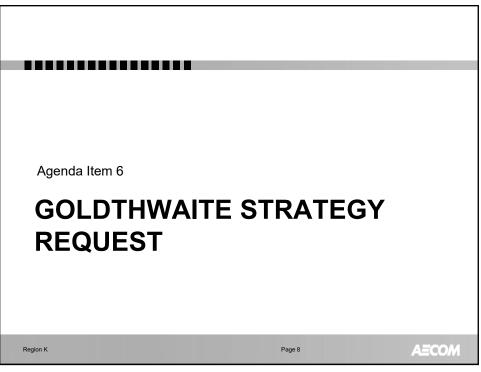
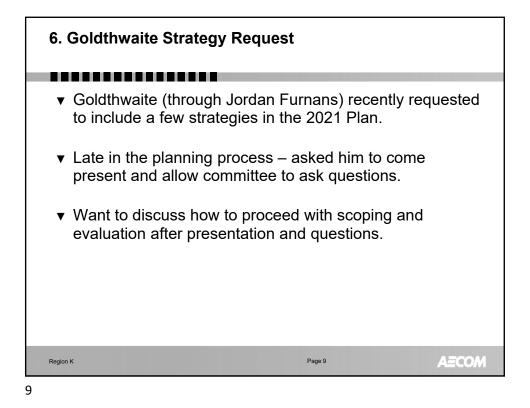


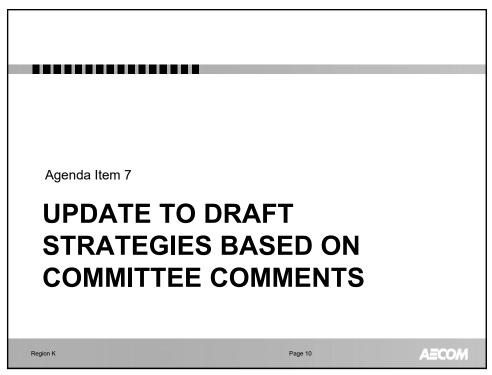
5. Status Update on Strategy Evaluations New, Update, or Limited Strategy WUG Strategy Type Update Date Started Status All municipal WUGs and Irrigation rought Management Drought Management New with needs Municipal utilities other than City of 7-Mar-19 Municipal under RWPG review Conservation ew Under Committee review dvanced Water Conservation 7-Mar-19 Austin No longer reques ting - no other quifer Storage and Recovery Manville WSC Aquifer Storage and Recover project sponsors Aquifer Storage and Recovery Aquifer Storage and Recovery and 5/15/2019 Under Committee review S/EACD – Edwards/Middle Trinity ASR Buda, Sunset Valley Update S/EACD – Saline Edwards ASR Buda, Hays County-Other . Desalination 5/15/2019 Under Committee review 4/16/2019 under RWPG review pdat st Lake Buchanan Project Bumet County-Other Bumet County WUGs (County-Other and potential others) ce water infrastruct mited Up nder RWPG revie 4/16/2019 under RWPG review uena Vista Regional Project urface water infrastructure imited Update Marble Falls, Burnet County-Other, larble Falls Regional Project other potential WUGs urface water infrastruct 4/16/2019 under RWPG review pdate ity of Austin Conservation Austin Conservation Update 4/22/2019 under RWPG review ity of Austin Onsite Rainwater and 4/22/2019 under RWPG review Rainwater harves ting Update torm Water Harvesting Austin apture Local Inflows to Lady Bird Lake Other surface water 4/17/2019 under RWPG review ustir imited Updat ake Austin Operations Austin Drought Management Limited Update 4/17/2019 under RWPG review Austin, potentially others with a Austin - under RWPG review; other educed Lake Evaporation TP Nuclear Operating Company res ervoi r Other Update / Nev 4/17/2019 not identified yet STPNOC) Alternate Canal Delivery TPNOC Brackish Surface Water Steam-Electric (Matagorda Co.) Other surface water imited Update 4/18/2019 under RWPG review lending ity of Austin Off-Channel Reservoir iteam-Electric (Matagorda Co.) Other surface water imited Update 4/18/2019 under RWPG review and Evaporation Suppression Austin Off-Channel Reservo 5/1/2019 under RWPG review Municipal utilities other than City of Austin ainwater Harvesting Other surface water 7/1/2019 Under Committee review lew euse (indirect Potable Reuse through ady Bird Lake) ity of Austin ASR Austin Indirect Potable Reuse Update 4/30/2019 under RWPG review 5/1/2019 under RWPG review Austin Aquifer Storage and Rec Update

