

## MEETING NOTES

Cumberland Habitat Conservation Plan Steering Committee  
Cumberland County Art Circle Public Library  
3 East St., Crossville, TN  
November 10, 2011

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### ATTENDEES

Name		Affiliation
Everett	Bolin	Crab Orchard Utility District
Eric	Brady	City of Crossville
Dr. Chris	Burcher	HCP Team (UT)
Kevin	Dean	City of Crossville
Janet	Dowlen	Cumberland County SCD
Mayor J.H.	Graham	City of Crossville
Dr. Jerry	Hardin	Emory River Watershed
Pam	Harris	ECE Services
Dr. Yoichiro	Kanno	HCP Team (TTU)
Doug	Little	Plateau Properties
Teresa	Payne	HCP Team (UT)
Mark	Thurman	TWRA
Samantha	Wyatt	HCP Team (TTU)

### MEETING GOALS

- Provide Steering Committee (SC) general updates on the HCP.
- Present Changed and Unforeseen Circumstances and Cumulative Impacts and their purpose in the HCP.
- Review habitat quality maps and take.
- Describe Compliance, Effects, and Effectiveness Monitoring and their function in the HCP.
- Review the progress of the HCP components.

### WELCOME AND INTRODUCTIONS

- Teresa Payne (HCP staff) welcomed all attendees and introduced Mark Thurman (TWRA) as a new SC member.
- Attendees introduced themselves to the group.
- Teresa reviewed the purpose of the meeting.

General HCP Update

Presented by Teresa Payne, CHCP Outreach Coordinator

Teresa Payne (HCP Team) updated the SC on work that has been accomplished. Highlights:

- The Conservation Measures have been reviewed by the Permitting Partnership Coordination Committee (PPCC), the applicant liaisons, and USFWS. We hope to have them to the SC at the January or March meeting for review.
- HCP staff is in the process of submitting the grant proposal for funding for next year.
- HCP staff is working on Implementation and Monitoring components now. The Funding Committee is assessing costs, and we are closer to coming to a number for Implementation and Monitoring.

## Cumulative Impacts & Changed and Unforeseen Circumstances

Presented by Dr. Chris Burcher, CHCP Science Coordinator

*Media: PowerPoint*

Dr. Chris Burcher (HCP Team) reviewed Changed and Unforeseen Circumstances and Cumulative Impacts and their purpose in the HCP. Highlights:

- Cumulative Impacts are impacts that are not addressed in the HCP that could influence species or their habitat. We understand that the covered activities are not the only influences on species and habitat in Cumberland County. This section will summarize what else is happening that could cause take. We cannot isolate one impact because many impacts interact with one another, and it is hard to pinpoint what is causing the problem. The HCP has to assess what things could influence the species to protect the applicants from things they are not doing and to make USFWS aware of these other impacts. USFWS needs to this information to be able to assess jeopardy for each species. A stress rank has been assigned for each species for each impact to help assess jeopardy. These tools can be used to make predictions about impacts to species. Examples of Cumulative Impacts include: agricultural conversion (soil disturbance and introduction of compounds), invasive species, industrial discharge (entering waterways), and mining. The Science Team is currently working on a draft document.
- Changed and Unforeseen Circumstances are changes in circumstances that could not have been reasonably anticipated by the applicants that affect species or their habitat. The “no surprises” clause protects the applicant from changes that cannot be foreseen. This information allows USFWS to get a better picture of whether or not a species is in jeopardy and helps them understand the species better by getting more information. Examples of Changed Circumstances include: climate change, invasive crayfish (moving into systems and replacing native crayfish), and white-nose syndrome (affects bats). This HCP section is currently being written and will summarize the changes we anticipate and their potential influence on species and habitat.
- Mark- These sections put your potential for impact into perspective relative to other impacts that are occurring. It benefits the applicant and USFWS. Mayor Graham- We have to plan for terrorist attacks or war for water supplies, electricity, etc., so we have to plan for things like this to know what could happen. We need to look at these in the perspective of development of this community and restrict it as much as we can. Chris- We are weighing this in properly.
- Both of these documents will be brought to the SC.

