

Falmouth Conservation Commission Minutes of April 7, 2008

Meeting convened at 7:07 PM

Members Present: Lissa Robinson, Chair, Caleb Hemphill, Mel Dickenson, Willie Audet, Frank Ruch, Sean Mahoney

Members Absent: None

Liaisons: Lissa Robinson (CPAC), Caleb Hemphill (FTAC, FLT), Willie Audet (FEDC)

Staff: Gary Fogg (consultant)

Monthly Meeting Leader: Caleb Hemphill

Guests: Bob Bittenbender (Assistant Property Manager, Maine Audubon Society)

Minutes

The minutes for the meeting of March 3, 2008 were approved.

Discussion on Invasives with Bob Bittenbender

Caleb invited Bob to the meeting to help the FCC gain new energy and insights for its invasive species control program. Bob began by asking what the FCC was doing currently and how it viewed the challenge of controlling invasives. He then proceeded to discuss the basic ecological threat posed by invasives and how we distinguish between a noninvasive alien plant and an invasive one. The major distinction is that an invasive species displaces native vegetation and thereby disturbs natural habitat functions provided by that vegetation. The result is a loss of habitat, diminished ecological functioning, and diminished economic and natural resource values provided by native plants and wildlife.

Bob went to say that the challenge posed by invasives today is already huge, and if global warming continues to get worse, the problem posed by existing and new invasive species will escalate dramatically. Taking on too much can paralyze taking on any action at all, however, and so there are some useful and effective actions that can be taken. To begin with, people need to become better informed about the role they play in spreading invasives and how to choose alternative species for gardening, landscaping and erosion control. Then they also need to know how to control the invasive species already present on their property. Supporting this effort is another achievable task, which is working with area nurseries to phase out the sale of invasive species that are still being sold.

Bob concluded by saying that there are no easy solutions. He is working on an invasive species management plan for Gilsland Farm and will certainly continue to help the FCC work out ideas for their invasive species program as well. Lissa and Caleb said that they will meet to brainstorm new ideas for the FCC program this year and were very glad for Bob's advice.

Contaminants in Maine Birds and People

Gary Fogg presented a comparison between two studies that found industrial compounds in Maine birds and people. The first was Wing Goodale's study entitled *Preliminary Findings of Contaminant Screening of Maine Bird Eggs: 2007 Field Season*, which Wing prepared for the Biodiversity Research Institute in Gorham. The second was the *Body of Evidence: A Study of Pollution in Maine People*, by the Alliance for a Clean and Healthy Maine, June 2007.

Wing's study revealed that industrial compounds are present and bioaccumulating in all 23 species of birds studied. The species were selected to represent both terrestrial and aquatic habitats and both low and high trophic levels in the food chain. Wing's research showed that not only were the compounds tested present but that multiple compounds were positively correlated with each other. In other words, as one compound increased in the food chain, another tended to

increase also. This positive correlation was strongest for PCBs (banned 30 years ago) and PBDEs (flame retardants used extensively in fabrics). These two classes of compounds have a similar molecular structure and may pass through the food web in similar ways.

Contaminants also showed some correlation with habitat and, of course, trophic level. These relationships were strongest for mercury (lakes), DDE and chlordane (rivers), and PFCs (ocean bays at the mouths of large rivers). The concentration of mercury in lake food chains is already well known, but the association between pesticides and rivers and the prominence of PFCs in coastal habitats is new. This is the first study in Maine birds to ever test for PFCs (grease and stain resistant compounds like Teflon).

The Alliance study in 13 Maine adults tested three of the same contaminants as Wing's study, (PBDEs, PFCs, and mercury), but did not test pesticides. On the other hand, it included two compounds commonly found in consumer plastic products that have short half-lives, phthalates (used for flexibility in vinyl and for odor retention in cosmetics) and BPA (a polycarbonate plastic building block), as well as lead (various sources) and arsenic (well water, soil, pressure-treated wood).

The results of the Alliance study showed that Maine people carry a contaminant load that in some ways resembles that of Maine birds. Every individual tested contained PBDEs, PFCs and mercury, as well lead and arsenic (not tested in Wing's study). The results for BPA and phthalates were more various, not surprising given that these two classes of compounds have very short half-lives. People with high levels of phthalates and BPA indicate very recent exposure.