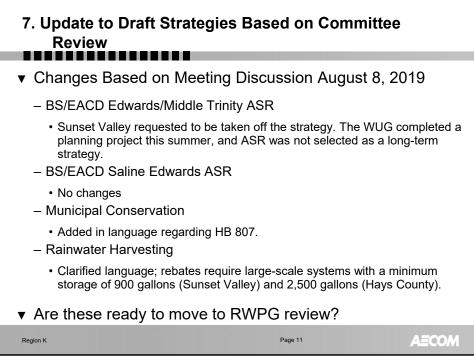
•		egy Evaluat			
Strategy	WUG	Strategy Type	New, Update, or Limited Update	Date Started	Status
dvanced Water Conservation	Irrigation in Lower Basin	Conservation	New	7-Mar-19	in progress
rought Management	Irrigation in Lower Basin	Drought Management	Update	15-Aug-19	in progress
rackish Groundwater Desalination	Austin	Groundwater Development	New		internal review
roundwater importation – Havs County Pipeline	West Travis County PUA, Hays County-Other, and other potential WUGs	Groundwater Development	Update	8/1/2010	Coordinating with Region
roundwater Importation – Alliance Regional Water	Buda and potential other Hays	Groundwater Development	Update to 2016 Plan HCPUA	0/1/2019	coordinacing with Region
uthority Pipeline	County WUGs	Groundwater Development	Pipeline Strategy	8/1/2010	Coordinating with Region
itv of Austin Blackwater and Greywater Reuse	Austin	Reuse	Update to 2016 Plan Other Reuse strategy with new component		pending data from Austin
ity of Austin Decentralized Direct Non-Potable Reuse	Austin	Reuse	Update to 2016 Plan Other Reuse strategy with new components		pending data from Austin
ommunity-Scale Stormwater Harvesting	Austin	Other surface water	New	5/1/2019	pending data from Austin
· •	West Travis County PUA	Direct Potable Reuse	New	5/2/2019	in progress
	Dripping Springs WSC	Direct Potable Reuse	New	5/2/2019	in progress
euse (Direct Potable Reuse)	Buda	Direct Potable Reuse	Update	4/22/2019	in progress
CRA - Prairie Site Off-Channel Reservoir	LCRA	New Major Reservoir	Update	6/25/2019	in progress
ity of Wharton Water Supply Strategy	Wharton	Reuse, Other surface water, Other	Update		in progress
rush Management	Marble Falls, Burnet County-Other, other potential WUGs	Other WMS	Limited Update	8/15/2019	in progress
ity of Austin Return Flows	Austin, Irrigation, Steam-Electric, LCRA	Other surface water	Update (requires modeling and coordination with Austin)	8/15/2019	in progress
ew LCRA Contracts	Need to determine	Other	New	9/3/2019	internal review
ew LCRA Contracts Requiring Infrastructure	Need to determine	Other	New	9/3/2019	internal review
CRA Contract Amendments	Need to determine	Other	New	9/3/2019	internal review
CRA Contract Amendments Requiring Infrastructure	Need to determine	Other	New	9/3/2019	internal review
ew Water Purchase Strategy	Need to determine	Other	New	9/3/2019	internal review
ew Water Purchase Strategy Requiring Infrastructure	Need to determine	Other	New		internal review
/ater Purchase Amendments	Need to determine	Other	New		internal review
ater Purchase Amendments Requiring Infrastructure	Need to determine	Other	New		internal review
CRA Baylor Creek Reservoir	New supply for LCRA	Off-Channel Reservoir	Limited Update	8/15/2019	internal review
ipplement Bay and Estuary Inflows with Brackish roundwater Thereby Replacing Demands on LCRA ighland Lakes Firm Yield	New supply for LCRA	Brackish Groundwater Development	Limited Update	8/15/2019	internal review
CRA groundwater expansion/development strategies	LCRA	Groundwater Development	Update		internal review

