Drought Contingency and Conservation Initiatives

for Corpus Christi City Council

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Corpus Christi Water℠
Serving the Coastal Bend

Overview

- Water Sources and Recharge Zones.

- Drought Contingency Plan.
  - Revising the DCP.
  - Proposed Changes.
  - Staff Recommendation.

- Water Conservation 365 Program.
  - Overview.
  - Implementation.
  - Resources and Outreach.

Water Restrictions and Lake Levels

DROUGHT CONTINGENCY PLAN

Combined storage levels of Lake Corpus Christi and Choke Canyon Reservoir

43.1%

As of 01-18-2023

- 50% Water Restrictions lifted above 50%
- 40% Stage 1- Mild Water Shortage Watch
- 30% Stage 2- Moderate Water Shortage Watch
- 20% Stage 3- Critical Water Shortage

Historical combined storage levels of Lake Corpus Christi and Choke Canyon Reservoir

44.4%
ONE MONTH AGO

52.6%
ONE YEAR AGO

- CORPUS CHRISTI WATER
- WATER DATA DASHBOARD
- WATER RESTRICTIONS FAQS
- HOW CAN I SAVE WATER?

CCW Corpus Christi Water™
Serving the Coastal Bend

The City of Corpus Christi is under Stage 1 Water Restrictions.

Water Sources

- CCW produced an average of 80 MGD last fiscal year.
- Surface water resources:
  - Lake Texana (Mary Rhodes Pipeline).
  - Colorado River (Mary Rhodes Pipeline Phase II).
  - Nueces River.
    - Choke Canyon Reservoir (CCR).
    - Lake Corpus Christi (LCC).

