

**Informational Webinar:
Integrating Human Health and Well-Being with Ecosystems Services
March 22, 2016
3:17 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:

Anne Sergeant (sergeant.anne@epa.gov) Technical Contact
Ron Josephson (josephson.ron@epa.gov) Eligibility Contact
Anna Fretheim (fretheim.anna@epa.gov) Student Contractor

Note: The presentation was delayed for a few minutes while we tried to resolve a technical problem. When we realized that was unlikely, we proceeded with the presentation. This transcript has been edited for clarity, and slide reference numbers have been added to readers can refer to the slides (note: the title slide is Slide Zero).

Operator: This is conference call # 160830082.

Anne Sergeant: (Slide Zero – Integrating Human Health & Well-Being with Ecosystem Services RfA) OK, the one big piece of advice I'd give to everybody is read everything and take it literally. We try really hard not to write between the lines or anything like that. So if it's not in there, please feel free to contact anyone of us who's listed within the RfA itself.

OK I see some stuff in the chat saying the audios gone.

Anna Fretheim: No, it's back.

Male: Can you post the call-in number, people are asking for it.

Anne Sergeant: So if you're looking for the call-in number, you can scroll to the top of the chat and find it there. It begins with 1-866, and Anna has just scrolled back there. So getting back to the first slide here, I also want to let everybody know that we know we're asking for a lot for the funds that we're offering.

And that's why we're recommending using existing data and also using existing relationships with communities, because it's expensive to collect data, it's expensive to analyze them and then of course if you want do the metadata thing, that makes it even more expensive.

And then the part about communities is that it can take years to develop a working relationship with a community, so that's why we are strongly recommending that people use an existing relationship with a community or a community organization.

I also want to let you know that we wrote broadly in order to maximize flexibility and also because we knew that we don't have all the bright ideas and I have been actually surprised and delighted at the really creative ideas that I've heard from people who've phoned me for information.

I'm excited about this. So I expect to speak for 20 to 30 minutes and then we'll have an hour or so for questions and also—in case you missed it in the chat box—we will be recording this webinar and it'll be available online. And we'll offer it again next week, because we have unknown problems with access to the webinar room itself.

(Slide 1 - Outline) So here's a quick overview of what we'll talk about today, the impetus for the RfA (and there may be someone else who wants to jump in on with that idea). We'll have an overview of the RfA itself in research areas and I'll quickly touch on the Peer Review criteria and the programmatic review criteria or considerations.

We have a few tips for dealing with (grants.gov) and then we'll devote the rest of the time to questions and answers. So I know (National Program Director) Mike Slimak is on the line, I don't know if you want to jump in with information about the impetus for the RfA or you would rather I just move along.

You (Mike) can maybe let me know in the chat box and then we'll un-mute you. (pause) OK, I'm going to just move along then.

(Slide 2 – Meeting the Challenge Ahead) So this RfA is designed to be aligned with some of our EPA's "Meeting the Challenge Ahead" themes, which are right there listed for you. Number one making a visible difference in communities across the country. Second one is addressing climate changes, improving air quality. Third is protecting water and last is working toward a sustainable future.

It's also aligned with sustainable healthy communities Goal 3 and Objective 3.1. And the RfA has links to where you can find those items along with EPA's strategic plan.

(Slide 3 – RfA Goals) The goals of the RfA are you can find them in the second paragraph of the Synopsis of Program, which is at the very beginning of the RfA. We are looking for collaborative community-based research to better understand how ecosystems support human health and well-being. And in my eyes what's really cool about this is its connecting human health and well-being with ecosystems and ecosystem services.

We have not done this (i.e., funded extramural research) before at EPA. So we want our researchers to develop information that informs decision making and management practices by communities, and maybe even figuring what works well and what doesn't work well for developing that information.

We want to help communities integrate environmental, societal and economic information so they can better manage stressors and multiple stressors balancing between them and their effect on both humans and ecosystems, and

the ultimate goal is to help communities make their own decisions and use more and better data to make those decisions.

(Slide 4 – Example Conceptual Model – shows the connectedness between stressors, ecosystems, humans and modifying factors) This is an example of what we're looking for. We want communities to be able to do this, we want them to be able to evaluate a stressor or multiple stressors and look at all the other factors that are out there like underlying disease, climate change, heat stress and so on and how those factors of modifying factors influence how humans respond, how ecosystems respond, be able to look at what happens between humans and ecosystems and see in the end how the responses between all of that affect human health and well-being and ecosystem services.

And this is just a sample of what one could look like. And I didn't note earlier all the examples in the RfA are just examples, you are not wedded to those. We put examples in there to help people get their heads around what we were looking for.

(Slide 5 – Three Research Questions) We have three research questions and you must answer all of them. And you can read them too, but basically what are the factors that determine success or failure when using existing data, to understand the impacts of multiple stressors.

I'm paraphrasing here, but the slide shows the questions literally. What are the factors that influence whether and how decision making processes are developed for evaluating management strategies and prioritizing goals?

