ESA Vegetation Panel & NVC Peer-review Board Meeting Notes

North Carolina Botanical Garden, Chapel Hill, NC January 8-10, 2013

DAY ONE: January 8th

Attendees: Chris Lea, Todd Keeler-Wolf, Jack Triepke, Ayzik Solomeshch, Pat Comer, Scott Franklin, Orie Loucks, Alan Weakley, Jill Parsons, Ken Baldwin, Serguei Ponomarenko, Don Faber-Langendoen, Este Muldavin, Bob Peet, Alexa McKerrow, (Del Meidinger & Dave Tart joined by phone)

<u>Update on status of the USNVC</u>: (Scott/Alexa)

- The FGDC has had discussions of how to realign themes to better suit the committee's business needs; Alexa gave an overview of proposed 16 NGDA themes. There are lots of on-going discussions about which theme the USNVC fits under; we're encouraged to work across all the themes.
- There might be potential to obtain support more easily if we can explicitly identify how we fit in with the overall FGDC themes and business needs (e.g., discussion of NVC keys as meeting a business need)
- BLM is working on an instructional memorandum that will go out to all field offices, and states that all maps should be done to the MG level.
- Karl Brown at NPS is a good advocate and emphasizes that the NVC is a good way to connect multiple resource agency activities
- We should interact with the theme contact persons to make sure we understand their themes and how the NVC can fit into them (likely land cover, biota, water (NVC wetlands)).
- We should have the NVC acknowledged somehow on the list of proposed national geospatial data assets for 2013 (the NVC is a classification that supports these activities and is a critical input to these data assets)
- Action Item: come back to this topic during the Panel meeting (Wed 11:45); possible call with Ralph to mull this over, and possibly add this back on the FGDC Veg Subcommittee Agenda

Group/MG Level Review: (Don)

- We're in the process of linking the Group (G) review to the Alliance (ALL) process.
- We've transferred everything from the old SharePoint site and moved it to NatureServe's SharePoint site as it's cleaned up. As it's cleaned, all the information is being transferred to the MyUSGS site.
- We've removed the MG structure so every G has its own document. We've moved requested edits into the documents wherever possible, as well as editor comments.
- We've created a G review response form and added in a NatureServe (NS) response section; if the G was not reviewed that will be indicated.
- There will be one document to look at for the ALL and G work, and two peer review forms to fill out, one for G (already started based on past review) and one for ALL
- MG concepts have been reviewed, but no descriptions have been written, and the Division level has not been peer reviewed. [See Wednesday discussion]

Alliance Level Review & MyUSGS Tutorial: (Don)

- The workplan for the ALL work is divided into quarters; the order the AEs will receive Gs to work on are based on that workplan, and are now in AE folders on the MyUSGS site.
- We have one year to complete the alliance work
- To login, you must click on the MyUSGS version 4.0
- The Division spreadsheet is under "reference documents" on the MyUSGS site (click on "Peer Review" first); this doc lists all Associate Editor (AE) names and the Gs they're responsible for;

- Don will post the spreadsheet showing the larger structure under "reference documents" on the MyUSGS site; macros must be enabled to sort [now posted as "Hierarchy 25...]
- What constitutes a new G versus redefining a G? Splitting or lumping creates new groups, but just re-sorting the codes among Gs qualifies as redefinition.
- Data Management Group needs guidance on how to handle concept changes vs. non-concept changes;
- Ignore the "archive" folder, which is an old FGDC archive.
- The home screen shows recent updates and documents that were recently added.
- Click on the "peer review" folder, and see the 5 Child pages; AE pages contain all the documents assigned to you; the next three folders are archives from the G and MG peer review process that has already been completed; the last folder, reference documents, contains important files.
- We'll create a separate folder for all the new work.
- Under the AE page, there are 24 child pages, labeled by AE name; instructions are provided right on the page.
- Each G has three editable documents the original descriptions, a copy of the form with NS responses, and Alliance review forms in a G document.
- When you click on your folder, click on the name header to sort by the file name (otherwise it sorts oldest to newest); you'll need to click on the name header each time you login to sort in this way
- This screen also shows what the various document status represent, instructions to edit a document (use internet explorer); there is no accompanying "how-to" document, since the instructions are embedded in the site
- To open a document hover on the far right hand side and select "edit in office"; the document will show up in the site (so, does not open locally on your computer), and you may need to reenter your password to open.
- AEs can access each other's documents and leave comments.
- AEs can insert additional edits and then re-code the document status as appropriate.
- Don will add a spreadsheet to reference documents so AEs can see how many ALLs are under each G. [now posted as "Revised alliances...]
- AEs can send descriptions out for peer review if they wish, but should stick to the 30-day turnaround timeframe if they want NatureServe staff to be able to readily respond to suggested edits (with an extra 30 days where NS staff may or may not be able to easily respond).
- To change the document status: go to the pencil icon, click on it and start typing the available options for document status will then be listed for you to select.
- After 60 days NS will label any ALLs that are not completed as unreviewed and keep going, so please respond during the time period. However, any review comments you submit after the 60 days will be kept, and if nothing else, we can address them in phase 2 (starting Sept 2013)
- For the 20%-30% of descriptions without an AE, they will be labeled as unreviewed [i.e. Proposed].

