

## **Etowah HCP Steering Committee meeting**

June 9, 2006

Rock Creek Recreation Complex

Dawsonville, GA

### **Present**

*Steering Committee Members, Voting:* Steve Bradley, *Bartow*; Charles Laughinghouse, *Forsyth County*; Geoff Morton, *Cherokee County*; Dan Rothwell, *City of Holly Springs*; Mike Tuller, *Cobb County*; Lynn Tully, *Dawson County*

*Steering Committee Members, Non-voting:* Louise McPherson, *USDA*

### *Advisory Committee and Interested Parties:*

Mike Anderson, *Greater Atlanta Homebuilders*; Laurie Fowler, *UGA* ; Bud Freeman, *UGA* ; Mary Freeman, *UGA*; Beth Gavrilles, *UGA*; Curt Gervich, *HCP*; Robin Goodloe, *USFWS* ; Stan Hall, *Cherokee County* ; Celia Klardie, *Ross Consulting Engineers* ; Scott Leonard, *Council for Quality Growth* ; James Norman, *UGA* ; Jerry Pressley, *Council for Quality Growth* ; Mike Shina, *Cherokee County Homebuilders*; Sandy Tucker, *USFWS*

### **Grading Ordinance and Technical Committee Report**

The Erosion & Sedimentation Control Technical Committee recommended developing a policy to reduce erosion and sedimentation from large open graded sites that remain unstabilized for a long time, so the Grading Technical Committee was convened last fall (2005). The Committee was well-rounded, with 15-20 people, including developers, engineers, homebuilders, representatives from state & federal agencies, etc. Mike Shina, Louise McPherson, Scott Leonard, Mike Anderson, Jerry Pressley, and Celia Klardie all served on the committee. The grading policy is an addendum to the E&S Standard Operating Procedure and to the E&S Technical Committee Report.

The Technical Committee reviewed grading policies from around the state and country but could not find an effective model that would accomplish the committee's goals. They also sought advice from two experts: a planning consultant who works in north Georgia and an engineer from Atlanta who works on large industrial developments across the country. The Committee ended up selecting the planning-based approach.

The first part of the policy is an amendment to the E&S ordinance that counties already have. It is based on a Cherokee County / GDOT policy. The second component is a model grading ordinance.

### *Amendments to E&S ordinance:*

1. The surface area of all exposed material can be no more than 17 acres at one time. This is in Cherokee County's ordinance already, and is also a GDOT policy. This is a "rolling 17" meaning that as one acre is stabilized, another may be opened up.
2. The exposed earth should not be exposed for more than seven days (actual days, not business days).

*Model grading ordinance:*

1. The developer must submit grading plan as part of land disturbance permit.
2. The plan must show evidence of 5-step planning process.
3. The plan must leave 30% of steep (>25%) slopes ungraded.

*The 5-Step planning process.*

1. Identify site characteristics, e.g. property boundaries; hydrologic features (streams, rivers, lakes, wetlands); topographic contours; relevant geographic features; soil classes; trees with dbh >15", etc.)
2. Identify areas not gradable due to local, state or federal law, plus 30% of all 25% slope area greater than 5000 sf.
3. Identify locations of all structural and non-structural infiltration BMPs –if you grade your infiltration area you will make it hard for infiltration to work
4. Identify gradable area
5. Divide gradable area into 17 acre parts.

*Protecting steep slopes – 30% need to be undisturbed during and after construction*

The Notice of Violation portion of the model grading ordinance is taken from the state E&S Act, as are the penalties.

Lynn asked why 25% slope was chosen. Curt said that the Committee discussed this issue at length. The planning and engineering consultants were firm on this number. The committee felt that requiring protection of slopes of lesser grade was too restrictive, and felt comfortable with this number.

Lynn requested that the Technical Committee add a slope map as an appendix to the report.

