Review of Revised Regional Water Planning Requirements

Spring-Summer 2013 | Temple McKinnon
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Outline

i. Background on planning requirements

ii. Purpose and nature of rule changes

iii. Summary of specific rule changes
**BASIC PLANNING PARAMETERS:**

- Water supply plan to meet DOR needs
- 50-year planning horizon
- 5-year planning cycle
- Categories of water use:
  - Municipal
  - Manufacturing
  - Irrigation
  - Mining
  - Livestock
  - Steam-electric power
“The state water plan shall provide for the preparation for and response to drought conditions.”

- *Guidance Principles for the State Water Plan Development §358.3(1)*
“The state drought manager \([TDEM]\) is responsible for managing and coordinating the drought response component of the state water plan.”

- Texas Water Code, Sec. 16.055. Drought Response Plan
Regional Water Planning Requirements

- Statute (Texas Water Code)
  - Agency Rules §
    - (31 Texas Administrative Code 355, 357, 358)

Regional Water Planning Contract Documents
RWP Requirements

Statute

Agency Rules §

Revised in 2012

RWP Contract Documents
RWP Requirements

Statute

Agency Rules §

Revised in 2012

RWP Contract Documents
Planning Rules

§355

§357

§358
new rules for new statutes
new rules for new requirements
reorganized rules for existing content
emphasized rules for existing content
Purpose & Nature of Rule Changes

• statutory changes

• problems encountered during 2011 drought

• outcomes from agency coordination
Rule changes will require RWPGs to:

a) report additional (existing) information in plans

b) collect, analyze, and consider additional information

c) make additional recommendations
**REGIONAL WATER PLAN CHAPTERS:**

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Chapter with Revised Requirements:

1. description
2. demands
3. supply
4. needs
5. WMS evaluations
6. plan impacts
7. drought response  NEW
8. policy recommendations
9. financing of WMSs
10. plan adoption
11. implementation & comparison  NEW
Chapter 1: RWP Area Description

Identify in the plan multiple historic droughts of record (DOR), if applicable

- §357.30(9)
DOR = 1950s

RWP Area Description
RWP Area Description

DOR = 1950s
RWP Area Description

DOR = 1990s

DOR = 1950s
CHAPTER 3: Existing Water Supplies

Where a DFC has been established...

- RWPlans
- Groundwater Availability

= MAGs
Groundwater Management Areas (GMAs) = Texas
GMAs = Texas

Major and Minor Aquifers

Development of DFCs
Development of DFCs

GMAs = Texas

Major and Minor Aquifers

GCDs
Development of DFCs

- GMAs = Texas
- Major and Minor Aquifers
- DFCs
- GCDs
Areas with MAGs = Texas

Major and Minor Aquifers

DFCs

GCDs

Development of DFCs
GMAs = Texas

Major and Minor Aquifers

DFCs

Areas Without DFCs

GCDs

‘non-relevant’ areas (no MAGs)
GMAs = Texas

Major and Minor Aquifers

DFCs

GCDs

Areas Without DFCs

'other' local aquifer areas (no MAGs) & 'non-relevant' areas (no MAGs)
GMAs = Texas

Major and Minor Aquifers

DFCs

GCDs

Areas Without DFCs

‘other’ local aquifer areas (no MAGs)

‘non-relevant’ areas (no MAGs)

RWPGs responsible for availability estimates
Secondary needs analysis to be performed after recommending conservation and reuse

- §357.33 (e)

New REPORTING REQUIREMENT based on data already developed by RWPG
- no new data or work required
Secondary Needs Analysis

Total Water Needs
Secondary Needs Analysis

Total Water Needs

- Conservation + Direct Reuse WMSs
Secondary Needs Analysis

Total Water Needs

- Conservation + Direct Reuse WMSs

= Remaining Needs...
Secondary Needs Analysis

Total Water Needs

Conservation + Direct Reuse WMSs

Remaining Needs...