Alliance Concept Document: (Don)

- Don gave an overview of the ALL concept document

Diagnostics Discussion:

- (Chris): I think composition and diagnostic species go together; is diagnostic species an indicator or a criteria for classification? (Don): that's one approach; you can combine overall floristics with diagnostics for a mixed approach; diagnostics should not just be considered after the fact it's part of how you get there; you can either determine a diagnostic species after you classify something first, or you can sort plots based on a process of identifying diagnostics and then make a classification decision (the classic Braun-Blanquet tabular sorting method).
- (Ayzik): Overall satisfied with the document; our concept of ALLs has merged slightly with the European concept, and that seems to be a positive thing.
- Orie): e should work hard not to use diagnostic (opposed to differential); for the most part we don't have the analysis, so should possibly avoid the use.

- (Ayzik): The way the document expresses diagnostic, differential, characteristic is sufficient.
- (Todd): Maybe a preface about how classification is a process that is refined over time;
 therefore diagnoses become more refined and testable as you get better data need to be transparent to users.
- (Chris): Possibly separate the two uses of diagnostic species?
- (Ken): Yes, types in Canada are defined on differential species; and we also use the term diagnostic to diagnose types but we have dominant species and indicators as part of that; these are species that characterize a type after you've developed a classification; but as the types are being developed we keying on a priori knowledge we have (using dominance as a component, and recognizing site indicators); I suggest that known diagnostic species of associations are used as identifying diagnostics for ALLs; we're developing ALLs have conceptual idea first and then aggregate types.
- (Este): ALLs and ASSOCs should have different differentials.
- (Ken): To us, the key is ecological interpretability. We use a priori information to help develop ALLs. To us, ALLs are aggregates of ASSOCs.
- (Chris): My proposal is to modify the definition of diagnostic species, acknowledging that some species are diagnostic of environmental conditions; general agreement is that it's preferable to tweak the definition of diagnostic rather than change the criteria. Chris' comments regarding this will be addressed in the new version of the concept document, which will go out to Panel/PRB members for review.
- (Don): Diagnostic species can be indicators, but they don't have to be. Everyone should send in comments; we can footnote as needed to acknowledge the different points of view.
- Don will put the alliance concept document in the reference docs section on the MyUSGS site.
- (Don): Footnote re: sub-alliances: it's possible to use sub-alliances (which are not a formal part
 of the hierarchy) to help clarify ecological patterns within ALLs, especially when diagnostic
 species are not present.
- Everyone should send comments in to Don; Chris will send in his comments asap so we can nail down any changes to the definition of diagnostic species soon. Don will send out the revised version for the Panel & PRB to review.

<u>Semi-natural Discussion:</u>

- (Este): We need clear guidelines on what's natural, semi-natural, or anthropogenic vegetation.
- (Scott): Summary of next steps: Redefining of diagnostic if and how we want to; some way of defining whether vegetation is semi-natural or degraded
- Re: the 90% rule (90% of all strata has to be non-native for it to be semi-natural, which is not consistent with the FGDC Standard) generally setting a high bar seems to be good; the rule needs to be cogent to business needs of agencies; we need an operational rule; we probably think the transition to semi-natural occurs somewhere between 50% and 90%;
- The general consensus was to use non-quantitative terms to determine what is natural and what is not. The ideas discussed at the meeting will be incorporated into a new version of the concept document and sent out to Panel/PRB members for review.

