PotashCorp
Helping Nature Provide

PCS Report Figures

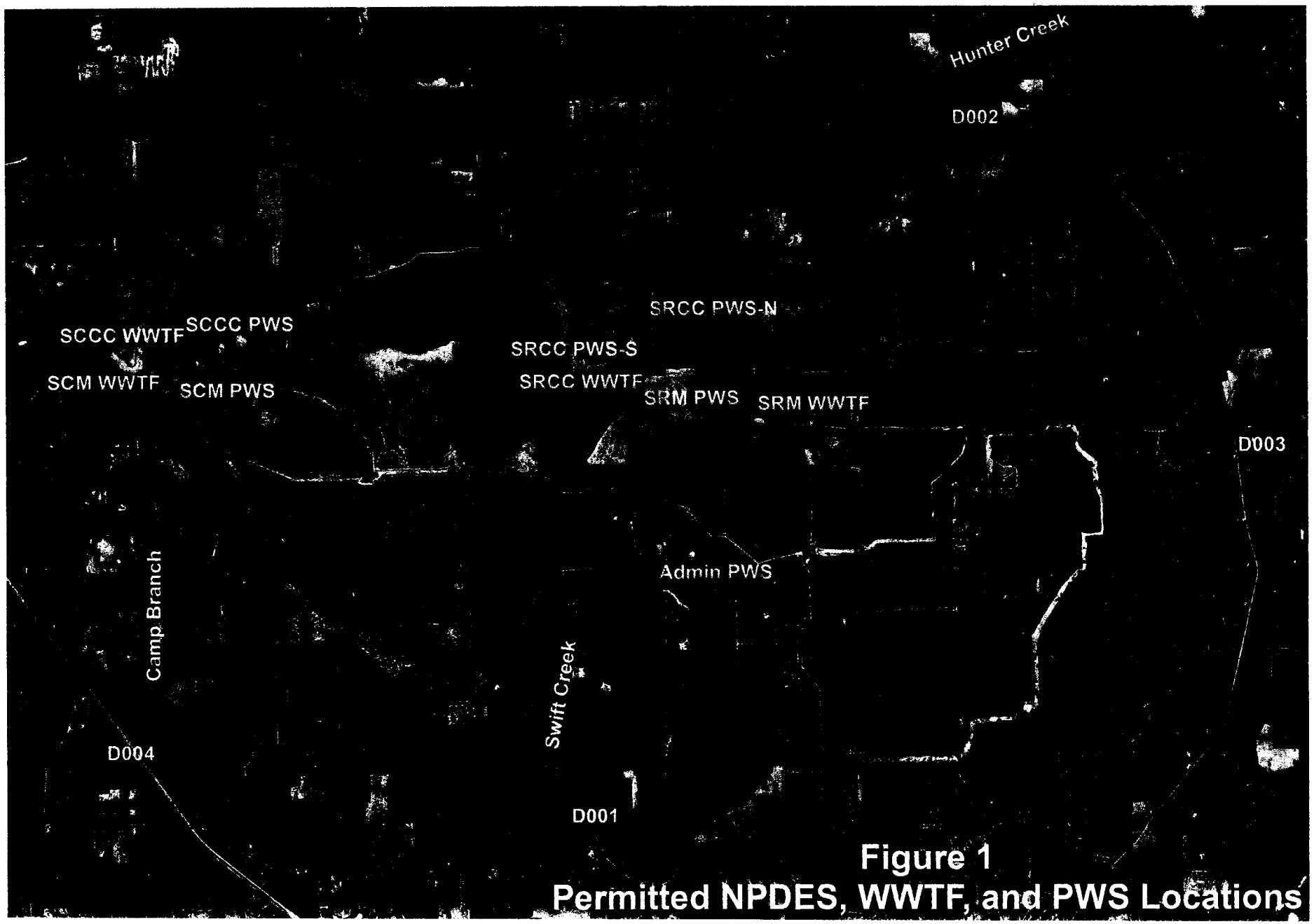


Figure 1
Permitted NPDES, WWTF, and PWS Locations

