

NDRC NOFA-Specific Webinar: Q and A on Benefit Cost Analysis
Webinar Transcript
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Patrick: This webinar is made possible by Community Planning and Development and with that, we will turn it over to our presenters.

Duncan: Okay, good afternoon and welcome to the National Disaster Resilience Competition, Benefit Cost Analysis Q&A. This is the, I believe, the fourth webinar that we have had devoted to this topic and so we welcome your participation today. I'm joined today - first of all, my name is Duncan Yetman. I am in the Office of Block Grant Assistance here at HUD. I am joined today by Sara Jensen who is with the HUD Office of Environment and Energy, and also by our expert advisors from FEMA and from USDOT. Jody Springer in the FEMA Benefit Cost Analysis and Grants Data Analysis and Tools Division and Ryan Endorf from the Office of Economic and Strategic Analysis at DOT. Then, I am also joined by our other NDRC members who you may hear from in the Q&A portion today. I do want to make mention that our folks who are regular participants in this webinar may remember Jody and Ryan from our BCA Webinar titled, "Data Sources and Expert Tips" and we are very pleased to have them joining us here on today's call.

So, our agenda for today is fairly simple. We are going to be providing a benefit cost analysis overview, go through the nature of programmatic BCA's and then taking your questions. Again, your questions are provided in the chat box. If there is something that is lengthy that exceeds that character limit, please don't hesitate to raise your hand. We will be dealing with written questions first if possible and then we can deal with verbal questions maybe of a more complex nature towards the end of the webinar.

So, just want to review the NDRC timeline with you again. We are a little more than a month to the application deadline of October 27 and we are really looking forward to receiving your applications and with that, I am going to turn it over to Sara Jensen who will lead us through the remaining slides.

Sara: Thanks so much Duncan and hello everybody. Let me take control, there we go. Today is our second live BCA Webinar. We hope that you have had a chance to review our other BCA materials, but just in case I wanted to let you know that we have also recorded and posted an overview of the Appendix H BCA requirements and the webinar on Data Resources and Expert Tips with Jody and Ryan that Duncan just mentioned. And we also have been posting Frequently Asked Questions and there are a number of BCA questions asked and answered through that venue so that's a very valuable resource.

Please note that as always, if anything we say conflicts or appears to conflict with the NOFA, the NOFA prevails. Here is just a quick reminder of the basics of a benefit cost analysis, and here is a short overview of HUD's BCA policy. For covered projects, your analysis has to show that benefits are demonstrated by the evidence submitted to justify the cost. HUD specifically wants BCAs for this program to include economic revitalization and other social and community benefits. We also recognize that cost benefit analysis is difficult for community development objectives and we allow, and in fact encourage, you to include up to three pages summarizing benefits and costs that are difficult to monetize.

Let's spend a minute on the definitions of project and covered project. The unit of analysis for a BCA is the project, not the activity. The NOFA defines the project as an activity or group of

integrally related activities designed to accomplish one or more specific community development objectives in whole or in part. A covered project is a major infrastructure project where two or more related infrastructure projects having a total cost of 50 million, including at least 10 million of CDBG-DR or CDBG-NDR funds.

For example, if you are proposing one infrastructure project that has five million in CDBG-NDR and costs 40 million total, and a related infrastructure project that has five million in CDBG-DR and cost ten million dollars total, together they would meet the covered project threshold and would both need a BCA. We also want to make sure you note that you must include in your BCA any activities that you are counting as long-term commitment.

For Phase 2 applications, HUD has asked applicants to identify phasing or scalability in its proposal. In order to show that a scaled or single phase of a project has independent utility, you must perform a BCA on each component or phase. So, just again as a review, HUD will accept an existing BCA that has been accepted by the Army Corps, FEMA, or DOT provided that it meets these four criteria on the slide in Appendix H. Your BCA also must be run with a 7% OMB rate and using the basic assumptions from Appendix H. Other agencies have different assumptions so make sure to update your calculations before submitting them. Please also note that HUD will not have access to the models or software used by the other agencies, so you will have to provide enough information to allow us to interpret and understand your results.

Here is an overview of the three components of your BCA submission: the BCA calculation itself, a narrative description including a required table of benefits and costs, and a three-page summary of benefits and costs that are difficult to monetize. There are no page limits for the BCA calculation or the narrative description, although we do ask that the BCA calculation be in one Excel or Word table and much preferably Excel. There is a three-page limit to your summary of benefits or costs that are difficult to quantify, and please note that although there is no overall page limit, there is a size limit to grants.gov submissions and keep this in mind especially with respect to submitting data to support modeling or other elements of your BCA.

