RSWRF Flow Shave Capacity Improvement Project Item B.6

November 8, 2023

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Alignment with Strategic Plan

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North Valleys Sewer Multi Phase Solution

RSWRF Expansion

- Prepares City for the American Flat project

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Flow Shave Capacity Improvement (upsize pumps)

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American Flat APWF--award winning project

- Garnering National Attention
- Forward thinking solution for tough water management issues

Benefits

- Takes pressure off Swan Lake during flood events
- Allows for full utilization of 4 MGD RSWRF
- Creates water resource

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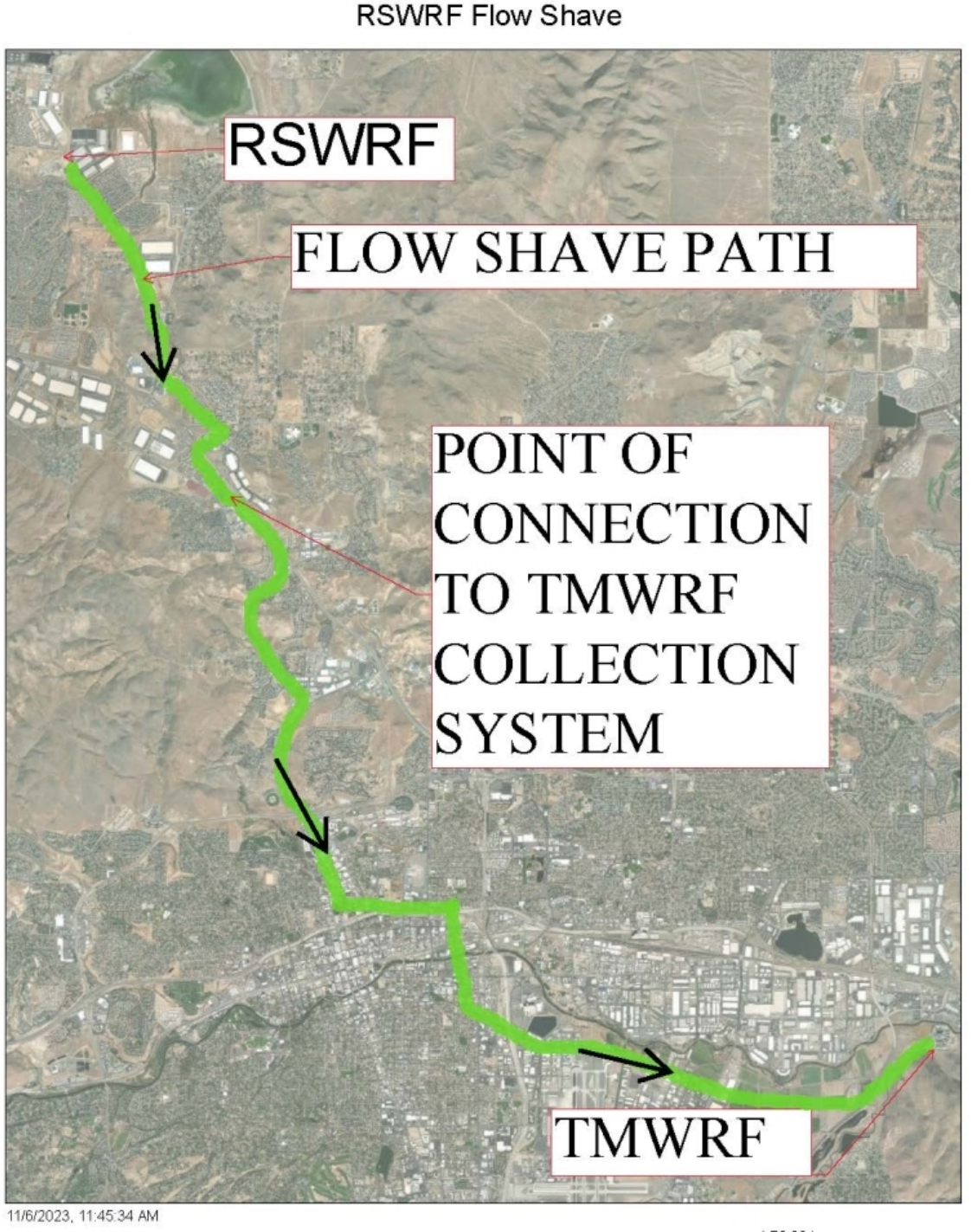
*MGD=million gallons per day

