



Charlotte City Council
Environment Committee
Meeting Summary for August 13, 2014

COMMITTEE AGENDA TOPICS

- I. Subject:** **Mitigation Options**
Action: Committee voted 3-1 (Autry against) with removal of item #3.
- II. Subject:** **Coal Ash Due Diligence Update**
Action: None
- III. Subject:** **Next Meeting**
 Wednesday, September 10, 2014 at noon in Room 280

COMMITTEE INFORMATION

Present: John Autry, Ed Driggs, David Howard and Kenny Smith
Absent: Claire Fallon
Time: 12:30 pm – 1:40 pm

ATTACHMENTS

1. Agenda Package
2. Extending Mitigation Options in the Post Construction Controls Ordinance
3. Coal Ash Due Diligence Update
4. Coal Ash Due Diligence Study

DISCUSSION HIGHLIGHTS

Chairman Autry called the meeting to order and asked everyone in the room to introduce themselves. We have a couple of pretty important items on the agenda today, and I'll turn it over to Assistant City Manager Hyong Yi to tee us up.

Yi: There are two topics, but first is Mitigation Options which is a follow-up from discussions

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that we've had in this Committee for the last six months or so. Staff has gone out and done meetings with focus groups and interested parties, and they are prepared to bring all of that to the Committee as well as their recommendation on how to proceed and how to incorporate that feedback into how the City proceeds with regards to the Post Construction Control Options. The second topic is the Coal Ash Due Diligence Update, and I know it is called "Update", but we are prepared to present the staff's findings of the due diligence process to this Committee as well as discuss the path forward. With that, I will turn it over to Daryl Hammock to present the update on the Mitigation Options.

I. Mitigation Options

Hammock: As Mr. Yi said, we've been working on this this summer, and this is where we report out and the recommendation phase of our work. I want to talk to you about the comments we received at our public meeting in May; we are going to walk through with you each of the alternatives that we looked at this summer and walk through the pros and cons, and I think everyone has a handout around the dais of those pros and cons, and you can read along with me as I go through them.

I'm going to cover staff's recommendation for continuing the mitigation fee and really one of your recommendations to City Council about how we should proceed from here. The question is whether or not to extend the mitigation fee and for how long and whether or not to revise how the policy is implemented and whether or not to use a case-by-case approval process. I want to remind everyone; you've seen this map before, and I want to make sure everyone understands the geography and the areas we are talking about as it relates to this particular option. The areas in green and the areas in yellow are written as part of the ordinance, and they are not part of the discussion today. The areas in white are where we extended the mitigation options temporarily in 2011, so the items we are going to talk about today strictly applies to just the area in white and whether or not we have mitigation fee options in the areas in white.

A little bit of history from the past few months; we started the process last Fall with the Storm Water Advisory Committee. They recommended extending the mitigation options for up to five years, but, in April, the Council voted to extend the option for only six months while staff looked at some case-by-case options and took a closer look at things. We had some public input in May, and we reconnected with the Storm Water Advisory Committee this summer in two meetings and ultimately at their second meeting, the Storm Water Advisory Committee unanimously approved staff's recommendations, which we will cover today. In terms of the feedback, we had a meeting in this room back in May, and there was a good bit of attendance from the development industry at that meeting. There were a lot of representatives there that day. Most of them supported the continued availability of mitigation fee. They thought it was flexible and predictable; they generally felt that it was a good incentive for redevelopment in Charlotte. Some folks commented that it should be made permanent and that we should always have an option to pay a mitigation fee, but, even if we had to do a little bit more, it wouldn't kill us, and it wouldn't be the end of the world if they had to do a little bit more, so there was some range of comments there. Most did feel that the case-by-case process would pose some risks and some unpredictability, and there was a general disinterest in having a case-by-case process that would be seen as risky. There were some comments on the other side of the argument, and there was a

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letter sent to the Committee members in the Spring, and that letter expressed concern that onsite control is easy; it should be less of a factor now that the economy has improved, and it should be a requirement. There was some specific concern over storm water runoff from parking lots and particularly pollutants such as oil, gas and grease, and those things being washed off of areas into storm drains and into our creeks. Those areas were called out in particular.

I want to show in a different way some data that we had compiled over the Spring and Summer, and we may have sent something related to this early on with some of the maps you provided, but this is a better way, I think, for staff to explain how the fee has been used. We looked at 105 projects in all the districts and in all areas of the City that have been approved in the last three years. What we found, when we looked at the data about who provided onsite controls and who paid the fee, we found that about half the time, 56% of the time, these redeveloping sites are, in fact, putting onsite controls even when given the choice to pay a fee. We thought that was something very interesting, so we also looked just at the temporary districts. This portion of the pie chart is just the 18 sites that were approved in the last three years in the areas in white on the map. We found that, generally speaking, the trend carried through. Roughly half of those folks, when given a choice, are still providing onsite controls. A kind of take-away point that we get from this graph is that the fee is set at the right level; the fee is balanced, it is not being over used, it is not being underused; it is a good choice, and it isn't skewed one way or the other, so we wanted to share that with you.

Here are the options we looked at this summer; you will recall seeing some of this in your written materials provided this summer. A case-by-case procedure, which was the initial request given, keeping the fee as it is currently. We looked at a TIF Program, Tax Increment Financing approach. We looked at raising the mitigation fee and removing the mitigation fee entirely. I will walk through some of the pros and cons of each of those.

First, we looked at the idea of having a case-by-case review and what staff viewed this as is that a developer would send some extra information to us in their package, and they would make a case or an argument as to why they should be allowed to have the option to pay a mitigation fee instead of controlling onsite. They said the type of things we see on the left are the types of things they might submit to us; site information, challenges, costs, reasons that they would want to be approved for the use of the mitigation fee. We did see some disadvantages in doing this; of course, it would cost more money, it would take more time for this process to play out, but, probably one of the more important things, we thought that it would be very contentious, and it would be a point of argument and discussion. We thought there would be a lot of debate about whether or not someone's hardship was difficult enough or big enough and that would be elevated throughout the City organization and more likely the Storm Water Advisory Committee would start to see more appeals for staff's decision and looking for a different answer. We just didn't really see this as a good option in most cases because of the added costs and the added confrontation that would result and the lack of creative ability. What I will say at this point, and I don't think it has been very clear in the past, is that we do somewhat of a case-by-case screening currently and I don't think that has been clear in the past, but there are two items at the top that are asterisked -- downstream flooding and stream bank erosion -- and whenever a site comes in and wants to use the mitigation fee, we do check those two items. We look for flooding problems downstream. We look for stream bank erosions problems downstream and, if an onsite

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control would mitigate that or address that or if lack of an onsite control would cause more flooding and more stream bank erosion, then it is not allowed. I think that helps to explain some of the previous results on the pie chart where you saw half the sites are putting controls onsite.

Autry: Are there parameters around how far downstream you look?

Hammock: Yes, there is, we look not in linear footage downstream, but we look to a contributing dredge area downstream. I believe it is 10%; they call it the 10% rule, and we look to the point where the site is 10% of the total contributing watershed area. I guess another way of putting that is that we look to the point where 10 times as much land drains to that particular point of interest. It varies depending on the site size and the contributing watershed. We do have somewhat of a screening process right now, so it is not a carte blanche you can pay the fee; there is some screening process that goes along. We think that we want to continue that process of screening them, but not to the level of a strict, rigorous case-by-case analysis. We looked at whether we should keep the fee as it is currently, and we do recommend extending the fee option. You've heard us describe this before; we want to prevent further urban sprawl.

Smith: Just out of curiosity, would sort of the built-in case-by-case screening, and thank you for helping clarify that, how much push back do you get in the instances when you've gone and said guys for whatever reason you have to prove it; has the development community generally accepted that recommendation and pushed for it or have you gotten a lot of pushback?

Hammock: Tom Ferguson and Mike MacIntyre are here and I think, generally, if you are not allowed a mitigation fee and you want it, there is some pushback. There is some dissatisfaction with that, and I think we've been steadfast and at least citing these two reasons why. I don't know if Mike or Tom want to add anything to that.

MacIntyre: I think typically on cases where we don't allow a buyout option the circumstances of that became pretty clear, and most of the time the developer recognizes that he needs to do something to mitigate. We really haven't had that much conflict with those situations.

Smith: We can sort of, in a concrete manner, point to the reasoning.

Ferguson: Yes. There is a clear flooding problem. There is a clear report of flooding issues and stream bank erosions problems, so it is a known problem that could be exacerbated by this development. There is too much of a strong connection there, I think, and there is a willingness at that point to go ahead and put the controls onsite.

Driggs: I was just wondering, of the 105 eligible sites, how many instances were there where they wanted to pay a mitigation fee and were told they couldn't? How common is that?

Hammock: What do you think Mike? Three?

MacIntyre: The ones that were in the bottom.

Hammock: You are talking about just of the 18?

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MacIntyre: Yes, the 105 total sites; most of those have a by-right option, I think, under the ordinance.

Hammock: The by-right portion of the ordinance is this larger piece of the pie, and this is the piece that is temporary, so you are saying three out of the 105?

MacIntyre: Three out of the 18.

Hammock: We stated before some of the reasons why we think we should continue the mitigation fee option: the cost of compliance, it discourages sprawl, encourages redevelopment. I've said before, when we are able to take funds from a single site and do a high-end regional project that is better environmentally than having just one controlled site for us. There are some disadvantages to that as we've talked about. Regional improvements don't necessarily improve a stream or a creek that is immediately adjacent to that site where they are paying a fee because there are no controls on that site. One of the things I want to point out that we looked at this summer was the majority of the time, if you are interested in protecting headwater streams, the majority of the time there aren't any headwater streams immediately adjacent to these redeveloping sites. That is a sad story, but they've been piped; they've been paved; they've been removed so a lot of these sites just drain directly to another pipe and that pipe continues on and on and on until it reaches a major stream further away. If your interest is protecting headwater streams by getting rid of the fee, you are only going to achieve that goal three out of ten times we are estimating.

We talked about having a Tax Increment Financing approach and that would certainly provide for onsite controls and control storm water run-off, but one of the things I learned this week is that there are some specific rules the City has set up on how to implement the TIF program, and one of those rules is that there has to be a test passed that, in order for this project to qualify for a TIF, it had to have been an option that would have been built somewhere else in another county or another city. I'm pretty sure that most of these redeveloping projects in this area would not pass that test. These are not the kinds of signature projects that could be built in another city or another county and so it would fail that test. There are some risks involved; there are some possible threats to the general fund, and, certainly, it has been a very heavy administrative burden on the ones we do have. If we did have a TIF program for the 18 or so sites we've done in the last three years that would be more TIFs than we've had for all of the City to date. It would be a pretty big change I would say if we were to adopt this approach. Are there any questions on that? We have some folks who would be better to address TIFs better than me.

We talked about whether we should raise the mitigation fee. Certainly one of the effects of raising the mitigation fee would be to encourage onsite controls and that may be of benefit, but it does have some drawbacks. It has a tendency to discourage redevelopment and encourage greenfield development. I wanted to point out this bottom point here, and Mr. Howard will remember this when we were working on it three years ago. The areas that are in white throughout the City in the map I showed you earlier, those areas were identified as sort of a lower priority for redevelopment than the transit station areas and the distressed business districts, so what we did at that time three years ago, we did set the fee structure differently, so if you are in one of the areas in white, your mitigation fee is \$90,000 for every acre after the first,

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but it is \$60,000 for every acre in these other districts, so there is a bit of differentiation there, but it is a bit of encouragement to redevelop in those key areas and distressed business and transportation areas.

Howard: I want to clarify what you just said; you are saying that you are not recommending raising any higher, you want to leave it the way it is?

Hammock: We are not recommending raising it higher.

Howard: You are recommending leaving it at \$60,000 and \$90,000 which you just described.

Hammock: Recommending leaving it the way it is, but if we were to change, the effect would be to lessen the number of mitigation payments. If the mitigation fee was higher, there would probably be fewer people taking that option?

Howard: You are saying leave it the way we did three years ago? When you say not raise, I want to make sure, since we are redoing it, you are not saying to put it back down to \$60,000.

Hammock: Yeah, we're not recommending raising it to \$150,000 an acre.

Howard: Back to the TIF question for a second; I totally agree with that, and I don't know how it got on the list. We shouldn't use TIF to do that kind of thing; it is a fee. I do have a little concern of saying never ever thought because I think about the sites like the big one we own on the east side where when somebody comes in and they ask for financing and a TIF is part of what they ask for, normally that covers infrastructure, and I want to make sure we don't put something somewhere where now we say because we passed this you can't use it on a much bigger redevelopment. Part of your infrastructure request of TIF funds could be roads and re-mitigate down potential bonds. Just figure out a way to word that so we don't take it out of the bigger picture of things that we do, but not on the small ones for sure.

Hammock: That is not our intent here. I think it is not our intent to limit this in the future for TIFs.

Howard: We will say this somewhere and then somebody will come back, well you know Council, said they don't want to ever use TIF for that purpose.

Driggs: I just want to clarify. Your recommendation is that we are just silent on the subject of TIFs in this action. Is that right?

Hammock: Yes and, obviously, just to move on with our staff recommendation and you will see what we are recommending you to do.

Howard: The only thing I will tell you is that a Council and staff years from now will come back and remember what we said, and say, well, they talked about that but Council didn't want to use it for that. I want to be clear on what we are saying in the conversation we're having about this context. It is not for bigger redevelopment areas.

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Hammock: Similarly, whether or not we should have mitigation fees, staff thinks we should have a mitigation fee. We think we should not remove the option for these areas in the white area of the map to have a mitigation fee. We think it is helpful; it is not used an enormous number of times, but we think it is pivotal in some of these borderline projects that may or may not get off the ground but for having this options. Here are the reasons for and against that, but we do recommend not removing the mitigation fee option and continuing it.

