HCP Steering Committee Meeting
December 10, 2004
Canton

Present:
Nanci Allen, *JJG;* Michelle Beesten, *Forsyth County;* Amanda Blowers, *City of Acworth;* Sam Breyfogle, *Temple-Inland;* Bill Bumback, *UGA;* Tim Carter, *UGA;* Robin Dake*, *UERA;* Christine Del Pozzo, *City of Acworth;* Heather Dyke, *CH2M Hill;* Laurie Fowler, *UGA;* Emily Franzen, *UGA;* Bud Freeman, *UGA;* Mary Freeman, *USGS;* Tyrone Gardner, *City of Holly Springs;* Beth Gavrilles, *UGA;* Curt Gervich, *HCP;* Stan Hall, *Cherokee County;* Mike Harris*, *GA DNR;* Steve Haubner, *ARC / MNGWPD;* Elvin Hilyer, *Lumpkin County resident;* Nancy Hilyer, *Lumpkin County resident;* Steve Holder*, *City of Dawsonville;* Andy Hull, *GGIA;* Ron James*, *Cherokee County;* Alice Miller Keyes, *GA EPD;* Susan Kidd, *TGC;* Liz Kramer, *UGA;* David Kubala*, *Cherokee County Water & Sewer;* Charles Laughinghouse*, *Forsyth County;* Louise McPherson*, *USDA NRCS;* Eddie Mitchell, *City of Cartersville;* Geoff Morton, *Cherokee County;* Nanette Nelson, *UGA;* Norman Pope*, *Pickens County;* Rick Pruetz, *HCP;* Cecil Pruitt, *City of Canton;* Candace Stoughton, *TNC;* Roy Taylor, *Cherokee County Homeowners;* Sandy Tucker, *USFWS;* Seth Wenger, *UGA*

* Steering Committee member

Welcome. Meeting attendees were welcomed by Canton Mayor Cecil Pruitt. Outreach coordinator Curt Gervich welcomed new Steering Committee members from the City of Acworth and from the City of Dawsonville.

Overview. Laurie Fowler gave an overview and brief recap of the HCP. She explained the problems the HCP is addressing: fragmentation of habitat; sedimentation of streams; contamination by pollutants in streams; and altered hydrology. Technical committees appointed by the Steering Committee developed management strategies to address erosion & sedimentation; stormwater management/better site design; and stream buffers. These were agreed upon at the last Steering Committee meeting; some are being adopted as ordinances and Standard Operating Procedures now. The Steering Committee agreed to begin implementing these strategies before the entire HCP is complete; some of the jurisdictions are on the North Georgia Metro Water District timeline. The Steering Committee also directed the Advisory Committee to be ready to help as needed in the implementation process. UGA researchers are about to finish the next set of strategies: conservation subdivision ordinance; floodplain ordinance; road crossing guidelines; and utility crossing guidelines. Next will be a septic tank management strategy, and the remaining issues the Steering Committee wants addressed.

The harder part of the HCP is determining the priority areas for protection. The Advisory Committee brought in a group of leading aquatic scientists last week to review the research in this area that they've been working on for the past 2 years. They hope to have specific science and policy recommendations ready for the April Steering Committee meeting. There are particular places in the watershed where impervious surfaces need to be restricted. There are many policy tools to accomplish this – fee simple purchase; zoning; TDRs (Rick Pruetz, the national expert on this issue has been out to the watershed 3 times, met with planners, officials,

and developers, and will be explaining what he's found out today.) Bill Bumback has been working on visual tools to explain these policies and current and future land use scenarios to the general public.

Update from counties/cities on status of adopting recommendations; outreach report.

Priority Areas. Seth Wenger explained how UGA researchers are developing recommendations about which areas are most appropriate for growth, and where impacts of development need to be further controlled to ensure the survival of the endangered fish. He reviewed the distribution of the nine species of fish included in the HCP. Many of them are found only in the upper reaches, meaning this is the most critical area to protect. Not only do many of the species live there, they're critical waters for protecting the water quality of the main stem too.

