THE CITY OF NEWARK CONSERVATION ADVISORY COMMISSION

ANNUAL REPORT FOR THE YEAR 2003

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Green Energy

Late in 2002, the CAC submitted a detailed proposal to the City to implement the purchase of electricity from renewable sources. This proposal is available as an appendix to the CAC's 2002 Annual Report. It included information on the considerable environmental impact of fossil fuel usage, even from a city the size of Newark, and proposed that Newark electrical customers could choose from solar, wind, or landfill energy sources as alternatives to fossil fuel electricity. Each of the alternatives would include an appropriate premium added to the electrical bill. The City would then contract for electrical purchases from the corresponding sources at the necessary amounts. The program would require a publicity and education effort to attain a reasonable level of participation and make the elective program worth the City's effort.

In 2003, the city studied the CAC proposal. The city's Finance Director developed a separate possibility, in which the individual customers would have no option for green energy on an individual basis. Instead, Newark would simply purchase an amount of green energy that might be equivalent to the amount those customers would have ordered, and spread the added cost among all customers. This plan was verbally presented to the CAC in January 2003 but the written report provided to City Council was not provided. The Finance Director's plan was approved by the City Council on February 10th, 2003.

The CAC expressed some disappointment at its subsequent meeting in February concerning the amount of green energy the city had decided to purchase. The amount was based on assumed 2% participation rate by residential customers, with customers purchasing 25% of their electricity as green energy. This means that the city's green energy purchase of 480 MWh would be 0.13% of its overall electricity purchase, far less than 2%. A letter was drafted and sent to City Council strongly suggesting that the amount be increased to a full 2%.

During 2003, little progress was made on the city's purchase of green energy. In August, the Finance Director withdrew his support for the purchase in consideration of a bill being drafted at the state level. The CAC unanimously reiterated its support for the purchase, and sent a memo to City Council urging that the purchase be made as per Council's earlier decision.

In December 2003 CAC was informed that the City had requested DEMEC approval for a 480 MWh purchase of green energy from Community Energy. DEMEC had denied

this request. DEMEC had also offered to assist in finding another source of green energy., and Newark's City Manager formally requested that this assistance be provided.

As of early 2004, it appears that the city has obtained permission to purchase 480 MWh from a landfill recovery operation in Maryland. In addition, DEMEC has been petitioned by seven participating cities for such purchases, so a larger amount is likely to be purchased.

After long delays, it thus appears that the CAC work on green energy has culminated in actual purchases, and has also opened the door for other municipalities in Delaware to do the same. The CAC will continue to monitor this situation during 2004.

CAC Review of Green Construction

The CAC was fortunate to be able to engage two students from UD to conduct a study of developing green building practices in Newark, including considerations of energy conservation, water conservation, health and safety, and economic benefits. The two students, Patrick Sells and Karen Sonstrom, were undergraduates in the Department of Civil and Environmental Engineering at the time, and were advised by Steve Dentel in his capacity as a faculty member in that department.

The students provided two presentations to the CAC during 2003 and a final written report. Initially, their study had three directions:

1) Possible participation in Delaware's Environmental Incentive Fund, which provides 35% matching funds for renewable energy projects in the State. This fund is a result of a small surcharge on electrical bills in Delaware, and is intended to encourage such improvements as residential solar panels. However, electrical customers served by Newark do not pay in to this fund and thus are not eligible for these benefits. Although a bill is being considered in the State Assembly that would alter this situation, the outcome hinges on political considerations beyond the purview of either the student project or the CAC. This direction was thus de-emphasized as the study continued.

2) Possible participation in the Energy Star Partnership. If Newark were to do this, its public facilities would be evaluated and rated according to the Energy Star Partnership. . Energy conservation goals must be established, and then energy usage must be tracked to determined whether the goals are being met. Many other governments do this, including the states of Maryland, Pennsylvania, New York, and New Jersey (but not Delaware).

   The University of Delaware also participates in the Energy Star Partnership. One possibility would be to emulate UD's approach, and possibility solicit their assistance. The Energy Star program includes considerable on-line information

(www.energystar.gov), training programs, and computer software for purposes such as energy usage tracking.