Here is our recommendation we are asking for. First off, we think we should have an option and have a mitigation fee in these areas. We want to clarify to the extent that we do a case-by-case screening process now. I mentioned earlier that we check for flooding problems, and stream bank erosion problems; we want to clarify that we do that and how we do that and make sure it was an understanding that those areas are a screening and that is a test you have to pass in order to qualify for the mitigation fee. Number three is new; when we looked at this and we got the comments and we looked at some of our sites, we thought that there may be some things that could be done in addition to just paying a mitigation fee on some of these sites, and I will get into that in just a minute. We are recommending some low cost filtration measures on some of these redeveloping sites and recommend continuing it for another five years. As I said before, we get a two to one mitigation ratio, we take the money and spend it elsewhere in the watershed, we think that is good; it caps compliance costs, it discourages sprawl, and it is an economic and environment win in our engine, so we think we should have it. We want to clarify the case-by-case process.

Howard: Not that I ever think we will reach this, but the money you get from mitigation fees can only be in whatever watershed that they are in. If for some reason we didn't have a need for money in that watershed, I guess we've never reached that.

Hammock: We have need in all watersheds; they are all impaired.

Howard: You just run out of places to spend it.

Hammock: If you run out of places to spend it, we would have to try harder; we would have to spend a higher sum of money to be able to reach that goal, or if at some place in the future we could decide not to have a mitigation fee at all and we could, at that point, we could say you have to control onsite because it is so incredibly difficult to site an improvement somewhere else. That tendency is happening.

Howard: Do you think we will get there anytime soon? We won't get there in the next five years?

Hammock: No.

Howard: This is just one of those things that, as we monitor this, we ought to kind of monitor what the full scope in that watershed is to be able to keep up.

Hammock: We would clarify the current case-by-case basis and that should be screened for various flooding and stream bank erosion problems. I want to talk a little bit more about this

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additional recommendation and the additional requirement that we are proposing. If you take a look at this picture, you can see parking spaces and cars and you could add in a lot of oil grease and trash and we've all seen it. That stuff collects, and it makes its way into the low areas of the parking lot, and there is a heavy storm and it washes down and washes away. We did receive comments that this was a concern and, when we looked at it though, is there something reasonable and inexpensive that can be done on these sites where there is trash, oil, grease and things like that; and there is a way to remove some of these targeted types of pollutants prior to discharging into the streams. What we came up was this idea of catch basin inserts; this is not a new idea, this is actually very prevalent in other parts of the county. Water collects in these low areas in these catch basins in these circular areas, and we can put these small light-weight filters in those catch basins to catch oil, grease, sediments, trash; things like that and do some good. We don't get a lot of trash, oil and grease on the roof tops of buildings, as you would imagine, so that is not particularly dirty run-off. There is more of it, but it is not particularly onerous in terms of water quality. We think there is something more that can be done, so what we are recommending as part of our proposal is that, as sites redevelop, they provide these drop-in catch basin filter inserts or something similar to it. They are very low cost; if you are paying \$60,000 in mitigation fees per acre, this would add about \$3,000 to that cost up front. There is an ongoing maintenance cost, but they are very easy to install, replace and maintain, and we think this is something that is good environmentally; that is better than what we are doing that will not add a lot of cost to address some of the comments we've heard.

Autry: You are recommending then that we incorporate these measures into those who are going to use the mitigation fee?

Hammock: Yes. So, in addition to paying the mitigation fee, these would be required in parking lots.

Autry: What about all the other parking lots across the City?

Hammock: As they redevelop them, this would be an option for them to be retrofitted and turned over. We would not recommend doing this just in parking lots in general because there is not a process going forward with that right now. But if your point is all the parking lots across the City are generating pollutants like this.

Autry: So, whenever those areas want to be redeveloped?

Hammock: And, as they redevelop and come on line, they will come into compliance with either controlling onsite or paying mitigation fee and putting these devices in.

Autry: What is the periodic maintenance that is required for this kind of measure?

Hammock: They fill up with debris and it kind of depends on how dirty your parking area is. It is typically six months to a year is the recommended cleanout and replacement time. They typically have to be replaced once a year and that is where we get the low \$1,000 per year annual maintenance costs to pull those out, throw them away and get a new one.

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Howard: So if they fill up, the whole point in having storm run-off is so we don't flood?

Hammock: Yes, this is something we talked about with staff and our first priority is to make sure they don't create a flooding problem or hazard for anyone. These things have overflowed and have pollutants trapped in this lower area here and, when water ponds, it flows through and keeps on going. There are some mechanisms that we have in place with these that will provide a secondary by-pass in a flood event.

Howard: On the overflow, does it allow the stuff to come up to the top and go over the side.

Hammock: Floatables that can happen; if there are floatables, that can happen, if there are sediments and particulates and sand, metals and things like that, they are going to stay in these filters in the bottom.

Howard: Unless they are full.

Hammock: They wouldn't be full because we require an annual report to be sent to us that it has been inspected and it is not full.

Howard: I just want to make sure you don't have to go and inspect them all over the place.

Hammock: We won't inspect them; we would ask them to send us a letter that they have inspected them, they take a picture of it and send us a photo that it is clear and clean, and they will do that every year.

Howard: What happens if they don't? Is that a code enforcement violation?

Hammock: It would be a violation of the Post Construction Ordinance, and they can be fined up to \$5,000 per violation.

Howard: I want to understand what you are saying; if I am adulterer and I could just pay you a fee, why would I add on top of that this?

Smith: You are required to.

Howard: That is why I'm saying, so what criteria are you using now? That is what I'm not clear on. That is the Auto Zone. Are you talking about car places?

Hammock: We are talking about any parking lot whether it be a commercial parking lot, restaurant parking lot, and there is a lot of traffic in there. Automobiles produce a lot of pollutants: oil, grease, gas and sediments. Those are the dirtiest pieces of pavement in Charlotte where cars park and where they drive. Any redeveloping site that has parking surfaces, they would be asked to put these inserts in as part of this proposal to capture some of that oil, grease and sediment. It is not as effective as an onsite control potentially, like a rain garden, but it is better than doing nothing.

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Howard: You just added a cost to my fee.

Hammock: Yes, \$3,000 per acre. We are estimating that, if you have a one acre site, it is going to cost you about \$3,000 to install these measures.

Howard: But, it is per drain because you have to put one of these on each place that has them so are you going to have one drain per acre?

Hammock: They are about \$1,000 per drain and you might have two or three in an acre.

Howard: So that is where the \$3,000 comes from. I just want to make sure that we are clear on where it is going to be used and, now, so you are saying every parking lot going forward.

Hammock: A redeveloping site.

Howard: Accountability is what I was talking about when we talked about this a couple years ago. If I'm a developer, I can predict what my costs are going to be, so we want to make this clear where it is applicable and where it is not.

Hammock: You would be able to get a real good understanding of what it is going to cost when you lay out your site. Your design is going to show two, three or four catch basins; it is going to cost you about \$1,000 per catch basin. On top of that, you are going to be paying \$60,000 per acre, or \$90,000 per acre.

Howard: If what I understand, this went through the task force or the stakeholders group?

Hammock: It is a staff recommendation.

Howard: Have they seen this?

Hammock: The group that we got public input back from did not see this option. This is in response to the comments we received. The Storm Water Advisory Committee did see this.

Driggs: I'm curious about the particular logic that says this is payable in addition to rather than in reduction of a mitigation fee. If you've got a certain amount of money that you are paying for the mitigation option in lieu of the onsite compliance, you then spend certain amounts to mitigate onsite, why would that not reduce. The concern I have here is that we need to clearly separate our policy agenda from remedy agenda. I want to know we have a good rational. If you go into differentiating the cost to the developer based on how much dirt is polluted, it seems to me you open a little bit of a can of worms. We could impose a requirement that says, if you go with the mitigation fee option, then you must do these things and that will reduce the cash portion you have to pay. Is there kind of a logical reason why that is not the way we are proposing this?

Hammock: You mean rather than to reduce the fee?

Driggs: Just to have the cost of this mitigation absorbed by the cash that they are paying because

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they are not mitigating.

Hammock: That is certainly an option we could consider and pursue. One of the thoughts here was these devices are particularly designed for trash, oil and grease. The offsite mitigation projects are designed for other types of pollutants, heavy metals, sediments and other things and so this is sort of a tailored specific approach just for parking areas, but we could consider what you are saying. You would suggest then instead of paying, if you put these on your site, you would reduce your mitigation fee by \$3,000?

Driggs: It is mitigation right, so, to the extent that I'm spending money to do this, I'm not getting the full benefit of my cash payment for not mitigating the site.

Howard: Mr. Chair, I'm comfortable having that conversation without having a broader conversation about this technology in general being used. I would almost like this one to be separated from what we were talking about since it is so new. I'm a little uncomfortable voting for this part today.

Smith: Go back to the aerial of it and, so if you come in and redevelop a site and you don't touch the parking lot, you are still going to be required under staff recommendation to put in the – for example, if you just raise the building that has been onsite and then you build the 10,000 square foot Auto Zone but you left your existing parking lot in play, do you then fall under their –

Hammock: Yeah, if you don't dig up that parking lot and redesign it and relay it out, it is not redevelopment, it is maintenance, so it is not subject to the ordinance. That portion of the site would not be subject to the ordinance.

Smith: I have a little bit of concern and this is because of debating the technology a little bit. Over at the corner of Barkley Downs and Morrison, I assume the contractor has put in some stuff to keep the debris from a construction site and getting into the sewer system.

Hammock: Silt fence?

Smith: No, it is actually at the grate and what happens is on a heavy rain you have debris that is more than just some oil and what not that is moving across it, so the intersection of Barkley Downs and Morrison ends up flooded. I just want to make sure that in our efforts to catch some of these pollutants that we are not subsequently going to create a problem onsite where somebody's parking lot is a foot under water. That may be a separate debate to the technology behind this as we move forward not so much the principle, but I do think that is something.

Hammock: Another one of our top priorities is to make sure that anything we are asking to be put in would not first cause a flooding problem.

Smith: Maybe we can meet out at Barkley Downs and I want to show you. I also want to echo Mr. Driggs and I do think he is on to something that could possibly sort of make this revenue neutral in reducing the fee by the amount of this mitigation. I think that is good food for thought as we continue down this path.

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Driggs: I just wanted to say I think I agree with Mr. Howard on the question of whether we need to have this provision in here today or whether it is in fact severable, and we state down here that it is in the Environment Committee, so a nice clean decision on the subject of the mitigation fee and our policy about that and maybe a little further study on how this will work out because it does raise a lot of questions as to the technology and the specific kind of areas and where the requirement be introduced. It seems like they need to take up separately. The monetary part of it, the technology, where it has to be done; it is like maybe this does deserve a more thorough conversation. This is the first time I've heard about this. Meanwhile we would like to resolve the basic question about extending for five years.

Blackwell: The only reason for throwing this in as an environmental issue is that one of the concerns we've had with offsite is that, if you are right downstream from where this development occurred, you would not experience any benefit to environment, so the question is can we do something for those sections of the upper reaches that we are not touching? This provides a small but partial improvement so you get the regional improvement that you can do with the fee plus a small environmental improvement for those folks immediately downstream so this is certainly something we can do or not do, but it was trying to address that environmental concern.

Smith: I think it merits conversation; I just wonder if it is something that we need to vote on today since this is the first time we've heard about it. I'm in agreement with you two.

Autry: I can support that also; I think the real question is the fee question answered and getting that on the schedule sometime in the future to get that in front of Council for a decision.

Hammock: That is all I have to share today. Basically our recommendation is to continue with the fee; define the current screening process we've been doing. We are recommending onsite controls, and we are recommending extending until 2019. The Committee can substitute something different for that, but I want to remind everyone that there is a unanimous requirement that ordinances are changed or passed with a unanimous Council approval that expires October 1. We are thinking that we can schedule this on a Council agenda, have a public hearing in September and have the vote in October.

Howard: The only thing that I think I would add to this is that I would love to have a mid-term report, and it would be a "shall". Normally, you say report back to Council in a year and give us an update on where it is and it will slide sometimes, but I'm going to add "it shall" so I know this Committee will be updated maybe two and a half years into this kind of what you did today: how many you are seeing, what the reports are and what we are doing. I'd like a halfway report. Mr. Hammock said to let you know where the fees are being collected and how often it is being used and things like that?

Howard: And maybe an improvement to the basins overall, I'd love to know kind, if we set a target, and we are getting at it by then.

Smith: So, we are not coming up two months before it expires and trying to address it.

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Howard: I want to be clear; I don't want it to expire and we have to reapprove it. I just want to share a report to the Environment Committee and other appropriate Council Committees.

Driggs: First, I just want to start by saying the Committee does not have to be unanimous in order to refer it to Council, correct? If we could decide today by a majority vote; and I will say that I'm in favor of the staff recommendation with the proviso that we take up separately and the intent that we will take up separately the question of what sort of parking lot mitigation is appropriate and how should it be paid for. Otherwise, I just feel strongly that the mitigation fee is appropriate. There should be some cap on economic costs that could be created as a result to make sure that, if there is some relation to the actual benefits, and I don't like the idea of case-by-case because it really does create an environment of uncertainty for developers. You have this unknown quantity that you deal with; you need objective criteria and the fact that we actually currently have those two tests that are applied resulting in what sounds like about a sixth of the applications, so the cash, in lieu of mitigation to be rejected, suggest that there is some differentiation already. Basically, I support the staff recommendation with that one qualification.

