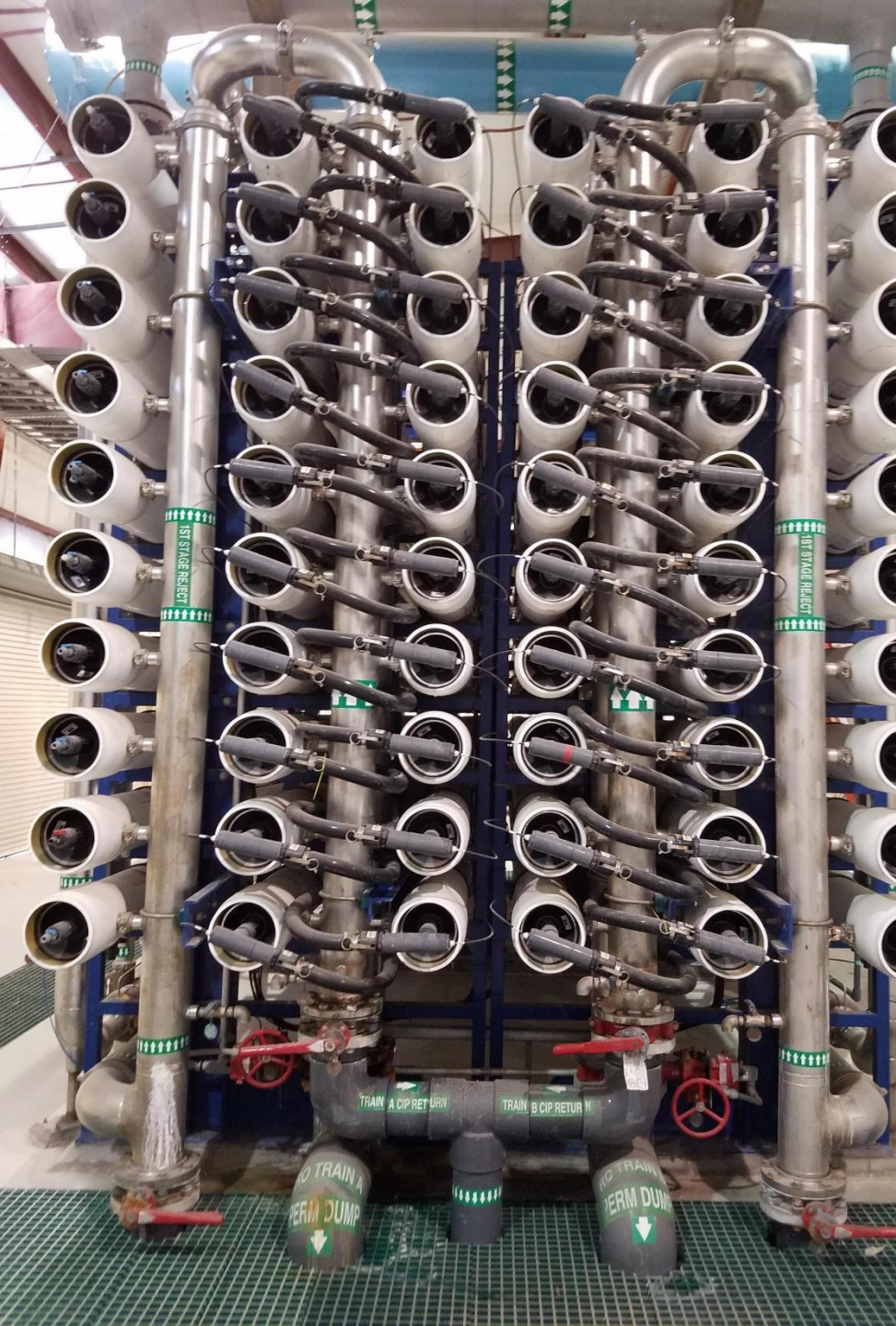


# City of Corpus Christi

## Seawater Desalination Project Siting and Permitting

Council Presentation  
May 14, 2019





# Seawater Desalination Update Objectives

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- Previous update to City Council in Sept. 2018, and Jan. 2019 with plan to do so quarterly
- Third update today
  - Provide some history
  - Report on activities
  - Provide roadmap for future activities





