

Permit No. 79-14134

3. Source: Johns Creek tributary to Rock Creek

2. Other water rights with the same point of diversion: None

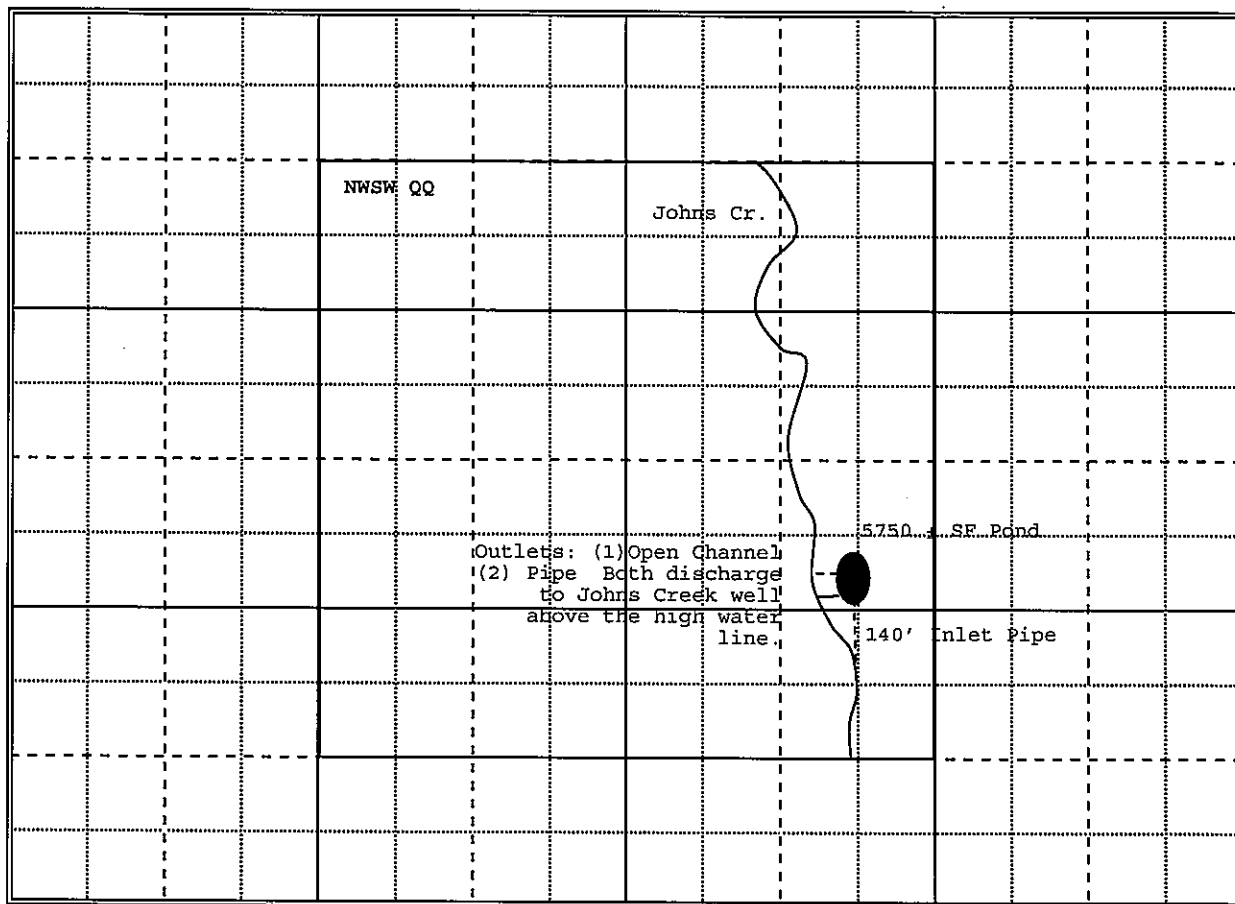
1. Point(s) of Diversion:

[illegible]

Indicate Method of Determination Aerial Imagery/GPS

[illegible]

3. **Delivery System Diagram:** Indicate all major components and distances between components. Indicate weir size/ditch size/pipe i.d. as applicable.



Scale: 1" = NTS.

☒ Copy of USGS Quadrangle Attached Showing location(s) of point(s) of diversion and place(s) of use (required).

☒ Aerial Photo Attached (required for irrigation of 10+ acres)

☒ Photo of Diversion and System Attached

4.

Well or Diversion Identification No.*	Motor Make	Hp	Motor Serial No.	Pump Make	Pump Serial No. or Discharge Size
N/A					

*Code to correspond with No. on map and aerial photo

D. FLOW MEASUREMENTS

1.

