

# Water Supply Dashboard Scenario Modeling

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# Water Supply Dashboard

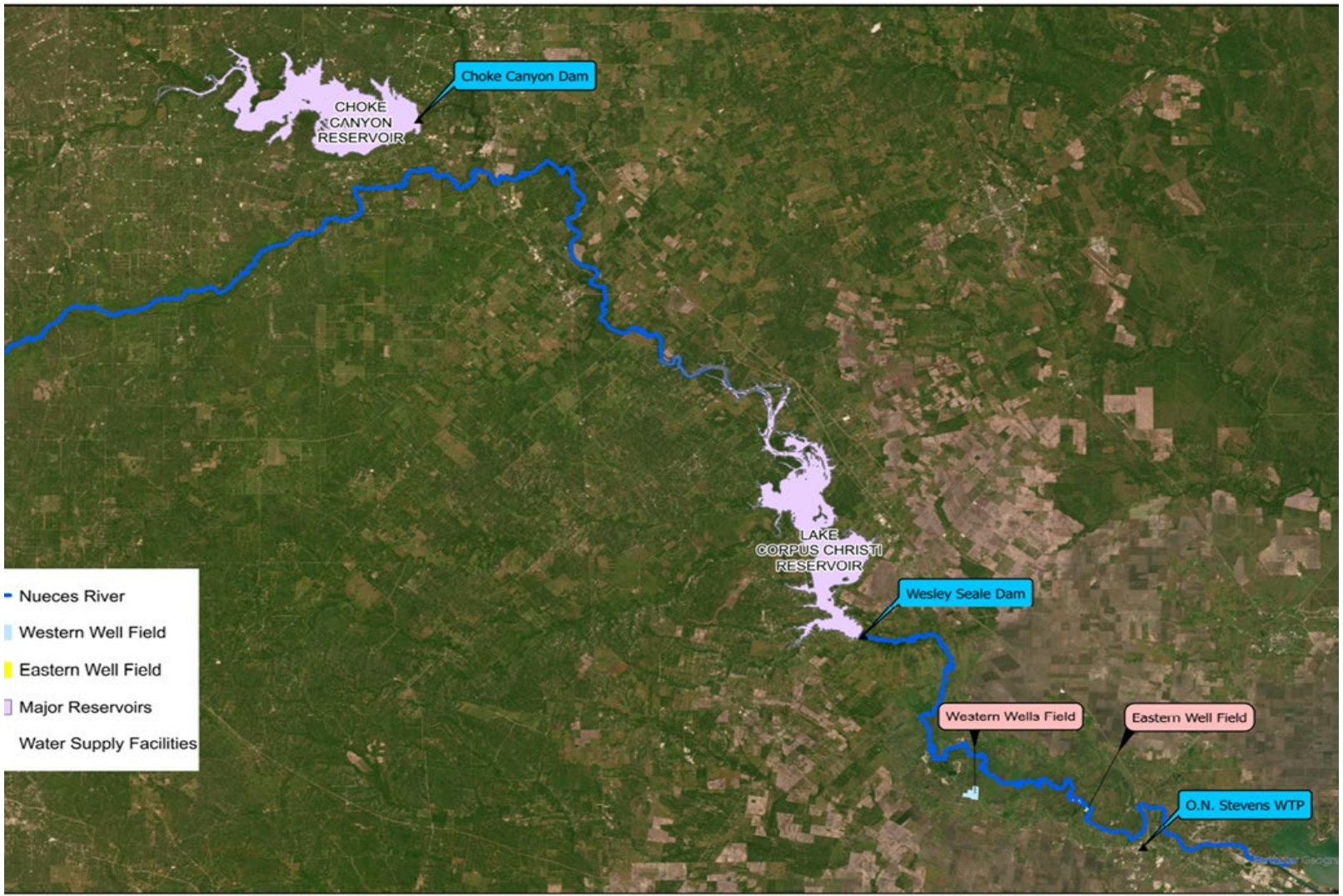
## Background

- For the first time in its history, the City developed a model to monitor water supplies and customer demands
- Developed in April 2025