Figure 2. NPDES - Permitted Internal and External Outfalls

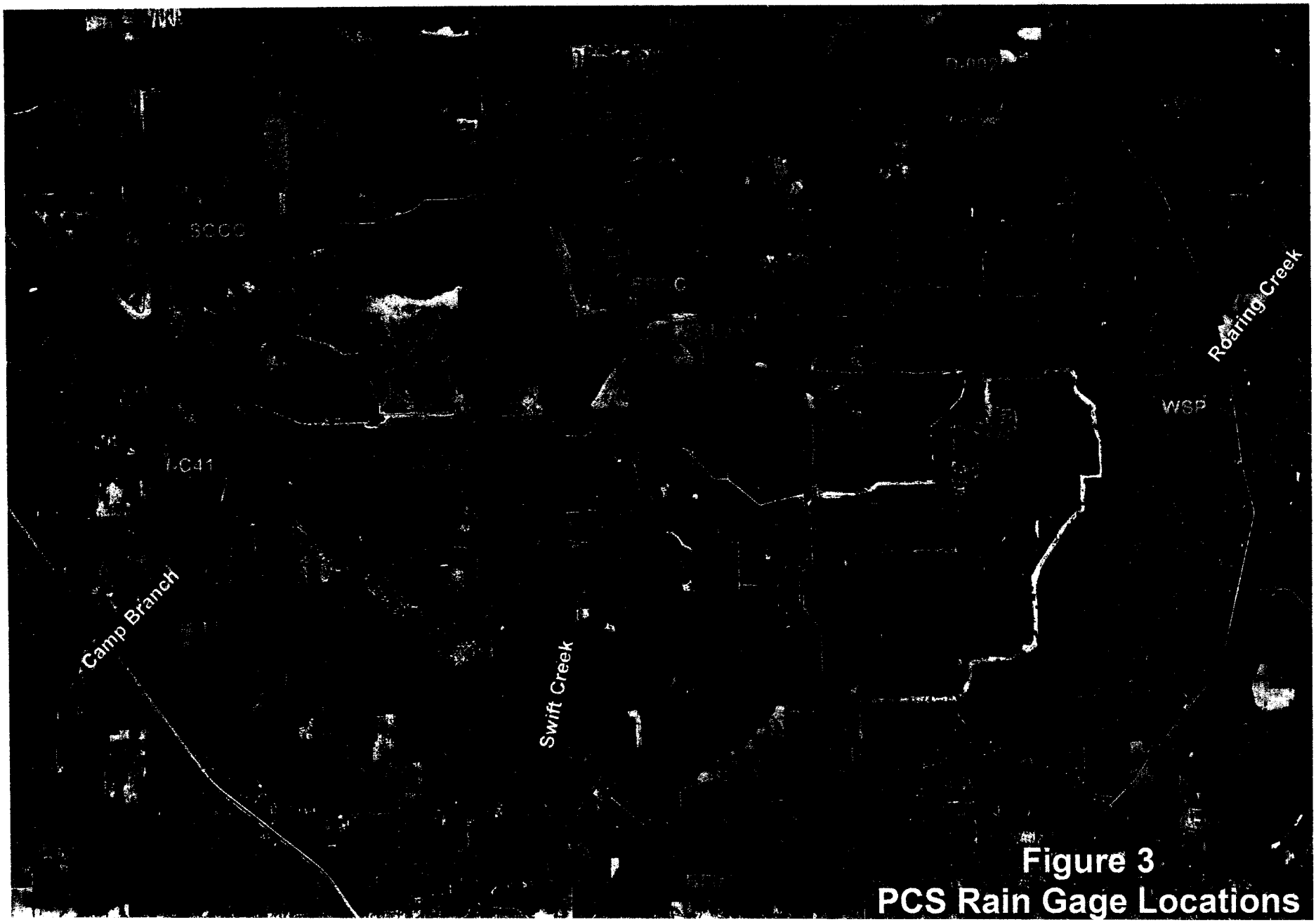


Figure 3
