

**CITY OF NEWARK
DELAWARE
CONSERVATION ADVISORY COMMISSION
MINUTES**

DECEMBER 12, 2006

MEETING CONVENED 7:00 p.m., City Manager's Conference Room

MEMBERS PRESENT: Steve Dentel presiding, Steven Beard, Jennifer Byrne, Thomas Fruehstorfer, Kurt Philipp, Ajay Prasad, Kass Sheedy, Fred Stiegler

MEMBERS ABSENT: Robert Bennett

STAFF PRESENT: Charlie Emerson, Parks & Recreation Director

1. APPROVAL OF MINUTES FROM MEETING HELD ON NOVEMBER 14, 2006

Mr. Prasad corrected the spelling of Marian Peleski's name. He changed a statement in the third paragraph on page four to "system on the roof to produce solar electricity."

Ms. Sheedy asked that her comments under Old/New Business be stricken since she was not speaking on behalf of the Commission. She was concerned her statement about alerting the Commission if anything significant came up for the property on West Park Place might be seen as biasing the Commission. Mr. Dentel agreed to remove that statement.

MOTION BY MR. STIEGLER, SECONDED BY MS. SHEEDY: THAT THE MINUTES FROM THE NOVEMBER 14, 2006, MEETING BE APPROVED AS AMENDED.

MOTION PASSED UNANIMOUSLY. VOTE: 8 to 0.

AYE: Beard, Byrne, Dentel, Fruehstorfer, Philipp, Prasad, Sheedy, Stiegler

NAY: 0

ABSENT: Bennett

2. LEED

Mr. Dentel updated the proposal to include information Ms. Sheedy found on the resale value of green buildings. He asked Commission members to review it and make changes. He would not be able to attend the next meeting but asked to keep LEED on the agenda for discussion.

Mr. Beard had the opportunity to meet Hue Grant, the incoming president of the Delaware American Institute of Architects (AIA). Mr. Grant is a LEED certified architect working on several LEED projects in Delaware. The Delaware AIA will have a conference on building green building on October 18, 2007 at the Chase Riverfront Center.

Mr. Prasad learned from Karl Kalbacher that New Castle County's Paul J. Sweeny Public Safety Building on Route 13 will be a Gold Certified LEED building. It will have a geothermal heat pump and use rain water exclusively. Mr. Dentel added that Blue Bell Barn near Concord Pike will be a Silver Certified LEED building.

Ms. Sheedy mentioned an article in the *New York Times* on the increased demand from travelers for carbon neutral or carbon negative. While planning a trip to Europe, Mr. Dentel found websites that calculated how much travelers should contribute to carbon funds to make up for air flights and fossil fuel usage.

There were no further comments.

4. COOL CITIES

Mr. Beard received a large binder of information from a Sierra Club member on the Cool Cities program. Approximately 390 cities have joined the program with Wilmington being the only one in Delaware.

The first step in the Cool Cities program is to have the mayor sign the U.S. Mayors Climate Protection Agreement which sets the goal of reducing citywide global warming carbon dioxide pollution to 7% below levels by 2012.

The second step is to conduct an inventory of the city's global warming emissions. This information identifies the city's major CO₂ sources and provides a baseline to judge the city's progress towards its goals. Cities can receive technical assistance to conduct the inventory from a variety of sources including state and federal agencies as well as the International Council for Local and Environmental Issues (ICLEI) through its Cities for Climate Protection program.

The third step is to develop a solutions plan to reduce emissions while lowering energy costs for the city. Every city's energy solutions plan would be unique but would include green vehicle fleets, energy efficiency, and renewable energy. The fourth step is putting the plan into action and monitoring its progress periodically.

Mr. Beard suggested recommending the program to Council for approval. The City could design a program that encouraged residents to use less energy. Mr. Fruehstorfer thought energy conservation would reduce costs for the City and the Cool Cities program coincided with steps the City was already taking.

Mr. Dentel thought it made sense for the City to reduce CO₂ emission but wondered what impact that would have compared to doing things that would affect all residents. He felt LEED was a good example and hoped they could find incentives to encourage residents to save energy rather than just having the City purchase a few hybrid vehicles. Mr. Beard explained that the ICLEI sets five milestones to the inventory or climate protection program - conducting a baseline emissions inventory, forecasting adopting an emissions reduction target for the forecast year, developing a local action plan, implementing policies and measures, and verifying results.

Mr. Dentel suggested contacting the City of Wilmington to find out if they completed an inventory. He was also interested in finding out what cities like Newark have learned and what programs they implemented. Ms. Sheedy volunteered to contact the City of Wilmington.