Scott Leonard discussed a study he did to see how the grading policy would affect one of his developments, Centennial Lakes in Cherokee County. It's in a Priority 2 area, on a stream that has darters (the developers stayed away from the stream). It used to be a golf course. The site has varied topography including floodplain and hills. He sent CAD files of the site's boundaries and topography to Bill Bumback who did a slope analysis. The bulk of site is mass graded, mostly residential. Steep slopes (5000 contiguous sf.) total 10.34 acres, so 30% of that is 3.1 acres. He would have to modify the plan a bit to comply with the grading policy. Some of the steep slope is in the buffer, but that is excluded from the calculation of the 30%. To really accommodate the grading policy, he would have had to change the land plan. In reality, for this site, since it's in a Priority 2 area, there would be more impact on the site layout.

He said that the committee liked the approach of this being a planning tool, with the grading policy taken into account from the beginning. It is the best way to set expectations for developers. It puts everyone on a level playing field. That was the biggest hurdle to the committee.

Curt said that the ordinance should work to prevent E&S problems, but not dictate what someone does to his or her property. The ordinance also ties in to the stormwater ordinance. This will be

the first time developers have to work with infiltration areas, and have to think about those in creating the grading plan. That's equally as important as staying off the steep slopes.

Scott Leonard said that considering the infiltration would constrain site planning more than the 30% requirement.

Scott said the committee hoped that the policy pieces of the HCP would come together so that everyone knows the rules up front. There are currently a lot of loopholes throughout the state that end up getting taken advantage of. This policy helps developers determine what the impact is going to be, if the rules are up front. He said he thought the technical committee was a great process.

Charles said he liked the idea of requiring this kind of planning up front. Lots of developers think that if the zoning says 2 units per acre, they are entitled to that whether the land can actually support that or not.

Scott suggested that the HCP should be overlain on all the Etowah counties' Future Land Use maps. They have to be integrated or peoples' expectations will be confounded.

Charles said that for Forsyth, even though not all of the county is in the Etowah basin, it would be easier to have one set of rules.

Council for Quality Growth members felt that an overlay district would be better.

There was discussion about whether the participating local governments should adopt HCP provisions for use outside the Etowah basin. Some Steering Committee members were in favor of this because they felt that the policies are sound and would address water quality problems that were community-wide. The Council for Quality Growth members in attendance were against this.

Laurie said that this issue wasn't something for the Steering Committee to decide; each county will need to determine this idea for themselves

The Steering Committee agreed to adopt the addenda for E&S and the grading ordinance. Curt said he would poll the Steering Committee members not in attendance.

### **Water Supply Technical Committee update**

Mary explained that the Water Supply Technical Committee just had their last meeting after working for about a year. They are proposing for inclusion in the HCP a protocol for evaluating the effects of reservoirs on species covered in the HCP. At first they thought they'd be looking at particular potential reservoir sites and evaluating them. After about 3 months, they realized they couldn't do that. So many factors that determine where reservoirs are sited are beyond the impacts on fishes, they can't make those evaluations now for the future. But there needs to be some assurance that reservoirs will be sited taking the HCP into account. This issue came up when the biologists on the scientific advisory committee met. They were comfortable with the runoff limits and other HCP policies, but they were concerned about impacts of siting a reservoir

somewhere that would wipe out large numbers of imperiled fish. We know that more reservoirs will be built; so we have to make sure that the threatened and endangered species are taken into account.

The Technical Committee came up with a protocol that uses the best conservation biology principles we know. Long term persistence depends on the number of populations, amount and quality of habitat, ability of fishes to move from one area to another, and range of conditions. That information can be turned into an index of persistence. If someone gave us a potential site, we could run the model now. As we get more monitoring data, the models will be updated.

Robin pointed out that this is a first cut analysis. The US Army Corps criteria (expense, # of landowners, water quality) are looked at after the sites that would harm the species are knocked out of contention.

The Steering Committee agreed to adopt the Technical Committee's recommendations. Curt will poll those Steering Committee members not in attendance.

### **Road Crossings of Streams Technical Committee update**

James said the Technical Committee has met twice. If the Steering Committee agrees with the direction they're moving in, they'll draft an ordinance and bring it back for final approval.

