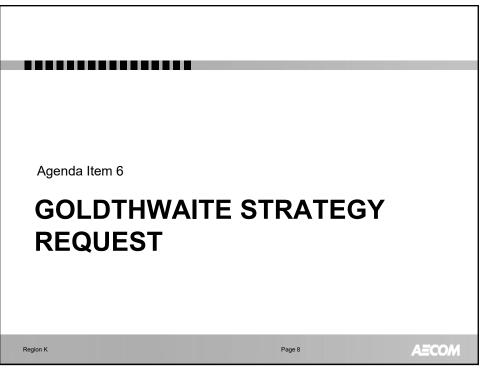
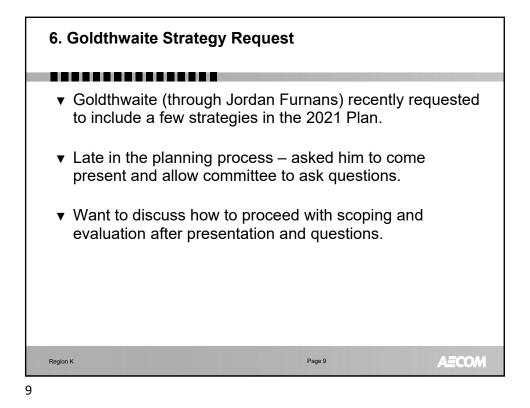


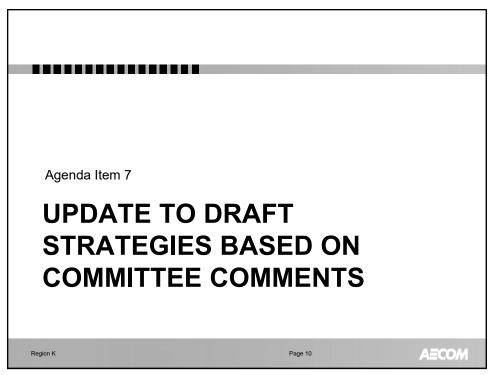
5. Status Update on Strategy Evaluations New, Update, or Limited Strategy WUG Strategy Type Update Date Started Status All municipal WUGs and Irrigation rought Management Drought Management New with needs Municipal utilities other than City of 7-Mar-19 Municipal under RWPG review Conservation ew Under 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

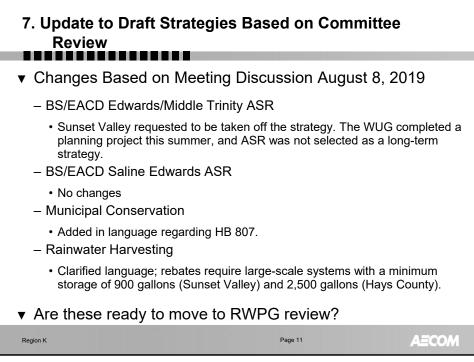
| • | | egy Evaluat | | | |
|---|---|-----------------------------------|--|--------------|--------------------------|
| Strategy | WUG | Strategy Type | New, Update, or Limited Update | Date Started | Status |
| dvanced Water Conservation | Irrigation in Lower Basin | Conservation | New | 7-Mar-19 | 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 |

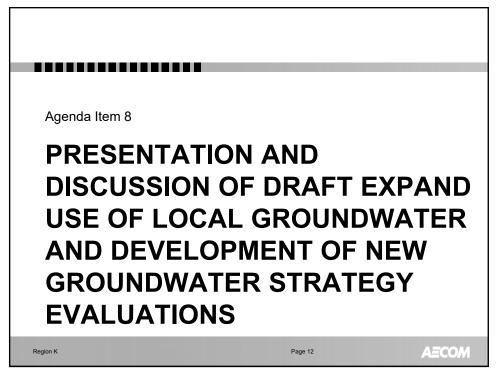
| Strategy | WUG | Strategy Type | New, Update, or Limited Update | Status |
|--|--|---------------------------------|-----------------------------------|-------------|
| CRA Aquifer Storage and Recovery (ASR) in Carrizo-Wilcox | | Aquifer Storage and Recovery | Update | not started |
| ackish Groundwater 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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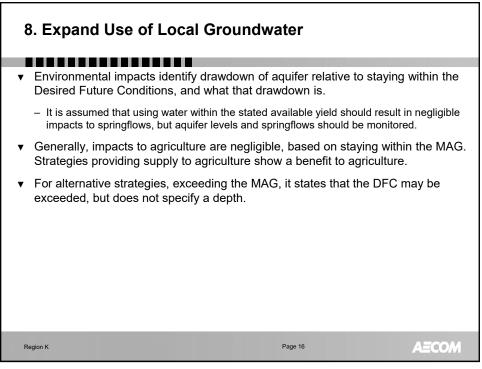
 Expand Local Use of Groundwater involves pumping additional groundwater from an aquifer that the WUG is currently using as a source, either using the WUG's existing wells or drilling additional wells.