PCS Rain Gage Locations

Figure 4
24-Hour Rainfall Contour Map

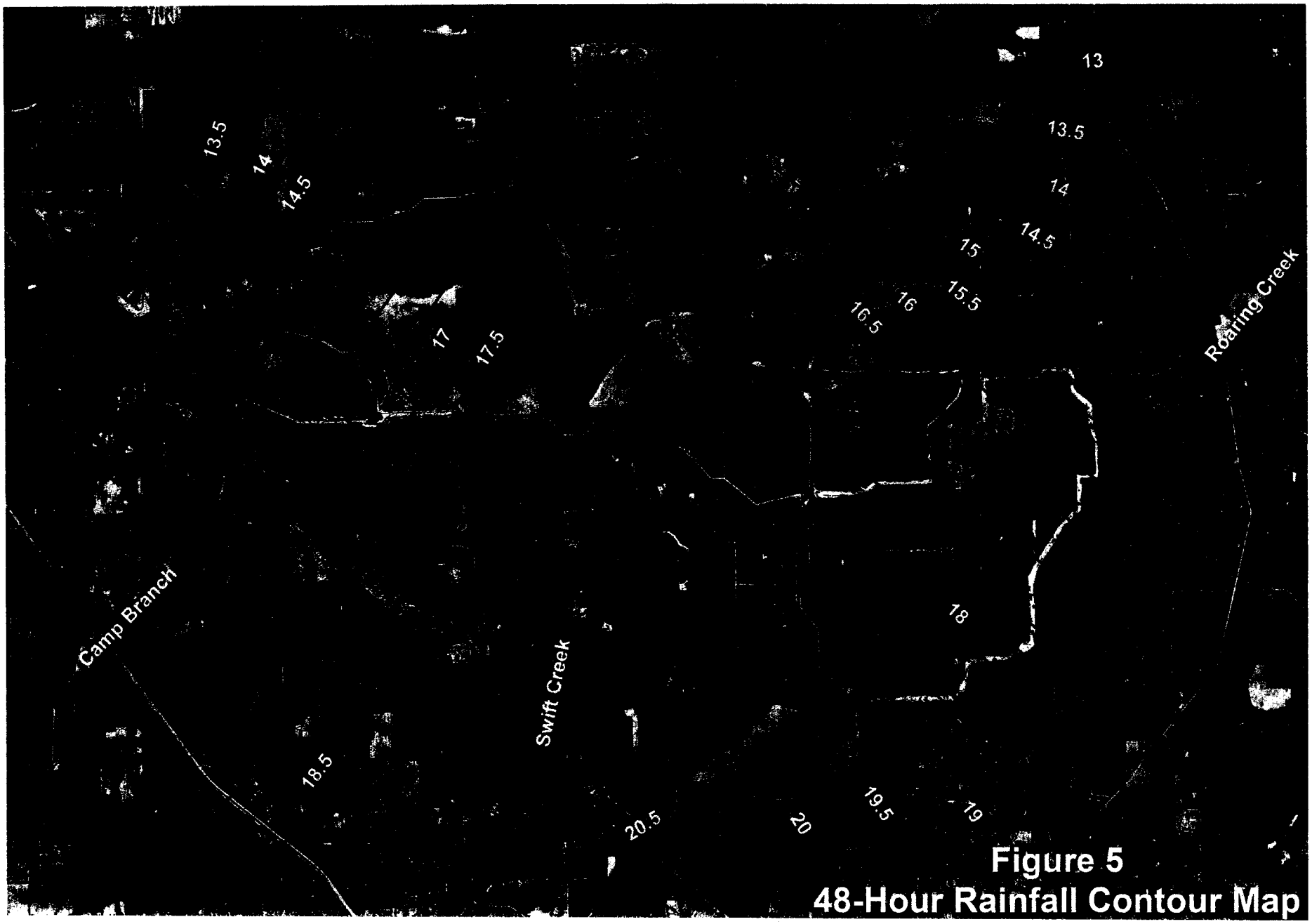
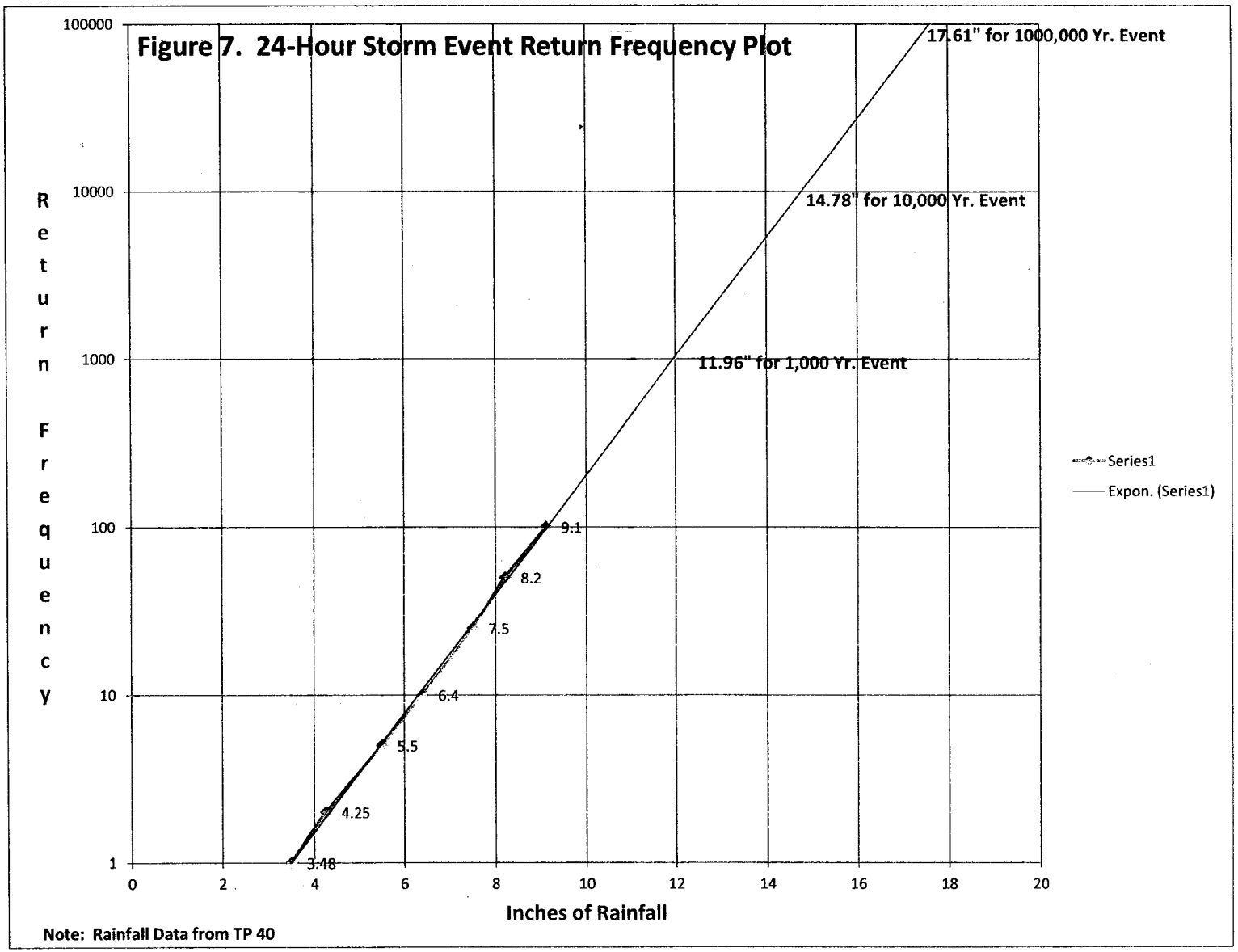