RSWRF Flow Shave to TMWRF

RSWRF Flow Shave Route to TMWRF



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RSWRF Flow Shave Capacity Improvement

- Proposed Pump Upsize project:
  - Allows us to manage permit challenges at a very low $/gallon cost
  - Design services only - does not include construction of improvements
- Solves interim permitting challenges until APWF
  - 0.4 MGD additional capacity for approx. 2400 ERU's and additional 5-7 years
- Helps mitigate flooding at Swan lake in wet winters
- Provides Operational Flexibility

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RSWRF Flow Shave Capacity Improvement

- Costs
  - Design Contract $434,000
  - Construction Estimate ~$5,000,000

- Future Council Actions
  - Requires Council Approval for 0.4 MGD flow shave improvement (construction)

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Recommended Motion

I move to approve the agreement with Brown and Caldwell for design services related to the Flow Shave Capacity Increase Project, in an amount not to exceed $434,000.

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Bullpen Slides

2023 – 2024 Monitor and Measured Response

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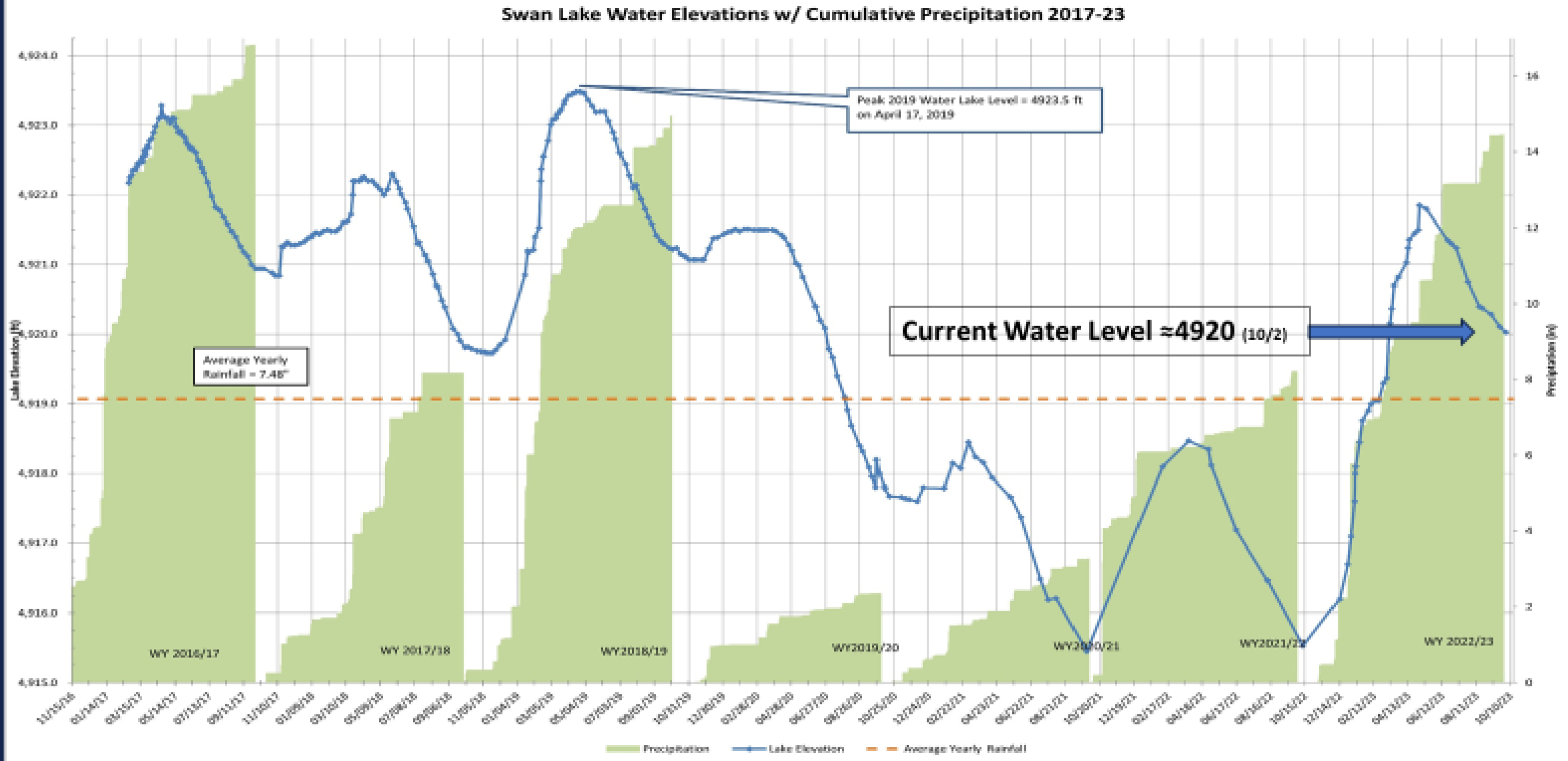
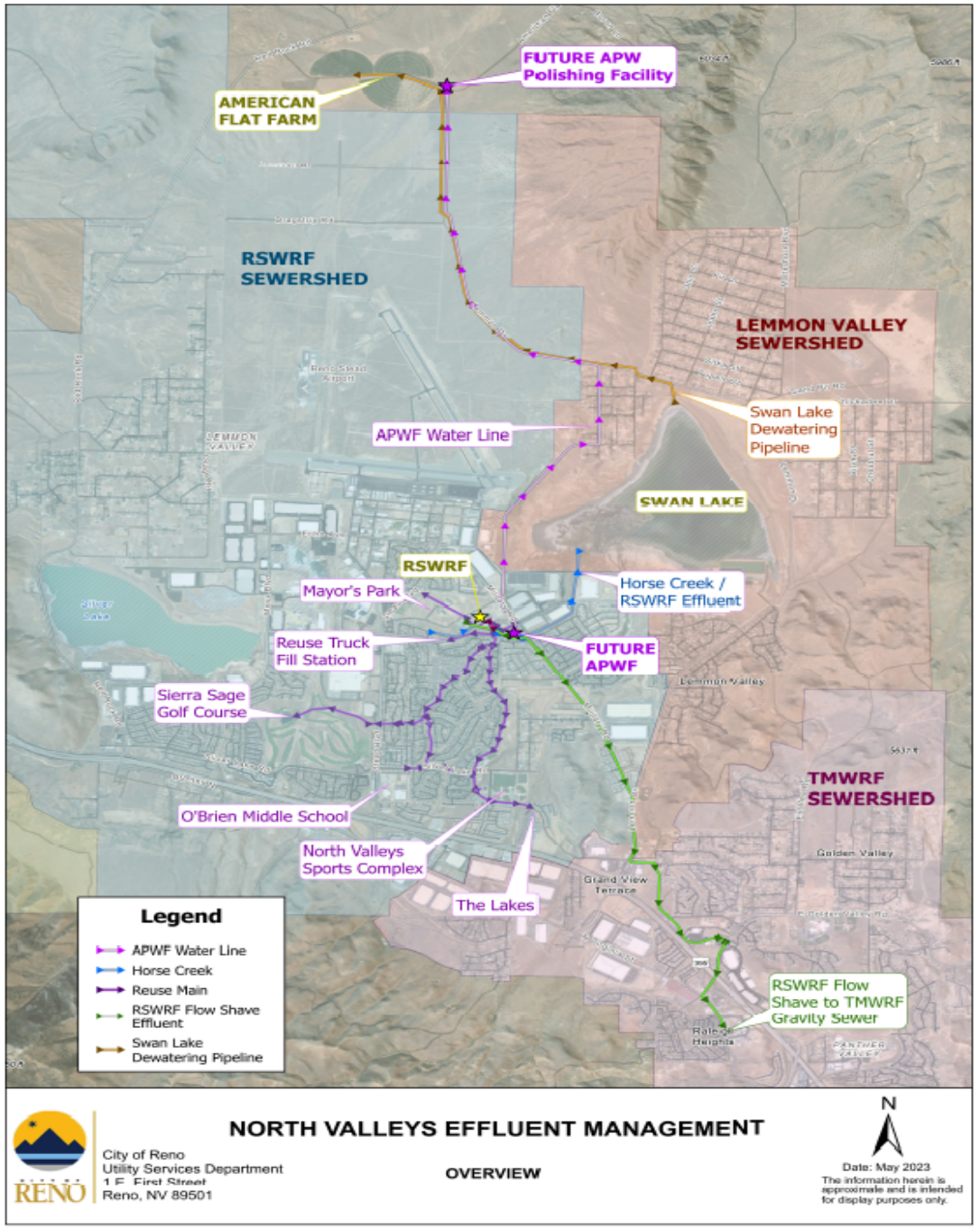


