

# RO Concentrate Resolution Project

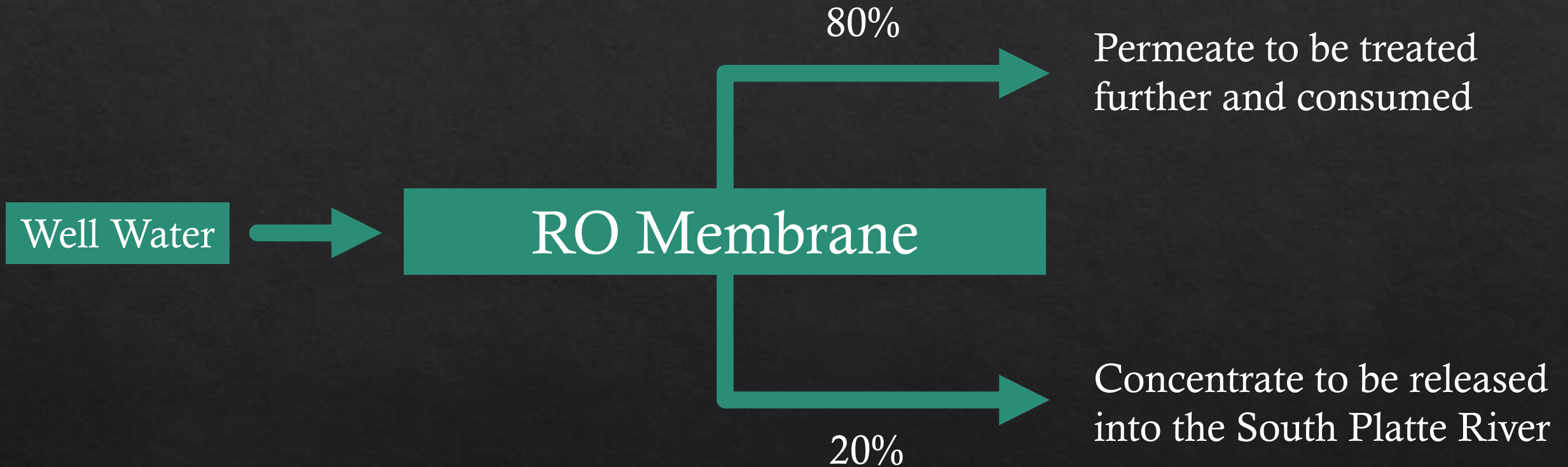
City Council Presentation

5/15/2018

# Introduction

- ◆ Reverse Osmosis (RO) Overview
- ◆ RO Concentrate History
- ◆ Project Overview
- ◆ Bid Process Results
- ◆ Conclusion