calculated by TWDB & presented in plans
Potentially Feasible, Evaluated, Recommended WMSs
Chapter 5: WMSs

a) TCEQ Environmental Flow Standards

b) potentially applicable BMPs

c) conservation sub-chapter

d) management supply factor (MSF)

e) other
a.) All WMSs must adhere to relevant adopted environmental flow standards

§357.34(d)(3)(B)
 Environmental Flow Stds

site specific studies
(when available)

apply the 1997 “Consensus Criteria for Environmental Flow Needs”
b.) Shall consider potentially applicable BMPs

§357.34(f)(2)
c.) All Conservation recommendations will be gathered into a Sub-Chapter

§357.34(g)

REORGANIZATION OF EXISTING PLAN CONTENT ONLY
- no new data or work required
d.) Report calculated planning ‘MSFs’ - assuming all recommended WMSs are implemented.

§357.35(g)(2)

NEW REPORTING REQUIREMENT based on data already developed by RWPG - no new data or work required
Existing Supply + WMS Supply
Existing Supply + WMS Supply  
DIVIDED BY Total Demand
Existing Supply + WMS Supply = Total Demand

= ‘management supply factor’
DIVIDED BY Total Demand

- for each WUG
Existing Supply + WMS Supply • for each WUG • in each decade
Existing Supply + WMS Supply

DIVIDED BY

Total Demand

provided by TWDB & presented in plans
(example 1) 

$$\text{Existing Supply} + \text{WMS Supply}$$ 

$$\text{Total Demand}$$ 

factor = 1.0
(example 2)

\[
\text{Total Demand} = \text{Existing Supply} + \text{WMS Supply}
\]

\[\text{factor} > 1.0\]
Other Requirements

brackish desal
WMSs must fit
within most
MAGs

NO GW
overdrafts
esp. MAGs
All WMS supply volumes must be firm during DOR

Costing tool for all WMSs

Other Requirements
Other Requirements

✓ must include more details that go into WMS cost estimates

✓ must include estimate of anticipated water loss in WMS technical evaluations
more detailed documentation of all WMS categories that were considered  §357.34(c)

- reuse
- desalination
- reallocation
- emergency transfers
- conjunctive use
RWP\textsuperscript{s} shall include a summary of the identified remaining unmet needs
\section*{\textit{New REPORTING REQUIREMENT ONLY}}

- \textit{TWDB to calculate & provide}
- \textit{By WUG category & decade}
- \textit{Municipal WUGs individually}
Chapter 7: Drought Response Information, Activities, and Recommendations

A NEW CHAPTER IN ALL PLANS
As a result of the 2011 drought, TCEQ and TDEM provided input on rules based on:

- number of water systems in danger of running out of water
- lack of implementation of DCPs
- lack of information on local options for water in emergency situation
- poor local coordination
Rule changes in response to the 2011 drought will require RWPGs to:

• collect, analyze, & consider additional information

• make additional recommendations
a) recommendations for each existing source
   - §357.42(c),(i)(2)  (triggers and responses)

b) emergency responses to local conditions
   - §357.42(g)  (7,500 population or less; single source)

c) develop region-specific model DCPs  -§357.42(j)

d) recommendations to the State Drought Preparedness Council - §357.42(i)

more later.....
Ch. 11: Implementation & Comparison

A NEW CHAPTER IN ALL PLANS

i. progress on 2011 plan WMSs

ii. comparison to the previous regional water plan
i. Determine level of implementation of 2011 plans

§357.45(a)

- survey of sponsors of 2011 WMSs
- survey tool to be provided by TWDB

**STATUS:**
under study?
land acquired?
permitted?
constructed?
ii. Comparison to previous plan

\[\text{Comparison} \quad \S 357.45(b)\]

2011 plan

- projections
- water availability
- existing supplies
- needs
- recommended WMSs

2016 plan
New Regional Plan Content

- Electronic appendices to include **full WAM input files** used to determine SW availability including dates of model runs

- Technical memorandum prior to draft plan
2016 plans to incorporate several standardized database reports

- reduce costs
- consistently report required data
- facilitate compliance with rules
- facilitate reviews and SWPlan development
- comply with agency audit finding

compiled by TWDB – presented in plans
Questions?

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