

# Seven Inspection Tasks to Ensure your BRC is Properly Working



# BR Inspection

## #1 Get a set of plans



- How deep is ponding zone?
- How deep is media?
- Media composition?
- Plants?

# BR Inspection

## # 2 Look at surface of bed



- Look for sediment
- Look at mulch
- Look at watershed – look for signs of instability

# # 3 Look for evidence of underdrain drainage



# BR Inspection

## # 4 Look at plants



- Are they dead or alive?
- Why?

# # 5 Pull soil cores



Pull 10 soil cores once per year –  
examine for mottling or odor

# BR Inspection #6 dig a hole



# #7 Time bed drainage

- Visit site within 24 hours of 25 mm rain event (avg 11-12 /yr)
- If water is still ponded site has clogged
- Action needed
- Do this once or twice per year



# Remember: BR is the only means of drainage during construction



# Grassed Bioretention Maintenance



[www.bae.ncsu.edu/stormwater](http://www.bae.ncsu.edu/stormwater)



# Mowing regimen?



# Avoid scalping grass



# Table 2. Guidelines for Mowing Heights

Lawngrass	Height after Mowing (inches)
Bermudagrass	3/4 to 1 1/2
Zoysiagrass	3/4 to 1 1/2
Centipedegrass	1 to 1 1/2
Kentucky bluegrass, fine fescue, or perennial ryegrass	1 1/2 to 2 1/2
Tall fescue	2 1/2 to 3 1/2



# Lime? Yes, if needed Fertilize? Seldom, if ever



2004



2005



2004



2005



# Impact of Suspected Fertilization (Shrub system)



# Possible Fertilizer Use?



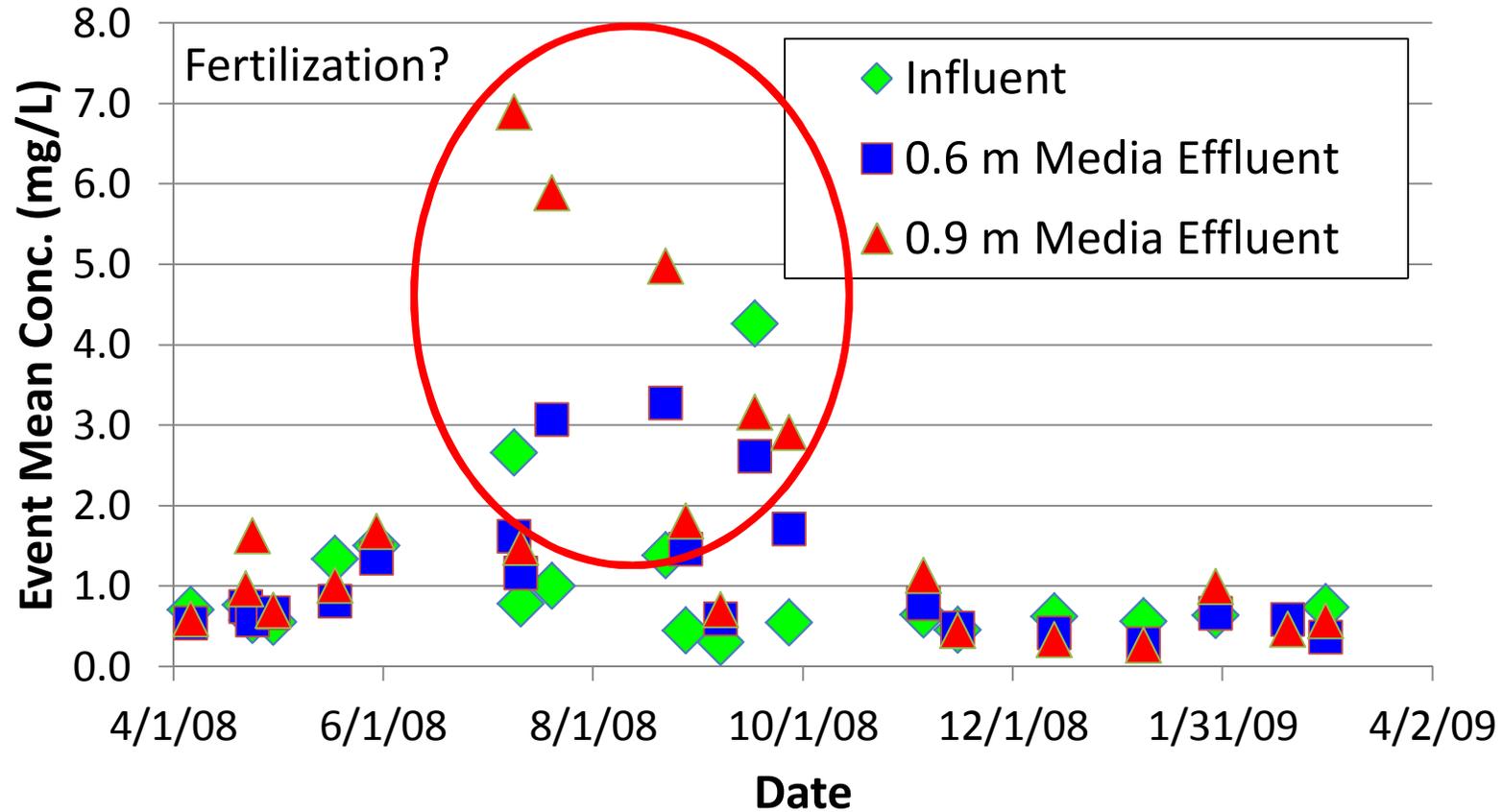
# Nashville Conc. “Reduction”

- Average EMC – Units [mg/L]; n=20.

