

Informational Webinar:
Integrating Human Health and Well-Being with Ecosystems Services
March 29, 2016
1:32 p.m. ET

Moderator: Intaek Hahn, U.S. EPA, National Center for Environmental Research

This is an informational webinar that will discuss the application process and required elements for the *Integrating Human Health and Well-Being with Ecosystems Services Request for Applications (RFA)*.

Background: The U.S. Environmental Protection Agency (EPA) is seeking applications for collaborative, community-based research that will foster better understanding of how ecosystems support human health and well-being. Specifically, this research examines what limits communities' ability to integrate human health and well-being with ecosystem services, while recognizing the need to advance the science behind evaluating, quantifying and incorporating cumulative impacts into decision making. The RFA aims to foster a more holistic approach to both assessing risk and cumulative impacts, and also toward climate change adaptation and disaster resilience.

This informational webinar will review the RFA's major research elements and review criteria. Attendees will have the opportunity to ask questions to find out in greater detail how to apply for this funding opportunity.

RFA: [Integrating Human Health and Well-Being with Ecosystems Services Webinar](#)

Webinar Presenters:

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Operator: This is Conference # 165960089

Anne Sergeant: (Slide 0 – title slide) Good afternoon and welcome everybody. This is Anne Sergeant in the National Center for Environmental Research. I will be talking about the open research solicitation we have called Integrating Human Health and Well-Being with Ecosystem Services. I am joined in our conference room here at NCER by Anna, who is making everything happen here. Thank you, Anna ... and also Sheryl Law who will be coordinating the peer review. A couple of other people will join us later on.

So if possible, please join us by the webinar method because we have limited phone lines. If you have to use the phone line, go ahead but if you can use the

computer please do. Let me start by saying that I will be doing everything I can to say the same things I said in last week's webinar so it's fair to everybody. Also, I can't provide any information that could give any applicant potential advantage over any other applicant, but I can certainly refer people to pertinent parts of the solicitation.

Another thing I'd like to mention is in terms of advice: I would recommend that you read everything even though some parts are more exciting than others, and take it literally. We do our best not to make anyone read between the lines or anything like that, and we say when you can't do something. So if it doesn't say you can't, that's good time to use your creativity.

Another item I'd like to mention is we know we're asking for a lot for what we're offering. We have regular awards and early career awards and those are \$600,000 and \$400,000, respectively, over three years and that is part of why we're recommending that people use existing data because it's expensive to gather and analyze and add metadata to data. We're also recommending that people have an existing relationship with the community organization or community because that takes time to develop and sometimes it takes more than the three years you will have for this grant.

Another item is we wrote this broadly to maximize flexibility and because we knew we didn't have all the ideas here. Just from the phone calls and e-mails I've been receiving people, have had some fabulous creative ideas that just knocked my socks off. I would never have thought of some of those ideas so it is definitely an option – a good idea to exercise your creativity here. Finally, I expect to speak for 20 or 30 minutes and then we'll have questions and answers for an hour or so. And we will record this webinar like we did the other one and we'll make it available online.

The slides are already available online. If you want to maybe follow along if you're at your computer at the same page as the advertisement for the solicitation, if you scroll down on the right-hand side or towards the right there is a place called Events. There is a picture of a calendar with pushpins in it and then if you go there and scroll to past events. That is where the slides are, and I will use those same slides. I will also make note of which slide I am

referring to this time to make a little easier for people who want to follow along or want to take notes and look later.

(Slide 1 – Outline) So with that said, I am now moving to Slide 1 (Slide 0 was the title slide there). So the impetus for this solicitation is that while there was an administrator priority to go ahead and do this; we really want to get serious about integrating humans with ecosystems, because really we humans depend on ecosystems for everything and not everybody is fully aware that all ecosystems do something for us. Some do better things than others, I mean even an alley full of rats and other vermin is still an ecosystem—probably not our favorite one and probably not offering much in weight ecosystem services, but there are other urban ecosystems that do offer us value.

For instance, it is well demonstrated now that even just being able to see trees outside your window is much healthier than if your window view does not include trees. So, we want to connect humans with the ecosystems that support them. So a quick overview is we're looking for people to make that connection to really connect health and well-being with ecosystem services. The best place to see that is in the second paragraph of the Synopsis of Program. And that says we're “seeking applications for collaborative community-based research that will foster better understanding of how ecosystems support human health and well-being.”

This is verbatim out of that second paragraph there in the Synopsis of Program. “Specifically this research would understand how communities can integrate ecosystem services with human health and well-being to inform their decision-making and management practices. It should also develop information that allows communities to integrate environmental, societal and economic information and to better manage multiple stressors and their cumulative impacts on humans in ecosystem and the ultimate goal to help communities achieve their own objectives.”

So we're looking to find ways to help communities use this kind of information to [a] access it more easily and [b] use it more broadly in their decision-making. And you'll note later on in the solicitation that there is also a component of climate readiness and disaster resilience. So I'd like to draw

your attention really briefly to the Peer Review Criteria in Section V.A and it is well worth paying attention to because that is how your application will be evaluated. There is a lot of detail in there. I do recommend that you look at it closely. We also have Programmatic Review, that's in Section V.B and have a look at that as well. And finally we've got Tips for dealing with Grants.gov and then we'll have some time for questions and answers.

(Slide 2 – Meeting the Challenge Ahead) So part of the impetus was to connect with the Meeting the Challenge Ahead effort that we have at EPA and the components of that are [1] Making a Visible Difference in Communities across the Country so you will see the word community sprinkled liberally throughout this RfA. [2] We want people to have better tools for addressing climate change and improving air quality and [3] protecting water and [4] working toward a sustainable future. There's a little star at the bottom there that points out that it's aligned with sustainable healthy community's goal three. That is one of our research planning documents or from a research planning document.

And then Objective 3.1, Promote Sustainable and Livable Communities; you can find the strategic plan, there's a link in the RFA that will take you right there.

(Slide 3 – RfA Goals) So that was Slide 2, I'm moving to Slide 3 now, the Goals of the RFA are what I just said, this is also mentioned in the synopsis of program, “Collaborative Community-Based Research to better understand how ecosystems support human health and well-being.” We would like to provide – we would like this research to provide tools that help inform decision-making and management practices, integrate environmental, societal and economic information, this should also sounds familiar, better manage multiple stressors and impacts on humans in ecosystems and help communities achieve their own objectives. Again, that is right out of the paragraph 2 of the Synopsis of Program.