The good news is that a lot of these critical areas are already protected – that's probably a reason why these are such good habitat areas, they haven't been subject to a lot of development. Also, many of these areas are included in the counties' greenspace plans.

Many of the threats to the species are related to runoff: various pollutants and hydrological alteration. Impervious area is a good indicator of how much runoff to expect. The better site design standards are good; runoff effects need to be reduced everywhere, but it's critical in the high priority areas.

Seth showed a map of existing impervious cover in the Etowah as of 2001. It shows that there are many areas with very little impervious cover now. The areas of greatest concern already have the least impervious cover.

Seth also pointed out that not all impervious surfaces are equally problematic. A rooftop on a house in the woods is probably not causing runoff into the river; the stormwater is probably infiltrating around the house.

The term "Effective Impervious Area" means impervious area that causes problems for the stream. Another term for it is "Connected Impervious," meaning that it is connected to the stormwater infrastructure. Current/previous stormwater infrastructure has just been about conveying water to prevent flooding, not about protecting water quality.

For future development, because of the aggressive stormwater management that will be put in place as the Etowah jurisdictions adopt the new standards, a lot more of the impervious surface will be disconnected from the stormwater infrastructure, so the effect on the streams will be substantially less.

It is taking longer than expected to determine the limit of impervious area that the fish can handle. As impervious cover increases, the likelihood of finding species declines. For instance, after 5 % impervious surface *Cyprinella* declines sharply, and isn't found at all at 10% impervious surface. He suspects those numbers are a bit low, because there are probably confounding factors. They're investigating that now.

Tim Carter is now working on determining how much disconnected impervious can be used – in other words, what's the relationship between effective and total impervious.

The model incorporates topography and soil types…we'll see how those effect the modeling results. We have little data about the effects of building on steep slopes, since we tend not to build there.

We should have target limits by April, and we do have a good idea of the general pattern already. Some of this scenario is not likely – e.g., the Rte. 400 corridor in Dawson will likely develop more than we might like, so we need to take that into account. We will work with the Steering Committee to determine what's acceptable to both the fish and the community

The goal is to figure out how to keep effective impervious cover low enough in the priority areas. Fortunately, existing protected areas and county greenspace plans go a long way toward this goal. There will need to be some other tools as well, such as zoning and possibly TDRs. Multiple approaches will be needed. We're also working on developing a simple way to calculate effective impervious area for new development that credits stormwater BMPs.

Existing and Future Land Use. Bill Bumback presented a map showing existing and future land use and protected areas. The map puts information from each community into a common format and uses 2001 data, and eight "least common denominator" land use categories: agriculture, forestry, commercial, industrial, residential, parks, institutional, and transportation.

There are some empty spaces on the map, as not all the municipalities were able to provide future land use plans, and neither was Dawson County. Most of the communities are currently updating their plans, so there will be changes.

Bill showed a map of lands managed for conservation now, and their level of protection. Some of these lands are not permanently protected, they're just leased or under a management agreement with DNR. These classifications need to be revised to include information such as that the National Forest lands could be timber harvested/cleared.

There was a brief discussion of forestry practices. Laurie explained to those attending for the first time that the Steering Committee had decided not to include agriculture and forestry activities because agricultural land is rapidly being converted to development, and forestry using BMPs is not having a negative impact on the fish. There is also a study being conducted by the UGA College of Agriculture to determine agriculture's contribution of nutrients to the Etowah watershed.
Bill showed an assemblage of county greenspace plans. He will incorporate what counties have planned for greenspace, trout streams, important biodiversity areas, and natural areas and come up with a pool of land that has value for some level of protection; he'll then overlay that with the priority areas we're looking at for darter protection. He expects this map to show that protecting darters will also protect a lot of other important values.