And then what are the most effective methods for tracking progress and ensuring accountability towards leading those goals?

Right after the research questions there's a little section on context for research questions. And I want to draw that to your attention, the first paragraph there is "Ecosystems," and in that section the last sentence says that ecosystems and humans should be treated comparably. So that means that it's

probably not the best idea to do a human health study and then tuck in a little ecosystem stuff at the very last minute or vice versa.

And it also goes on to talk about Societal Concerns, Processes and a couple of other things. So please have a look at that, it's right after the Research Questions. And then there's a little bit of material on what we mean by Integrated Transdisciplinary approaches.

And quite a lot of material on Community Engaged Research. So read it all, but look at that for sure.

(Slide 6 – Expected Outputs; Examples) And following that, there's expected outputs and outcomes, you can read those things, but basically we want information that helps communities understand and manage the impact of multiple stressors.

So what we're looking for is things like journal articles, presentations, reports, could be workshops, could be websites that sort of thing. Another thing that could be an output is proposed activities to help state strides or communities develop assessments that are informative and implementable.

And Examples are best practices and for engaging communities and partners that are (again, I used that word before), implementable, things that you can do to make some progress there and maybe best practices for combining different types of data. Especially for integrating human health and ecological impact, they're often not the same kind of data, so that might take a little extra exercise there.

(Slide 7 – Outcomes; Examples) And for outcomes, we're basically talking about improving human health in the environment.

We'd also hope to advance the idea that—well, we hoped that the idea is obvious—that all ecosystems one way or another provide services of some sort, I mean you could have a lush old growth forest or you could have a park with a few trees in it, and they both provide ecosystem services. It's just that they're different services. We also would like there to be better understanding

of what forces lead to what impacts—it could be stressors, it could be other modifying factors, it could be human factors, there's lots of possibility in there.

And some Examples of that are more use of local data in community level decisions to reduce exposure to pollutants. It could be humans or it could be ecosystems. And another example is that a degraded habitat is cleaned up so it's not just a cleaner habitat, but it provides ecosystem services that it didn't used to. Just examples, like I've said, you're not wedded to any of that.

(Slide 8 – Peer Review) Peer Review is in Section V.A, we have a lot of Peer Review Criteria that are lumped into four general categories; you can see them there (on the slide): Research Merits, Responsiveness, Project Management and Other Factors. You'd do well to read that section and find out exactly how you will be evaluated by the peer reviewers. That's really important. They can use only those criteria and they can't include any others of their own choosing. This is how you'll be rated.

(Slide 9 – Programmatic Review) And then in Section V.B are Programmatic Review Criteria and that's and internal EPA review. Normally we just use two criteria: Relevance to EPA Research Priorities (there's a link earlier in the RfA to that) and Past Performance—that means past performance with awards of similar size and scope. So if you have an award of say \$5 million, that's not really similar size and scope to what we're offering here. Similarly, if you've had a little grant of \$15,000 that's not similar in size and scope here.

But we are looking for information about whether you have successfully managed money and delivered what you promised in the past. The new one in here is Livability Principles, and they are described in the RfA itself, but we have two (we have five Livability Criteria at EPA, and we're focusing on two of them here).

One of them is to Support Existing Communities and that's things like using strategies towards trans-oriented mixed use planning and redevelopment and land recycling or you could look at the efficiency of public works projects, just what makes a place more livable for humans.

The other Livability Criterion we're looking at is Valuing Communities and Neighborhoods, which is to enhance the unique characteristics of all communities by investing in healthy, safe, resilient and walkable neighborhoods. Any kind of community, rural or urban or suburban, they're all good, and size doesn't matter. But you should clearly define what community it is you're talking about.

Oh, and I see a question here about it would be helpful to know what pages they are if any of these slides come from. The RfA alas does not have page numbers. So I would have done it if I could have—I'm sorry, but I can't. Also, it seems like everybody's computer screens display differently, so even if there were pages it would be hard for that to be consistent.

(Slide 10 – Using Grants.gov) So next we have Using Grants.gov. We're required to use grants.gov for submissions, so we have a few recommendations there. These are just general tips. Thing One is get your account early and make sure your DUNS and SAM registrations are active. (deleted banter) It's how you get the money. So it's really important to have this. Be sure and check everything before you click that Save and Submit button, and if you can possibly do it—I mean I know for some people and sometimes I'm one of them, there's nothing that would ever get done if it weren't for the last minute—but if you could plan to make your last minute be earlier than the actual last minute, that way in case anything goes wrong you have a little bit leeway to correct it. So please don't wait until the last minute. It's up to you but really I don't recommend it.

(Slide 11 – Troubleshooting Grants.gov) If you do have trouble with grants.gov they do have a help desk. A friend of mine used to work on it so I even know a little bit how it operates but if you forgot something you can just do a re-submit. Other things you can do yourself include checking for compatibility with Adobe software versions, and making sure that your ZIP + 4 is correct.