This is a quick reminder of the costs and values that must be considered in the required narrative table and by extension in your BCA calculation and we give examples to consider for each category in Appendix H. Here's the slide. These are the categories that must be considered. The categories highlighted blue are those that all projects, whether they meet the covered definition or not, must track under Phase 2, Factor 3.

Okay, programmatic BCAs: this is an update for the Phase 2 NOFA, Appendix H had an update and it allows programmatic BCAs. This language here applies to applicants considering asking for money from HUD to run a mini-evaluation and then make project specific selections at a later date. If you are considering this approach, HUD strongly cautions you about timing, since this money has to be obligated and spent in very tight statutory timelines. However, we have outlined an approach to the BCA for these cases where you won't yet know the specific project and again, this language is in the updated Appendix H. Your overall BCA must be as complete as possible following Appendix H. The applicant has to make the case that the program benefits will be demonstrated by the evidence submitted to justify the cost for the program as a whole and for each selected project. Use as much data as possible in your programmatic review. For any questions that can't be completed or have a high uncertainty because you do not yet know the specific project, the BCA must describe a method for distributing funds including specific criteria and how the applicant will make spending decisions and how it will gather the missing or uncertain elements. HUD will require project-specific BCAs post award and these must also demonstrate that benefits justify the cost. Note that with this approach, if the total program meets the covered project definition, it triggers a BCA for each component, even if individual projects are below the threshold.

I mentioned the HUD assumptions for the BCA earlier and here they are. The last bullet is the value of statistical life, which is how you value the avoidance of injury or death as a benefit. This table is updated for Phase 2. I want to make sure, here are the numbers and these come from FEMA, and I want to make sure that you are working with the latest numbers.

Here are some links to some helpful resources and you can find the webinars that Duncan and I mentioned earlier at the bottom of this link. I would now like to turn this back to Duncan, who will open the floor for your questions.

Duncan: Okay, so we are ready to take any questions that you may have. We see that there are quite a few people on the call so whenever you are ready to ask go right ahead; we're open to taking your questions.

Okay, our first question, "Can the applicant provide links to BCA data and calculations order to deal with the application size limit?" In order to deal with the application size limit, yeah I mean I think what you are getting at is yeah can use that ...

Jessie: This is Jessie. Within the BCA, can you provide links to data? The answer yes, it is not our preferred method but we will follow any links that you give us to your reputable data sources. It's similarly to what we said for the MID-URN even though we did not put that in the NOFA but we are accepting that in the BCA because we have become aware of the size constraints on grants.gov could possibly be an issue.

Duncan: Okay, any other questions?

T.J.: Duncan, this is T.J. Winfield, I just received a question that I think only came in to me so I will read that out for you. It says, "Based on the NOFA, it appears that operations and maintenance could be included as a line item in the Budget and Sources and Uses Statement and clearly identify how operations and maintenance will be funded from non-CDBG-NDR sources," can you confirm?

Jessie: That is what the NOFA says, operations with maintenance of strictly public investments is not eligible for CDBG, and we want to make sure that we are going to be making a sound investment so we would like to know how you are going to maintain anything we build. But, I believe that the question is almost literally quoting the NOFA.

Duncan: We have another question here. "For projects and programs that have multiple phases and need covered project definitions, the BCA's have to be completed for each individual phase or can it be combined to come up with long-term benefits for all phases?"

Jessie: Sara, do you want to tackle that?

Sara: Sure. I would say the answer would be you need to do both. So, you need to have a BCA for your full project and then head out to present this as phases or if it can be scaled, and so those phases or scaled units also need to have a BCA showing that the benefits outweigh the costs.

Duncan: Okay.

Jessie: Would our experts from other agencies want to weigh in on how they see this? I am not sure they ever fund programs versus projects but they have been following along as we have adapted our policies versus our applicants want to take. Jody or Ryan, I think my brain has gone blank.

Jody: This is Jody; I will talk about what we do within FEMA at least. Some of our projects are actually phased where we have phase I, phase II, phase III, and so on and so forth and what is typically done in this case is we do a benefit cost analysis for each phase of those projects. Sometimes phase I will result in data collection, which can be used to better improve the benefit cost analysis for phase II and III. So, we do have benefit cost analysis required for each phases and then we do in some cases have to roll those up to an overall project benefit cost analysis. So, similar to what Sara mentioned, yes, you probably do want to do analysis for each of the phases and then roll it up to a total project benefit cost analysis.

Ryan: This is Ryan Endorf from USDOT. I agree with Jody and Sara. This is particularly helpful if you have specific individual phases independent usually to show individual calculations for those but then also to have an overall analysis for the entire project of all the phases.

Jessie: Okay, it looks like questions are starting to roll in.

Duncan: Okay, so here is the next question. "Can the three pages addressing the qualitative things, can the three pages also address benefits associated with cost that are difficult to monetize?"