# Seawater Desalination – Siting & Permitting Project Overview

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- **Goals**
  - Lowering Risks, Reducing Unknowns;
  - Provide Drought Resistant Water Supply
- **Major Tasks**
  - Facility Siting
  - Permit Applications
  - Expand Communications/Outreach





# Seawater Desalination – History

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**Began as result of drought conditions (2011-13)**

**Group formed with Port Industries and others (2014)**

**FNI selected as Owner's Representative (2015)**

**Feasibility confirmed through development of Project Definition, Profiles, Cost Model (2015-2017)**

**Application for Texas Water Development Board Funds with City execution of contract (2017)**

**Funding from large volume users – Non-curtailment agreement approved (Sept 11, 2018)**

**Task Order signed for next phases with FNI – July 30, 2018**



# Seawater Desalination – Tasks and Schedule

Major Events/Milestones	Start	End
Notice to Proceed MSA-Task One	Jul 30, 2018	
Confirm Project Definitions	Sep 2018	Nov 2018
Site Selection		
Screening Potential Sites	COMPLETE	
Evaluate Candidate Sites	Feb 2019	Jul 2019
Identify Preferred Sites	Jul 2019	
Source Water Characterization	Jul 2019	Jun 2020
Concentrate Modeling	Aug 2019	Oct 2019
Conceptual Design of Intake/Outfall Facilities	Aug 2019	Nov 2019
Permitting		
TPDES Applications	Jul 2019	Oct 2019
Joint Evaluation Meeting	Sep 2019	
Marl, Sand, Gravel Shell, or Mudshell Permits	Nov 2019	
Texas Land Application Permit	Sep 2019	Oct 2019
Water Rights	Aug 2019	Dec 2019
New Source Water Approval	Aug 2019	Dec 2019