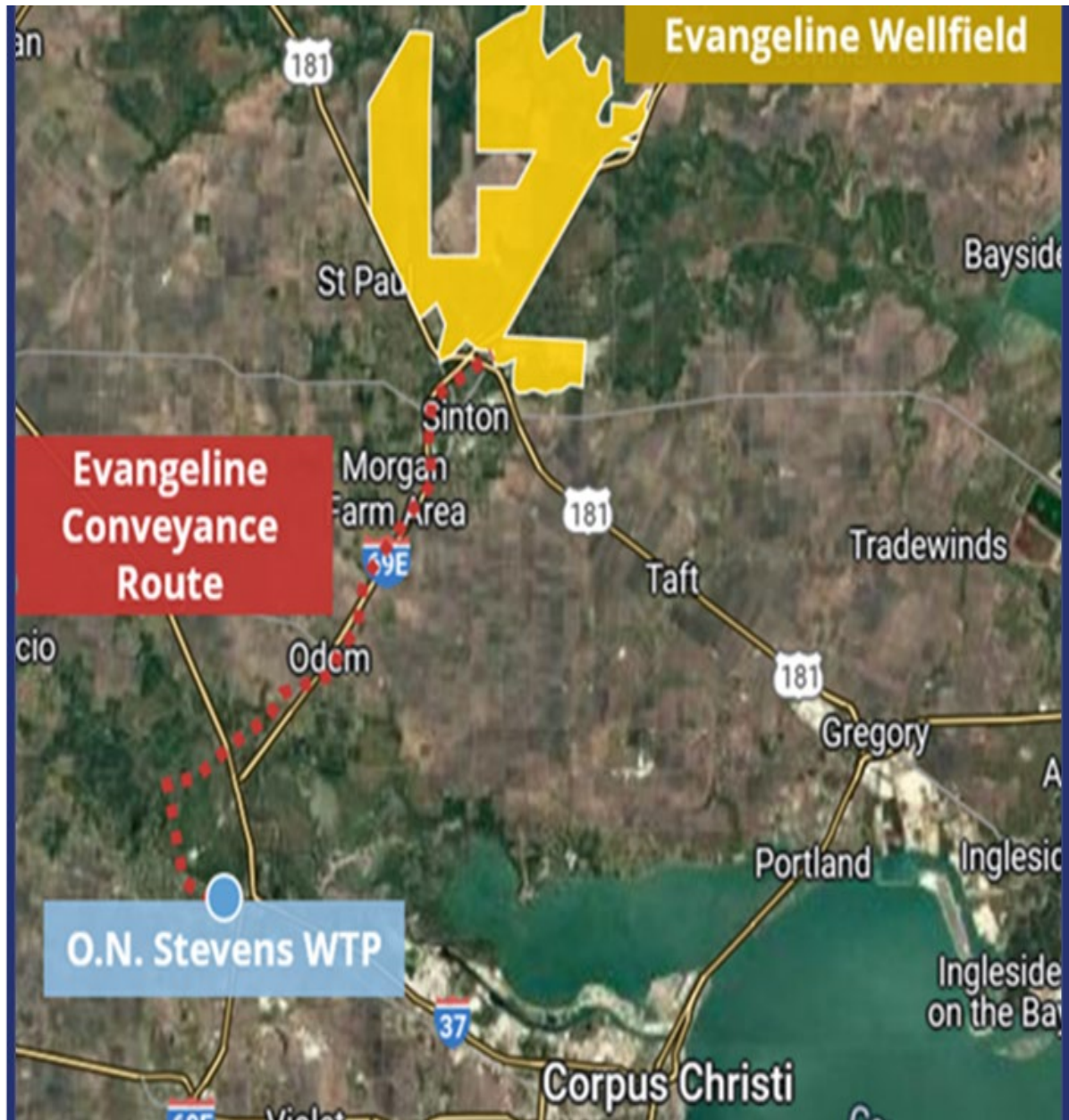
## Level 1 Water Emergency

Pursuant to the 2025 approved Drought Contingency Plan, the City has adopted a new “Level 1 Water Emergency” previously known as “Stage 4”. This Level 1 Emergency is initiated when the City reaches 180-days from when the total water supply is not enough to meet the total water demand. This does not mean the City has run out of water as millions of gallons are still available from the Eastern Supplies (i.e., Lake Texana and the Colorado River).





# Nueces Groundwater Project



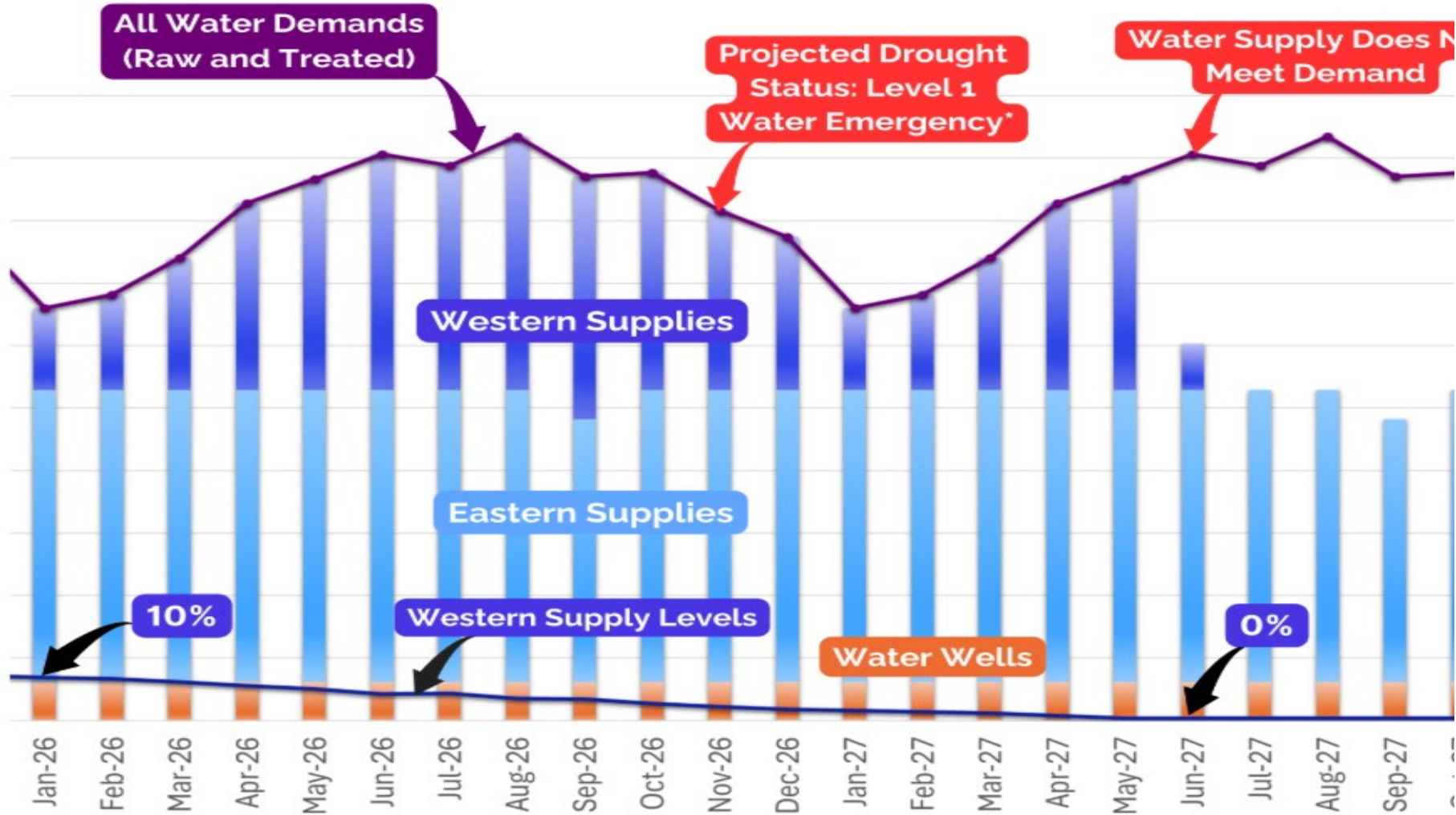
# Evangeline San Patricio Groundwater Project

