

## Maps Concerning Effects of Irrigation in Central Sands Notes (from Fred Koch)

1. The maps are a visual compilation of all of the studies done in the Central Sands Region since 1976 including the latest Little Plover study by Ken Bradbury last year.

According to DNR permit data:

- Each + is the GPS location of a Hi Cap well
- Municipal and private residence wells are not included
- Average number of acres irrigated per well is 103.6
- Some wells irrigate as little as 5 acres
- Some wells irrigate up to 200 acres
- "Net" water pumped out of the ground for irrigation is 2 inches per acre (54,308 gallons),
- (The 2 inches is a very conservative estimate)
- The "Net" withdraw covers all of the recharge by precipitation, ground cover, ground type etc.
- In very dry years, the "net" withdraw could be much more than recharge
- In very wet years, the "net" withdraw might be a little less than recharge

2. The drawdown shown on the maps is in FEET... not inches  
Only the water irrigated over the field is in inches.

3. The bullseye map clearly shows the greatest amount of drawdown is concentrated around the greatest number of wells

4. The second map uses the same information, but shows "circled" only SEPAGE lakes. It does not show any lakes that have dams, streams or rivers that feed them

5. The rivers and creeks shown have drawdown measured in flow reduction