



STORMWATER MANAGEMENT COMMISSION

M E M O R A N D U M

January 26, 2007

TO: Enforcement Officers and Professional Engineers

FROM: Tony Wolff, PE, CFM
Chief Engineer

RE: Existing Depressional BFE Determinations

The following information is intended to provide additional guidance on determining existing BFE determinations.

- 1) *Existing Floodplain located entirely or partially on-site*
 - a) Must use site-specific topography (use of Countywide or other municipal/regional topography is not acceptable).
 - b) No drain tile present
 - i) Stage-storage calculations cannot take credit for storage below lowest surface outlet elevation (earthen or pipe)
 - ii) Stage-discharge calculations based on surface outlet characteristics
 - c) Drain tile present, no currently proposed development
 - i) Stage-discharge calculations based on insignificant flow through tile (e.g. 0.01, 0.02 cfs, etc). For credit of additional tile capacity the current function of the tile (to daylight) shall be evaluated.
 - ii) Stage-storage calculations can take credit for all storage down to depression bottom.
 - iii) Presence of tile shall be documented by field tile survey.
 - d) Drain tile present and proposed development in accordance with applicable portions of the Drain Tile Memorandum dated October 30, 2003, provided separately, in addition to criteria for maintenance activities and easements.
 - i) Stage-discharge calculations can take credit for full capacity of tile (regardless of current function).
 - ii) Stage-storage calculations can take credit for all storage down to depression bottom.
 - iii) Presence of tile shall be documented by field tile survey.
 - iv) Existing conditions BFE approval must be conditional upon with-project conditions meeting Drain Tile Memorandum.

2) *Existing Floodplain located entirely off-site*

Upstream off-site depressional areas can be incorporated into the on-site modeling efforts. The purpose of their inclusion in this model is to more accurately determine the inflow hydrographs. BFE determinations for these areas cannot be formally approved unless the analysis is in conformance with the criteria above.

- a) May use Countywide, or other municipal or regional, topography.
- b) May assume storage volume down to lowest elevation based on countywide topography.
- c) May assume stage-discharge based on essentially zero release (0.01, 0.02 cfs, etc) up to lowest surface outlet.
- d) As-built plans and design report can be used.