Continued Discussion after Break on Semi-Natural Vegetation

- (Ayzik): Advocates keeping structure as is.
- (Don): The Division level needs to be in place to determine what's natural and what's not.
- (Scott): We don't want to separate exotics out until they've essentially taken over.
- (Este): Invasives invade natural settings too.
- We need to look at all the floristics, but also want to avoid a "one-size-fits-all" approach.
- Plantation is cultural, whereas ruderal is natural or semi-natural.
- The weedy natives are harder to determine maybe we should be more aggressive about these.
- Interpretation is key; there are varying degrees of naturalness depending on the floristics (e.g. natives in a created space); so the ecological expertise of the reviewer comes into play and is very important.

- Evaluating the understory is also very important.
- We probably need to avoid any strict rules, otherwise it will likely be applied incorrectly in the future.
- States want invasive species lists, not just exotic species lists.
- Defining native vs. nonnative, successional vs. non-successional; we need to be careful because things will change in the future; so, in order to label these things as such they must be very different from each other, though with vegetation there are always intermediaries.

DAY TWO: January 9th

Attendees: Chris Lea, Todd Keeler-Wolf, Jack Triepke, Ayzik Solomeshch, Pat Comer, Scott Franklin, Orie Loucks, Alan Weakley, Jill Parsons, Ken Baldwin, Serguei Ponomarenko, Don Faber-Langendoen, Este Muldavin, Bob Peet, Alexa McKerrow, Cliff Duke (Michael Jennings & Ralph Crawford joined by phone)

Finalizing the Interim Review Process: (Scott)

Discussion on the Powerpoint Diagram:

- Smaller arrows would improve the PowerPoint diagram.
- Technical updates could be a data manager role, before you even get to editorial changes those are embedded in non-concept changes.
- Alexa will look into getting some of the functionality below built into the database.
 - Allow AEs to sign up to get notifications when changes are made to certain groups.
 - Establish a log of the kinds of changes made along with respective dates for nonconcept changes (this should be an automated process so it doesn't burden the data manager).
- Alexa & Scott will talk again with John Dennis about the need for & feasibility of having a public comment period in the review process. We want to make sure the public can be aware without having to go through the federal register. Maybe this could be resolved by the log of recent changes on the NVC website. Alexa does not think we should label this step as "public comment" perhaps "public announcement" instead.
- In the current process, the EIC is in charge of proposals for L1-L5, and not involved in changes in the lower levels.
- For levels 1-5 we're trying to work as a team to create the best concept possible, so having a conference call with everyone interested (moderated by the AE) is an important step we'd like to keep. This step is what will really differentiate this from a journal review process. If everyone cannot agree, the Regional AE becomes involved to help create consensus.
- The Panel recommends adding an EIC or a rotating EIC for the lower levels, since the overall NVC EIC only handles proposed changes to the upper levels.
- This process we've been labeling as "interim" could indeed become the long-term review process after we have the tools we really need for the long-term implementation.
- Some Panel members are concerned that the review process is too complicated and cumbersome.
- Ideally the original authors would be involved/consulted in the process of reviewing proposed changes.
- We need to decide how one obtains membership in the USNVC team.
- It's up to the AE to recruit a team of reviewers (e.g., AE sends out invitation and whoever accepts is fine) to help review proposed changes. This team can be ad-hoc, created as needed, with the skills needed at that time for a particular proposal. We may prefer input from the specialist reviewers before getting more external input.
- The flow does not go from proposer to public comment; the AE needs to manage this.
- Don and Scott will re-work the diagram and present it to the group tomorrow. [Don and Scott did not get around to doing this they had too much fun at Bob's place]
- The plan is not to establish regional AEs, and the EIC looks at all incoming proposed changes at least briefly.
- We need a way to make sure the call with all involved will be productive it may be more
 efficient than having an annual meeting to go through all the proposed changes, which could get
 overwhelming. We could also remove this step from the flow diagram, since it's up to the
 discretion of the AEas to whether to set up a conference call or not (or label this step as "final
 consultation").

Side discussion on funding:

- Orie thinks we may want to create some talking points that everyone on the Panel can use when speaking with external people and potential funders. He's also concerned that the workload will be too much for volunteers.
- We have three possible ways to staff this: 1) detailing federal employees, 2) get funding to pay some people to do some things, and 3) volunteers. We need to find the realistic combination of these three strategies to use for the NVC review process.
- We need to make sure that agencies are aware that if they don't fund the NVC work,it will go away. This type of maintenance may be harder to sell to funders (once all the big "projects" of completing different levels are complete). We need key funding (e.g., support for the EIC) in order to keep things going. We need to focus on how open the review process is becoming as a selling point.