Regional Transferable Development Rights feasibility study. Planner Rick Pruetz presented the research he's been doing in the watershed. TDR is a tool that works within the zoning code

on a voluntary basis; it's market driven so has to be profitable to landowners and developers. It is a voluntary transfer of growth from areas communities want to save to areas they want to grow. There are at least 150 programs in the U.S., most with a goal of environmental protection but some for agricultural protection. *Sending areas* are the areas to be protected; *receiving areas* are where the community wants to grow, adjacent to shops, infrastructure, etc.

He is proposing a dual zoning option. Property owners in sending areas don't have to use the TDR option, they can choose to build at the density allowed by the underlying zoning instead. When they choose to use the TDR option, an easement is recorded specifying how much development can occur on that property, and how many credits the property owner can sell. It's that sale that motivates property owners to participate. Receiving area developers buy the credits. There's also dual zoning in receiving areas. The developer can build at the baseline zoning density without a TDR, but to build to higher density has to purchase a TDR. It's profit that motivates them – it's more profitable to build at the higher density, even including the cost of the TDRs.

Additional incentives can be included – additional building height, FAR, land coverage, parking (minimum and maximum) or exemption from a quota system.

He gave the example of Montgomery County, MD. It had a lot of agricultural land, but was experiencing tremendous growth pressure from Washington, DC. In 1980 they designated an agricultural reserve area, away from the DC side. Property owners in the agricultural reserve can develop on site at 1 unit per 25 acres, or sell 1 TDR per 5 acres. In receiving areas, developers can go from 5 units per 1 acre to 7 units per 1 acre if they buy a TDR. Landowners like it because they can continue farming, developers like it because it's more profitable. They have preserved over 40,000 acres just using TDRs.

In the Etowah Rick is part of a team that also includes an economist and the land use clinic, looking at the feasibility of using TDR as a planning tool to preserve land within the Etowah. They are looking at seven communities as a representative sample. He came to the area in September for initial research, and has just been visiting the Etowah watershed for feedback on the options developed from the initial research. He'll incorporate this into the next draft, and will get more feedback in April.

He asked planners in Forsyth, Cherokee, Paulding, Dawson, and Canton for responses to several questions.

First, what did they think of the basic dual zoning mechanism: basing receiving zones on current zoning and on future land use (baseline zoning = current zoning, maximum density allowable with TDR= future land use designation.) In other words, to build at or below the baseline density, no TDRs would be needed; to build at a higher density than the baseline, 1 TDR would be required per additional unit up to the level specified in Future Land Use Plan. There was general agreement from planners that the existing zoning density was a good baseline. One county suggested it should be higher, but most agreed it was a good starting point. One comment was that this approach did address a potential issue from the public – that the TDRs aren't driving the rezonings. Just because the rezonings are consistent with the Future Land Use

Plan doesn't mean they won't be controversial. Not all residents are aware of, or agree with, the Future Land Use Plans.

He also asked if they agreed with the mechanism for estimating demand for TDRs. In its most simplistic form, TDR demand = density increment per acre times acres in each increment category. Again, there was general agreement; typically developers want to get up to the density called for in Future Land Use Plans. In some communities developers avoid seeking upzonings to avoid opposition from citizens in certain areas. One community thought there wasn't much available land for upzoning. The development community would have to see it was to their advantage. One thought that the lack of sewers and planned infrastructure meant receiving areas would be pretty confined. One thought there was just a narrow band of opportunity – current zoning and Future Land Use Plan were very similar already.

There was a question about whether TDR programs were legal. It was explained that they are legal; the transactions, once taken place, would require a binding conservation easement on the sending area.

Rick presented a couple of options for implementing a TDR program. Option 1, comprehensive: the government would institute the mechanism and also rezone all the areas where the density gap exists as a TDR overlay. Advantages of this option for developers would be that they wouldn't have to go through hearings on each individual upzoning, that would have been done already; it would avoid delay and uncertainty and additional negotiations with government. Residents near receiving areas might also look at it as an advantage, knowing what the future highest density would be. It would also force each community to figure out planning and design standards up front. Option 2, incremental: all future upzonings would require using TDR. The community would still look at all the things they normally look at when considering rezoning; the only difference would be that a TDR would have to be bought by the developer.