## Q&A

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What happens to the HCP during an emergency?	Mayor Graham- The HCP goes on the shelf, and we make sure we take care of what we need to.
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### Habitat Quality Maps

Presented by Dr. Yoichiro Kanno, CHCP Post-Doctoral Research Associate

*Media: PowerPoint*

Dr. Yoichiro Kanno (HCP Team) reviewed the habitat quality maps for the aquatic and terrestrial covered species. Highlights:

- There are 23 covered species, and terrestrial and aquatic species maps for habitat quality were made. They are color-coded: blue is lower habitat quality and red is higher habitat quality. The spatial grain (unit of analysis) is 700-acre rosettes for the terrestrial map and sub-watersheds for the aquatic map were used. Potential habitat is available everywhere in the county, except for small pockets, but some areas are more important than others.
- The covered species were divided into 3 groups: aquatic, terrestrial, and semi-aquatic. We have not analyzed the semi-aquatic species yet. For the aquatic species, criteria include a viability score, a flow distance score (You are more likely to see species nearby one another than farther away.), and a stream flow impairment score. These scores were used to get an aquatic habitat score for each species, and equal weight was given to each species. Catoosa Wildlife Management Area (WMA) and the semi-aquatic species occurrences were overlaid for qualitative analysis. The semi-aquatic species will be probably incorporated into the aquatic habitat analysis. Most high priority areas occur in and around Catoosa WMA. For the terrestrial species, criteria include a viability score, a distance score, and a State Wildlife Action Plan (SWAP) habitat preference score (from expert opinions in the region). These scores were used to get a terrestrial habitat score.
- Most of Crossville is surrounded by lower quality habitat. The liaisons expressed concern because the map does not show Grassy Cove as important habitat. Bat priority areas were considered, but Grassy Cove is still lower quality habitat due primarily to few bat occurrences in our data set. HCP staff will continue to look into this.
- In the next two months, HCP staff plan to finalize the habitat quality maps and the impervious cover projection for 2040.

## Q&A

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What is preferred habitat?	Mark- It is a term from the SWAP. We assessed habitats and conditions across the state and tried to assign preference levels for certain kinds of habitat within the range of the species. Many have narrow ranges. We
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	<p>evaluated the importance of certain habitat types (ex: hemlock forest vs. pine plantation). You might find robust populations in one habitat and in other habitats, the populations will be marginal. The terrestrial map, to some degree, shows the degree of fragmentation, and you will want to keep that in mind when developing. You have intact forest in Catoosa WMA. Grassy Cove does not show up as important habitat because it is primarily agricultural and open habitats, but you still want to consider the bats.</p> <p>Yo- We have not reached a consensus on how to assess fragmentation.</p> <p>Mark- Some species prefer open habitat, but this area is a hotspot for forest-dwelling species.</p>
Do these maps include the species on our approved covered species list?	Yoichiro- Yes, there are 23 covered species.
Will the SC eventually be asked to approve of these maps?	Yoichiro- Yes.
Will the City of Crossville use these maps to help permit applicants decide what and how to develop?	Kevin- These maps will guide us in certain conservation measures that will need to be done.
How defensible will these maps be?	<p>Chris- We need to figure out where the threshold is that discriminates between habitat we do not want to lose and that which can be 'taken'.</p> <p>Mark- They would be used to help design what you develop, not to restrict you from developing.</p> <p>Kevin- In higher priority areas, mitigation will be required, and in lower priority areas, there might not be mitigation required, but there will be no areas that are off limits for development. We did not want to value or devalue property, but it will to some degree because it will cost permit applicants more to develop in some areas than in others.</p> <p>Chris- The conservation measures might give permit applicants an option to do a survey to see if the species are actually in an area. We are now talking about how much of the priority areas to conserve. The next step will be to assess take.</p>
Would one option for the permit applicants be to assign a dollar amount to the lower quality	<p>Kevin- That is a ballpark idea, but it would also depend on whether sustainable development was used or not.</p> <p>Doug- There is concern that the maps will dictate the</p>

habitat and go up from there for higher quality habitat?	value of property, but the HCP will allow us to develop all of our properties, and we want to protect the species and our rights. Kevin- Technically, the topography of the land already dictates the value of property, so it will probably not change much.
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Compliance and Effectiveness Monitoring  
Presented by Dr. Chris Burcher, CHCP Science Coordinator  
Media: PowerPoint

