

VISION AND ACTION PLAN

Environmental Report

MAJOR PROJECT TOPICS

Educate and inform Members concerning environmental issues

Assigned to: Environmental Committee, OPPI Committee

The Environmental Committee suggests ideas, contributes content, and provides feedback to staff on educational pieces and events that informs members concerning a variety of environmental issues. The committee advocates for and against environmental issues and recommends how the issue should be addressed. Staff and members prepare articles, seminars, and nature hikes from the suggestions. At every committee meeting, a “Natural Moment” is presented by a member to educate and inform the community via the minutes. Also, field trips and educational sessions from contractors or educators occur at meetings, and guests are welcome to attend committee meetings. The committee suggests content for the HFCA website.

An annual “Environmental Day” is held in June. The committee suggests content and ways to increase participation by members.

The Environmental Committee recommended that HFCA voluntarily adopt outdoor lighting guidelines based on Model Ordinances from Dark Skies. The Committee recommended, and the Board approved, an inventory of HFCA outdoor lighting so that upgrades could be made as budgets allow.

Propose deer control methods

Assigned to: Environmental Committee and Board

The HFCA Deer Management program just entered its fifth year of deer maintenance as approved each year by a vote of the Hemlock Farms membership. The Environmental Committee began studying the loss of trees, understory, vegetation, birds and animals, and animal habitat, more than ten years ago. Under the guidance of our staff liaison, Marian Keegan, we enlisted help from numerous outside agencies and professionals. Once it was determined that our over abundant deer population was the cause of our deforestation problem, the next task was to determine what our options were and then make a recommendation to the HFCA Board.

All non lethal means of reducing our deer population were examined in depth, including trap and relocate, immuno-contraception, and even a perimeter fence for Hemlock Farms. Ultimately we determined that a deer cull was the only viable option. USDA

Wildlife Services was contracted to perform an annual deer removal after a deer population trend survey was performed in the fall of each year.

The results have been dramatic and forest and understory have been making an amazing comeback. Flowers, plants, trees, and wildlife, which has been absent from Hemlock for many years, are returning. This monitor and control program needs to continue in order to assure our new forest remains healthy.

Research and propose controls for other wildlife issues: bear, turkey and geese.

Assigned to: Environmental Committee and Board

To protect wildlife, the Environmental Committee recommended, and the Board approved, the following changes to the HFCA Code Chapter 102, "Feeding Wildlife Prohibited":

- On April 24, 2004, added turkey to the list of wildlife species.
- On November 18, 2006, increased the assessments to First Offense \$100.00, Second Offense \$200.00, Third and Subsequent Offenses \$200.00.
- On May 16, 2009, changed the code to "It shall be prohibited to place or offer any food or enticement on any property located within Hemlock Farms which results in attracting and feeding wildlife, including, deer, bears, geese, turkeys and feral cats."

To decrease the incidents of members feeding wildlife, the Environmental Committee wanted to increase member's awareness of the HFCA Code Chapter 102, "Feeding Wildlife Prohibited". The Committee started looking at commercially produced signs in 2006, but the regular signs, like "Deer Crossing", did not properly convey our message. We then produced several triangular concepts with a hand feeding an animal with the circle and slash "NO" symbol in Photoshop with the theme of "Help Keep Our Wildlife Wild!". None of these was considered quite right. A final design was presented for production by a sign manufacturer with the theme of "Keep our Wildlife Wild" and a feeding hand with the NO symbol and was presented at the May, 2007 meeting. The Environmental Committee designed new signs with the message, "Keep our Wildlife Wild", and a graphic that communicates the code prohibiting feeding of wildlife. The signs were funded and strategically placed inside the three entry gates.

To humanely address feral cats that are a nuisance in the community the committee decided on December 6, 2008 that homeowners would be asked if they wanted to keep reported feral cats, otherwise they would be taken to the nearest shelter.

To further support the humane treatment of cats, the committee began a *Keep Your Cats Indoors!* campaign. This campaign is an initiative by the American Bird Conservancy and educational material from this organization is placed in the Hemlock News, on the HFCA website, and brochures are included in water billings and distributed around the community.