(Slide 4 – Example Conceptual Model) I am moving to slide 4 now; this is an Example Conceptual Model. You do not have to make one just like this but

it's a little cartoon I do to help people get their heads around what we're looking for here. There could be a single stressor that interacts with other modifying stressors such as underlying disease or climate change or heat stressor, all kinds of other possibilities—say crime for humans or invasive species for ecosystems. The stressor might affect both humans and ecosystems. There could be interaction also between the humans and the ecosystem and then there could be effect on human health and well-being, effects on ecosystem services and then there could be interactions between health and well-being and ecosystem services.

So this is just a cartoon. You don't need to draw one like this but this is an example of what we want communities to be able to do with the tools and strategies that this RfA might provide.

(Slide 5 – Three Research Questions) Moving on to Slide 5 we have three research questions and yes, you are required to answer all three. That is in section – they are in Section I.D and we provide each of these three questions you can read them for yourselves, we have three examples for each one and you are by no means required to go by those examples. They were just ideas we had for helping people get their heads around what they were supposed to be. And right after the research question is a part – might be a little easy to miss, it's called Context for Research Questions and that includes Ecosystems, Processes, Societal Factors, Sustainability, Data Sources, maybe a couple other things.

I would like to draw your attention to the Ecosystems part where it does say that we are expecting ecosystems and humans to receive comparable treatment. This does not mean that we're to go to your budget and count up dollar for dollar, but we do expect people to pay similar amount of attention to humans and ecosystems.

There is also the material on integrated trans-disciplinary approaches specifically, what we mean by that and also quite a bit of material on Community-Engaged Research.

(Slide 6 – Expected Outputs / Examples) Slide 6 is Expected Outputs and – Oh question here on the phone, could I speak louder? I will – OK we're moving the microphone closer to my mouth. I hope that helps. And I also see a question, the site doesn't give an option to join by computer. There are two links there and I think the link earlier on is the one that's to the webinar. If not I don't have a way to address that any further right now, so I do hope that works and to the person who is – wanting me to speak louder is this better now? I'll just hope that it is. Oh yes she is typing. Yes the slides – actually these slides were already available after the last webinar.

If you go to the page that has the link to the solicitation itself, scroll down a bit you will see a calendar with picture of a calendar with pushpins stuck in it. If you scroll down below that there's – that place is called events; if you go to Past Events, the slides are already there. You can follow along if you like. Uh-oh it says the audio disappeared. How could that be? Oh OK. Thank you for saying the – OK good I'm glad some people can still hear me. I hope that that's not a global problem.

OK moving to Expected Outputs; again, this is Slide 6. Expected outputs are include – and that's also in section I.D, data and information that enable communities to understand and manage the impact of multiple stressors on human health and ecosystems. This is why we're looking for tangible things like journal articles, presentations, web sites, reports and then that could include proposed activities to help states, tribe and municipalities develop assessments and management practices, inform decision-making and or meet their environmental and health goals. Some example might be best practices, what works and what does not work for engaging communities or maybe for a specific subset of communities and getting down into the details for that.

We've been joined by Ron Josephson who is our Eligibility Coordinator.

And another example is best practices for using different types of data, particularly for integrating human health and ecological impacts. We could certainly – all of us, state, local and federal could stand more information in that area.

(Slide 7 – Expected Outcomes / Examples) Now I'm moving to slide 7, talking about outcomes but there are outputs, things that get done and then there are outcomes kind of why we're doing this, what we wanted to things to look like after these practices have been implemented, after the documents have been published and so on.

So outcomes that we expect are fewer adverse impacts to human health and ecosystems, greater recognition among the public that all ecosystems provide some kind of service (even if it's just growing more vermin maybe that is not a service people want, but it is good for the vermin that eat the vermin) and better understanding of what forces lead to what impact.

And it also could include things like what forces contribute the greatest to impacts or interact the most with others. And again some examples are greater use of local data in community-level decisions to reduce pollutant exposure. That could also include regional data. These are just examples we chose for the solicitation. And another example is that degraded habitat might be cleaned up and just not be cleaner but also provide additional ecosystem services, or for the people who live around there to understand that yes it's clean and it's also doing this for the community.

(Slide 8 – Peer Review) Moving to Slide 8, I'll briefly mention Peer Review; generally we have four general categories, that's [1] Research Merit: is this work worth doing, [2] Responsiveness, does it address what we had in the solicitation, [3] Project Management, is there a plan for successfully getting everything that is in the proposals done and then [4] Other Factors which are going to vary by the proposal. There are – there's a lot of detail about this again in Section V.A and I strongly recommend that you read that because that is how you will be rated.

(Slide 9 – Programmatic Review) Next is Slide 9, Programmatic Review and there are three criteria in this case. Many times we just have two of them, but in this case we have three, Relevance to EPA Research Priorities and there are links to that in the solicitation and past performance that's always one of our criteria. Past Performance with grants of similar size and scope. So if you had one of our little P3 grants for \$15,000 – it's not really the experience we're

looking for here. It's no points off if you put on there, but it is just not quite relevant. Similarly, if you managed a \$15 million grant that's great experience, but not quite what we're asking for here. Again, no points off if you put it in there, it's just we're looking for your being able to manage grants of this size.

The important difference here is Livability Principles; there are a number of livability criteria that are listed in the RFA but we are focusing on two of them and those are [1] Support Existing Communities where this research is targeted towards existing communities through strategies. For instance, like transit oriented, mixed-use planning and redevelopment or land recycling that would increase climate-related community disaster resilience; and the efficiency of public works investments, maybe green infrastructures something like that and also to safeguard rural landscapes. And again, this section notes that any planning or redevelopment should account for the effects of climate change.

The other livability criterion that we're addressing here is Valuing Communities and Neighborhoods and that means enhancing the unique characteristics of a community by investing in healthy, safe, resilient and walkable neighborhoods. And these could be urban, rural or suburban. Of course, a rural neighborhood or community is probably going to be a little less walkable than some others, or there may just be a small portion of a rural community that's walkable but it is all – scale is important here I guess is the short story. Again this is all discussed in the RfA.

