

## David Cooper

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**From:** David Gainey  
**Sent:** Thursday, June 19, 2008 12:09 PM  
**To:** David Cooper  
**Subject:** FW: Carolina Meadows Site surface water review

DAVID GAINEY  
SITE ASSESSMENT & MONITORING DEPT. MANAGER  
SOIL AND ENVIRONMENTAL CONSULTANTS, PA  
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**From:** Fred Royal [mailto:fred.royal@chathamnc.org]  
**Sent:** Thursday, June 19, 2008 12:07 PM  
**To:** David Gainey  
**Cc:** stephen@cegroupinc.com; Mike Zaccardo; David Hughes; Keith Megginson  
**Subject:** Carolina Meadows Site surface water review

Hi David,

Thank you for submitting the surface water package for my review. I have performed a site visit to confirm your findings and have the following comments:

1. I agree with your finding of perennial stream (Features A & B) generally running north/south on the western edge of the property.
2. I agree with your wetlands features within this stream bottom.
3. Please reclassify the entire length of the "marginal intermittent" or Feature 03 channel to an intermittent channel to the confluence with the perennial stream as is the county policy 6. "Natural Stream Variants) and policy 7. "Unbroken segments and networks required for buffers". The buffer should be 50' from each top of bank for the entire length.
4. Please classify the feature described as "Central Marginal Channel" on pp 4 of 5 as an ephemeral stream where I have placed an ephemeral origin flag, approx. 75' from the confluence. It exhibits a well defined channel to the extent expected for an ephemeral stream channel ie: shallow bed and banks with significantly different soil texture than surrounding soils, wrack lines, grade control points and evidence of active water flow. I scored it with 6 points. These factors combine to classify it as ephemeral based on the Field Procedures document.
5. I agree with the northern most channel as not meeting the minimum criteria for ephemeral stream classification.

Please note correction items 4. and 5. above and make the necessary changes to the classification, according to the Field Procedures document. If you have any questions, do not hesitate to contact me.