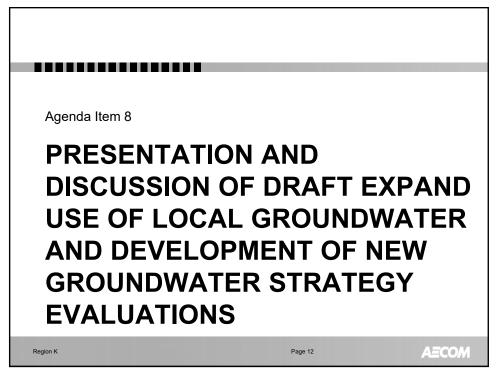
Strategy	WUG	Strategy Type	New, Update, or Limited Update	Status
CRA Aquifer Storage and Recovery (ASR) in Carrizo-Wilcox		Aquifer Storage and Recovery	Update	not started
ackish Groundwater Desalination	New supply for LCRA LCRA	Groundwater Development	New	not started
oundwater Importation – Carrizo-Wilcox to LCRA System	New supply for LCRA	Groundwater Development	Update	not started
y of Austin Centralized Direct Non-Potable Reuse	Austin	Reuse	Update	not started
servoir Capacity Expansion	Llano, possibly others	Other surface water	New	not started
endment to Existing Water Rights/Permits	LCRA, COA	Other	Update	not started
RA - Mid-Basin Off-Channel Reservoir	LCRA	New Major Reservoir	Update	not started
RA - Excess Flows Off-Channel Reservoir	LCRA	New Major Reservoir	Update	not started
nendments to LCRA Water Management Plan	LCRA, Irrigation (interruptible water)	Other	Update	not started
port Return Flows from Williamson County	LCRA	Other surface water	Update	not started
nanced Recharge and Conjunctive Use	LCRA	Other	Update	not started











8. Expand Use of Local Groundwater

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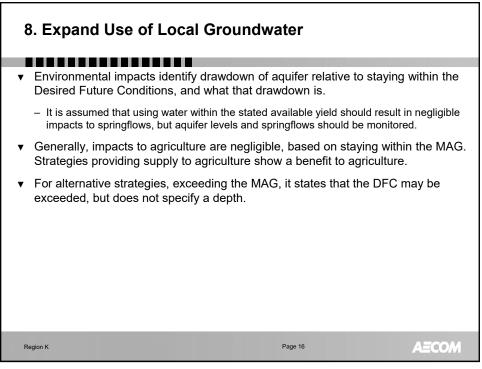
 Expand Local Use of Groundwater involves pumping additional groundwater from an aquifer that the WUG is currently using as a source, either using the WUG's existing wells or drilling additional wells.

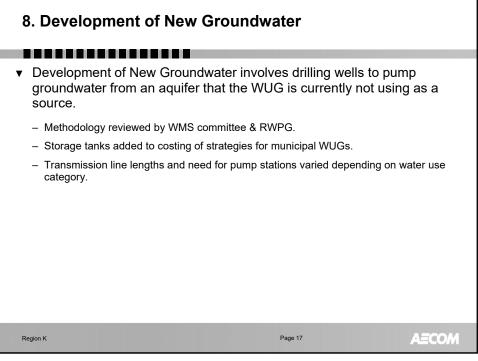
- Yield methodology reviewed previously by WMS committee & presented to RWPG.