Nueces River
Choke Canyon Reservoir

Full Capacity:
662,821 acre-ft

Colorado River
Mary Rhodes II

Run of the river
Water Rights:
35,000 acre-ft

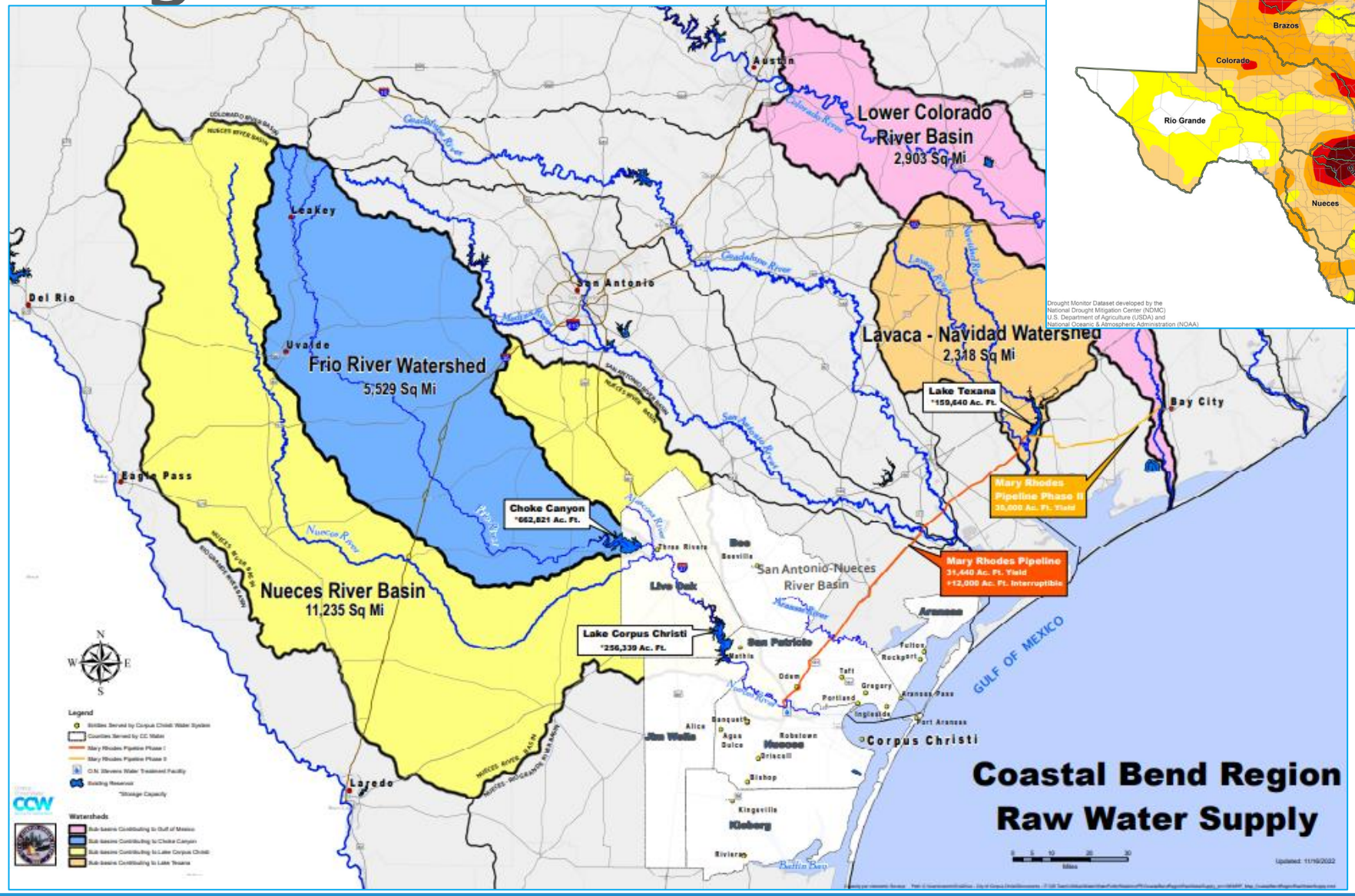
Nueces River
Lake Corpus Christi

