

APNEP Engagement & Stewardship Team Meeting

March 27, 2018

Green Square Building, Raleigh

Present: Kelsey Ellis (APNEP), Coley Cordeiro (APNEP), Jimmy Johnson (APNEP), Stacey Feken (APNEP), Lisa Tolley (OEE), Rachel Szczytko (OEE), Marty Wiggins (OEE), Katie Langley (Sound Rivers), Lauren Daniels (DEQ)

Remote: Dana Gillooly (NC Museum of Natural Sciences), Tim Goodale (Elizabeth City State University), Liz Brown-Pickerin (ECU), Melissa Dowland (NC Museum of Natural Sciences), George Matthis (River Guardian Foundation), Rachel Hart (EPA Liaison)

Action Item Follow Up: Mapping Inventory of “Who is Doing What” in the APNEP region

Welcome and Quick Introduction – APNEP

Stacey Feken welcomes everyone. Team is starting to meet more frequently for shorter, call-in meetings. Reminder for those not at December meeting, we split into subgroups and talked about how to move forward, both groups came up with an inventory exercise. We’ve been talking with Lisa Tolley/Marty Wiggins of the NC Office of Environmental Education (OEE) about their database and about how to show that information visually. Lisa Tolley and Rachel Szczytko are going to talk about what they’ve been doing in terms of mapping, and then APNEP staff will talk about what they’ve been doing – there is one CCMP action not readily available through the database and current mapping.

Update on Office of Environmental Education (OEE) Mapping Inventory – Rachel Szczytko

Rachel Szczytko: Brief overview of GIS resources that OEE has. Took information already on website about EE centers, certified educators, and compiled it into a visual GIS database. On page (http://www.eenorthcarolina.org/educators--GIS_resources.html) going through map with EE resources. EEnorthcarolina.org > Resources > Resources and data > GIS Resources. Going to be on the EE resources app today, we have three apps – one about river basins, one is a storymap, and one is a resource map has information about EE centers, certified educators, and need level identified for trainings in NC counties.

Rachel Szczytko: Going to do a broad overview here. Map shows NC, have been trying to adapt things for APNEP. Going to turn on regional map, shows APNEP region/river basins. Displayed on the map are EE centers in the region, just in NC area. We can help with this part of the inventory and are happy to add VA EE centers. Can see EE centers in each county. Can zoom in on a county and click on a center there, see which it is. Can go to the page for each EE center on the website, will help identify resources in each county, where we may be missing resources. Also have a list but this is a way to visualize.

Rachel Szczytko: Also have two other bits of information, first is we've identified how many educators are in each county based on the population of each county. Can see where there are gaps, which counties don't have environmental educators. Zoom in on the APNEP region, you can see some areas with no educators – a lot of the region where APNEP works. Regions that are dark green have the most amount of educators as a ratio – people certified for that population. Trying to show how many educators there were based on the needs of that county. To learn more about any county, click on it and scroll through.

Rachel Szczytko: We also have county level data for the need levels for workshops and trainings. Got this data from a survey of EE's taken from 2013-2017. About needs, improvements, etc. On a county level, didn't do more detail because cities maybe wouldn't be helpful. Light color means no data – no one from that county even took a survey. Light pink is low need level for workshops – educator never mentioned anything or said they were satisfied. Darker colors are a greater need for workshops. Coincides pretty well with the number of certified educators – more people there means more people wanting workshops. MW: Coincides pretty well with where the EE centers are located – Dare County has Aquarium, for example. Take with grain of salt.

Rachel Szczytko: We also have some other resources on here that are useful, could be helpful to you all. If you zoom in, can pull up public libraries, schools (public and private) and colleges and daycare centers. Can see if a school is near an EE center, for example. Can click on the school, etc., to see more information. Can show possibilities for outreach, way to contact teachers, etc. Important to note, where there are a lot of things, sometimes you have to zoom in/out to see it.

Rachel Szczytko: Two other areas – game lands and managed areas. Game lands are available for hunting and recreation. Can click to learn more. Similar to game lands are managed areas, this is a big layer, this will tell you all of the managed areas in the state – federal, local, private. Gives more information about category (private, nature preserve, etc.) Can click for more information.