Sara: This is Sara, absolutely. This is the place to tell us the benefits that you may not be able to quantify or monetize. So absolutely, you should include both benefit and costs in the three-page supplement.

Duncan: Okay.

Jessie: It is almost like an elevator speech with as much facts and figures as you can have, but this is where you explain to us why this is a good thing. You know you are going to have to think through logically what is the best way to justify what you want to do.

Duncan: Good, thank you. Next question, "Does a pilot project need to use the programmatic BCA or can a project BCA be used if subsequent projects are unknown?"

Jessie: Try that again.

Duncan: A pilot project. I would think you would have to use a programmatic BCA with as...

Jessie: If I understand the question, you are going to do a pilot that you know, and apply also for other projects to be named later, but you have to have some outcomes that you are telling us about so they will be related projects and you are going to need to show us a program level BCA. That is going to be really tough if you do not know what they are at all. But as much of the program you can know. We have time limits that are pretty extreme on this money for infrastructure projects, so the most that can be known at the time of application. I know that the political decisions are really brutally difficult in some of these states, who gets included in the application or who doesn't, but HUD's not going to make those decisions for you so kicking the can down the road may not help you in the competition. You may need to make the decisions now.

Duncan: Okay, the next question, "Based on the NOFA, it appears that operations and maintenance should be included as a line item..."

Jessie: We answered that one.

Duncan: Okay. Yeah, I thought we did. All right, next one, "Do the Sources and Uses Statement and Budget need to be similar to the BCA and show cause by each year of the project timeline?"

Jessie: Sources and uses statement isn't the same as the pro forma which shows you over time - sources and uses, is just sources versus uses. If you want to add some time elements, you can but that is not the way we laid it out.

Duncan: Yep, okay.

Jessie: I mean, we should be able to identify and tell it through the same proposal and not be looking at one going, wait are they proposing the same thing? The BCA will do some matching between the BCA and the factor narratives and the stuff required there to make sure we are talking about the same proposal. But that is just because I am paranoid. Do you have other questions?

Duncan: Okay, yes we do. There is a question here about links, so I am assuming it is the links on the previous line.

Sara: Yeah I can answer that. This is Sara. On the HUD Exchange there are all the Webinars - the first two plus the previous live Q&A and this live Q&A will all be posted with the slides. So, you can go there and get the links and in particular there are a lot of links in the Webinar that we did with Jody and Ryan called, "Expert Tips and Data Sources," so that is where you can find those links.

Duncan: Good, thank you. The next question, "It is understood that for all projects, regardless of a covered project greater than ten million, we need to provide at least one metric for the resilience value, environmental value, social value, and economic revitalization. Are these included in the BCA narrative?"

Jessie: Sara?

Sara: Let me answer part of it and I might hand it back to you Jessie. If you have a covered project then yes, this would be covered in the BCA narrative. If it is not a covered project, my understanding is that you would cover this in one of the factors.

Jessie: Yes, that is correct. Even you do have a covered project you might want to read the prompts pretty carefully on soundness of approach, and give us an idea of the value of your project. Because, remember, the BCA review and the factor scoring are going to be done by separate groups of people here. They are not going to meet back together until the end.

Duncan: Okay, good. Next question, "Are BCAs required for projects or programs that do not meet the covered project threshold?"

Jessie: No.

Duncan: No.

Jessie: Not by HUD. If you are doing matching to FEMA project that has a BCA, I mean that may inform the values that you tell us. But we are not requiring it unless you hit the covered project threshold.

Duncan: Okay, here is the next question. "You are speaking as if we have time to incorporate the recommendations you are providing today. Is not the BCA Report and Analysis due by close of business today?"

Jessie: There is nothing due at HUD until October 27. I am not sure what this question is alluding to.

Duncan; Participation in 15 days?

Jessie: I do not know.

Duncan: Yeah.

Jessie: That must be an internal deadline to your applicant or your grantee. I am not sure what that is but your deadline to us is October 27. You have to go out for public comment for at least 15 days and so I do not know what internal schedules you are running on. I know they are coming down to crunch time, the applicants.

Duncan: Yep, perhaps if you can let us know what you're getting at there and revise your question that would be helpful to us.

Jessie: And for what it is worth, I mean you are in crunch time. I am really not saying anything that is not in the NOFA or in one of the previous Webinars. I am being fairly careful about that. They may not have been in the BCA Webinars but I am not saying new things, because I know that that would throw a monkey wrench into the works. Follow the prompts in the NOFA. The NOFA trumps no matter what we say and you will be fine.

Duncan: Okay. The next question is a continuation of an earlier question.

Jessie: Well, what does it say?

Duncan: Well it says continued "Would you like this in the BCA narrative document or do you want it in the requested BCA Excel table?"

