MAINTAINING QUALITY OF LIFE

Water quality impacts everyone
How we treat our wastewater and discharge it to the river impacts not only our river and our local quality of life, but also the river and quality of life of communities downstream all the way to the Gulf of Mexico.

Changes in downstream states affect us
Our treated wastewater moves down the river and impacts water quality in states downstream. When those downstream states see unsustainable changes in their water quality, they look at upstream sources for partners in improving water quality.

Why plan for these changes now?
This Master Plan anticipates future regulations and our proactive planning approach will result in cost-effective investments.

Next Steps in 2022

Regulations are becoming stricter nationwide
- States that have nutrient regulations in place
- States with localized nutrient removal in place
- States that are planning for nutrient reduction
- States that have no nutrient limits implemented or planned

Why are we doing this now?

PlANNING FOR THE NEXT 20 YEARS

- North Plant at WRF is past its design life and needs to be decommissioned.
- Outside funding minimizes impacts to rate payers.
- This plan prepares the facility for future regulations.
- New South Plant Improvements and Biosolids Handling expansion is needed to meet the permit requirements.

Investing in our Water Reclamation Facility (WRF)

AGING INFRASTRUCTURE
Our treatment facility is 10+ years past its design life

AVAILABLE FUNDING
Current water infrastructure provides opportunity for funding assistance

FUTURE REGULATIONS
Water quality regulations will be stronger in the future

GROWING CUSTOMER BASE
43,000 added service area population are anticipated by 2045

PLANNING FOR THE NEXT 20 YEARS

44% IN SERVICE AREA POPULATION

- 2020: 96,000
- 2025: 109,000
- 2030: 120,000
- 2035: 131,000
- 2040: 140,000
- 2045: 149,000

Rapid City Employment population

- 2020: 20K
- 2025: 30K
- 2030: 40K
- 2035: 50K
- 2040: 60K
- 2045: 70K

Available funding minimizes impacts to rate payers.

35% INCREASE

WHY ARE WE DOING THIS NOW?

- New South Plant Improvements and Biosolids Handling expansion is needed to meet the permit requirements.

Document Last Updated: 11.24.2021
Capitalize on Potential Federal Funding

- 1987 changes to CWA initiated the SRF program offering water and sewer loans vs. grants
- American Rescue Plan passed in March 2021
  - Provides an estimated $600M of additional funds to the state of South Dakota
  - Administrative rules for the appropriation of these funds to be determined in 2022 legislative session
  - All or a portion of these funds could be allocated as SRF funds for water and wastewater projects
  - Costs incurred after March 3, 2021 are eligible
- Additional Federal Infrastructure funding has passed the Senate and is under consideration in the House
- Key Funding Dates
  - October 1, 2021 – Submit new application for requested WRF improvements to be included in State Water Plan. Requires submittal of updated Facilities Plan
  - January 1, 2022 – Submit funding application for improvements
  - March 2022 – SRF Review Board makes recommendations for funding approvals including grants and principal forgiveness

Preparing Our Water Reclamation Facility (WRF) for the Future

In 2016, the City of Rapid City used a nationally-recognized wastewater planning and design firm to undergo a 12-month master planning process. These technical experts outlined a phased approach to prioritize improvements over the next 20 years. This plan is currently being updated to reflect present day and future planning period demands.

The North Plant will not meet permit or capacity requirements.

### PRELIMINARY OPINION OF PROBABLE COST

<table>
<thead>
<tr>
<th>Project Grouping</th>
<th>Item No.</th>
<th>Item Description</th>
<th>Project Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>1</td>
<td>One New Clarifier, Site Piping, Splitter Box</td>
<td>$11,000,000</td>
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<tr>
<td>2</td>
<td>2</td>
<td>Two Clarifiers with New Pumps and Blowers</td>
<td>$21,000,000</td>
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<td></td>
<td>3</td>
<td>Aeration Basin Expansion, PC Effluent Pump Station, Administrative Building Expansion</td>
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<tr>
<td></td>
<td>4</td>
<td>Existing Biosolids Building HVAC and Electrical</td>
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<tr>
<td>3</td>
<td>5</td>
<td>Biosolids Dewatering Feed Tank</td>
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<td></td>
<td>6</td>
<td>Biosolids Handling Building and Equipment</td>
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<td></td>
<td>7</td>
<td>Anoxic Basins and Internal Mixed Liquor Pump Station</td>
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<td><strong>Items 1-7 Subtotal</strong></td>
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<td><strong>Project Total</strong></td>
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