

City Manager's Office

MEMORANDUM

DATE: February 6, 2024

TO: Honorable Mayor and City Council

THROUGH: Doug Thornley, City Manager Approved Electronically

FROM: Trina Magoon, P.E., Director of Utility Services

SUBJECT: RSWRF Flow Shave to TMWRF Presentation

The attached presentation provides information related to the Reno Stead Water Reclamation Facility (RSWRF) flow shave to the Truckee Meadows Water Reclamation Facility (TMWRF). This information will be presented as Item #11 at the TMWRF Joint Coordinating Committee (JCC) Board meeting on February 7, 2024.

Attachment: JCC Item 11 2.7.2024 Flow Shave Update Presentation

Agenda Item #11
February 7, 2024

TO: Joint Coordinating Committee (JCC)

FROM: Matt Smith, P.E., Senior Civil Engineer--City of Reno Utility Services
Department

DATE: February 7, 2024

RE: Update and discussion on the Reno-Stead Water Reclamation Facility
Flow Shave by the City of Reno TMWRF CIP Program Manager. (For
Information Only)

In the previous JCC meeting on November 1, 2023, a future agenda item requested of City of Reno staff to provide a presentation about the flow shave from RSWRF to TMWRF. Staff will give a presentation to the Joint Coordinating Committee with regards to the information requested.



Reno-Stead Water Reclamation Facility (RSWRF) Flow Shave to Truckee Meadows Water Reclamation Facility (TMWRF)

**Joint Coordinating Committee
February 7, 2024**



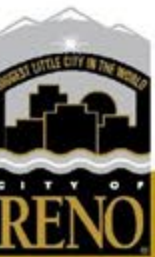
Agenda

- What is Flow Shave?
- Flow Shave Route
- RSWRF Effluent Discharge
- Flow Shave Operational Characteristics
- Flow Shave Capacity Council Approvals
- RSWRF Anticipated Flow & Permitted Capacity
- TMWRF Flow Comparison
- TMWRF Constituent Loading Comparison