There's an 800 number right on this slide for the help desk and that's in grants.gov as well. So when you do this, if you need to call them, be sure to get an incident number and to write an email explaining what happened.

That way, if you do you miss the deadline, if you can demonstrate that you tried and something went wrong that wasn't your fault, your life will be a lot better let's put it that way.

Ron Josephson: Pick the right funding opportunity when applying in the grants.gov.

Anne Sergeant: Yes, Ron is saying here to be sure to pick the right funding opportunity when you're applying in grants.gov—note that there are two numbers in this one, the regular awards and the early career awards. So be sure you have the one you meant to have.

(Slide 12 – Frequently Asked Questions) I'll review a handful of frequently asked questions, one of them is about eligibility and the—we've gotten a lot of questions (in the chat pod) from all over.

So the **Eligibility** is public and private, non-profit and for profit, public and private non-profit institutions and organizations—which includes institutions of higher education and hospitals in the United States—are eligible.

State and local governments in the US are eligible. Federally recognized Tribes are eligible. US territories and possessions are eligible.

And yes, you can be an eligible US organization of some sort and do international work. That's a question that's come up from a lot of people. But an organization outside of the United States is not eligible for this funding. It's US tax dollars, it has to go to US institutions or organizations.

So I've gotten questions also about **Early-Career versus Regular Awards**, so regular award is just like you would think. A regular award to an established investigator. Regular awards are the \$600 thousand, early career is \$400 thousand.

If you are applying in early career status, you have to verify three things: [1] that you hold a doctoral degree in field related to the topic of this solicitation; [2] that you're untenured at the closing date of the RfA, so you might know that you're getting tenured, but you can't have it by the time the RfA closes; and [3] you are or expect to be employed in a tenured track position or equivalent or as an assistant professor or equivalent at an institution in the US, its territories or possessions by the award date. So you have to have things lined up. It also has to be a single principal investigator, you can't have a joint PI situation with one, with early career being the first listed PI and a more experienced person being the second listed PI, say. It has to be the early career person standing on his or her own.

We encourage people who are all in the early career category to collaborate with each other and apply. And if you're applying as early career, you can also collaborate with a more senior researcher, you just can't devote a lot of resources to them. I mean advice is great, but being the big player in your research is not what we had in mind we said earlier career.

The **Authority and Regulations**, basically they're the flavor of money we have to fund this research. And those are the Clean Air Act, the Clean Water Act and the Safe Drinking Water Act. So you should be sure that what you're proposing fits in those categories one way or another. So that means if you're talking about cleaning up the soil at a toxic waste site, you're probably not going to fit within this, so you'll need to consider something else or rethink what you're planning.

So we talked about using **Existing Data** like I said earlier, because it's expensive to collect data. And there are some pretty good data sources out there. We did our best to cite a lot of them in the RfA itself, but you're not limited to those at all, those were just the ones that were handy that we knew about, so feel free to take advantage of other data sources.

And you may generate your own data if you wish. But we suggested using existing data because we know it's expensive and we're not offering a huge sum of money for this research, at this time.

And same for **Community Engagement**, well similar if you're thinking "time is money." It can take a long time to develop a relationship with the community, it takes time to build trust, it takes time to understand different organizations goals, wants, needs, etc. These are three-year grants, and it has been known to take significantly longer than three years to develop a good relationship with a community. So that's why we encourage that.

And as I said before international projects are fine, they just have to be performed by an eligible applicants.

A few other questions that I've got are a couple people asked me about specific activities. We didn't place any limitation on activities, as long as it fits within the other parameters of the grant. We didn't specify them because we knew we couldn't think of all of them.

And a bit of advice I would give is to bite off what you can chew, we're asking for a lot here, there are several kind of complex questions that we have here, so it could easily lead to thinking that that you have to do a lot in this grant.

And I strongly recommend finding discrete things you can look at and biting off what you can chew. Don't try to be everything to all people, try to pick some things and do them well, that will serve you quite well.

And I mentioned this a couple of times already, but the examples are just that—examples. We want people to be creative, we want people to have integrated trans-disciplinary research from lots of different minds and come up with some really good ideas.

And I know I said this already also, but read everything and take it literally. We try really hard to avoid things such as *double entendre* in our RfAs.

(Slide 13 – Useful Links) So just really quickly we have a list of useful links here and I'm not really going to talk about them other than to say that they're there.

And these slides of course will be downloadable.

(Slide 13 – Questions?) And then for questions, this is all from the RfA, the Technical Contact is me (Anne Sergeant) there's my email and my phone number, the Eligibility Contact is (Ron Josephson) with his name and phone number.

And Electronics Submission questions would go to Debra Jones, who's not in the room today, but her email and phone number are there as well. So we can start—do you have questions teed up, Anna?

Anna Fretheim: There are two questions.

Anne Sergeant: OK.

Ron Josephson: I have a few eligibility items if you want.