# Current Dashboard

- Baseline drought hydrology
  - High & higher reservoir evaporation
  - Minor inflow events in July and September
- No curtailments from Lake Texana
- MRP operating at Schedule 4 (72 MGD), without issue
- Groundwater Supplies: Eastern Well Field (10 MGD)
- Western Reservoirs utilized to 0.1%



# Current Dashboard



# Changing Conditions from Previous Water Supply Dashboard Baseline Scenario

- National Weather Service
  - No significant rainfall in 2025 and Winter 2026
  - No rainfall in extended forecast (3-month outlook)
- Emerging concern about Lake Texana
  - Currently at 56.6% (3/16/2026)
  - LNRA curtailment of 10% when storage drops below 50%
  - LNRA additional curtailment of 10% when storage drops below 40%
- Deteriorating water quality in Lake Corpus Christi
  - Limits the ability to utilize all stored water from the Western Reservoirs
  - Limits the operation of the Eastern Well Field

# Changing Conditions from Previous Water Supply Dashboard Baseline Scenario

	SCENARIOS					
	CURRENT	A	B	C	D	E
<b>Lake Texana Curtailment</b>						
(NO CURTAILMENT)	●					●
Storage drops below 50% (10% CURTAILMENT)		●	●	●	●	
Storage drops below 40% (20% CURTAILMENT)		●	●	●	●	
<b>MRP Schedule 4 Operations, Without Issues</b>						
72 MGD	●	●	●	●	●	●
<b>Drought Hydrology (Evaporation)</b>						
90th Percentile Reservoir Evaporation	●					●
99th Percentile Reservoir Evaporation		●	●	●	●	
<b>Drought Hydrology (Inflow Events)</b>						
Minor Inflow Events	●					●
No Inflow Events (No Rainfall)		●	●	●	●	
<b>Eastern Well Field Production</b>						
Special Condition Received by April 1 (10 MGD)	●		●	●		●
Special Condition Received by May 1 (10 MGD)		●			●	
<b>Demand Reductions, Through Reuse</b>						
By December 2026		●	●	●	●	●
<b>Lake Corpus Christi Storage</b>						
At 0%	●					

