

## Natural Gas Advisory Committee

### Meeting Notes

10-17-19

#### **Ellen Shultzabarger – Bureau Update**

- Strategic Plan
  - Have done outreach to a number of stakeholder groups, and doing more over next few months. Will do Lion Poll again in the Spring.
  - Refining proposed key issues
  - Working on best strategies to address those issues
  - Will come back to NGAC next year when draft prepared
- ROW Compensation
  - Working on hiring a consultant to help us with new approach
  - Will update NGAC when we have consultant on board and throughout process

#### **John Norbeck – Department Update**

- Submitted budget – will find out more about budget this fall, and hopefully have robust budget proposed in spring.
- Final stretch of strategic planning process for State Parks. Been about 25 years since Parks revised its strategic plan. These plans are critical blueprints for how we do our work. Very important for us to hear from stakeholders and general public. Penn's Parks for All draft document is available on the DCNR website. There is information on the website about how to submit comments. Expected done summer 2020.
- Staff changes:
  - Sara Nicholas retired. New Policy Director is Nicole Faraguna, comes to us from PALTA.
  - Legislative Director – Joe Graci is now a Special Assistant to the Secretary. Eric Nelson is the new Leg Director, comes to us from PennDOT.

#### **Shawn Lehman – Shale Gas Monitoring Reports**

- See slides on website
- Approx year-and-half from data cutoff to when report comes out, and years in between reports where little results reported.
- Searching for way to get data out more rapidly – looked to ArcGIS StoryMaps
- Live Demo of 2019 draft StoryMap
  - Combination of text, tables, charts, interactive maps, embedded reports (e.g., noise and water quality), and hyperlinks to monitoring partner's websites (e.g., Susquehanna River Basin Commission).
  - Existing DCNR interactive webmaps (e.g., Gas Infrastructure) can be directly linked. They will update in the StoryMap as the original/basemap updates.
- NGAC: Are some of the tables and figures showing historical data?

- DCNR – Yes – some of the tables and figures show year-by-year data, just adding a column at the end each year.
- NGAC: DEP is using some StoryMaps / electronic presentations. They are adding some links to data mining websites, so historical data is available through a search. Scott Perry thinks this is the way of the future for data/info presentation.
  - DCNR – The review process for the StoryMap is shorter, partially because there is so much less text in a comprehensive report.
- NGAC: Website use may indicate to you which elements of monitoring program are best to focus on in periodic written reports.
  - DCNR – Written reports could probably be more issue-focused or stream-lined, because much data will be presented on the StoryMap in between written reports.
- NGAC: What's the level of detail you go into on Infrastructure reporting?
  - DCNR - Number and type of infrastructure and area of land converted to another land use.
- NGAC: What's length of time between written reports?
  - DCNR – Average has been about 4 years (but that's only a sample of 2).
- NGAC: Any other reports comparable within Bureau?
  - DCNR – Timber program puts out an annual report, but there is nothing we put out that is as comprehensive and detailed as what we do for Shale-Gas Monitoring reporting.
- NGAC: It would be helpful to see invasive treatments areas, as a lot more consulting work is going on regarding invasive treatments.
  - DCNR – At this point the StoryMap includes some EDRR data.
- NGAC: How does ESRI charge for it?
  - DCNR – Shawn's understanding is that it's included in our existing ESRI license. Have not been informed that there is any cap to the maximum size or storage space.
- NGAC: Any ideas about how to manage "citation" issue?
  - DCNR – Looking into archiving StoryMap annually, but some questions about storage space and backward compatibility.
- NGAC: Any idea when we will go live with StoryMap?
  - DCNR – A few more additions to make. Would like to get live around January 2020.
- NGAC: Is there a way to show what's new?
  - DCNR – Only to change color of text. But it's not something we've worked out. Website that leads to StoryMap might be able to show recent changes or revision log.
- NGAC: How printable is StoryMap?
  - DCNR – Anything available through screen captures. As far as we know there is no "Print" button. It's not designed to be a printable media.
  - DEP – As DEP moves toward electronic permitting, there will be electronic documents that are viewable and printable (in a non-manipulatable way). Erosion and stream permits should be in electronic permitting system live in early 2020.
- NGAC: Researchers will need to cite the data. Should make viewers aware that they are responsible for screen capturing any data they want. There may not be historical versions available from a given date.