Anne Sergeant: Oh, OK and Ron has just offered to cover a couple of eligibility items, so while he's here so we're going to pass a microphone over to him.

Ron Josephson: OK Anne, thank you very much and thanks everybody for your interest in this research. I understand this is pretty high level as I can tell from I guess my email communications and Anne's also. Mostly eligibility is self-explanatory.

Anne has covered a lot of things, all applications, when they are received, they go through me for an eligibility review. The way to look at it is if this is mainly Section III of the RfA, if you see the word *must* in there it means that it must be there and if it is not there, that can be grounds for ruling an application ineligible and therefore not being peer reviewed.

A couple of things that I did want to go through we get a lot of questions on. First of all, with the early career you can be an assistant or an associate professor, we've had this question before so either way is fine. There is no age limit, just so you know. I've had this question quite a few times.

But ...

Female: We actually have a question now about years' post receiving doctorate, can you address that one really quickly?

Ron Josephson: We don't have a specific timeframe, again it is more if you are on a tenure track and basically meeting what is in writing here. I don't - you know I realize in some institutions it may take longer than in others and you know since we don't have a specific numerical limit, I am not applying one.

As long as you have the early career verification as stated in the RfA that you must have. Section IV.C.5.f, Requested Support, again the two levels for the regular grant are \$600 thousand or for the early career \$400 thousand, not a penny more.

This doesn't happen real often, but sometimes people ask for more than that in terms of federal support, and applications that do that do not get reviewed. And please make sure that the total number in the Form 424 matches your total number in your budget and justification.

Ann went over the eligible applicants; we get questions a lot about private companies or individuals being involved, private for-profit companies cannot be applicants, they can have a role in consulting, this is defined in the budget section, IV.C.6b6.

It's our boiler plate language in there, I know, I - people in this room are cringing right now, I've just gone through it so much that I'm - it just comes to me by rote, so basically if you have such a consultant, you will eventually have to show that you've competed this service that if you pass the review then you'll probably have to make that demonstration.

But just be aware also these consultants are not major PIs. I believe there is something stated about personnel in the RfA about that. But that is where the role can be defined. A lot of people are asking if this can be a grant to like individuals like fellowship.

This is not a research fellowship for graduate support. This is an application by institutions. Certainly if you are a graduate student, if your advisor wants to apply and some of the budget can go to support you that is fine.

If you happen to win an award, but this is not like a fellowship, so please don't get these mixed up. Federal agencies cannot apply, that is also listed in the RfA.

Female: OK (inaudible)...

Ron Josephson: Yes federal agencies cannot apply, federal agencies and employees cannot receive our grant money. They're sometimes a federally funded research and development center may have a role in terms of planning or conducting research or facilities and permanent employees of these institutions may not work on the RfAs.

Somebody who's there temporarily that is fine, I understand a lot of people are really contractors who work there, I know we've had some other questions about you know where support can go, but if it going to some sort of federal agency or employee the answer is no.

And speaking of federal employees, you cannot have a letter of support or intent from an EPA employee, we do not want to see anything on EPA letterhead in here or else it'll get removed. And it actually can be an ethics violation for the EPA employee involved.

Again it doesn't happen really often, but just again to be careful about this. Let's see, again you can provide cost share, so the total including your cost share goes over \$600 or \$400 thousand that's fine, just the amount you're requesting from the Federal government cannot be over that amount.

“Substantially compliant” - In section VI.C we mention applications must substantially comply with submissions instructions. Basically that means make sure that you have all the elements we are asking for in section VI.C.

So for - I mean most people have this stuff, but you know every once in a while this is where the last minute comes in if you - an application comes in and somebody forgot to say attach their research plan, that might - that would be not substantially compliant.

There are a lot of elements in there, so and this doesn't happen often, but sometimes we get something that's basically one page that's basically not

much more than an abstract. That is not substantially compliant with the application requirements that we have.

No submissions after the deadline, Anne went over the electronic submissions if you had - if you can demonstrate you've had problems with grants.gov, again as Anne said you call their toll free number which is open 24 hours a day, 7 days a week and also notify our electronic submissions contact.

I would definitely if you are having trouble, do that within one business day. But if you submitted an application, then you realized oh I forgot something I wanted in there, we do not accept anything to add to your application.

It would be unfair to all other applicants. Let's see the only other thing I have in here is I just want - I don't know did you say anything like human subjects?

Anne Sergeant: No, I did not.

Ron Josephson: OK we do have a section about human subjects not all research will address human subjects, please look at our criteria carefully, if you have specific questions we can direct you to our human subjects contact.

But if you are sure you do not have any human subjects research, be sure to put in a sentence saying this research does not involve human subjects. Don't just leave it unsaid. It's not an eligibility criterion, but we want you to either define how you address human subjects or to say that you do not address human subjects.

So anyway I will let it go for questions.

Anne Sergeant: There is one related - one that came up on the chat on here. A person's asking the specific question if a contractor is working for a federal agency are they eligible? Obviously they're not eligible to apply for the grant...