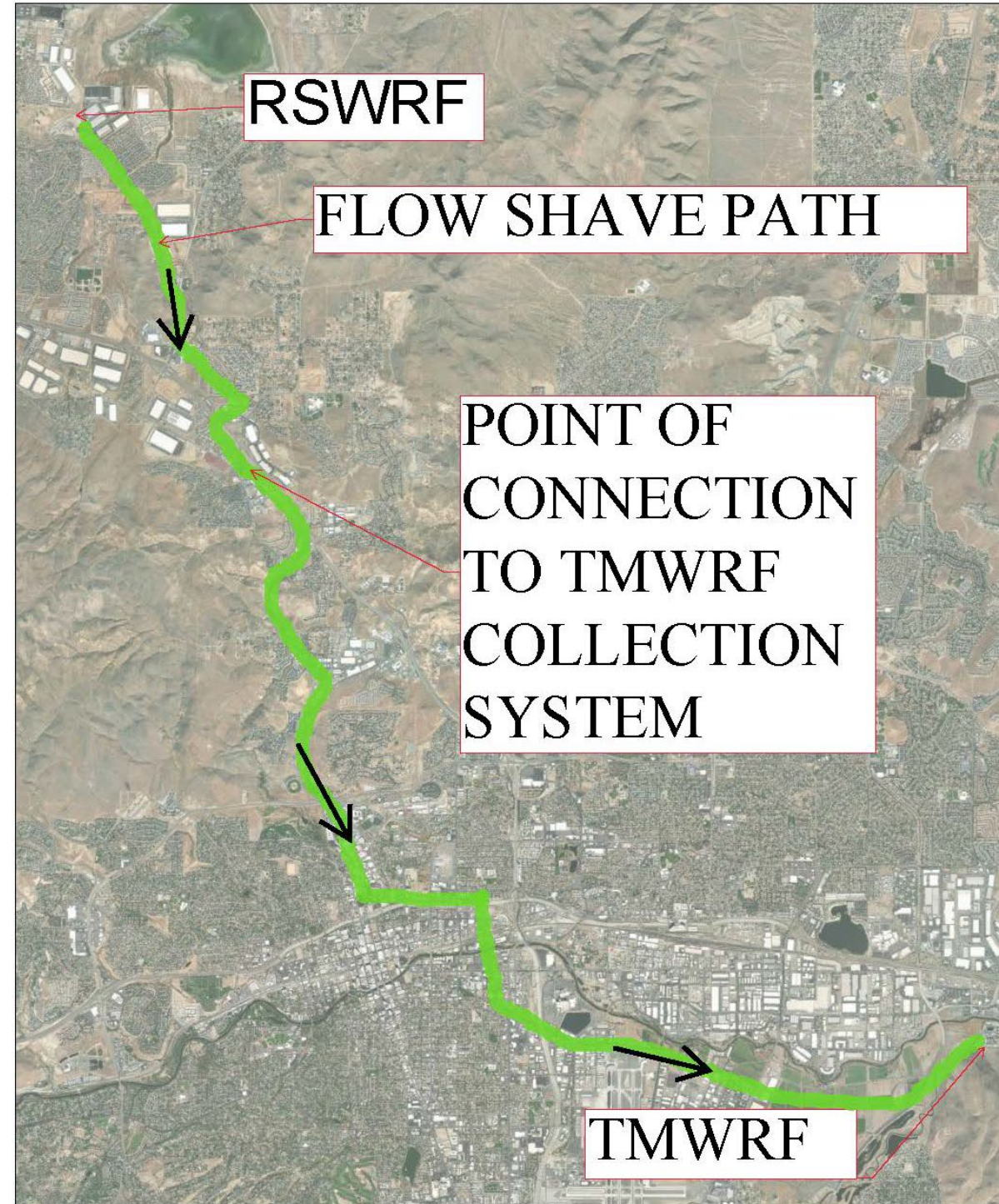
RSWRF Flow Shave to TMWRF



- Gravity Collection System Raw Sewage
- Force Main Collection Raw Sewage
- Diversion Pump Station Screened Raw Sewage
- Waste Activated Sludge
- Export Solids to TMWRF mix of WAS and Raw Sewage



RSWRF Flow Shave to TMWRF



RSWRF Effluent Discharge

Current Effluent Discharge & Permitted Capacity:

1.93 MGD (December 2023 Average)

2.0 MGD – Permit Discharge

Current Effluent Capacity with Flow Shave:

2.17 MGD – Current Average Annual Flow + Will Serves

2.35 MGD – Permit Discharge + Council Approved Flow Shave

0.15 MGD – Reserved Swan Lake Flood Mitigation

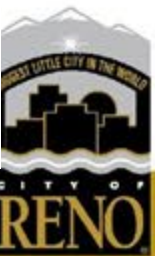
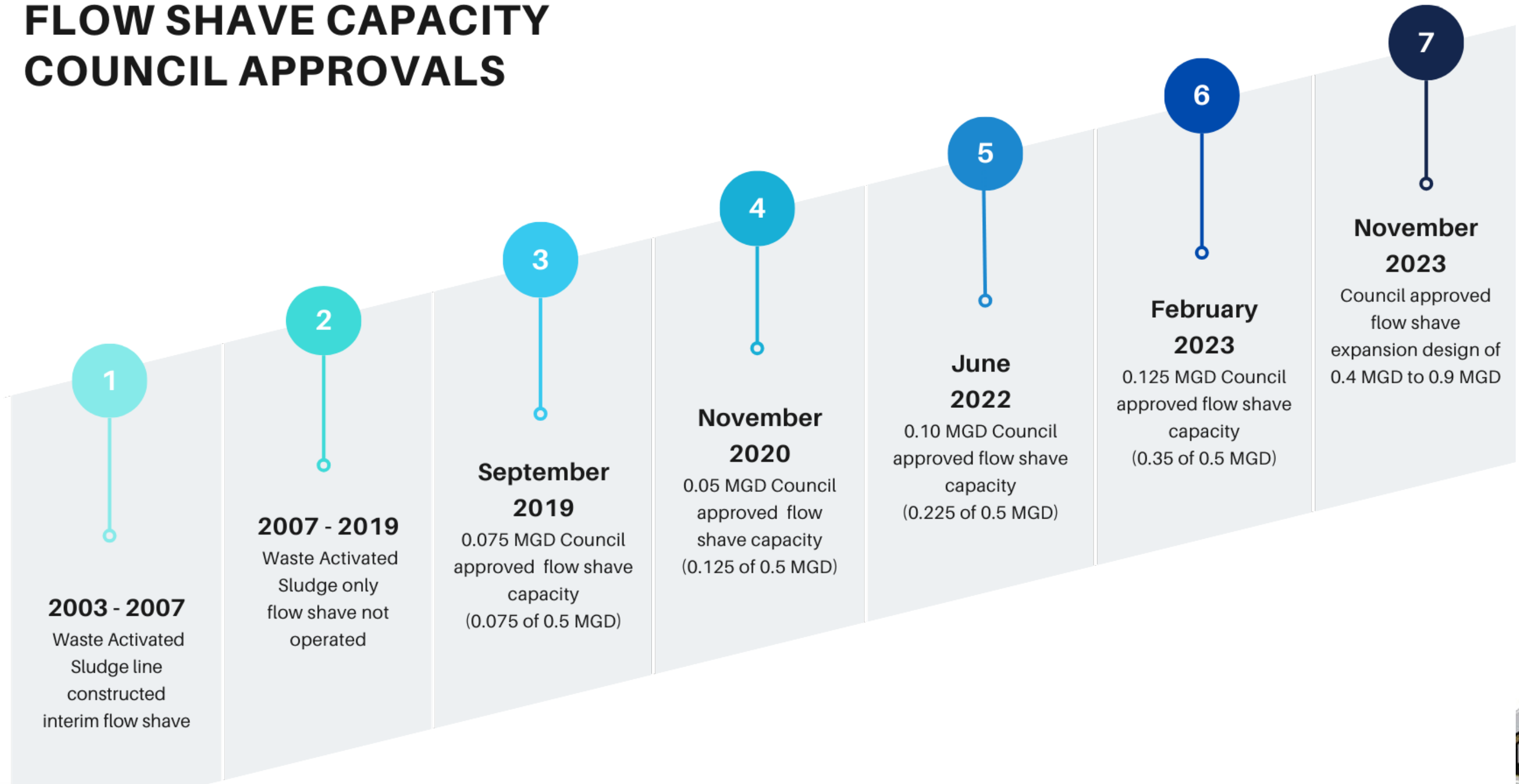
Future Flow Shave Project:

0.9 MGD - Flow Shave Capacity

Flow Shave Operational Characteristics

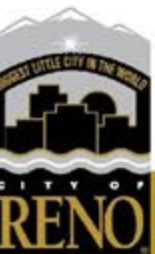
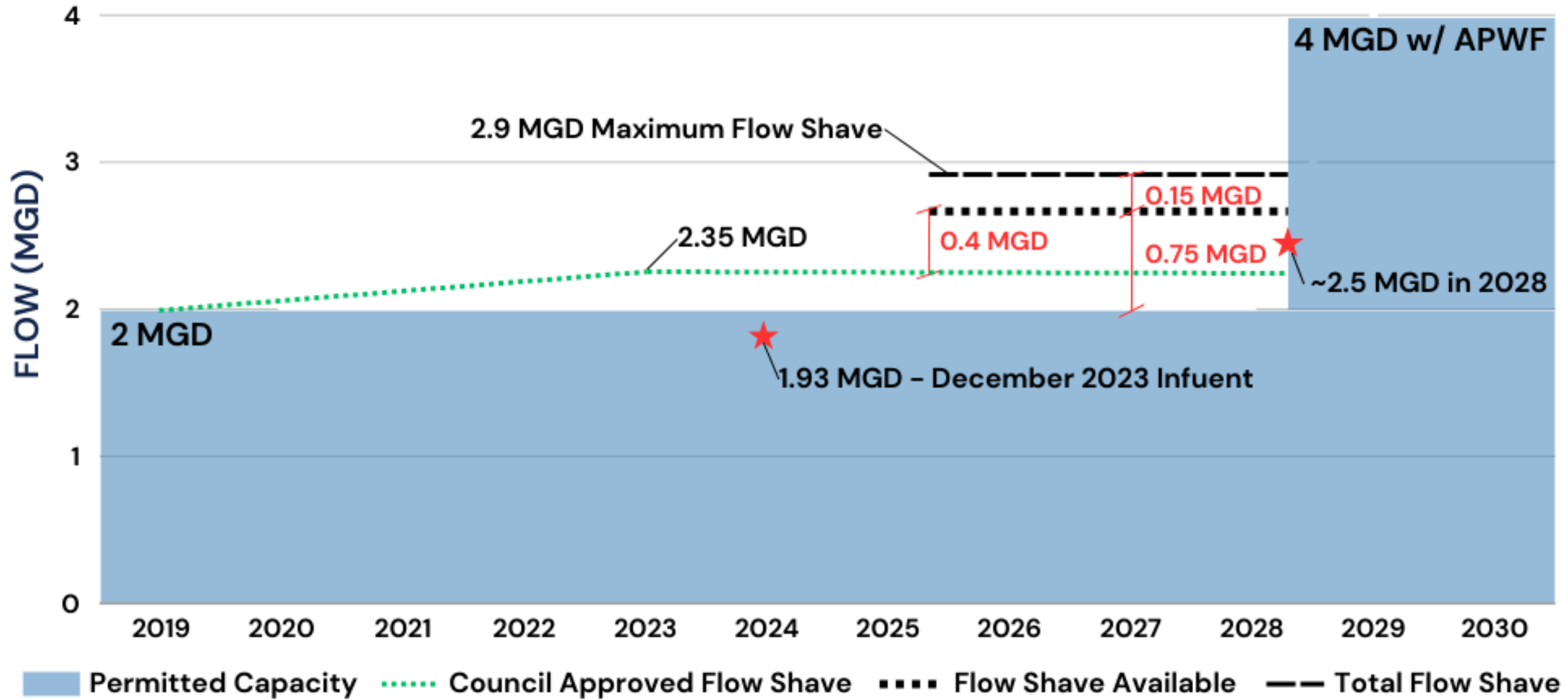
- Flow shave from RSWRF to TMWRF consists of:
 - screened influent
 - fully nitrified and denitrified waste activated sludge (WAS)
- Wintertime operation (outside of irrigation season)
- Mitigates annual effluent volume to Swan Lake
- Interim plant capacity until Advanced Purified Water Facility (APWF) is complete (2028)
- 2028 RSWRF influent projected at ~2.5 MGD