Smith: Logistically, if we were to put forth a motion, sever Item #3, would that require a motion from Council to subsequently come back to us to study or, since we have already taken it up, can we just sort of continue the study, and we will set a deadline for them to come back to us in three months or two months with an update on the technology and discuss the fee.

Howard: The easier thing is just to ask the City Manager to refer it to us.

Yi: We can certainly do that.

Smith: Motion was made by Mr. Smith to approve staff recommendation with Item #3 stricken from it, and we add some clarity and certainty to the process and approve the mitigation fee. Mr. Driggs seconded the motion.

Autry: I think we all agree that the best way to deal with the pollution is at the source point. Would you disagree with that Mr. Hammock?

Hammock: That is the best way with money being no object.

Autry: I think what is missing from all of this discussion is the quality of life that having impaired creeks and streams running through our City is a negative, and it is something that I don't think we are adequately addressing on a whole. I like the way the original ordinance was structured; I understood that opening it up to the entire City during that downturn was a reaction, but personally I have never appreciated the fee in lieu and I felt like people should take responsibility for the pollution that they are creating and the sources that they are creating or allowing it to accumulate so I will not be supporting the motion.

The vote was taken on the motion and recorded as follows:

YEAS: Councilmembers Driggs, Howard and Smith.

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NAYS: Councilmember Autry.

II. Coal Ash Due Diligence Update

Yi: The second item on the Agenda is Coal Ash Due Diligence Update, so I asked Mr. Cagle if he wouldn't mind joining us at the table because there might be some questions for him. I want to run through the findings of staff on the Due Diligence and exactly what staff was directed to do. You should all have hard copies at the table and for members of the audience there are additional hard copies on the corner if you want to grab a copy.

Let me start by saying that I neglected to put a slide in here; a lot of people worked on this. This was a multi-jurisdictional, multi-department, multi-disciplinary project. I don't think we do multi-disciplinary projects all the time, but the nature of this project, involving City/County, other jurisdictions outside of the County, air, water, ground, transportation with aviation, was a complicated project and a lot of people did a lot of very challenging, difficult work to get us to where we could think about it. The purpose of this presentation is to give you an overview of where staff landed on the due diligence review of the Duke Energy/Charah's proposal to use coal ash as a structural fill at Charlotte-Douglas International Airport. We started when Duke came and did the presentation for the Council and staff added a little to that and said there are two questions. First, is it good for the environment? And second, is it good for the Airport? We threw in the word "unambiguously" because we wanted it to be that clear cut. We didn't want this to be a 51/49 kind of project. We wanted it to be very clear that this was a positive for the environment as well as for the Airport.

The process we went through, and I mentioned it briefly, is that of a multi-jurisdictional, multi-disciplinary project team. We educated the staff because none of us on staff are coal ash experts, but we did what we could to educate ourselves on the subject matter. We did site visits of River Bend Steam Station. We've gone out to Ashville a couple of times to look at the project out there. We've done education sessions and we've brought in professors, lecturers, and experts from various places to speak to us about coal ash, its properties, and its uses. We looked through all sorts of material provided by Duke, by Charah and any source that we could find to better understand the subject matter and how it might impact the environment and how it might impact the Airport. We fundamentally focused on environmental issues, the engineering behind the fill and the science behind the coal ash. We also looked at community issues and concerns as well as the legal and economic aspects of what we were being asked to do and, lastly, I think this is an important point, we worked with Duke Energy on this project as well as Charah, and we also worked with the Catawba Riverkeeper as a partner in the project, so we could make sure that we were providing a balanced multi-perspective to you on the topic at hand.

So the question -- is it good for the environment? The project would move roughly 4.7 million tons of coal ash from Mountain Island Lake by truck to an engineered structured fill at the Airport. When it was originally proposed to us an example was given as using it as a fill upon which we could develop a runway. There are without a doubt some short-term negative impacts from traffic to the potential of reducing air quality through the dust, safety; road noise is a quality of life and all those trucks running that route day in and day out for five years. However, it is our opinion that there is a significant long-term benefit to removing the coal ash from its site next to

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Mountain Island Lake. It is a risk to the water body. It is a risk to the drinking water supply for the City and, to be able to remove that risk is a significant benefit to the Lake, to the City and to our drinking water supply. I know this slide leaves out a lot of the details, but we would say yes, this project would be good for the environment. We also recognize that there are environmental concerns at the Airport. When you move it to the Airport, there are surrounding properties, there are surrounding streams, and those would be impacted and potentially impacted as well, but again a significant portion of those impairments would probably be short-term.

Driggs: I just want to clarify at this point the removal of the ash from where it is, is good for the environment. So we are not saying here that moving the ash to the Airport is part of that benefit to the environment.

Yi: Yes, you are right and thank you for the opportunity to clarify that. Taking the ash away from Mountain Island Lake regardless of where you put it, Airport, or somewhere else would be good for Mountain Island Lake; it would be good for the environment. So just removing the coal ash is a positive for the environment.

Driggs: Depending on where you do actually put it and to say there really are two questions and being out of there is a good thing.

Yi: The scope of our project was in consideration of the Airport. We did not look at any alternative sites because that is not what we were asked to do. We were asked to consider removing the coal ash and moving it to the Airport, so that is what I'm discussing, but thank you for that clarification. The second question, is it good for the Airport? Initially, when we looked at the idea of using this as an engineered fill to level the ground in preparation for potential air field development, whether it is a runway or a taxiway, it sounds very attractive because knowing what it cost the Airport to develop the third runway and you can roughly calculate it; we might be able to save about \$30 million in costs for obtaining fill to level the land in order to build a runway. However, that is why we conducted the Due Diligence Review; as we looked into it and did our research and thought about it some more and looked at potential risks, staff concluded that despite the savings that it wasn't worth the risk.

Driggs: I'm curious to know whether your deliberation about the Airport included conversations with the FAA.

Cagle: I had to move forward on conversations with the FAA.

Driggs: And what would be the actual approval requirement on that or did you get an indication from them on how they would do this?

Cagle: Regarding using coal ash as a structural fill?

Driggs: Right, would you need to get consent from them and did you get an indication on whether that was forthcoming?

Cagle: I guess the only way to answer that is a yes and no; if we were to, as proposed, use it as a

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structural fill for a possible runway, the FAA requires an environmental impact study for the construction of all new runways and certainly that would be a factor that would be included as we brought the project forward to the FAA.

Smith: I seem to recall from our previous presentation at a Dinner Briefing the savings to the Airport was a substantially higher figure and I don't know if Charah put forth that or if staff put that number forth, but I seem to recall it was a higher number. Were we able during the due diligence period come in with a little bit sharper pencil and as the pencil sharpened and the potential savings decreased, did it become less good for the Airport?

Cagle: On the \$30 million, it is for sure an estimate; it is based on construction costs and fill costs associated with the construction of the third parallel runway, but it is an estimate, and it could be a little higher or it could be a little less.

Driggs: The cost savings, does that mean that you would actually save net from having this material provided into the \$30 million or is that the entire costs of a runway?

Cagle: I should say the entire costs of a runway is significantly higher than that.

Driggs: So we are talking here about a net difference that we thought might be \$30 million doing it with the coal ash as opposed to by other means.

Cagle: That is correct, directly reducing the construction costs.

Autry: I don't think they are making any new dirt.

Yi: As we investigated the idea of putting it under a runway or airfield, it was determined that it was too great a risk and the possibility of failure of the liner or of the coal ash burrito, as we called it, may be miniscule or a low percentage, but that runway is going to be there for a very long time; maybe 50, 60, 70 or 100 years and even that slight of risk was too great a risk for us to contemplate. In the report you will see a further explanation as to the impact it could potentially have on the Airport, the Airline Partners that use the Airport, Charlotte as a hub for an Airport, the impact on the United States air routes, the impact on the international air routes. As you build, you still start thinking about the ramifications, and the ramifications were pretty significant.

Cagle: To the National/International Commercial Air service, as the sixth busiest Airfield and the eighth largest Airport, it is something if Charlotte were to reduce capacity overnight because of something like losing a runway that has a ripple affect across the world, and it has a very real financial impact to our business partners.

Yi: So \$30 million is just not worth the risk is where we come down to. As we came to that determination, we looked at other opportunities, other properties, and other areas of the Airport to see what opportunities were there. Ultimately, what we came to is that we could make this work for the Airport and the question is this unambiguously good for the Airport, we could not answer that positively. So no, we concluded that this is not good for the Airport. The

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conclusions that we would come to is that we could not answer both questions affirmatively as part of the due diligence process. Then we had to make a recommendation to the Committee.

Driggs: It is interesting, and I think you are reaching a good conclusion here. I'm just curious to know what is the result of your due diligence in terms of potential liability towards coal ash? Wasn't that also a stumbling block that we could not be able to clearly exclude the City from any possible liability?

Yi: I can speak to it generally, but if there are specifics, Karen Weatherly is part of the City Attorney's Office team working on that might be able to add some greater clarity to it. I think one of the City's main interest was we did not want to own the liability for the coal ash fill and, if the coal ash is on City property or Airport property, ultimately the liability for what happens in that coal ash whether it is from a leak or from contaminated groundwater probably rests in some way whether in full or in part with the City and the Airport and that was again a risk that we did not want to own.

Weatherly: That is correct; that was part of our due diligence and final assessment.

Driggs: I think it is worth noting that these are not the only reasons for reaching the conclusion we did.

Yi: To bring an end to the due diligence project, if we were asked, we would recommend to the Committee and ultimately to the full Council that the City not move forward with the project as originally proposed by Duke and Charah. That would be the recommendation we made at the staff level; however, staff believes that there is, as I put it, great benefit to the City to get the coal ash away from Mountain Island Lake. As we said earlier, it is good for the environment, and it doesn't take a lot of time to come to the conclusion that moving the coal ash away from the City's drinking water supply, a major recreational area with City residents living on its shores, is a good thing. Staff is motivated to find a solution that would facilitate the removal of coal ash from Mountain Island Lake and consider alternative options; call it out of the box thinking. We actually believe that we have a method of structuring a project to meet the needs of the environment being able to answer those questions that it is good for the environment and also being able to answer the question affirmatively for the Airport that yes, we can do this and have it be good for the Airport. We've asked Duke Energy if they would consider a land swap between two properties. Obviously, with a parcel of property that we have and you can see it up there on the screen, this big chunk of land here is Airport-owned property, and the Airport staff can give you all the details of that property. It is about 140 acres and, what you see here, I-485, this is Wilkinson Boulevard and this is the Norfolk-Southern Rail line. It is bordered by those three routes. What you have here is private property and over here is what you have is Duke property. As I understand it, and Mr. Cagle can give you more details on it as part of the Airport's development plan, they have use for that property and they, I believe, have a standing offer to Duke that should Duke want to sell at any given time the Airport will buy it.

Cagle: That property is often referred to as the Airport Layout Plan or ALP which we file with the FAA and has been for many years. Ultimately, that property is Duke Operations Center; this is long-term parking lot one and so you can see this property is adjacent to existing Airport

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facilities and yes, the Airport would like, and has a standing offer to Duke, to purchase that property. The difficulty in the past, as I understand it, has been that is Duke's Operations Center and a very necessary piece of their infrastructure, so we've always known that we want that property and that we would like to negotiate somehow to buy it, but at this point we are just biding our time. The other property, our property, is about 140 acres, however, about 40 to 50 acres of that are what is called the Runway Protection Zone or RPZ. That portion of the site would be retained by the Airport, so the multiple parcels would be consolidated pulling out the RPZ, leaving the remaining parcel intact which is about 100 acres and that parcel was originally purchased for the RPZ, but because it was owned by UPS, we bought the entire parcel, and it gave us a buffer, but it is an absolute must for the Airport to retain the piece that is the Runway Protection Zone. You can see on the corner there between I-485 and the Norfolk-Southern Main Line, that is the chunk that is existing RPZ and then on the other side of the parcel is where the future RPZ would be located.

Smith: Does any of the RPZ change with the fourth runway? We have the green and the blue and the red in the middle is not subject to the RPZ?

Cagle: That is correct.

Yi: If you can overlay this red area on this map that would be the acreage that the City would ask Duke to consider in a land swap. So how is this good for the Airport? This is good for the Airport because the Airport has a standing offer on the property right now, and it is consistent with the Airport long-term plans for development. So, acquiring property would be unambiguously good for the Airport, and it is my understanding that Duke Energy staff is currently reviewing our proposal. When they pitched their proposal to us, they were kind enough to give us time to do our due diligence on it, and they asked for the same consideration. Hey, we just heard about it, give us time to really understand what this might mean for us in terms of running our business at that Operations Center; what it might mean as we think about coal ash, all the things and potential unintended consequences, so Duke Energy is in the process of doing that due diligence on our proposal, so it is imperative we give them the time to do a thorough job on it.

