

City of Keene
New Hampshire

CITIES FOR CLIMATE PROTECTION COMMITTEE
MEETING MINUTES

Wednesday, September 2, 2015 8:00 AM 2nd Floor Committee Rm, City Hall

Members Present:

Jennifer Risley, Chair
Dr. Ann Shedd
Peter Hansel
Thomas Powers, Councilor
Richard (Dick) Cornelius, Alternate

Staff Present:

Michele Chalice, Planning

Others Present:

Members Not Present:

Megan Kennedy
Robert Kelley, Vice Chair
Danny Veercamp

1. Call to Order and Roll Call

Chair Risley called the meeting to order at 8:00 AM. Roll call was conducted.

2. July 1, 2015 Meeting Minutes

Councilor Powers made a motion to approve the minutes of July 1, 2015, which was seconded by Mr. Hansel, and passed by unanimous vote.

3. CCP Goals for 2015

Chair Risley reported that Robert Kelley resigned from the CCP Committee. She continued that since her term ends January 1, 2016, she proposes that Dr. Shedd become Chair now and she becomes Vice Chair, and Ms. Chalice could communicate with them both during this transition time. Dr. Shedd stated that she would be glad to offer the Chair position to anyone else who wants it. Councilor Powers replied that he thinks Dr. Shedd would be a good Chair.

Mr. Hansel made a motion for Dr. Ann Shedd to be the CCP Chair and Jen Risley to be Vice Chair. Councilor Powers seconded the motion. Chair Risley asked for discussion. Hearing none, she asked for a vote, and the motion passed unanimously. Chair Risley stated that she will chair the rest of this meeting.

Chair Risley reported that there is no real update regarding the CCP's goals for the year, except that they did compile the relevant goals. Ms. Chalice stated that she has a note somewhere that the committee wanted to present to one of the City committees and that is coming up. She asked if they still want to do that. Chair Risley replied that she needs to talk with (Planning Director) Rhett Lamb about that. Ms. Chalice replied that he has been out sick, but the meeting is coming up soon, so she and Chair Risley can talk. Chair Risley replied that regarding what the CCP

Committee wants to send to the City Council, they compiled and discussed the goals, and made recommendations, and it is now in laundry list format. They need to put that in a different format and send the City Council their recommended target: reduce carbon emissions to 80% below the 1995 levels by 2050. Dr. Shedd added that they had talked about setting interim targets, something that the public could grasp more than a date 35 years out. They are waiting for the outcome of the conference in Paris this December, to help fully define those interim targets. Chair Risley stated that the Climate Adaptation Plan is in progress and they will give updates.

4. Goal Alignment Document

Chair Risley stated that they already alluded to this in the previous agenda item. She continued that she will work with Ms. Chalice on this.

5. Climate Adaptation Plan Subcommittee Summary

Dr. Shedd reported that of the several areas they had identified as projects out of the retreat, Chair Risley has been working on climate appropriate economy and transportation, especially car sharing, and she (Dr. Shedd) has been working on buildings and energy. She continued that there is a proposal to put together a summit for that, including folks from the City's Code Enforcement Department, Eversource Energy, local landlords and contractors, Cheshire Housing and Keene Housing, educational institutes, etc., regarding job training for energy efficiency retrofits. They have not gotten too far in fleshing that out. She met with (Code Enforcement Director) Med Kopczynski to see if they would be willing to participate and he said to keep him posted as the plan develops and he would find ways to participate. Something concrete from the summit would be a simple pamphlet for home owners and business owners who are looking for ways to simplify the existing building code and energy efficiency code. They are complex technical documents, leaving people wondering what they can and cannot do to increase the energy efficiency of their structures.

Ms. Chalice stated that the energy efficiency code is probably recommended in the City but not required/adopted. Dr. Shedd replied that they should talk about that – maybe if adopting (as opposed to recommending) is more stringent, the City should do that? She continued that Mr. Kopczynski mentioned that there are code updates in process.