Questions arose about the expectation in certain counties that any request for an upzoning is routinely granted now, so there would be no demand for TDR in those counties. Rick explained that elected officials would need to be consistent in requiring the TDR and not granting upzonings without them. What keeps elected officials sticking with it is the community buying into it. The community gets some consistency.

There was also a comment that it would be difficult to sell a proposal to developers requiring them to purchase a TDR to allow them to build what they can already do, but there's a chance they'll do it for extra density above the Future Land Use Plan.

Rick suggested that because of the political dynamics in some communities, that may be the only way to adopt TDRs there, but it would be better if developers could be convinced that this is to their advantage, since they could avoid the hearings process, and possibly months of delay. If they can't see the benefit in this, then the baseline may have to be higher. Laurie commented that a judicial training on zoning law might be helpful.

In response to a question, Laurie explained that several of the communities in the Etowah expressed interest in using TDRs as part of their greenspace plans.

Rick said that he recommends a distinction between buildable and non-buildable land. A TDR will go a lot further on non-developable land than on developable. It's a good idea to protect "undevelopable" lands now at a reduced rate, because as growth pressures increase, those lands will probably become developable. It was pointed out that those undevelopable lands are the most sensitive and therefore need to be protected.

There are some cases where TDRs could be used for fee simple acquisition, e.g. for greenways.

There was a question about whether community officials set the price for the TDRs. Rick explained that a few communities have adopted a "green charge" option. Sometimes developers are worried they won't be able to find a TDR to buy, so they're offered the option of paying a fee instead, which can be used to purchase land in fee simple or purchase an easement to protect the highest priority lands in the sending area. The price for this would be set by the community. So a developer could either buy a TDR at whatever rate the seller and he agree on, or pay this fee to the government, in order to build at the higher receiving area density. (This is similar to the South Fulton example.) One approach is to set the price as close to a private market-driven transaction as possible. Or it could be set a bit low to encourage developers to participate. The "green charge" program makes it easier for developers, but few will then use the private market.

Most communities, however, have TDR programs that are set up like a commodities market. In Montgomery County, MD, *e.g.* they don't have a land bank. Some people speculate with TDRs, usually a public or quasi-public agency with a preservation goal.

There was a question about the variance in prices per acre in different parts of a county, and whether that would create problems. Rick said that a bidding war over TDRs could be seen as an advantage or a disadvantage, depending on your perspective, but that the market will evolve in its own way in each community.

Rick explained that in the case of the Etowah counties, the Advisory Committee scientists are looking at several options for the sending areas. While the stormwater BMPs will go a long way toward preserving the most critical watersheds, there may be a few areas where community-mandated downzoning is needed. Mandatory downzoning is a tough sell. A TDR program would make it more palatable. It could be designed to compensate for any reduction in value that would occur when going from the original to the downzoned density.

At the meetings with planners, representatives from a couple of communities thought there were some property owners in their communities who would agree to a downzoning. Without being sure where these properties are located, however, it's not clear if they match up with the HCP priority areas.

Community greenspace plans can also be incorporated, since each community has greenspace objectives. It looks like proposed greenspace and HCP priority habitat will generally overlap. Planners agreed it was a good idea to include greenspace goals in the TDR program; even if people don't understand the importance of the endangered species, they're generally in favor of greenways. A common language among greenspace plans for the whole watershed is being worked on now, and the Advisory Committee will be tapping all the planners for help on this.

If it turns out that the Stormwater BMPs can achieve all the needed protection, some property owners may still choose the option of lowering density and selling TDRs.

The preceding part of Rick's presentation was about inter-jurisdictional transfers. The final part was about intra-jurisdictional transfers. There are about a dozen places where transfers happen between counties and their cities. The advantage is that because there's more demand for TDRs in the cities, there can be more preservation in the counties. But it's harder to adopt this kind of program, and to get communities to cooperate.

Rick said that the local planners at the meetings expressed uncertainty about whether this would work here. It's hard to get people to understand the interrelation between county and city.