Howard: When you reminded me of the fact that any interruption in our Airport has global ramifications and I hadn't thought about that. I always think about what it does to Charlotte, but you are right if a flight can't land there are some people from Berlin stuck. I was going to give you a compliment to start with; I flew into the Airport last Sunday and I guess I forget just how busy that place is on Sunday. It was incredible how much buzz was going on in there last Sunday, just like a little world into itself. I am always impressed when I fly in. If you haven't flown from the Charlotte-Douglas Airport on Sunday, you should do it; it is incredible how much energy is going on there on Sunday. With that said, It makes me almost want to put a ring of protection around the Airport, especially anything that close to it. Nothing will inhibit anything that happens at the airport, ever. And let me be clear, Duke is a great partner for Charlotte; it is one of the shining stars for us, and I think in a lot of ways I got in trouble last time. I said we wanted to be good to our partners and our friends in the environment and it was inclined that it was something other than being good stewards of the environment. In this situation, I want to go where Mr. Driggs said earlier; we should separate all these things, they don't have to be attached

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to each other. Regardless of where the coal ash goes, that is the issue, it is not attached to the Airport, it just needs to go. In that situation I continue to think about how big the State of North Carolina is, I think is the fourth or fifth largest state if I remember my geography class. There are a lot of places this could go other than next to the most important asset that we have in our two Carolinas. It is almost like I want to draw a ring around it let alone even talk about doing something that would this property and that is what I feel like I'm doing. I feel like I'm trying to make something work that doesn't need to work, not when there are other options because this is a big state. When you talk about this site in particular, a couple things come to mind. One, which you didn't show are the creeks that run through it that if I saw on my map that I'm looking at there are probably, I think it crisscrosses it, you don't show a blue line, but the line that I'm seeing on the Google Map shows a creek that runs straight through the middle of the red area that we are talking about along the edge near the freeway which was probably relocated because of I-485. Then there is another one running across the top. In this situation, I almost want to say that this is not a land swap because we are not just swapping land, we are swapping land for a potential environmental concern. It is not a straight land swap as far as the public is concerned because you may get the value of owning that property, but now the public has something it needs to be concerned with on this piece of property. I'd almost like to treat this operation land swap as separated as well. This Operation Center, coal ash and the Airport are not connected. The Airport and Operation Center are connected; that is just a straight real estate deal which you know how to do. That is why the Airport is so big; we know how to buy land and we know how to swap land. If we wanted to swap and then put the Operations Center that would be a swap, but swapping it so you can put a coal ash deposit there is not a swap to me. For all those reasons, I still for the life of me cannot figure out why I would vote for this, not next to the Airport, not the largest most important asset in the two Carolinas, so much so that we have been fighting the State now for two years about this thing. We all want to make sure we get it right and to me this is not going in that direction. The last thing I'll add, and I won't speak for Councilmember Mayfield, but I do have to speak for somebody who grew up on the west side of Charlotte. You hear this all the time; we seem to be the place that we always get dumped on. It seems like, if it doesn't want to go anyplace else, it comes to the west side. I would hope that, if this goes forward because I'm just one vote, that there is a lot of conversation with advocates and otherwise on the west side about how they feel about this. I feel like there is an environment justice conversation that needs to be had, and I would hope that, if this goes forward, this is a real serious piece of this because there is a feeling that it always kind of runs downhill to the west side if people want it to go someplace else.

Driggs: I share actually a lot of the concerns. I think you've just made some interesting points, Mr. Howard, but when I look at it I think the idea of having the coal ash under a runway and having it out where it is now contemplated is different and deserves our consideration. I don't think that the fact that we didn't want to put it under a runway necessarily applies that the risk is the same if we put it out in this no man's land, this zone. So that is an interesting thought. The removal of the coal ash from where it is is pretty much a done deal. When the General Assembly gets done, I think it is clear that it is going to require that it be removed, so as far as we are concerned, that is not kind of a negotiation point. It is going to be moved because the State says it has to be removed from where it is. What we are looking at is the advantage we have of gaining the Airport asset. We are looking at the benefit of a shorter trip perhaps, 240,000 trips by 20-ton trucks going to a destination that is not somewhere up state, so I think my point is that this

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is not a real estate transaction. This is a situation in which there are costs and benefits to the parties that need to be evaluated, and I will certainly be interested to see the proposed terms of the deal in more detail before I can say more. I certainly think it would be very difficult for Charlotte to actually pay money to achieve a solution, even at some level commercially, if it made sense, but I think the perception that we occurred costs and that the taxpayers were paying to help bring about a solution on the relocation in the context of this land swap would be a hard sell. The real question is what value do we put on the other dimensions of this thing? Where would the coal ash go if not there and who would take it; are there landfills, what are the economics of the alternatives? I would just like to see us look at the benefits and costs of both parties and work out some kind of an equitable deal. When we have that maybe we will be in a better position to decide where the City would want to go with this thing.

Smith: How does the proposed tonnage at our Airport relate to the tonnage of coal ash that has been deposited in Ashville? Do we know the tonnage of the coal ash?

Unknown Speaker: I do believe it is less than what we have at River Bend; I want to say 2 million to 4 million tons, and we have 7 million tons roughly at River Bend.

Smith: To the proximity to the rail line, does that in any way shape or form change how it will be transported, can we use rail if we approve the land swap to send it to Charlotte as opposed to the trucks, and we've all agreed that there will be some thrust-back with the trucks on the road and, again, I don't need an answer now.

Yi: We actually have answered it in the document in the Q & A section. There is a question about why not transport the coal ash via rail. One, rail ends up being prohibitively expensive; two, because of the way the rail lines are, we would have to move the coal ash from River Bend to the old Intermodal facility on North Davidson so we would have to move it near downtown before we move it back out to the Airport. Then there is no place to park a rail car because I think this is the main line.

Autry: And that is also putting it into the Intermodal.

Smith: Regarding if the land swap goes through, I think there was a reasonable acceptance that Charah's technology and what they have done in Ashville makes a pretty good plan. Will we have any say in how Duke were to dispose of or would they take the same plan that using Charah or would they come up with another method and would we have any say in that matter once the land swap is done, this is on you guys to figure out.

Yi: That is an excellent question so let me sort of rephrase your question this way if I may. If the land swap should occur, what would be the City's role in directing Duke or Charlotte or any other partner that Duke might engage with to go about developing a structured engineered fill? Would we tell them in a very specific manner, you must use this type of liner, you must use this kind of soil, you must do this, you must do that. Would we do that? The short answer to that is no, we would not do that.

Driggs: Sorry to interrupt, but would DENR do that?

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Yi: I don't know the answer to that question and my thought process is stuck on answering Mr. Smith's question and then we will take your question. The City, as a condition of making the land exchange, would place a restrictive covenant on the property as an adjacent property owner such that, if Duke decided to put coal ash material on this parcel, it would be encapsulated in a manner that is approved by the State and meets all applicable laws and regulations that may apply. The other thing that I would add is, because of its location right next to the Airport and you can see the Runway Protection Zone is sort of bordered on it, there would be other restrictions placed on that property, so, for instance, if Duke did place coal ash there, leveled it and decided they wanted to build a 40-story tower there, they wouldn't be able to do it because it is in the flight path. It is in one landing pattern, so there would be some restrictions that the Airport would have to put on that piece of property in terms of building height, other environmental regulations and, again, I'm not the expert on all of that.

Cagle: We would require, if we were to go forward with, an avigation easement as part of the deal. We would also ask for deed restrictions on the zoning so that it was not zoned to inappropriate use.

Unknown Speaker: Can you give an example of inappropriate use?

Cagle: Residential would be an improper use; you do not put houses at the end of a runway, so commercial, light industrial, those would be compatible uses. Those kinds of things so it would need to be zoned and restricted for zoning and that would be a requirement of a land swap because we would need FAA approval. Any land swap will require FAA approval or any disposal of current property regardless of swap or not. There would be certain requirements that we would need to place restrictions on the property and its use. Height restrictions would be inherent in federal regulations and, generally speaking, the site runs downhill towards Wilkinson, so it is hard to say exactly how tall is too tall or okay, but you are looking at probably single to double story structures there at a maximum, but that would all be determined and there are federal requirements that would do that.

Smith: I agree with Mr. Driggs; I'm inclined to think that the benefit here on the surface is greater to Duke than it is to the City of Charlotte, while it is important to the City of Charlotte, I'm probably going to have a hard time, and we haven't seen the details of the proposed swap of supporting a situation in which the City has to come out of pocket on this transaction. I view this more as an equal swap than anything. Then, too, I want to make sure that we are comfortable, I've gotten pretty comfortable, not necessarily with the runway, but the technology behind Charah and what they were planning to do. I just want to make sure before we agree to a land swap that we are very comfortable, that the technology Duke would put in place there would be equal to that, and we are comfortable that it is next to our biggest asset.

Howard: Just a point or two that I didn't get to, and I need to quantify, that I don't think the whole idea of the City participating in the solution to get away from Mountain Island Lake; I think we should be part of that conversation and I'm not against that. What I would like to know is that we look every place else we could in addition to this and, as a matter of fact, I want to quantify that and say I think I'm uncomfortable with how close this is to the actual operations of

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the Airport, but the Airport owns land further away from the general core of the Airport that I think I could be open to as well. I'd like to know that we've looked at other City-owned property other than just right here against the runway even if it was someplace else. You've got to own a lot of land, and I get that; you don't want to use land that you have obligated to something else, but let's look. I think my problem is that it is right against the Intermodal Line, it is right adjacent to the runways, and it is just too close to the operations for me. I wouldn't be against looking at other places that you guys own.

Cagle: To answer the question about other Airport property, we own a lot of property. One of the initial concerns that I've raised is it is too great of a risk to put it under the airfield assets or under property that could, in the future, be developed for an airfield. This is one of the few properties that we have that does not meet that criteria because it is a runway protection zone, and because it is on the wrong side of the tracks literally; it is across the mainline. Airfield development will not extend that direction, but to the other direction there are possibilities into the future that maybe the airfield could expand. One of those examples down south was the possibility of the Bowen Plant; that was 400 acres south of the airfield. Those kinds of developments; the southern end of the airfield is more developable for airfield, even things that we may not be thinking about now while this property is not.

Howard: What about the other side of I-485, do you own anything over there?

Cagle: We own some property, but not a lot on the other side of I-485.

Howard: What I'm saying is I'm not against us participating; that is just too close.

Yi: To the other question, what about other City property, as we were doing the due diligence, we actually considered that question. We sat down with folks from Engineering & Property Management and Jeb Blackwell was part of that discussion. We asked the question, is there anywhere else on City-owned property that we could potentially do a project like this and, as we looked through our inventory of real estate assets, there was nothing that we owned that is large enough to handle a project like this.

Howard: We are not the only one that gets our water from Mountain Island Lake. Other counties around here do. Have we looked at other land period is the point I'm making. Even if we invested in something in another county, where they had the land, that would make more sense. Even if we invested where it is now; the most logical place to me is to dig where it is, put a liner where it is and you don't have to truck it anywhere. I just want to know that we are looking at other alternatives outside of right near the Airport. I guess it is more of a question for Duke than it is for us, but that is my concern, and I would love to talk off line to anyone who wants to hear what I'm thinking about it.

Driggs: I think, in terms of what we are doing here today, I have two questions; one is does the Committee need to take any action on the staff's finding that the original Airport proposal doesn't pass the due diligence? Do we accept that recommendation and discontinue that conversation and the other thing personally, I'm interested in hearing more about this. So although I recognize a lot of the concerns that Mr. Howard has raised, if we didn't have to make

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a decision right now, I would be in favor of pursuing this conversation and getting answers to more questions. Because it has the potential to be of benefit to the City and to Duke and it, therefore, has the potential to be a hugely satisfactory transaction, so I would like to hear more about it, and I hope that we at least can agree to continue the conversation and maybe have staff come back to us with what the terms would be like, what your initial assessment is of the environmental risk at the new proposed location. The fact that this land does not have a whole lot of alternative uses but would work very well for this to me makes it kind of economically attractive to cost of using this land as opposed to a lot of the other land we might consider. I would like to pursue it, and I would like to formerly conclude the conversation.

Yi: I have one more slide to give you a sense of where we go from here. Duke Energy is conducting its due diligence, and we are trying to give them the time to do a thorough job. We are waiting for a response from Duke to our proposal before we do any further activity at the staff level because there really is no activity to do. If Duke says no, we are done. There is nothing else to do. If Duke says yes, let's consider it, we would do exactly what Mr. Driggs has asked for. We would have to do more details on the negotiating; exactly what does this mean, how they value their property versus the Airport property. We would have to have further discussions and details and what does it all mean when we say yes to the land swap. In addition, if they do say yes, the Airport would have to go to the FAA and make sure that they are okay with it. Again, that is something that they have to do and it is worth reemphasizing there are probably some deed restrictions to be put in place with regard to the property for the Airport and for the general environmental issues we have. That will be part of whatever discussions and negotiations we have about this property.

Smith: Just to be crystal clear because we have a number of media here; what Duke is considering is just the general premise of the land swap, no financial details, no other details associated with such transaction are yet on the table? I just want to make sure we get it to the public, hear exactly what is going on, and the manner in which it is going on.

Yi: That is correct; we've asked Duke to consider; would you swap your property for our property, and the details of that we haven't gotten into.

Smith: That's fine; I just want to make sure that is reported in such manner so that nobody is accusing the City of anything.

Autry: Do we have any idea how far down the road Duke is in their process; is this a go or no go?

Gause: We are at the very beginning of doing the due diligence. We need to do the same type of work that your task force has done in looking at the options. We need to look at the economics of it, we need to look at the geotechnical pieces and, because it is a very significant operations center for us, it is a very complex decision that we will be making. We perform a lot of functions out of that operations center, and we have to look at the future requirements and needs to serve the public. So we need a little more time.

Driggs: Do you have any idea how much time?

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Gause: Not at this point.

Howard: If the operations at that location are important; we are talking about a land swap that would leave you without an operations center so that is still where it is, a real estate deal, because they still have to buy land somewhere else for an operations center.

Driggs: That would be part of the costs benefit analysis.

Howard: I understand how real estate works; that is not my point. My point is that we are still trying to connect things that I don't think are connected. They still have to have an operations center; it won't go on the land that they are swapping. This is very much just about coal ash and I think that needs to be separate from the land swap that we need for their operations center.

Smith: Coal ash in value of that site to the Airport and kind of figure out how all those pieces relate because it sounds like the Airport could use that property that Duke currently owns is, if not critical, a very important piece.

