

Spring Creek Watershed Community
Coordinating Committee Meeting
November 17, 2009

Attendance: Kent Addis, Bob Donaldson, Brianna Hutchison, Pam Adams, Rob Cooper, Paul Bartley, Amy Story, Ann Donovan, Barbara Fisher, Bill Sharp, Jennifer Shuey, Brent Yarnal

I. Guest Speaker: Centre Region Climate Change Action Plan Inventory Results (Dr. Brent Yarnal, Professor of Geography)

- a. Climate Change
 - i. Global temp. vs. CO2 emissions: close association between the two (increasing CO2 emissions = increasing temperature) over past 200 years
 - ii. Historical relationship exists between these two factors (10000+ years data)
 - iii. Predictions for 21st century emissions used to project future temperatures
 1. Actual emissions data show that we are currently operating on the equivalent of the “high emissions” model (worst case scenario)
 2. After economic crisis, emissions reduced somewhat, but we can expect consumption to go back up after economic recovery
 3. What does this mean for PA temperatures?
 - a. Worst-case scenario: Summer temperatures similar to the Deep South (i.e., Alabama, Georgia)
 - b. Best-case scenario: Summer temperatures will be similar to Tennessee or Kentucky
 - c. State College summer temperatures: summer temperatures in 90s (1 out of every 3 days) or 100s
 4. Federal government has not yet taken any action to nationally reduce greenhouse gas emissions
 - a. A number of states have taken steps; PA not yet part of an official movement (difficult in a coal state)
 - b. State College is trying to become a carbon-friendly city
- b. Local greenhouse gas emission inventory
 - i. Why inventory? Quantifies emissions, sets a baseline for reduction plans, and allows progress to be monitored
 - ii. How to inventory? Gather activity data to determine the source of greenhouse gases (i.e., miles driven, electricity used, waste produced), apply emissions coefficients to each activity
 - iii. Inventory for PSU University Park (yearly basis)
 1. Energy: purchased electricity, stream plant, stationary sources
 2. Synthetic Chemicals: Fertilizers
 3. Animal Management: Manure management
 4. Transportation: Commuters, campus vehicles
 5. Land Management: Forest loss, forest acquisition
 6. Waste: Solid waste, wastewater
- c. Background of Centre Region Climate Change Action Plan
 - i. Previous inventories: mid-1990s, PSU one of first universities to do an inventory
 1. Done by graduate students initially; now also training undergraduates
 - ii. State College Borough
 1. Undergraduate course (4 semesters, different group each semester)

2. Inventory > climate change action planning > Borough Resolution 944 (result)
 3. Borough monitors itself and puts out regular score cards (available online)
 4. Many of these actions save money, making it attractive to municipalities
 5. Borough quickly realized that they needed to work with other municipalities in order to be truly effective
- iii. DEP request for proposals
 1. Centre Region received a grant; 5-phase work plan
- d. Centre Region Inventory Greenhouse Gas Emissions Inventory
 - i. Available through Dr. Yarnal
 - ii. Emissions by sector (year 2006)
 1. Regionally, use of electricity (59%) causes most emissions, followed by local transportation (21%), on-site fuels (16%), agriculture/synthetic chemicals (3%), and waste management (1%)
 - a. Over 700,000 metric tons of CO₂ emitted in Centre Region every year
 - b. Centre Region by municipality looks similar, although there are some obvious differences (such as agricultural emissions)
 - c. Total metric tons emission: State College Borough > Ferguson > Patton > College > Harris > Halfmoon
 - d. Per capita emissions: Harris > Halfmoon > Patton > Ferguson > College > State College Borough
 - i. In Borough, many people are apartment dwellers and there are lots of students
 - ii. In outer municipalities, single-family homes dominate
 - e. Commercial and residential consumption dominate electricity emissions across the board
 - f. Greenhouse gas emissions in electricity
 - i. What powers our electrical grid?
 1. Coal > carbon neutral (nuclear, renewable sources such as wind power make up 2%) > natural gas
 - ii. We may not produce electricity locally, so we have no control over that aspect, but we can reduce our local consumption
 1. It is important to address both
 - g. Transportation component
 - i. Most emissions from passenger vehicles (cars and light trucks); very little from mass transit
 - ii. Free mass transit (and a more extensive system) would significantly reduce emissions by reducing use of personal vehicles
 - iii. Not many people walk or bike for transportation except in the Borough
 - h. On-site fuels
 - i. Electricity is most common household heating type, followed by fuel oil

