



Region C Water Planning Group

March 31, 2014





Action Items

- A. Consider approval of letter to TWDB requesting use of Safe Yield to determine available supply from Tarrant Regional Water District reservoirs
- B. Ratify Amendment Numbers 3, 4, and 5 of contract between Texas Water Development Board and North Texas Municipal Water District related to the 2016 Region C Water Plan





Action Items

- C. Consider authorization for NTWMD to amend the current contract with consultants to incorporate provisions of Amendment Numbers 3, 4, and 5 of the contract between NTWMD and TWDB
- D. Consider Revision of Region C Approved Demand Projections to include demand for DFW International Airport
- E. Consider appointment of a Region C Sub-Committee on SWIFT Prioritization





Consider approval of letter to TWDB requesting use of Safe Yield to determine available supply from Tarrant Regional Water District reservoirs

Amy Kaarlela



TRWD Safe Yield

- TRWD Management Plan – operate system based on safe yield
- Safe yield vs. firm yield
- Past Region C Plans used this

TRWD System Yield (ac-ft/year)	2020	2070
Firm Yield	524,992	521,353
Safe Yield	455,508	423,592
% Difference	-13%	-19%



Ratify Amendment Numbers 3, 4, and 5 of contract between Texas Water Development Board and North Texas Municipal Water District related to the 2016 Region C Water Plan

Jim Parks



Contract Amendments

- Amendment No. 3
 - Task 4D scope of work (scope approved by the RCWPG on 3/25/13)
 - Task 4D Notice to Proceed
- Amendment No. 4
 - \$8,500 for Region C/D conflict resolution
 - Release funds from State's new FY budget
 - Tech Memo → Tech Data
 - Tech Data deadline from 5/14 → 8/14

Contract Amendments

- Amendment No. 5
 - Add Task 12
 - 2011 Project Prioritization
 - \$100,478
 - Add Task 13
 - 2016 Project Prioritization
 - \$32,636



Consider authorization for NTWMD to amend the current contract with consultants to incorporate provisions of Amendment Numbers 3, 4, and 5 of the contract between NTWMD and TWDB

Jim Parks





Consider Revision of Region C Approved Demand Projections to include demand for DFW International Airport

Amy Kaarlela



Add DFW Airport Demands

- Airport demands inadvertently left out
 - Understood to be in TWDB's draft manufacturing demands (Dallas/Tarrant County)
 - Actually in Dallas County Other (municipal) which Region C greatly reduced
- Add back to Dallas CO & Tarrant CO

Region C Demands (ac-ft/yr)	2020	2070
Previously Approved	1,719,940	2,936,105
Add DFW Airport	3,385	3,775
New Demand Total	1,723,325	2,939,880
% Change	0.20%	0.13%



Consider appointment of a Region C Sub-Committee on SWIFT Prioritization

Jim Parks





Discussion Items

- A. Schedule Update
- B. Prioritization of Projects in the 2011 Region C Water Plan
- C. TWDB Proposed Resolution of the Interregional Conflict between the 2011 Region C and Region D Regional Water Plans





Discussion Items

- D. Letter from City of Mansfield Regarding Planning Grant
- E. RCWPG New Member Training
- F. Update on Tasks 3, 4, and 10
- G. Next Steps





Schedule Update

Amy Kaarlela



DRAFT
2016 Region C Water Plan Proposed Schedule

Task	2014												2015											
	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec		
1. Regional Description					▲																			
2A. Non-Municipal Demand																								
2B. Population/ Municipal Demand																								
Population & Demand review/ revision																								
Present Population/Demands																								
Approve Population/Demands																								
3. Water Supply Analysis																								
Review groundwater supplies																								
Update surface water supplies																								
Allocate supplies to WUGs and WWPs			▲																					
Database entry																								
4A. ID Water Needs			▲																					
4B. ID Potentially Feasible Strategies																								
4C. Technical Data Tables					▲	● Technical data tables Due Aug 1																		
4D. WMS Evaluation & Selection																								
Update existing strategies					▲																			
Develop new strategies					▲																			
Survey WUGs/ WWPs																								
Refine WMSs based on survey and meetings										▲														
Update costs										▲														
Update Chapter 4											▲													
5. Water Conservation Recommendations					▲																			
6. Impacts of Regional Water Plan					▲																			
7. Drought Response																								
8. Legislative Recommendations					▲																			
9. Financing Report																					▲			
10. Plan Adoption/Public Participation	▲										▲				▲	● IPP Due May 1					▲	● Final Plan Due Nov 2		
11. Implementation																								
12. Prioritization of 2011 Plan projects	▲		▲	● Draft 2011 Prioritization due June 1	▲	● Final 2011 Prioritization due Sept 1																		
13. Prioritization of 2016 Plan projects														▲	● Draft 2016 Prioritization due w/ IPP					▲	● Final 2016 Prioritization due w/ Final Plan			
Newsletters			■							■						■					■			
Potential Meetings	■	■	■	■				?			■	■	■	■	■					■				