3) Development of incentives for sustainable or "green" construction. Green construction was found to be a well defined practice. A program called LEED (Leadership, Energy, and Environmental Design, sponsored by the United States Green Building Council), provides concise guidelines for the evaluation of green and sustainable elements that can be incorporated into construction and development practices.

   After meeting with the city's Building Director, the students reported that Newark uses an up to date building code that would be amenable to such incentives since it lists procedures to approve new materials and methods for alternative construction.

   The LEED program has been adopted by many public entities, including counties, cities, and states (such as Maryland). It is a national certification program that divides building construction into categories and, within each category, there are points given for the inclusion of specific green elements within the facility's construction. Examples of categories include water efficiency, stormwater management, energy conservation, materials and resources used in the construction, indoor environmental quality, and specific innovations. More details are available at the website www.usgbc.org. All categories do not need to be included in the program as adopted by a given municipality.

   The other component of this program is incentives that should be provided to projects that rate highly on these criteria. High LEED scores could include zoning allowances such as greater building density, reduced permit fees, and favorable publicity.

CAC interest in all three of these directions continues, and further investigation is anticipated during 2004.

Stream Corridor Restoration Initiative

Currently, the City performs inspections of the stream corridor, maintenance associated with public safety and stream blockages issues, and small bank erosion stabilization projects in coordination with the New Castle Conservation District (NCCD). However, it was generally acknowledged that the current efforts were more reactive actions than long-term solutions to the degraded condition of the stream. As such, the CAC developed a conceptual approach for a large-scale project to restore and enhance the stream.

In order to perform a major stream restoration project, it is first necessary to study the stream and its corridor to identify, quantify, and prioritize the degradation within the stream. The CAC developed a preliminary scope of work. After discussing the scope of

work with selected resource agencies, it was estimated that the cost of the project would approach $3 million.

The CAC recommended that the City acquire support for the project. The CAC supported the City by requesting letters of support from City Council, local, State, and Federal representatives, State and Federal resource agencies, and local conservation groups. In general, the response exceeded expectations.

Following the acquisition of support, the CAC aggressively searched for funding sources. Numerous discussions were held with U.S. Senator Carper's office. Initially, the response provided by the Senator's office was very positive. However, due to timing issues and some misinformation, funding for the entire project was not obtained. It became clear to both the City and the CAC that it would be unlikely that the entire project could be funded at one time. As such, it was decided that attempts would be made to break the project into numerous smaller projects.

The CAC facilitate discussions between the City and the Natural Resources and Conservation Service (NRCS) toward updating the models. On May 1, 2003, representatives from the City held a meeting with representatives from DNREC, NRCS, and NCCD. As a result of this meeting, a three-phased plan was outlined. The first phase of the plan would involve studying the stream, public outreach and education, and identifying funding sources. The second phase would involve identifying restoration and design needs, prioritization of needs, and identifying funding. The final phase would involve construction. The NRCS was identified as a potential funding source for the initial study.

On May 30, 2003, the City submitted a written request to NRCS for the funding and performance of a hydrologic study update for the stream corridor. Shortly thereafter, NRCS responded to the request favorably.

On July 23, 2003, the NCCD notified the NRCS that it would cosponsor the project with the City. During the summer of 2003, the City and NRCS inspected the stream corridor in an effort to better define the scope of the project. NRCS provided the City with a summary describing the scope and extent of problems along the stream. The information obtained during the inspection allowed the NRCS to better focus the study.

On January 22, 2004, the City submitted a request for support to DNREC. On March 8 the City was notified by the NRCS that its 2004 funding request to update the Hydrologic Study has been approved. The City and the CAC are continuing to work on this initiative.