## **Peter Newman – Evaluating Impacts of Sound**

- Works on idea of balancing use and preservation.
- State and Federal lands incredibly important for getting the public outside and active.
- We're protecting both ecological and social dimensions of these places. What are both ecological and social/experiential effects of management decisions?
- See slides on website
- Future work will be a compressor noise propagation model.
  - Take in DEM and forest cover and regression line of annoyance
  - Spatial map showing where an existing or potentially new compressor would create "acceptable" and "non-acceptable" noise levels.
- Share peer-reviewed journal article on website
- NGAC: Decibel is a critical component, but type of noise is important too.
  - PSU: Absolutely, certain noises are more annoying than others. That's why sirens are designed the way they are. Research uses 9 different, randomized noise clips. 9 clips taken from a sample of 39 options. Have variety of "roughness," and other noise characteristics. Found in this study that decibel was the driving element of the noise that annoyed people.
- NGAC: Snowmobiles in the winter annoy him more than other noise, because you're associating the noise with the source, which you may not like.
  - PSU: This is the "context" of the noise. You can use messaging and setting expectations to shift annoyance levels. There are also "coping" and "conditioning" elements to our reactions to noise.
- NGAC: Lots of research that shows that sound has been a big problem with insectivorous songbirds. Bluebirds breeding close to compressors have less nesting success.
- NGAC: There are a number of commercially used acoustic models. Have you evaluated any of those models?
  - PSU: Working with Vick Sparrow at Acoustic Lab at PSU and building something from ground up. We have not compared to commercial models. We think the built model will be highly customizable and will be able to input the social science data.
- NGAC: There are many different ways to build a compressor station. What would take to get a compressor from 62dB to 55dB from an engineering standpoint? It was difficult to get answers to this question. Often took the approach of build it and see what happens. Will PSU model be helpful in this regard?
  - PSU: Vic and Peter have been talking about building into the model – "If you were to build a wall – this would be effect."
- NGAC: How long to get model done?
  - PSU-DCNR – We need to work on contracting. But could be done within about a year.
- NGAC: Seems like placement of the compressor and orientation can be critical.
- NGAC: Does the recreational use match the compressor station locations? For example, kayakers are not going to be near where compressor stations are located.

- PSU – We didn't see significant differences between user groups such as hiking versus kayaking. People do a lot of things in the forest. They believe the sample covers most uses/users of the forest.
- NGAC: You lose below the 55dB quite rapidly as you move away from the compressors. At what distance should you be measuring noise from? Zoning is important for having people recreate in a quiet place if that's what they are seeking. There are other activities on state forest land that create noise, such as timber harvesting, and so there are other factors to take into account if we were zoning for quiet areas. DCNR has done a good job of co-locating noisy gas activities near areas that experience logging, that already have some noise.
- NGAC: Could be a new zoning type for state forest land, to set people's expectations of where to hear certain noise levels.
- NGAC: State Parks are more concentrated recreation. The state forest systems have more dispersed recreation. Do you have thoughts on whether there's a difference in how noise would affect these different types?
  - PSU – In recreation people get concentrated in space and time. They go to the best places to go, and generally go when school is out. Dispersed use typically occurs in areas that are more sensitive. So noise in a dispersed use area is generally more of an issue than in a concentrated area. (e.g., Denali National Park in Alaska). Aligning some places that already have noise with noisy recreators could be good policy.