Aquifer	WUG	County	River Basin		Project Cost	Unit Cost					
, idenioi		,	10101 2000	2020	2030	2040	2050	2060	2070	,	(\$/ac-ft)
Carrizo-Wilcox	Aqua WSC	Bastrop	Brazos (to Colorado)	0	100	250	500	800	800	\$9,163,000	\$990
Carrizo-Wilcox	Aqua WSC	Bastrop	Colorado	0	200	100	50	0	0	\$9,163,000	\$990
Carrizo-Wilcox	Elgin	Bastrop	Colorado	0	0	0	0	50	50	\$0	\$60
Edwards-BFZ	Pflugerville	Travis	Colorado	0	0	20	20	20	20	\$0	\$50
Edwards-BFZ	Sunset Valley	Travis	Colorado	0	0	50	50	50	50	\$0	\$60
Ellenburger-San Saba	Johnson City	Blanco	Colorado	0	100	100	100	100	100	\$2,386,000	\$2,030
Ellenburger-San Saba	Bertram	Burnet	Colorado (to Brazos)	0	3,000	3,000	3,000	3,000	3,000	\$30,711,000	\$1,201
Ellenburger-San Saba	Mining	Burnet	Colorado	0	300	300	300	300	300	\$2,263,000	\$607

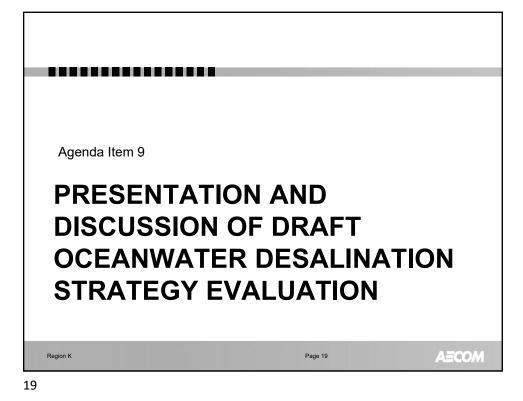
Aquifer	WUG	County	River Basin	2020	2030	•	ac-ft/yr) 2050		2070	Project Cost	Unit Co: (\$/ac-ft
Gulf Coast	Irrigation	Colorado	Brazos- Colorado	2,500	2,500	2,500	2,500	2,500	2,500	\$4,482,000	\$177
Gulf Coast	Corix Utilities Texas Inc.	Colorado	Colorado	0	0	0	1	2	4	\$0	\$50
Gulf Coast	County-Other	Colorado	Colorado	0	133	133	133	133	133	\$2,003,000	\$1,218
Gulf Coast	Irrigation	Colorado	Colorado	550	550	550	550	550	550	\$1,424,000	\$249
Gulf Coast	Irrigation	Colorado	Lavaca	5,000	5,000	5,000	5,000	5,000	5,000	\$8,774,000	\$171
Gulf Coast	Bay City	Matagorda	Brazos- Colorado	0	75	75	75	75	75	\$0	\$53
Gulf Coast	Irrigation	Matagorda	Colorado- Lavaca	300	300	300	300	300	300	\$1,431,000	\$430
Gulf Coast	Irrigation	Wharton	Brazos- Colorado	5,000	5,000	5,000	5,000	5,000	5,000	\$8,325,000	\$172
Gulf Coast	Wharton	Wharton	Brazos- Colorado	0	3,000	3,000	3,000	3,000	3,000	\$9,100,000	\$593
Gulf Coast	Irrigation	Wharton	Colorado	600	600	600	600	600	600	\$1,293,000	\$208
Sparta	County-Other	Fayette	Colorado	0	40	98	145	180	204	\$2,424,000	\$1,054

