

Flood Damage Reduction Evaluations Criteria

for **CSOP**

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Flood Damage Reduction Performance Evaluation

- * Flood “damages” are estimated based on water stage, land use, and duration.
- * The stages predicted by numerical models can be used to generate a number of flood damage reduction evaluation criteria & performance measures
- * Comparisons of flood damage performance measures can aid in estimating the reduction (or increase) of damages expected under specified conditions.

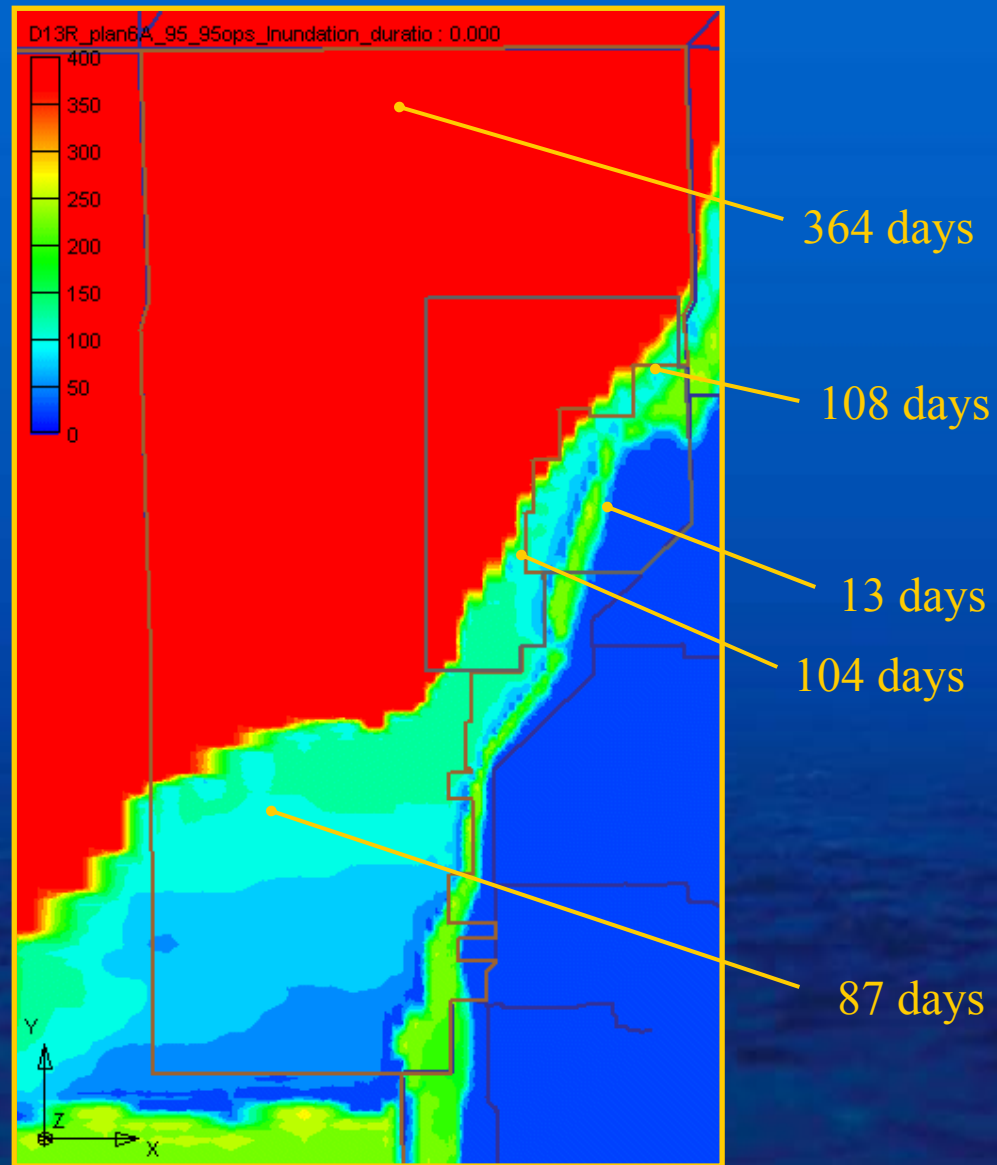
Flood Damage Reduction Evaluation Criteria

Duration of Continuous Inundation

- * This is the length of time in a given year in which the depth is at, or above, a specified value for a continuous period.
- * Presented as contours with units of days.
- * Data source can be either the SFWMM (2x2) or MODBRANCH.