(Slide 10 – Using Grants.gov) Next is Slide 10 and this is the part about using grants.gov. It can be a challenge. So we have some general recommendations here. For one thing, make sure you have your grants.gov account early and you will need DUNS and SAM registration. Please check to be sure that your registration's active and if you are at an academic institution you probably have people who do this. It would be the Office of Sponsored Programs Office of Sponsored Research, or similarly titled organization. Let them be your friends. They know how to do this. They have systems for doing this. They have it all organized.

And please, please, please check all content before you save and submit. And I know for some of us, including me sometimes, if it weren't for the last minute nothing would ever get done. But please plan to submit ahead of the deadline. It's really not a good place to be when you are freaking out at 11:55 PM and it's due at 11:59 PM and the battery's running out on your cell phone so please plan ahead on that. I will feel better if you do.

(Slide 11 – Troubleshooting Grants.gov) If you found that you forgot something or you made a mistake, you put the wrong person's name in the box, something like that, you can resubmit it. The most common problems have to do with Adobe software version and here is the link. It's an EPA link but it does take you to the right place for getting forms and dealing with that. It does want zip plus 4 so look for that and have that teed up when you're ready to submit. Grants.gov does have a helpdesk, they are experienced in dealing with people who are at their wits end because something is not working and they are good at dealing with that. A friend of mine used to work in the grants.gov help desk and it's great. There were all kinds of entertaining stories from him but they are skilled in dealing with even last-minute problems.

If you do call, make sure you get an incident number and then send an e-mail and explain what happened as soon as you can, because if it turns out that some error in the system delayed your application, say it was due on Friday night and it did not come in until Saturday if you can demonstrate that it's a flaw in the system or some kind (like you had a power failure at your location or something) that will save you a lot of angst.

(Slide 12 – Frequently Asked Questions) Moving on to Slide 12, Frequently Asked Questions ... Eligibility: Ron is here to deal with that. So we will – if it's OK I will just wait until I am done talking and Ron will handle any eligibility questions that come up. I've had a number of questions that early career vs. regular awards and we do define what early career means vs. regular and for early career if your client is early career – oh sorry I'm going to step back on at eligibility here, generally eligible organizations include U.S. and private nonprofit institutions, organizations, which includes institutions of higher education and hospitals located in the United States, state and local

governments, federally recognized tribes – tribal governments, U.S. territories or possessions.

And YES, because so many people have asked, research outside the U.S. is OK as long as you and your institution are inside the U.S. and are otherwise eligible.

The early career definition (see Section IV.C.5.f), you need to verify (and this is in there) if you – I think if you just use good old Ctrl-F and the look for verify – you must verify [1] that you hold a doctoral degree in a field related to the research in question by the closing date of the RfA, [2] you're untenured by the closing date of the RfA and [3] that you are or expect to be employed in a tenure-track position as an assistant professor or an equivalent title at an institution in U.S. its territories or possessions by the award date.

It must also be a single PI and that is because – oh we also say that you may collaborate with senior researchers but you may not devote significant resources to them and that is basically that you, the early career investigator, this should really be your research. You shouldn't be a front for a more experienced investigator.

And we do encourage early career investigators to collaborate with each other. So Authority and Regulations (Section I.C), this is the flavor of money we have for this comes from three sources, the Clean Air Act, the Clean Water Act and the Safe Drinking Water Act and you probably noticed earlier that we talked about clean water and clean air and safe drinking water just kind of goes along with clean water.

So what you propose ought to be somehow linked to those three things. So for instance if you are looking at – if you are thinking about an area that has been heavily contaminated say a land mass or a formerly industrial neighborhood it's been heavily contaminated by pesticides. It would be hard to make a connection to clean air and clean water from that. It might be possible but be sure you do.

Again I mentioned that we recommend using existing data earlier because it is expensive to collect it. You may collect your own but that is your choice. Same with community engagement, it can take a long time to build trust within the community or with the community organization and certainly can take longer than three years. So that is why we recommend that you have an existing relationship. And other frequently asked questions are answers to things that people seem to be asking but have not asked out right, when people ask about activity – there's a number of people have asked about various activities that has to all any activities must be in the context of the research questions.

So three questions back in section I-D and I always recommend to people that – to bite off what you can chew. You cannot be all things to all people. You cannot accomplish every possible aspect of a problem the community faces or seldom can you do that. So be clear about what you are choosing and choose something that you could actually accomplish, choose question that are answerable one way or the other. And our examples are just that, they're examples you are not required to go with any of the examples we have in the RFA.

And I know I said this already but let me say it again, read everything and take it literally. If we say you must, you must, if we say you should it's a really good idea for you to do it and if we say you may you have a choice there.

(Slide 13 – Useful Links) And the last slide here, slide 13 is a collection of useful links and those will be in the slides so I am not going to review what those are – oh sorry it's the penultimate slide ...

(Slide 14 – Questions? – Actually lists Grant Contacts) ... and the final slide has contact information. We'll do everything we can to answer questions today but if we miss something or if you think of something later you may contact me my e-mail and phone number are here. You may contact Ron Josephson who can answer questions in just a moment. His e-mail and phone

are there and for electronic submissions you can contact Debbie Jones and her information's there as well.

So with that, Anna has been tracking the questions here and she is going to pass her laptop over to me. One person asks “If you are PI of an early career award are you eligible to be the PI for an A-1 award?” (That means a regular award in this case.) Ron?

Ron Josephson: Yes this is Ron Josephson. I wanted to thank you all for participating in this call and for your interest in the project as well. Just moving a speaker over to be closer to me not that anybody has ever had trouble hearing my voice but yes, basically early career is a subset of the eligible applicants so if you are eligible for early career then you are certainly eligible for the regular grant. You just have a choice of two different ones. Do you want me to go over more eligibility type of material?

Anne Sergeant: Let me ask other question that we have right now.

Ron Josephson: OK sure.

(Multiple Speakers)

Anne Sergeant: We have two so far and then yes further eligibility questions would be great. Another question is, “Is it required to know the community where the research will take place at the proposal phase or can that be established later?” That is a great question. We recommend that you know this because it will take a significant amount of time to develop a relationship with that community. So it is not necessary but it is a really good idea.