Action items:

- Scott & Don will redo the diagram and incorporate changes into the word document within 2 weeks.
- Everyone will then need to comment on the revised documents ASAP.
- Scott & Don, possibly with help from Jill & Cliff, will develop a proposal with a budget, possibly to submit to FGDC.
- The final version will be completed by the end of Feb 2013 for discussion on the March FGDC Call.

Status Reports:

Education Subcommittee:

- Dave Roberts submitted a workshop proposal that will take a set of data through the process of cleaning and prepping for analysis; there will be a computer lab, and everyone will have a chance to go through the basic steps of prepping data.
- Will occur in August 2013 in Minneapolis, MN.
- No field trip this year.
- Staff from the Minnesota Natural Heritage Program will possibly helping out, along with some NPS Staff.
- Michael Lee may participate to help with use of VegBank.

Status of Publications:

- Ayzik, Alexa, and Orie have been working together to compile a list of relevant publications, abstracts, posters, etc.
- Ayzik has started compiling abstracts starting from 2007 forward, and made a list of his and Barbour's publications.
- Alexa has also been working on a list, as well as categorizing them chronologically. Alexa can put together the lists she's received from Bob & Ayzik.
- We need to determine how many of the electronic documents that Panel members have created to include. We can certainly include them on the list and have links.
- We may need to categorize the pubs by content as well, if the list becomes too large.
- Alexa will distribute the current list of publications to Panel & PRB members, so everyone will know what additional information to send.
- Everyone: if you want your publication to appear on the list/website, please send them to Alexa.
- The agencies we work with are increasingly interested in how the NVC can support their business needs we need to compile more information on this and effectively relate the work we do to their business needs and important, relevant themes (e.g. climate change); we should all be aware of the 2013 Climate Change Assessment Publication available here:

 http://downloads.usgcrp.gov/NCA/Activities/Biodiversity-Ecosystems-and-Ecosystem-Services-Technical-Input.pdf (Orie if this is not the correct report please let Jill know)

Budget Report/Status of Year 3 funds:

- Jill gave an overview of the funds remaining from Year 3 and the overall budget for Year 3.
- We have approximately \$37,000 remaining from Years 1 and 2 that could be diverted to other Panel activities, with approval from the USFS.
- We will likely have around \$7,000+ left over in travel funds for Year 3 from the January meeting.
 We hope to use \$2,000 to support Dave Roberts attending an IAVS workshop in Rome later this year.
- If we still have remaining funds at the end of Year 3 they will not go away, since we have two more years in our USFS agreement.
- We should be cautious with the remaining funds from Year 2, since availability of funding after Year 3 is currently unpredictable.
- Though the current budget outlook is not good for most federal agencies, getting a request in to the USFS soon to act as a placeholder in the event funds become available is very important.
- Cliff & Jill, in consultation with Scott & the Panel, will begin work on a list of tasks (with budgets) for Years 4 and 5.

Status of Proposals:

Veg Science Proposal:

- Cliff and Jill hope to submit the Veg Science Proposal to NSF in the near future. They are in the
 process of preparing other ESA project proposals to pitch to NSF as well, and will likely contact
 several program managers at once.
- Panel members should send Cliff and Jill the names of any NSF program managers who you may know who would be receptive to this conference proposal.
- Cliff and Jill will wait for the proposal to be revised before shopping around further, and will update the Panel with progress.

Possible Owens Valley, CA Peer Review Project:

- This is a potential project that has been bubbling along for a while (since 2007). It originated when Inyo County, CA contacted ESA through Norm Christensen to see if he or ESA could assist with evaluating how the county conducts its vegetation sampling and monitoring, which it does to monitor potential changes in vegetation due to changes in water.
- If the project goes ahead, ESA will act as a neutral science organization to help review the county's vegetation sampling practices.
- This would not be a direct Panel activity; Cliff would ask 2-3 Panel members to help evaluate applicants to help with this work. The selected team would act as paid consultants to conduct the peer review. Of course if Panel members would like to apply to take part in the review, they could not serve on the committee to evaluate applications.
- This project has been an ongoing possibility for the past 6 years, so we're not sure if it will come to fruition. If it does, the work could begin as early as Summer 2013.
- Water issues in the county are very politically-charged; ESA will be careful to ensure that, if the project goes ahead, it is conducted as transparently as possible.
- Discussing the project brought up an idea: could assessing vegetation monitoring become a key Panel endeavor? This is a possible agenda item for a future Panel call.
- Jill and Cliff will keep the Panel updated with any developments.