Rachel Szczytko: Right now we only have this for North Carolina, VA should have many of the same data available and is something I hope to help you look into in the future, expanding this so it is more helpful.

SF: We thought we would save a discussion on next steps, thoughts and comments on what OEE has mapped for after Lisa's discussion. Based on our initial discussions with Lisa/Marty/Rachel Szczytko, lack of data on VA portion would be a next step. Most of you are aware of recent Memorandum of Understanding between NC/VA state agencies, next step would be to put in a request under that MOU. Usually APNEP has a liaison position in VA, has been vacant, understanding from OEE is that there isn't an analogous OEE in VA so finding those resources may take a bit more time. APNEP will pursue that and any info we're able to get while Rachel Szczytko is here and able to work on it. Rachel Szczytko is here for another

month, so time is limited but we wanted to get team feedback about layers to add. If there are things missing after what Lisa goes over, that's the kind of feedback we want to get from you all in terms of gaps and missing information.

Overview of Office of Environmental Education Database and Needs – Lisa Tolley

LT: I'll just start by saying what works well on our site before talking about what's not working well, we have a lot of interactive parts on our website, we operate our site through a partnership with similar organizations in other states. Allows us to have online calendar of events where people can add their own events – wanted it to be a statewide calendar for EE professional development and public programs. Other thing that works well is we have a search feature, if you want to find an EE center near you, can search by city and within 50 miles of your location. Works very well, teachers enjoy having it as a resource. Center search feature is something people can use to do field trips, plan outings, etc. Other thing that works well is grants page, once you put a deadline in the system the grants will drop off automatically, so you never see a grant that is past the deadline. Also have an online listing of contests and awards, this is something that teachers often take advantage of. Jobs and internships page gets a lot of traffic, right now there are tons of opportunities on there. It's a great resource and we get a lot of feedback that people who are hiring found people through this website. Certification system is on here, we keep track of people earning their EE certification.

LT: Now will move on to things not working as well, we have a resource database – designed so you can search for all kinds of different things. Different environmental focuses, pull from the audience that's going to be served, academic focus and resource type. It's really not meeting our needs, there are too many opportunities and options in the search feature. Can put a topic like water quality in and search for it, but it's not operating ideally the way we'd like it to. Would be really difficult to pull our APNEP data, for example.

LT: Some ideas, working with our programmer to add a county search feature, searching by region (mountain, piedmont, coast), opportunities for mapping some of this. Possible to maybe pull the APNEP counties and make it a search. Cleaning up some of these areas to focus on what educators are searching for to make things more relevant. Kelsey Ellis had resource on APNEP website that divided things by category – example. What our office is doing is looking at potential search features/categories – examples are requirements for EE certification, also considered field trips, onsite field trips, wide variety but would narrow down searching for things.

LBP: Idea – river basin search. LT: great suggestion, we were thinking about that as well. Anything to add? MW: events calendar, things time out – for resources, if it's not updated in a year than it will go to archive and original poster will get an email letting them know that it's need to be updated. LT: True, people forget – they put a resource on there and it doesn't get updated – takes up space.

SF: On that note, wasn't in the group that talked about teacher education, reading the notes that was one of the cautions, level of effort that we might put into a mapping exercise, recall that being a caution that some of the team members put out as well. Something we've been discussing, we don't want to duplicate effort, this is a great resource on the OEE website, that's why we've had these great resources on the OEE website – accomplish our CCMP goals while also accomplishing things for them.

LT: At this point we would be open to any suggestions. I think we can rebuild this part of the website to accommodate what APNEP needs. Opportunity – you're trying to do an inventory and we want to fix this part of our website. Wasn't even a way to pull out DEQ programs, we created a new page for that – Rachel Szczytko broke down into categories. To me, this system that we've invested a lot in, you should be able to do that in our searchable database. Want it revamped, we can do a lot in terms of mapping, can overlay school counties, socioeconomic data. MW: Resources can be used for a lot of things, you can attach a word doc or pdf and it automatically turns it into a webpage. We'll try to retain the good features and get rid of the ones that don't work.