# Reverse Osmosis Process Diagram



# Reverse Osmosis (RO) Overview (Continued)

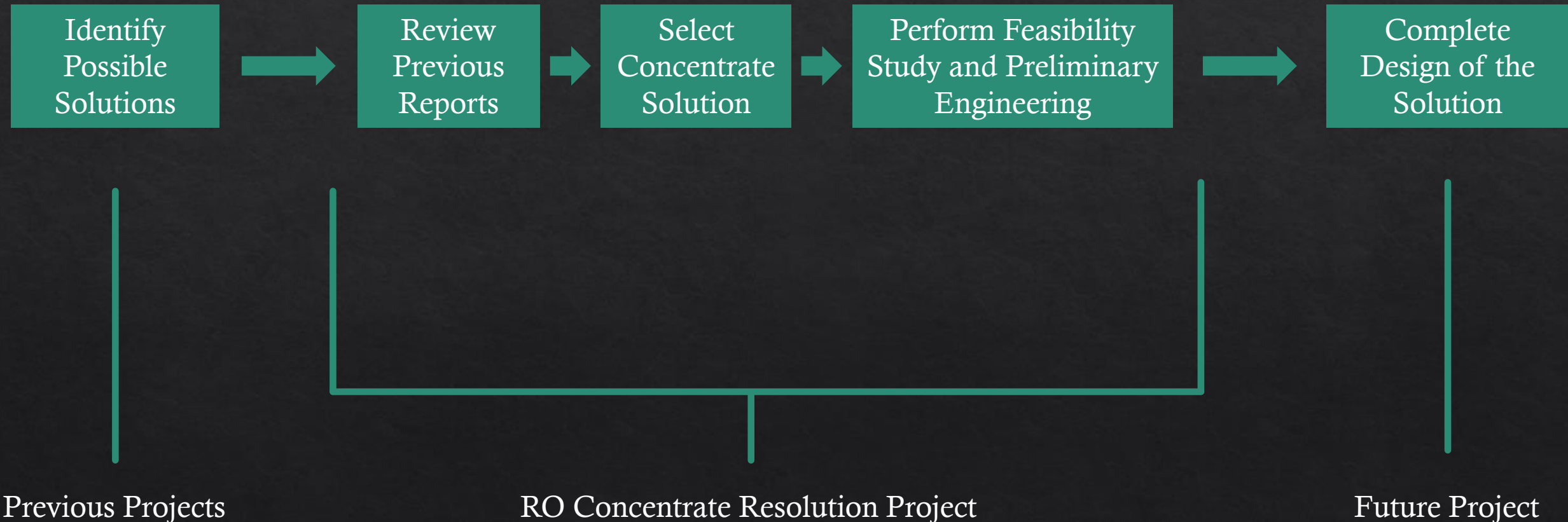
- ◆ Brighton's RO is primarily to remove nitrate.
- ◆ RO also removes dissolved solids, which improves water taste and lowers hardness.
- ◆ The RO system collects almost all of the impurities of the well water into the concentrate, and the concentrate then has high levels of contaminants that may have detrimental effects on the environment.



# RO Concentrate History

- ◊ When the RO system was first installed in the early 1990's, the discharge permit from the CDPHE allowed the City to simply release the concentrate into the South Platte River.
- ◊ About 15 years ago the CDPHE informed Brighton that to continue using RO, the City must reduce the concentrations of certain contaminants in the RO brine to specified levels.
- ◊ Since then, the City has commissioned multiple studies on concentrate disposal and negotiated on various elements of the RO discharge permit with the CDPHE.
- ◊ The RO Concentrate Resolution Project will build off this previous work to deliver a fully vetted and finalized solution on how to treat the RO concentrate.
- ◊ After the RO Concentrate Resolution Project is completed, the City will be ready to commission full design of the solution.

# Project Overview Process Diagram



# Bid Process Results

- ◆ The City originally advertised the project as a request for qualifications.
- ◆ Four consultants were subsequently shortlisted.
- ◆ A detailed RFP was prepared.
- ◆ Five staff members analyzed the responses to the RFP, evaluating each independently for content, responsiveness, references, similar work experience and proposed costs and determined that the most responsive and responsible bidder was Martin & Martin with a bid price of \$174,185.

# Explanation of Bid Process

- ◆ Proposals ranged from \$89,516 to \$174,185.
- ◆ City Staff has determined that despite being the high bidder at \$174,185, Martin & Martin has proposed the best value for the City.
- ◆ Martin & Martin dedicated significantly more time and energy to the review of previously completed work for vetting a solution than other respondents.
- ◆ Martin & Martin also presented a very highly skilled and experienced team, joining HDR Consultants to work on this project.
- ◆ Because resolving the RO concentrate issue is a challenging and critical project for the City, Staff is convinced that committing additional funds to get more engineering hours is in our best interest.



# Conclusion

- ◆ The RO Concentrate Resolution Project will deliver a confirmed solution on how to treat the RO concentrate, allowing the City to continue using RO for the foreseeable future.
- ◆ After reviewing qualifications and proposals, City Staff is confident in its choice of the engineering firm that will provide the most value for the City.
- ◆ Therefore, the Brighton Water Activity Enterprise officially recommends that Martin & Martin be awarded the RO Concentrate Resolution Project for the not-to-exceed sum of \$174,185.