Goose droppings are a health hazard at HFCA facilities and on members waterfront properties. Natural vegetation along waterfronts is required by code for members' property. Natural vegetation grows on HFCA waterfront property where possible. However, geese congregate on beaches and ball fields, so it is important for HFCA to maintain the resident flock at a small number. USDA Wildlife Services is contracted to provide geese control. Geese nests are located on ponds and lakes, and eggs in the nest are sprayed with oil to prevent hatching. After several years under this program, the number of nests and the amount of goose droppings at beaches and ball fields has decreased. This has been a humane and cost effective method of managing the flock.

Monitor impact of animal control and restoration of forest and ground cover.

Assigned to: Environmental Committee

Propose and implement wild flower planting

The Public Works Department approached the Landscape Club to start a wild flower planting program to alleviate mowing on steep slopes in common areas. At the same time, the Environmental Committee had on its agenda to encourage wild flower planting as a positive step following the success of the on-going deer removals and restoration of our forests. Ronnie Diaz, President of the Landscape Club, volunteered to gather information on the recommended plants for the Pocono area. The Landscape Club took the initiative and purchased seeds, planted, and maintained an area along the Clubhouse parking lot adjacent to the Tennis Courts. The experimental area was successful its first year, summer of 2009. In order to maintain success, more annuals will be needed to fill the bare spots. The Landscape Club will care for it and seek volunteers for assistance.

Deer-exclusion areas

Prior to proposing a solution to the loss of forest vegetation in the community, the Environmental Committee chose two areas in the community that would demonstrate the effects of an overabundant deer population on vegetation. One area is in a forest and the other in a meadow. Both areas are accessible and visible to the members. Members of the committee and Public Works employees erected deer exclusion fences around the areas. A diversity of vegetation established inside the fences, demonstrating that too many deer cause vegetation loss.

Empower the Lake Watch Group to monitor the lakes/ large ponds for water contamination, fish death and dumping. Increase efforts to get and keep volunteers for this group.

Assigned to: Environmental Committee, Public Safety & Security Committee, Administration and Board

The Lake Watch Team was re-energized by the volunteer leadership of Dave Kirk, a retired environmental chemist. Under Dave's leadership, procedures were standardized to US Environmental Protection Agency (EPA) protocol and documented in a manual for each volunteer. Dave led yearly training sessions and monitored the actions of the volunteers on water sampling days, and transported the samples to the Pennsylvania Department of Environmental Protection (DEP) certified laboratory to meet chain-of-custody standards. Dave's leadership recruited and retained a full cadre of trained volunteers.

The Lake Watch Team (LWT) currently consists of six members under the supervision and active participation of the Director of Community Conversation (DCC) and the summer assistant. Five times each year, from May through September, during the active aquatic growing season, we monitor, sample, and test the water quality of our four lakes at their deepest depth, including temperature and dissolved oxygen at ½ meter levels, ph, conductivity, chlorophyll, phytoplankton, zooplankton, clarity, and aquatic plant and algae surface coverage. Each year we have a morning of "spring training" and each autumn an evaluation and follow up meeting.

Water samples are delivered to FX Browne Inc. for detailed chemical lab analysis. A written agreement with FX Browne laboratory, suggested by the Board liaison to the Environmental Committee during 2008, resulted in laboratory reports emailed to the HFCA within 10 working days of sampling. Evaluation and treatment of our four lakes and nine ponds is done regularly by Ecological Solutions Inc., with the application of aquatic herbicides and algacides, and mechanical removal as necessary. Regular detailed technical reports are submitted to the DCC by both vendors and distributed to members of the LWT and the Environmental Committee. Data collected by ESI is in addition to the data collected by the Lake Watch Team, so that the community has lake data for every other week through the growing season.

The Environmental Committee also receives reports from the Ad Hoc Committee to Prevent Contamination of Lakes and Ponds. The HFCA contractor monitors and controls for aquatic and riparian invasive species. The DCC, committee chairperson, and others keep us informed via forwarded emails regarding environmental organizations, issues of special concern, opportunities for training, etc, and their articles in the Hemlock News inform all of the community members of environmental matters.

Invasive lake and pond species

To summarize our efforts in Hemlock Farms to control Invasive Species, it was necessary to choose those battles where we could successfully implement a cost effective solution. This was a two prong attack:

- Identify existing invasive species in our lakes and ponds and determine what types of controls (if any) would be most effective.
- Identify invasive species which could be introduced into our lakes and ponds, and investigate what we can do to prevent or lessen the chance of their introduction.