LT: Any other suggestions for categories or search features? LD: Any way we can log what people are searching for? LT: one thing people don't take advantage of, you can look on our calendar and see the most viewed events – workshops, that's a good point – we need to build in some analytics so we can get better data on what people are looking for. MW: It's user driven, each one of you can have an account, you can add events, resources on your page. Most events are posted by someone else, we approve them. Last couple years, renaissance of posting.

LT: Shows example of event views. LD: Good way to look at traffic. [Discussion of some of the events] LT: We track it, we track our numbers each month, how many people...we can track how many people have looked at the jobs, grants, etc. Can give people good information on their program. Rachel Szczytko: Do you know if it's the same person looking multiple times? LT: [Discussion of event calendar]

LD: Is there a way you can easily share events on social media? MW: Google calendar and outlook thing works pretty well LT: You could take a link and shorten it on bit.ly – can take the link to the calendar or to the specific event page. LD: Learned that for previous workshops, people usually found them on social media. Lending this to social media would be good. LT: Will add to the list, great suggestion.

LD: Maybe when folks create an event, there could be an additional way they could share on FB/Twitter at the same time.

SF: That's part of what we were talking about in respect to all the actions, there are areas where there are gaps, we've also had the discussion that in some cases it's not a matter of creating new resources but promoting what you all are already doing. If we can use these tools

and identify target audiences – revamping database, additional mapping to identify gaps, talked with MW about an additional gut check about the needs. Sometimes it's a matter of us helping to promote what each other are doing. Creating targeted educational materials to make people aware of these resources – good example from LD – thinking about how people are getting their information.

MW: Curious about who is doing that. LD: White Deer Park in Garner, I think. MW: Wish other nature centers could do that too. Rachel Szczytko: For \$1000 a year, could have tons of ads – reach many more people. LD: Maybe that's a good use of funds. MD: Do you all hear from educators about where the shortfall is? Are there not enough people visiting the centers, or is it resource limited?

MW: I'd say filling programs isn't the problem, more so finding the resources to meet the program needs. Depends on where it is, the target audience, etc. LT: Most of the people who filled out the survey said I could not find these workshops in my county/surrounding counties and had to drive too far. Had to drive further to find the workshops. Rachel Szczytko: Or people working full time, couldn't go to something on a weekday. But a lot of those were training based, weren't programs for kids.

MW: This could be for the APNEP region, if you can find locations in rural areas between more urban areas, you can host workshops there and draw people in from the surrounding more populous areas. Example – Cameron NC. Centrally located between areas with more people. Sometimes a cooperation problem, people are willing to do it but it's a matter of coordination.

LT: Some pages have an excel function, can put data in an excel sheet – if we had events/resources in an excel sheet, could send data out to people and it would make it easier for people to use the data. MW: Would help people like Lauren use the data. LD: Yes, would be helpful.

SF: Sounds like this info can be used in multiple ways, identifying needs, locations for workshops, etc. We wanted to present this info to you to let you know what we're all thinking, feedback in terms of how this information can be used and what's missing in terms of search criteria. If you have time to go in and look at the layers Rachel Szczytko has created, look at database and give Lisa Tolley feedback. We were thinking the next step is to help them with database, kind of the first step whether or not you're mapping. Wanted feedback – is team supportive of working to refine database?

MW: To add, we can add places in Virginia, especially because of MOU. Don't want to get beyond NC too much, but if it's a border place, with the MOU, you can easily add that. No limitation to just add NC.

LBP: Is there coordination with NC Coastal Atlas and Land of Water maps? Rachel Szczytko: Is that housed through DEQ? Would have to look, pulled underlying maps from NCOneMap and

what DEQ uses CC: Coastal Atlas is with division of coastal management in DEQ, have decided not to continue updating it, proceeding forward they're moving away from coastal atlas. There is other coordination going on internally in DEQ, transferring information. Can talk more internally about this later.

JJ: Land of Water, not sure how active that is anymore, it has faded away. MD: Haven't heard much about it in a while, Stan Riggs would probably be the best one to ask if you wanted to find out more. JJ: He took the reins to fulfill grant requirements, not sure if it's going to last much longer.