Dr. Shedd continued that she has a handout to share, for developing a case for why the summit would be useful, from the International Energy Agency. The document explains that “the building sector is the largest consumer of energy in the United States,” and “the residential sector accounts for the largest portion of building sector energy use, followed by commercial buildings.” The document also addresses the barriers to energy efficiency. She will send it electronically to Ms. Chalice for further distribution.

Dr. Shedd continued that she cannot singlehandedly put this summit together. She continued that if anyone wants to help, they can see how they can make it work, following City guidelines on how to proceed. Ms. Chalice stated that there was a recent webinar talking about energy efficiency, making clear that the next evolution is not about rating buildings on what they said they would do, but buildings becoming more efficient on an on-going basis and rated on that. She wonders if they can get access to that webinar. It would be a great accompaniment to these

resources. The Code Department watched it together. She will look it up. Dr. Shedd replied that their thoughts on the summit were to focus on existing buildings, so that sounds helpful.

Mr. Hansel stated that a building at Keene State College (KSC) might be designed that way. He continued that they have all kinds of monitors for the solar system and other aspects of the building. It might be a good example of what can be done for a new building.

Chair Risley reminded the committee that everyone is welcome to the subcommittee meetings. Dr. Shedd added, as long as they do not have a quorum.

Chair Risley gave an update on the car-sharing topic – she collected the benefits and challenges and also identified feasibility studies other communities have done. The next step is to check with JB Mack (at Southwest Regional Planning Commission) to see what he thinks the best next steps are, given the challenges to a community this size without a robust transit system. She was surprised to find that a robust transit system is needed to make car-sharing work – she had thought car-sharing could augment or replace that. Europe has promising models, however, and there are opportunities to maybe do car-sharing with electric cars to try that out. She will meet with Mr. Mack, and City staff, to see what a full feasibility study would be to the City.

Chair Risley continued that she compiled all of the potential Local Economy policies that meet their goals in the Climate Adaptation Plan. The next step was to reach out to Monadnock Buy Local (MBL). She met with the board and asked if they are willing to take it to the next step. They said yes. She will talk more about the logistics at next week's subcommittee meeting.

6. Climate Adaptation Plan: Agriculture

Chair Risley stated that she thought she took this off of the agenda, but somehow it is still here. She continued that they will skip it.

7. Antioch University New England (AUNE) Climate Center

Chair Risley welcomed Andrew Graham and asked him to give an update on the Climate Center.

Mr. Graham reported that they are moving forward with the conference (in Baltimore, the first weekend of April 2016.) He continued that Mr. Lamb has agreed to be a speaker on a session on incorporating adaptation into day-to-day planning. They are happy that he will showcase Keene's Comprehensive Master Plan (CMP) on the regional, if not national stage.

Mr. Graham continued that there was some question about who was chairing the CCP Committee, and now he has that information to take back to the Center. The Climate Center's first webinar is on September 17 and folks can call in. He will send out the information about it. It is about how to navigate the Stafford Act, for disaster response, and how to deal with FEMA.

Dr. Shedd stated that people tried to go to the webinar last year at AUNE and they were told that no one else could use the video conferencing center there. She asked if there will be a site at AUNE for people who do not have great webinar set ups. Mr. Graham replied that he has heard that the video conference room space needs to be sacrosanct during the webinar so everyone across the country can hear, but community members can come to AUNE to access it in a

different AUNE space with Internet access. He continued that he will talk with them about setting up an auxiliary space in a classroom. Ms. Chalice replied that she will look into reserving one of the City's conference rooms.

Chair Risley stated that the CCP Committee had been asking if there would be video conferencing from Baltimore so people who are interested but cannot travel can still see some of it. Mr. Graham replied that he will look into that. Ms. Chalice stated that it is fabulous that there are travel grants available, but they are limited, and many people in the community want to go. She continued that it would be terrific if someone with a camera could make the footage available to people. Mr. Graham replied that even if it is not aired live, he assumes the content would be made public at some point. Ms. Chalice asked him to please check.