Ron Josephson: Right

Anne Sergeant: - but are they eligible to participate I think is what ...

Ron Josephson: Oh well it depends. I mean if the contractor is a non-profit organization they can apply and there are some non-profits that work for the federal government. Basically again as a consultant this would be the be the kind of work that would have to be competed as there's a whole contractual - it addresses in the budget section and there's a link in the RfA to another page that addresses this kind of stuff.

I think it's like grants and opportunities or something about funding opportunities in there, there's solicitation clauses that address this. So again you wouldn't be a government contract - if the company happens to be a government contractor, but also wants to be a consultant to an eligible applicant, they can do that it just has to do with following the guidance on contractual services that is listed in the budget justification section of the RfA.

And the applicant - I mean the eligible applicant will have to provide the justification.

Anne Sergeant: So, Ron, you just reminded me of something I forgot to say. And that is if you work for a university you almost certainly have something called an Office of Sponsored Programs or Office of Sponsored Research or similarly titled organization. And they will be your friends here. They're the ones who'll know questions about overhead, they'll know about the contractual stuff, they - one would hope they will go through and make sure that your number at the top of your application matches the number in your budget and that your budget does—for instance Ron was saying if you have matching funds if you want to go over 600k or over 400k, that what you're expecting or hoping for from EPA does not exceed the limit of the opportunity you're applying for.

So I hope that captured a couple of questions that we had online and just - there was one on overhead and overhead is determined by what's called the Cognizant Agency. And that is the institution, the piece of the federal government from whom your institution receives the most money.

And I'm not sure if this is still true, but when I first asked about this, which was a long time ago, I learned that the Department of the Navy is often the Cognizant Agency which was a surprise to me, but somebody gives your

institution the most money and it's their overhead rates that you would be expected to follow.

Ron Josephson: Yes also speaking of your sponsored programs office, obviously make sure that by the time you're really ready to apply that somebody's there. This is where you don't wait until 11:58 pm, because somebody might not be there.

This is has been - I don't think it would be a problem now, but there've been problems with, especially public sector institutions that if you know they have a furlough for some reason with the state government and people aren't there and then somebody can't apply.

So you know make sure you know their schedule in advance.

Anne Sergeant: OK so (Anna) is collecting questions here and she's going to show them to me so I can start answering them in the order ...

Ron Josephson: Oh and the electronic submissions item, everything should be in one document, we don't need you know research plan being one document and then budget justification being another document and resume's being another document.

Please put them together otherwise it becomes really messy for us to process.

Anne Sergeant: Thank you, Ron. So Anna's now handing some questions to me. I'm going to read them. (OK, from - in the italics?) "From this briefing, it sounds like built urban environment is not much on the table here accept maybe city parks. Is this the correct interpretation?" I would say no, not necessarily. An ecosystems an ecosystem and some of them have a lot of hard surfaces and stinky things and some of them have a lot of soft lush surfaces and smell nice.

And houses are ecosystems, our bodies are ecosystems, so I don't think any place is off the table. You just have to define your terms in the ecosystem. I don't think we're expecting everybody to list predators and so on, but if you can describe the interactions between organisms and their environment, then you have an ecosystem. So it can – yes, it can be a built environment.

Next question is for early career: “Is there a restriction for years after you receiving your PhD?” I think you said that was no, it's more positional, right Ron? And that's described in Section III, am I correct about that?

Ron Josephson: Yes, Section III.A.

Anne Sergeant: And the way I found out when I was looking earlier today is I just Ctrl-F for “early” (and it works best to do “[space]early” because that way you don't have to wade through all those “clearlys”).

Next question on the list is “Do we have to have relationships established with community for all aspects of the project when we submit the application or can community outreach and engagement be focus for the first year of the grant?” My interpretation of this is that if you had to have community outreach and engagement for the entire grant, we would have said so. Basically if we don't say that you can't, I think you could reasonably conclude that you can. As long as it's legal.

Next question: “Is ‘ecosystem’ a natural ecosystem or can engineered ecosystems such as greening and urban parks be considered?” Yes, urban ecosystems can be considered.

“Are there any minimum number of stressors we need to use in our model, i.e., water and poverty?” I don't have enough information to answer that question so maybe if you're still on the webinar here maybe you could elaborate a little bit on what you mean, because I think of water as a resource and not a stressor.

Certainly poverty is (a stressor), but I'm just not sure of the context there, so I don't think I can answer it correctly. It looks like the author is typing again. I'm going to move on to the next to the question, but we will come back to that.

“Can you partner with international organization via a sub agreement mechanism?” I believe the answer to that is yes. As long as the US

institution is receiving the money. And yes of course you would be able to pay them for what they do. That would be a contract or sub agreement.

Next one: "Can a junior soft money research professor be a lead PI in the regular award?" Well, we didn't say you couldn't, so I guess the answer to that is yes. Soft or hard money that doesn't matter.