There are a few regional TDR programs like those in the New Jersey Pinelands and around Lake Tahoe, where transfers go between counties. This would work if everyone can be a sending area, not just a receiving area.

Rick will keep working on this and will come back in April.

Monitoring. Mary Freeman discussed the monitoring component of the HCP – what it is, why we're doing it, how it will interact with what the US Army Corps of Engineers is doing in the area.

Once the HCP is in place, we're required by law to monitor for 2 things: first, to make sure the HCP is implemented as designed (compliance monitoring) and second, to gauge the effects and effectiveness of the HCP - are we achieving what we set out to achieve? (Effectiveness monitoring.)

Effectiveness monitoring has three objectives:

1. to track the status of the species covered by the HCP
2. to track effectiveness of the "how" and "where" components of the HCP
3. to improve our understanding of how changes in habitat and water quality affect the health of stream communities.

Objective 3 is the heart of Adaptive Management. We'll estimate how much impervious cover we can have, based on best data we have. But as we monitor, we'll acquire better data.

Mary presented a model of how development affects stream ecology:

More impervious cover
leads to
more disturbed areas, more water demand, more reservoirs and crossings
which lead to
changes in: stream flows, sediment runoff, and water quality; and increased habitat fragmentation
which lead to

altered habitat quality, lower animal and plant survival rates, less productive streams, lower dispersal, and colonization

which lead to

fewer fishes, especially sensitive species.

She explained that monitoring needs to be commensurate with the scope and duration of the projects – that's clearly a large scope in this case – and with the large potential biological significance of this HCP. We need to monitor things that are measurable. The monitoring program also has to be flexible.

Mary outlined the monitoring program.

1. The population status of each of the species. The species mostly occur in assemblage, so they can be monitored all together. The team will go to about 30-40 sites in tributaries and 20-30 sites in the mainstem once a year. Seth has mapped how those sites might be distributed. The sites will be targeted to track the status of the populations that the HCP is expected to protect. They'll also monitor in areas where they expect declines – we may find out that the species are tougher than we think.

2. Water quality, stream flow and habitat variables. If populations are declining, what's going on along with that? They'll monitor turbidity, nutrients, conductivity, temperature, storm and base flow levels, fine sediment deposition, and health of stream vegetation in major tributaries and select mainstem sites.

3. Stream responses to development. They'll monitor 10-20 sites per year, selected depending on development patterns. They'll measure water quality, stream flow and habitat variables, fish communities, HCP target species.

The point is to learn whether the HCP species are protected, as predicted. If the species decline, can we tell why? We'll also get information on water quality conditions. Are the HCP guidelines and provisions working as intended?

There was a question about what happens if our monitoring shows us that the HCP is not working. Mary explained that the HCP scientists will make recommendations about development in the basin that they believe, to the best of their knowledge, will allow the species to persist. They will have to make a compelling argument about that, and explain why, and what data it's based on. But there's always uncertainty. That's why we need to monitor, so that we can make changes if necessary.

There was a question about what is currently protecting the imperiled species, and whether developers have to get their own HCPs until the regional one is finalized.

Laurie explained that developers are not doing HCPs currently, but if FWS finds dead fish or ruined habitat, the responsible developers can be fined or put in jail. Even if they're not doing HCPs, they have to go to the COE to get wetlands permits. They have to consult with Sandy and

Robin. Sandy and Robin tell developers better ways to do things to avoid jeopardizing the species, but that formal consultation process takes a long time. The HCP will streamline this.

There was a question about the 7Q10 instream flows, and how we can take development in other places into account. Mary said that there's no evidence that 7Q10 is protective of stream ecology, and much evidence it's not protective. The EPD adopted an interim policy, said DNR has to fund some research and come up with a new instream flow requirement.

But the issue of meeting water supply demand is a lot bigger than instream flow. From the ecological perspective the question is not flow level, it's how much can we change the flow regime without affecting the animals. It's not zero, but we have to measure how much it is. To address it effectively we need a group of SC and technical committees to offer the realistic options we know of, and pull in scientists to see what will work and won't work to protect the species. We want your input on that.