Jessie: Are they talking about the values if continued from the values question?

Duncan: That could be it. Yeah, the values. Yes, I am sorry. Yes it was.

Jessie: The BCA Excel table is where the values go isn't it?

Sara: Yes, that is the required table. It is category six in the narrative document, so that would go there but you would also pull those values into your calculation. So, it would be in both places but the fuller explanation in Table 6 is in the narrative document.

Jessie: Okay.

Duncan: Okay, thanks. Next question, "Can you go through what types of costs go into the various categories for the analysis, i.e. resiliency, environmental, community development and economic revitalization, or social. I can see where some cost in values could go into similar categories?"

Sara: Yeah, I will take that one. We actually give lots of examples in Appendix H, so if you haven't taken a look at that there is a lot of detail in Appendix H itself. Also, in the first pre-recorded

webinar, the overview we give a number of examples and actually even work up a table, an example table to show you what this might look like. And having said that, use your judgment where it falls, and as long as you are making a persuasive case there shouldn't be an issue if something goes into social instead of community development but there is lots of guidance out there that can help you.

Duncan: Okay, thanks.

Jessie: Do we have anything from our experts? Any other thoughts on that, what happens in practice in your program? We set up four different categories but you have your own in how you look at things. I mean the sort of buckets people put costs in to. Does it vary by project type or community?

Jody: Hi, this is Jody.

Ryan: This is Ryan from USDOT. So most of the projects that we are looking at are capital projects - infrastructure mostly so repairing a bridge, that type of thing, a lot of our costs are upfront in the sense that it is building a bridge or redesigning a grade separating a railroad. Some of the costs we will have over time are mostly just the maintenance cost. Some applicants will also claim costs relating to construction, so for example, construction might create a travel time delay so there might be a cost for a couple of years while construction is going on associated with that. So kind of by category is generally how we see it at DOT.

Jessie: Jody you were going to jump in too.

Jody: Yeah, you know what the cost and benefits are going to vary by project and what you are actually analyzing for example here in mitigation, we try to keep cost separate from everything else in talking. But sometimes there can be, you know, bleed over. So when we are looking at cost, we are mostly looking at the cost to implement a project and any ancillary costs that are related to that project and being able to maintain that project, because sometimes there is some maintenance costs associated with doing projects. When we are looking at the benefit side of the equation, there are some benefits and in the question it's talking about you know ecosystem service benefits and we have resilience benefits. But, we also have benefits, which are costs as well. It is not the cost to do the project but it is avoided costs that result in a project being completed. For example, if I am doing a project and say for example I am getting flooded every year and I see ten thousand dollars worth of cost every year due to this flooding, I can actually turn around and claim that cost due to flooding as a benefit - if my project will eliminate those in the future. So, there can be some overlap in terms of what is a cost. For the example, though when you are doing a grant, you definitely want your cost spelled out. How much is it going to cost to do this project, total cost, typically and then you want to be able to clearly specify what your benefits are and if it is an avoided damage or future costs then you can turn around and claim it as a benefit.

Jessie: Okay.

Duncan: Okay, thank you. The next question, "How do you determine how to allocate your benefits across the years on the BCA worksheet?"

Sara: Duncan, could you read the next question too because I think we might be able to answer these together.

Duncan: All right, very good yeah and then another cost value question is related to my question above, "Do these cost values need to be projected out year by year of the project life or are they a one-time input?"

Sara: So, I will take a stab and then I would love to hear Jody and Ryan how you handle this. It really depends on what is the cost and what is the benefit how you will handle it. So, if we are talking about cost, there may be an upfront capital cost that happens in the first and second year then that is where you would put them in your calculation. There may be operation and maintenance costs every year for 20 years and so you would put that out 20 years and discount all the dollar values back to present dollar value. The same thing for benefits. It may be the case that the benefits won't show up for a number of years, and in fact there may be - if you are doing a project that will for example lead to a nice park where people can recreate - it may be that during the first five years there is actually a cost there because people cannot recreate during construction but then starting in year five you will start being able to count benefits and recreation. So, it really depends on what your project is and you will have to make the call for each of your cost and benefits. Jody and Ryan, I am curious of your thoughts.

Jessie: Somebody is still on mute.

Ryan: I would say that benefits it is important to go year by year with benefits, because otherwise if you just present a one time upfront sum, they probably will not discount them appropriately because a benefit today is worth more than a benefit in the future. I think that's what I am trying to say I think. So, it is important to go year by year both for the cost and also for the benefits.