Figure 5
48-Hour Rainfall Contour Map

Figure 6
72-Hour Rainfall Contour Map



Note: Rainfall Data from TP 40

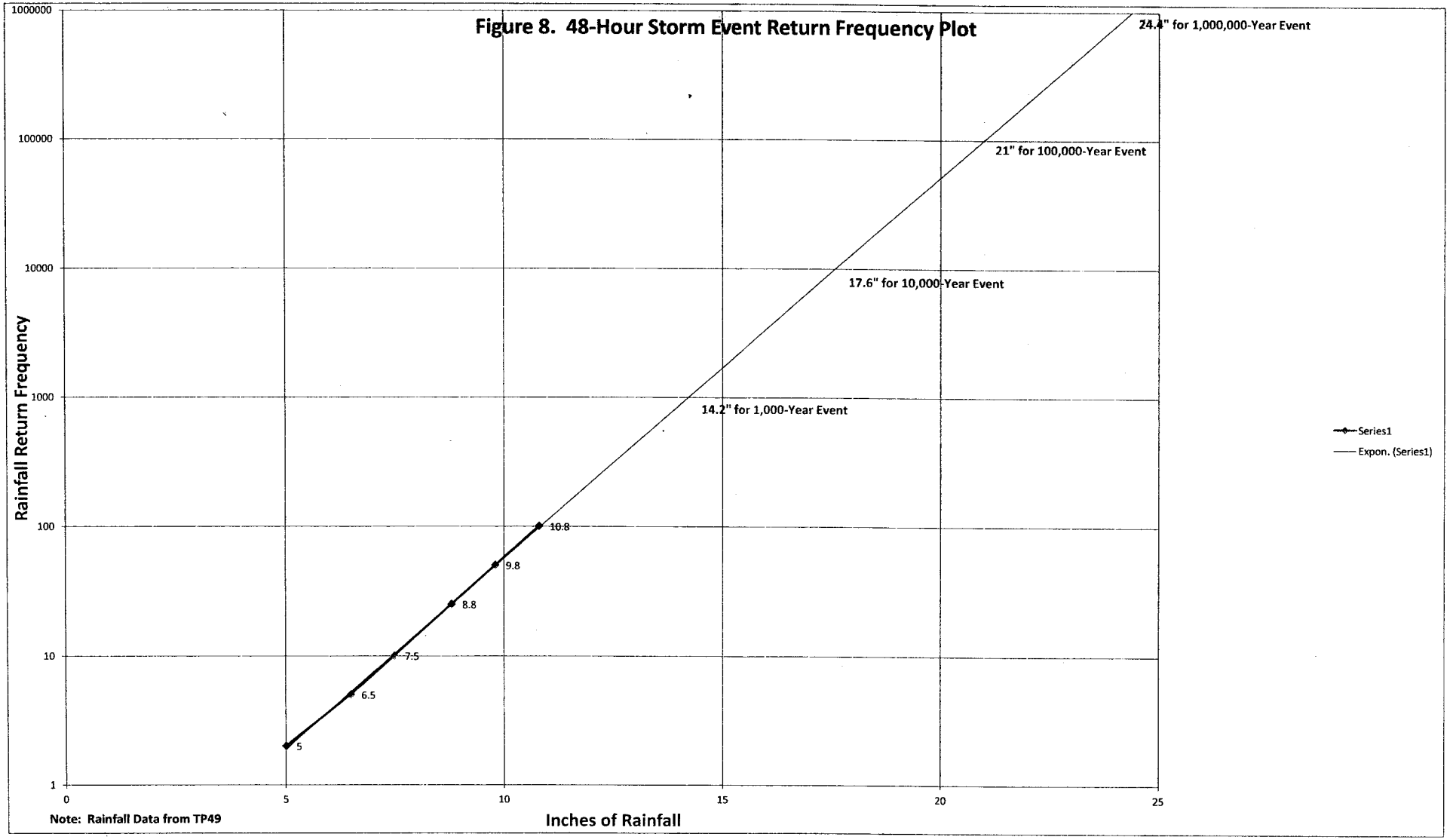
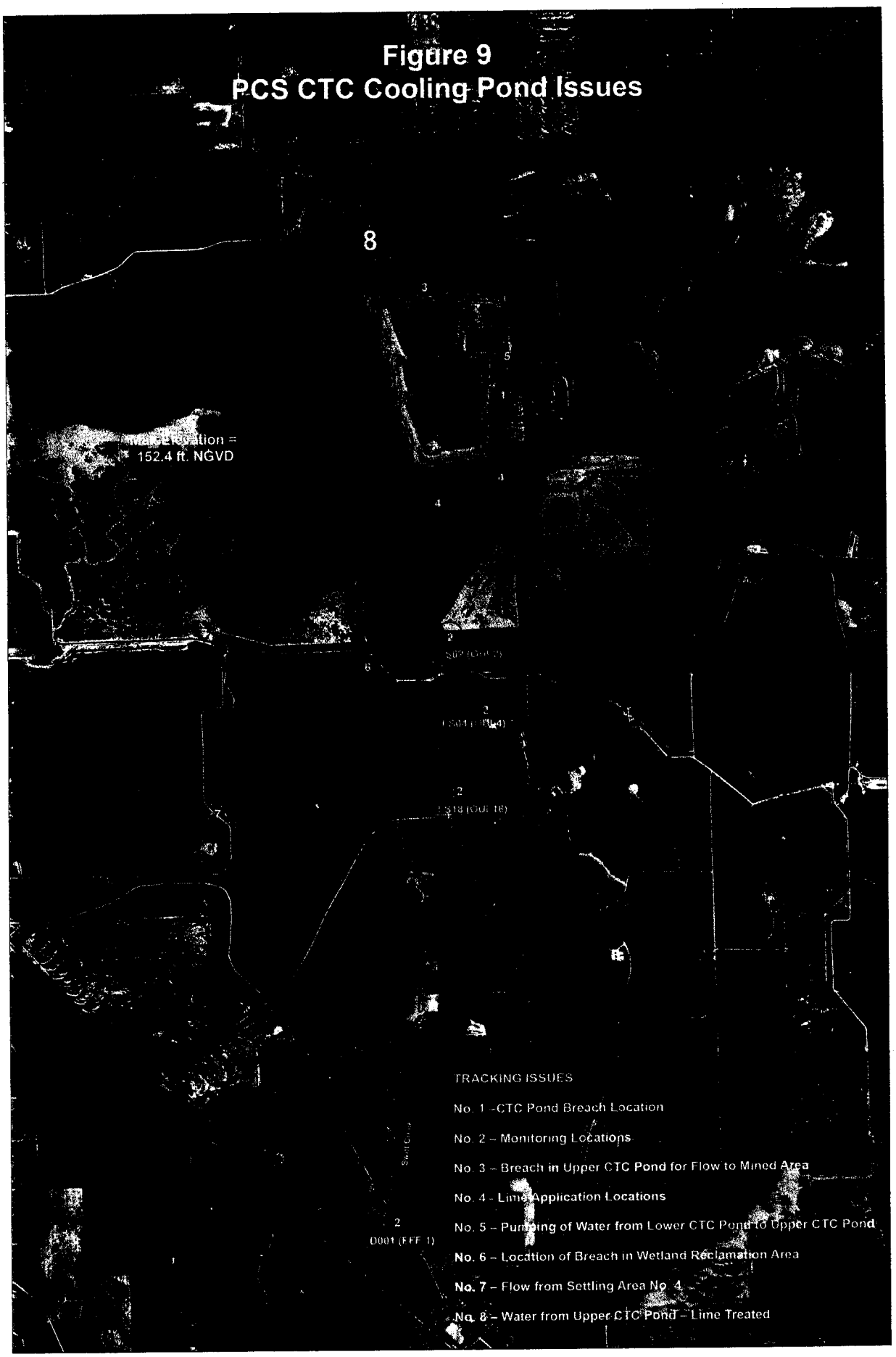