8. i-Tree Canopy Urban Forest Analysis, Keene, Cheshire County, NH – Andrew Smeltz, AUNE, MS Candidate

Andrew Smeltz reported that he did a project using i-Tree, an application developed by the US Forest Service. He continued that it has six applications for measuring urban forest and quantifying its benefits. He went through a bullet list of the health benefits of forests. He continued that he wanted to quantify how trees remove gaseous air pollutants and store and sequester carbon dioxide. He explained how i-Tree uses data that comes from aerial photographs. The app generates random points in the aerial photo for him to look at and categorize. He sorted the points into five categories: tree, impervious surface (pavement), structure, open water, and grass & shrub. Based on the quantity of trees that he established in the area, i-Tree calculated how many pollutants (as defined by the EPA) the trees remove, and also how much carbon dioxide the trees sequester and store.

Mr. Smeltz showed screen shots from the i-Tree interface, some sample points, and a map of the 1,644-acre study area of Central Keene. He continued that he classified 1,000 points in the area. He showed a graph of the results – 34.5% of the points were trees (the largest percentage). The next largest percentage was grass & shrubs, then impervious surfaces, then buildings, and last was water. A tree canopy of 34.4% is about .9 square miles. The app calculates the quantity of each pollutant that the trees remove from the atmosphere annually, and associate a value with it. I-Tree found that there is \$1.4 million dollars' worth of carbon dioxide stored in trees (total, not annually), and the trees remove \$56,000 worth of air pollutants annually. Ms. Chalice replied that that is great information to have. Mr. Smeltz stated that there are many more benefits to trees, too.

Mr. Smeltz continued that he wanted to see whether trees were divided equally across the study area. He divided the study area into eight neighborhoods (divided using the same guidelines as the school district uses, added Ms. Chalice) and repeated the analysis. There is evidence that there are health benefits to living in areas with greater tree covers. He showed a map of the neighborhoods and a graph of tree cover per neighborhood. Some neighborhoods (such as the Washington Street area) have a greater percentage of tree cover than the study area as a whole. He showed a graph of the percentage of grass & shrub cover in each neighborhood, explaining that grasses and shrubs also sequester carbon dioxide.

Mr. Smeltz continued that they concluded that trees provide significant services to ecosystems, by removing air pollutants, sequestering and storing carbon dioxide, and more, and there are more ways to measure the trees' benefits. Areas that are low in tree canopy and high in impervious surface could benefit from having more trees planted there, but of course, if there are a lot of buildings, trees cannot be planted where the buildings are. The points that he captured is good for looking at change over time – the points can be used again when the landscape changes and there are new aerial photos available. Canopy studies give you access to sample areas you might not normally have access to, because with aerial photos, you can even access trees on private land.

Mr. Smeltz continued that all trees not equal. Some are in poor health, some have a larger diameter and can store more carbon dioxide, and so on and so forth. He did not store that information. He is applying for a grant from Tree Fund, to do a more in-depth analysis. He would collect data from field plots and use i-Tree Eco, which requires more data and information and then gives you more data in return. It gives you characteristics of the urban forest, such as tree species, size distribution, health assessment, risk to pest and pathogens, and a wider look at ecosystem services that trees provide beyond air pollutant removal and carbon dioxide sequestration and storage. He is writing a proposal and he hopes for an endorsement so he can look at this further.

Ms. Chalice asked Mr. Smeltz if he is asking the CCP Committee to write a letter in support of his proposal. Mr. Smeltz replied yes. He showed a slide of works cited, which he stated that he can email to the group. He also recommended they look at i-treetools.org for more information. He thanked Ms. Chalice for her input on this project.