Why is it important to include stream road crossings in HCP? Over the past 10 years there's been increasing awareness that pipe culverts can prevent fish from moving up and downstream. As well as fragmenting habitat, impassable road crossings can prevent repopulation, escape from predators, and spawning areas access. Problems with culverts include excessive velocities fish can't swim against; depth; scoured outlets that cause culverts to become perched, creating a barrier; and altered sediment and debris transport processes.

Our studies show that up to 1/3 of existing road crossings with drainage of 1 – 50 km<sup>2</sup> could impede fish passage. The Technical Committee came up with standards that they expect will improve this.

1. bridges required for streams with drainage area over 20 mi<sup>2</sup>;
2. for less than 20 mi<sup>2</sup> and more than .2 mi<sup>2</sup>, bottomless culverts or bridges or embedded culverts must be used (no pipes);
3. stream simulation design procedure is the only acceptable design (this is based on other states' requirements);
4. stream crossing construction BMPs must be followed;
5. stream crossings must be designed to maximize infiltration (with the exception of stormwater originating on bridge itself which can be drained via scupper drains);
6. variance for alternative designs that can be shown to have no greater impact on fish will be allowed;
7. bonding mechanism that releases bond upon final inspection and certification of "as-built" condition will be required.

Lynn asked whether this bond is in addition to the normal bond they already require for roads. Laurie said that it is specific to road crossings, in addition to the regular road bond.

The stream simulation model approach requires that the culvert bed width = 1.2 x bankfull width + 2 ft., and that the culvert be embedded between 30 – 50% of culvert rise. In extensive bedrock areas, it will require that bottom of culvert be even with bedrock. The reason for this is that a less deep embedding will allow the culvert bottom to become exposed due to the regular stream flow process.

The culvert bottom must be covered with a well graded homogeneous native streambed sediment mix. The slope of the culvert must equal the slope of the adjacent channel. The channel form and bank margins must be reconstructed inside the culvert to provide appropriate depth and velocity.

Such an ordinance would apply to private entities as part of a larger common plan and city and county governments for:

- Construction of new crossings
- Replacement of a bridge with a culvert
- Replacement of crossings built after the HCP regulations are adopted

This ordinance would not apply to:

- Crossings built by state or federal governments or their contractors due to state and federal policy
- Replacement of already existing culverts. (This was an issue because of potential downstream flooding, road stability, and stream stability issues; what would happen when an undersized culvert is replaced by a wider one is not well enough understood and will need to be studied more.)

In terms of monitoring and adaptive management, culverts would have to be monitored annually; also after any storm creating flows over the five-year storm flow.

Celia asked if there is a velocity constraint. James said no; it used to be talked about in the literature more, but natural variability makes it nearly impossible. The feeling now is that if it's designed like a natural channel that should take care of the velocity issue.

Lynn asked whether the Committee has GDOT's buy-in. James said that the Committee has been trying to work with GDOT for the past 2 years. The DNR commissioner is now trying to get an answer from them regarding their opinion on the policy and their willingness to incorporate the policy into their cost-share agreements.. Laurie said that GDOT did provide some feedback early on, which the Committee incorporated. The most important thing we haven't gotten their answer on is cost sharing.

James said that the Technical Committee staff did studies of actual road crossings before they started developing policy. GDOT assured him that their 12 inch embedded culverts worked fine; the photo he showed (in his powerpoint presentation) of the culvert perched 1.5 feet above the stream was one that GDOT assured him had been embedded properly.

Louise asked why the culvert is recommended to be so wide. Mary said the idea is to make the culvert wide enough and then reconstruct the channel inside it. The channel is then kept in place by natural stream processes. James added that when it floods, the silt added will stay in the culvert and the stream will carve its own channel through it.

Mary said that we know the current system doesn't work; we think this design will work as well as a bridge. That's where monitoring comes in.