Measurement Equipment	Type	Make	Model No.	Serial No.	Size	Calib. Date
N/A						

2. Measurements:

E. NARRATIVE/REMARKS/COMMENTS

I met on sight with Dave Wimer one of the co-owners of "Buy the Way, LLC", which is developing the project. Dave showed me the pond, the 140 foot long 4-1/4" OD PE Inlet Pipe, inlet screening device, outlet channel, and overflow outlet pipe. I calculated the diversion flow rate into the pond by measuring velocity and cross section area and computing flow rate from the Continuity Equation. I attempted to measure the volume of the pond by taking a series of soundings of the pond in my waders. However, the pond was much too deep, and I was only able to measure a depth of 5-6 feet approximately 10 feet of^F shore. The owner indicated he did not know how deep the pond was, but thought it was maybe as deep as 12 feet. Water discharges from the pond via an open channel outlet and an over flow pipe. However, the over flow pipe was installed at of below the invert of the outflow channel so both devices function to drain the pond when it is full. Both outlets (channel and pipe) discharge to Johns Creek well above the high water line, so I would estimate that there is no way fish could propagate into or out of the pond through the outlet works. Likewise, the inlet was well screened at the time of the visit and fish passage seems unlikely through the inlet works as well. It was apparent at the time of my FE that the owner was diverting more water and storing more water than was allowed for on his permit. I explained to him that we could only issue the license for the amounts requested in the permit and that he would need to file for a second permit to make up the discrepancy. Otherwise he would need to (1) fill in the pond and decrease the inlet capacity, or (2) would be in violation of his license. He agreed to file for a second permit.

Have conditions of permit approval been met? ☒ yes ☐ no



South End of Pond Looking North.



Screened Inlet Device in Johns Creek.



Inlet Discharge into Pond, Fully Submerged.



Piped Pond Outlet Discharge Point.



Open Channel Pond Outlet Discharge Point.

F. FLOW CALCULATIONS

_____ Additional Computation Sheets Attached

Measured Method:

Inlet Pipe Length = 140 feet; Inlet Pipe Diameter = 4-1/4" = 0.35';

Inlet Pipe Area = $\pi(0.35/2)^2 = 0.10 \text{ ft}^2$; Travel Time = 25 seconds

Velocity = Distance/Time = 140 feet/25 seconds = 5.6 ft/s

Continuity Eqn: $Q = VA = (5.6 \text{ ft/s})(0.10 \text{ ft}^2) = 0.56 \text{ cfs}$

Note: Pipe was flowing full.

G. VOLUME CALCULATIONS

1. Volume Calculations for Irrigation:

$V_{I.R.} = (\text{Acres Irrigated}) \times (\text{Irrigation Requirement}) =$

$V_{D.R.} = [\text{Diversion Rate (cfs)}] \times (\text{Days in Irrigation Season}) \times 1.9835 =$

$V = \text{Smaller of } V_{I.R.} \text{ and } V_{D.R.} =$

2. Volume Calculations for Other Uses:

Length of Pond = 115 feet; Width of Pond = 50'; Approximately and Ellipse

Ellipse Eqn: $A = \pi LW = \pi(115')(50')(1 \text{ ac}/43560 \text{ sf}) = 0.42 \text{ acres}$

Assume and Avg Depth of 6 feet

Pond Vol. = $(0.42 \text{ ac})(6 \text{ feet}) = 2.52 \text{ ac-ft}$

H. RECOMMENDATIONS

1. Recommended Amounts

Beneficial Use	Period of Use		Rate of Diversion Q (cfs)	Annual Volume V (afa)
	From	To		
	1/1	12/31	0.15	---
	1/1	12/31	---	1.5 ac-ft
	1/1	12/31	---	1.5 ac-ft
Totals:			0.15	1.5 ac-ft