Mr. Hansel stated that the study is fascinating. He continued that he is curious about how they make the jump from quantity (of carbon dioxide and air pollutants) removed to dollars saved. Mr. Smeltz replied that he thinks it relates to the health benefits associated with reduced air pollution, like reduced respiratory disease, and that it relates to climate change. He continued that if you have fewer trees you might have more flooding, for instance. Mr. Hansel asked if the formula they used is regional or national. Mr. Smeltz replied both. He continued that the technical information is on the i-Tree website. They are plugging in local weather data for part of it. But with the value associated with carbon sequestration, they are thinking about climate change impacts.

Dr. Shedd stated that she thinks the Forest Service Northeast has looked at different regions, regarding the economic value of trees. She continued that a palm tree in southern California might have a different value than a white pine tree in New England. She does not remember how they took the calculations from the type of tree to its economic value.

Chair Risley asked if Mr. Smeltz's work is published on i-Tree. Mr. Smeltz replied no, this was just a jumping off point. He continued that he will look for publishing if he goes forward with i-Tree Eco. There are quality assurance things where you have your data checked. He did not have time to do that - this is baseline data. Anyone can do this for their neighborhood, if they are interested, via the web application that computes the results for you.

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Mr. Hansel asked where the aerial photos are from. Mr. Smeltz replied Google Earth in 2014. Mr. Hansel asked if you can choose a season. Mr. Smeltz replied yes and no. He continued that the points he took are spatially explicit points and can be exported into GIS, onto whatever photograph he wants. I-Tree Canopy's interface uses Google Earth images but they are exportable and you can analyze them in any context you use.

Dr. Shedd made a motion for the CCP Committee to write a letter in support of Andrew Smeltz's request for a grant. Councilor Powers seconded the motion, which passed by unanimous vote.

Ms. Chalice stated that she will write the draft, getting more information from Mr. Smeltz.

Dr. Shedd stated that this very nice presentation raises a question on the CCP's list of priorities, particularly on policy and programs. She asked if there is an opportunity for the CCP to recommend to the City Council any measures that would promote the values of urban forest and/or mitigate the values lost with the potential loss of a good bit of Keene's forest. There is the inevitable threat of the convergence of the Hemlock Woolly Adelgid and the Emerald Ash Borer. Maybe part of their resilience plan would be to compensate for the loss of carbon sequestration and storage that the urban forest has been providing. Maybe they could get this on the radar screen.

Mr. Hansel replied that they can find out what plan, if any, the City has for these invasive species – for protection or mitigation. Chair Risley asked Ms. Chalice if the City has such a plan. Ms. Chalice replied no. She continued that an urban forest plan is a recommendation of the Comprehensive Master Plan (CMP), and has not been implemented yet. In another community in which she lived, her water bill started coming with a \$10 "urban forestry fee" which was added on for exactly this purpose, when that community was already affected by these invasive species. That is an example of how one community addressed the issue.

Dr. Shedd stated that there are excellent models of urban forest plans out there, such as the one in Ithaca, New York. She continued that they could look at these plans, to avoid having to reinvent the wheel. Chair Risley stated that she would love to promote the work that Mr. Smeltz has done and get Keene's citizens to think about trees and shrubs differently. Mr. Hansel stated that there are many things (regarding climate change) that the City does not have control over, but one thing they can control is this – it does have a big impact. This should be something the CCP Committee grabs onto.

Ms. Chalice asked if there is value in having this presentation given to the joint Planning, Licenses, and Development/Planning Board (PLD/PB) Committee, since they are looking at CMP implementation. She continued that she can toss that idea out. Another project they have been thinking about is based on an idea done elsewhere – choose seven downtown trees, and put big, oversized price tags on them. The tags would have information like this, such as how much pollutant is being removed by the tree. They have not received an okay from (Public Works Director) Mr. Blomquist yet. This is an example of a way they could educate the public about the importance of trees – sometimes people say things like, "That tree's too big, let's get a new one," not understanding.