RSWRF Effluent Management Overview

- Recycled Water System
  - Existing
    - Reuse to existing customers for irrigation
    - Discharge to Horse Creek and Swan Lake
  - Interim
    - Flow Shave to TMWRF
    - Sewer Will Serve Allocation Program
  - Proposed
    - APWF at American Flat
    - Minor expansion for new reuse customers
  - Future
    - RSWRF Plant Expansion
      - Red Rock Reservoir
      - Expanded APWF
      - Direct Potable Reuse



RSWRF Capacity and Effluent Management

RSWRF Treatment and Existing and Proposed Effluent Management Capacity

Flow	RSWRF Treatment Capacity	Approved Effluent Management Capacity	Effluent Management: Reuse + Ex. Flow Shave Capacity		Effluent Management: Reuse + Ex. Flow Shave + Pr. Flow Shave Capacity		Effluent Management: Reuse + APWF at American Flat Capacity	ERUs	Approx. Year Expended
4 MGD	2 MGD						*Proposed Completion	24,242	~2040-2045
2.9 MGD					0.4 Flow Shave Upgrade *Proposed Completion 18 months			+2424	~2029-2030 mid-2028
2.5 MGD				0.15 MGD Council Reserved		0.15 MGD Council Reserved		0	N/A
2.35 MGD		0.18 MGD Remaining Flow Shave	0.5 MGD Flow Shave Exist.	0.35 Council Approved	0.5 MGD Flow Shave Exist.	0.35 Council Approved		1090 of 2121	~2026 mid-2025
2 MGD	2 MGD	0.17 MGD Allocated Flow Shave	2 MGD Swan Lake & Seasonal Reuse		2 MGD Swan Lake & Seasonal Reuse		2 MGD Swan Lake & Seasonal Reuse	12,121	2023

MGD = million gallons per day

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RSWRF Capacity and Effluent Management

- RSWRF Expansion 2 to 4 MGD
  - Completed in 2023
  - Permitted discharge of 2 MGD to reuse system or Swan Lake
- Flow Shave and Allocation Program History
  - 0.5 MGD Existing Pump Station Capacity (2019)
    - 0.35 MGD of flow shave authorized by Council per allocation process
    - 0.15 MGD reserved for Swan Lake Flood Protection
    - 1090 ERUS remaining until hit 0.35 MGD capacity/limit (approx. 2 yrs)

0.75MGD
from RSWRF
to TMWRF (30MGD)

- Proposed Flow Shave Capacity Improvement Project
  - 0.4 MGD additional capacity for approx. 2400 ERU's and additional 5-7 years

*MGD=million gallons per day

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2023 – 2024 Monitor and Measured Response

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