Recycling Summary

Recycling is at the forefront of environmental issues within the city of Newark, as pointed out on a questionnaire handed out at Community Day The CAC held a public seminar on recycling on Thursday, December 11, from seven to nine p.m. in the Council Chamber of City Hall. Representatives from the Delaware Solid Waste Authority (DSWA) and the Delaware Recycling Public Advisory Council (RPAC) were invited. Tom Houska and Rich von Stetten spoke on behalf of DSWA, while James Short (Environmental Program Manager) spoke for the Delaware Department of Natural Resources and Environmental Control (DNREC) on behalf of the RPAC. About twenty community members attended the seminar.

Houska and von Stetten presented information on a DSWA proposal to implement a curbside recycling program in Newark. The current program involves over 145 voluntary drop-off centers throughout the state that collect about three million pounds of recycleables monthly. DSWA implemented a new curbside in program for recycling pickups in Brandywine Hundred, an unincorporated section of New Castle County in 2003. Participating residents (no commercial pick-up) are billed quarterly at $6/month ($9/month with yard waste). The items are picked up weekly on a rotating schedule determined by DSWA, with pickup before 8 am on the day indicated. Each household is provided with a plastic blue box to put out, with plastic bags to enclose the different types of recyclables (DSWA separates these bags for later use in plastic lumber). This program covers an area of approximately 33,000 households, of which over 600 have chosen to participate in this program. The pickups are contracted to a private company, BFI, by DSWA. Apartments and dormitories are not included in the program.

Houska and von Stetten stated that DSWA was considering expanding its curbside program to Newark. At the time of the seminar, 351 positive responses had been received to a survey sent out with the Newark electric bills. One concern expressed at the meeting is whether the igloos would be continued. It was stated that this is considered likely, because not all households will choose to participate in curbside pickup due to the cost. Residents living in apartments or dormitories may also use the igloos. Also, curbside pickup will not include corrugated cardboard, batteries, motor oil, or junk mail already accepted at igloo sites. Yard waste is not included in the curbside pickup program but is picked up in Newark in a city-run program. It is mandated by the state that in the near future, yard wastes will not be accepted by landfills in the state.

Mr. Short stated that according to an independent study presented to the Delaware Recycling Public Advisory Council by DSM Environmental Services, achieving a residential recycling rate of 30% in New Castle County requires a combination of curbside recycling, expanded leaf collection programs, and an aggressive campaign to convince residents to mulch their grass clippings. Regardless of the goal, both organized single stream and dual stream (bi-weekly) collection of recyclables countywide have lower system costs than continuing to collect this material as refuse for disposal in the landfill. The largest question is what entity will pay for implementation of a new system. . Another is whether it makes more sense to have the households separate the recyclables

by type, or whether a central recovery facility should do the separation mechanically. Mr. Short also indicated that a subscription-based pickup program will not be able to increase waste diversion to anywhere near the state's goal of 30% recycled.

The following is a collection of facts and figures presented at the seminar.

- Within New Castle County, trash collection costs about $14 per month for homes in incorporated areas and $19 per month for homes in unincorporated areas.
- Within Kent County, trash collection costs about $14 per month for homes in "franchise districts" in unincorporated areas.
- About 78,000 tons of waste are available for recycling annually in New Castle County
- About 4,680 tons of waste are available for recycling annually in Newark
- The City of Newark collects about 1,760 tons of yard waste annually, about 50% of total yard waste generated by DSWA estimates (3,511 tons)
- It was possible to divert up to 20% of trash with a MRF
- One year of landfill space could be gained for every five with an operational MRF
- Even with the addition of curbside recycling, igloos will remain in their locations if they remain active

Recycling Scenarios for Newark: Expected Diversion Rates and Costs

Type of Collection	*Quantity Captured Household/Month*	*Capture Rate % Recyclables*	*Recycling*	*Cost per Rate*
Drop-Off Alone	655 tons	14%	6%	$1 + transportation
Subscription* + Drop-Off	890 tons	19%	8%	$5.40 - $5.80
Organized City-Wide Curbside	2,714 tons	58%	17%	$2.55

* Assumes 15% of population subscribes to a single-stream weekly curbside program

A few citizens believe that curbside recycling will not work in Newark because of the large number of apartments and rentals homes, and a lack of mandate from the state. The CAC is also studying how recycling is related to the implementation of a new trash pickup system and the collection of yard waste.