Jody: Yeah, in terms of from the FEMA perspective, it is very much in agreement with what Sara and Ryan have said. You definitely want to be able to demonstrate what your benefits are throughout the life of a project. As Sara mentioned, some projects say for example, we are replanting after a wildfire, you are actually not going to see those benefits come in greatly until a couple of years after the project starts generally speaking so it would be best to model or demonstrate how your benefits or how you expect your benefits to accrue during the life of the project. As Ryan mentioned, yeah you definitely got to make sure you are going to discount those benefits correctly. If you lump sum all your benefits for a 30-year project life and the first year of a project you are not exactly discounting those benefits correctly, which could raise some red flags that it will not be.

Jessie: Yeah and I want to raise a quick point too, and that is you know the "when is a wall not a wall" question that the designers keep asking us. You are not only designing, say if you are going to be putting in a flood wall of some kind, you are not just designing it for that extreme day at some point in the future. You are trying to design it so that you do get benefits as soon as it is constructed, and maybe even local jobs while it is being constructed, because you want to have that stream of benefit. So that maybe it is providing you ecosystem services, you know cleaning some water for you or keeping water from running into your water and sewer so that you do not have to upgrade your water and sewer, or you are getting a park out of the space or something else. You need to think about all the benefits you get and design to maximize benefits. That is what this effort is trying to drive you toward, so that you are not just building a wall; you are building a wall that is something else, too. So, that is what we are trying to get you to start thinking about, how do you get a stream of benefits and not just the one that so far in the out years that is hard to measure and account for to the investment.

Duncan: Okay, all right good. Just as a follow up to an earlier question, the questioner notes that the many applicants are currently preparing BCAs in order to meet the October deadline which

is what we discussed, and also you know what we discussed as well was that you know the recommendations and the guidance that we are providing today is really just reiterating everything that we have been saying about BCAs from the beginning of Phase 2. So, there is really nothing new here. Okay, going on to the next question here, "For submissions with multiple, multi-stage projects, how should we structure the BCA report?"

Sara: That is difficult to, oh go ahead Jessie.

Jessie: I was just trying to repeat the question because multiple multi-stage progress, you mean that they are doing both phasing and scaling, scoping. So go ahead.

Sara: Well, I was just going to say that, that is difficult to answer beyond what we say in the NOFA and what we have said on the call earlier is that you should do a BCA for the full project and then a BCA to show an independent utility of each phase or stage, and beyond that I am not quite sure. Maybe you could send that in a follow up with more detail?

Jessie: Yeah, each covered project would have a BCA. So, the question is assuming there is one BCA report, that may not be true with your multiple multi-stage projects, and they are known, you may have more than one BCA coming in with your submission in the same attachment. But, you know more than one BCA so that is possible. It has always been possible. We are actually assuming that is going to happen for some of you and trying to staff for it.

Ryan: With DOT, when we get projects that come in with multiple components to a project often times they will have multiple tabs within the spreadsheet that they send us in the Excel file, so one tab will be for the overall project and then separate tabs for each of the individual components. I am not sure if that answers your question but I know that's common for some of our grantees or applicants for our grant program.

Jessie: You can definitely see where the different stages of a single project would be using some of the same data sources and stuff like that. You do not have to keep resubmitting you know multiple copies of the same data or stuff like that. Where you can, we will follow what you tell us. Remember, we just have to be able to replicate your calculation and you know come to an understanding of certainty that the benefits and the costs that you are saying are part of the project are actually part of the project. We are going to be grading you on certainty, which is what we have told you before. How certain are we after reading your submission.

Sara: Also, this might be a good time to bring up that the NOFA says that you can submit additional data to clarify your submission. So, if you do have a complicated project and you make a determination of how to structure it, you could submit some explanatory pages.

Jessie: Sara, you actually lost me on that one.

Sara: There is the NOFA statement about how you can submit supplemental pages about explaining how you monetize or quantify costs and benefits.

Jessie: Within the BCA itself though.

Sara: Yeah.

Jessie: Okay.

Duncan: Okay.

Jessie: That is not part of the qualitative narrative is what she is trying to say.

Sara: Thank you, right.

Duncan: All right. I am going to skip over a question here because I think we answered this by discussion on this last question. So, the person is confirming that we can easily summarize you know we basically have told them how to structure the description of each project or each stage for that multi-stage, multiple multi-stage project, right. The question was, you know, we can easily summarize the benefits and costs in the summary table, some of what Ryan was speaking of, but they wanted to know how they should structure the description of each project or stage. I think we have covered that basically in the answer that we just gave.

Jessie: Think of them as essentially, you know, separate BCAs to the extent that repeating material you gave us for the overall project as reference us back to the submission for the overall project but what I expect and we said this in the early webinars is that, if you are building up to the benefits and costs for the overall project, maybe for the overall project, you have greater certainty if it all happened that benefits will occur and maybe your certainty drops off, if you only go partially through or something like that. We would expect you to acknowledge that there are going to be effects of not doing all of it.