● Submittal to TWDB
 ■ Newsletter Publication

▲ Anticipated Agenda Items at RWPG Meetings

Schedule - 2014

- 2014 Deadline/Deliverables
 - June 1 – Draft 2011 Prioritization
 - August 1 – Technical Data Tables (Needs Analysis entered into TWDB Database)
 - September 1 - Final 2011 Prioritization
- 2014 Meetings
 - Mid-May – approve Draft 2011 Prioritization
 - July – approve Technical Data
 - Fall ?

Schedule - 2015

- 2015 Deadline/Deliverables
 - May 1 – Initially Prepared Plan & Draft 2016 Prioritization
 - November 1 – Final Plan & Final 2016 Prioritization
- 2015 Meetings
 - January ?
 - April – approve IPP & Draft 2016 Prioritization
 - October – approve Final Plan & Final 2016 Prioritization



Prioritization of Projects in the 2011 Region C Water Plan

Amy Kaarlela



Prioritization of 2011 Projects

- Prop 4 – Enabled TWDB to create \$2 Billion SWIFT to finance projects from State Water Plan
- SWIFT is *low interest financing* (not *grant money*)
- Before funds can be made available, TWDB must
 - Prioritize projects from 2011 Plan
 - Develop rules on how the fund will operate*

Prioritization of 2011 Projects

- Other Regions also prioritizing projects from their 2011 plans
- Region C & H had most strategies to prioritize
- Scores from one region not directly comparable to score from other regions
 - Dependent on assumptions made by other regions
 - No need to score projects as high as possible to gain “advantage” over other regions
 - Relative ranking within our region has significance

Prioritization Template

- Questions and Scoring system devised by Regional Chairs
- Scoring Template provided by TWDB
- Max Score = 1000
- 5 Categories of Questions
 - Decade of Need (40%)
 - Project Feasibility (10%)
 - Project Viability (25%)
 - Project Sustainability (15%)
 - Project Cost Effectiveness (10%)

Criteria 1 - Decade of Need

(40% or 400 Points)

- *1A - What is the decade the RWP shows the project comes online?*

- Auto-calculated based on decade of first supply or annual cost

- *1B - In what decade is initial funding needed?*

- Auto-calculated based on one decade prior to coming online

(2 decades prior for projects >\$100M)

Decade	Score
2010	10
2020	8
2030	6
2040	4
2050	2
2060	0

Example – Criteria 1

	Criteria 1 - Decade of Need for Project			
	10	10	20	400
	1A - Decade online?	1B - Decade of initial funding needed?	Criteria 1 Total Score	Weighted Criteria 1 Total
Municipal conservation - basic	10	10	20	400
Lower Bois d'Arc Creek Reservoir	8	10	18	360
New wells - Carrizo-Wilcox Aquifer	4	6	10	200
Conveyance project (2)	8	10	18	360
Water treatment plant - new	8	10	18	360

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SOME NUMBERS ARE PLACEHOLDERS**

Criteria 2 –Feasibility

(10% or 100 Points)

- *2A - What supporting data is available to show that the quantity of water needed is available?*
 - *0 = Models show no water; no model*
 - *3 = Models show enough water*
 - *5 = Field tests/measurements confirm enough water*

Criteria 2 –Feasibility

(10% or 100 Points)

- *2A - What supporting data*
- Overdrafting gets 0
- Suggest all else get 3 because supported by MAG/WAM
- Subjective:
 - How to score Conservation
 - No access to whether field tests done
 - Region H giving 5 to groundwater supported by MAG and existing/permitted surface water

Criteria 2 –Feasibility

(10% or 100 Points)

- *2B - If necessary, does the sponsor hold necessary legal rights, water rights and/or contracts to use the water that this project would require?*
 - *0 = Application not submitted*
 - *2 = Application submitted*
 - *3 = Application administratively complete*
 - *5 = Right/contract obtained or not needed*

Criteria 2 –Feasibility

(10% or 100 Points)

- *2B – Does sponsor hold right.....*
- Conservation gets 5 (no right needed)
- Will require consultants looking up in plan and backup files
- New Groundwater wells, assume will need a permit from GCD
- WUG/WWP contract increase subject to this scoring

Criteria 2 –Feasibility

(10% or 100 Points)

- *2C - What level of engineering and/or planning has been accomplished for this project?*
 - *1 = Outlined in RWP*
 - *2 = Feasibility study initiated*
 - *3 = Feasibility study completed*
 - *4 = Conceptual design initiated*
 - *5 = Conceptual design completed*
 - *6 = Preliminary engineering report initiated*
 - *7 = Preliminary engineering report completed*
 - *8 = Preliminary design initiated*
 - *9 = Preliminary design completed*
 - *10 = Final design completed*