2. Recommended Amendments

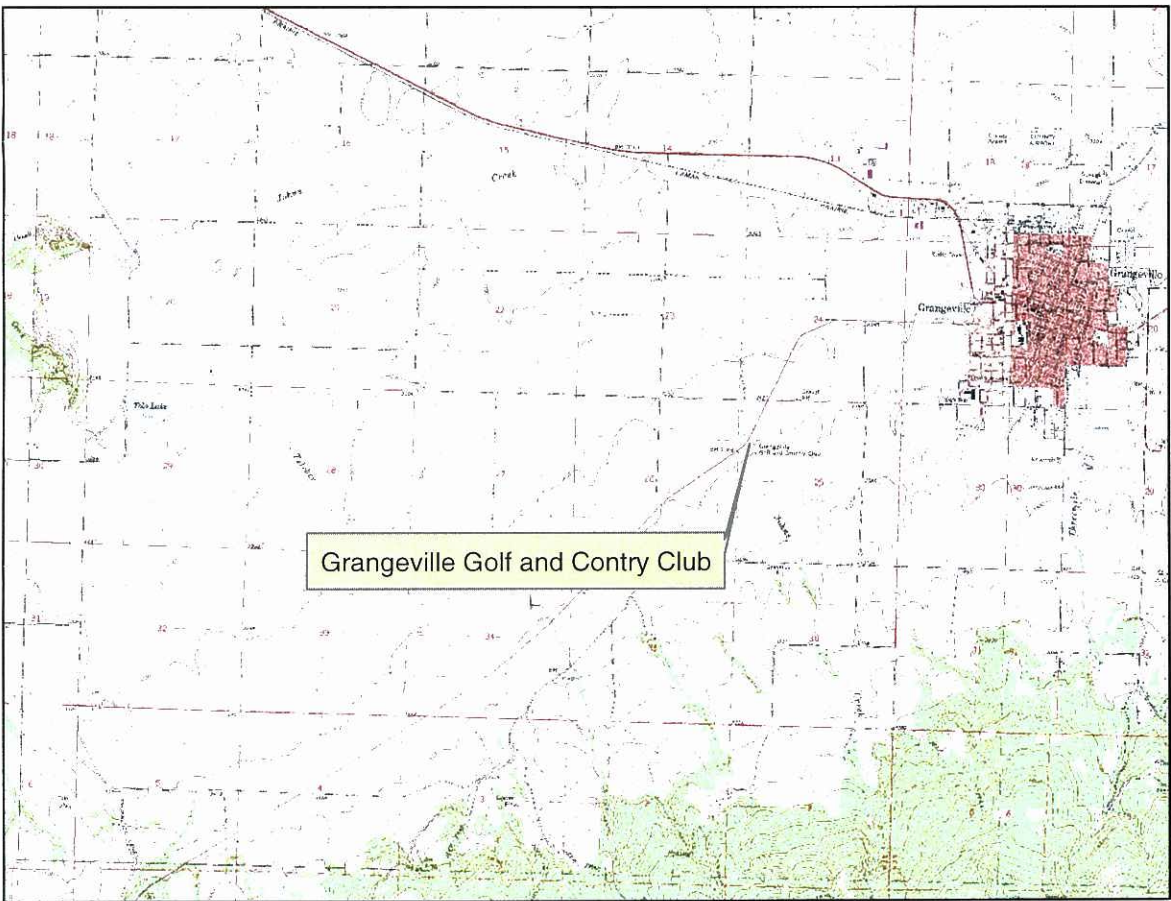
___ Change P.D. as reflected above ___ Add P.D. as reflected above ☒ None
___ Change P.U. as reflected above ___ Add P.U. as reflected above ___ Other

I. AUTHENTICATION

Field Examiner's Name Mathew Weaver Date: August 22, 2008

Reviewer _____ Date _____

SEAL



Legend

- Permit POD
- Sections
- Permit POU
- QQ
- Township/Range

NOTES:

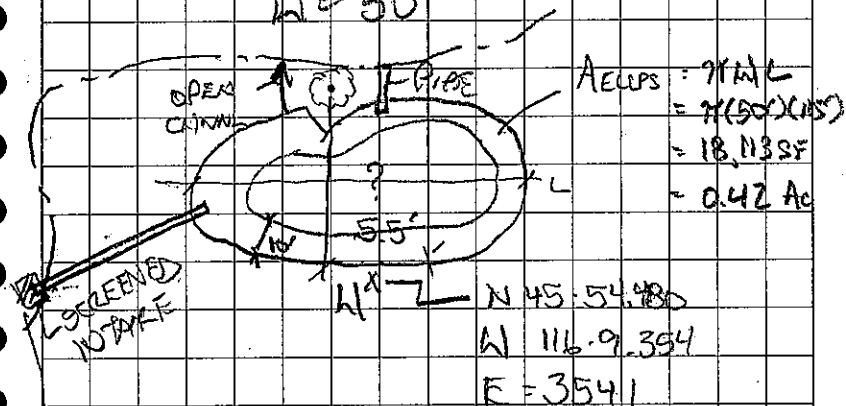
79-14134 Crimson Rdg.
Sub. Field Exam Exhibit

[illegible]

INLET PIPE : 14 1/4" OD, 4 1/4" OD

$$v = 140 \text{ Ft} / 25 \text{ s} = 5.6 \text{ Ft/s}$$
$$Q = VA = 5.6(11) = 0.62 \text{ G}$$

POND : L = 115'
W = 50'


$$N = 4554.443$$

116 - 9,358

$$V \approx 2.5 \text{ A} \cdot \text{m}^2 \cdot \text{s} \quad (6.0)$$

"Rite in the Rain"