And then a new question has popped up, “Is there a geographic component to your definition of community?” Well, not specifically, we have some other factors in our definition and it could be – you could define as community geographically. And – so this is my recollection of the solicitation. I am not scrolling through there looking for that as I answer your right now. So when in doubt what it says in the RFA is correct and like I said Ctrl-F is your friend.

The next question is, “Can an early career PI have a sub award with a senior researcher or organization that provides the community contacts?” I’m going to answer what I think this is asking and that is, so “An investigator might apply for an early career grant, while they personally would fall under the definition of early career and may they have a sub-award to a senior researcher or organization to provide the community contact?” Yes, sub-awards are allowed.

I would consider that phrase “significant resources” though and if you are not sure – that’s a little squirrely to define because a lot of factors go into that. Part of it is if you are working with a senior researcher, what are you asking that person to do? For instance, if you do not have a plan – a substantive plan for what you’re working on – this seems this is a wild example but I hope it makes a point, and you’re counting on the senior researcher to come up with your plan that is a pretty significant thing that you are counting on them to do, and even if you are only devoting 10 percent of your resources to that, you might want to put yourself in the shoes of a peer reviewer or think about what you would think of that is you were a reviewer.

So it is really a use-your-judgment situation. It’s what kind of expertise are they offering and how much? Is it something that is commonly available and you know that person and it’s a simple arrangement – you have an existing relationship – that might be just fine in the eyes of peer reviewers, but consider how they might perceive this.

Another question, “It says in the grant material that Federal scientists may not draw salary from the grant but may receive research funds to partner on data collection research.” No, Feds are not eligible for anything here. We do not say that we could offer cooperative agreements here but in any case Feds can’t get federal money. I hope that answers that one.

Next question is “What if we are a community without a researcher does EPA make the connection?” Oh no, sorry, you have to find your own researcher – I don’t know how. The person does not have to have “researcher” in their job title, but you have to find someone capable of doing the work. You have to find your own principal investigator.

“I was not clear if you are currently funded as the PI of an early career award can you apply as the PI for regular awards? If awarded the regular award then you would be the PI on both.” Ah, that is a different question. It is your choice whether to apply as early career or not. You might in fact be early career and feel like you have the right stuff to apply for regular award. So yes, you may do both, unless the work you are being funded for a work that's very similar to this from another federal agency and you cannot have two grants for the same thing at the time if I recall correctly.

Ron Josephson: Right. You can be a PI or be involved with more than one application but those applications have to be distinct from each other, different kinds of work. I hope that helps.

Anne Sergeant: Yes I hope that's a better answer. “Can you talk more about EPA's interest in understanding more about the links between human health and well-being versus the way the communities use information related to that connection, i.e. the latter assumes that the links are already well-established?”

OK great question, yes, the links are not necessarily already well-established. So we anticipate that people will answer the questions we ask in different ways. Some might focus more about the links between human health and well-being and ecosystem services and some might decide to focus more on how communities establish those links for themselves, use data about that stuff better and so on. So it could be either one of those things. I hope I am answering your question there.

The next question is, “If early career awards are limited to one PI how might multiple early career researchers collaborate given the collaboration encouraged among early career researchers?” Yes, good question. It doesn't have to be one single person working on this project all by herself or himself, but there can only be a single PI. You can have other people working with you and that's just fine. And in fact, we expect that few people would succeed applying as a single PI, I mean you just need multiple areas of expertise for this particular award.

Ron Josephson: But there's one that's a lead PI.

Anne Sergeant: Yes one – there's one person who's the lead and there could be others working with him or her.

“You mentioned that you encourage early career PI to collaborate but the early career awards can only have one PI, can two early career researchers who want to work together on a project submit one grant as co-PIs or one grant with a PI and sub-award Alternatively, can two early career PIs submit related but separate proposals?” OK to answer – can two early career researchers who want to work together on a project submit one grant as co-PIs?

No. It's got to be a single investigator, but they may collaborate with others like I just said. Or you could apply for one grant with a PI and sub-award, yes you could have a sub-award. Alternatively, can two early career PIs submit related but separate proposals? As long as they are – as long as you can tell one from the other – Ron is looking like he has something to say so I will let him finish here.

Ron Josephson: Yes so this is – I'm not quite sure where that question is going I mean there are two separate applications then obviously you're competing against each other also. So obviously the work could be related but I presume that they would be distinct applications. I mean to some extent a lot of applications may be similar topics whether or not the applicants know about it.

Anne Sergeant: Yes, that seems likely.
(Multiple Speakers)

Ron Josephson: Great amount of funds resting the omniscient readers.

Anne Sergeant: So would you like to go to explain some more about eligibility and we're...

Ron Josephson: Sure. If it's...

(Multiple Speakers)

Anne Sergeant: ...just answering questions from...

Ron Josephson: Sure if this is a good time I can do that. That's fine. Anne I think did a great job going over eligibility and it is mostly self-explanatory. I refer back to use of the word "must." It's sort of what it pivots around here is that's agent-tested and lawyer-approved. If the word "must" is in there in Section III that means that I am supposed to look for it. So that – that's what I do, again the – as Anne mentioned we do allow research outside the United States and sub-awardees who are outside the United States but lead institutions to U.S.

In terms of early career again, we've gone over a lot of the criteria. People ask if somebody has to be an assistant professor, could they also be an associate professor, the answer is yes. Is there an age limit? No. One thing I would point out that there is a section including an early career verification that must be included. You can see that in section IV.C.5.f, which is what you must include that if you are an early career applicant.

In terms of performance period and support the RFA refers to a performance period maximum of three years. Do not ask for any more time in your initial application. I would note that in terms of starting date there is no real wrong answer here. Figure the funding notice closes – I know you've gone over this, the funding notice closes April – did we say 21st?

Anne Sergeant: 21st.

Ron Josephson: Right so a couple – give a couple of months for external peer review, give a couple of more months for internal agency review and funding decision. I would say that no funding starts any less than what six months after the closing date?

Anne Sergeant: That's six months, yes.