Status of Web Page:

- The new webpage is now visible online (it's being redirected, so the material from the old site is still available).
- Content that needs to be added: new tagline, list of pubs/talks/posters/abstracts, blog posts/recent updates section, more resources/tools.
- Possible new tagline: Advancing the US National Vegetation Classification;
- Jill will check the NVC banner to see if there is another tagline possibility there.

- Jill will coordinate with the ESA Public Affairs Office to add relevant notifications to the ESA Twitter and fFcebook accounts.
- Jill will look into adding a page for Peer Review and Submission.
- Jill will look into adding captions to the photos on the Gallery page.
- Panel members are encouraged to review the site and sent edits/recommendations to Jill.

Overview of FGDC structure & where FGDC Subc & Panel fit: (Scott)

- The NVC may relate to 3-4 different themes; we need to understand what's truly under the purview of these themes so we can interact effectively and productively with the theme leads
- The FGDC Subcommittee could invite theme leads to discuss more, and Scott could represent the Panel.
- We may want to first identify the geospatial datasets that the NVC partners will be developing and then determine which theme leader would have the most interest in that dataset (e.g., VegBank may be of strong interest to Biota theme, though as data points for ground-training and ground truthing maps it may also be of interest to Land Use-Land Cover theme). The NVC classification is relevant to Biota, Land Use-Land Cover and Wetlands-freshwater.
- Ralph & Cliff will have a conversation to pursue regarding this once back home.

Progress on plot-based peer review process testing

- Bob gave an overview of the project and progress thus far; Kyle Palmquist discussed her planned approach to assessing the data and community characterization.
- Bob and Kyle will keep track of the amount of time and effort they devote to each step of the process.
- The most important outcome of this project is making policy decisions and documenting a review process that can be used in the future.
- Friendly reviews of the proposal before submission could be useful, but not a requirement; there may not be sufficient time in this particular project.

Comments on what the proposal should look like:

- Alexa took notes and made changes to the document during the meeting, and sent the document to Scott afterwards. Scott subsequently reviewed it and forwarded it to the participants (see email from 1/14/2013).
- Possibly adding a specific lineage section that would show changes or suggestions for CEGL association codes in particular.
- Possibly add the capability to submit (geotagged) photos to VegBank.
- We want to have sufficient content requirements for proposed changes, but also don't want to make the process too onerous and discourage people from actually submitting proposals.
- Can proposers submit a journal article as a proposal narrative? What process will allow new state types to be adopted? How does the narrative interact with other published literature? These are all important decisions that need to be made.
- The process must be VERY streamlined to encourage input and participation from users (and even Panel members). At the same time, we need lots of information to make sure changes to the NVC are appropriate and needed
- Possibly make it simpler for people to get their data into VegBank as well, to encourage people to submit data.
- Alexa will circulate notes on the pilot peer review process.

DAY THREE: January 10th

Attendees: Chris Lea, Todd Keeler-Wolf, Ayzik Solomeshch, Pat Comer, Scott Franklin, Orie Loucks, Alan Weakley, Jill Parsons, Ken Baldwin, Serguei Ponomarenko, Don Faber-Langendoen, Este Muldavin, Bob Peet, Alexa McKerrow, Cliff Duke

Education & Outreach:

General discussion items:

- We could get communication expertise & advice from Liza Lester (ESA Communications) on some of these materials
- Scott/Alexa will keep FGDC updated on our Plans for Education and Outreach

Immediate needs:

- Create factsheets for all FGDC Veg Subcommittee member agencies**
 - First create template
 - Distribute to Subcommittee members
 - Ask them to fill in/individualize for their agency
 - Perhaps tier according to the extent that agencies are already aware of the NVC –
 continue contact to agencies who know us, but also target agencies who don't (e.g. EPA)
 in a slightly different format (possibly factsheet from FGDC)
- Briefing materials these have been developed, but would benefit from being cleaned up and put into a uniform format (e.g. creating a standard template)**
 - o Help Carol Spurrier with her materials development for BLM
 - NPS has already gone through the process of trying to implement the NVC lessons learned here? List contributions over time to building the NVC
- Frequently-Asked Questions
- More detailed topic-specific factsheets to accompany the FAQs and expand on them
 - Possibly use agency contacts to add agency-specific information to these
- Develop more personal relationships with agencies that are not as active (EPA, NRCS), including grassroots & top-down strategies
 - Bill Kepner (EPA)
 - Panel members ID key contacts, describe how they've worked with these key contacts, and compile that information into a briefing/factsheet that can be used for outreach
 - Target agencies/orgs. to engage more: BLM, NRCS (ESD & NRI), USFS (FIA is already fully engaged; TEUI is not), USFWS (engaging; veg mapping program is moving (refuges); two sides: wetlands NWI; grassroots contacts; plus Gabriella Chevarria); CEMML, NEON, EPA (Ecological Integrity Assessments), DOD, USACE
 - Already engaged agencies: USGS, NPS
- "Marketing to a roll-out" approach to education and outreach; focus on selling points and truly understand how to market the NVC to agencies; do this in tandem to completing the hierarchy
 - Completing the hierarchy will create credibility
 - Need all the information available online

Summary of Outreach & Education Action Items

- 1. Template for factsheets
 - a. Volunteer: Alexa
 - b. Timeframe: draft by end of January 2013 for FGDC to review
 - 2. Template for briefings
 - a. Volunteers: Alexa, Todd, Pat, Chris
 - b. Timeframe: draft by end of January 2013 for FGDC to review
 - 3. Frequently Asked Questions
 - a. Volunteer: Scott

^{**}Projects to take on in conjunction with the FGDC Subcommittee members

- b. Comments due to Scott: immediately
- c. Timeframe: new version complete by end of January 2013
- 4. Factsheets (general NVC, 2-pager) for agencies we need to engage more:
 - a. Volunteers: Alexa, Todd, Pat, Chris
 - b. They will work on a template and develop factsheets for BLM, NRCS, FIA, USGS, NPS
 - c. They will Ask Carol S and Gene F for help
 - d. Timeframe: draft by end January 2013
- 5. White papers to accompany FAQs
 - a. Volunteers: TBDb. Timeframe: TBD
- 6. Engagement sheets (addressing agency-specific questions or issues)
 - a. Volunteers: Don, Pat, Ayzik, Alexa, Todd
 - Also in consultation with agency key contacts (Carol Spurrier BLM; Gene Fults -NRCS; Bill Wilen – NWI; Tom Miewold – FWS; Rick Sumner – EPA; Paul Jones – EPA Western Region; Hazel Gordon – USFS; Susan Bell – (BLM/NRCS project)
 - c. Timeframe: Volunteers contact key contacts & report back by March Panel Call; Final product TBD

Finishing the NVC Content: Timeline

- MGs: starting fall 2013 they can be ready for review (depending on All/G work)
- Divisions: in tandem with MGs
- Don will work to re-engage the HRWG this fall to start writing descriptions for Divisions &
 MGs and will aim to have a list of names in place by the end of February 2013.
- Hope to complete by Spring 2014
- Possibly divert remaining Year 2 funding for honoraria to support this activity
- Once a group to take on this work is identified, they need to come up with a potential budget for this activity asap (by end March 2013?)

Collaborative awareness plans:

- Events at ESA meetings
 - Sacramento 2014: a SYMP or OOS on vegetation mapping (Todd)
 - Possibly invite well-known mappers/geographers & introduce them to the NVC and/or have someone present similar material to show off the NVC at other meetings (AGU)
 - Brainstorming: involve USGS park mapping program?? Highlight NVC as a climate change tool? Dave Diamond's mapping case study; LANDFIRE work; Karl Brown & NPS
 - Could cover both mapping methodology & classification issues
 - o Baltimore 2015: a SYMP on the History of Vegetation Classification
 - Not due until Sept 2014
 - Plan far in advance and arrange interesting set of speakers
 - Potential topics: how classification has developed conceptually, changed over time, how old classifications were used to monitor change; history of Am veg classification by Europeans; Japanese take on BB
 - Continue with future workshops
- Publications
 - Possible NPS project/paper (Chris)
 - Possible white paper or journal article (maybe submitted to Frontiers) on the primary
 uses of the NVC; and/or a doc specifically on vegetation change (add this to the white
 paper list of topics); We could wait until MGs/Div are more complete OR have case
 studies to demonstrate (Chris mentioned possible case study) *possible agenda item for
 a future Panel call*
- Workshops/training
- Connections with IAVS/EVS & other international contacts/colleagues