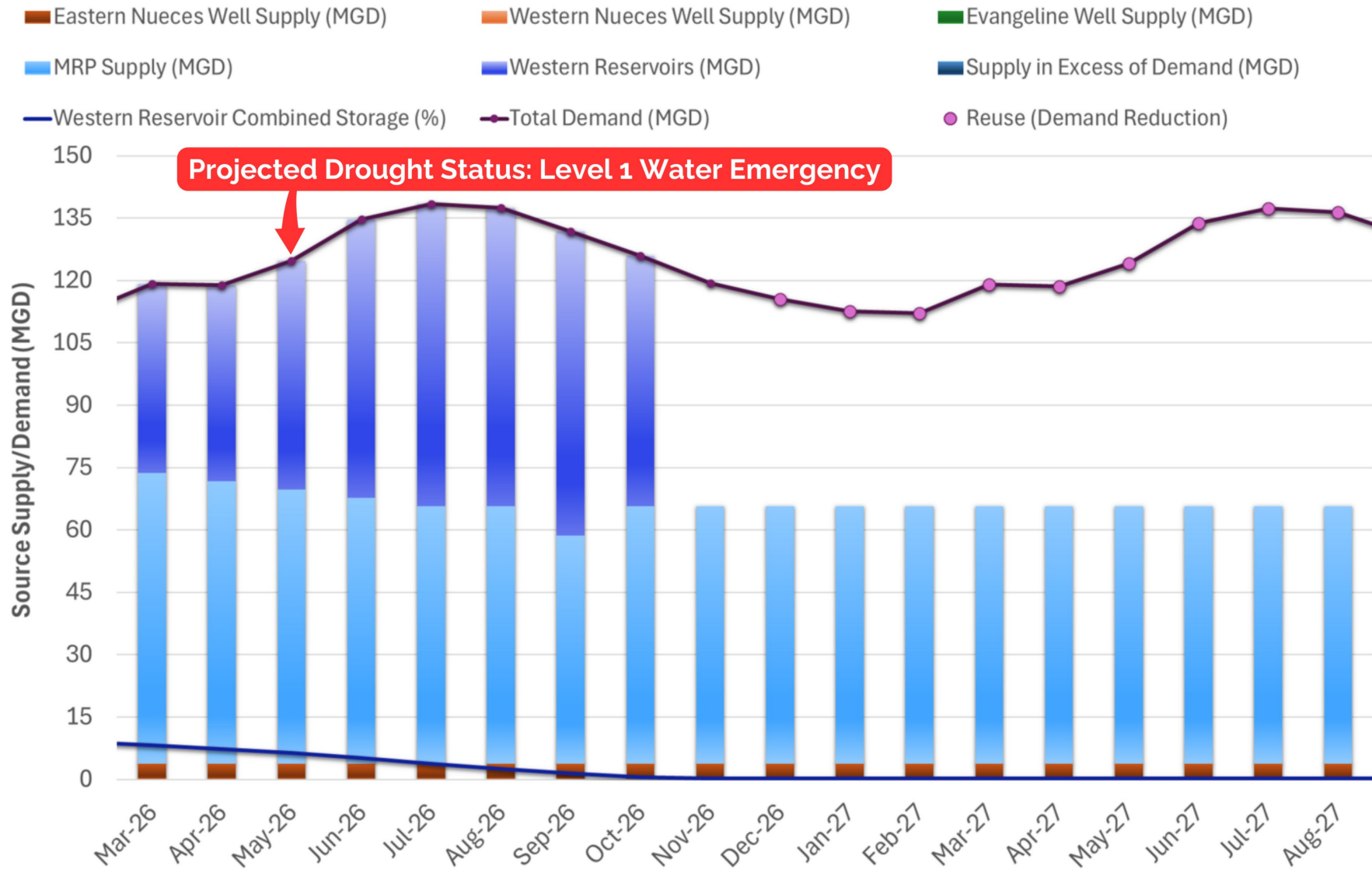
# Scenario A

## 4 MGD Eastern Well Field

	SCENARIOS					
	CURRENT	A	B	C	D	E
<b>Lake Texana Curtailment</b>						
(NO CURTAILMENT)	<input type="radio"/>					<input type="radio"/>
Storage drops below 50% (10% CURTAILMENT)		<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	
Storage drops below 40% (20% CURTAILMENT)		<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	
<b>MRP Schedule 4 Operations, Without Issues</b>						
72 MGD	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
<b>Drought Hydrology (Evaporation)</b>						
90th Percentile Reservoir Evaporation	<input type="radio"/>					<input type="radio"/>
99th Percentile Reservoir Evaporation		<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	
<b>Drought Hydrology (Inflow Events)</b>						
Minor Inflow Events	<input type="radio"/>					<input type="radio"/>
No Inflow Events (No Rainfall)		<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	
<b>Eastern Well Field Production</b>						
Special Condition Received by April 1 (10 MGD)	<input type="radio"/>		<input type="radio"/>	<input type="radio"/>		<input type="radio"/>
Special Condition Received by May 1 (10 MGD)		<input checked="" type="radio"/>			<input type="radio"/>	
<b>Demand Reductions, Through Reuse</b>						
By December 2026		<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
<b>Lake Corpus Christi Storage</b>						
At 0%	<input type="radio"/>					