Ron Josephson: Yes so if you say a start of October 1st and November 1st or December 1st of 2016 or January 1st 2017 there's no wrong answer. So you can start that just figure three years from whatever that start date is. In terms of requested support we have two levels, \$600,000 for regular grant or \$400,000 for the early career. Please do not request a penny more than that for government

support on your Form 424 or in your budget. That is a pretty hard number. So anything – even a dollar more – makes an application ineligible.

Anne Sergeant: Can I add something for a second there? Your budget could possibly be more if you have support from other sources.

Ron Josephson: Right.

Anne Sergeant: But the government funding can't exceed the numbers Ron just gave you.

Ron Josephson: Right yes, government, you can have your own matching funds whatever you want to call it. And – I mean that is a separate line item in the Form 424 and would also be listed in your budget justification anyway so it should be fairly obvious. And I may understand people make typos and stuff like that and I've seen that as long in a Form 424 as long as I can understand it in your budget justification it should be fine. But please try not to confuse me.

In terms of private companies this funding notice is not open to private companies to apply. This is also not a research fellowship for individuals or graduate students. Private companies, individuals can't be involved as consultants. That is defined in the budget section in section IV.C.6.b.6. (You don't know how many times I've gone over that.) It'll talk about the justification needed for consultant services – you have to show that you are competing them since they're private consultants and this is a grant for nonprofit. As we said the applicant can provide some justification in the application and more detail if the applicant passes peer review and is considered for funding.

In terms of students, I mean funding can be used to support graduate or undergraduate students. So if you are student looking into this you can't just apply to say, this is for my grad work but if your adviser or your institution is applying and your adviser is a PI then some of the funding may be used to support you. That would have to again be in the budget justification.

Just in terms of submission please be sure you are picking the right category, the funding opportunity number when you're applying since there is an A-1 for the regular grant and an A-2 for the early career grant. They're two different links – there will be two different links in grants.gov. Be sure to go over that say, if you're in academe with your sponsored programs office we will obviously – some – we know people make mistakes, if we find something we'll try to get something into the right place if we can tell. But please try to spare us that problem.

In terms of your application material please be sure that everything that we list in section IV.C, the stuff that goes into your application content, please be sure that's one file so your research statement, budget justification, early career statement all that stuff should be in one big PDF file. Don't have multiple file submissions here. Just – it's a mess. One other area in terms of eligibility section III.C mentions substantial applications must substantially comply with application submission instructions and requirements set forth in section IV of this announcement or they will be rejected. This is again a bit of a fuzzy area just please make sure you have all the elements we were asking for in section IV.

Please don't forget stuff and this is where Anne talked about things going haywire at the last minute. If something for example is missing a research plan it will not be considered substantially compliant. If you find that there was some mistake in your submission if it – before the deadline you can resubmit.

We do not accept submissions after the deadline. Just also wanted to put in a good word here for Human Subjects, please have a Human Subjects Research Statement. If your research does not involve human subjects as we define it, please put a statement saying that the research does not involve human subjects, obviously if you will be involving human subjects please go through the required statements and answers to those the criteria. Also – huh?...

(Multiple Speakers)

Anne Sergeant: (There's a question here please?)

Ron Josephson: Yes, go ahead.

Anne Sergeant: A couple of people have asked, “I think I'm going to have human subjects; do I need to have my Institutional Review Board (IRB) do their review before I submit or does that happen after I submit? Does EPA have to approve it ahead of time?” The answer is you need to have the statement in there and we don't make you get your IRB's reading on it after you have passed peer review. Then we will ask for that. We know that takes some effort and sometimes it takes some time. So you just need to say whether your research does involve human subjects and then if you make it through the gates then we'll ask for that, OK?

Ron Josephson: OK. Letters of support—you can obviously have them from a variety of sources. Please don't have any from EPA. I do not want to see anything on EPA letterhead. We would have to take those kinds of letters out and actually it's an ethical violation for an EPA employee to put those in. Yes, please don't get anybody in trouble not that I'm a total rat fink or anything here.

So basically again, as Anne said if you think of other questions you can contact me if it's an organizational type of eligibility, if it's more technically related to the kind of work you are planning to do I would contact Anne. Also – and I realize there's a lot of work involved in applying, if you decide after all this, for whatever reason not to apply you may be interested in being a peer reviewer so I'm going to put a good word here for our colleague Sheryl Law who is here in the room who is collecting different experts for peer review. Can I give your e-mail? OK. Contact Sheryl Law that's law.sheryl@epa.gov. She is going to be coordinating the peer review and is obviously looking at a balanced expertise. I mean it'll depend on the number of applications we've received and kind of the expertise mix that we need.

So – but anyway if that is something you want to do you cannot be involved in an application in any way if you want to be a peer reviewer just because we have conflict of interest guidelines. So I think that goes over all the points I wanted to make. I will turn the floor back over to Anne.

Anne Sergeant: Thanks, Ron. OK we had a question a few minutes ago, could you unpack the first of the three required research questions and then some – yes please more of that. OK so the first research question is “what are the factors that determine success or failure when using existing data sources on environmental pollution, ecosystem services and community health and well-being to understand the impact of multiple stressors?”

For example, how the communities identify, prioritize and integrate health and ecological concerns when engaging community members and assessments, what is needed for instance, training, time, impartiality and what determines success and what factors influence community's awareness and appreciation of ecosystem services and use of that information in setting priorities?

So the – what I can offer here is the example of the Chesapeake Bay. The Chesapeake Bay watershed is huge. It's six states plus the District of Columbia or portions thereof and there are a lot of people who do a lot of different things in the watershed. The Chesapeake Bay is not the healthiest place on the planet ecosystem-wise and no group thinks it's their fault. And that is true in a lot of places and interestingly enough all groups of stakeholders that have been identified –well, the ones that I am aware of that have been identified, they all agree that the bay is important. And they generally agree that it is important for the same reason.

And then they have other beliefs that they hold. And these communities are sometimes far, far away from each other. For instance, dairy farmers in Pennsylvania as compared to watermen who make their living collecting fish and shellfish from the bay and very different types of communities, very different cultures, very different settlement patterns when they were first settled and different methods worked differently in different areas. So that's the sort of thing we're talking about here.