"Will you consider projects that quantify contaminants of emerging concern and how aquatic species and local communities that depend on there may be impacted from both an ecosystem service and human health perspective?" I don't see why we wouldn't, it's looking at humans and ecosystems in the interconnectedness between them and ecosystem services too. We're getting some more questions here.

Female: (Inaudible) explain.

Anne Sergeant: OK all right I think I need to scroll up here. We have explanation on a previously asked question so I'm going to look for that. Oh, great question. "In the conceptual model there were many examples and now I don't see the question anymore, but heat stress - climate change, heat, climate et cetera do we need to use all of them?" No, you do not need to use all of them. That gets back to the bite off what you can chew. Pick stressors that you are able to get your heads around and your analysis around. You don't need to do everything. Just pick some answerable questions, that you'll be answering with new information.

OK next question: "What is the rough success rate for grants of this type with EPA?" Well it's an easy answer, this is unknown because we have not had grants of this type before. Sorry I don't know that.

"Do we have to have a relationship established with the community for all aspects of the project or can we work on that the first year of the grant?" I think we answered that already, didn't we?

Anna Fretheim: Some of them are repeats.

Anne Sergeant: Oh OK. So you don't have to have a relationship established with the community for every single part of the grant.

“How long will proposals be in review? When do you anticipate announcing rewards?” Oh man I wish I could answer this one well, but the estimate - we estimate that it takes. Let's see ... proposals are in Peer Review for about two months, then we have programmatic review for which we allow another month, and then we have the decision meeting which takes, well it depends a lot on a lot of people's schedules. And then there's a couple months to get the funding packages done. So what did I get up to there, about six months?

Ron Josephson: Five or six, yes.

Anne Sergeant: Yes so six months, optimistically. It could be a little longer than that. My dream of dreams would be to get them awarded by the end of the year for sure. But things happen, including things like furloughs. So we hope that that won't happen, but that's a rough guess.

Ron Josephson: But in terms of the period of performance you would put on say your form 424, I mean again the rough guess is six months after the close of the RfA, but it's not like there are any wrong answers, as long as the interval of performances within what is specified in the RfA. You said it's three years?

Anne Sergeant: Yes, these are three-year awards, so the grant will last three years from when you are awarded it.

OK, next question. “Do you have opinions about supporting post docs or graduate students for the early career applicants?” Of course I have opinions now whether they're appropriate to mention here is another story. Yes, post docs can be supported if that's and graduate students can be supported. So I hope that - sorry?

Ron Josephson: And undergraduates.

Anne Sergeant: And undergraduates as well as Ron points out. Thank you, Ron.

OK, “What is a reasonable start date?” I think we may have covered that, if you want me to guess that one, I would say December 1 or January 1, just guessing. But it's OK, because like Ron said there's no wrong answer, you get it for three years no matter when your start date is.

“How many awards do you expect to give out?” Excellent question. So at the moment we have \$3 million in this opportunity and we are planning to award both early career and regular awards. We are not required to give out an equal number of them so we could give out six, three and three. Or we could give out some other combination that adds up to the amount of money we have. And then we could get lucky and we could find additional funding, we don't know.

“What would be an appropriate start date to use in the proposal given review time?” I think we covered that already.

All right, I have a couple questions on early career awards: “How do we verify that we are qualified, what documentation do you need?” There's some language that you have to attest to I think and I have this in my notes here.

Ron Josephson: It's in Section IV.C.5.f.

Anne Sergeant: OK, and it says “I verify that I hold a doctorate degree in a field related to the research et cetera; I am untenured at the closing date; I am or expect to be employed in a tenure track position or equivalent.

So that's in the section that Ron mentioned, and you must verify this. And it's in your best interest to tell the truth there.

There is another early question: “Also you just mentioned that an experienced researcher can't support an early career awardee to a significant level, can you be more specific?” The RfA actually is not more specific. It says you can't devote a *significant* amount of resources and is that also in the section that you just cited Ron or is that earlier?

Ron Josephson: No I think it's earlier.

Anne Sergeant: (this answer was added later) It's in Section III.3, and it says "Early career applications should not propose significant resources for senior researchers and may not list senior researchers as co-PIs." It's a judgement call, because a senior researcher might be strongly contributing even with just a little time, The idea is that the early-career investigator should stand on his or her own two feet and not be a front for a senior investigator.

If it's not clear to you when you go back there, please feel free to email me about that. We're working across departments, but drawing on experience and skills from some very experienced researchers for components.

It's one of those use your judgement kind of things, what would look reasonable to somebody who only knew a little bit about this?

Next question: "Are you looking for communities with heavily impacted ecosystems services? Would a preventive proposal with a restoration component from Anchorage, Alaska be competitive?" I can't answer the second question there. As to whether we're looking for communities with heavily impacted ecosystem services, I can tell you that in order to be able to come up with a conclusion there has to be some kind of change that needs to happen. So heavily impacted presumably the change would be for the better and you'd have to have some way to measure the change one way or the other.