- Ayzik's participation in the re-established international committee to address issues with naming/synonomy/links to international veg classifications
 - Aysik can compile a list of plot data & types perhaps to pursue in the future
 - Begin an effort to get European researchers who collect data in North America incorporated into VegBank?
- o What incentive do international colleagues have to participate in the NVC process?
 - Present information at IAVS meetings?
- o Invite international colleagues to ESA meetings and have a dialog with them
- Other scientific societies
 - AGU
 - Wildlife Society
- Vegetation Science/Change Proposal
 - o Possible key contact: Don Waller?
 - NVC can help establish a baseline from which to evaluate change; we need to sell this
 more in our materials; also emphasize importance of plot data for monitoring
 - We could use Jack Triepke's work on incorporating the NVC into climactic modeling as a demonstration of the NVC's relevance & use
 - Changes in veg over time: something the Panel will likely need/want to address in coming years; how can we use veg to tell a larger story, and demonstrate veg classification's importance in answering big, environmental questions?
 - Action item: Chris, Scott, Alexa, Este, Serguei, & Orie will help revise the Veg Science Proposal before shopping it around again; (possible new focus on how we can use veg classification to help answer some of the environmental/ecological questions we have) Timeline: turn around comments in approx. 1 month

Formal Education Opportunities

- Specific tutorials
 - VegBank tutorials
 - Michael Lee can update the tutorial that already exists, though some additional funding support may be needed; he's aware of problems with the tutorial but needs resources, and is open to feedback; once first step could be confirming what the user needs are; ideally we should work toward any user being able to submit their data with relative ease
 - The Panel created a new Vegetation Plot Database Working Group (VPDWG) that will work closely with Michael Lee; Working group members include: Ayzik, Este, Alexa, Don, Mike, Serguei, Bob; Directives of this group include:
 - Capturing plot data
 - o Prioritize what data to go after
 - Recruit members to the group who we want to submit data
 - Identify databases that are compliant with NVC needs and consider ways in which a partnership of NVC databases can be created.
 - Finding easier ways to get data into VB
 - Identify plot tools
 - Establish a simplest-possible format & prototypes of what the data should look like when submitting to VB
 - Short YouTube tutorial on submitting data
 - Using that data to describe NVC types
 - Assisting with creating budget estimates to support the group's work
 - Conducting calls as needed to create a workplan; potentially having a mini meeting at ESA in Minneapolis
 - Don will send a spreadsheet with basic metadata to the Panel to share the DOPLR approach
 - Alexa will talk to contacts at USGS about ways to get more data into VegBank

- FGDC CAP grant: once budget is resolved likely 60 days to respond; we don't know topics yet, but this could be another source of funding for VegBank-related activities. More information is available at: http://www.fgdc.gov/grants/2013CAP/2013CAPDescriptions
- Re: organizing Face-to-face workshop vs. teaching module vs. online materials
 - Possible market for cost recovery for these activities (agency staff, students, preinternship program in the spring)
 - o If we focus on an area where feds are concentrated (possibly Reston?) we could conduct another face-to-face workshop with relatively little fundint
- Panel outreach and education website
 - o \$1K in long-range planning
 - Alexa will ask AppGeo if they can help with the Panel site
 - Scott will begin drafting a design & outline
- Fundraise for a fellowship for graduate students, possibly for an academic year (\$34K), to build the science and give students an incentive to work in this field
 - We could add this to Years 4-5 in our proposal to the USFS
 - National Forest Foundation as a funder for this?
- Activity to stimulate undergrad interest in veg science/classification
 - o Workshop?
 - Work with SEEDS program at ESA
- Distributed graduate seminars: NCEAS sometimes funds these to get students involved

Panel membership:

The Panel discussed names to fill the current open slots. Official nominations should be approved by the current ESA VP of Science.

Those who nominated the selected nominees will contact them to see if they are interested in becoming Panel members (Todd, Bob, Ayzik, Pat)

Scott will send proposed changes to the bylaws eliminating term limits and send them around to the Panel to vote on 30 days later.

Exec will discuss nominations to fill any slots available on the next Exec call or over email.