Criteria 2 –Feasibility

(10% or 100 Points)

- *2C – Level of engineering.....*
- Info not readily available
- Proposed Methodology
 - First, focus on projects online in 2010-2030; contact project sponsor for info
 - Next, focus on 92 projects >\$10M; contact project sponsor for info
 - Last, create rule of thumb based on decade online
 - Region H scoring conservation as 10

Criteria 2 –Feasibility

(10% or 100 Points)

- *2D - Has the project sponsor requested (in writing for the 2016 Plan) that the project be included in the Regional Water Plan?*
 - 0 = No
 - 5 = Yes
- Two Criteria
 - 2016 Plan meetings or direct correspondence
 - 2016 Survey of WUGs

Example – Criteria 2

	Criteria 2 - Project Feasibility					100
	5	5	10	5	25	
	2A - Supporting data to show quantity available?	2B - Sponsor hold necessary rights/ contracts?	2C - Level of engineering	2D - Sponsor requested inclusion in the 2016 Regional Water Plan?	Criteria 2 Total Score	Weighted Criteria 2 Total
Municipal conservation - basic	0	5	10	0	15	60
Lower Bois d'Arc Creek Reservoir	3	0	6	5	14	56
New wells - Carrizo-Wilcox Aquifer	3	0	1	5	9	36
Conveyance project (2)	3	2	1	0	6	24
Water treatment plant - new	5	5	4	5	19	76

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Criteria 3 – Viability

(25% or 250 Points)

- *3A - In the decade the project supply comes online, what is the % of the WUG's (or WUGs') needs satisfied by this project?*
- Straightforward calculation
 - First Decade online
 - Supply from Strategy ÷ WUG need
 - TWDB provided WUG need
 - If project serves multiple WUGs, needs have to be summed
 - If need is 0, then score is 100%? (Conservation and Supplemental Wells)

Criteria 3 – Viability

(25% or 250 Points)

- *3B - In the final decade of the planning period, what is the % of the WUG's (or WUGs') needs satisfied by this project?*
- Straightforward calculation
 - 2060
 - Supply from Strategy ÷ WUG need
 - TWDB provided WUG need
 - If project serves multiple WUGs, needs have to be summed
 - If need is 0, then score is 100%? (Conservation and Supplemental Wells)

Criteria 3 – Viability

(25% or 250 Points)

- *3C - Is this project the only economically feasible source of new supply for the WUG, other than conservation?*
 - 0 = No
 - 5 = Yes
- Methodology
 - From 2011 Plan, list of “Potentially Feasible Strategies” – is there more than one strategy for the WUG?
 - How to score conservation (5?)

Criteria 3 – Viability

(25% or 250 Points)

- *3D – Does this project serve multiple WUGs?*
 - 0 = No
 - 5 = Yes
- Methodology
 - Manually look up in 2011 plan; individual assessment
 - How to score conservation (0?); assume conservation only serves one WUG

Example – Criteria 3

	Criteria 3 - Project Viability							
	100	10	100	10	5	5	30	250
	3A - Decade online, what % of WUG need satisfied?	Converted % to score	3B - In 2060 what % of WUG's need satisfied?	Converted % to score	3C - Only economically feasible source?	3D - Serve multiple WUGs?	Criteria 3 Total Score	Weighted Criteria 3 Total
Municipal conservation - basic	#DIV/0!	#DIV/0!	7.97	0.80	5.00	0	#DIV/0!	#DIV/0!
Lower Bois d'Arc Creek Reservoir	75	7.53	31.97	3.20	0.00	5	15.72	131.04
New wells - Carrizo-Wilcox Aquifer	100	10.00	95.27	9.53	5.00	0	24.53	204.39
Conveyance project (2)	71	7.12	20.01	2.00	5.00	0	14.12	117.70
Water treatment plant - new	0	0.00	0.00	0.00	5.00	5	10.00	83.33

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Criteria 4 –Sustainability

(15% or 150 Points)

- *4A – Over what period of time is this project expected to provide water (regardless of the planning period)?*
 - *5 = Less than 20 years*
 - *10 = More than 20 years*
- Methodology
 - Max score for all except overdrafting, emergency supplies, and temporary/interim supplies
 - How to score 0 supply (Supplemental Wells, WTP, some conveyance projects)

Criteria 4 –Sustainability

(15% or 150 Points)

- *4B – Does the volume of water supplied by the project change over the regional water planning period?*
 - *0 = Decreases*
 - *3 = No change*
 - *5 = Increases*

