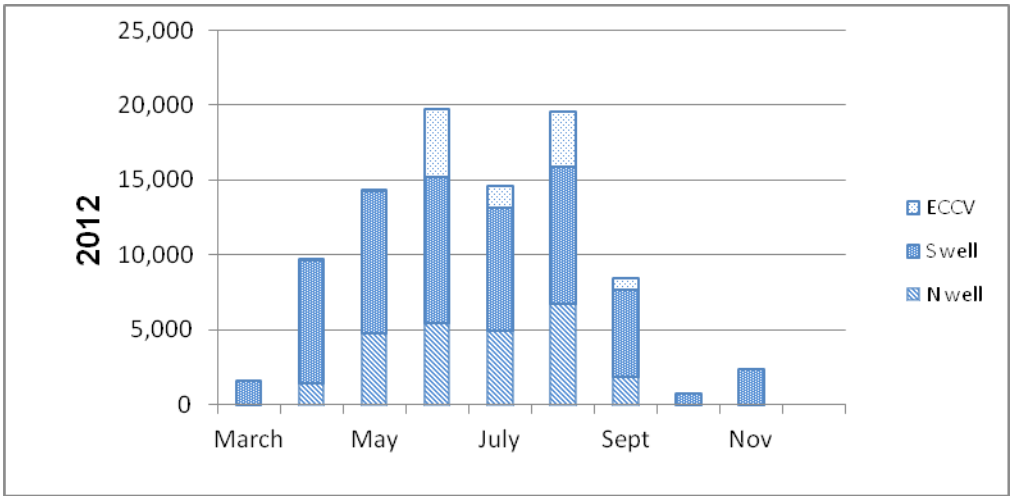
Irrigation Water for Heritage/Eagle Bend

The Eagle Bend Metropolitan District No. 2 is charged with providing water to the MHOA for landscape and golf course irrigation. The District has four discrete sources of water: two approximately 1,700-feet deep wells into the Arapahoe aquifer, a 6" connection to East Cherry Creek Valley Water and Sanitation District's (ECCV) "Western Pipeline", and a 3" irrigation connection to Aurora's potable water system.

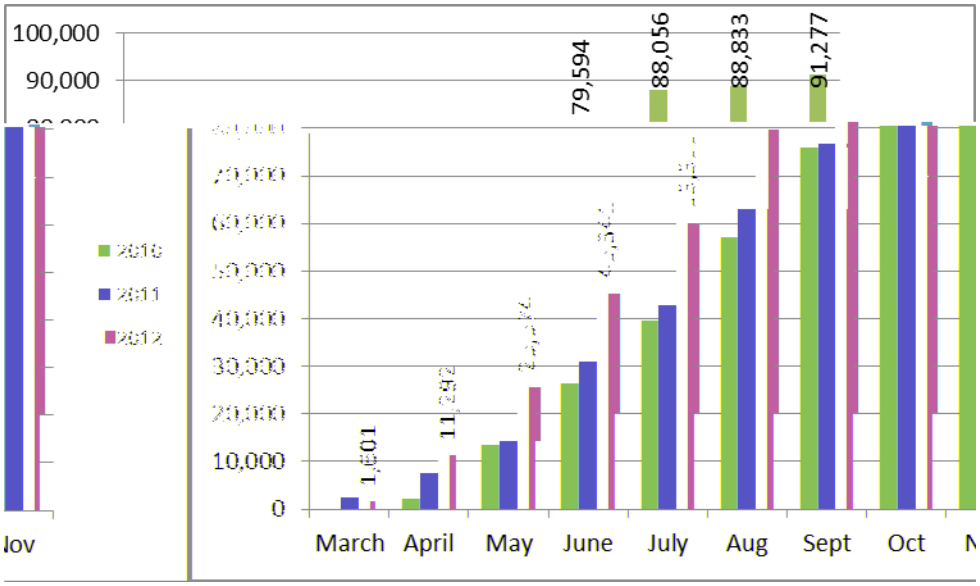
Since 2010 we have used a cellular-based supervisory control and data acquisition (SCADA) system to monitor and control the operation of the water supply facilities. Information is available over the internet to authorized personnel using either computers or smart-phones. A screen shot of one typical graph of the SCADA is provided below. A sensor monitors the water level in the Fairway #4 irrigation pond, from where the MHOA draws water for their irrigation. The SCADA turns our wells on/off to keep the water level at the pond within an acceptable range. If irrigation demands exceed the well supply, we contact Aurora Water and ECCV personnel and request authorization to pull water from the ECCV service line, after which we can use the SCADA to remotely open and close the motorized valve on that service line.

Recently we have been able to meet water demands using the two wells (up to about 2 acre-feet per day [af/d] combined supply) and occasionally the ECCV service line (typically about 1.5 af/d). In the event of a problem with one of the two wells, or if water is not available from the ECCV service line due to operational problems or supply concerns by ECCV, we can use the 3" irrigation connection to Aurora's potable water system to obtain up to about 1.3 af/d.

SCADA also maintains historic information on the operation of our water supply facilities. Based on SCADA and the monthly statements from Aurora Water, the amount of water obtained from each source during 2012 is shown in the table below. Peak monthly usage (in June and August) was almost 20,000,000 gallons (equals 20,000 kgal which is the unit used in the graph) - which also equals about 61 acre feet. Peak demands have been about 3 acre feet per day.



Total water used during 2012 was about 91,000,000 gallons (equals about 280 acre-feet) as shown in the following graph.



We appreciate the efforts of Mr. Roe Sherbert and other MHOA personnel with coordinating our water supply efforts.