# Scenario A

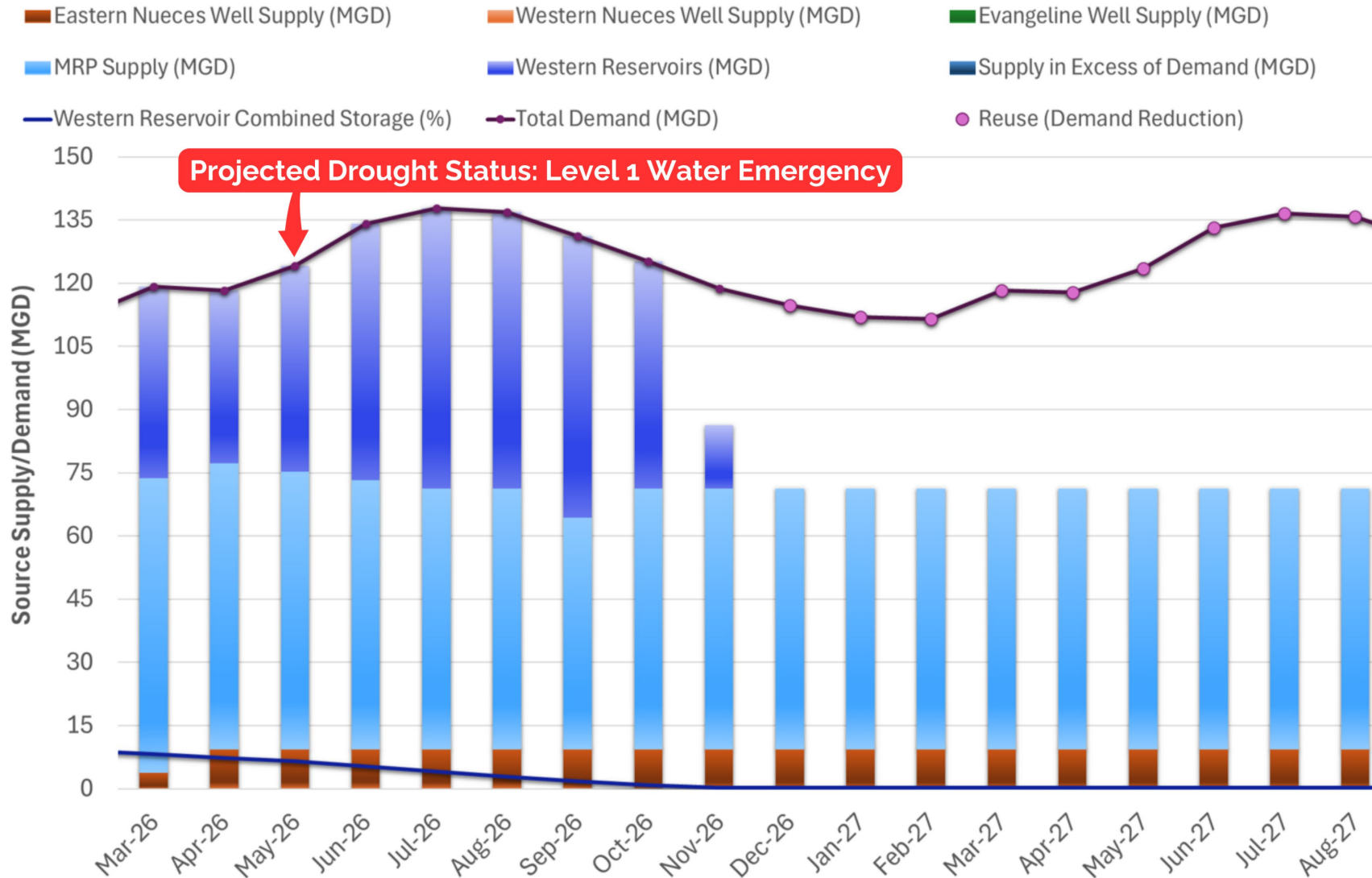
## 4 MGD Eastern Well Field



# Scenario B: 10 MGD Eastern Well Field by April 1

	SCENARIOS					
	CURRENT	A	B	C	D	E
<b>Lake Texana Curtailment</b>						
(NO CURTAILMENT)	○					○
Storage drops below 50% (10% CURTAILMENT)		○	●	○	○	
Storage drops below 40% (20% CURTAILMENT)		○	●	○	○	
<b>MRP Schedule 4 Operations, Without Issues</b>						
72 MGD	○	○	●	○	○	○
<b>Drought Hydrology (Evaporation)</b>						
90th Percentile Reservoir Evaporation	○					○
99th Percentile Reservoir Evaporation		○	●	○	○	
<b>Drought Hydrology (Inflow Events)</b>						
Minor Inflow Events	○					○
No Inflow Events (No Rainfall)		○	●	○	○	
<b>Eastern Well Field Production</b>						
Special Condition Received by April 1 (10 MGD)	○		●	○		○
Special Condition Received by May 1 (10 MGD)		○			○	
<b>Demand Reductions, Through Reuse</b>						
By December 2026		○	●	○	○	○
<b>Lake Corpus Christi Storage</b>						
At 0%	○					