Mr. Stiegler asked if the Cool Cities material was geared specifically to a geographical location or city. Mr. Beard said the material he received was the plan for Dover. There were no specific activities outlined and Dover had not yet completed their inventory or signed the Mayor's agreement.

Commission members agreed to wait to make a recommendation until they reviewed Wilmington's plan and timeline.

Mr. Beard remarked that Senator Harris McDowell and John Burn of the University of Delaware proposed to set up an organization similar to a public company that would sell sustainable energy options. The organization would hire contractors for solar installations, weather proofing, and other energy conservation measures and offer "one-stop shopping" similar to programs in Vermont and New Jersey.

There were no further comments.

5. FLOODPLAIN AND STORMWATER REGULATIONS

Mr. Fruehstorfer explained that the City's codes were designed to protect people, property, and the environment but fell short in providing protection for the environment. The Code did not promote infiltration or provide protection for streams. He recommended that the Code objectives be revised to protect public health and safety, streams and groundwater, public interests, and the diversity of the local native ecosystems of plants and animals.

Mr. Fruehstorfer did not think the prohibition measures in the 100-year floodplain protected public safety. The threat of future water levels rising was due to stormwater issues, and he suggested the City review new and existing developments. He also suggested taxing residents for impermeable land in order to decrease runoff and increase infiltration and requiring developers to compensate

for new construction that decreased permeable ground. He added that although new developments were required to maintain discharge rates after development to predevelopment rate, the total volume discharge was not regulated.

Mr. Fruehstorfer felt the City should set goals and timelines to add stormwater systems to existing properties built before the stormwater management codes went into effect. He pointed out that a stormwater pond could be added to the area in Handloff Park between the properties on Bent Lane where the stream runs out of Oaklands and Nottingham Green. He suggested requiring small property owners to add rain barrels that discharged through lawns and reducing road widths in new and existing developments. Mr. Fruehstorfer noted that Briar Lane was 28' wide and in a special parking permit district which meant very few cars parked on the street. Reducing the width of the road by 3' from each side would reduce the paved surface area by 20% or 12,000'.

As suggested in the last meeting, Mr. Fruehstorfer spoke with John Kowalko about flooding problems along White Clay Creek. Mr. Kowalko said development in New Castle County caused flooding problems for properties outside the City limits.

Mr. Fruehstorfer went on to say Chester County Water Resources Authority developed a post-construction stormwater management model ordinance which focused on infiltration instead of shipping things off to the stream. The ordinance included detailed methods of separating flow instead of concentrating and encouraged the use of retention basins to provide infiltration of collected water instead of detention basins that collect water and discharge. The model required permanent stormwater management design standards that maintain the natural infiltration process and rate to infiltrate runoff at its source. It also required property owners to provide infiltration for the first half-inch of rainfall.

The State of Maryland and EPA studies determined there should be a minimum of 20' – 25' of forested area around streams followed by another buffer of forest and brush followed by grass. This makes a buffer of about 150' before permitting building. EPA documents show infiltrating water instead of having it flow over surfaces removes 75% - 90% of nitrogen from runoff underground compared to the 50% removed when water flows on top of the ground through grass. The State of New Jersey has restrictions that range from 50' – 300' depending on the importance of the stream.

Another reason to provide buffers along streams was to provide public access trails. Research showed this concept increased property values for properties along streams and regionally. Buffers also protected local native ecosystems. Mr. Fruehstorfer planned to add information from Doug Tallemys presentation on beneficial insects.

In summary, Mr. Fruehstorfer felt building restrictions should be modified to include restrictions forbidding new construction in the 100-year floodplain or 150' to the stream, whichever was greater. New construction should have 15' – 25' forested zones and 20' transition zones along the stream. All construction should be subject to greater restrictions to reduce permeable space. The City should consider reducing road widths and setting target dates to require stormwater management for properties without stormwater management. Existing developed properties in the stream buffer should be encouraged to provide native trees and shrubs along the stream. Property owners wishing to add on to existing structures in the floodplain or riparian buffer should be required to enlarge the natural buffer along the stream. Public access trails should be added along all waterways to connect to existing paths and trails.