### **Teddy Borawski – Program Update**

#### **Share handout on website**

- Lists of streams considered navigable can be found on the DEP (submerged lands licensing) and DCNR (streambed leasing) webpages.
- Although audit recoveries at \$1.2 million seems like a lot, it is less than 10<sup>th</sup> of percent of total royalties received (+\$700 million), so the companies have a pretty good record of payment.
- Discussion about PEDF
  - Court found that royalties are part of "trust" / "corpus" – goes back to natural resources work.
  - Bonuses – 2/3 has to go back to corpus and 1/3 can go to other purposes
  - We presently think we are in compliance with that. We are awaiting the Supreme Court to hear the case to see if anything changes.

### **Stormwater Management**

Bruce Snyder

- Various people (operators, consultants, district foresters) have asked why are we cutting down trees to put in stormwater controls?
- Perhaps NGAC can inject some valuable ideas of innovative approaches to stormwater management as DEP develops its new manual.

DEP – Scott Perry

- University of Villanova and DEP staff are working on a new stormwater management manual, and O&G centric stormwater management controls may be included in that new manual.
- Draft manual will be published for public comment.

Stephen Barondeau

- See slides on webpage
- NGAC: Is earthen infiltration berms an accepted DEP practice?
  - Stephen – Yes. But typically, construction would involve grubbing land and scraping in topsoil in immediate area to build berm.
- Stephen on sock berms.
  - Took time to refine soil mixture for socks. Mix seed into soil as its put into sock. Use BOF seed mix minus the broadleaf plants because they can't grow through sock netting.
- Stephen on working in recent clear cuts.
  - You'll end up mulching a 6-ft wide path of the small trees to make room for the berm. In a mature forest, you can typically snake it around the large trees without having to cut any down.
- NGAC – How much of topsoil stockpile is used for berms?
  - Stephen – Approximately 5-10%. It could be reclaimed and brought back onto pad for pad reclamation after final retirement. You might be better off leaving the 5-10% on the vegetated berms.
- NGAC – Have you seen any fail with torrential rains we've had last few years?
  - Stephen – No. And none have been observed over-topping.
- NGAC – Would be valuable to consider forest infiltrative capacity in calculations of stormwater infiltration from pads and roads. Regulations may need adjusted to make this easier to do / acceptable. Estimate from BOF that 15-20% more forest cleared than is necessary to infiltrate stormwater from gas development (Marty Lentz).
- DEP – Would be value to familiarizing DEP staff and other operators with these low forest impact practices. In some areas, landowners (besides BOF) desire limited PCSM features (limited footprint).
- NGAC – Could be a role for NGAC to help advocate for and promote these types of practices on forests throughout Commonwealth as best practices. Between using state forest land as a model, and Alta showing its cost effective, we could build strong case as a group.
- Ellen – Next steps: workgroup to try to compile examples we need. State forest land could serve as a sort of "lab" for experimenting with innovative practices – demonstrating they are effective.

#### **Committee Member Updates**

- OHVA – Just completed latest round of safety and respect for environment trainings. Trained thousands of students this summer. Using an ATV simulator. Very successful program.
- Scott Perry – Gas storage and transportation issues will be a focus of DEP in 2020. Wants to organize meeting with PUC regarding gas transportation and gathering lines. Since 2014, had 5 homes explode and another line explode that didn't impact a home. Fortunately, nobody has

died, but been some very close calls. 60 storage fields in PA. By and large, its an industry that exists invisibly in PA, and we want to make sure it continues to operate safely.

- F&BC – Makes recommendation for Rattlesnake gestation habitat on construction sites – FBC does assessments of effectiveness of these habitats to make improved recommendations on how to build such habitats. Have evaluated 15 sites so far – biggest influence is aspect of habitat relative to sun exposure. Also, in process of taking over some SRBC fish monitoring sites on state forest lands.
- Teddy – Have long-term contract with SRBC to do water monitoring for BOF. SRBC just came out with major report. We might want to have SRBC give a presentation on that report, and particularly about the 10 sites they have on state forest land.
- F&BC – Riparian buffer restoration at stream crossings (pipelines, access roads) could be good future agenda item. Stroud might be a good guest speaker.
- John - Other BMPs from industry, like the PCSM practices Alta presented today, would be good to hear about so that we could share it widely with other operators.