In some cases, such as with the zebra mussel, we found that the calcium level in our lakes and ponds is too low for the mussels to reproduce, so it is not considered a threat. Education is our best defense to hopefully avoid the introduction of invasives like the snake head fish or didymo (referred to as “rock snot”).

Under the direction of HFCA Director of Community Conservation Marian Keegan, and our lake management contractor Joe Gallagher of Ecological Solutions, there are numerous monitor and control efforts directed at specific species. Our four lakes and nine ponds present a wide variety of problem species. In most cases, the species targeted in our lakes and ponds are over abundant native species which have become a nuisance. Examples of plants treated include the invasive plants spatterdock and phragmites; and nuisance plants bladderwort, filamentous algae, water stargrass, snailseed pondweed, cattails, lily pads, and of course, the occasional seasonal algae bloom, particularly blue-green algae.

Apply for and maintain grant applications for watershed protection and funding necessary to provide testing capabilities and education sessions to the Lake Water Group.

Assigned to: Administration, Environmental Committee and Board

A C-SAW grant provided limited technical assistance and minor pieces of equipment for the Lake Watch Team. Fortunately, funding by HFCA has provided the necessary equipment and supplies for the Lake Watch Team.

HFCA applied for two Growing Greener grants, one under the Growing Green I program to fund a Lake Watershed Assessment, and the other under the Growing Greener II program to fund a project that addressed Stormwater Best Management Practices in the Headwaters of the Delaware River. Neither was approved for funding.

HFCA was funded by Pennsylvania Rural Water Association for assistance in developing a Wellhead Protection Plan, then by Pennsylvania Department of Environmental Protection under the new Source Water Protection technical Assistance Grant to develop a Source Water Protection Plan.

An important part of protecting watersheds is vegetation cover. Reductions in deer populations have lead to a flush of new vegetation in the community that straddles the top of two major watersheds to the Delaware River. This new vegetation presents added wildfire risks. So that members could be educated on ways to both protect their property from the risk of wildfire and provide vegetative cover to protect the watersheds, HFCA has entered the Firewise program. HFCA has been a member of the Pennsylvania Firewise Community since 2005 and a member of the Firewise/USA community since 2006. HFCA has been approved for Firewise grants that reimburse the cost of reducing the fuel buildup and educating members since 2006.

Several members of the Environmental Committee have served on the HFCA Source Water Protection Steering Committee from its inception in February 2006 through the development of the final version of the report named “Source Water Protection Plan for

Hemlock Farms Community Association,” which was presented to the Board of Directors in September 2009. The steering committee was composed of representatives of a variety of groups interested in the protection of drinking water in our area. Among others these included members from HFCA Public Works Committee, HFCA Public Works Department, HF Volunteer Fire & Rescue Company, HFCA Water Company, Pike Conservation District, and PA Department of Environmental Protection along with technical assistance from other individuals. The study was funded through a grant from the PA DEP Source Water Protection Technical Assistance Program and the report was prepared by the hydro geological firm Spotts, Stevens, and McCoy.

The project consisted of the following:

1. Geologic evaluation of the area impacting of our water sources showing the above and underground water flow
2. Identifying possible sources of contamination
3. Developing Best Management approaches for water management
4. Community education

The Environmental Committee members were involved with items 2 and 3 by evaluating all possible sources of potential contamination and evaluating procedures for managing our water supply. The last item, community education, has been carried out through numerous articles and children’s contests in the Hemlock News, natural resource seminars in HF, and presentations at Environmental Day.

The document that was prepared as a manual for the protection of our drinking water sources describes the current conditions. With time there may be changes that might affect the water supply; therefore the committee will continue to meet on a yearly basis so that, if needed, changes can be made to the Source Water Protection Plan reflecting any new developments.

Educate and inform members concerning water pollution of our lakes and ponds.

Assign to: Environmental Committee and OPPI

An Ad Hoc Committee to Prevent Introduction of Contaminants and Invasive Species in Lakes and Ponds was formed to discuss and recommend methods for protecting the quality of the waters in our lakes and ponds. Attention was focused upon the recreational use of boats and their trailers with regard to the introduction into the waters of contaminants and invasive species that might be contained on boat surfaces.

