Some water use statistics from the Agriculture Water Use Demand Model

I was going to table some of this during the discussions on water supply, catchment and demand. These data represent model outputs on current surface and groundwater water demand for crops and livestock within the SGI region. It also provides projections of that demand into the 2050's using averages of four climate model predictions. All important when you are talking about demand for our water resources and even prioritising their use.

Land statistics

The SGI region is 19, 103 ha of land area of which 2,365 ha (in 620 parcels) are in ALR)

The Agricultural Land Use Inventory surveyed 6,583 ha (in 727 parcels)

There are 468 ha of First Nations lands of which 17 ha are in ALR.

Crop Statistics

Within the surveyed area the primary activities were

Forage, pasture, and grass	639 ha
Tree fruits	25 ha
Grapes	24 ha
Vegetables	24 ha
Specialty, nuts, turf	7 ha
Berries	1 ha
Under Greenhouse	1 ha
Grains, cereals, oil seeds	<1 ha
Flowers	<1 ha
Nursery	<1 ha
Total	**726 ha**

Water use statistics
Within the surveyed area

109 ha irrigated (includes 35 ha for golf courses)
For data available in 2003 (a very dry year) 203,432,620 gals of water were used. Old data for 1997 (wet growing season) 108 million gals were used.
The model did runs using improved irrigation efficiencies and for the 2003 figures found reductions of 15% on usage.
Also within 2003 the livestock water demand for the SGI was just over 6 million gals.

Under climate scenarios through the 2050's average demand, with efficient irrigation methods in place, would be in the order of 183 million gals/year for crops.

The models also ran scenarios based on the fact that there was additional capacity for buildout of irrigation on some of the islands. Using 2003 data as the base irrigated areas increased to 568 ha and the demand to 770 million gals per year for crops under irrigation. Of this amount, 162 million comes from groundwater sources. Sobering!

Michael