# Scenario B: 10 MGD Eastern Well Field by April 1

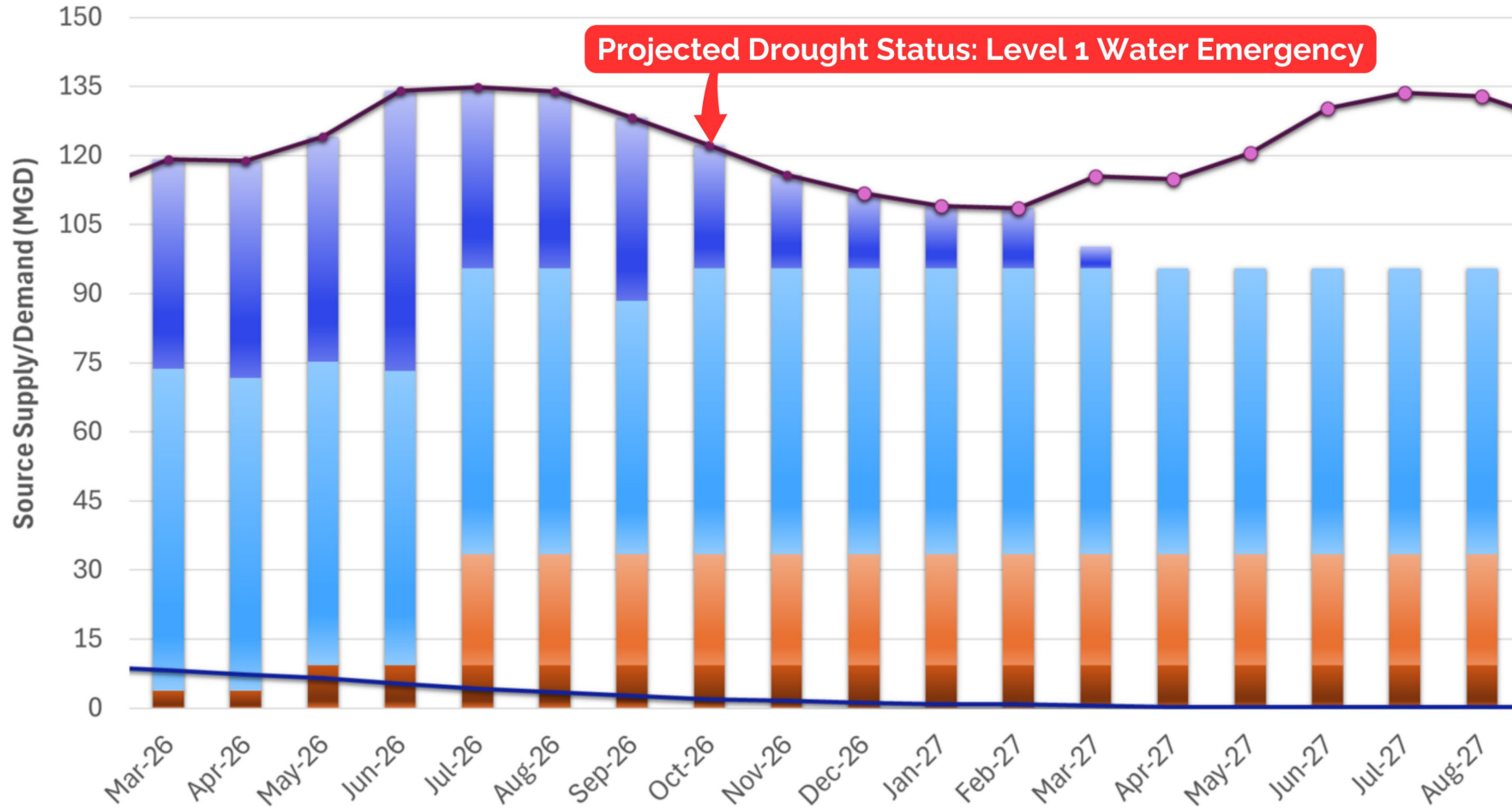


# Scenario C: Western Well Field Bed & Banks by July 2026

	SCENARIOS					
	CURRENT	A	B	C	D	E
<b>Lake Texana Curtailment</b>						
(NO CURTAILMENT)	○					○
Storage drops below 50% (10% CURTAILMENT)		○	○	●	○	
Storage drops below 40% (20% CURTAILMENT)		○	○	●	○	
<b>MRP Schedule 4 Operations, Without Issues</b>						
72 MGD	○	○	○	●	○	○
<b>Drought Hydrology (Evaporation)</b>						
90th Percentile Reservoir Evaporation	○					○
99th Percentile Reservoir Evaporation		○	○	●	○	
<b>Drought Hydrology (Inflow Events)</b>						
Minor Inflow Events	○					○
No Inflow Events (No Rainfall)		○	○	●	○	
<b>Eastern Well Field Production</b>						
Special Condition Received by April 1 (10 MGD)	○		○	●		○
Special Condition Received by May 1 (10 MGD)		○			○	
<b>Demand Reductions, Through Reuse</b>						
By December 2026	○	○	○	●	○	○
<b>Lake Corpus Christi Storage</b>						
At 0%	○					

# Scenario C: Western Well Field Bed & Banks by July 2026

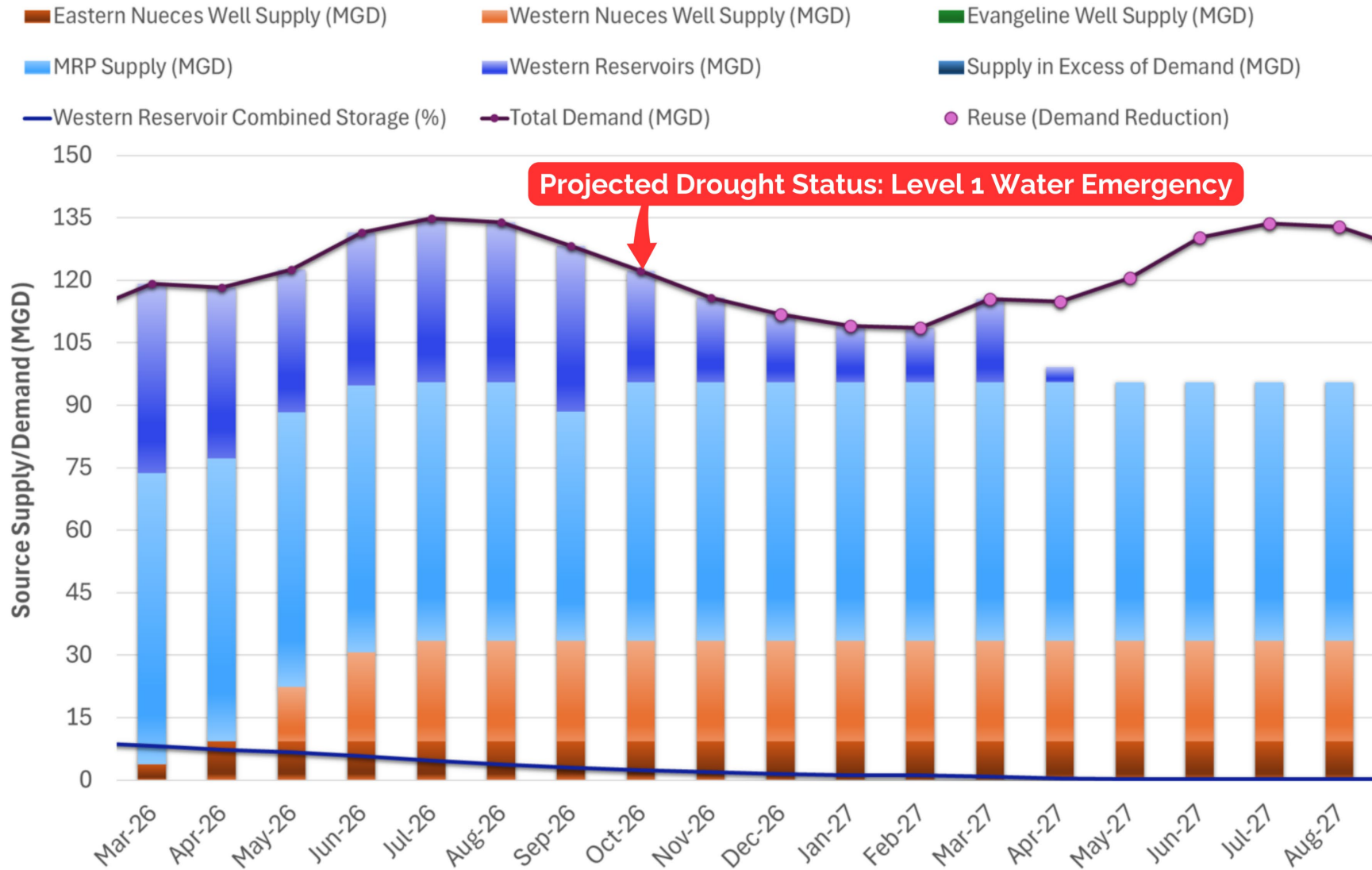
- Eastern Nueces Well Supply (MGD)
- Western Nueces Well Supply (MGD)
- Evangeline Well Supply (MGD)
- MRP Supply (MGD)
- Western Reservoirs (MGD)
- Supply in Excess of Demand (MGD)
- Western Reservoir Combined Storage (%)
- Total Demand (MGD)
- Reuse (Demand Reduction)