Dan said that there's a model for bridge design that can show the effects, scour etc. Mary said that the staff used that model in simulations for the report. She explained that the recommendations are those in use in other states, and reflect the state of the science so far. Stan asked how long those states have been using these recommendations. James said that they've been in use for six years or so, and the culverts are still stable.

Lynn asked about maintenance. Mary said that the report doesn't address it, but maintenance would be carried out by whoever does it now. She expects that maintenance costs would go down, because these culverts won't catch as much debris.

Lynn asked about materials; their ordinance only allows concrete but she said it appears that this ordinance would allow other materials. James said that materials are not addressed in the HCP policy. Mary said that the ordinance will leave the choice of culvert material up to the local government, and just specify the size and degree of embeddedness.

There was a comment that GDOT won't put money into bottomless culverts. James said that GDOT includes bottomless culverts in their internal documents as an acceptable practice. Apparently GDOT is not always consistent with its internal guidance documents in some cases.

James said that the Technical Committee has made it clear that this will be more expensive. That's why the staff has been trying to get GDOT to say what kind of road crossings they'll support via cost shares. For small aluminum culverts that wash out in a rainstorm, the increase in cost may be 100%; for medium sized culverts, the cost would be about 50% more; and for box culverts about the same.

Mary said that at the meeting this week one of the Committee members said if you require such a wide culvert, you'll put in a box instead of a pipe, and that's a lot more expensive. But if you were already doing a box but now have to do another one slightly bigger, the cost won't increase significantly.

Celia asked whether, if a project is pretty far downstream, and there's a bad culvert upstream, the developer could upgrade that bad culvert in exchange for installing a cheaper culvert on his property; or whether a developer who couldn't meet runoff limits could instead improve a bad existing crossing. Laurie said that although the Advisory Committee has talked about a system with credits for certain things, it would not be a way to avoid meeting HCP policy. Our research indicates we need to meet all of the policies in order for the HCP to be effective.

Jerry said that developers would prefer such tradeoffs. They're looking at dollars. Each aspect of the HCP may not have a huge impact on its own, but together it can add up. He said it may drive out developers altogether, which will kill the economics of the community.

Laurie explained that all the technical committees have been concerned with economics, as has the Steering Committee and Advisory Committee. There is a lot of flexibility written into the HCP policies, but there are just some things that the science indicates really must be done.

Lynn pointed out that there's a variance process for each of the HCP ordinances. That kind of credit trading could be accommodated there. Mary said that if a developer proposes an alternative that would work, that would be OK. She could anticipate creating a model for this situation similar to Seth's runoff model.

Scott said he thinks that there should be an economic analysis of the costs of the HCP policies, otherwise governments might adopt policies without understanding the impacts of what they're doing.

Robin pointed out that such a study would also have to look at benefits – e.g. improved water quality.

The Steering Committee agreed that HCP staff could work on a cost-benefit analysis, but first have to finish the policies. Laurie said that these should be wrapped up by the end of July. If the Steering Committee agrees to the road crossings policy and implementation plan, then everything would be submitted to FWS for them to start doing their environmental assessment. That will take a year or so. Some cities and counties may feel ready to adopt these ordinances now. This economic study shouldn't hold up anyone who is ready to adopt, but will inform others.

Council for Quality Growth members felt the cities and counties shouldn't adopt anything because they don't understand the implications, and that the entire HCP should be given to a consultant for a cost analysis. The governments may not want to adopt it if the policies are too onerous, even if it is based on the best available science.

Laurie pointed out that the counties and cities have been having discussions about costs and benefits.

Celia said that if the municipality doesn't adopt the HCP, then individual developers will have to go through the HCP process and/or continue consultation with FWS.

Sandy explained that the Council for Quality Growth misunderstood the way the HCP works. If the cities and counties aren't in the HCP, there is no HCP. It doesn't happen if they don't adopt the ordinances. The HCP is a tool for those entities that want to go forward with activities that result in take.

Scott said that the HCP is in effect now.

Robin explained that it is not; he is probably confused by a letter that FWS gives to developers working in the Etowah basin. The letter presents alternatives: the developers either have to do a formal consultation with FWS, or they can implement guidelines, based on the best available science, which allows them to avoid having to do a formal consultation and get an IT permit.