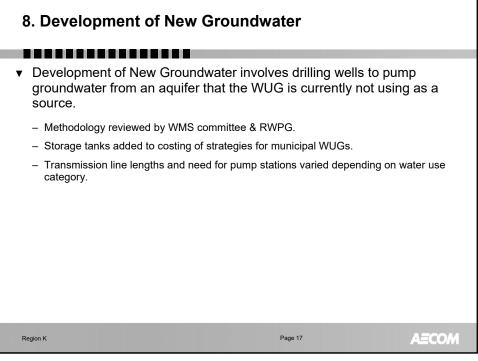
- Yield methodology reviewed previously by WMS committee & presented to RWPG.

| 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 |

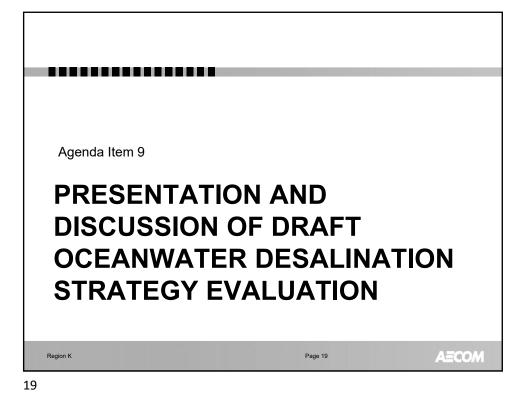
| Aquifer | WUG | County | River Basin | 2020 | 2030 | • | ac-ft/yr) 2050 | | 2070 | Project Cost | Unit Co: (\$/ac-ft |
|------------|-------------------------------|-----------|---------------------|-------|-------|-------|-------------------|-------|-------|--------------|-----------------------|
| 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 |

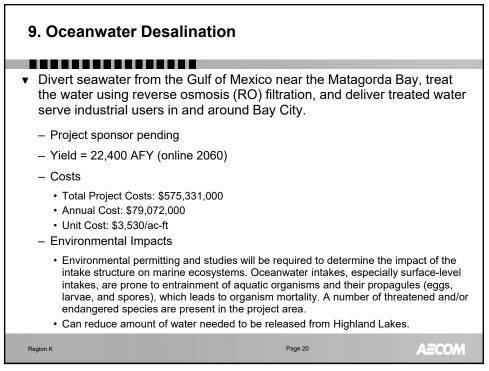
| Aquifer | WUG | County | River Basin | 2020 | 2030 | Yield (a 2040 | ac-ft/yr) 2050 | | 2070 | Project Cost | Unit Co (\$/ac-ff |
|----------------|-------------------------------------|---------|-------------------------|------|-------|------------------|-------------------|--------|--------|--------------|----------------------|
| 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 |

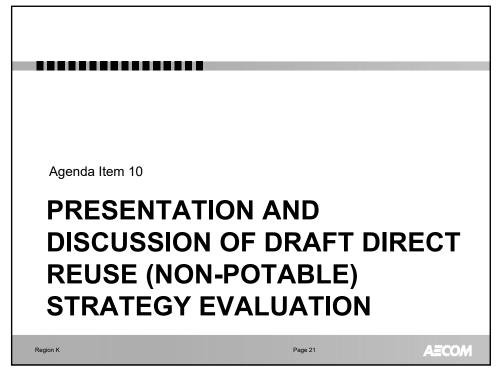




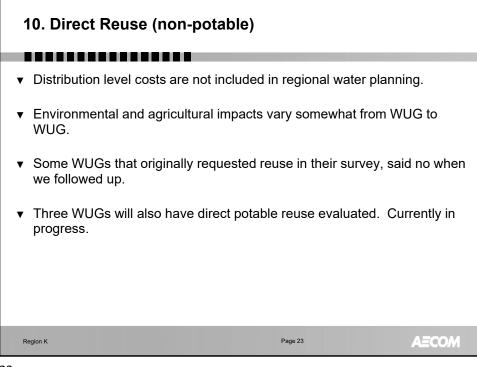
| Aquifer | WUG | County | River Basin | 2020 | 2030 | Yield (a 2040 | ac-ft/yr) 2050 | 2060 | 2070 | Project Cost | Unit Cos (\$/ac-ft) |
|-------------------------|-------------------------|--------------------------------|-------------|------|-------|------------------|-------------------|-------|-------|--------------|------------------------|
| 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 |

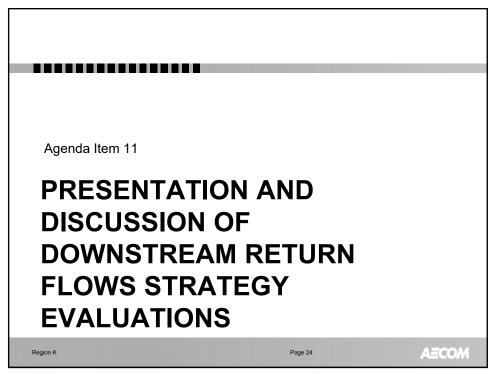


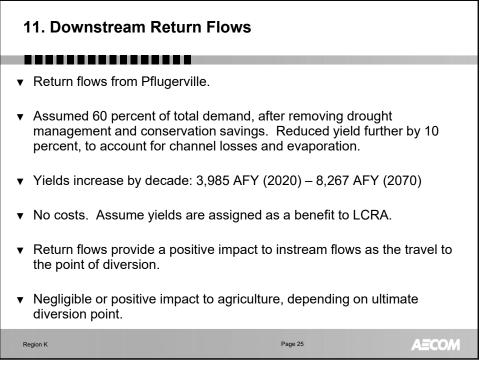


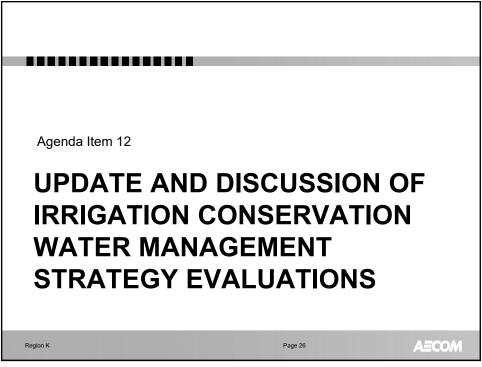


| Direct Non- | ct Non-Potable Reuse (11): | | | | | | | | | |
|---------------------------|----------------------------|-----------|------|-------|-------|-------|-------|-------|--------------|------------|
| WUG | Yie WUG County River Basin | | | | | | | | Project Cost | Unit Cost |
| | | | 2020 | 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 |
| | | | |