FLOW SHAVE CAPACITY COUNCIL APPROVALS

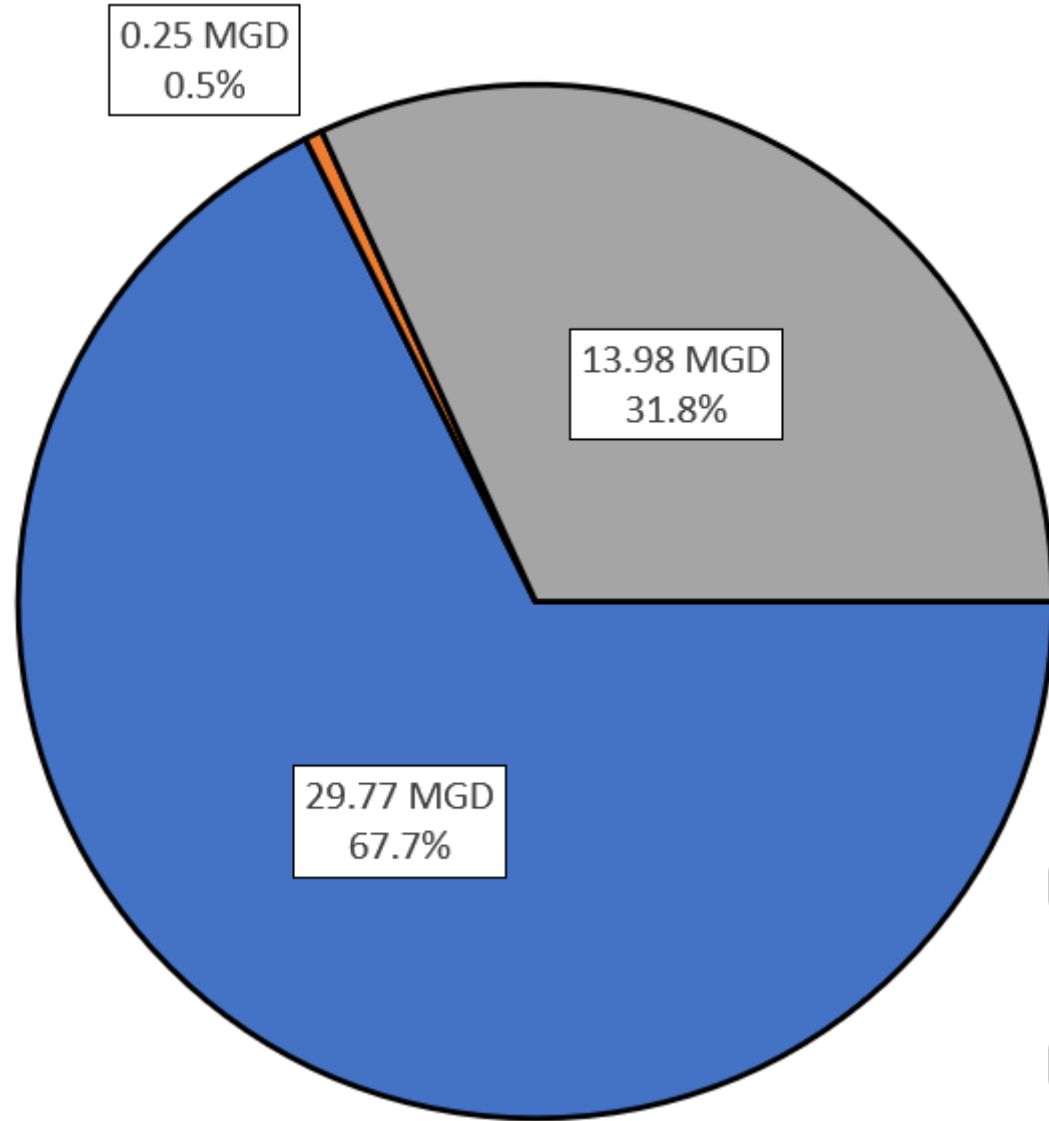


RSWRF Flow Shave to TMWRF

RSWRF Anticipated Flow & Permitted Capacity

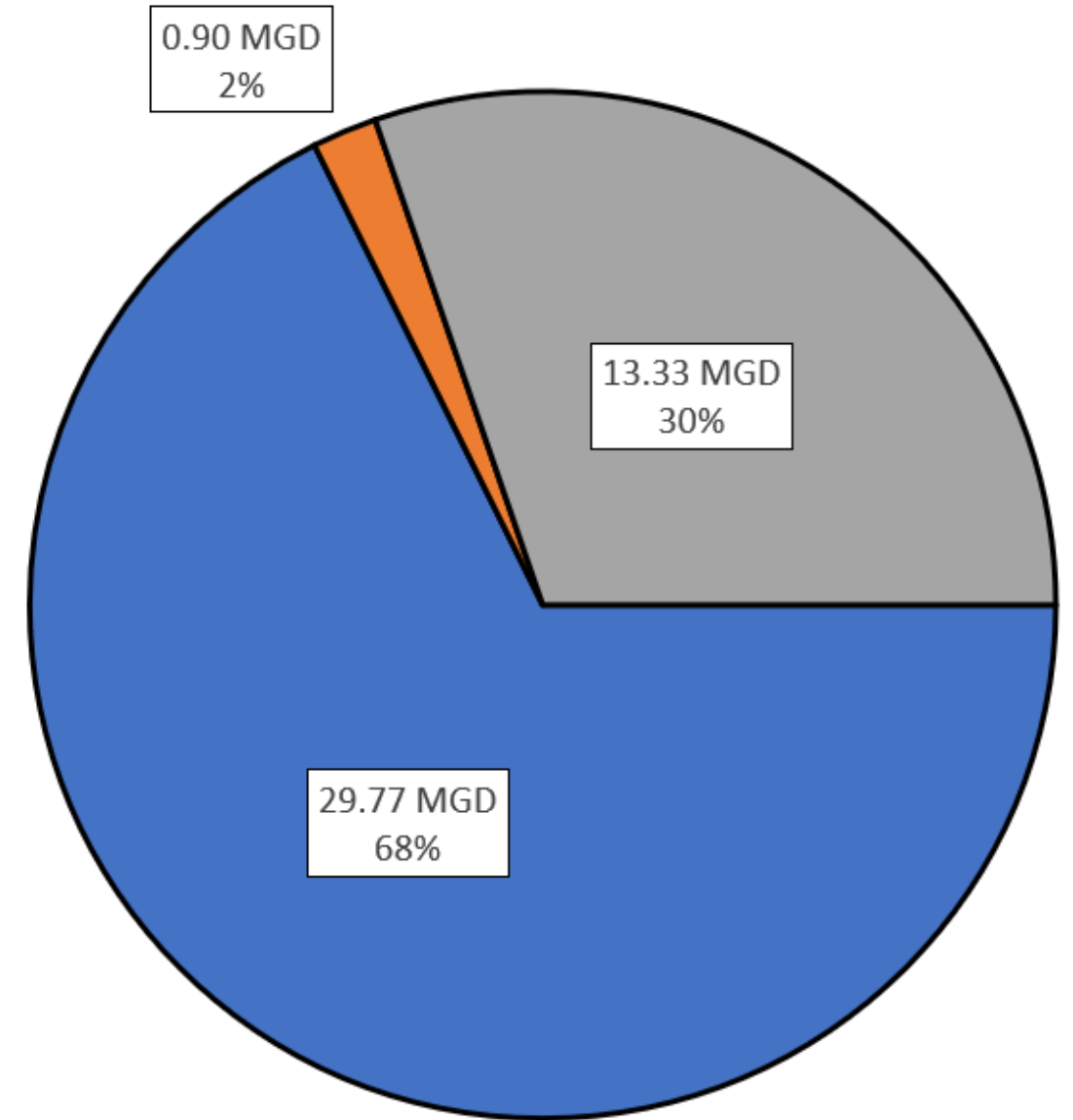


TMWRF Flow Comparison

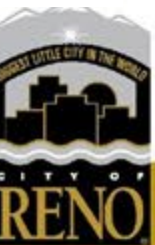


TMWRF Flow Capacity
2023

- TMWRF Influent Flow Excluding RSWRF Flow Shave (MGD)
- RSWRF Flow Shave (MGD)
- Unallocated Flow up to Permitted 44 MGD



TMWRF Flow Capacity
Maximum Flow Shave



RSWRF Flow Shave to TMWRF

Constituent Loading

■ TMWRF ■ RSWRF □ Remaining Capacity (TDS is not currently treated at TMWRF)