Mr. Stiegler appreciated Mr. Fruehstorfer's in-depth research. He wondered how the recommendations compared to the existing code. Mr. Fruehstorfer said outside agencies have given the City's codes high ratings. He believed that was because the agencies focused on protecting the interest of public health and safety. The existing codes provided maintainable stormwater systems that safely moved stormwater away from people and out of town. They also protected health and safety; however, they lacked objectives to preserve water quality in the streams and natural water courses in Delaware and did not promote delayed run off or the use of on-site detention retention. Mr. Fruehstorfer thought the City should promote the utilization of groundwater recharge techniques where feasible. He added that one of the accepted uses of the floodplain was mowed lawns and that needed to be changed to provide additional protection for streams.

Mr. Dentel thought the statement in the recommendation, "when comparing the cost of drying out a basement or being there for 1500 years," minimized potential problems. He pointed out that flooding problems on the Red Clay Creek forced New Castle County to buy out a number of homes in Stanton. Mr. Fruehstorfer did not think the City faced that type of situation. Mr. Stiegler remarked that the flooding New Castle County faced was attributed to problems that originated in Pennsylvania. Mr. Fruehstorfer said the houses in Cherry Hill were in the 100-year floodplain and did not have problems with flooding even though there were 100-year storms. He understood at least one house had problems with water in the basement, but felt it was due to either stormwater management issues or the watershed. Without good management upstream, all of the houses would eventually have problems, but that was not a justifiable reason to prohibit building in the 500-year floodplain. Mr. Fruehstorfer felt new construction should be prohibited in the 100-year floodplain, but existing property owners should be permitted to add on to their property if they increased the buffer along the stream.

Mr. Dentel remarked that property owners' rights were not quantifiable so it was important to point out that residents take their property rights very seriously. He asked how the recommendation differed from the proposal that previously went

before City Council and upset residents. Mr. Fruehstorfer said this recommendation did not focus on property damage. rather it explained how building in the floodplain took away the ability of the riparian buffer to filter water before it got into the stream and caused environmental damage downstream. Mr. Dentel thought City Council would be reluctant to consider the proposal if it would upset a lot of residents. He suggested prefacing the document with a one-page bulleted statement that pointed out the problems and a statement on the benefits. Mr. Fruehstorfer clarified that he proposed that existing property owners could add on to their homes if they reforested buffer areas, but they could still lose the right to build on some of their undeveloped property. Based on conversations he had with Joe Charma, he thought developers would agree with the recommendations because of the reasoning behind it. He said Mr. Charma felt infiltration was needed and discussed ways developers and builders could reduce runoff. He explained that Mr. Charma opposed the previous recommendation by the Commission because he thought it was an arbitrary addition.

Mr. Dentel suggested that Mr. Fruehstorfer e-mail the recommendation to everyone for their input so they could develop a proposal from the Commission. Mr. Stiegler suggested adding a brief executive summary. He remarked that City Council members were not affiliated with political parties, but they were political and that had to be taken into consideration where property rights were concerned. Mr. Emerson said creating a 150' buffer would encroach on a huge amount of lawn. Along the Christina, particularly in West Branch, there were a lot of houses that were very close to the creek and bank. He agreed that property rights would be a factor in Council's decisions. Mr. Fruehstorfer agreed that legislating what property owners along the stream could do with their property may be difficult, but incentives should be derived to encourage them to return at least 15' along the stream to forest for the transition zone before mowed lawns.

Mr. Fruehstorfer explained that even though Laura's Glenn was built outside the 100-year floodplain, some residents were still unhappy. He learned from Mr. Lopata that the 100-year floodplain in that area was approximately 130'. The findings in his recommendation would have added another 20'. Mr. Philipp asked if a 150' setback would be required if the stream was 5' wide. Mr. Fruehstorfer explained that it would because water needed to be filtered before it got to the stream. Residents wanted Council to be able to prohibit building near the floodplain. Based on his research, Laura's Glen would have been set back another 20' but it did not have anything to do with the floodplain. Mr. Philipp agreed that residents who opposed Laura's Glenn wanted the smallest footprint possible and looked for any justification to set it further back.

Mr. Dentel asked how the recommendations would effect construction on the Newark Country Club property. Mr. Fruehstorfer said there was a stream along one side of the property, but it was not protected by floodplain regulations. Only the Christina and White Clay Creeks were protected, but he felt the smaller streams needed buffers.

Ms. Sheedy asked if the recommendation was similar to the voluntary riparian buffer zone program Gerry Kauffman worked on. She thought it would be helpful to point to documents that showed similar things were already being done.

Mr. Emerson said the City was involved in a reforestation program along the White Clay Creek across from the reservoir. The City used Federal grant money to purchase trees and also worked with the State of Delaware Forest Service who helped private property owners fund reforestation and riparian buffer enhancements. Ms. Sheedy suggested adding that information to the recommendation.