Howard: The last time I checked the reserves at the Airport, they could afford to do a land swap if they could figure out a deal with Duke so that has nothing to do with this. That is what I'm saying, this is very much figuring out a solution for coal ash, and the Airport should not be the only place we are trying to figure that out.

Driggs: The only comment I would make about that is, if we went to Duke and said we are prepared to do a land swap, but you can't put coal ash there, that is a very different one. To that extent, it is not a real estate transaction.

Howard: But, let's be clear. It is an operations center that Mr. Gause just told us is important and it is going to go somewhere. Then do we want to take into account that, if it is not going to go near the Airport, do we lose the option it could go someplace else? There is a lot more to this conversation than just talking about once we insert coal ash into it, it shouldn't be part of it.

Yi: This is sort of where staff is on the proposal.

Autry: There was some discussion from Mr. Driggs about whether we should report back to Council.

Yi: I would suggest that would be a good thing; if the Committee wants to accept the staff recommendation on the original proposal, then we would be happy to prepare a briefing for the full Council in the future. That may or may not coincide with the due diligence on line for Duke, so we may just report on the original proposal and come back in the future.

Autry: Just to be clear also, it is in the City's interest to have the coal ash ponds at the River Bend Station closed down and the coal ash moved away from river.

Yi: I would agree with that.

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Smith: Does this transaction in any way shape or form speed up the removal of coal ash from Mountain Island Lake? Will the General Assembly – is that timetable put in place regardless and does this in any way shape or form help speed up the process?

Yi: I don't know Duke's timeline or what their plans are for the coal ash, so I can't speak to that question as to whether this speeds up Duke's plans for getting rid of the coal ash.

Smith: If it did accelerate the timeline in any way shape or form, I think this would be back to us as a City benefit even if there is a hard date out there in the future.

Autry: I think if we were to put together such a swap it would begin the timeline from Duke's perspective to deal with the coal ash up there. There has been some alluding to what the General Assembly is in the coal ash. We know there is a couple different perspectives out there, but they are essentially adjourned, but not adjourned and there is some question as to whether the Senate is even going to be coming back, and then that leaves us all in limbo again doesn't it?

Phocas: Yes, I don't have much to add in terms of the timing, but you are exactly right, we are in the middle of it and unsure if what's going on and obviously the final legislation has a huge impact on what Duke will do, not only at River Bend, but the other towns across the state, but getting back to one of the questions Mr. Driggs asked earlier, the most recent version of the legislation is quite detailed in terms of how the coal ash needs to be removed and transported and especially encapsulated. So that will dictate a lot of what encapsulation looks like in terms of liner, the cap, how the ground water monitor is done, so a lot of what we've talked about as we come before you will be addressed in that legislation if it goes forward as currently written.

Driggs: Do you know what the legislation includes, one of those typical conditions, that says localities may not oppose requirements?

Phocas: I don't.

Autry: In our process are we also considering that anything that we may be working on doing to help move this down the road a little bit would be pre-empted by whatever the General Assembly would do?

Howard: We should assume that always.

Phocas: We know that is a possibility, and I'm sure Duke is tracking it for the same reasons because it will have a huge impact on the end result.

Autry: Do we need a motion to take the original recommendation that the due diligence period is not recommending using it on the airfield at all and getting that report back to Council?

Driggs: Does it require a motion? I think if we could just agree that we would like to have the majority of Council and considering Council we should then vote formerly to kill that process.

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Yi: We will work with staff to schedule that briefing.

Howard: Just to keep me from speaking out on this when we do it at the Council, can you make sure you report the conversation at least in the minutes?

Yi: We can

Autry: Thank you everyone.

Meeting adjourned at 1:40 p.m.

Environment Committee

Wednesday, August 13, 12:00 – 1:30 p.m.
Charlotte-Mecklenburg Government Center
Room 280

Committee Members: John Autry, Chair
Ed Driggs, Vice Chair
David Howard
Claire Fallon
Kenny Smith

Staff Resource: Hyong Yi, Assistant City Manager

AGENDA

I. Mitigation Options – 30 minutes

Staff Resource: Darryl Hammock, Engineering & Property Management

In May, Storm Water Services held a public meeting to obtain input on the various options and criteria to allow or reject mitigation fee under a case-by-case scenario. The meeting was primarily attended by development industry representatives and most feedback received was in favor of keeping the mitigation options in some form. Four environmental groups provided a comment letter stating that onsite controls should be required. Staff used this input to refine a recommendation that will be presented to the Environment Committee.

Action: Unanimously support staff's recommendation.

II. Coal Ash Due Diligence Update – 45 minutes

Staff Resources: Hyong Yi, City Manager's Office and Rob Phocas, Neighborhood & Business Services

Staff will provide the results of the due diligence review and details of the City's counterproposal to Duke Energy regarding coal ash.

Action: No action required.

Next Meeting

Wednesday, September 10, 2014; 2:00 p.m., Room 280

Distribution:	City Council	Ron Carlee, City Manager	Executive Team
	Bob Hagemann	Stephanie Kelly	Environmental Cabinet



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Extending Mitigation Options in the Post Construction Controls Ordinance

Environment Committee

August 13, 2014

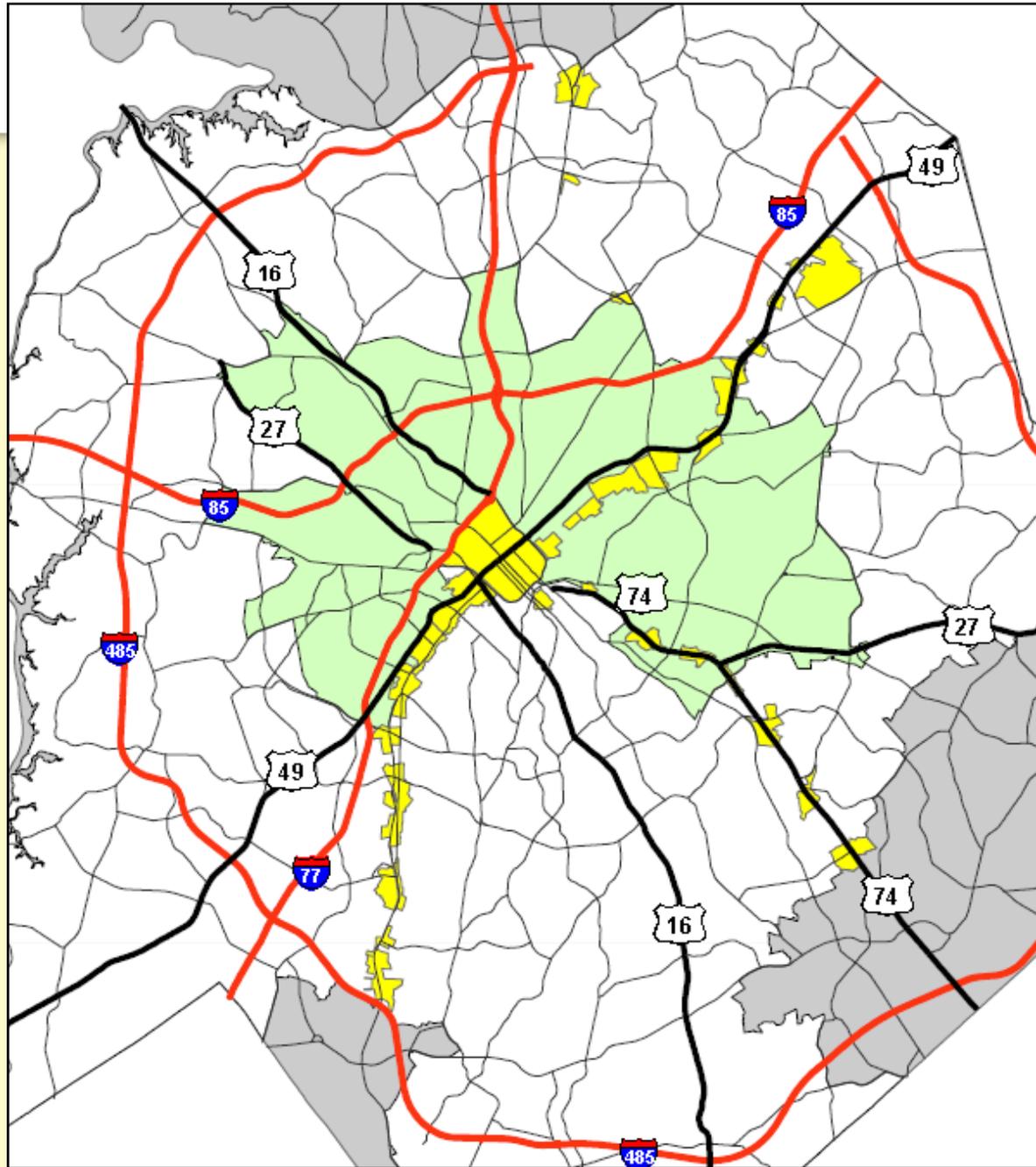
- Public Input
- Pros / Cons of each alternative
- Staff Recommendation
- Recommendation to Council
 - Whether or not to extend mitigation options for redeveloping sites, and if so for how long?
 - Whether or not to revise how the policy is administered, such as with a case-by-case approval process?



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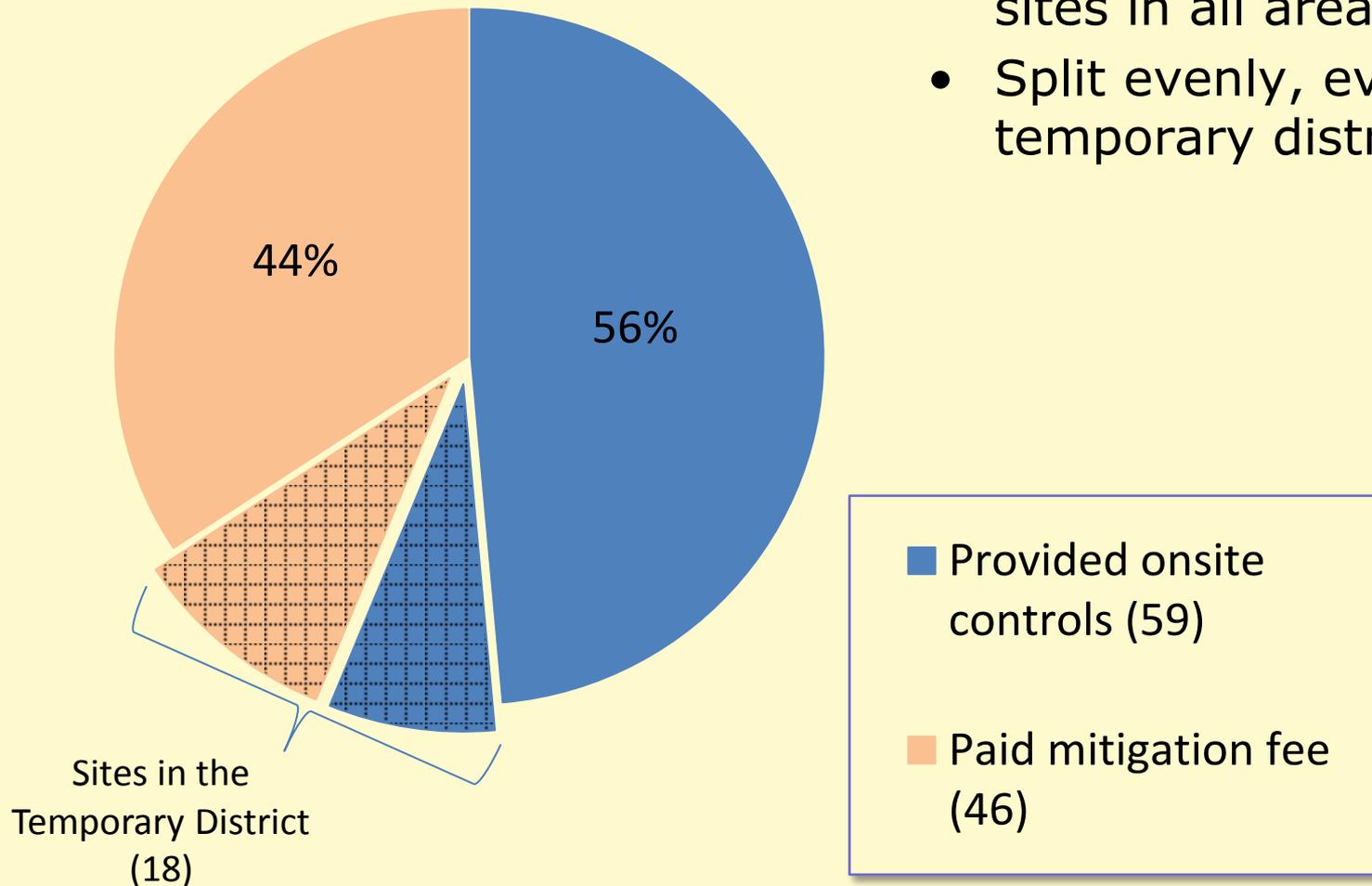


- Storm Water Advisory Committee agreed with Staff in November to extend the mitigation fee, up to 5 years
- April 28, 2014 City Council voted to extend the fee for 6 months while Staff assessed a case-by-case process
- May 29, 2014 Staff held a public meeting
- June 19, 2014 Staff presented results of public input to Storm Water Advisory Committee
- July 17, 2014 Storm Water Advisory Committee unanimously approved staff recommendations

- Most supported continued availability of the fee; seen as effective, flexible, good for redevelopment
- Most thought a case-by-case process would be risky for developers and seen as unpredictable
- A few felt that onsite control is easy, should be required, and that cost should be less of a factor in an improved economy
- A few expressed concern over oil, gas, grease, and other chemicals and that upland streams are not improved

Compliance Options Used for Redevelopment Sites

- A total of 105 eligible sites in all areas
- Split evenly, even in temporary district



Options Considered

- A case-by-case procedure
- Keep the mitigation fee as it is currently
- A Tax Increment Financing (TIF) program
- Raise the mitigation fee to discourage its use
- Remove the mitigation fee

Establish a case-by-case review

Advantages	Disadvantages
<p>Allows sites to be analyzed individually based on site-specific factors including:</p> <ul style="list-style-type: none"> ▪ Downstream flooding* ▪ Stream bank, buffer erosion* ▪ Wetlands protection ▪ Sites' production of pollutants ▪ Steep or flat topography ▪ Utility and infrastructure conflicts ▪ Tree protection areas ▪ Cost of compliance 	<p>Would result in less predictability for developers</p> <p>Adds additional approval costs & submittals</p> <p>Additional risks and compliance costs may tip scales to "no build" or greenfield development</p> <p>Depending on what body makes the decision a long delay from application submittal to decision date may occur</p> <p>Increase in appeals to Storm Water Advisory</p>

Staff recommends to clarify the current case-by-case screening process in the Administrative Manual.