# Scenario D: Western Well Field Bed & Banks by May 2026

	SCENARIOS					
	CURRENT	A	B	C	D	E
<b>Lake Texana Curtailment</b>						
(NO CURTAILMENT)	○					○
Storage drops below 50% (10% CURTAILMENT)		○	○	○	●	
Storage drops below 40% (20% CURTAILMENT)		○	○	○	●	
<b>MRP Schedule 4 Operations, Without Issues</b>						
72 MGD	○	○	○	○	●	○
<b>Drought Hydrology (Evaporation)</b>						
90th Percentile Reservoir Evaporation	○					○
99th Percentile Reservoir Evaporation		○	○	○	●	
<b>Drought Hydrology (Inflow Events)</b>						
Minor Inflow Events	○					○
No Inflow Events (No Rainfall)		○	○	○	●	
<b>Eastern Well Field Production</b>						
Special Condition Received by April 1 (10 MGD)	○		○	○		○
Special Condition Received by May 1 (10 MGD)		○			●	
<b>Demand Reductions, Through Reuse</b>						
By December 2026		○	○	○	●	○
<b>Lake Corpus Christi Storage</b>						
At 0%	○					

# Scenario D: Western Well Field Bed & Banks by May 2026

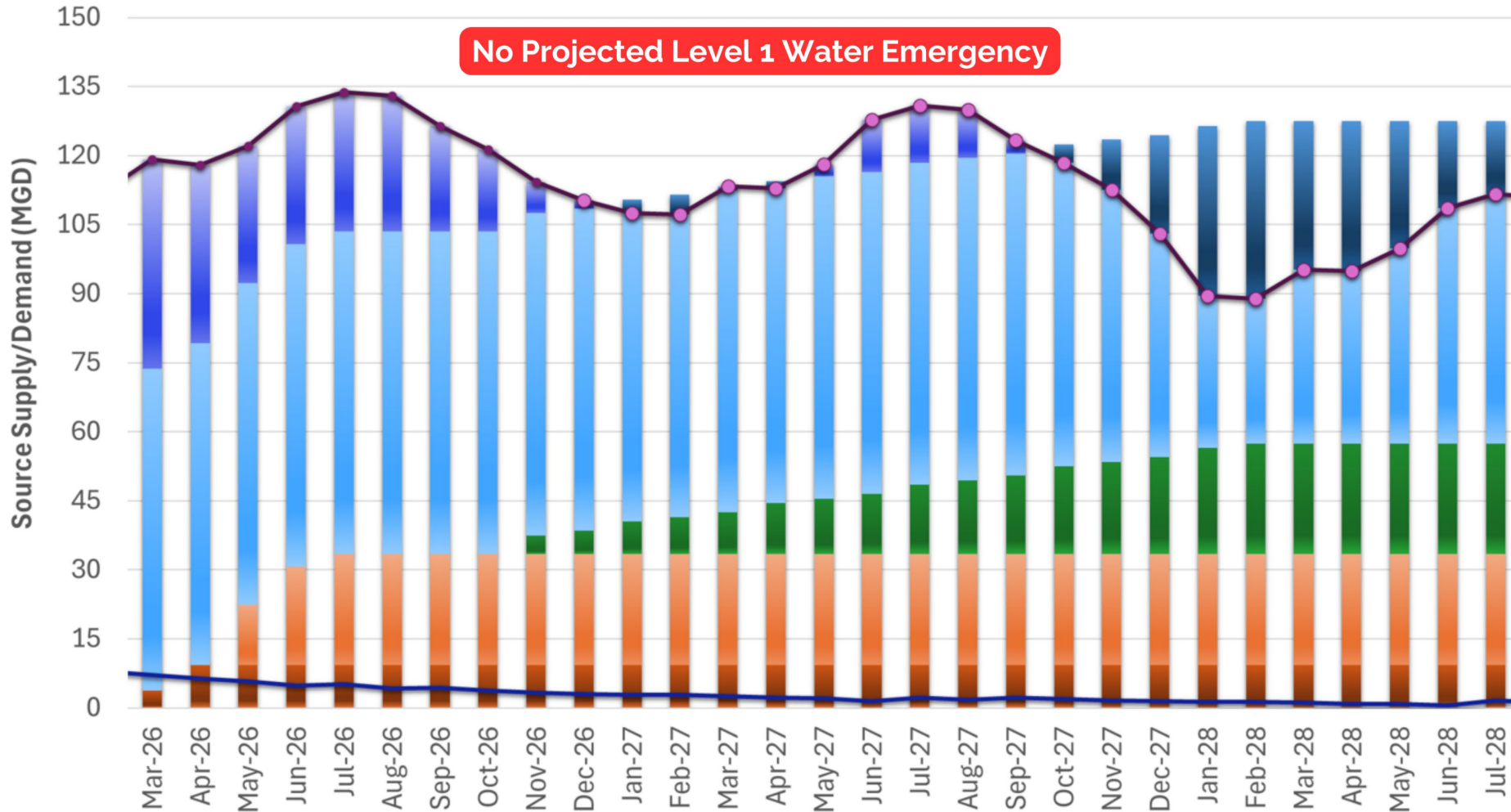


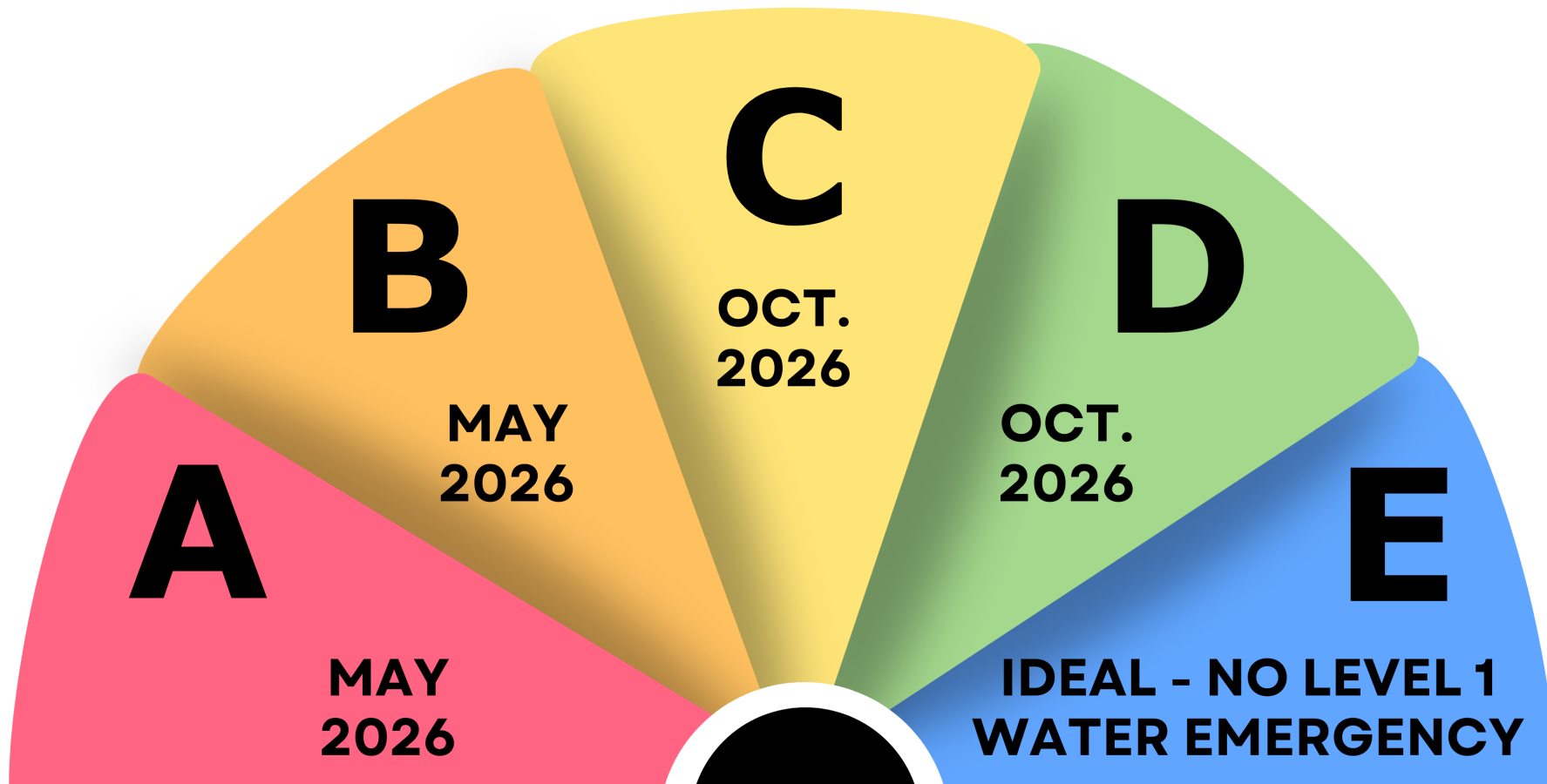
# Scenario E: Evangeline

	SCENARIOS					
	CURRENT	A	B	C	D	E
<b>Lake Texana Curtailment</b>						
(NO CURTAILMENT)	○					●