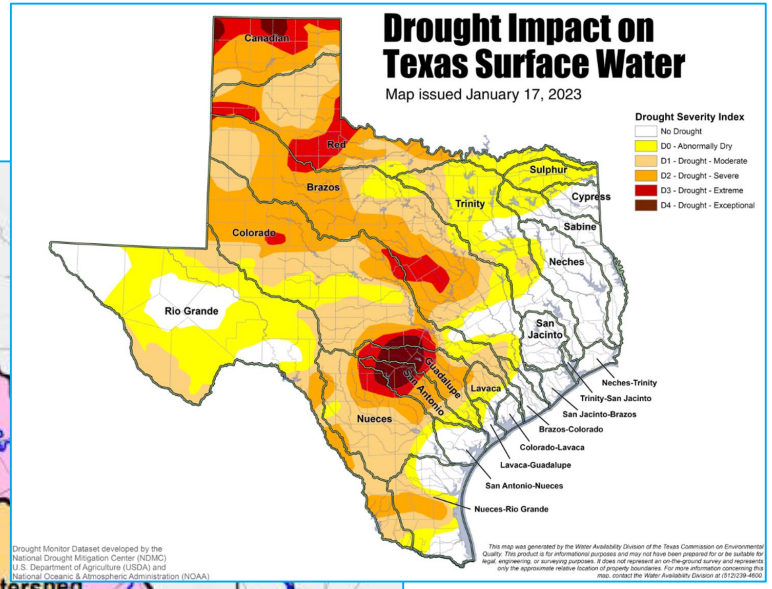
Full Capacity:
256,339 acre-ft

Lake Texana
Mary Rhodes

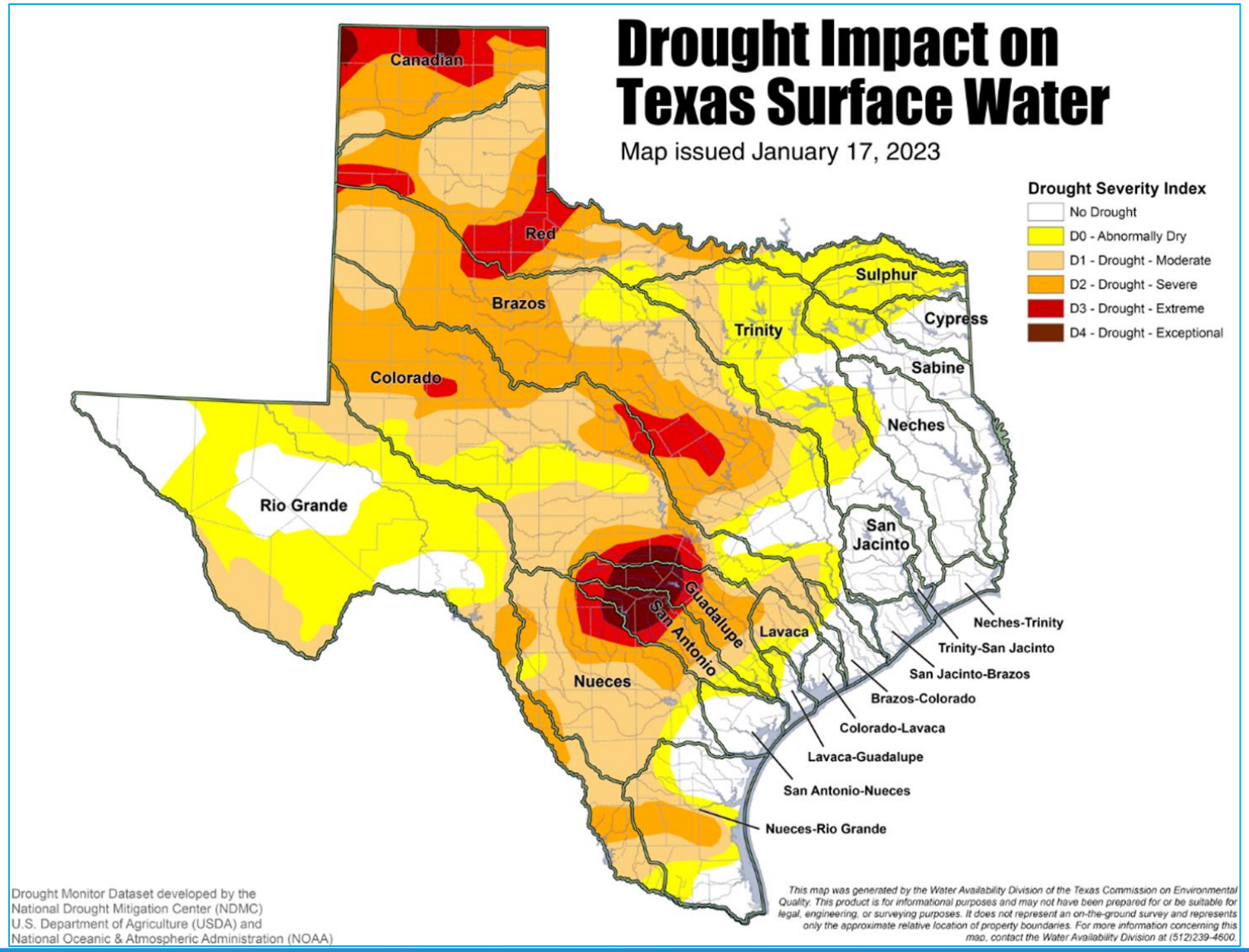
Full Capacity:
158,975 acre-ft
Contract Amount: 31,440 acre-ft