Municipal Storm Water Utilities

On February 3, 2004 , Ms. Kelley Dinsmore of the Soil and Water Management Division of DNREC presented the CAC with information about the nation-wide municipalities movement to establish utilities as a means to raise funds needed to improve storm water

management and to education the citizens regarding its importance. Currently there are one-hundred and fifty storm water utilities nationwide. The process for any given municipality's determining whether it has both the need and the will to add itself to that number is complex, but it is also educational and potentially healthy for the City to undertake because the process brings many public and private sectors together to explore the complexities, costs, and benefits of formalizing, through a utility, the City's means of funding needed maintenance and improvements in its storm water management system.

Ms. Dinsmore reviewed with the Committee the complex process conducted by the City of Chiciopee, MA, in its determining whether such a utility would be appropriate for it. The Chicopee report defines the purpose for storm water utilities and the process involved in a feasibility study. Its report includes a record of the existing storm water utilities across the country, their effectiveness as a funding mechanism, and the essential component of citizen involvement in the planning and authorizing of a utility for this purpose.

Her presentation and the printed materials she provided now enable the CAC to decide whether it has the interest and ability to engage itself further in exploring the feasibility of a storm water utility for the City of Newark.

Adopt-A-Park/Stream

The CAC conducted a community stewardship program from 1991 to1993. A similar program was re-initiated in 2001 by the CAC allowing groups or organizations to take care of either City parks or stream sections. Street or block areas were dropped from the program in consideration of vehicular traffic volunteer safety. The program primarily encourages litter and trash clean up and provides plastic bags to participants.

The program continues to grow with new participants and inquiries. A description of the program is included in each issue of the City of Newark Newsletter.

Current Participants:

Boy Scout Cub Pack 56	Lumbrook Park
Mt. Aviat Academy	George Reed Park
Newark High School	Christiana Creek
Nature Club	Elkton Rd.-Arbour Park
Boy Scout Troop 250	Christiana Creek
	Barksdale-Church Rd.
Menzer Family	Handloff Park

Three other families and groups have expressed interest in joining the program.

Community Day

For the 2003 Community Day, the CAC booth included posters intended to elicit opinions from passers-by on their priorities relevant to CAC activities. This included a brief questionnaire for completion.

The most popular topic among city residents was 'Green Energy'. The questionnaires revealed that after Green Energy, the residents were interested in Recycling, Water Conservation, Backyard Habitats, Attracting Birds and what type of Birdhouses. Other topics were Public Transportation, Wetlands and Marsh Conservation, Energy from MSW, Biking and other Alternative Transportation. There was material on Recycling, Adopt-a-Park/Stream and the Better Newark Award. There was also recycling container for cans that was provided by the Parks Department.

Promoting Improvement through the Better Newark Award

Since 1986,the "Better Newark Award" been awarded quarterly for environmental improvements as well as noteworthy aesthetic improvements. The award includes a proclamation signed by the Mayor, a photo is publicized in the Newark Post and a photo is presented to the property owner. Nominations are reviewed periodically by the CAC, and the winning properties are voted on. The winning Newark properties for 2003 were:

36 Kells Avenue	Joan D'Alonzo
108 Casho Mill Road	Raymond & Arlene Higgins

Community Cleanup

The CAC was active in assisting with the city's 2003 Community Cleanup on Saturday, April 26, from 9 to 11a.m. Approximately 42 volunteers participated in the cleanup. It was a total of approximately 92 volunteer hours. The relatively low turnout (compared with previous years) was due to the light rain that fell all morning. Nevertheless, several parks along with Elkton Road, Paper Mill Road and the Parkway, were cleaned.

PLANS FOR 2004

As indicated above, a number of CAC activities are ongoing. An additional topic being explored in 2004 is the possibility of creating a "stormwater utility" as a means of raising revenues specifically for control of stormwater runoff and the associated erosion and flooding problems. In addition, the CAC will pursue any conservation-related topics indicated to be of interest to City Council.