Storage drops below 50% (10% CURTAILMENT)		○	○	○	○	
Storage drops below 40% (20% CURTAILMENT)		○	○	○	○	
<b>MRP Schedule 4 Operations, Without Issues</b>						
72 MGD	○	○	○	○	○	●
<b>Drought Hydrology (Evaporation)</b>						
90th Percentile Reservoir Evaporation	○					●
99th Percentile Reservoir Evaporation		○	○	○	○	
<b>Drought Hydrology (Inflow Events)</b>						
Minor Inflow Events	○					●
No Inflow Events (No Rainfall)		○	○	○	○	
<b>Eastern Well Field Production</b>						
Special Condition Received by April 1 (10 MGD)	○		○	○		●
Special Condition Received by May 1 (10 MGD)		○			○	
<b>Demand Reductions, Through Reuse</b>						
By December 2026	○	○	○	○	○	●
<b>Lake Corpus Christi Storage</b>						
At 0%	○					

# Scenario E: Evangeline

- Eastern Nueces Well Supply (MGD)
- Western Nueces Well Supply (MGD)
- Evangeline Well Supply (MGD)
- MRP Supply (MGD)
- Western Reservoirs (MGD)
- Supply in Excess of Demand (MGD)
- Western Reservoir Combined Storage (%)
- Total Demand (MGD)
- Reuse (Demand Reduction)





# **LEVEL 1 WATER EMERGENCY**

**180 days from supply not meet demand**



CITY OF CORPUS CHRISTI  
**CORPUS CHRISTI  
WATER**