

NAHB and URS Cost Estimates
For NAHB's Proposed Turbidity Action Level of 1,000 NTU
Construction and Development ELG

As presented below, NAHB's Action Level which includes NAHB Option 1 will have much less cost impact than EPA's Option 2.

- NAHB's annual cost estimates for the action level approach ranged between \$494,487,264 and \$530,163,062 with an average cost of \$511,901,086 and the national cost per acre ranged between \$1,467 and \$1,570 with an average cost of \$1,516 per acre. At 2.5 houses per acre, the cost per house would be about \$600.

Detailed Analysis: The following are the detailed modifications that URS/NAHB made to EPA's Cost Estimate Spreadsheet of the proposal. This information was submitted in comments by NAHB.

NAHB Cost Estimates for the Action Level Approach without Any Large Project over Action Level (AL) 1,000 NTUs include the following:

- A construction duration time 18 months (EPA used 9 months);
- Added 1,000ft³/acre to all sediment basins except for sediment basins in 11 states that already require sediment basin to be designed greater than 3,600 ft³/acre (IL,MA, MN,NH, OK,PA,SC,TN,TX and Washington DC);
- Added \$2,500 to all medium and large sites for 1 skimmer and 1 baffle per site and added \$2,500 to 50% of all large sites for skimmer and baffle assuming the sites would require 2 settling ponds;
- General labor cost to collect once per month for 18 months storm water samples for turbidity analyses (including false starts);
- General labor to perform turbidity testing on samples collected once per month for 18 months;
- General and supervision labor cost for recordkeeping and submitting Discharge Monitoring Reports (DMRs) once per month for 18 months;
- And the cost of purchasing Turbidimeters and Turbidity calibration solutions.

NAHB estimated the cost for the following exceedance rates for large projects over the 1,000 NTUs Action Level:

- Exceedance Rate of 5% all large projects one time and 2.5% of all large projects in consecutive events,
- Exceedance Rate of 2.5% all large projects one time and 1% of all large projects in consecutive events,
- Exceedance Rate of 1% all large projects one time and 0.5% of all large projects in consecutive events.

NAHB cost estimates for the exceedance Action Level also included:

- General labor rates for resampling and performing Turbidity testing;
- Supervision labor rate for recordkeeping, discussion with permitting authorizes, engineering or retro fixing BMPs and updating the Storm Water Pollution Prevention Plan (SWPPP),
- If the project has exceedance rates in consecutive events, URS/NAHB added all the cost for Exceedance of one event plus the cost of installing additional BMPs such as floc logs, check dams and using a hybrid grass seeding that includes a mixture of grass and PAM.

**Cost Comparison Between EPA Option 2 and The NAHB Option 1 and Action Level
Construction and Development ELG
July 10, 2009**

Option	National Annual Cost	National Cost/Acre	National Cost/House
NAHB Option 1 Enhanced BMPs	\$438,930,937	\$1,299	\$520
EPA Option 2 13 NTU NEL	\$7,218,349,658	\$24,211	\$10,000
NAHB 1000 NTU Action Level	\$511,901,086	\$1,516	\$600

**Additional Administrative Costs for State and Local Governments
(Not included in EPA's Estimates)**

	Annual FTEs Required		Annual \$ Required (millions)	
	State	Local	State	Local
EPA's Proposed Option 2	508.7	106.8	38.007	9.726
Action Level Approach	93.4	86.3	6.921	7.431