Some communities prefer to let a few people do all the talking those are the people who always show up at public meetings and always have something to say and evidently most – this is not Chesapeake Bay specific now, in some communities the masses are evidently content to let a few speak for them. Some people prefer a consent – some groups prefer more consensus. Some

prefer more bureaucratic approaches. I have stories about that but I will spare you.

So how it, when it works, what makes it work and how communities figure out what is working for them—are there consistent elements to that, or is it just true with a similar community, that's the sort of questions we have in mind here. Great question. Thanks for asking that.

And then the second person is asking for me to do that for all of the questions so I will give it a try. The second question is “what are the factors that influence weather and how transparent decision-making processes are developed and used to identify the most important stakeholders in stressors, evaluate management strategies and set and prioritize goals?” The examples we give here are what are the best strategies for engaging diverse partners?

A community, local government, academic institution or neighborhood to address and mitigate critical community health or environmental concerns, for instance, asthma, heavy metal exposure or contamination, water pollution? What are the most compelling reasons that influence adoption of behaviors that either reduce exposure to stressors or protect the environment?

And what decision tools work best with communities to set and prioritize goals? Again, these are examples and they are more – so anybody can come up with a process. What determines how well that process works—is it socioeconomic factors, is it education level, is it rural versus urban, is it none of these things? Is it the skill of the facilitator? So that is the sort of question we're asking here. And then when people do choose to do something differently to improve their health or improve the environment, what do they do, why do they do it?

And then are there decision tools that work best with communities to set and prioritize goals? That I kind of referred – I kind of alluded to that earlier, consensus-based approach versus other approaches, facilitation, there are different kinds of consensus and so on. And there are other decision tools, there are structured decision-making of various types. There's a lot to choose from here. And another thing that could be covered under here is how do

people keep track of the data? Lots of times there's tons of information and people get overloaded, so how do you organize it so people can parse it in their heads and use it to answer a question? So, there is such a thing as too much information when you're trying to answer a question.

And the third question is "what are the most effective methods for tracking progress and ensuring accountability towards mitigating and reducing adverse impacts to ecosystems and human health and well-being at the community example?" So OK we have a plan, we think we know what works, we see some changes happening either in the environment or in health or in people's behavior or in development plans or un-development plans, how do we know it's working? Is it working just for our people interested for maybe six months and then they lose interest? What keeps – what gives it legs and keeps it walking? And how do we know that that happened?

So how can we best monitor pollutants? Is there would there be an air monitoring program? Would there be a monitoring program that involves or does not involve citizens? How do we know it's working and are we looking – at what interval are we looking at changes? What are the associated ecosystem societal and economic benefits of improved environmental management? Do they accrue the community? Do they accrue elsewhere? Are people finding out about them? Do people know whether what they are doing makes a difference? Is it easy for them to find out?

And the third example is how can applicants evaluate the success of human oriented strategies such as choice architecture and persuasive technology? Choice architecture is something that – an example is in – if schools offer the fruit in the cafeteria line before the sweet fatty snacks, does that make a difference in what children choose? Does the order in which things are presented make a difference?

Are there other ways to frame a question that make one choice appear more appealing than another to people? And there are some citations on that. So how do we know we've made any progress? Have we made any progress, or have we determined that this doesn't work? (For instance, we thought approach X would work but it crashed and burned in this circumstance.) Even

data that don't give you the answer you planned on are still data. So I hope that helped.

The next question on the list here is for early career proposal. "Can we ask for salary for non-early career staff that is tenured faculty if they are assisting in the work but not the primary lead on the project?" So you can have support in there. It would go under "other" in the budget if I recall correctly, and the main thing is to remember that phrase "significant resources" that – it's a little hard to define but put yourselves in the shoes of the peer reviewers like I said. How important it is the work they are doing in addition to how much are you paying then how big of a role does that work play? Short answer yes, longer answer, be sure to think about what the peer reviewers might be thinking.

Next question is "funds from other federal agencies can they be counted as a match?" I don't know. Do you know, Ron?

Ron Josephson: I don't know.

Anne Sergeant: We don't say you can't but it might mean that you can. And matching funds are not required by the way, so...

Ron Josephson: Yes. So we can use their material and you should obviously have a written justification for their involvement.

Anne Sergeant: Well this asks specifically about funds from other...

(Multiple Speakers)

Ron Josephson: Yes I know we can't have money go to another agency. I don't see a particular restriction going the other way. I would suggest e-mailing me the details I could bounce it off to some other colleagues if this is a serious consideration I can try to get you an answer pretty quickly.

Anne Sergeant: Thank you, Ron. Next one is "I can see clear examples of links between ecosystem services and health but links between ecosystem services and human well-being seemed to encompass almost any impacted ecosystems." Can you provide specific examples of what you consider human well-being?

OK. So health would be – the improved health for instance, an example is, fewer asthma attacks.

Well-being would be the example I mentioned earlier of if you can see trees out your window you are likely to have less stress than if you can't see trees out your window, so it's not necessarily a change in disease incidence but things like having a safe neighborhood, things like not living in a food desert.

Those are more examples of well-being but I urge you to check out the References section, which also includes resources. It was originally titled References and Resources but the template police took that resources word out so check out the resources in there and do a bit of your research on what well-being means.

Next question is “for eligibility of early career, what about a multi-year post doc who is not certain they will be in a tenure-track position by the start of the project are post doc eligible?” Ron is going to – Ron is sitting up here but I'm pretty sure the answer is no because you have to verify those three things I mentioned earlier that you...

(Multiple Speakers)

Ron Josephson: Yes.

Anne Sergeant: ...probably have a degree in the right subject but you need to be not tenured, yet and you have to expect to be employed and it has to be a reasonable expectation.

Ron Josephson: By the award date. Yes that's the third point under early career. You must anticipate that you will be employed by them.

Anne Sergeant: Yes so that's – Ron mentioned this section that has been discussed earlier so please have a close look at that. Next question: “Who is the intended audience of the expected outputs like web sites, for instance planners, elected officials, community members?” It could be any of those folks. It could also be for instance, a state agency. It could be – yes that covers a Tribal agency of course.