Figure 8. 48-Hour Storm Event Return Frequency Plot
24.4" for 1,000,000-Year Event
21" for 100,000-Year Event
17.6" for 10,000-Year Event
14.2" for 1,000-Year Event
5
6.5
7.5
8.8
9.8
10.8
Rainfall Return Frequency
1000000
100000
10000
1000
100
10
1
0
5
10
15
20
25
Inches of Rainfall
Series1
Expon. (Series1)
Note: Rainfall Data from TP49

Figure 9
PCS CTC Cooling Pond Issues



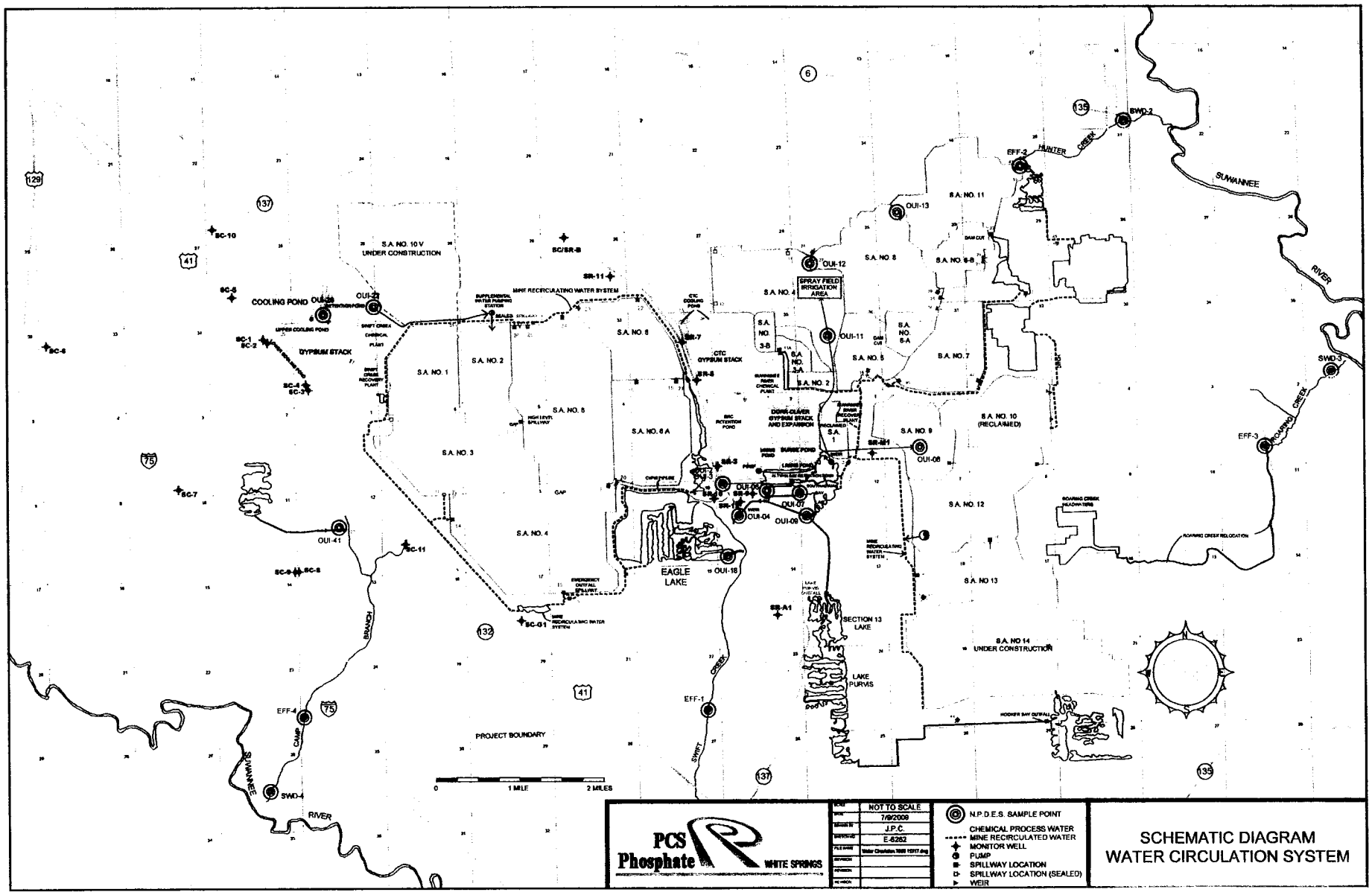

SCHEMATIC DIAGRAM
WATER CIRCULATION SYSTEM
PCS Phosphate
WHITE SPRINGS
NOT TO SCALE
7/9/2009
J.P.C.
E-6262
N.P.D.E.S. SAMPLE POINT
CHEMICAL PROCESS WATER
MINE RECIRCULATED WATER
MONITOR WELL
PUMP
SPILLWAY LOCATION
SPILLWAY LOCATION (SEALED)
WEIR
COOLING POND
GYPSUM STACK
S.A. NO. 10 V
UNDER CONSTRUCTION
MINE RECIRCULATING WATER SYSTEM
SPRAY FIELD IRRIGATION AREA
CTC GYPSUM STACK
DUPIS-CLAVER GYPSUM STACK AND EXPANSION
EAGLE LAKE
SECTION 13 LAKE
LAKE PURVIS
S.A. NO. 10 (RECLAIMED)
S.A. NO. 14
UNDER CONSTRUCTION
PROJECT BOUNDARY
SUWANNEE RIVER
HUNTER CREEK
ROARING CREEK
SWIFT CREEK
CAMP BRANCH
0
1 MILE
2 MILES

