

**Notes to SFWMD and LEE COUNTY
Concerning Study on Proposed Culverts
Submitted by
Brooks Concerned Citizens (BCC)**

FLOODING CONCERNS

- 1) What is the historical flow of Halfway Creek east and west of I-75? Estero River South Fork? Spring Creek? Review reports and modeling relied upon by South Lee County Watershed Plan (SLCWP) and review South West Florida Feasibility Study (SWFFS) data on pre-development conditions. Other sources of data?
- 2) If the historical flow of Halfway Creek (West of 41) was 640 cfs how can it handle the 900 cfs (under US 41) if more water is sent in from under I-75.
- 3) It is our contention that the Brooks system (as outlined in the drawing) may be unable to handle the proposed water flow of 1055 cfs from the East because:
 - a. The lack of the 160 cfs (not being in place) to the South and the probability of this now being in place for many years, **if ever**. The work just completed on Old 41, Striker Lane and Signal Road all was done without increasing the size of the culverts to handle the new flow.
 - b. The lack of the 30 cfs (of the designed 160 cfs) to the North. Consider the lowering of the 14 ft NGVD fixed weir at 3 Oaks Parkway near the Estero River, and correspondingly adjusting the policy on lowering the allowed weir position of the adjustable weir to the control level of 13.6 ft. to enable pre flooding conditions to be reduced in anticipation of storm season events.
 - c. The contention that the Brooks, Rapallo and Coconut Point do generate more than the 165 cfs than anticipated in the 1997 drawing and as such that increased amount should be reduced from the designed amount allowed to come into the system
- 4) Reevaluation of Half Way Creek from US 41 West to Estero Bay
 - a. Is it clear and unobstructed?
 - b. How much flow can it handle without over flowing its banks and endangering the communities Fountain Lakes, Marsh Landings and West Bay Club adjoining Half Way Creek after the Force Main channel widening has been completed? Assure that increased flows will not be allowed under I-75 until the channel widening has been completed and all of these communities are protected.
- 5) Reevaluation of the South Lee County Watershed as to how the water will flow during a flood scenario taking into account
 - a. Current situation of existing Mines, Residential Developments, Roads, Farms etc.

- b. Permitted Mines, Residential Developments, Roads, Farms etc.
 - c. New and improved conditions since the 1999 study
 - i. The Brooks, the Imperial River, etc.
- 6) Potential changes in hydrology and flows as a result of the Agripartners proposed ditch.
- 7) If any Culverts are required what elevation would the control structure be put at, so as to not drain the adjoining lands and will act to control only flood situations
- 8) If there is not a way to move water (160 cfs) to the South and the 30 cfs to the North from waters coming from the proposed culverts—within a reasonable period (say 3 to 5 years) then the 2 ½ culverts (the amount needed to handle 190 cfs) should not be installed until a plan for accepting this water is in place and a reasonable time table is also in place.
- 9) If it is determined that additional water can be sent to the West of I-75(160 cfs South into Spring Creek) and North (30 CFS the South Branch of the Estero River)
 - a. They should put those culverts so that they place the water directly into those bodies of water.
 - i. Then the following must be in place and capable of handling the increased flow
 - 1. Can those bodies of water handle these additional amounts of water?
 - 2. Is there the ability of those bodies of water to handling the water the entire westerly flow of the body of water and what size culverts will be needed?
- 10) If the District is concerned with restoring historic flows and protecting against flooding we should understand where the flood waters will now flow
 - a. With all the changes that have already occurred and
 - b. All the changes that are already permitted.
- 11) The study should include the possibility of CR 951 being built
- 12) Any results should be checked with any similar areas that are studied as part of the DR/GR study
- 13) Any amount allowed into the Brooks should be able to exit the Brooks before more than nominal street flooding occurs.
 - a. This should be accomplished by limiting the amount of water into the Brooks to only that amount that the system can handle safely. (We have experienced street flooding already) (Without any 3 day 11 inch storm event having taken place)

- 14) Compare models used in South Lee County Watershed Plan (SLCWP) with more current models, such as MIKESHE being used by Danish Hydrological Institute (DHI) in South Lee County. Determine which can be validated most accurately to model actual flood conditions. Validate for more recent storm conditions, such as 2004-05 storms.
- 15) Determine and specify the flood conditions for the determination of need for the culverts. Is it 25 year, 3-day? 50-year? 100-year? Or is it the rainfall pattern from the 1993 and 1995 floods.
- 16) Look at other pathways for additional flows to the south and north, such as the South Fork of the Estero River, Spring Creek, Leitneir creek, The Cocohache River, additional water under Bonita Beach Road and determine whether flows can be increased in these areas.
- 17) The South Lee County comprehensive watershed study (1999) should be updated with the new results.
- 18) We believe that, in most cases (outside the Brooks) any additional water brought to the West of I-75 will require resizing of culverts and the study should show which culverts would have to be increased and to what size. We also believe that any additional water allowed to come to the West of I-75 should be brought under I-75 in the most direct path into the water way that will receive the water(i.e. Not through the existing restricted ditch through the San Carlos Estates Drainage District).
- 19) Any results should be presented to the public for review before anything is approved for construction.
- 20) A time line of the study should be developed and shared with all interested parties.

CONCERNS OTHER THAN FLOODING

1. The District should, at its cost or at the cost of Agripartners, require a water quality monitoring station be installed at the point where the water crosses I-75 and enters the Brooks
 - a. If the Agripartners land is allowing water to leave their property we should know the quality of that water at all times (all water flows)
 - b. The Brooks is required to monitor the quality of the water we discharge under the railroad tracks. We should know the quality of water we are receiving from the East.
2. Reevaluation of the flow ways within Rapallo that the current condition of vegetation will allow the flow necessary to not prevent a back up within the Brooks
3. The Study should include in the modeling
 - a. Soil absorption and storage and runoff which we believe is being done as part of the DR/GR study

4. Update Phase II with latest data on wood stork utilization of short hydroperiod wetlands and South West Florida Feasibility Study (SWFFS predevelopment vegetation data