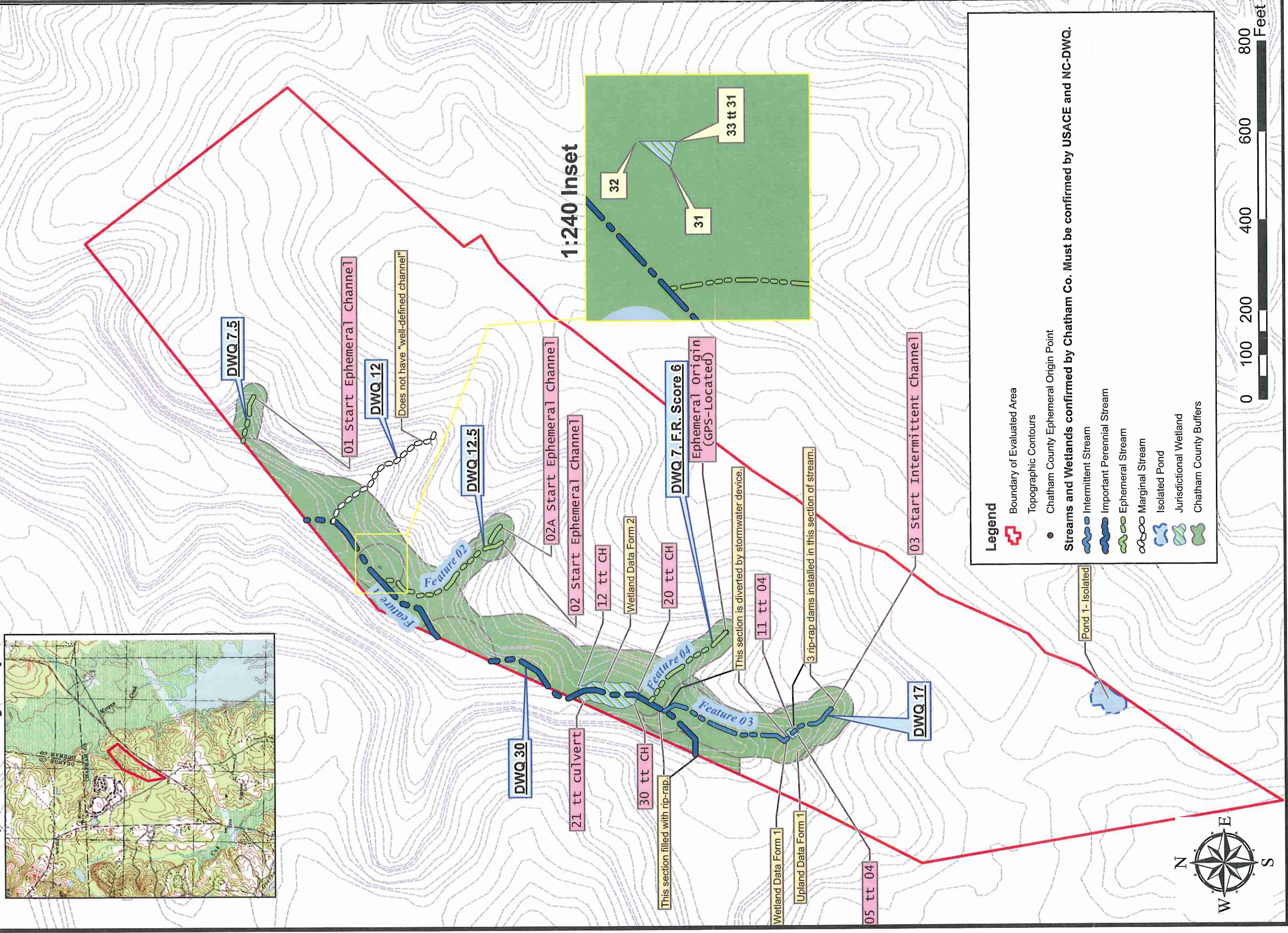
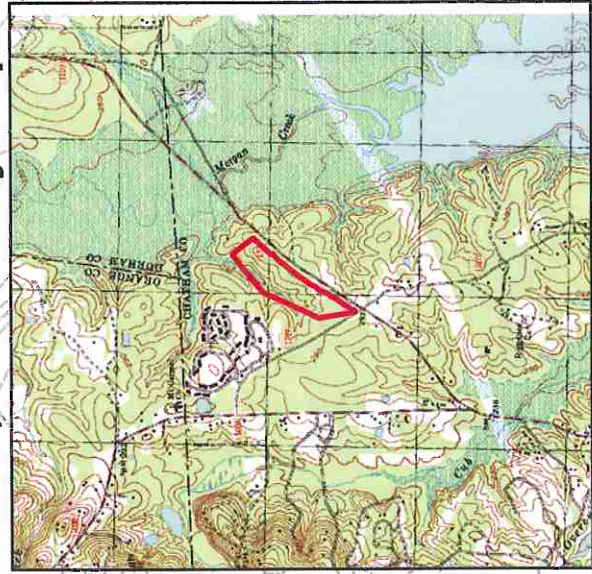
**Diversion channel note:** Although note a part of this discussion, I note that the geotextile covered diversion channel you have shown at the base to the slope is very unusual and I will ask the site engineer to provide information about its permitted use, etc. I believe it poses a long-term problem with maintenance and with the natural conveyance of runoff from the slope (undeveloped and especially developed). In my opinion, it was designed and constructed without sufficient consideration to public health and safety and unless there is a compelling purpose for it to remain, it should be either re-designed or removed with the affected site returned back to natural conditions.

8/7/2008

Fred Royal, PE, CFM  
Director  
Environmental Resources Division  
Chatham County, NC  
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(919) 548-5988



# 1:50,000 Vicinity Map



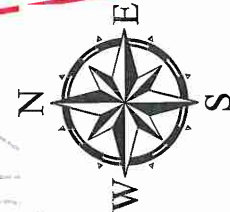
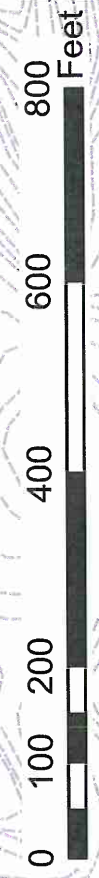
1:240 Inset

**Legend**

- Boundary of Evaluated Area
- Topographic Contours
- Chatham County Ephemeral Origin Point

**Streams and Wetlands confirmed by Chatham Co. Must be confirmed by USACE and NC-DWQ.**

- Intermittent Stream
- Important Perennial Stream
- Ephemeral Stream
- Marginal Stream
- Isolated Pond
- Jurisdictional Wetland
- Chatham County Buffers



**Wetland and Stream Sketch Map**  
**Post-Chatham County Site Meeting**  
 Carolina Meadows Site  
 Chatham County, NC

Project Number:	1099 I.WI
Project Manager:	DG
Scale:	1" = 200'
Date:	6/20/2008



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