Dr. Chris Burcher (HCP Team) reviewed what Compliance, Effects, and Effectiveness Monitoring are and their purpose in the HCP. Highlights:

- HCP staff is trying to find the right fit for monitoring for this HCP and is considering practicality and affordability.
- Compliance Monitoring ensures that the permittees and applicants are complying with the HCP. Eric is already doing this to some degree with the MS4, and new HCP compliance monitoring will follow similar protocols.
- Effects Monitoring determines whether or not the Biological Goals and Objectives (BGOs) are being met and if the conservation measures are working.
- Effectiveness Monitoring leads into Adaptive Management (i.e., What can we learn from monitoring? Does it trigger a response?).
- Mitigation will consist of replacing or exchanging land. Doug- This is difficult to do. We did wetland mitigation before, and it is hard to find someone to turn it over to who will manage it. Mark- We set up reserves in the Forest Resources HCP and would encourage everyone to research how others have mitigated take. There is a level of creativity with mitigation in HCPs. Doug has to let those that he sells to know that wetlands on the properties are protected. Everett- We will need to mitigate within the same watershed. Chris- We are trying to minimize the degree to which mitigation will have to occur. The degree of mitigation is uncertain at this point and may require outside assistance (e.g., contracting) to maintain mitigation over the project duration.

Q&A

What if after the pre-application meeting and monitoring, a species is declining; what data will be collected before the HCP goes into effect?	Chris- This is an issue that we are trying to minimize by focusing on habitat monitoring instead of species monitoring. Jerry- So the HCP will be protecting habitat. Mark- The National Park Service has a monitoring program for the spotfin chub. If the population began to decline and continued to decline, it would trigger a response. But, if you have BGOs and conservation measures that address the covered activities, you can show through monitoring that impervious surface is not
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	<p>the problem.</p> <p>Kevin- We need to have this in adaptive management in case another agency does come to us with an issue.</p> <p>Everett- If a species' population is going down, but the habitat is the same, then, what we are doing is working; but, it still might trigger a response to make sure that the habitat is still the same. There will not be clearing for large farms in the county anymore, and many of them are growing back to other habitat.</p> <p>Chris- The trend is that the southeast is becoming more forested.</p>
Will monitoring require a license renewal every year?	<p>Chris- No. It will either be no additional cost or a cost that will be known upfront.</p> <p>Mayor Graham- There will be cost of living and inflation increases.</p> <p>Everett- Other agencies will still be doing monitoring on their properties and other hotspots.</p> <p>Chris- We will try to encourage data sharing between agencies and the applicants.</p> <p>Mayor Graham- Other agencies will play a part, but the city and county will have to do some monitoring.</p> <p>Everett- We do not have the expertise to determine change in habitat, so biologists and other agencies will help with this.</p>
Will permit applicants have to hire a biologist to make sure what they are doing is not affecting the species?	<p>Chris- It will be the HCP applicant's responsibility. If the permit applicants follow the conservation measures, then they are in compliance.</p>

#### Progression Matrix

Presented by Dr. Chris Burcher, CHCP Science Coordinator

*Media: PowerPoint*

Dr. Chris Burcher (HCP Team) updated the SC on the progress of the HCP components and next steps. Highlights:

- The main work for the end of this year will be to run the take estimate.
- HCP staff is currently working on Conservation Measures, Monitoring, Adaptive Management, Implementation, Changed and Unforeseen Circumstances, Cumulative Impacts, and the Take Estimates.

#### Q&A

When will a written draft of the HCP be complete?	Chris- We are projecting to have a written draft of the HCP to submit to USFWS for their review by Summer
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**ACTION ITEMS**

<b>Responsible Party</b>	<b>Item</b>	<b>Deadline</b>
HCP Staff	Include in Adaptive Management the scenario that agencies could come to the local authority with issues regarding population declines.	Completion of Adaptive Management section

*The next SC meeting is scheduled for January 12<sup>th</sup> from 1-4 PM Central at the same facility (Cumberland County Art Circle Public Library on East St., Crossville).*

*2012 meeting dates: January 12<sup>th</sup>, March 8<sup>th</sup>, May 10<sup>th</sup>, July 26<sup>th</sup>, September 13<sup>th</sup>, and November 8<sup>th</sup>.*