Recharge Zones





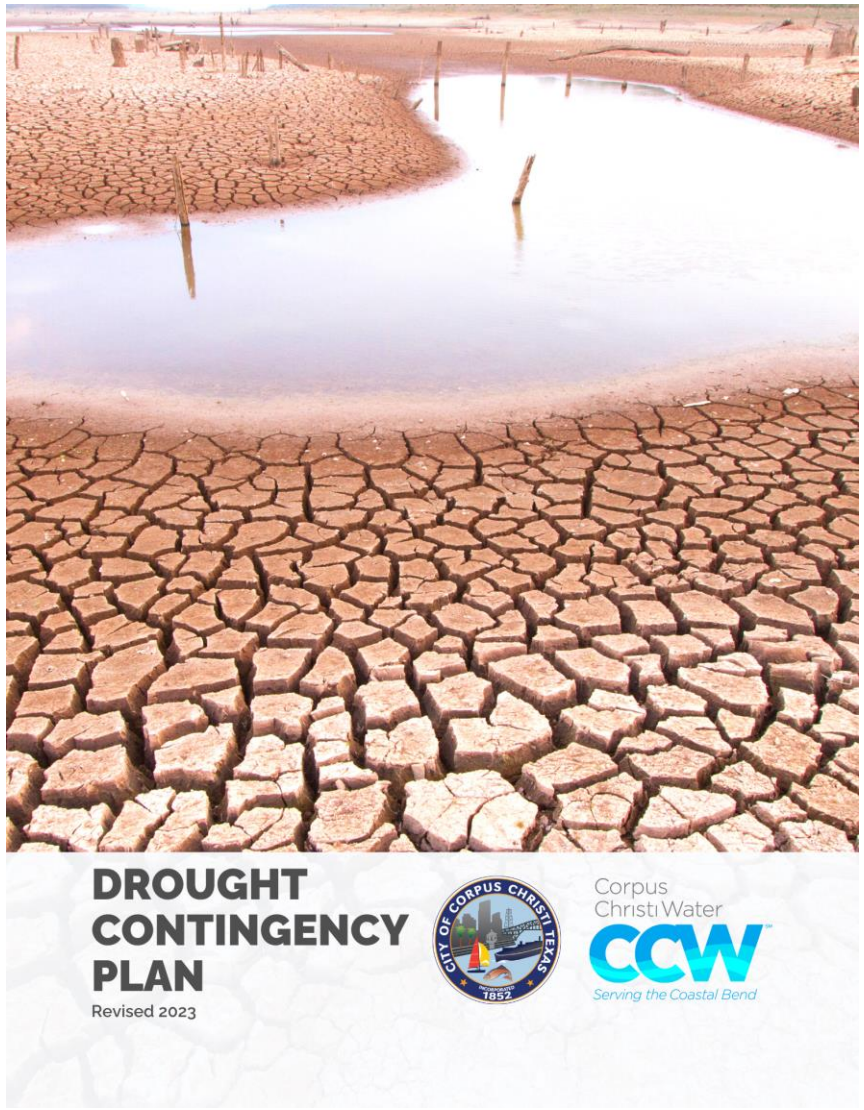
Ongoing Drought in Texas



Drought Contingency Plan (DCP)

- The city of Corpus Christi was the first in Texas to create a DCP in 1986. In 2018, City Council updated the document.
- *Short-term* water security planning document used during times of drought and water shortages.
- Triggered when combined reservoir capacities fall below certain levels or in the event of an emergency, ensuring residents have enough water to make it through a drought.
- Water restrictions are part of the DCP.
- Updated every five years or as needed.

Revising the DCP



- Living document designed to change with our resources, supply and demand.
- Includes lessons learned from previous droughts as well as the current and ongoing drought.
- Designed to work with the Water Conservation Plan and Water Conservation 365 Program.

Proposed Changes

- Adding a Voluntary Stage: Water Shortage Watch.
  - Triggered when the combined capacity of LCC and CCR falls below 50% or when Lake Texana falls below 40%.
  - Allows for heightened communication around conservation.
- Surcharges.
  - Introducing surcharges for large water users.
  - Removing surcharges for residential customers.
- Administrative /Clean-Up Changes.

Proposed Changes

- Stage 1.
  - Watering or irrigating of landscaped areas by any means will be allowed outside of the hours of 10:00 a.m. and 6:00 p.m. *only*.

- Stage 2.
  - Currently triggered when the combined capacity of LCC and CC falls to 30%
  - Proposed change would trigger Stage 2 when the combined capacity of LCC and CC falls to 35%
  - Irrigation of landscaped areas, whether with an irrigation system, **a hand-held method, or a drip irrigation system shall be limited to once every other week.**

- Stage 3.
  - Currently triggered when the combined capacity of LCC and CC falls to 20%
  - Proposed change would trigger Stage 3 when the combined capacity of LCC and CC falls to 25%

Staff Recommendation

- Staff recommends the approval of the proposed revisions to the DCP to provide a framework for the community while CCW secures a drought-proof water supply to benefit all residents.

Corpus Christi Water **Conservation**

Water Conservation 365 Program

Save water, today and every day, for tomorrow.

Program Overview

- Reduce total per capita consumption by 1% annually over the next decade.
  - That translates to reducing water use by just over a half-gallon per person per day (approximately 0.6 gallons).
- Industrial Optimization.
- Conservation Ordinances.
- Strengthened Conservation Measures at City-Owned Facilities.
- Public Education.