Example – Criteria 4

	Criteria 4 – Project Sustainability			
	10	5	15	150
	4A – Period of time will project will provide water	4B – Does supply volume change?	Criteria 4 Total Score	Weighted Criteria 4 Total
Municipal conservation - basic	10	5	15	150
Lower Bois d'Arc Creek Reservoir	10	0	10	100
New wells - Carrizo-Wilcox Aquifer	10	3	13	130
Conveyance project (2)	10	0	10	100
Water treatment plant - new	10	3	13	130

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Criteria 5–Cost Effectiveness

(10% or 100 Points)

- *5A – What is the expected unit cost of water supplied by this project compared to the median unit cost of all other recommended strategies in the region's current RWP?
(Project's Unit Cost divided by the median project's unit cost)*
 - *0 = 200% greater than median*
 - *1 = 150-199% greater than median*
 - *2 = 101-149% greater than median*
 - *3 = 100% of median*
 - *4 = 15-99% of median*
 - *5 = 0-50% of median*

Criteria 5–Cost Effectiveness

(10% or 100 Points)

- *5A – ...unit cost compared to the median...*
- Issues/Methodology
 - How to calculate median of all projects
 - What decade to consider - first decade online for each project
 - \$0 Cost supplies (Some conservation, purchase from provider, add'l groundwater via existing wells, etc) → \$0 Unit cost; use these in calculating median?
 - Projects with 0 supply (supplemental wells, WTP) give error for unit cost $\$x/0$. Propose to use well/plant capacity as supply.

Example – Criteria 5

	Criteria 5 – Project Cost Effectiveness		FINAL SCORE
	5	100	1000
	5A – Unit cost compared to Median	Weighted Criteria 5 Total	
Municipal conservation - basic	5	100	#DIV/0!
Lower Bois d'Arc Creek Reservoir	2	40	687.04
New wells - Carrizo-Wilcox Aquifer	4	80	650.39
Conveyance project (2)	1	20	621.70
Water treatment plant - new	0	0	649.33

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TWDB Proposed Resolution of the Interregional Conflict between the 2011 Region C and Region D Regional Water Plans

Temple McKinnon, TWDB



TWDB Proposed Resolution

- Region C to readopt current 2011 Plan with Marvin Nichols as strategy
- Region D to amend 2011 Plan to reflect that the conflict has been resolved.
- Timeline:
 - March 4 – Preliminary recommendation released
 - April 29 – Public hearing in Mount Pleasant
 - April 30 – Public hearing in Arlington
 - May 2 – Comment period closes
 - May 19 – Final recommendation to TWDB
- Comments to RegionCandD@twdb.texas.gov or Office of General Council, Attn: Connie Sanders, 1700 North Congress, Austin, TX 78701



Letter from City of Mansfield Regarding Planning Grant

Amy Kaarlela



WUG Grant Application

- Entities applying for TWDB grant funding must notify RWPG
- Mansfield applied for Flood Protection grant



RCWPG New Member Training

Amy Kaarlela
Jim Parks



New Member Training

- Added numerous new members
- Orient new members to Regional Planning Process
- Materials/Training available
 - TWDB New member site:
<http://www.twdb.texas.gov/waterplanning/rwp/regions/newmembers.asp>
 - FNI PowerPoint
 - 1 hour Q/A session prior to Region C meeting



Update on Tasks 3, 4, and 10

Amy Kaarlela



Update on Tasks 3, 4, and 10

- Task 3/4B/4C – Current Supplies, ID Strategies, Technical Data
 - Supply availability determined (yields, GAM)
 - Allocated supplies to WUGs
 - Final checking of allocations
 - List of Potentially Feasible Strategies
 - Database entry in summer

Update on Tasks 3, 4, and 10

- Task 4D – Evaluate Strategies
 - Evaluation Matrix
 - Develop Cost Estimates
 - GIS Mapping of all Recommended Strategies
 - Database entry of Recommended Strategies
- Task 10 – Public Participation
 - Public Meetings on Region C/D Conflict
 - April 29 – Mt Pleasant
 - April 30 - Arlington
 - Newsletter in May (if funding secured)



Next Steps

Amy Kaarlela



Next Steps

- Sub-Committee work on Prioritization
- Meeting Mid-May
 - Approve draft Prioritization
 - Approve Newsletter



Other Discussion

- A. Updates from the Chair
- B. Report from Regional Liaisons
- C. Report from Texas Water Development Board





Other Discussion

- D. Report from Texas Department of Agriculture
- E. Report from Texas Parks and Wildlife Department
- F. Other Reports





Other Discussion

- G. Confirm Date and Location of Next Meeting – Date, Time, and Location to be Determined
- H. Public Comments





Adjournment





Thank you for attending.

Materials are available at
www.regioncwater.org