Figure 10

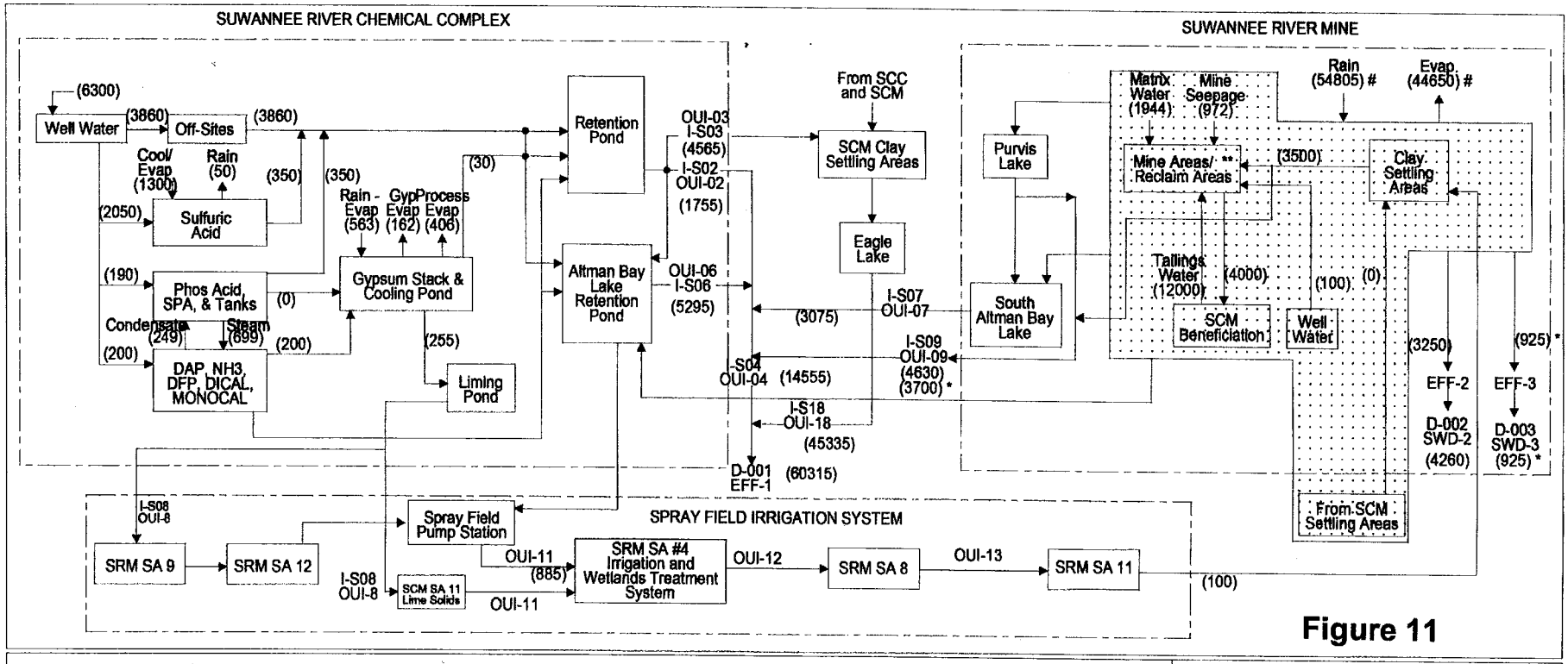


Figure 11

1. All flows are shown in GPM.
2. Note that not all flows "balance" due to entrained water in intake air, stack exhausts, and outgoing product.
3. Discharge values are based on historical data for the period 01/2001 through 05/2007.
4. Calculated total discharges will not equal 100% of the reported individual values due to the use of average flows.
5. Rainfall and Evapotranspiration assume 20,100 acres in the SRM catchment area. Average rainfall, based on historical records for the area, is 52.77" per year. Average evaporation/transpiration is 43" per year.
6. (#) Includes rainfall and evaporation for all areas of SRM.
7. Values shown for the SRCC represent the best estimate for continued and future operations through the term of the permit.
8. (*) Estimated flow at OUI-09, and EFF-3, if new outfall D-003 is approved.
9. (**) Mine Areas/Reclaim Areas may or may not be part of the Mine Recirculating Water System.