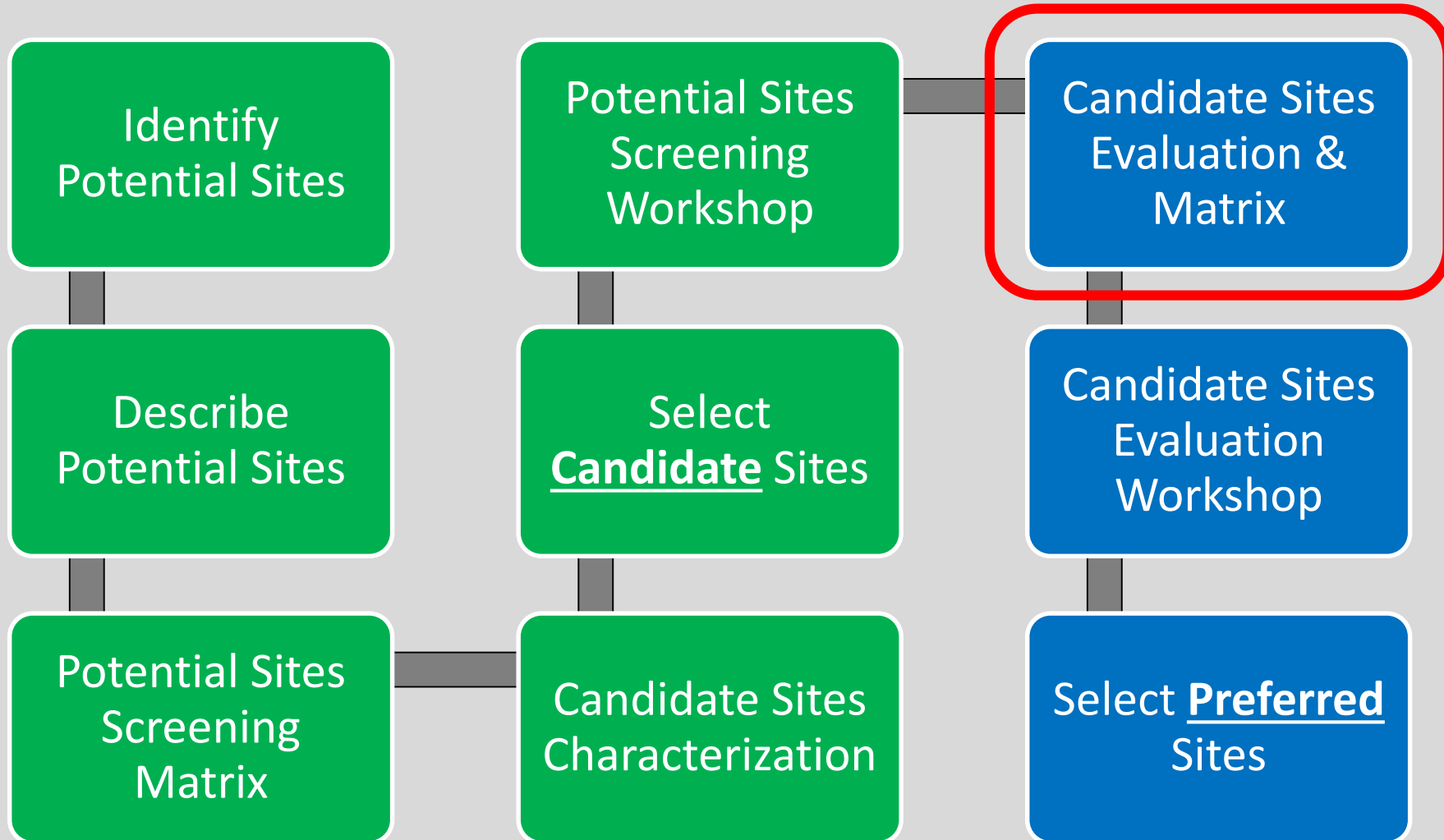


# Seawater Desalination – Project Definitions

Production Capacities in MGD	
Production Phase	Product Flow Average/Maximum
Inner Harbor Plant	
Initial Capacity	10/12
Expandable Capacity	20/24
Ultimate Capacity	30/36
North Bay Plant	
Initial Capacity	20/24
Expandable Capacity	30/36
Ultimate Capacity	40/48