Keep the mitigation fee as it is currently

Advantages	Disadvantages
<p>Provides flexibility and predictability for sites with design challenges</p> <p>Caps compliance costs, matches current market expectations</p> <p>Encourages redevelopment, discourages sprawl</p> <p>Regional stormwater control measures typically provide twice the pollutants as onsite controls</p>	<p>Regional improvements often not adjacent to the project site, so the headwater conditions may not be improved</p> <p>* 7 of 10 sites do not exhibit headwater stream characteristics</p>

Staff recommends to extend fee option.

Tax Increment Financing (TIF)

Advantages	Disadvantages
<p>Improvements are onsite which may improve headwater conditions in some watersheds</p>	<p>There are specific limits on what may qualify – whether or not the project would be built in another City/County.</p> <p>Risky due to failure of owner to pay taxes and property value reduction</p> <p>Tax refund payments to developer from general fund, resulting in:</p> <ul style="list-style-type: none"> ▪ Citizens subsidizing redevelopment ▪ Long-term commitment of general fund ▪ Impacts to other City services <p>Requires additional administrative staff</p>

Staff does **not** recommend a TIF Option

Raise the mitigation fee

Advantages	Disadvantages
<p>Would discourage use of the fee and encourage more onsite controls</p> <p>Provides flexibility and predictability for sites with design challenges</p> <p>Caps compliance costs</p>	<p>May discourage redevelopment on smaller sites</p> <p>May encourage greenfield development</p> <p>Raises compliance costs</p>

Be reminded that the fee for this temporary district is higher than in the other districts.

Staff does **not** recommend raising the mitigation fee rate.

Remove the mitigation fee

Advantages	Disadvantages
Improvements are onsite or on adjacent site, which may improve headwater conditions in some watersheds	Does not allow a way past site-specific design challenges Higher compliance costs may tip scales to “no build” May encourage greenfield development Slower rate of watershed improvement since 2:1 regional mitigation gain is lost

Staff does **not** recommend removing the option for mitigation fee payment.

1. Continue to have a redevelopment mitigation fee option
2. Clarify the current case-by-case screening process in the Administrative Manual
3. Require implementation of low cost, onsite control measures for sites with surface parking when paying the mitigation fee
4. Extend the availability of the mitigation fee until December 2019

1. Continue to have a mitigation fee
 - Staff level approval process
 - Current fee is high enough to discourage overuse and yields a 2:1 mitigation ratio
 - Eligible, screened sites can pay a mitigation fee
 - Predictable and caps compliance cost
 - Is an economic and environmental win
2. Clarify the current case-by-case screening process in the Administrative Manual
 - Check for downstream flooding problems
 - Check for stream bank & buffer erosion problems

3. Require onsite control measures for surface parking areas

- Runoff has oils, gas, grease, chemicals and trash
- Begin requiring the use of pollutant removal measures for surface parking
- Removes some targeted pollutants on-site prior to discharging to streams



Oil and grease in parking areas would be captured with low cost onsite controls.

Addition of Low Cost Onsite Controls

- Would apply to surface parking or vehicular areas
- Would be required in addition to paying a mitigation fee
- Example, Catch basin inserts



Oil and grease in parking areas would be captured with low cost onsite controls.

Low Cost Onsite Controls - Inserts

- Low cost - \$3,000/acre upfront; \$1000 annual maintenance
- Easy, non-specialized installation



- Support the staff recommendation to continue the fee and case-by-case screening process, require onsite controls, and extend until 2019.
- State requirement for unanimous decision expires Oct 1



Coal Ash Due Diligence Update

Environment Committee

August 13, 2014



Purpose

- Provide an overview Staff's due diligence review of Duke Energy/Charah's proposal to use coal ash as a structural fill at Charlotte-Douglas International Airport (the "Airport")

2



Two Questions

Is this project:

1. Unambiguously good for the environment?
2. Unambiguously good for the Airport?

3



Process

- Developed a multi-jurisdictional, multi-disciplinary project team.
- Educated the staff on the science of coal ash through site visits, education sessions, lectures, and other materials
- Focused on Environmental, Science & Engineering, Community, Legal and Economic aspects
- Worked with Duke Energy, Charah, and the Catawba Riverkeeper on the due diligence review

4



Good for the Environment?

- Project would move approximately 4.7 million tons of coal ash by truck from Mountain Island Lake into an engineered structural fill at the Airport
- Some potential short term negative impacts (i.e., traffic, dust, etc.).
- Significant long-term benefit to Mountain Island Lake.
- Yes. Good for the environment.

5



Good for the Airport?

- Estimated cost savings for the Airport of approximately \$30 million for developing a fourth runway.
- Investigation concluded that the risk of putting coal ash under the airfield was an unacceptable risk.
- No other configuration of the project or site worked.
- No. Not good for the Airport.

6

	Conclusions
<ul style="list-style-type: none">• Staff cannot answer both questions affirmatively.• Would not recommend moving forward with the project as originally proposed.	
7	

	Further Considerations
<ul style="list-style-type: none">• However, staff believes that there is great benefit to the City in moving the coal ash away from Mountain Island Lake.• Developed an approach that would meet both original conditions.	
8	



Alternative Proposal



- Asked Duke Energy to consider a landswap with the Airport.

9



How is this good for the Airport?

- Airport has a standing offer on the property to purchase at any time.
- Property is consistent with the Airport's long-term plans.
- Acquiring property would be unambiguously good for the Airport.
- Currently, Duke Energy reviewing the City's proposal.

10



Current Status & Next Steps

- Duke Energy is conducting its due diligence on our proposal.
- Waiting for a response prior to conducting any further activity related to this project.
- If no, then project is concluded.
- If yes, FAA will have to approve the swap.
- If approved, swap must include deed restrictions on development and a requirement for environmental monitoring to ensure water quality.

11



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City of Charlotte

Coal Ash Due Diligence Study

City Manager's Office

August 13, 2014



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Background

At the direction of City Council and the City Manager, City staff conducted a Due Diligence study to determine if placing coal ash from the Riverbend Steam Station Power Plant (“Riverbend” see Exhibit 2) at the Charlotte-Douglas International Airport (the “Airport”)(See Exhibit 3) would be good for the environment and economically beneficial for the Airport. In a presentation to City Council on March 24, 2014, Duke Energy proposed using approximately 4.7 million tons of encapsulated coal ash as structural fill at the Charlotte-Douglas International Airport under a future fourth runway. The coal ash would come from two coal ash ponds at Riverbend Steam Station, a decommissioned power plant on the shores of Mountain Island Lake. Duke Energy working with Charah, a company specializing in coal ash removal and reuse, proposed placing the coal ash in a location that has the potential for future development, including a fourth runway at the Charlotte-Douglas International Airport. It was estimated that encapsulating the coal ash and creating a structural fill in this location would save approximately \$30 million in construction costs and would employ one hundred people over five years.

The composition of the due diligence interdisciplinary team consisted primarily of City staff, but there was participation from County staff as well. During the course of this endeavor, staff worked closely with Duke Energy, Charah, Moore & Van Allen and the Catawba Riverkeeper to address numerous questions regarding the project. (See Exhibit 1) In addition, the team also received briefings from experts at the University of Kentucky and UNC-Charlotte and consulted with experts in the field, such as Hart and Hickman, a firm specializing in environmental consulting. The Due Diligence effort focused on environmental, legal, social and economic issues. City and County staff along with City Council members made visits to the Riverbend Power Plant and to the Asheville Regional Airport where Duke Energy and Charah are completing a project similar to what was proposed during the March 24 City Council meeting.

The team focused on answering two broad questions:

1. Is this project unambiguously good for the environment?
2. Is this project unambiguously good for Charlotte-Douglas International Airport?

What follows is a summary of the project team’s conclusions regarding these two questions.

Good for the Environment

The focus of this question was on Mountain Island Lake since it is the body of water adjacent to the Riverbend Steam Station’s coal ash ponds and the area most likely to benefit from the removal of coal ash. The power plant has two coal ash ponds on a piece of land that juts out into the lake creating a bend, thus the name Riverbend. The coal ash ponds are held in by an earthen berm and are not lined or covered. Several municipalities have their water intakes in Mountain Island Lake including the City of Charlotte which has its water intake three miles downstream from the coal ash ponds.

A coal ash pond failure at Riverbend could result in several potential consequences. It could:

- Impact water treatment processes and potentially disrupt the water supply for the City of Charlotte and the other municipalities,
- Disrupt the recreational use of the lake, and
- Impair the water quality of the lake impacting both flora and fauna.

The environmental team concluded that removing the coal ash from the ponds at Riverbend would be beneficial for the long-term environmental integrity of Mountain Island Lake.

It is estimated that it would take approximately five years to remove all the coal ash from the site operating five days per week. Using a standard dump truck, it would require approximately 220 trips per day. Due to the volume of dump truck traffic and the number of trips necessary to move the coal ash in the short term, air quality could potentially be diminished along the transportation route. The air quality impact would be mitigated through the use of tarps, air quality monitoring and other operational measures to reduce dust. Furthermore, the volume of traffic would represent a degradation of the quality of life (i.e., truck traffic, noise, safety concerns, etc.) for the residents along the travel route, especially in the immediate vicinity of Riverbend. However, these conditions would be temporary and outweighed by the benefit of protecting the long-term integrity of Mountain Island Lake.

Staff reviewed the proposed encapsulation plan and determined that it posed a low environmental risk based on the available science and technical knowledge. While there would be logistical challenges, the science and technology are sufficiently advanced that these challenges could be addressed or mitigated. There were however, concerns about the composition of the coal ash. In addition to coal ash, the State stormwater permit allowed other materials to be discharged into ponds at the Riverbend Power Plant. City and County staff received some testing results, but the analysis did not encompass every possible organic or inorganic compound of concern that could potentially be found in the coal ash.

In addition, staff recognizes that should coal ash be deposited at an Airport site, that it will also have an environmental impact. Land, air, and water quality could potentially be impacted by this project in the area around the fill site. The extent and duration of the impacts will depend on the site chosen for the coal ash structural fill.

Good for the Airport

While the possibility of saving \$30 million in developing a possible fourth runway is an attractive proposition, after further consideration, the team determined that the risks of placing coal ash under a runway were unacceptably high. In addition, staff ruled out using coal ash under any area that the Airport may use for future airfield development – not just under a future runway. The Charlotte-Douglas International Airport is currently the sixth busiest airport in the U.S. The airport staff indicated that even a remote chance the encapsulation system could fail and/or require maintenance is not acceptable. The loss of use of a runway at the Airport due to a failure in the encapsulation system has several negative consequences:

- Impacts operational efficiency and capacity at the Airport,
- Impacts revenues for the Airport,
- Impacts airline partners' revenue,
- Impacts the national air traffic system,

- Impacts international air traffic,
- Impacts regional (and potentially global) economic systems,
- Impacts the estimated 20,000 daily jobs at the Airport, and
- Impacts the ability of the Airport to maintain its role as a primary hub to a major airline.

It became apparent that any realized construction cost savings would be miniscule compared to the opportunity cost due to a failure in the structural fill. This determination resulted in a negative answer to the question of “Is this good for the Airport?”

In addition, placing coal ash at the Airport presents other challenges. Because the coal ash would be fully encapsulated and topped with six to eight feet of compactable soil, the size of the encapsulation creates development restrictions. Because the Airport is bordered by a rail line and highways, developable property at the airport is limited. Restricting the future use of any portion of Airport property was deemed unacceptable and contributed to the negative determination.

Conclusion

In reviewing the Duke/Charah proposal, it is evident that the science, technical competency and engineering are sufficiently advanced to mitigate any concerns the City may have and overcome any technical obstacles to making this project as safe and environmentally sound as possible. However, staff is unable to positively answer both questions in favor of the project moving forward as currently proposed. Under a different set of circumstances, it may be possible to continue partnering with Duke Energy to facilitate the removal of coal ash from Riverbend, but that is beyond the scope of the Due Diligence review.

What follows are several attachments that provide further details into the environmental, legal, scientific, and other aspects of the project. The first is structured as a Question and Answer to provide greater detail about all aspects of the project. The second is a series of photos of Riverbend and the Airport.

Exhibit 1

Questions and Answers by Topic Area

Environment

Water Quality

Question 1: Would Charah conduct ground water monitoring?

Yes. However, the number of wells and duration of monitoring was not established.

Question 2: To what extent would Charah test for inorganics in the coal ash? (E.g., metals associated with coal ash)

Charah has indicated that it would be willing to conduct additional testing.