PCS PHOSPHATE - WHITE SPRINGS
WATER BALANCE - SUWANNEE RIVER OPERATIONS

Prepared by: C. B. Pults
September 12, 2007
Updated: July 31, 2009 by Bill Ellis

Mines Recirculating Water System

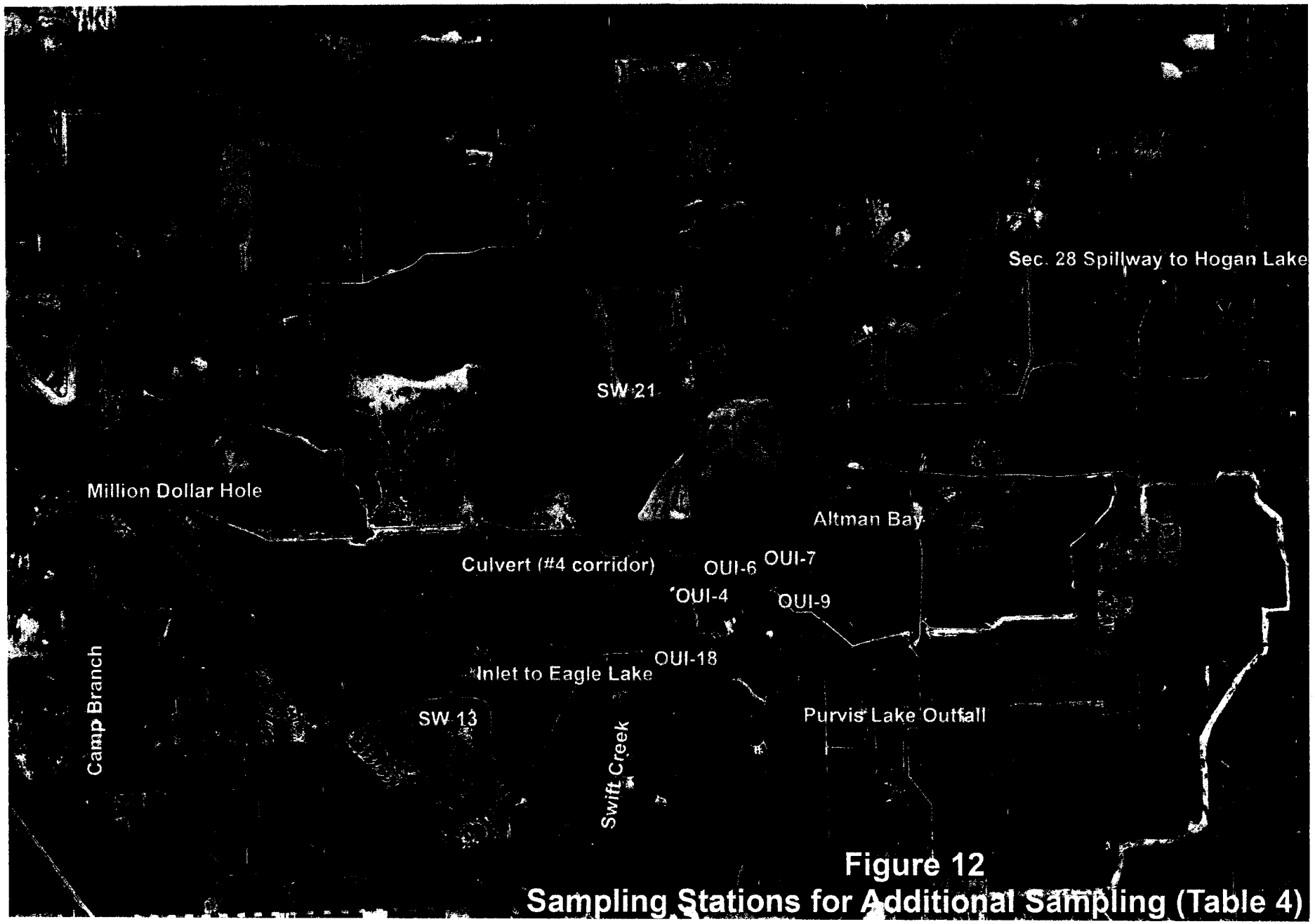


Figure 12
Sampling Stations for Additional Sampling (Table 4)

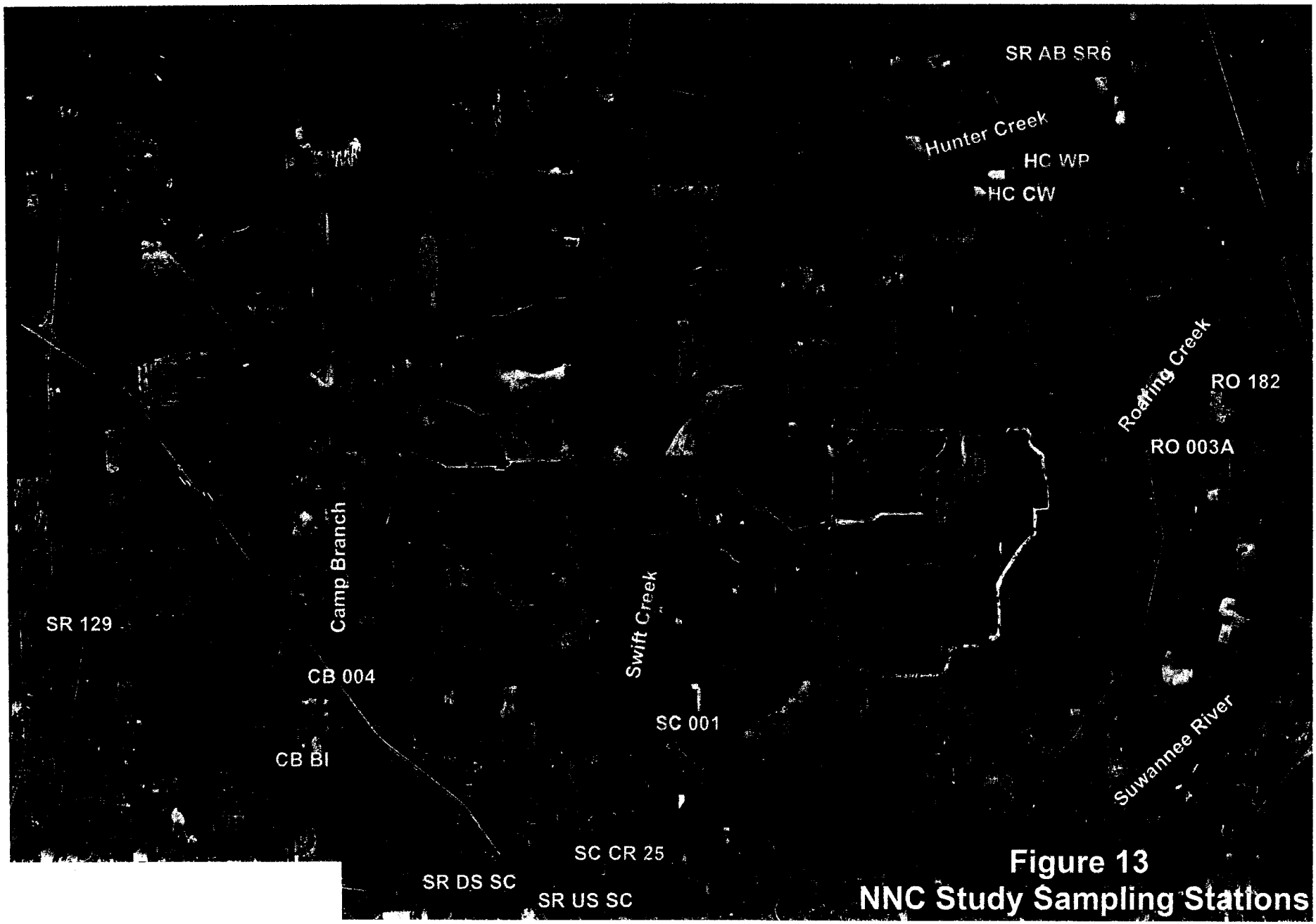


Figure 13
NNC Study Sampling Stations