Duncan: So, the questioner has provided kind of an example of how they would organize it. Narrative overview with the summary, BCA figures for all projects and phases, then a BCA Project A Phase I, BCA Project A Phase II, then BCA Project B Phase I, etc.

Jessie: Sara?

Sara: That sounds reasonable.

Jessie: If the narrative holds up, the narrative overview holds up for all of them. I mean you might have to have, you know, some small amount of narrative with each BCA. I am just making sure that I am not saying that there is only just the one that the narrative overview is all the narrative you will need. The BCA to me includes all the components. But in general, that general structure, that branching is what we expect to see if you are going to be showing us scaling and scoping in a BCA.

Duncan: Okay.

Sara: Yeah and actually, it could be to your advantage to have an individual narrative statement and individual three-page supplement for costs and benefits that are difficult to quantify. Those three pages could go with each phase.

Duncan: Okay, next question. "How many years should be covered for operations and maintenance in the budget and/or sources and uses statement? It is not clear how many years need to be covered for each project other than levees."

Sara: In the NOFA in the Appendix H, we say that is it up to you - part of your BCA analysis is determining the useful life of your project, so you make that determination and your BCA must cover the useful life of your project. I believe that FEMA and DOT have some helpful guidance on how to make some of these determinations if Jody or Ryan you would like to speak to that.

Ryan: This is Ryan. Our guidance uses 20 years or the useful life of the project if it is under 20 years.

Jody: Yes, this is Jody at FEMA. Basically, when you are using our benefits and costs analysis tool, this is going to include the maintenance cost throughout the project useful life. There are some cases where no maintenance is required as well, so you have to keep that in mind. For example, if I am looking at replanting, reforestation for whatever reason, you are definitely going to have more maintenance cost earlier on and by the time you hit maybe ten or 15 years later maintenance is minimal at that point, so, again as Sara mentioned it is really going to be dependent upon the project.

Duncan: Okay, thank you. Next question, "What approach do you suggest for programs or for projects for which the scopes are dependent on the outcome of ongoing studies? We know what we want to do - tree planting or solar panels - but do not have exact locations or sizes."

Jessie: That is going to be tough for soundness too. I am going to take the first swing and then I will let Sara try to deal with this also from the BCA perspective. But, the only thing I can really tell you I think without going outside the NOFA, which I am really not allowed to do, is to use the information that you have as well as you can. Tell us that the ongoing studies are happening and the timeframe when they will occur. I know that this happens in some FEMA mitigation projects. I assume that our experts are going to weigh in - that the first phase is sometime the information gathering phase and you may have to treat it that way that you are in an information gathering phase, but this sort of thing of course is going to make anybody who worries about the schedule like I do nervous. You are going to have to show us what the benefits in the information-gathering phase are and the costs and then the project beyond them, and as much as you can possibly know about scaling and scoping but you are going to have to treat it like a program I would say and tell us how you are going to ensure that the benefits are worth the costs when the time comes to scope out what you are actually going to do and pick the location. Sara, do you want to add on to that at all?

Sara: The only thing maybe I could add would be the discussion of sensitivity analysis. So, if you have a pretty good idea but you do not know exactly, you could capture that by determining the level of uncertainty and then running a sensitivity analysis and presenting that.

Jessie: It definitely increases the uncertainty, but you knew that or you would not have asked the question. Jody or Ryan do you have anything to throw in on this?

Ryan: This is Ryan. I would probably estimate the high end of the maximum that you are considering doing if you know what that is, because that would be the most conservative in terms of, it is planting trees, right? Estimate perhaps or assume that whatever the maximum number of trees that you conceivably plant and work off of that because perhaps it comes out better. You could do a range as well as Sara said, it's kind of like sensitivity analysis.

Jessie: Okay, what have we got next?

Duncan: Okay, all right, very good. Next question is "For long-term benefits such as reforestation after a forest fire is it best to use 7% or 3% and how many years is optimum?"

Jessie: This is Jessie. You must use 7% base. It is your choice if you use a different interest rate and you are going to have to justify it to us. We give links to information about green infrastructure and why you would want to use a lower interest rate, but we have an agreement with OMB that we will require the 7% interest rate at minimum and so that is what Appendix H requires. Sara, I know we have answered that question consistently the same way, have we added anything to that. Is that the standard answer?

Sara: Yeah, and I would just say how many years is optimum that is again, you are defining that by the useful life of your project.

Duncan: Okay, good thank you. Okay, next question. "I know with a Hazard Mitigation Grant Program (HMGP) BCA analysis for a fire mitigation project, we provided fire suppression costs that our county incurred for fighting fires over a time period. Do we provide the cost for flood recovery somewhere in our analysis of cost values?"