SF: Any other questions, comments? If you're supportive of us working with Lisa/Marty, we'd like to continue working on this and then come back to you all to talk about what the gaps are and next steps. MD: Good to have information and visuals, hopefully can help us think creatively about what is the most important target.

SF: One thing to add to that, a lot of in terms of breaking this down by action, as follow up to this meeting we're going to send out a handout where we add comments, thinking through how this relates to each of APNEP's CCMP Actions. We've been talking with Lisa/Marty, annotating what the database covers in terms of actions. If you have time, think about their database and maps and think about what can be added/changed to better meet the four actions assigned to this team. LT/MW, anything else? LT/MW: No

Overview of APNEP Inventory Mapping for Action D2.3

SF: We don't think this searchable database gives us a good way to pull out information for Action D2.3, which talks about increasing the understanding of the relationship between public health and ecosystem health, seems like it might not be as easy to add into to database. Team subgroup has created and started populating spreadsheet with information about this action, something we wanted to open up and ask for your feedback going forward. Set up as a google doc where you should be able to go in and add your information. This is where we could really use your feedback, identify what is going on in the APNEP region. Subgroup decided to break down what is happening by river basin initially, trying to break down necessary information. Trying to go through and add programs/initiatives that address that action, just brainstorming at this point. We've started populating this, may not have information on all the columns but if you could try your best to fill it out.

KE: APNEP has someone working part-time on this, provided feedback on the information needed for the spreadsheet to map the data. That's how we came up with the column headings.

LD: Question – how can we use this information to measure success? Looking at outputs, outcomes, etc. SF: Good question for future discussion, next step in terms of figuring that out – internal discussion about how to track these things and how to track success. LD: For my

program, saw Project WET and Streamwatch are out there so am thinking about this. Thinking about reach, number of people we're reaching in the APNEP region. SF: This is part of why we started populating the columns the way we did, thinking about if it's in a municipality...starting with target audience but that may be more specific to a subset of the population. Those were the types of things we talked about in our subgroup in terms of filling out information.

SF: Issue of knowing where people are coming from, what the reach is when people are traveling from other places. Right now we're thinking a basic inventory of who is doing what, Marygrace is going to map and we're going from there.

SF: We've started populating the spreadsheet based on feedback from our subgroup, done an initial check, thinking of programs we know partners are working on, even things that aren't currently happening but will be happening. Doesn't just have to be current things, can be proposed or future things. KE, anything else?

KE: We have a few more edits to make to the google doc, trying not to dive too deep at first.

[Discussion of Swim Guide]

SF: Any information you can add to this is very helpful to us moving forward. Any thoughts/questions?

SF: We really think this might be the most challenging out of the four actions assigned to the team, idea of figuring out the reach, you may think of other things to add as you're filling out the spreadsheet. Any feedback on any part of this is welcome.

Rachel Szczytko: How do you all define public health and ecosystem services? Probably get a wide array, could be hiking but if you're not discussing it, does it count? MD: Taking this back to some of the discussions from last time, we do have a very disparate group of things within this committee – a lot of people focus on outdoor experiences, this is challenging because it's a different topic, may be less overlap there than we want. Could show us that there are issues that need addressing – could be a way to connect people doing work with the issues that need addressing.

SF: Interest from the group in supporting existing citizen science initiatives. MD agreed to be team lead, have had discussions with her about whether there is the need to split things up going forward – either by topic, audience, subgroup? Any feedback from team members if that would be productive is welcome. Have had feedback that some team members work on most actions and would want to be a part of all the team members. Feedback- do you like this format? Meeting more often? Will try to meet back together soon, maybe in May, to discuss next steps.

DRAFT

SF: Mentioned earlier, this is the handout we'll be sending out – way to break out the discussion by actions. Look at data layers Rachel Szczytko shared, search criteria, etc.

SF: We'll follow up, may be another few weeks before we get back with you, spring break is coming up, but will get this information out to you and if you have feedback in the interim, let us know. Look forward to meeting with you all soon!