Flood Damage Performance Measures:

Duration of Continuous Inundation



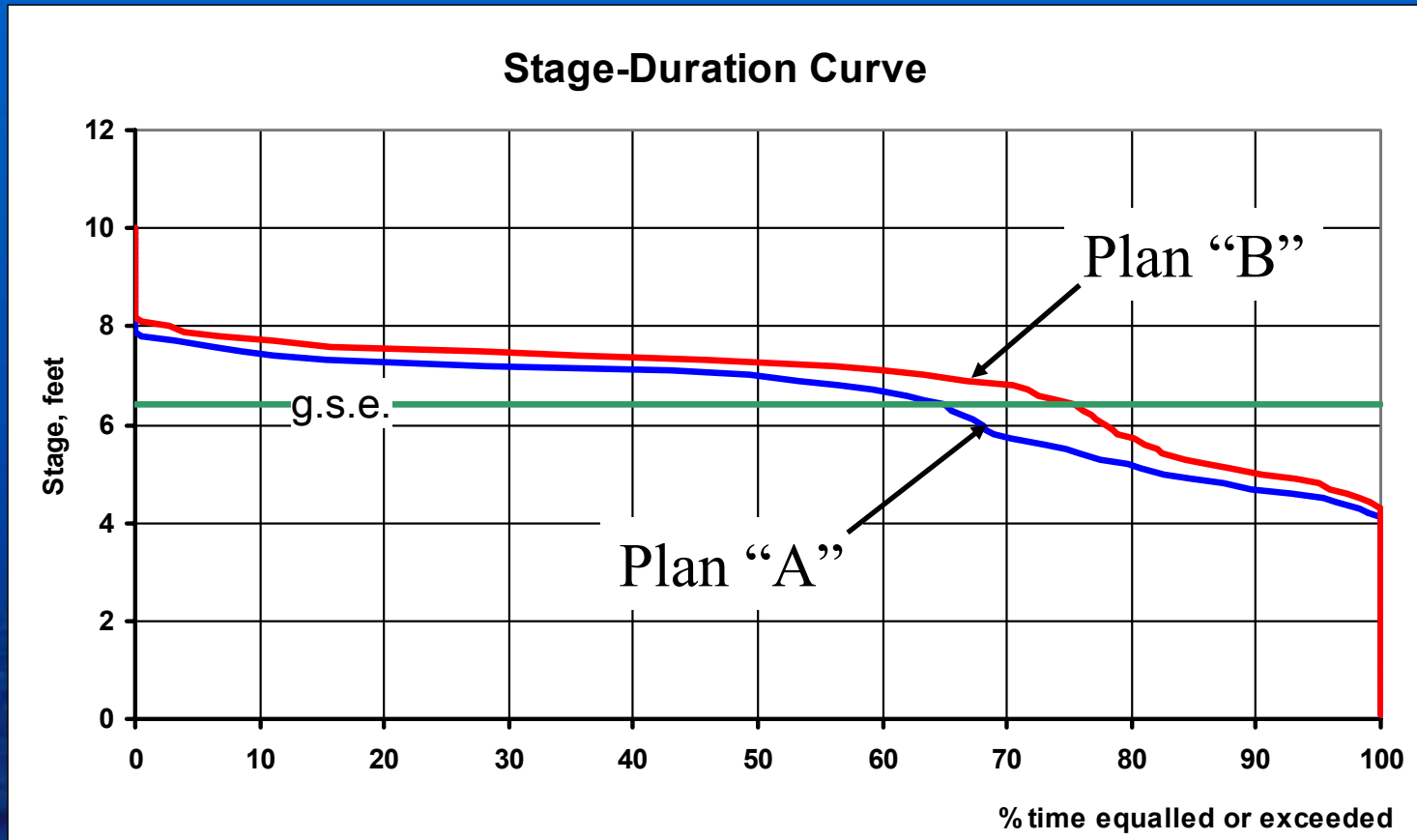
Flood Damage Reduction Evaluation Criteria:

Stage-Duration Curve

- * A stage-duration curve gives the percentage of the time that the stage is equal to, or exceeds, a certain value.
- * Presented as an x-y graph.
- * Data source can be either the SFWMM (2x2) or MODBRANCH.
- * Can represent a single location or an area.