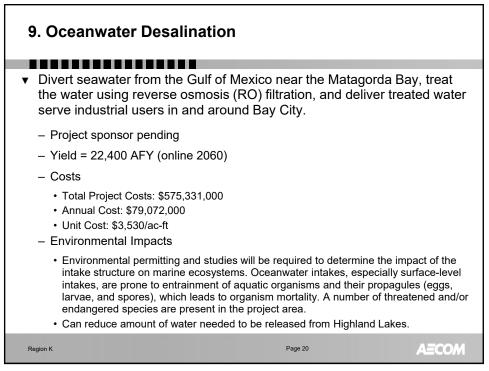
Aquifer	WUG	County	River Basin	2020	2030	Yield (a 2040	ac-ft/yr) 2050		2070	Project Cost	Unit Co (\$/ac-ff
Trinity	County-Other	Hays	Colorado	0	0	0	0	0	200	\$2,674,000	\$1,180
Trinity	Dripping Springs WSC	Hays	Colorado	0	0	300	300	300	300	\$3,507,000	\$1,023
Trinity	Mining	Hays	Colorado	600	600	600	600	600	600	\$2,409,000	\$373
Trinity	Irrigation	Mills	Brazos	300	300	300	300	300	300	\$1,323,000	\$403
Trinity	Garfield WSC	Travis	Colorado	0	0	0	7	26	47	\$0	\$85
Trinity	Manville WSC	Travis	Colorado	0	0	0	0	0	703	\$5,035,000	\$643
Yegua-Jackson	Mining	Fayette	Colorado	760	760	0	0	0	0	\$3,176,000	\$354
strategie	nt developed s that excee wug				Grou		ater (N	/AG)		roundwater	Unit Co
Aquifer	WUG	County		2020	2030	2040	2050	2060	2070	Project Cost	(\$/ac-f
Carrizo-Wilcox	Aqua WSC	Bastrop	Brazos (to Colorado)	0	0	0	0	0	5,736	\$37,682,000	\$209
Carrizo-Wilcox	Aqua WSC	Bastrop	Colorado	0	5 500	5.500	5 500	13 385	13.385	\$37,682,000	\$209

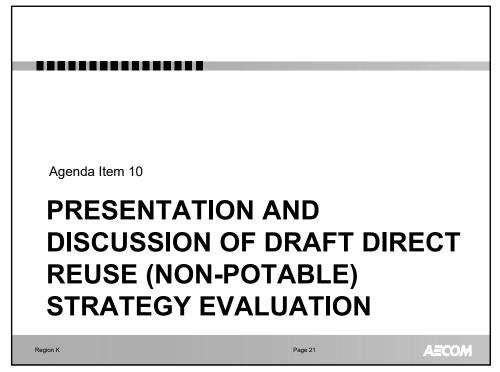




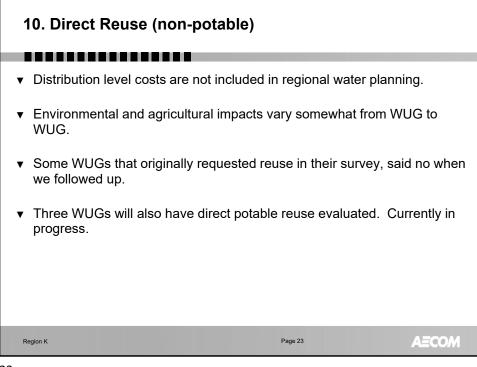
Aquifer	WUG	County	River Basin	2020	2030	Yield (a 2040	ac-ft/yr) 2050	2060	2070	Project Cost	Unit Cos (\$/ac-ft)
Ellenburger-San Saba	Mining	Burnet	Brazos	0	0	0	300	400	700	\$4,495,000	\$534
Gulf Coast	Irrigation	Matagorda	Colorado	510	510	510	510	510	510	\$1,195,000	\$180
Hickory	Mining	Burnet	Colorado	0	1,000	1,000	1,000	1,000	1,000	\$4,863,000	\$432
Marble Falls	Mining	Burnet	Colorado	0	0	1,000	1,000	1,000	1,000	\$3,345,000	\$307
Trinity	Hays	Hays	Colorado	0	100	100	100	100	100	\$3,361,000	\$2,270
Trinity	Elgin	Travis (Need in Bastrop)	Colorado	0	0	0	0	1,000	1,825	\$12,812,000	\$622
Trinity	Sunset Valley	Travis	Colorado	0	0	300	300	300	300	\$4,775,000	\$1,363
Trinity	Travis County MUD 10	Travis	Colorado	0	100	100	100	100	100	\$3,361,000	\$2,720
Yegua-Jackson	Manufacturing	Fayette	Lavaca	0	40	40	40	40	40	\$3,149,000	\$2,560