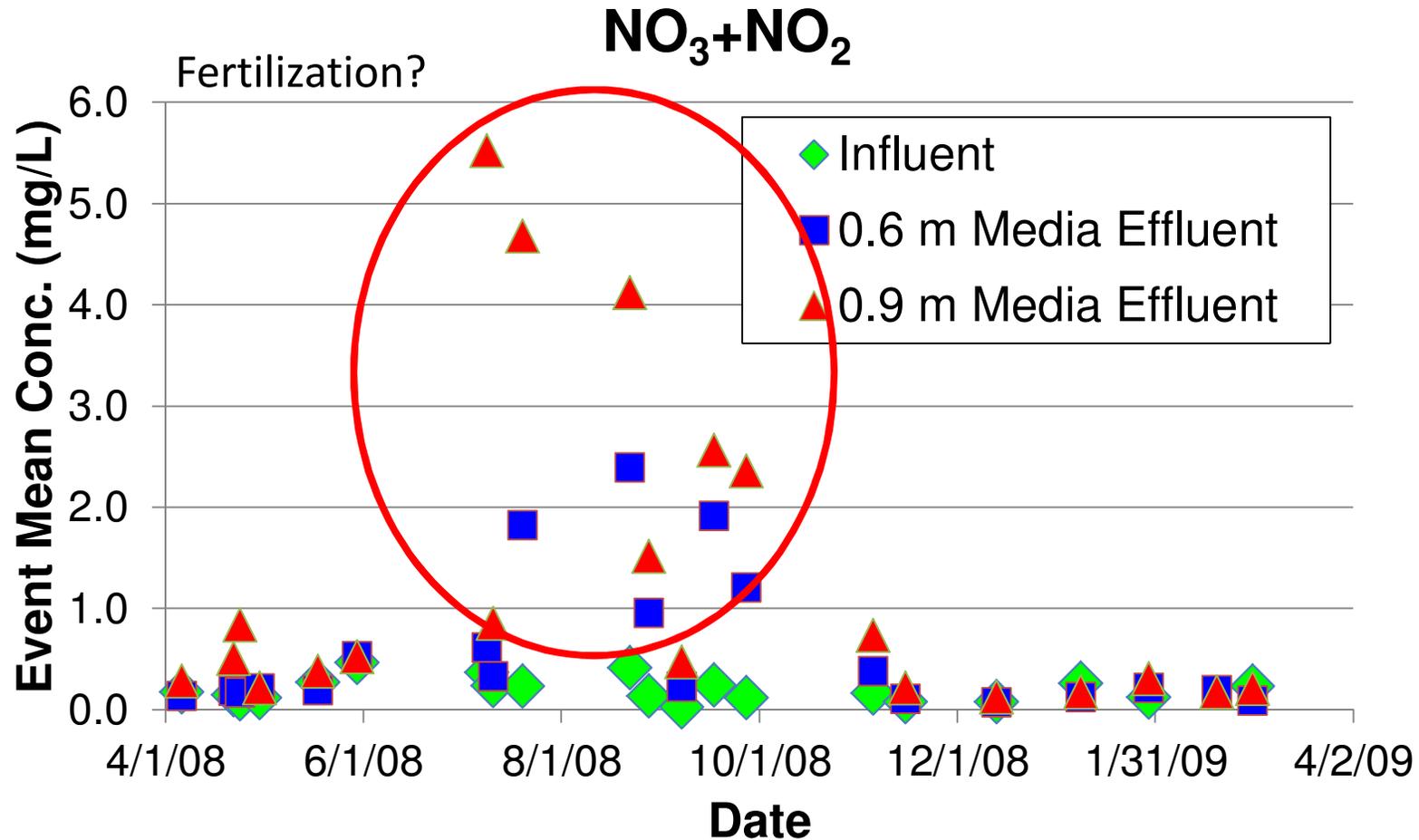
	TKN	NO <sub>3</sub> + NO <sub>2</sub>	TN	NH <sub>4</sub> -N	TP
Inflow	0.82	0.20	1.03	0.35	0.07
60 cm Media	0.56	0.60	1.16	0.05	0.08
90 cm Media	0.58	1.33	1.91	0.08	0.06
<b>60 cm Media Reduction</b>	<b>32%</b>	<b>-196%</b>	<b>-13%</b>	<b>85%</b>	<b>-7%</b>
<b>90 cm Media Reduction</b>	<b>30%</b>	<b>-561%</b>	<b>-86%</b>	<b>77%</b>	<b>17%</b>
<b>NC Credits</b>			<b>35%</b>		<b>45%</b>

# Total Nitrogen

## Total Nitrogen



# Nitrate + Nitrite



# Bioretention Pruning





# Lesson Learned: Dirty Watershed = Bane of BRC



# Questions