Mr. Philipp asked about the status of the grant the City was pursuing with the Corp of Engineers from NRCS. Mr. Emerson said he was waiting for the final report which he thought would address a lot of issues and would be extremely valuable in making internal determinations as to how the Commission should approach Council with the recommendation.

Mr. Philipp expressed concern about liability issues related to detention. Mr. Emerson did not think it would present significant liability issues since the City owned and managed stormwater basins and many of them held water for long periods of time.

Ms. Sheedy thought people might reject the suggestion to narrow roads because it would mean utility poles would have to be moved and there would be issues with stormwater collection. Mr. Fruehstorfer said stormwater intake would have to be moved but utility poles would not. Ms. Sheedy suggested talking about more broadly increased infiltration by the addition of grassy buffers along the edge of the road or median strips. Mr. Emerson expressed concern about maintaining median strips.

Ms. Sheedy suggested adding information in the summary that addressed methods of mitigating increases in impermeable surfaces and the goal of reducing the volume of runoff as well as the rate of runoff and increasing infiltration. She also suggested adding a statement about pursuing cooperation with appropriate agencies in the upstream portions of the basin. Mr. Stiegler suggested contacting Gerry Esposito, President of Tidewater Utilities.

Mr. Fruehstorfer said he would add an executive summary and e-mail the recommendation to the Commission for comments. Mr. Dentel suggested numbering the pages.

There were no further comments.

6. REVIEW OF PLANNING DEPT. REPORTS RE POSSIBLE FUTURE DEVELOPMENTS

Ms. Sheedy heard Home Depot might come back before City Council in January. She was pleased that City Council granted a 60-day extension of the Stone Balloon's liquor license. Mr. Fruehstorfer heard Trader Joe's might be on the ground floor of the building.

There were no further comments.

7. OLD/NEW BUSINESS

A. Mr. Dentel said the City's electric bills included an option for residents to buy inexpensive blocks of green energy. He was contacted by some residents who were unhappy because it was landfill gas and the letter that came with the electric bill said it was non-carbon based electricity which was not true of landfill gas. The State codes and statutes gave two definitions of renewable energy. The Delaware Energy Act defined renewable energy technology and that definition does not include landfill gas. The definition in the legislation establishing the renewable energy portfolio program run through DNREC (DMEC handled the municipalities) includes landfill gas. Mr. Dentel was not opposed to energy from landfill gas, but felt it should only be part of the portfolio. DMEC purchased 100% landfill gas, but most places purchased a mixture and landfill gas was typically 8% of the total purchase.

Mr. Dentel questioned whether the City should be working towards building wind turbines or tapping landfills. In the last few years, the City bought hydropower obtained from hydroelectric facilities on the Susquehanna River. Residents were paying extra for renewable energy and to him the intent of that was to provide an economic incentive for people to develop new resources, not to get extra money from a dam they already owned. He supposed the program succeeded in getting people to tap the landfill gas in Delaware.

Mr. Dentel further explained that the City was buying green energy and electric power energy under two separate programs. The program the Commission proposed was an across-the-board small percentage that everyone buys. The second program is the one where residents opted into and paid extra. The first one was written according to the Delaware Energy Act, so it can not be landfill gas. The opt-in program was landfill gas. DMEC was aware of the distinction between the two programs and they buy hydro power for Newark only; everything else for all municipalities was landfill gas. The bill the Commission got Council to pass stated that every year the Commission would make a recommendation to City Council as to what kind of green energy they buy in the upcoming year. He thought Wilma Garriz would be working on this but did not know if DMEC asked the City to purchase landfill gas only.

Mr. Dentel and Mr. Stiegler noted that the wording of the notice in the electricity bills was confusing.

B. Mr. Emerson spoke with a representative from the Delaware Horticultural Society about community gardens. They planned to meet with residents of the Madison Drive area. He had not evaluated the area and was not sure if there was enough available space in Dickey Park. He was concerned about security, logistics, and finding a water source.

C. Mr. Stiegler made reference to National Energy Month and DNREC's purchase of energy-saving light bulbs. He asked if anyone knew the participation rate and whether they reached their goal. He read in the newspaper that they purchased 750,000 bulbs and hoped to have a participation rate of 25%. Mr. Fruehstorfer thought the participation rate would be closer to 5%. Ms. Sheedy said she did not receive her redemption coupon until the end of October. Mr. Stiegler volunteered to contact DNREC to ask if they reached their goal and find out what they did with the extra light bulbs.

8. Meeting adjourned. Time: 9:15 p.m.

Sonji Hubbard
Secretary