Celia pointed out that a cost benefit study needs to look at what it would cost the developer to have to get an ITP. Lynn said that none of these policies are going to hit all at once and turn off developers. The HCP will come into force piece by piece. It may take local governments a year to get the policies adopted. Dawson, as a smaller county, will be looking to Cobb and Cherokee to see how it's going with them.

Sandy also explained that it's not all or nothing. We've talked about what happens if a city within a county doesn't join the HCP but the county does. If you're a local government or a developer, you know the rules in advance. You can opt in or you can opt out. As Robin said, if you choose not to follow these rules, you don't have to but you still have to comply with the ESA. You could do a formal consultation with FWS, either federal (Section 7) or non-federal (Section 10). It's the counties' and cities' decision. FWS doesn't want people to sign onto something that they don't understand. But all is not lost if everyone doesn't sign on.

Steve explained that the Steering Committee members are not naïve. They have their local government attorneys looking at the HCP policies. They are moving forward with the HCP with their eyes open.

Stan pointed out that the federal government will protect these endangered species. The HCP protects participants from liability. If a developer is working in a municipality that is part of the HCP, he is protected and has certainty. Otherwise, he's on his own, it's his liability, and if he kills a bunch of darters he's in a lot of trouble.

Laurie said that at the direction of the Steering Committee the staff will work to put together a scope of what an economic study would cover. They will bring this to the Steering Committee for approval after the HCP is formally submitted to the FWS.

### **Implementation Technical Committee**

Laurie said that the Implementation Technical Committee is working with several local government attorneys. They are working on how to oversee long-term monitoring and implementation. They expect to need \$200,000 per year for scientific monitoring (the response of the threatened and endangered fishes to the HCP policies). They hope the cost will go down as they decentralize and work with the local water and sewer authorities. Additional monies will be needed for staff – a full time coordinator, and administrative assistant, and part time GIS modeler to keep up with changes in the jurisdictions and perhaps others. The coordinator and administrative assistant would work on:

- Training – stormwater (we're already working with DCA on this); HCP policies for new officials, etc.
- Compliance – are the counties actually following through on the requirements – e.g. doing the required maintenance, record-keeping, etc.?

- Adaptive Management – we want to be flexible but need to be sure that future participants will be able to understand what we’ve done. If the fish are doing fine, we need a process for figuring out how to ratchet down the HCP requirements.

The Implementation Technical Committee also wants the Steering Committee to remain intact, to meet if needed if the trigger numbers (either high or low) for Adaptive Management are met.

To cover these costs, the Technical Committee is looking at what would need to be charged. They are thinking of something in the area of \$250 per land disturbing permit – that would fund the operating expenses of the administrative body.

Geoff suggested that we might need to work on a fee structure.

Laurie said the Technical Committee doesn’t want the governance structure to be an authority, but an intergovernmental agreement. They’re consulting with the Bartow and Paulding County attorneys. They are looking at adaptive management triggers and responses and fee structures.

Laurie said that we will try to have Aaron Valenta at the next meeting to answer any questions.

Louise asked for clarification about whether all the components of the HCP are to be adopted at the same time by those who choose to adopt it. Laurie pointed out that some local governments have already adopted some components.

Steve pointed out that practically speaking it will make more sense to adopt all the policies.

### **Curt Gervich**

Laurie announced that Curt is leaving his position as HCP Outreach Coordinator. He is getting married in July and then moving to Blacksburg, VA to pursue a PhD at Virginia Tech. The Steering Committee heartily thanked Curt for all his invaluable work.

### **Next meeting**

July 21 in or around Canton; details TBD.

## Addendum

After the 6/9/2006 meeting, Outreach Coordinator Curt Gervich sought and received agreement from the Steering Committee members not in attendance at the meeting about the following items:

To adopt the proposed addenda for E&S and the grading ordinance.

To adopt the Technical Committee's recommendations on water supply siting protocol.