It was suggested that the Hemlock Farms boat registration form be amended to include specific information alerting boat owners about lake contaminants, and a list of six new guidelines for prevention of same in our lakes and ponds as follows and which the boat owner would have to sign off on to receive current registration stickers:

1. When launching your boat, do not carry any contaminants onto the water (fuel, lubricants, cleaning agents)

2. When returning, make sure all trash and recyclable items are carried from the water and properly disposed of. Do not discard fishing line or tackle into the water as it is hazardous to wildlife.
3. Do not release any bait, fish, plants or animals into the water, unless they were taken from the same water.
4. When removing your boat from a lake or pond, check for debris such as mud, plants fish or animals on (or in) the boat and trailer and remove debris.
5. Drain any water from your boat before removing it from the boat launch area.
6. Wash your boat and trailer and allow all parts of your boat to dry before launching on HFCA waters. DO NOT clean your boat at the boat launch. Use a car or boat wash where water is recycled appropriately.

Also discussed was the procedure for checking up on current registration and enforcement of codes regarding the use of and storage of boats at HFCA parking areas, boat docks and racks, launch areas and on residential property.

TASK FORCE TOPICS

Outreach to members/ provide long term signage, interpretation

The Environmental Committee designed a “Do Not Feed the Wildlife” sign to strengthen the HFCA Code 102 “Wildlife Feeding Prohibited.” Making of the signs were funded and strategically placed inside the three entry gates.

The Environmental Committee recommended funding interpretative guides along the Hemlock Trail. The Finance Committee recommended not funding the activity.

The Maple Swamp access trail was approved by Pennsylvania Department of Conservation and Natural Resources to connect to the Maple Run ATV/Snowmobile trail. An attractive trail and trailhead was constructed, and signs made and installed by Public Works at the trailhead located along Maple Ridge Road.

Fishing Guidelines for HFCA lakes and ponds were developed. A sign was developed by the committee to display the guidelines. Signs were printed and posted at boat launches.

Preservation: landscape plan/ lawn, clearing code

The Environmental Committee oversees the enforcement of codes enacted to protect the environment, such as the 20% impervious surface limitation, 50-foot riparian buffer, 30-foot lake front property, and septic violations. The committee recommended changes to the monthly code enforcement report and the Board approved the changes. The committee also recommended, and the Board approved, raising the awareness of the community to the duties of the Code Enforcement Officer.

Natural Resources Code (a.k. a. “Tree Code”)

The Environmental Committee (EC) was concerned from its formation with the unnecessary and environmentally destructive removal of trees on many lots, both during construction and later. After much discussion, a sub-committee was appointed to write a proposed Tree Protection Code. That sub-committee submitted a proposed draft to the EC on September 13, 2002 and it was accepted. It took several different motions to the Board with variants on the proposed code before the Board approved the code as "Chapter 154 Natural Resources Code" on February 22, 2003.

Since that first version, the EC has monitored the impact of the code on the environment and made motions to the Board that recommended further changes that seemed desirable. These resulted in the Board making changes to Chapter 154 on May 22, 2004, August 19, 2006, and January 17, 2009. Also, concerns about protecting tree roots during construction resulted in the Board forming a Tree Protection ad hoc committee in 2008, which includes a member from the Pike County Builders Association. This committee was instrumental in developing tree preservation guidelines for builders and HFCA during construction, and securing voluntary compliance.

The EC has continued to observe the effectiveness and enforcement of this Code within Hemlock Farms. Currently, the EC is concerned about the level of enforcement and made a motion to the Board for the Code Enforcement Officer to be allowed to participate in an EC meeting to inform us of any problems or conflicts in duties resulting from the Natural Resources Code requirements. That has been approved by the Board and will take place at the EC meeting on 7 November 2009.

This task will be a continuing effort of the EC.

Firewise Program

As the forest recovers from decades of over browsing by deer, the undergrowth will become denser. This increases the risk of wildfire spreading and damaging property in the community. In response to this threat, the Environmental Committee supported the effort by staff to assess the community for entry into the Pennsylvania Firewise program during 2004, and then into the Firewise/USA program during 2006. During 2009, the committee suggested that the 2010 Firewise Day be a part of Environmental Day and training in the use of fire extinguishers be the focus. To provide wildfire hazardous fuel reductions along our roads, which are our firebreaks, the Environmental Committee approves specifications for the annual HFCA Dangerous Tree Removal contract and recommends bid awards to the Board.