Mary went on to discuss how the HCP monitoring plans compare to COE monitoring plans. We don't want to be redundant or waste money.

The plans and goals are different. COE plan is a watershed assessment, primarily to support new water withdrawals and discharges. There are, however, some commonalities.

Both need water quality data – Bud has requested they put some gauges in important HCP tributaries. The COE doesn't need any data on the status of HCP species. Physical habitat measurements are included in both plans – the COE's is a rapid assessment, randomly selected. They're planning to do a fish Indicator of Biological Integrity (IBI) on randomly selected streams across the basin. For the HCP, we don't need to answer that question all across the basin. The COE will also do a macro-invertebrate IBI across the basin. EPD may not require the random fish IBI, could just rely on the macro-invertebrate IBI.

Sandy Tucker said they've been talking to the COE to ensure that no one spends money where it's not needed on overlapping plans. They're trying to understand what EPD will require for the watershed assessment. The money saved if they don't do very intensive fish IBIs can be then used on the sensitive species. Even if the two monitoring plans are not totally integrated, at least they can be complementary.

David Kubala disagreed about the goal of the COE plan. He said that the idea is to see what the whole watershed looks like, not just the areas of threatened and endangered species habitat, and that COE would pay 50% of the cost. Mary agreed, but said that COE is now describing their plan as a way to support water supply decisions. Laurie said that we want to be sure the local governments don't spend any more money than they have to, which is why FWS, UGA and COE have been talking about this a lot.

Seth said that UGA has talked to the consultants who designed the COE monitoring plan. They designed it to do the macro-invertebrate IBIs. Many of the sites they've chosen won't work for fish IBIs, and macro-invertebrates tend to be a better indicator. We're suggesting reducing the fish IBI component to EPD's minimum requirement – it saves money and also is less extractive.

Mary pointed out that our monitoring plan will be scientifically defensible. We have data from big studies of randomly selected sites. A lot of the sites from the COE monitoring design are too small for fish IBIs. We're not trying to tell the COE to modify their plan, but to make sure the two plans work together.

Alice Miller Keyes said that EPD is trying to look at these issues more holistically. The Water Protection Branch is now the Watershed Protection Branch. EPD is not necessarily required to follow up on endangered species, but we're moving toward considering that as we transition into the new way of working on this.

Norman Pope said that he doesn't see a problem with continuing discussions with the COE. The Upper Etowah River Basin Group has to make a decision soon on financial issues.

Updates from Steering Committee members on policy implementation.
Pickens County has a new sole commissioner; Norman and Curt met with him and he indicates he thinks that as long as we can show a tangible benefit to majority of citizens in Pickens County, he'd have no problem with the policies.

Forsyth County has 3 new commissioners. Forsyth County enacted the buffer ordinance. They have adopted the state standards for stormwater and E&S in the last 6 months.

Ron James said that Cherokee County has 2 new commissioners; he needs to meet with them. They're about to adopt the NGMWPD stormwater ordinance and they adopted the state E&S standards in May. They may need to tweak those.

City of Holly Springs has a new mayor and council. They're currently under EPD's BMP plan, and are looking at adopting ordinances in January.

City of Acworth has a new councilor. They have the state and NGMWPD E&S and buffer ordinances. Stormwater ordinance will be approved in January. They said they don't have the HCP requirements. Curt will get those to them as soon as possible so they can make sure to incorporate them.

City of Dawsonville has a new mayor and planning staff. They've met with Curt once and will meet with him again.

Next Steering Committee meeting.
Laurie suggested it focus on structural elements, like funding options, how the HCP would be implemented, would we need a long-term body to monitor, etc. Steve Bradley suggested it would make sense to have a small group of Steering Committee members plus their city or county attorneys sit in on a pre-SC meeting in January.

Tentatively scheduled Steering Committee meeting for Friday Feb. 25, in Forsyth County or City of Canton. In April would be the final "where to develop" presentation.