Another questions is “can I include an EPA scientist as a collaborator?” No. It might be able to arrange something later but we – but in this case we do not mention co-ops as awards. It's not to say it's impossible to do that but we – this solicitation is for grants so there is a chance it's possible. I do not know what that chance is. But the other thing is if you're having an EPA – normally if you have a collaborator that person is collaborating with you in writing the grant and an EPA person may absolutely not, not, not do that.

Ron Josephson: Also usually collaborators will include some form of letter of support which also EPA employees are not allowed to submit.

Anne Sergeant: No, don't go there. OK “can we have an extension component in the proposal or should it just be research oriented?” I'm thinking you mean Cooperative Extension so – well that's a really good question assuming that I am correct in interpreting it. So for people who don't know, extension is generally part of land-grant universities. My best friend from graduate school works for the University of New Hampshire and he is Hillsborough County extension Forester. So I don't see why you couldn't do that. And it would be an education or / or outreach component and it's certainly in community engagement so I don't see why you wouldn't be able to do that.

“How does EPA anticipate benefiting from research funded under this call? Have you identified specific ways in the research products outputs will benefit EPA?” Well, in fact EPA cannot benefit directly from its extramural research. We can benefit generally in the same way that the general public benefits. For instance, if data are generated or new tools or processes are developed we could use them just like anybody else could but extramural research cannot be for EPA's direct benefit. Thanks for asking that question. It gets a little confusing sometimes.

Next question “if you're early career and have accepted a tenure-track job offer with a start date after April 21st does it matter whether you apply to your current post doc institution, or the institution for which you are incoming faculty?” Well let's see.

Ron Josephson: It's the institution that applies.

Anne Sergeant: Right. Yes but it's got to – the person has to fit the criteria...

Ron Josephson: Right.

Anne Sergeant: ...for early career. So early career – so it sounds to me like you have a post – have a doctoral degree in a field related to the research that you are untenured as of the closing date of the RFA or you do not expect to be tenured and the start date – you aren't untenured and you have a tenure-track offer with a start date April 21st so it sounds like yes so you've got a PhD, you are untenured now and you still will be at the closing date of the RFA and you expect to be employed in a tenure-track position by the award date.

So you can apply either – oh you should apply – oh I see what your question is, if you apply through your current institution to be honest, we will have to do a lot of paperwork once you move, and note that if you apply under the current institution they might say no to letting this grant go to another institution. They might say, oh no, we, University X, won this grant and we are to find another person who fits the criteria for early career to be the investigator on this grant.

So if you know you are going to this new institution and you yourself want to work on it I would highly recommend that the institution to which you are going apply if that works, I'm not sure – this is a little – this is an interesting position because you are not there yet. So...

Ron Josephson: Yes we've had quite a few inquiries from people who are in transition...

Anne Sergeant: Yes.

Ron Josephson: ...but yes it is the institution and I mean I personally don't see how any institution would have a problem with winning grant money so it's – yes I would definitely concur with Anne that the institution you are going to if you anticipate being on board by the time of the award date that should be the applicant institution with U.S. but PI at that institution I mean as long as their sponsored programs people authorize that application which is what basically grants.gov application is it should be fine.

- Anne Sergeant: Now if they say no, if they say, well it's not a done deal yet. What if something happens to you heaven forbid you may apply through your current institution. It would be – it might be kind of a delicate situation to tell them, oh by the way I am taking a new job at so-and-so, institutions rarely refuse to allow the grant to move with the PI, but it can happen. And if they say no, that's it – the answer is no. So that is the situation. I hope you can figure out the decision that works for you.
- Ron Josephson: Yes. Though at the current – but I think by the example the current institution the potential PI does not anticipate having a tenured track position there.
- Anne Sergeant: Yes this one is an excellent question. I'm not sure we have a 100 percent complete answer. OK the next question is, “we are considering evaluation of whether an existing Superfund site is robust to future changes under sea level rise. If breached it might release some nasty things that hurt people in at least three nearby communities. Would this be considered research that helps EPA?” Well I don't know with that specific question but I would be very careful about this as a research project because remember it has to fall – the workers has to fall under the Clean Air Act, the Clean Water Act or the Safe Drinking Water Act and Superfund where there's certainly – it can be air, water and drinking water contamination from a Superfund site. Superfund sites typically are places where nasties were disposed on the land and they are regulated specifically under – I forget what they are called now...
- Ron Josephson: The Land and Emergency Management.
- Anne Sergeant: Thank you.
- Ron Josephson: I used to work there.
- Anne Sergeant: Well, the names have changed a few times.
- Ron Josephson: Yes.
- Anne Sergeant: So the law that covers Superfund is not the clean Air Act and it is not the Clean Water Act. So be very careful there. And would it be considered

research that helps EPA directly? So the other thing to be really careful about here is, is this research or is this contract risk assessment? So please consider that carefully.

If there's a specific thing that's needed like if it's a product that's needed if the communities, say these three communities want to know what the chances are of bad things happening to them—to simplify, that's a specific product that benefits those specific communities. And similarly, if EPA is interested in this, that's the specific product that benefits EPA and both of those specific products would be considered contracts not research so tread very carefully there.

“For an early career application with two assistant professors with similar involvement does the lead PI need to be the one with the most relevant past performance or does that not matter for how the grant will be evaluated? Is it the past performance of the team or is it the past performance only of the lead PI?” OK to answer the second part it is the past performance only of the lead PI. That's the person who has to certify. And then two assistant professors that sounds – I'm not sure – oh no that's OK because as long as there's two – as long as the assistant professors are not tenured and one of them is the – one of them has to be named the – well one has to be the lead PI. But it is the past performance of the lead PI. Good question. *****

Do we have any more questions? OK. “Can you repeat and elaborate on what you said about the project not having funding from both EPA and another federal agency? I'm not sure I heard you correctly on this point.” Ron needs to look that up is the short answer to that question. His email is josephson.ron (spelled just like you think) at EPA.gov.

Ron Josephson: Yes I would say whatever is your specific situation send me an e-mail; it's easier for me to look at it in writing and if necessary bounce it off some other colleagues and even if necessary get legal advice on it. We have a whole cast of characters in the background so I can get a read on that but it's easier – and it might actually be better to go over specific kind of off-line here.