Restoration: landscape plan, fence key areas, problem plants

Restoration of the American Chestnut

In March of 2009, the Environmental Committee recommended to the Board, and the Board approved, that HFCA become part of the effort to restore the American Chestnut tree to the landscape. HFCA and The American Chestnut Foundation formed a

partnership to educate about the American Chestnut, locate and identify native, wild American Chestnut trees, collect and germinate the nuts, and plant the seedlings in the community. The Apple Orchard has been identified as a potential planting site for 4 to 5 seedlings.

Invasive plants in the common areas

Some invasive terrestrial plant species will take over a significant area if nothing is done to slow down or eliminate their growth. The Environmental Committee reviewed the data available for Japanese stilt grass and barberry in a number of our common areas. The specifications for a monitor and control contract was approved by the Environmental Committee in 2008. Implementation was begun in 2009 by Ecological Solutions. His approach is to target specific small areas at the top of each watershed, and successfully treat them before moving on to another area. Stilt grass areas treated with herbicides has shown a recovery with native grasses and plants. Barberry is usually removed manually. HFCA staff and the Environmental Committee will review these small projects each year in order to determine the cost effectiveness of trying to control invasive plants in Hemlock Farms.

Address pest management

Gypsy Moth Program

Hemlock Farms has been monitoring the yearly infestation of the Gypsy Moth. Many articles have been written and published in our newspaper by the members of The Environmental Committee to educate our community regarding the life cycle of the Gypsy Moth.

Each fall a survey is conducted to determine how "heavy" the egg mass situation is in our community. The survey results are communicated to the state and the county in an effort to obtain funding for aerial spraying.

Every effort is made to save our trees from the ravages of the Gypsy Moth caterpillars. When trees are heavily defoliated three years in a row, they are in a weakened state and subject to disease and dying.

The Environmental Committee under the leadership of the Chairman, Dennis Fleming, and Marian Keegan, the Director of Community Conservation, is striving to maintain our forest and to preserve the balance of nature.

Hemlock Woolly Adelgid

This invasive pest is monitored and treated as needed. Damage by this insect has occurred in individual trees around the community; however, significant damage is not evident in areas where many hemlocks exist and are regenerating. Hemlock Farms is at a higher elevation compared to areas on lower elevations that have experienced significant damage. Colder winters may keep this insect at bay in our community.

HFCA requires validation that a damaging population of the insect is present prior to applying horticultural oils.

Educate members: how to help/ rain barrels/ permeable pavement

The committee recommended informational brochures for distribution to members.

Community landscape-drainage plan/impervious codes

The Environmental Committee has had representatives on the Storm Water Management Ad Hoc Committee since its organization in 2006. The committee's role in the process of storm water management planning has been to emphasize such approaches as the importance of retaining rainwater on the ground where it falls to recharge the groundwater supply, protect water quality as an element of controlling storm water discharge into our bodies of water, and control erosion.

In January 2007, HFCA received a set of Conceptual Drainage Design Drawings for a Storm Water Master Plan from the ENTECH Company. This report consisted of maps of Hemlock Farms showing in detail the elevation gradients, roads, culverts, buildings, homes, driveways, swales and suggested future swales, etc. However, the suggestions were not specific.

The Environmental Committee endorsed the concept of using the current infrastructure in HF as much as possible. This resulted in HF purchasing the "Vac. Truck" which can be used to clear the present culverts, unclog drains, etc.

While the greatest problems in storm water runoff are in specific areas, since water runs downhill, one area affects another. Therefore, HF has to develop a storm water management plan for the whole area before it can be approved by the appropriate agencies.

HFCA has advertised an RFP to propose an engineering design for storm water control in the community. Prior to awarding the RFP, the Environmental Committee expressed an interest in hearing the approach of the Company that may be selected, particularly in terms of environmental protection.

In-lake Management: create plan, sediment dredging, plant harvest

Lake Management Master Plan was developed for Hemlock Farms in 1994 and guides actions by the Environmental Committee and HFCA. Maintenance dredging, that drew-down the lakes, occurred following major storms in 2004 and 2005 to restore beach sites. A Dredging Assessment was completed in 2006 and revealed a need for dredging some areas within lakes. Dredging was placed on the "Premium" 2010 budget as a needed item "on the radar." Harvesting plants has not been identified as needed in the community, although replacing dense populations of cattails along pond sites with lighter-weighted flowering vegetation is being implemented.