Question 3: To what extent would Charah test for organics in the coal ash? (E.g., other chemicals dumped into the ash ponds)

Charah has indicated that it would conduct additional testing.

Question 4: Would Charah conduct surface water monitoring prior to, during and post construction?

Charah has indicated that it would establish a water quality baseline prior to initiating the project. Periodic water quality testing and post construction testing would be conducted and compared to the established pre-construction sampling baseline data.

Question 5: What would be the duration of the monitoring program?

Charah has not indicated a duration for monitoring.

Question 6: Who would be responsible for the monitoring?

Charah would be responsible for all monitoring. Mecklenburg County Water Quality may also conduct independent regulatory sampling.

Question 7: What happens if monitoring wells are damaged or eliminated due to new construction?

Charah has not provided this information. However, the City would request that a replacement well be drilled to continue monitoring the coal ash structural fill.

Question 8: Are there any stormwater receptors or streams located within close proximity to the proposed site?

Anywhere on Airport property will have a potential impact on land and streams. There are several jurisdictional streams on Airport property.

Question 9: Are there any drinking water wells located down gradient of the proposed location?

LUESA has provided staff with a map showing well locations. There are a few wells that may need further investigation.

Question 10: Would this project have an impact on the Airport’s National Pollutant Discharge Elimination System (NPDES) permit?

If the City maintains ownership of the proposed location and coal ash is placed on the site, the proposed project would require the Airport to revise its NPDES and Stormwater Management Plan to include the coal ash project.

Air Quality

Question 11: How would dust be controlled?

Material will be excavated at Riverbend, transported and placed with a moisture content of at least 20 percent. Trucks would be covered with fastened tarps to reduce the possibility of the coal ash flying into the air during transit. At the Airport site, the City expects Duke/Charah to provide the same standard of action as in their Asheville project. In Asheville, the active cells are kept moist with water trucks. To date, the Asheville Airport project has not generated any dust complaints. This was verified by Mecklenburg County Air Quality. Charah has also indicated that it uses polymers to assist with dust control. Polymers are used to create chemical attractions of particulates resulting in increased particle size reducing likelihood of getting into the air. Polymers are typically mixed with water and applied with mechanized spray equipment.

Question 12: Would there be air monitoring? Where and at what frequency would air quality monitoring occur?

City staff hired Hart & Hickman, a local environmental consulting firm, to develop a conceptual air quality monitoring plan. Charah has indicated that it would be willing to conduct air quality monitoring at the Riverbend site and along the transportation route.

Question 13: Would clean diesel vehicles be used?

Charah has a few clean diesel vehicles, but did not indicate that it would fully use clean diesel vehicles for coal ash transport. The City of Charlotte does not currently have a clean diesel policy or program.

Question 14: What would be the reporting protocol for being alerted to air quality issues associated with the excavation, transportation and placement of coal ash?

Charah is to provide air quality monitoring. No protocol for reporting has been established. Air Quality reporting would require coordination with Mecklenburg County Air Quality.

Transportation

Question 15: How was the transportation route determined?

Staff have driven and flown by helicopter several potential routes. The safest route would have vehicles use Horseshoe Bend Beach Road, to Brookshire Boulevard (NC-16), I-485 to Wilkinson Boulevard. This route minimizes drive time through neighborhoods. Neighborhood and Business Services has created a GIS map of the route with nearby neighborhoods identified (See Exhibit 4).

Question 16: How would incident responses be handled?

The Charlotte Fire Department (Fire) and Charlotte-Mecklenburg Police Department (Police) would respond to any incident. Neither Fire nor Police feel that any additional planning is required by the City of Charlotte. Fire would notify stations in the response area of the transportation of coal ash. Since the material is non-hazardous, no specialized training or equipment is necessary. Fire recommends that Charah have an emergency response contractor on call in the event of a roadway mishap. Based on the

Fire Department's experience, road closures and lane restrictions are lengthened when a mishap occurs and the hauling firm does not have an emergency response contractor on call.

Question 17: How would the coal ash be transported from Riverbend to the Airport?

Charah would use dump trucks. It is estimated that approximately 220 round trips would be made per day Monday through Friday for the five year project life span. The use of rail was determined by Charah to be logistically non-feasible both for cost and routing reasons. The rail route would require the coal ash to switch at the old inter-modal rail yard at North Davidson Street before heading out to the Airport.

Question 18: Would operations be suspended during inclement weather conditions?

Potentially. The encapsulation operations would be run similarly to a typical construction project.

Question 19: How would dust be controlled during transportation to and from the Riverbend facility and the Airport?

Charah has agreed to use tighter fitting tarps on all of their trucks. Subcontractors would also be required to adhere to the tighter tarp policy. Vehicles would go through a truck wash station at the Riverbend facility before heading to the Airport and then once again before embarking upon the return trip from the airport. The beds of the trucks would be covered during both trips to and from the airport with tight fitting liners. Additionally, all material would be transported and placed with a moisture content of 20 percent.

Question 20: Would dust along the route be monitored?

Staff proposes air quality monitoring along the transportation route. Any complaints would be handled by Mecklenburg County who has responsibility for air quality.

Question 21: Who would be responsible for damage to the road?

NCDOT may require haul permits. Haulers pay a road use tax plus fuel taxes. The combination of these fees supports the NCDOT roadway system that allows the interstates to be used for hauling for a wide range of projects. The trucks would not be allowed to exceed the roadway weight rating.

Question 22: Would the speed of the vehicles be limited?

Vehicles would travel the posted speed.

Question 23: Who would be responsible for ash that may accumulate along the transportation route?

Charah would have an emergency response plan that would include the clean-up of any accumulated coal ash along the transportation route.

Land

Question 24: How would sediment and erosion control be handled?

Charah will design devices using the 25-year, 24-hour storm event model and further evaluate the 50 and 100-year storm event models as they look for the storm water basins to contain the 100-year storm without overflowing. Charah will also evaluate slope drains for the 50 and 100-year storms to ensure the earthen berms are not overtopped with these storm events.

Charah's design approach to the project's hydrology would consider all those conditions contained in the State's design manual including slopes, soil types, travel paths including sheet flow, shallow concentrated and concentrated flow condition; however, Charah would take conservative measures

with regard to identifying time of concentration for both pre- and post-developed conditions. Charah intends to design the erosion and sedimentation control measures in a manner that exceeds the minimum design standards.

Question 25: How would run-off from partially constructed cells be handled?

Empty graded cells that fill with rain water would be pumped to sediment basins. Sediment basins are large stilling ponds that slowly release water so that sediment particles have time to fall out of suspension in the water column and accumulate at the bottom of pond. Cells containing coal ash that fill with rain water would be pumped into the municipal sanitary sewer system. At no time would coal ash laden stormwater be diverted to a sediment basin.

Charlotte-Mecklenburg Utilities Department (CMUD) will require any water discharged to the sanitary sewer system to comply with the City's existing Sewer Use Ordinance including applying for and receiving an industrial discharge permit and meeting water quality requirement as an industrial sewer customer. CMUD may place limitation on the discharge based on volume and/or quantity to protect the sanitary sewer system from spills and/or treatment process disruption. Details of these conditions would have to be determined based on more refined construction plans from the contractor.

Question 26: How will leachate and run-off be collected during construction?

During and after rain events, cells that are being filled with coal ash would be dewatered with a pump system that would be tied directly into an active sanitary sewer system.

Question 27: How will leachate be collected and treated after fill material is sealed?

CMUD requires that the effluent meet its requirements for discharges into the sanitary sewer system. CMUD would require testing of the leachate to ensure that none of the chemical characteristics exceed regulatory thresholds. (See Exhibit 5 for a cross section of the liner system including the leachate collection system)

Question 28: What will be placed on top of the coal ash fill?

At least six feet of structural soil would be placed on top of the encapsulated coal ash fill. (See Exhibit 5)

Question 29: Will there be settling over the earthen berms between cells?

According to engineers employed by Charah, there will be minimal settling but not enough to impact the structural integrity of the system.

Question 30: Could additional waste materials cause problems with the proposed liner system?

Charah is conducting tests to determine if there are any constituents that have the potential of compromising the proposed liner material and/or system.

Question 31: What is the proximity to residences, daycare centers and schools?

No residences, schools or daycare centers are within the immediate vicinity of the Airport location. The transportation route uses Horseshoe Bend Road, Brookshire Boulevard, I-485 and Wilkinson Boulevard. There are schools and residences abutting the transit route, including a single family subdivision near Riverbend.

Science & Engineering

Question 32: Would material only come from the Riverbend Facility?

Approximately 4.7 million tons of coal ash would be moved from the Riverbend Power Plant to the Airport. No coal ash from any other Duke Energy power generation facility would be transported to the Airport.

Question 33: What wastes have been disposed of in the coal ash ponds?

Duke and Charah have indicated that only coal ash is in the ponds. However, the stormwater discharge permit for the Riverbend steam plant allows discharges into the ponds of the following:

Induced draft fan and preheater bearing cooling water, stormwater from roof drains, and paving, treated groundwater, track hopper sump (groundwater, coal pile runoff, laboratory drain and chemical makeup tanks and drums rinsate wastes, ash transport water, general plant/trailer sanitary wastewater, metal cleaning waste, chemical metal cleaning waste, combustion turbine cooling water discharges, turbine and boiler room sumps, vehicle rinse water and stormwater from pond areas and up gradient watershed.

It is possible that there are other constituent parts beyond simply coal ash in the ponds. As a result, the City staff has requested more comprehensive laboratory testing for organic and inorganic compounds.

Question 34: What impacts could other wastes have on the liner system?

Charah is conducting tests to determine if there are any constituents that have the potential of compromising the proposed liner material and/or system.

Question 35: What is coal ash?

Coal ash is the remaining residue from burning coal in a furnace for a coal fired steam power plant. Approximately 90% of the coal is incinerated with the remainder being coal ash. Of that 10%, 80% is fly ash, meaning it is light enough to leave through the smokestacks. This material, including gypsum, is collected via scrubbers and precipitators in the stacks. The remaining 20% of the ash is called bottom ash in that it is a heavier residue that falls to the bottom of the boiler.

Coal ash is not regulated as a hazardous material. In fact, chemically, coal ash is very similar to shale. Ninety percent of the coal ash is silicon, iron, aluminum and calcium. Eight percent is magnesium, potassium, sodium, titanium, and sulfur. Less than 1% are trace elements like arsenic, selenium, mercury and lead.

Question 36: What risks are associated with coal ash in a liquid and dry state?

Coal ash is the residue leftover from burning coal. Chemically, while similar to shale, the composition of coal ash can vary depending on where the coal was mined. All coal ash contains amounts of silicon dioxide and calcium oxide. Because of the presence of trace heavy metals in the coal ash, there is potential for contamination and health hazards should it leach into the ground water. The points below highlight the more significant concerns.

- In unlined coal ash ponds, trace heavy metals found in coal ash have the potential to leach and migrate through soils to ground water.
- The more porous the soil, the higher the risk of ground water contamination from unlined ponds.

- Although the concentrations of trace metals are on the low end of the toxicity scale, it is the prolonged and repeated introduction of the trace metals to ground water that over time may lead to toxic concentrations.
- Arsenic is toxic (poisonous) and dissolves in ground water. It is also found naturally occurring in minerals which can cause high naturally occurring levels in ground water or surface water.
- Mercury bio-accumulates in fish and humans and may lead to cognitive impairment.
- In high doses, selenium may be toxic and has the potential to cause a wide array of health issues.
- Depending on where the coal was mined varying levels of heavy metals may be present in the ash.
- Coal ash ponds on river banks have the potential to fail resulting in contamination of the water body.
- Coal ash pond failures have the potential to blanket the bottom substrate of a water body. This can create a desert-like landscape impacting macro-invertebrates, which in turn threatens the complete aquatic food chain within that water body until naturally occurring sediment covers the coal ash and macro-invertebrates reestablish that link of the ecosystem.
- Coal ash pond failures also threaten downstream drinking water supplies making the water more difficult to treat and producing by-products with special disposal requirements.

Question 37: Could there be any exposure issues for construction workers and inspectors?

Charah has indicated that there are no health risks associated with working in or around coal ash. Occupational Safety and Health Administration (OSHA) does not require respirators or any other type of personal protection equipment.

Question 38: Was there any research conducted on alternative liner systems?

No.

Question 39: Would a single or double liner system be used? What type of material would comprise the liner system?

Single liner system constructed with a clay bottom layer then layered with a 60 mil High-Density Polyethylene (HDPE) liner. On top of the HDPE liner is a geocomposite drainage layer. Material would be placed between the clay, HDPE and geocomposite drainage system. A 40 mil HDPE layer would cap off the encapsulation. All seams would be heat fused. (See Exhibit 5)

Question 40: What would be the cover material?

The encapsulation would be topped off with a minimum of six feet of structural soil.

Question 41: Are there Geotechnical considerations?

City staff did not conduct a geotechnical study. Geotechnical studies provide users with information about soil types, depths to bedrock and groundwater. These studies are a precursor to development and provide civil engineers with vital information that dictates design criteria. Charah has conducted a geotechnical study of a portion of airport property. Results have not been shared with City staff.

Ash Management

Question 42: Would third parties be involved in the design of the encapsulated structural fill?

No. Charah would do all the design work.

Question 43: Would third parties be allowed to monitor progress and take samples on-site?

Charah has indicated that it would hire a third party environmental quality assurance consultant to perform such tasks.

Question 44: Would third parties have access to investigate suspected problems?

Charah has indicated that it would hire a third party environmental quality assurance consultant to perform such tasks.

Question 45: Would third parties be consulted in the future when decisions are made about what will be placed over the structural fill?