I'm pretty sure nobody's going to propose things that would reduce ecosystem services or increase impact. So I'm sorry I'm not being real clear about this. Heavily versus lightly impacted that doesn't matter, we wrote it broadly to allow a lot of flexibility.

OK next question: "I recently received my PhD and currently work at a medium scale public utility, I'm a connective at the university that I graduated from, however I am not on a tenure track. Sounds like an assistant/associate faculty at the university would need to be the PI and I could work as a consultant on the project." Yes, that's correct.

Next question: “Can an individual be on two proposals? Yes, they can. I hope you're not planning to PI on two of them, though.

Ron Josephson: I think that each proposal has to be distinct from the other.

Anne Sergeant: Yes. You can't apply for basically the same work twice that's for sure, and there is something in there about that if I recall correctly.

Next question: “If the ecosystem provides a service, but the service is not necessarily quantified in the research, would this qualify? For example, water is discharged to an ecosystem but the proposal focuses on characterizing the water quality and potential impacts on ecosystem and public health. But not the ecosystems rule improving water, quality and public health.” Well it depends on what you mean by quantified. And it's actually a good question in that way. So ecosystem services are not all monetizable. So you don't have to worry about trying to monetize everything and you don't have to pick only services that are monetizable. However, in this example, if the water discharge is doing something in the ecosystem, I - well OK, if it's doing something, it's probably worth mentioning that that something is happening. But since we're looking for what can improve community's abilities to manage stressors between and two ecosystems in humans. You're going to have to quantify this somehow. So I hope that answers the question, if not you have my email there on that last page which is visible still.

“Is there a PhD requirement for non-profit applicants?” No, there is not. Well only if they would want to go as an early career and the odds of that are vanishingly small.

“No cost extensions?” Yes, we typically offer them. The first one-year no cost extension is available on request and then you can get another one for one year if you have a good reason for it and can explain it to us. To go over five years is very difficult. I mean it can be done, but please don't count on it. I hope that answers the question.

Next: “Can local public works and parks qualify as community partners or must the community partner be a non-government organization?” That is a

really good question and I'm afraid I don't know the answer right now, I'm going to make a note of it and we'll try to figure that out.

OK next question: "From your experience with other similar EPA grants, do the early career awards offer any competitive advantage to the normal award? Do you typically receive fewer applications for the early career version?" You know I can't answer that in this case, because this is the first funding opportunity we've had in this area, so I have no data, I'm sorry.

Next one: "Is there a limit on the number of collaborators and is it possible to include co-collaborators as opposed to co-PIs?" Of course it's possible to include co-PIs and collaborators, they just wouldn't be listed as a co-PI.

"Has the solicitation been released on grants.gov?" Yes, it has. It came out on ...

Ron Josephson: February 22.

Anne Sergeant: Thank you, February 22 and it closes on April 21.

Next question: "Can a research track, but not tenure track scientist apply?" I don't see why not. (NOTE added later: But not under the early career portion.)

Ron Josephson: Anybody can.

Anne Sergeant: "Is there a preference for the geographic scope of research, would case studies be received well or is there more interest in supporting work - supporting research conducted at a watershed or regional scale?" No geographic scope, you should define what your scope is for sure, but no preference there. And would case studies be received well or is there more interest - I can't speak to the other part because it just depends on how your presentation of what you plan to do convinces the peer reviewers. They're the first gate you have to get through.

But either of those is OK, case studies are fine.

All right, these are the questions we have so far.

And going back to the question “Can local public works and parks qualify as community partners?” We have a pretty lengthy on community engaged research; I'd suggest that you have a look there and if you can't figure it out feel free to give me a call or email me. And there's also – oh, a couple slides back actually (Slide 13), we have in useful links, see the first link there, partnerships and collaborations. It's from EPA's Office of Grants and Debarment, they will know a lot of the answers to pieces of that question there, contracts and sub awards. So I refer you to that as well.

And another question: “This seems very similar to the dynamics of coupled natural and human systems from NSF, what is the main difference between them? I'm sorry I don't know. Probably the NSF one has a lot more money than we do.

OK it's 3 o'clock, we have time for more questions, but if there are no others - oh more questions. OK if we see you typing we will wait for you, we still have half an hour.

“I have scrolled up, now I've scrolled down to the right - where can we access the PowerPoints slides?” We will post them online, there will be a link on our webpage.

“Can a recipient of 100 Resilient Cities be a participant?” I would have to know if 100 Resilient Cities prohibited you from accepting any other money, but I think on our end of it, we don't prohibit that kind of thing.

“Does this grant have an overhead cap for individuals working with universities?” Probably yes, that would fall under the - there are instructions on that - in the part about doing the budget in the RfA, down in the deep, deep depths. Again if you have an Office of Sponsored Programs or Sponsored Research they're the ones who can help you with that.

