

Conversion of Base Irrigation Groundwater Application Summary
Conversion Based on Installation of Irrigation System
Texas By Anderson Family Properties, LP

Permit Number: P101-212 (ME00438)
Purpose of Use: Irrigation
Place of Use: Medina County
Original Permitted Amount: 1857.160 acre-feet
Irrigation Base Amount: 928.580 acre-feet
Irrigation Unrestricted Amount: 928.580 acre-feet
Date Board Issued Original IRP: January 1, 2001

EAA WELL NO.	LOCATION	MEASURING METHOD	WITHDRAWAL RATE
W101-142 (ME00438-001)	29-21.00-0.35 / 99-23.00-11.20	Meter	2800 gpm
W101-143 (ME00438-002)	29-21.00-41.60 / 99-22.00-49.40	Meter	2700 gpm

On May 9, 2006, the Board approved an Application to Convert Base Irrigation Groundwater through conservation by the installation of Center Pivot systems covering 464.000 HIA. 393.754 acre-feet (206.161 due to conservation equipment and 187.593 due to corner credit) were converted from BIG to UIG.

On February 9, 2010, the Board approved an Application to Convert Base Irrigation Groundwater through conservation by the installation of a Subsurface Drip Irrigation system covering 68.586 HIA. 31.950 acre-feet (31.950 due to conservation equipment) were converted from BIG to UIG.

Total BIG Converted: 425.754 acre-feet
Current Irrigation BIG Amount: 502.876 acre-feet
Current Irrigation UIG Amount: 1,354.284 acre-feet

Number of acre-feet applicant originally requested to be converted from base irrigation to unrestricted irrigation groundwater:

89.369 acre-feet

(68.696 acre-feet due to installation of subsurface drip irrigation, and 20.673 due to dryland farming of adjacent corners)

Number of acre-feet staff recommends to be converted from base irrigation to unrestricted irrigation groundwater:

89.369 acre-feet

(68.696 acre-feet due to installation of subsurface drip irrigation, and 20.673 due to dryland farming of adjacent corners)

Place of Use for Permit:

975.308 acres

The tract(s) of land more fully described in Special Warranty Deed dated 11/20/2012 as recorded with Clerk as Document # 2012008148, Volume 871, Pages 925 - 933, Official Public Records, Medina County, Texas, and the tract(s) of land more fully described in Irrevocable Designation of Historically Irrigated Lands Pertaining to Edwards Aquifer Groundwater Rights dated 10/5/2009 as recorded with Clerk as Document # 2009007019, Volume 766, Pages 50 - 59, Official Public Records, Medina County, Texas.

Current Physical Description of Place of Use:

The Applicant claimed approximately 928.500 historically irrigate acres (HIA) and was given credit for and issued 928.500 acre-feet BIG. Currently, there are 502.876 acre-feet BIG appurtenant to the farm due to base conversions in 2006 and 2010.

Due to the 2006 and 2010 base conversions, and in compliance with EAA Rule § 711.340 (f); the applicant has surveyed the pivots and pivot square areas to re-distribute the base acre-foot per acre ratio under the pivots and pivot squares related to the conversion applications. Of the 502.876 acre-feet BIG, 255.071 acre-feet BIG are appurtenant to 649.035 HIA from the 2006 conversion, 35.500 acre-feet BIG are appurtenant to 68.586 HIA from the 2010 conversion, and 212.305 acre-feet BIG are appurtenant to the remaining HIA.

In 2009, the applicant surveyed the acres for the legal description included in the Irrevocable Designation of Historically Irrigated Lands Pertaining to Edwards Aquifer Groundwater Rights and found they encompassed 933.289 HIA. This resulted in the 928.580 acre-feet BIG being spread over 933.289 HIA. The base acre-foot per acre ratio of all BIG not related to the 2006 conversion is 0.983 acre-feet per acre.

Description of Conservation Equipment:

An Eco-Drip Subsurface Drip Irrigation (SDI) System was installed in October 2015 to irrigate approximately 168.565 base acres. SDI is an advanced irrigation technology that has an application efficiency of up to 95%. SDI is the slow, frequent application of small amounts of water to the soil through emitters located on a delivery line placed beneath the soil surface. SDI allows for highly productive crop production without leaching or runoff.

Staff Calculations:

Through surveys and a site visit, EAA staff calculated the area under the SDI and found that 147.534 base acres are being irrigated under the SDI system. EAA staff has calculated a projected savings of 68.696 acre-feet by the installation of the SDI system. In addition, staff calculated corner credit of 20.673 acre-feet based on the standard calculation for both the SDI (147.534 acres under the irrigation system subtracted from the total 168.565 base acres). Corner credit is calculated on the standard based one acre-foot per acre (considering a 75 percent coverage of the base acres and a base ratio of 0.983 acre-foot/acre). The total conversion as calculated by EAA staff is 89.369 acre-feet.

Staff Recommendation:

Staff recommends a conversion be granted for 89.369 acre-feet. The application will be reviewed at the June 28, 2016 Permits/Enforcement Committee meeting and the July 12, 2016 Board Meeting.