Charah has indicated that City staff would be included in the design process.

Question 46: Would third parties be consulted about repairs and maintenance of the structural fill?

Yes. The details of how and who would be responsible for the contracting of third parties was not finalized.

Question 47: When would Charah begin moving coal ash?

Within six months from the notification to proceed.

Question 48: Would the material be staged at any location before final placement?

No. Material would be transported from the Riverbend site directly into encapsulated cells at the designated location at the Airport.

Question 49: Where will the waste material be placed at the Airport and what would be placed over the encapsulated coal ash?

The Airport has determined that the material would not be placed under a runway or in any area for future airfield development. An alternate location owned by the Airport is currently being considered. The material would be placed in encapsulated cells and then covered with a minimum of six feet of structural fill.

Question 50: What will be done to clean up contaminated soil under the ash ponds?

Duke Energy has indicated that it would remediate the Riverbend site. Final remediation plans have not been shared with the City of Charlotte. It is unknown if Duke Energy has finalized the remediation plans.

Question 51: What will be done to clean up contaminated water under the ash ponds?

Duke Energy has indicated that it would remediate the Riverbend site. Final remediation plans have not been shared with the City of Charlotte. It is unknown if Duke Energy has finalized the remediation plans.

Legal

Question 52: What would be the City of Charlotte's future legal exposure?

If the City continues to own the land where encapsulated coal ash is used as structural fill, the City remains liable under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA).

Question 53: What Federal, State and Local Permits would be required?

Duke/Charah would be responsible for NPDES, stormwater, erosion control, Army Corps of Engineers and NC Division of Water Quality stream and wetland impact permits and other applicable permits with the communication with the City regarding the same.

Question 54: Would there need to be any Environmental Protection Agency (EPA) or NC Department of Environment and Natural Resources (NCDENR) coordination?

Charah/Duke would be responsible for coordination and compliance with EPA and DENR. In addition, Charah/Duke would also communicate with the City regarding the same.

Question 55: Would there need to be any Federal Aviation Administration (FAA) coordination required?

Airport staff has been consulting with the FAA and plan on continuing do so should the project move forward.

Question 56: What is the role of NCDENR?

NCDENR regulates coal ash ponds and has a permitting system for the use of coal ash as a structural fill. Duke Energy has an existing National Pollution Discharge Elimination System (NPDES) permit issued and monitored by NCDENR for discharge of water from existing coal ash ponds.

Question 57: What role do State or Federal legislation and/or rulemaking have on the proposed project?

The State of North Carolina currently has a coal ash bill proposed in the legislature. It is not known when the bill will be finalized. The Federal EPA expects to have finalized their coal ash rulemaking in December 2014. Both proposed regulations result in changes in uses for coal ash as structural fill.

Question 58: How would indemnification be handled?

City would require that a contract contain joint and several indemnity obligations on the part of Duke Energy and Charah to defend and hold harmless the City and its elected officials, employees, agents etc.

Question 59: What would be the contract terms if this project was to go forward?

The City would require that a contract provide a definition of coal ash to include all material brought to the fill site, joint and perpetual ownership of coal ash by Duke Energy/Charah, warranties that coal ash does not include hazardous materials, and required testing of coal ash contents.

Question 60: Would there be insurance and long term liability?

Insurance and long term liability will be the responsibility of Duke Energy/Charah.

Question 61: What are the environmental justice issues?

City staff will conduct community meetings to better understand neighborhood concerns should this project proceed.

Question 62: Would the encapsulated area be recorded at the Register of Deeds?

Coal ash location would be recorded on the deed with deed restrictions.

Question 63: Would permanent records be kept of the exact location of the waste cells? (As-built drawings)

A survey with as-built drawings would be required and would be recorded with the Mecklenburg County Register of Deeds.

Question 64: How would the City prevent future damage to the landfill from new construction and grading activities?

Deed restrictions pertaining to the depth of excavations would be recorded on the deed.

Question 65: Would there be deed restrictions to limit future uses of the property?

Deed restrictions pertaining to the depth of excavations would be recorded on the deed.

Question 66: Who would be responsible for leachate collection system, berms, cover, monitoring wells, damage to cells or liner system?

This would be addressed in a legal agreement between Duke Energy, Charah and the City of Charlotte.

Question 67: If structural problems arise in the fill area, who would be responsible for making repairs that continue to protect the public and the environment?

This would be addressed in a legal agreement between Duke Energy, Charah and the City of Charlotte.

Question 68: If allegations of ground water, surface water, or other problems arise in 2040, who would be responsible?

This would be addressed in a legal agreement between Duke Energy, Charah and the City of Charlotte.

Question 69: Would bonds be posted, insurance posted or other methods of long term financial assurance be designed to assure that responsible parties have the financial ability to address problems in the future?

Charah has not provided this information.

Public Safety

Question 70: How would emergency response be handled?

Fire and Police Departments would respond to any incident. Neither Fire nor Police feel that any additional planning is required by the City of Charlotte. Fire would notify stations in the response area of the transportation of coal ash. Since the material is non-hazardous, no specialized training or equipment is necessary. Charah has stated that it would have a contractor on retainer to handle any coal ash spills should they occur.

Community Outreach

Question 72: Has the City planned to do any public outreach?

One town hall meeting has been conducted at the Westside Service Center. Other locations are currently being scheduled. Public outreach will be conducted jointly with Duke Energy, Charah, the Catawba River Keeper and the City of Charlotte should this project continue.

Economic

Question 73: What is the benefit of removing the coal ash from the Riverbend facility?

Coal Ash would be removed from the banks of the Catawba River. Removing the coal ash ponds would eliminate a potential threat to Charlotte's drinking water and to the integrity and water quality of Mountain Island Lake. The Riverbend facility is located three miles upstream from a drinking water intake for the City of Charlotte.

Question 74: Cost savings?

No cost savings were determined once the coal ash encapsulation under the proposed fourth runway option was ruled out.

Question 75: Would moving the coal ash result in job creation?

Charah estimates this project would create 100 jobs during the life of the project.

Question 76: Would the City of Charlotte be compensated for costs incurred as part of the due diligence study?

Charah has agreed to pay for staff time and outside resources.

Exhibit 2



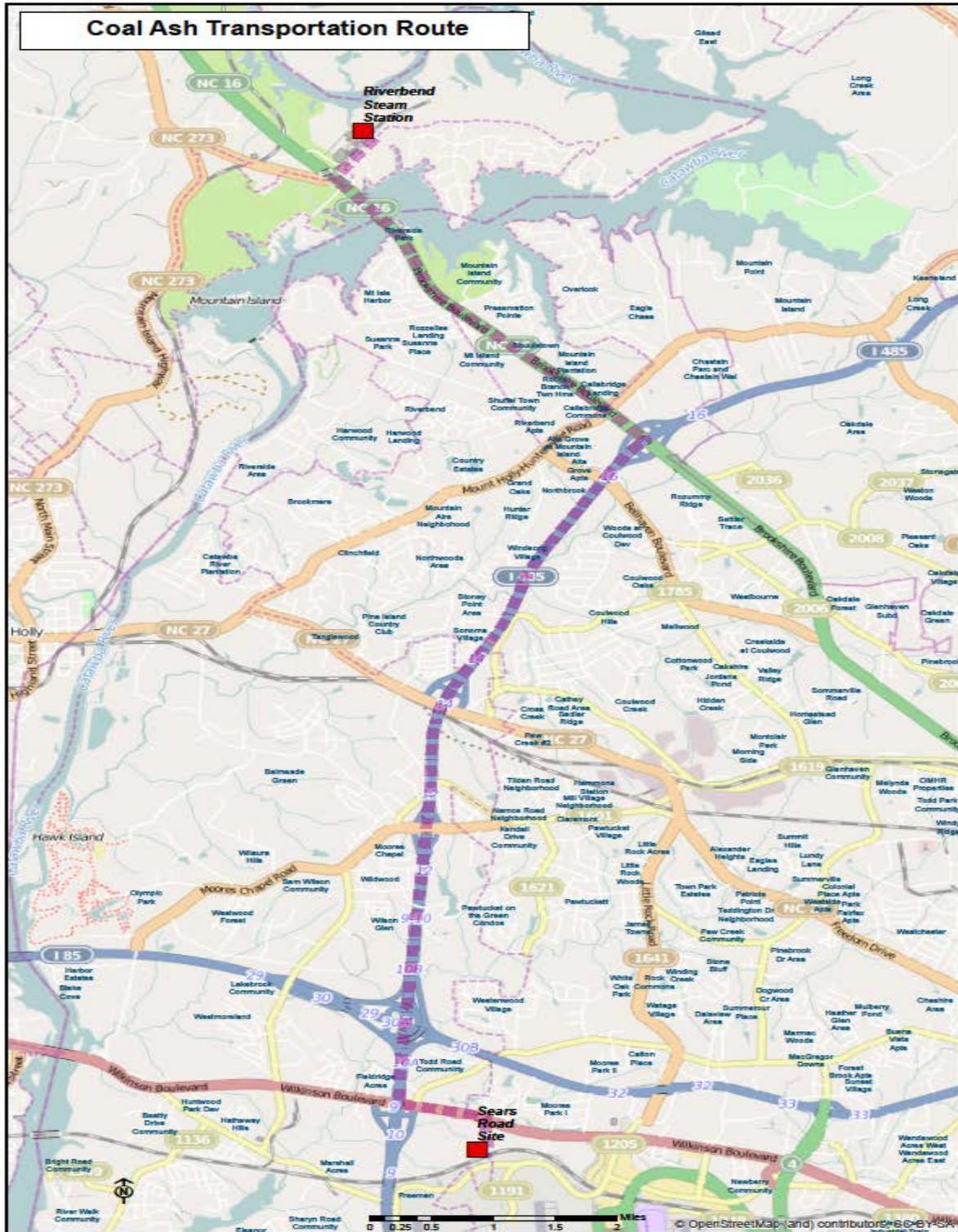
Riverbend Coal Ash Ponds

Exhibit 3



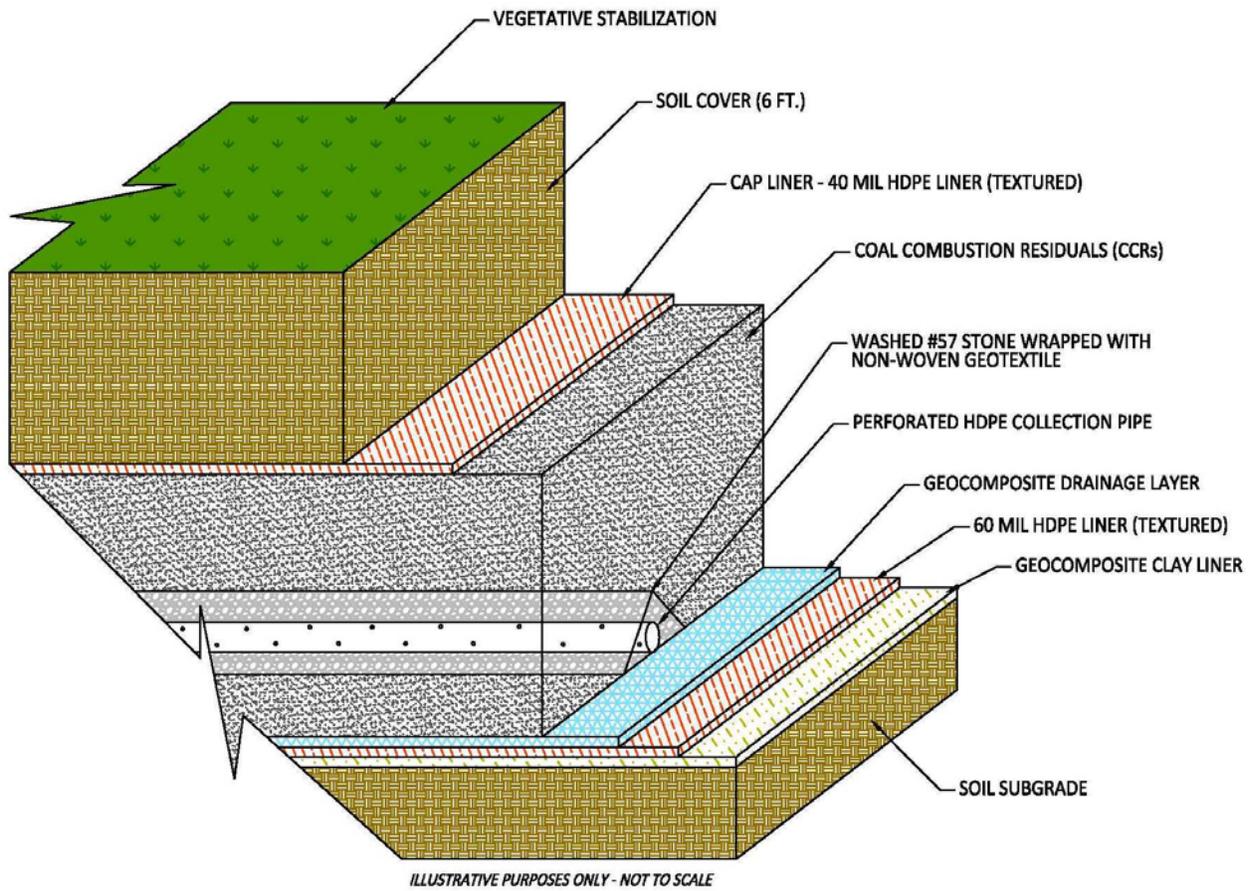
Charlotte-Douglas International Airport

Exhibit 4



Possible Transportation Route from Riverbend to Airport

Exhibit 5



Fully-Lined Engineered Structural Fill