“Can projects be based solely internationally or do they need to have components applicable to the US?” The results ought to be applicable to United States, that's a very good question, thanks for asking that.

“Am interested in ground water and human health impacts, it seems that ground water fits as part of the ecosystem services, does this fit the call?” Good question. If you're using ground water in the context of drinking water, yes. If you're - I forget what part -there's the clean water - there's two pieces of the Clean Water Act and one is - we have to research this one.

Off the top of my head I don't remember where ground water fits in the Clean Water Act. Unless you're talking about how it discharges to a fresh water system in which case it's fine. Yes, just did. Sounds like the question about ground water and ecosystem services - maybe you could clarify and I'd be able to give you a better answer. Oh perhaps that's already happened.

Another question: “I'm unclear whether the focus is on humans and ecosystems or humans and ecosystem services.” Ecosystem services.”

“It seems like the language goes back and forth on this somewhat, do we need to rehabilitate ecosystems for instance water quality or can we focus on ecosystem services, the impact that water quality has on human use?” You don't necessarily need to rehabilitate ecosystems. So read that part - paragraph two of the synopsis of program and then the research questions you probably don't have to read again and the context for research questions, look also at that. And then there's the background section of course. And then after you've done that be sure to check the Peer Review Criteria.

“Should projects tie in human well-being and sustainability in concert with ecosystem services?” Yes, yes, yes, yes.

“Can you restate the regulatory enabling acts again?” Yes, they are the Clean Air Act, the Clean Water Act, and the Safe Drinking Water Act. And that is under, I forget what piece of the RfA it is, but it's under Authority and Regulations. (added later: It's Section I.C.)

“Can this award cover tuition for graduate students?” As long as they're participating in the project, yes it can support graduate students.

And we see that people are typing. So next question is “Can a recently graduated doctoral student be the primary investigator? Ah ha, there are specific criteria on that. You have to be, let's see- a recently graduated doctoral student would have to be able to do these things, to verify that they hold a doctoral degree and field related to the research. The early-career verifications states I am un-tenured at the closing date of the RfA and am or expect to be employed in a tenure track position or equivalent as an assistant professor or equivalent at an institution blah, blah, blah, by the award date. So that's in there in the RfA so if you do good old Ctrl-F for find and “[space] early” you'll find that in there.

Ron Josephson: Is that question specifically for early career?

Anne Sergeant: Oh, good question. If you're not looking for early career, I don't know why you couldn't be. We just place stipulations on early career.

Ron Josephson: I don't see - we easily affiliate with the institution that is applying.

Anne Sergeant: I'm sorry.

Ron Josephson: You have to be affiliated with institution that is applying.

Anne Sergeant: Right—it can't just be an individual person, it has to be an institution and someone is acting as the PI . Oh it looks like we answered it. Great.

“I was interested in including an ecosystem services aspect related to wetlands into an upcoming wetland program development grant for our region. Is it more appropriate to pursue this approach through your opportunity?” Well, OK, wetlands do fall under the Clean Water Act. “And we are looking at ecosystem services so it would be - we're specifically looking for integrating human health and wellbeing with ecosystem services.” So if that's what your project - if that's what you plan to do to integrate human health and well-being with ecosystem services, then it could work. Right, so OK so clarification: If this would be a monitoring and assessment approach probably not, because

this is research, not data gathering. I see more typing: “More like tool development.” So it - so you'd have to - well we would strongly recommend community involvement in development of the tool. And we would be expecting some information on how and where the community would use that tool and in what decisions they would use the tool. And I admit I forget what (HGM) and (RAM's) are. I have known at one time, but not right now.

“Can funding for a community partner participation be included in the budget?” Yes. There's probably information on that in the part about community engaged research. And by the way if I happen to say anything that's inconsistent with the RfA, the RfA rules, not me. I think I need a little more information to answer that question. So I invite you to email me.

Anne Sergeant: “With permit decisions following in recent executive order to include ecosystem services in all federal decisions?” Yes, we're aware of that executive order, but research grants are supposed to benefit the public good; the federal government can share within that public good, but it's the results of the grants, the activity in the grants should not be primarily for the benefit of the federal government. I hope that helps. But feel free to call or email.

“To what extent should the provided research questions be used as a guiding framework for the application?” You need to provide a proposal that shows how you will answer those three questions. So I would say a pretty heavy extent. And one of my colleagues here points out that responsiveness means responsiveness to the questions that we're asking in the RfA. I'm glad I could answer that for you.

So again, I apologize for the technical difficulties at the beginning, I'm not really sure what the error is, but people who were unable to join the webinar will be receiving an email apologizing for the technical difficulties.

And we will post the webinar online and we'll have it again next week, possibly Tuesday from 2 to 3:30, but I need to find out if I'm available then. And I didn't want to go into my calendar while trying to give a presentation at the same time.

So thank you all for joining us if you have any other questions you can e-mail me or Ron or Debbie as appropriate.

OK you're welcome everybody.

END