER RATES

The City is pursuing grants and loans to decrease the cost of these improvements to the users of the system as much as possible. Potential grant and loan resources include:

- DEQ Principal Forgiveness (\$150,000)
- USDA-RD Loan & Grant (25%+/- Grant)
- Community Development Block Grant (\$500,000)
- Army Corps of Engineers Grants (to be determined)
- Special Appropriation Grants (to be determined)

Item	Potential Funding
Total Project Cost	\$9-10M
Total Annual Wastewater System Cost	\$0.4-0.5M
Current Monthly User Rate	\$41.35
Estimated Monthly User Rate Increase*	\$32-\$43
<b>Estimated Final Monthly User Rate*</b>	<b>\$73-\$85</b>

\*Final rate will be determined based on the amount of grant and low interest loans received by the City.

### COMPARISON OF MONTHLY RATES IN SIMILAR COMMUNITIES

- American Falls – \$48.64
- Rigby – \$84.50
- Heyburn – \$63.70
- Chubbuck – \$55.95
- Soda Springs – \$58.00
- Preston - \$84.00 (anticipated)

Additional information can be found on the City's website at [www.aberdeenidaho.us](http://www.aberdeenidaho.us)