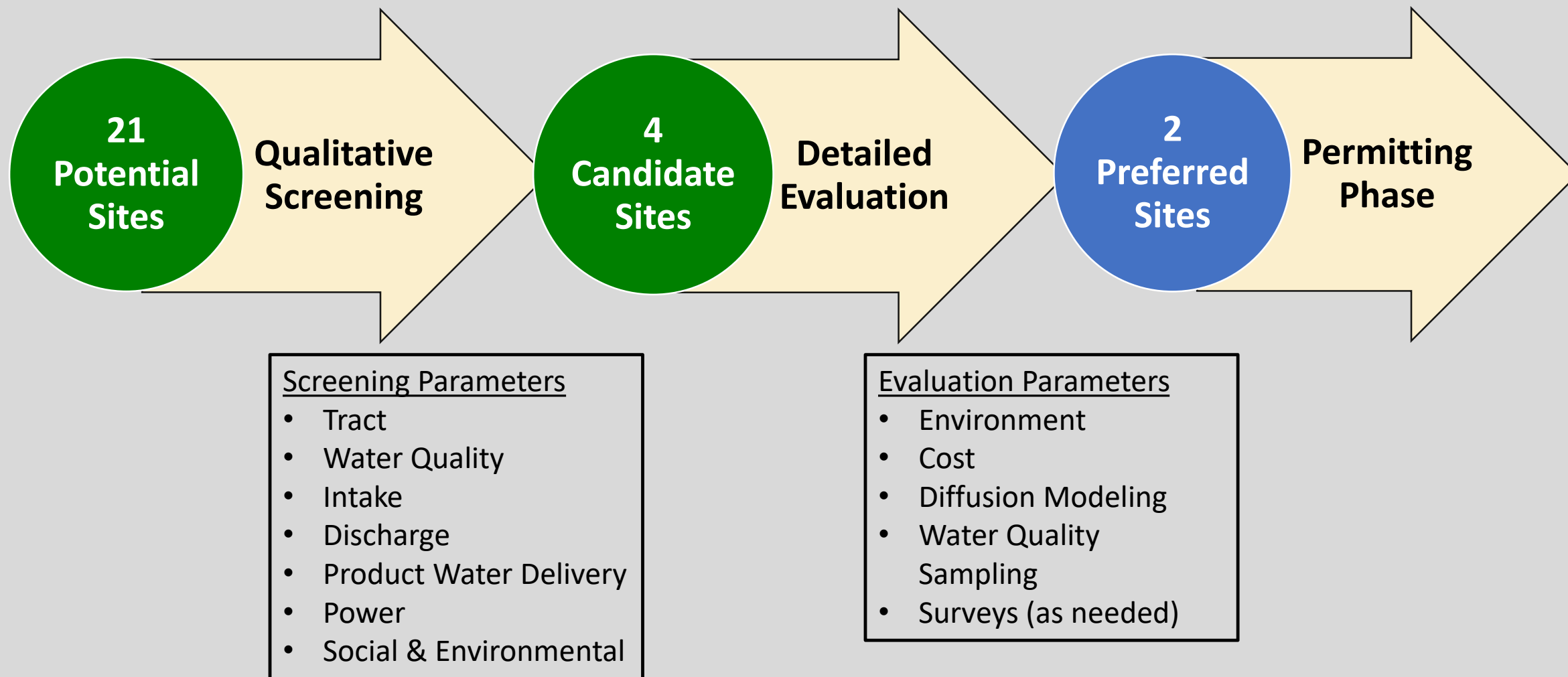


# Seawater Desalination - Site Selection Process





# Seawater Desalination – Screening Steps







# Seawater Desalination – Site Selection Updates

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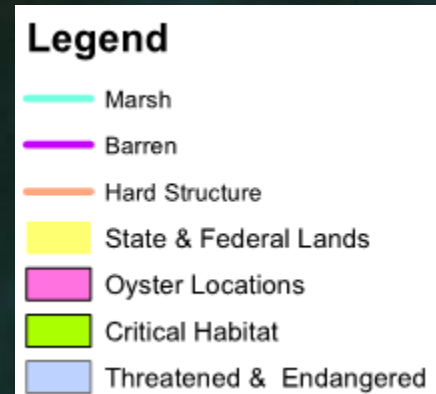
- **Port of Corpus Christi withdrew one Candidate Site from consideration (April 2019) and offered two new potential sites for screening.**
- **Current Candidate Sites**
  - **Two in Nueces County**
  - **Two or Three in San Patricio County**



# Seawater Desalination – Ongoing Effort

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- **Screening of the two new potential sites.**
- **Environmental Surveys for seagrasses, oysters, sensitive species, endangered species, and impacts of intake and discharge.**
- **Analysis of Capital and O&M Costs for each Candidate Site**
- **Source Water Characterization**
- **Concentrate Dispersion Modeling**
- **Communications & Outreach**





# **Seawater Desalination – Outreach / Key Meetings To Date**

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- **Testimony at Texas Senate Natural Resources Committee**
- **Environmental Stakeholder Discussions (Proactive Approach)**
  - **Harte Research Institute (TAMU-CC)**
  - **UT Marine Science Institute (UTMSI)**
  - **Coastal Bend Bays & Estuaries Program**
  - **Coastal Bend Bays Foundation**
  - **Coastal Alliance to Protect our Environment (CAPE)**
- **Permitting Agencies and Texas Water Development Board**
- **AEP and SPMWD/City Water Distribution Staff**
- **Land Owners**
- **San Patricio Officials**





# Seawater Desalination – Next Steps

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- **Completing Detailed Evaluation of Candidate Sites**
  - **Raw Water Sampling**
  - **CORMIX Concentrate Dispersion Modeling**
  - **Site Visits, Habitat Assessments, Environmental Surveys**
  - **Cost Modeling**
- **Selection of 2 Preferred Sites**
- **Permit Applications & Regulatory Coordination**



# Seawater Desalination – Summary

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- On Schedule
- Good Progress
- Preferred Sites Selection July 2019  
followed by Permit Applications

## Questions?