Corpus Christi Water Conservation

Implementation

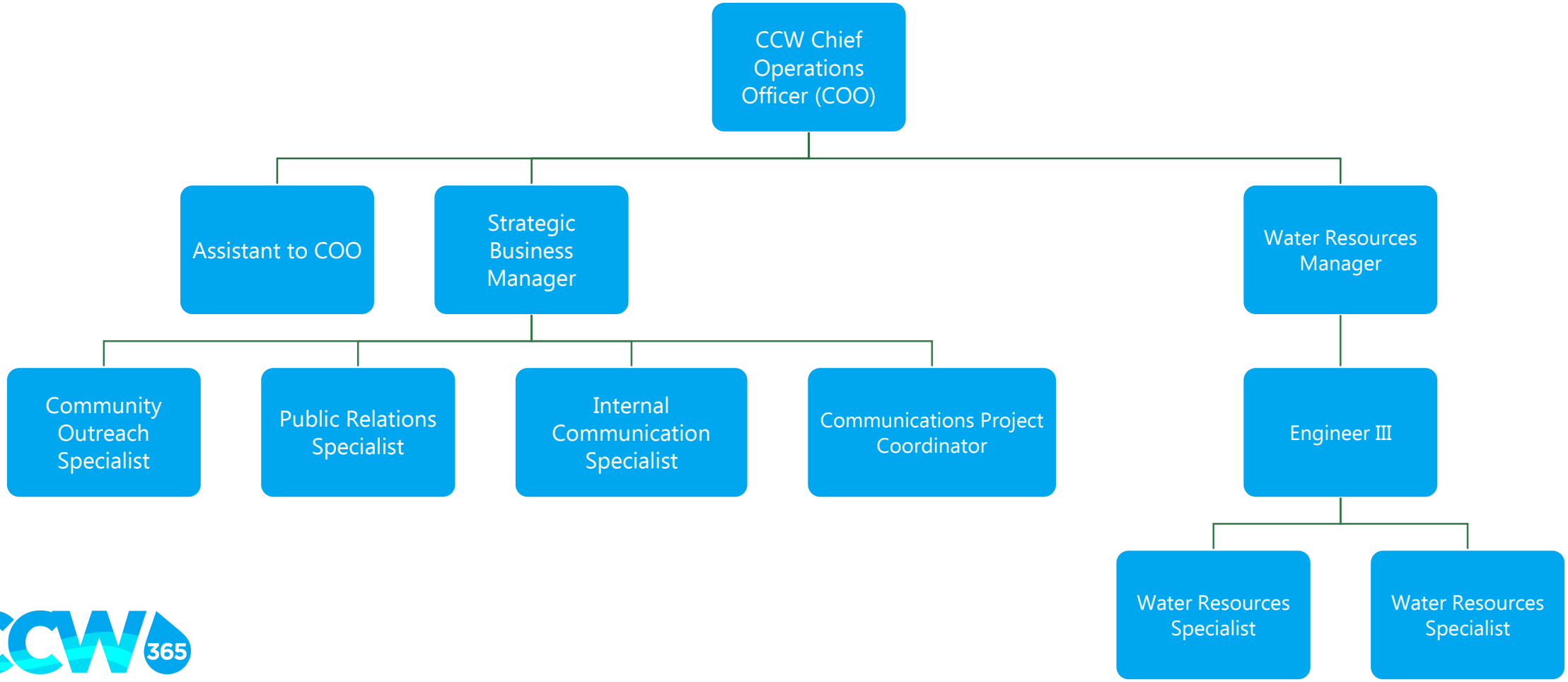
- 3-month goal.
  - Develop Conservation 365 Program and launch Water Data Dashboard.
  - Successful Xeriscape Symposium.
  - Hiring of 2 additional staff as approved in the FY23 budget.

- 6-month goal.
  - Begin providing curriculum to Independent School Districts on water conservation and our watersheds using the Nueces River Authority partnership.

- 12-month goal.
  - Educate 15% of residents using Texas AgriLife Extension.
  - Expand the use of reclaimed wastewater for irrigation of city properties.
  - Industrial Optimization.

CCW 365
Corpus Christi Water Conservation

Organizational Chart



Corpus Christi Water Conservation

Resources and Outreach

- Resources.
  - Texas A&M Engineering Extension Service, Texas Water Development Board, Texas Commission for Environmental Quality, Nueces River Authority, Texas A&M AgriLife Extension, Nueces County Master Gardeners, South Texas Botanical Gardens, Coastal Bend Bays and Estuaries.

- Outreach.
  - Radio, TV, and Traditional Media.
  - Website and Social Media.
  - In-person events.
    - Big Bloom at South Texas Botanical Gardens.
    - Earth Day Bay Day hosted by CBBEP.
    - Oso Bay Wetlands Preserve.
  - Presentations.
    - Schools.
    - Civic organizations.
  - PSAs from Mayor and Council.

Corpus Christi Water Conservation

Thank you!

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