Jessie: Sara?

Sara: That is hard to answer without knowing the timing in general and I think Jody maybe could speak to this but certainly you can count the avoided cost of flood recovery as a benefit. As far as counting the cost of your declared disaster, your qualifying disaster, Jessie maybe you could take that one and then maybe Jody could comment.

Jessie: No, it has got to happen after the point that we give the award, right, otherwise you know, but they could use what happened in the past as a way of estimating what it would cost in the future but they cannot include their past cost.

Sara: Yeah, that would be my thinking too. Jody, can you talk about that and how FEMA handles that?

Jody: Oh yeah, this is a good one. Boy, this has been the bane of my existence for the past week. Needless to say with all the forest fires going on out there and I have been working with policy on the benefit cost side of wildfire both pre-event and post-event. Pre-event when you are doing wildfire projects. What you are looking at is what are the benefits of this stand of forest not burning. You are looking at not having to deploy you know millions of dollars worth of firefighting assets and planes per day. You are looking at being able to save a forest and I will tell you that there are ecosystem service benefits associated with that forest being in place. You are also looking at any structures in the area not burning, so you are able to count values of homes being saved. You are looking at infrastructure, such as your power lines and your roads, asphalt melts when it gets really hot so those roads will have to be repaved. One of the things I know FEMA is researching on and we are pretty early onto it and nothing is going to be released probably for another few weeks, is what we have found from Colorado is Colorado had wildfires a few years ago. Then all of the sudden they had a flood and the flood was the worst thing they ever saw. It is attributed to the loss of ground cover and the forest, which will accelerate flooding issues, so I would say if I was looking at justifying a wildfire mitigation project or a post wildfire mitigation project, I would be talking about ecosystem service benefits. What is the value of the forest being there? I would also be describing the increase in the flooding hazard due to the loss of absorption of the forest, and you are looking at increased velocities and increased depth due to the forest not being there. Those are not going to be easy to quantify and I know myself I am working on trying to figure out a way to do it as well, but those are two of the big things now that the flood is being accelerated by wildfires.

Jessie: Hydrophobic burn scars is one of the terms I learned as a result of the competition. Hydrophobic burn scars, when the water hits it and just skates off and floods the next thing downstream.

Duncan: Okay.

Jessie: Hey, I love these terms [overtalking].

Duncan: Okay, so you have some additional guidance there probably beyond even what is stated in the NOFA.

Jessie: Yeah, but FEMA is working on it like crazy.

Duncan: Yeah, yeah, so I am [overtalking].

Sara: Duncan, this is such a big question, I wonder if Ryan has any comments also.

Duncan: Ryan?

Ryan: I do not.

Duncan: Okay.

Jessie: What is the next one?

Duncan: I would like to skip over a couple here because they are all kind of related.

Jessie: I cannot see them Duncan, so you are the man in control, bunch them together. If they related just answer one.

Duncan: Okay, let me ask this one first and then we will get back to those others. "Do the individual project phases have to hit the covered project threshold in order to be required to prepare a BCA?"

Jessie: No.

Sara: No.

Jessie: Answer the question straight up no. The covered project hits the threshold then you can show it scaling and scoping within it and each of the scales, the phases, or scopes, or whatever has to be broken out.

Duncan: Okay, very good, and then the next question here and it is a follow-up on the multiple multi-stage project question and the question is just basically stating it's narrative that they are mostly concerned about. They understand the spreadsheets fairly straightforward. What they are concerned about is that their multiple submissions are going to be interpreted as double counting.

Jessie: Explain yourself in your narrative. Tell us how the things relate. Tell us that you have this is the covered project and this is the covered project BCA. You know, explain it by using your page numbers and page number your BCA straight through. Make your submissions tell the story to us so we can understand what is going on and then we won't understand it as double counting. Use the outline format or whatever you do inside your narrative to make sure that we can follow what's happening.

Duncan: Right, but that outline format in terms of the document – it's your call.

Jessie: It's your call.

Duncan: Yep, okay then. All right, so next question. "How is a benefit that reduces the risk of a design hurricane as defined in the building code get allocated over the years of the project?"

Sara: That is a question that we went into some detail on the two pre-recorded webinars and there is some guidance from FEMA and other places that help you do an analysis of frequency and how you account for that in a BCA. Jody, does that, do you have anything to add?

Jody: No, correct. I know with hurricanes, they have a frequency, how often it is going to come and at least what we do with our modules is we are looking at normalizing the damages over time, so if I were to lose a 100 million dollar building it is not 100 million dollars in benefits every year that the hurricane is coming through. What we do is we just normalize it over the life of the project. So, it really has to do with frequency information.