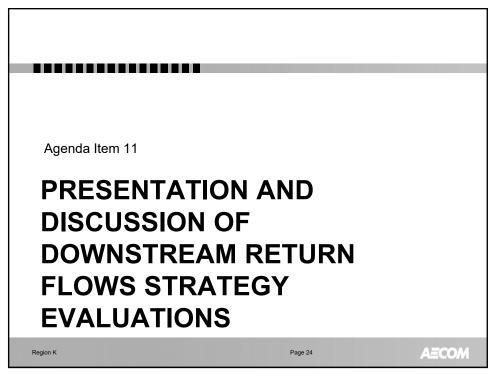


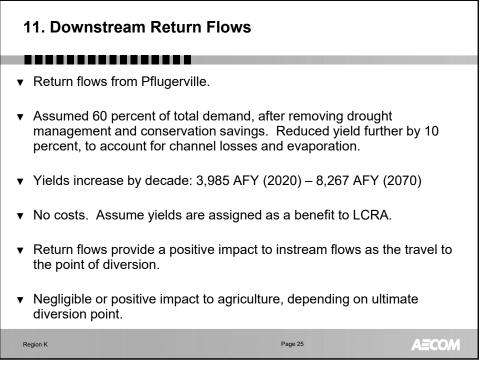


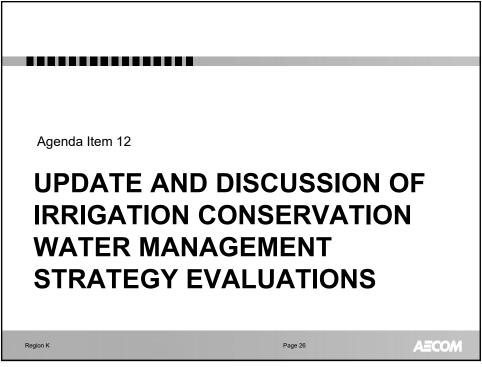


Direct Non-	ct Non-Potable Reuse (11):									
WUG	Yie WUG County River Basin								Project Cost	Unit Cost
			2020	2030	2040	2050	2060	2070		(\$/ac-ft)
Blanco	Blanco	Guadalupe	0	146	146	146	146	146	\$1,529,000	\$904
Horseshoe Bay	Burnet, Llano	Colorado	0	154	154	154	154	154	\$1,270,000	\$688
Marble Falls	Burnet	Colorado	0	100	200	300	400	500	\$2,010,000	\$354
Meadowlakes	Burnet	Colorado	75	75	75	75	75	75	\$0	\$0
Fredericksburg	Gillespie	Colorado	0	132	132	132	132	132	\$9,280,000	\$508
Buda	Hays	Colorado	100	1,120	1,120	1,120	1,680	1,680	\$7,562,000	\$373
Dripping Springs WSC	Hays	Colorado	0	390	460	531	601	672	\$2,056,000	\$278
West Travis County PUA	Hays, Travis	Colorado	0	224	224	224	224	224	\$1,778,000	\$683
Lago Vista	Travis	Colorado	0	224	336	448	560	673	\$2,140,000	\$340
Lakeway MUD	Travis	Colorado	0	100	200	300	400	500	\$2,009,000	\$354
Travis County WCID 17	Travis	Colorado	0	510	510	510	510	510	\$10,737,000	\$1,700









Strategies	Considered in 2016?	Full, Limited or Initial Evaluation?	Status
Tail Water Recovery	No	Full	Draft write-up in review – costing
Sprinkler Irrigation	Yes	Limited	Draft write-up in review – costing
Irrigation Operations Conveyance Improvements	Yes	Limited	Draft write-up in progress – coordinating with LCRA
Real-Time Monitoring	No	Initial	Data collection
Drip Irrigation for Non-Rice Crops	No	Initial	Draft write-up in progress – water saving
On-Farm Conservation	Yes	Full	Draft write-up in progress