- ii. Some natural gas use, depends on municipality (underlying geology) and year house was built
 - iii. Electricity has highest emissions
 - 2. Local transportation = does not include roadways like I-99 (assume that this is mostly non-local)
 - a. Bob D. asks why I-99 was taken out considering its importance to region
 - b. Dr. Yarnal: will address this later; was taken out because we have no local control over interstate travel (as opposed to freight coming in, local commuters, etc.)
 - 3. Waste management
 - a. Many people think this is a bigger component than it actually is
 - iii. Projections for Centre Region
 - 1. If we make no changes, we'll be 15% above 2006 emissions
 - 2. Wind power scenario
 - a. If in 2025, every house and business purchased wind energy credits, emissions would be reduced by 37% (lower than 1990s levels)
 - b. \$15/month cost to each consumer
 - iv. Centre Region Emissions including Long Distance Travel
 - 1. Long-distance travel (road trips > 50 miles; air travel)
 - a. Makes up 18% of travel emissions; local transportation 17%
 - b. Brings transportation to more than 1/3 of total emissions
- e. Next steps:
 - i. Phase 2: identifying mitigation options (local stakeholder workgroups)
 - ii. Phase 3: fleshing out mitigation options (in a book)
 - iii. Phase 4: prioritizing mitigation options (back to local stakeholders)
 - iv. Phase 5: drafting regional climate action plan (hopefully by end of 2011)
- f. Questions/Comments:
 - i. Barbara commented that we could start increasing mass transit by having free or reduced price buses during major commuter hours
 - ii. Barbara asked about State College signing agreement to reduce emissions; Dr. Yarnal indicated that new mayor has already been involved in this study and will probably sign agreement, BUT we still need a regional plan
 - iii. Bill asked what Dr. Yarnal thinks about the groups that want to put climate change on trial
 - 1. Over course of Dr. Yarnal's career, we've gone from speculation about to actual observation of climate change
 - 2. Scientists can do no more than report the facts and society can do with them what it wants
 - iv. Jen commented that this seems like a monumental undertaking to gather all this data throughout the community—how was this accomplished?
 - 1. It was very difficult to get data from Allegheny Power; was able to get data by zip code and then used GIS to calculate per capita consumption
 - 2. Transportation data: came mostly from Centre Region vehicle counts (Jen: Do many communities have such detailed data or is this rare? Larger ones probably do, but rural areas less likely.)

3. Centre Region municipalities signed an agreement as part of the DEP grant to perform study and township managers were very helpful in generating data
4. Takes months to gather data
- v. Amy commented that the current Borough council is not as gung-ho about making some of these emissions changes (ex. Allen St. bikeway) as the previous one
 1. Politics has a lot to do with it, but getting the information out there and convincing people that it saves money to reduce emissions will help increase public buy-in

II. Critical Water Planning Area Designation

- a. Why is Nittany Creek now included?
 - i. Because of groundwater connection to Spring Creek via mine pumping; water from Graymont plant now discharges into Logan Branch
- b. Summarize Todd's statements from letter
- c. Todd is asking if the SCWA supports having our watershed identified as a CWPA and if we could agree to provide a written testimony to that effect
- d. This is PA's second attempt at creating a State Water Plan; the first went nowhere and this one could very well go that way as well (due to cutbacks at DEP)
- e. Rob indicated that he cannot support this designation due to flaws in reports (DEP used SRBC reports), which has no local input
 - i. Water plan lists Big Hollow as a perennial stream
 - ii. Points to increasing development and water use as concerns (both are actually decreasing)
 - iii. Does not include Living Filter anywhere in report (this system inputs millions of gallons)
 - iv. Water withdrawal effects on aquatic life in Slab Cabin (reports of this stream running dry long before SCBWA wells were installed)
 - v. DEP claims to have contacted stakeholders and indicates that there were no comments, which Rob finds unlikely
 - vi. Rob thinks that this designation will lead to increased regulations and scrutiny, and may do more harm than good
 1. Could limit growth and development
 - vii. Could support designation if report was re-done
- f. Barbara asked if perhaps we should state that we don't have an opinion
- g. Jen suggested finding some kind of middle ground, perhaps suggesting that local data be used to re-assess designation
- h. Bill not comfortable with accepting designation based on faulty data
- i. Ann is disturbed that SRBC did not address concerns of local authorities about the quality of their data
- j. Bob has gotten the impression from Todd that any additional assistance would be a good thing—but Rob has brought up that there may be negative repercussions
- k. Paul feels that the group's position is that we cannot support this based upon the available data
- l. MOTION: The SCWA cannot support the designation of the Spring Creek/Nittany Creek Watershed based on the source data; however, if new data were presented, we would be willing to reconsider.

- i. Seconded by Pam and passed unanimously.

III. SCWA Sustainability Initiative

- a. Geothermal Borehole/Water Well Ordinance (Amy Story)
 - i. Headwater municipalities have taken this as part of property maintenance code (will have enforcement); downstream municipalities do not have this type of code so it is also available in ordinance form as well
 - ii. Both versions will be available on the SCWC website
- b. Brandywine Conservancy (Barbara Fisher and Bill Sharp)
 - i. Should we recommend to the SCWC that someone from Brandywine's Municipal Assistance Program come to speak?
 - ii. Recent development: Brandywine lost a major donor, so we don't know if it would be possible for Mr. Theilacker to come (if nothing else, we could have a teleconference)
 - iii. SCWA recommended that this be presented to the SCWC
- c. Sustainability Workshop (Ann Donovan)
 - i. CCCD has a NFWF grant and funds that could be used to hold a sustainability workshop
 - ii. Could include reps from NEMO, Brandywine, PSU, etc.
 - iii. WPC Dominion grants now open as well (due December 18); offer up to \$2500 for outreach activities; CCCD would act as the applicant for "Achieving Sustainability in the Spring Creek Watershed"
 - iv. Time frame: Spring 2010
 - v. Budget: Mileage/lodging, food, publication
 - vi. Bob asked how the SCWC fits into this? A sponsor?
 - vii. Ann said the SCWC doesn't need to be included as a sponsor on the grant; could come on board later
- d. Chart of Environmental Controls (Bob Donaldson)
 - i. Finalized and presented to SCWC tomorrow night
 - ii. Once it's ready for distribution it will be made available to the SCWA
- e. Watershed Map

IV. Other Matters

- a. TMDL public meeting in Toftrees, Thursday, November 19 at 2:00pm