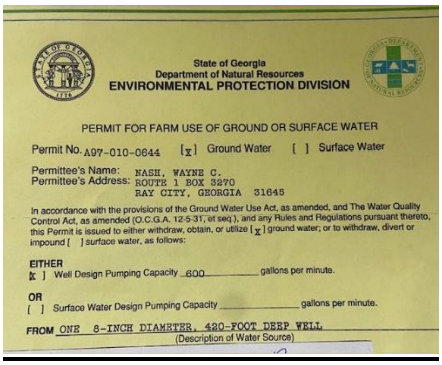
#2 Risks of Wells in Rural Subdivisions going Dry

1. **Aquifer Depletion**
   - When multiple homes are added, the aquifer may be unable to recharge quickly enough, leading to wells going dry—especially in drought years.
2. **Seasonal & Agricultural Competition**
   - In rural areas, wells may compete with **agricultural irrigation systems**, which can pull thousands of gallons a day.
   - During summer months, this competition is more likely to cause wells to run dry.
3. **Water Quality Risks**
   - Shallow subdivision wells are more vulnerable to contamination from **fertilizers, septic systems, and surface runoff**.
   - If groundwater levels drop, wells may start drawing in sediment, iron, or even bacterial contaminants.
4. **Long-Term Community Cost**
   - If wells begin running dry, homeowners may demand deeper drilled wells or connection to a municipal water system—costs that often fall back on the county and taxpayers. (Installing deeper wells can cost **$8,000–$15,000)**



State of Georgia
Department of Natural Resources
ENVIRONMENTAL PROTECTION DIVISION

PERMIT FOR FARM USE OF GROUND OR SURFACE WATER

Permit No. A97-010-0644 [X] Ground Water [ ] Surface Water

Permittee's Name: NASH, WAYNE C.
Permittee's Address: ROUTE 1 BOX 3270
RAY CITY, GEORGIA 31645

In accordance with the provisions of the Ground Water Use Act, as amended, and The Water Quality Control Act, as amended (O.C.G.A. 12-5-31, et seq.), and any Rules and Regulations pursuant thereto, this Permit is issued to either withdraw, obtain, or utilize [X] ground water; or to withdraw, divert or impound [ ] surface water, as follows:

EITHER
[X] Well Design Pumping Capacity 600 gallons per minute.

OR
[ ] Surface Water Design Pumping Capacity _____ gallons per minute.

FROM ONE 8-INCH DIAMETER, 420-FOOT DEEP WELL
(Description of Water Source)

Request that the planning office produce the developer's **Hydrogeologic/Well Impact Study** for the project, including:

1. **Test wells & step-drawdown/24-72 hr pumping tests** with transmissivity & storativity estimates.
2. **Analytical/ numerical drawdown modeling** showing effects on **existing nearby private wells** and on-site wells at full build-out (peak-day and drought scenarios).
3. **Sustainable yield** per lot and **well spacing** rationale tied to the local aquifer unit (e.g., Upper Floridan vs. Claiborne).
4. **Seasonal/drought sensitivity** using USGS hydrographs for the nearest monitoring well(s). ga.water.usgs.gov
5. **Water-quality risk** (septic setbacks, nitrate risk, iron/sediment at low water levels) and a contingency if wells go dry.
6. **Cumulative-use check** against **Georgia's aquifer-wide availability ranges** for that unit