The significance of the findings from both studies is that contamination from industrial compounds is universal in the Maine environment and in the bodies of both birds and humans. Nonetheless, different bird species and different humans have individual contaminant profiles. The contaminant profiles for birds appears to reflect their differences in diet, habitat and trophic level, whereas in people the individual profiles probably reflect differences in diet (mercury) or in the consumer products to which they are most exposed (phthalates, BPA, PFCs, PBDEs). In addition, all the humans showed lead levels that were fairly similar and a little less than the national median as reported by the CDC, a fact that the Alliance study attributes to the leaching of lead from bone, where lead bioaccumulates. Such a uniform lead count probably indicates exposure to lead from atmospheric deposition prior to the introduction of unleaded gasoline in 1979. Arsenic levels in Mainers was less uniform, but on average was higher than the national median. Due to the complex biochemistry of arsenic as it is found in nature and the way it is processed by the body, the Alliance Study concluded that the results probably underestimate the most toxic form of inorganic arsenic exposure in the study participants by a factor of several fold.

Subcommittee Discussions and Reports

Energy – Mel Dickenson

- The Town Council has made this an independent standing committee. Mel said that the FCC should be proud of helping to foster the development of other community groups and activities.

Open Space – Mel Dickenson

- The Conservation Corps is officially in operation with a website and a volunteer application form that can be filled out and sent back online. They are planning to conduct trailwork at the River Point property and Pine Grove in addition to other projects this season.
- The OS Committee has submitted a grant application to the Maine Forest Service under the auspices of the Project Canopy Program to conduct timber stand improvement operations on town-owned forestland. The aim is to make these areas economically productive and supportive of the town's conservation effort.

- The OS Committee is continuing its work on mitigation banking. It has a portfolio of town-owned properties that are suitable for use in mitigation and has begun marketing these assets to state regulators and area consulting firms. Two main areas where mitigation is proposed are the Hadlock Road property and River Point. Wetlands used for mitigation purposes must be located in the same watershed where the impacts occur.
- The River Point Bridge has been determined by John Libby to be structurally sound for farm vehicles and automobiles. This is excellent news because it solves a very difficult access problem over the railroad. The bridge still needs some restorative work but building a new bridge would extremely costly and very unlikely to be done.
- The OS Committee has submitted a funding proposal on April 1 to LMF to consolidate a continuous greenbelt through the central and northern part of the community. The backbone of the system would be existing town-owned lands. These would be connected by the purchase of the fee or easements on relatively small connecting properties between them. The requested funding amount is \$654,000.

Vernal Pools – Caleb Hemphill

- On April 30, there will be a vernal pool mapping, monitoring and protection seminar at the Maine Audubon Society headquarters at Gilsland Farm, starting at 4:00 PM. A visit to VP 35B will be followed up with workshops by Sally Stockwell and Caleb. The event is being sponsored by the MACC and is tailored mainly for the needs of conservation commissions.
- Two new laws passed by the Maine legislature modify the NRPA regarding the rules used by DEP for protection of significant wildlife habitat, including vernal pools. The first, already signed by Governor Baldacci, allows DEP and IF&W to determine that a vernal pool is not significant if it dries up in southern Maine by July 13 or northern Maine by July 31. The other allows developers to pay a compensatory fee in lieu of traditional onsite or offsite mitigation measures for impacts to significant wildlife habitat (including vernal pools but not including shorebird roosting areas). The effect of these two new laws on vernal pool protection in Falmouth is not yet clear, but both changes to the law are intended to make it easier for landowners and developers to proceed with their projects in a timely manner in spite of the presence of vernal pools.

Planning – Lissa Robinson and Willie Audet

- Lissa and Willie were pleased to announce that David Chase has been appointed to CPAC. David played a constructive role as a committee member in preparing the Greening of Falmouth and is known for his comprehensive and thoughtful approach to land use planning in the community.

Liaison Discussions and Reports

FTAC – Caleb Hemphill

- James Tasse, of the Healthy Casco Bay Program (Maine Dept Health and Human Services and Maine Center for Disease Control and Prevention) has encouraged FTAC to apply for funding of trail projects. Trails qualify for funding because they provide people opportunities for exercise that improves fitness and reduces obesity.
- Dick Berringer spoke recently in Yarmouth summarizing the first report of the Governor's Council on Maine's Quality of Place. Trail connections between town centers and greenways, forming an interconnected system of trails statewide, figures prominently in the Council's recommendations.

FEDC – Willie Audet

- Willie reports that the FEDC has made strides in getting its members involved proactively in community planning. A talk by David Chase at the last meeting of the FEDC helped to illustrate and strengthen this effort.

Other News

Willie Audet enjoyed meeting Governor Baldacci recently at a lunch date that Willie won in a drawing. Apparently, they had a number of interests in common, but what impressed Willie the most was Governor Baldacci's humility and sense of humanity.

Next Steps

- Lissa Robinson and Caleb Hemphill will work together to develop this years' action plan for the Invasive Species Subcommittee.
- Frank Ruch will lead the next regular meeting, which will be held on Tuesday, May 13.

Meeting adjourned at 9:06 PM

Submitted by Gary Fogg