Anne Sergeant: Thanks, Ron. Next question, “with regard to contract product versus research are the output and outcomes of the research expected to be generalizable to "all communities"?” That's an excellent question. No, they are not expected to be generalizable to all communities, for instance, an application might focus on a particular type of urban community. It might focus on a rural community, agricultural, tribal et cetera. There are lots of choices there and part of this research is because one size doesn't necessarily fit all with communities. So great question. It doesn't have to be generalizable to all of them. It should be generalizable to some of them though. It shouldn't be a completely unique case.

OK that – those are the questions that we see. If anybody have another question this would be a great time to ask it in the chat box there.

Ron Josephson: Yes one thing I wanted to add also in terms of the private company thing: For those who are interested in our programs we do have another program that's – a different time of the year, we have something called Small Business Innovation Research. EPA and other federal agencies participated in this because by law a certain percentage of research dollars has to go to small businesses.

You can – the general Federal government link is SBIR, Sierra, Bravo, Indigo, Romeo dot gov. So SBIR.gov there will be a link to EPA there as well and I believe our webpage has a link to our own SBIR program. We usually have a funding notice come once a year. But other Federal agencies do, too so that's another opportunity for small businesses and it just – in case you were not aware or if you feel particularly entrepreneurial.

Anne Sergeant: Thanks, Ron. So there's – oh, a couple of more questions, “Do you expect this solicitation to be issued again in the future?” Man, I would love it but I cannot predict the future if I could I would have bought that big winning lottery ticket last year. Really I would love to do this again. We'll see. There's a lot of factors that go into our budget stuff and I am not aware of all of them.

Next question “What factors would you encourage us to consider in deciding whether to apply early career or for regular award if we're eligible for both?” That's a great question. Let's see. Well, there's pluses and minuses. You get less money if you apply for early career but you also—it's not like the criteria are different. They are the same but the peer reviewers recognize that the early career crowd has less experience than the "regular crowd" and then of course if you are applying as an early career you can only have one PI although you may – we encourage collaboration and I guess those are the primary differences.

So really it's up to you and I know we can't predict which field of contenders is going to be bigger than the other. We don't have quotas, so if it turns out that we get fabulous early careers we could decide to award all early careers and if none of them are really that great we could decide to award all regular awards.

Ron Josephson: If it helps, when we conduct peer reviews all applications are basically going into the same peer review meeting but we usually consider career separately from the regular award. So it sounds like we're going back and forth between them just to kind of so everybody knows ok this set is early career and this other set is the regular award.

Anne Sergeant: “If two assistant professors are applying to the early career work with similar effort does the lead PI need to have a higher effort in each year.” Well, I would suggest in this case, putting yourself in the peer reviewers' shoes. If you were a peer reviewer and you saw the lead PI's effort varying over time what would you think? Or maybe ask a colleague what they would think if they saw that. I can't – none of us here can really answer that question. We don't have a requirement that way.

Next question “How many applications do you anticipate receiving or if you don't know what is the previous success rate of star program proposals?” Oh man that's a tough one. Again, if I could predict the future I would have bought that winning lottery ticket last year. We have had a lot of interest in this opportunity – I was surprised by how much interest there is. So the short answer is I don't know.

And asking the previous success rate of STAR program proposals, I can't give you a meaningful number there because if we get extra high interest, I am thinking maybe the success rate would be lower than certain other STAR program proposals. But it depends on how much demand there is for the specific kind of funding or the specific solicitation question, and it depends on whether the stuff we're advertising is similar to what other states or federal agencies are advertising for perhaps a lot more money. There are so many variables in there that I really can't give you a meaningful answer there. I'm sorry.

“With respect to research versus contract risk assessment am I understanding correctly that generalizability of findings and applicability to the RFA's broad research themes are key thresholds?” I would be reluctant to use the word threshold but generalizability, yes absolutely. We're looking for information that's for the common good that advances the field. And applicability to the research – the RfA's broad research themes are key thresholds, well yes. We have those three questions and you have to answer them. You must have a way to – some plan for answering the three questions and so they're key. I'm not sure I would use the word threshold but they are key, yes.

OK I don't see any more questions (or Anna doesn't) so I wanted to mention one more thing while we're still on the phone, and that is if you go to the link for the solicitation—I'm looking at the page that says Research Grants and it's got the woman in the red kayak. And then if you scroll down that page you will pass by a row of things: research funding opportunities, research gray areas, tools and resources, if you scroll further there is latest news, there's a computer and a stack of newspapers and then there's events and that is the calendar with the pushpins stuck in it that I have been talking about.

And if you scroll down underneath that you there's a link called Past Events and if you click on that past events there you will see under 2016 events which is what pops up you will see “STAR Integrating Human Health and Well-Being with Ecosystems webinar. It's got last week's on there but I have used exactly the same slides and if you click on that it has date and time, add the calendar blah, blah, blah and if you scroll to the bottom of that page there's

a PDF of the slides I used today. And I'm clicking these things as I speak so I know this works.

And if for some reason doesn't work, try another browser. Every once in a while it gets a little picky. Anna is cutting and pasting this link and putting it in the chat box. Thank you, Anna—you rock! So there it is for your reference for seeing the slides. OK “Did you say there would also be a transcript?” Yes, there will be a transcript. There is some unknown glitch about getting the transcript from the first webinar. I hope we can post them both.

That's the plan. We'll see if we succeed there. There's something about the transcript that needs to happen that hasn't happened yet and I don't know why so we hope this will be soon. We do plan to add a transcript though. So thanks for attending everybody. If you have more questions again, you can contact me or Ron or Debbie Jones as necessary.

One more question, “What are the best strategies for engaging diverse partners, a community, local government, academic institution, neighborhood to address and mitigate critical community health or environmental concerns? This seems to be to allow for Superfund sites, does it not?” No, the work must fall under the Clean Water Act, the Clean Air Act or the Safe Drinking Water Act. That's in – under the part that's called Authority and Regulations (Section I.C). So you would think so, yes, but our funding only allows us to fund research that fits under air or water basically.

And you're welcome, everyone.

Ron Josephson: Thanks for participating.

Anne Sergeant: “So heavy metal contamination per se should be ruled out?” Well, you could deal with it as long as it was also contaminating water, drinking water or air. OK. Over and out.

END