Chair Risley stated that as they continue on there will be more and more programs and policies that interest the CCP Committee. She continued that they should make sure they stay somewhere so the CCP Committee can decide on priorities, capacity, and impact. During her time on the committee she has seen this happen – someone comes and presents on a topic, and the CCP Committee gets excited and wants to do something to further it, then the next thing comes. They have to keep track of this.

9. Member Recruitment

Chair Risley stated that member recruitment is frustrating, partially because they cannot bring on new members until old members resign, and some old members thought they had resigned, not realizing that it can only be done via physical, signed letter, not email. She continued that she is still trying to figure out what the official membership list is. She reached out to the people still on the list who thought they had resigned and got them a letter to print out and sign. The CCP Committee now has vacancies for alternates, at least. Mr. Graham has expressed interest. Mr. Graham replied that he followed through with the City and sent in all of the things they requested of him, but he has not heard back from anyone.

Dr. Shedd suggested that she and Chair Risley communicate to the Mayor that all of these vacancies cannot wait until January. She asked Councilor Powers if this can be moved forward in the City Council. Councilor Powers replied that she is right that this should not wait until January. He continued that the City Council did not meet for two weeks. He has not seen any resignation letters, but maybe they are on this week's agenda. He had a conversation with the Mayor, before he knew that Bob Kelley was leaving. Chair Risley stated that she has not heard back from the City Clerk, regarding the official membership list. Ms. Chalice suggested she check back with her today.

Discussion continued about membership. Mr. Hansel stated that he thought he was an alternate. Chair Risley replied that the Mayor moved him up to full member. She continued that she has talked with the Mayor about Mr. Graham, too, so they have done their due diligence. She asked for people to send her names of other potential new members, reminding them that members have to live in Keene.

Chair Risley reported that at the last subcommittee meeting, Mr. Cornelius spoke of wanting to invite the Mayor to a CCP Committee meeting, mostly due to frustration with membership issues and a feeling that sometimes the committee is not given enough support, although they know Planning staff members have limited time. She continued that the timing did not work to invite the Mayor for today, but they could try again. She asked what their goals are for this.

Dr. Shedd asked Mr. Cornelius what question(s) he has for the Mayor. Mr. Cornelius replied that he thinks an educational institution should have a top level administrator become a CCP Committee member. He continued that climate change is a huge problem and it seems to him that the committee is "just moving the deck chairs." If they are going to do anything, they need top-level administrators from schools. Ms. Chalice replied that she can pass that along but she thinks that request would be more powerful coming from the Chair. She continued that she does not see it as appropriate for the staff liaison to invite the Mayor.

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Councilor Powers stated that in theory the Mayor is invited to every meeting, since he is Ex-Officio Chair of every meeting and the CCP Committee is working for him. He continued that it is probably the right protocol for Dr. Shedd to ask him to come. Mr. Cornelius is right – they need to get educators more firmly entrenched in this topic. The SAU has had a turnover in leadership and staff, but he hopes they could give at least one person for the CCP Committee, for at least one term.

Mr. Cornelius stated that typically, new members are found by CCP Committee members recommending their friends who may be interested, which is not appropriate, if this committee is going to be serious. He continued that the Mayor has to be recruiting, and they need people who are knowledgeable and passionate about this subject. Chair Risley agreed.

Dr. Shedd stated that she will put inviting the Mayor on her to-do list. Chair Risley will help. Ms. Chalice asked who to send the next draft agenda to. Chair Risley replied both her and Dr. Shedd.

10. Next Meeting – Wednesday, October 7, 8:00 AM

11. Adjournment

Chair Risley adjourned the meeting at 8:55 AM.

Dr. Shedd reported that the Federal Energy Regulatory Commission is receiving public input about the proposed Kinder Morgan pipeline, which 35 energy commissions have submitted letters in opposition to. She asked if it would be appropriate for the CCP Committee to ask the City Council to submit comments about the pipeline's impact on climate change. Brief discussion ensued. This will be on the agenda for the next meeting for discussion.

Respectfully submitted by
Britta Reida, Minute-taker