Flood Damage Reduction Evaluation Criteria:

Stage-Duration Curve



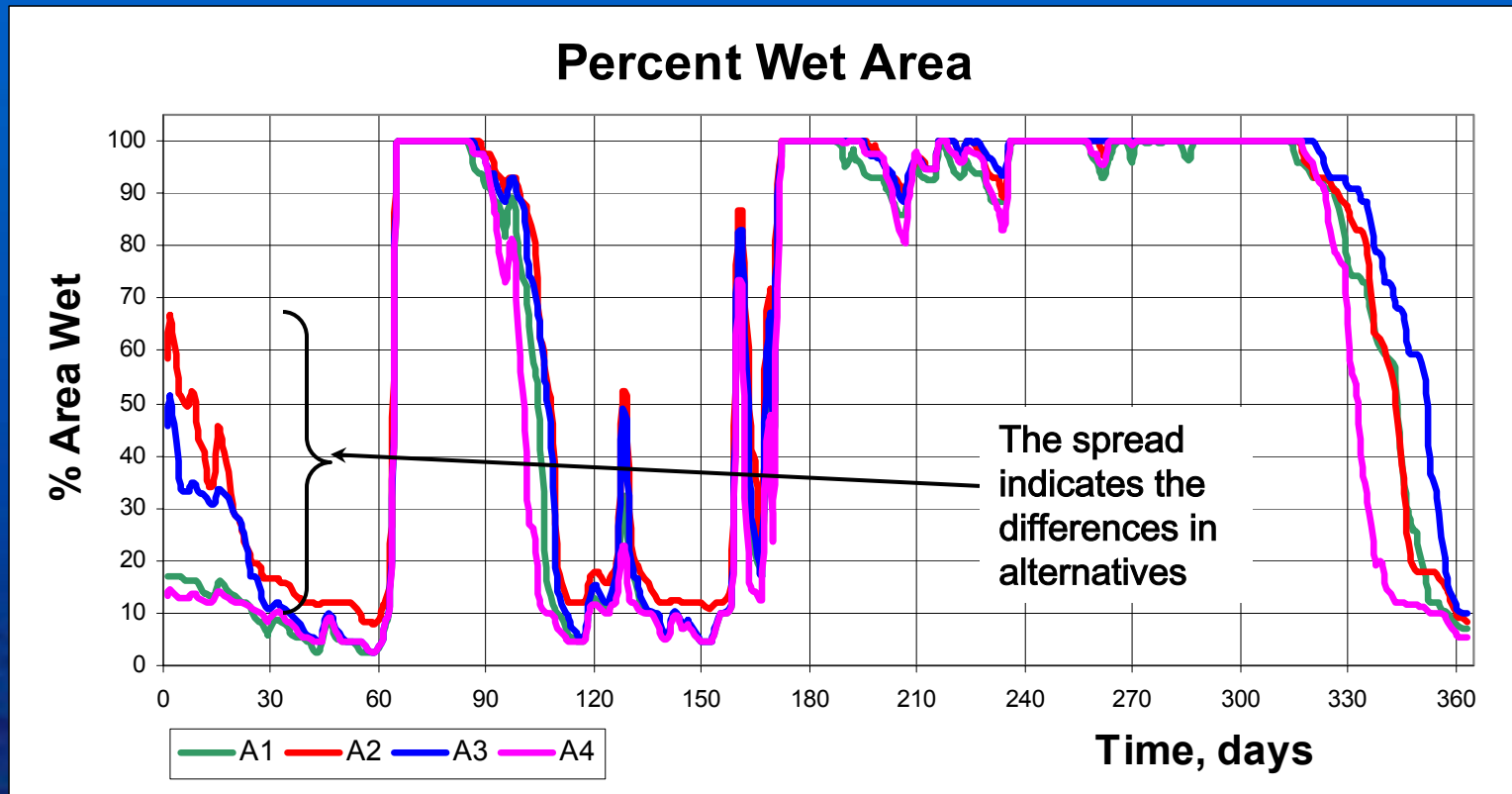
Flood Damage Evaluation Criteria:

Percent Wet Area

- * The “Percent Wet Area” will specify how much of a delineated area is wet at different times.
- * Presented as an x-y graph.
- * Primarily a MODBRANCH output.
- * Can only represent an area.
- * Can change depending on the definition of “wet”.