Ryan: Yeah, this is Ryan from DOT. This is something similar that we sometimes deal with, particularly in regards to infrastructure failure such as a bridge collapsing and we treat it the same way. There is some percentage chance that the design hurricane will come in any given year or the bridge will collapse in a given year and then your benefits are based off of that probability of that event happening.

Duncan: Right, good thank you. Next question, "We are seeking clarification on whether the BCA attachments must be translated for LEP individuals when posting for public comment period."

Jessie: This is tricky because the LEP guidance isn't, their response can vary by community but the answer is generally going to be yes. If it all possible you should try to translate it for LEP individuals but I have to send you back to the guidance that the NOFA link to because there are different implementations for LEP but the answer is generally yes for LEP populations that are over your – it is not "threshold." I forget what word the guidance uses. So if you have two LEP people who happen to speak Russian or something, no, but if you have thousands you are probably over the threshold. It is also possible to make available a translation service if you can on a phone line and have a way that people can get it translated for them if they want it on call. That is typically more expensive than actually just translating the thing. Duncan was on a grant team most recently so you are looking at me like yeah you had to translate.

Duncan: I would just also iterate that you know it depends on the composition of these populations within your project area. You know, and your MID-URN area. That is really kind of the crux of the matter there as well. All right, so next question.

Jessie: I know we do have some MID-URN areas that have, you know, ten languages that might be over threshold.

Duncan: Okay, next question is, "We have a multicomponent project including a program element, a competitive grant program creating somewhat of a project/program hybrid. Is this allowable for the BCA or do the project and program pieces need to be stripped apart and presented separately?"

Jessie: I am going to take a swing and then I am going to let Sara do this. If - your proposal is what it is. You've come up with it - a proposal for how you want to do your project and projects that integrally related activities, so if you feel that this is a project and it is all together, it may also fit the definition of program, but it's your project – it's what you are proposing. Then you should tackle the BCA the best way you can and show us the phasing, scoping, or scaling possibilities inherent in it and break it down. We are operating on a reasonable person standard here for the BCA. We want you to make the case as a reasonable person. I am not going to advise you which way is going to convince us the best because I do not know, but tackle this in a way that you think a reasonable person would, would get it. This is one of the reasons that we required it to go out for citizen comment is because if your citizens completely don't get it then you probably have not met

the reasonable person standard. But I can't like head on say go one way or the other without getting into more detail than I am allowed to at this point. I am going back to formula programs. This whole competition I can't answer anything and it is driving me crazy.

Duncan: Okay. All right, that is all the questions I see. I have this sentence fragment that is kind of a question in here but I am not going to address it unless the questioner wants to get back to me with some more detail. It is about avoiding displacement cost due to flooding. So, I am not sure what that question is as a follow up to. So.

Jessie: Do we have any other questions?

Duncan: Any other questions? Yeah.

Jessie: This has been quite the run.

Duncan: We have another 20 minutes allotted to the call, so if there are any other written questions or if you want to, you know, especially the verbal raising your hand and asking a verbal question, it is helpful if you have a number of follow up questions that will be derived from the answers we provide. That is okay as well. You are welcome to ask a verbal question. Perhaps, Patrick maybe we could just review for folks the procedure they would go about to ask a verbal question at this point.

Patrick: Sure, we can do that. Yes, this Patrick from Cloudburst we can do that. We will go back to our instructional slides. To ask a verbal question, you would click the raise your hand icon. To ask a question verbally, raise your hand by clicking the hand icon and the host can call on you during the Q&A. If you do not have a telephone icon next to your name, then you will need to link your phone to the conference and I believe we have a slide on that. You will look in the event info tab on the top left hand corner of your screen and locate the attendee ID, then you will type in pound, attendee ID, then pound on your phone and that will link your phone to the conference. So we will give folks a minute or so to raise their hand if they choose.

Duncan: All right, it appears we do not have any other questions at this point. I will finish up our webinar today with just a bit of a wrap up and if people ask questions while I am doing that, we will try and flag it. So, as you know, you have the other BCA resources that Sara mentioned, in particular, during the Q&A session there were a couple of things that were mentioned. They are all listed right here. Again, any other further questions that you may have as always resilientrecovery@hud.gov is available and we are turning those questions around and providing them as FAQs on a more regular basis now, so please look for updates to that on a regular basis.

Jessie: I would like to say thank you to our experts from helpers, Jody and Ryan and Sara participating from far away. We actually saw her in person this week here in Washington. We were so excited and I will let you know also that Sara and I are on the BCA review team so we are taking all these questions to heart and we will stick with you through resilientrecovery@hud.gov. We are both part of the question answering team over at email box, too, so we want to stick with you as you walk through right to the end, absent the government shut down, and until you turn in your applications. So we are here for you.

Duncan: Good, thanks everyone and have a great afternoon, bye-bye.