Flood Damage Reduction Evaluation Criteria:

Percent Wet Area



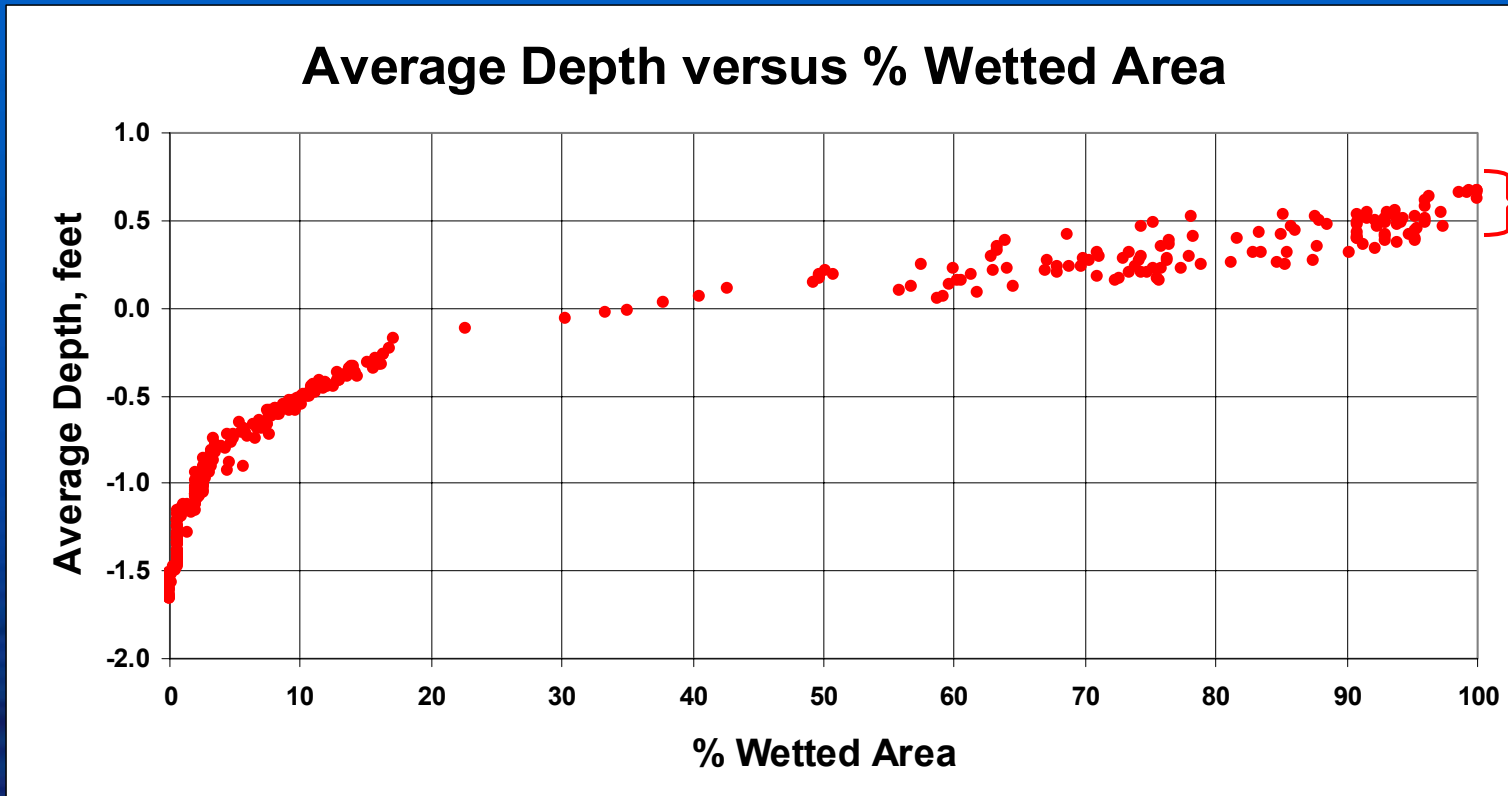
Flood Damage Reduction Evaluation Criteria:

Average Depth versus Percent Wet Area

- * For a large area this indicates the relationship between depth and percentage of the area that is wet.
- * Presented as an x-y graph.
- * Primarily a MODBRANCH output.
- * Can only represent an area comprised of more than one computational point.

Flood Damage Reduction Evaluation Criteria:

Average Depth versus Percent Wet Area



The spread illustrates the daily cycle of wetting and drying

Flood Damage Reduction Evaluation Criteria:

Conclusion

The Flood Damage Reduction Evaluation Criteria presented today are not an exhaustive list.

Other performance measures could be developed if requested.

