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**TO:** Michael Driscoll, Town Manager and the Honorable Town Council  
**FROM:** Christopher J. Hayward, Conservation Agent and Watertown Conservation Commission  
**RE:** Whitney Hill Park Annual Report 2015 *CSH*  
**DATE:** January 27, 2016

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**Background:** On 8 January 2013 the Watertown Town Council, by unanimous vote, adopted Resolution No. 3 (R-2013-3), A Resolution Preserving the Property Known as Whitney Hill Park. The resolution directs the Watertown Conservation Commission to submit, each year prior to 31 December, “a recommended plan for maintenance and educational activities” for Whitney Hill Park. For a comprehensive, long-term outline of the Conservation Commission’s response to this directive, see Appendix herewith, “Whitney Hill – A Proposal for Development of a Stewardship Plan”.

**Activities in 2015:** Continuation of baseline inventory, mapping and public dialog (See details following this summary).

**Spring:**

- Quality-control tree data collection by Conservation Commission of students’ 2014 fieldwork.
- Commencement by Conservation Commission of digitized tree data entry.
- Mapping of sample plots on newly surveyed Park maps prepared by Town contractor.

**Fall:**

- Conservation Commission report to abutters and other users of the Park at the CC’s October session
- Lower woody vegetation sampling by students.
- Location of footpaths by students with GPS equipment.

- Refinement and mapping of GPS footpath data by Natural Resource Conservation Service.

**Plans for 2016:**

Proposal (January) to Town for design and establishment of two permanent stone markers identifying the Park at either end of the fire lane through the woods.

Coordination of Conservation Commission and DPW activities in the Park.

Late winter/early spring: Quality control check of student data by Conservation Commission and other experienced field biologists.

Completion of 2015 digitized tree data entry by Conservation Commission.

**Spring:**

- Repeat sampling of permanent sample plots by students in different team combinations to compare and discuss results.
- Collaboration with local ecologist volunteers.
- Invasive plant data collection and analysis by students.
- Possibility of special summer studies for interested students (e.g. community service).

**Fall:**

- Analysis of human impact data by students.

[Report to abutters deferred to early 2017]

**Whitney Hill Park Activities 2015**

During late winter and early spring, the Conservation Commission (Patrick Fairbairn) collected tree data for all the 31 sample plots. These data are to serve as the baseline reference against which to measure all future change in the Park's forest growth. They also provide a basis of comparison with student results from use of the same data collection form in the autumn of 2014. A 100% quality-control review of all student effort is essential at this initial stage of ecological studies in Whitney Hill Park. Nearly as important is data entry in digitized (Excel spreadsheet) form, now in progress (Fairbairn), for permanent storage and future analysis.

In the spring a new survey of the Whitney Hill Park boundary was completed by McKenzie Engineering Inc. on contract to the Town, with new monumentation for ground control. The resulting two maps were electronically combined and edited by the Natural Resource Conservation Service (Aaron Dushku). All 31 sample plots were then located (Dushku) on this composite map. Its utility as a graphic tool has been demonstrated in mapping the distribution and amount of the invasive Norway Maple (*Acer platanoides*) per sample plot by ranking each plot in one of four biomass (basal area) classes.

The proposed annual meeting with the general public, especially those who frequent Whitney Hill Park, had to be postponed until late in the year – October. The consensus among the attending public was that the Park’s current character as an “urban wild” should be respected and maintained, while accommodating its educational uses and accessibility. Because the annual public meeting with Park users ideally should be held soon after promulgation of the Conservation Commission’s annual report each December, we plan to defer the next such meeting until early 2017.

The resumption of the High School’s fall term initiated the next round of educational activities. The two Honors Biology classes under supervision of their teacher Erik Hiltunen and the Conservation Commission (Fairbairn) sampled the woody vegetation (saplings, shrubs, lianas) within a 5-meter radius of each sample plot center. Repeat sampling of the same plots by different student teams served to demonstrate the phenomenon of “experimental error” and generate discussion of factors affecting the variability of results. As a final, uniform and well-practiced exercise in quality control, Fairbairn commenced collecting data on his own from the sample plots, an effort to be completed by early spring 2016. Ensuing investigators will thereby have as their starting point a reliable set of data for each of the 31 sample plots, greatly facilitating species identification, the component of field work that requires the most expertise.

Later in the fall term, a team of student volunteers, led by their teacher Hiltunen, and Aaron Dushku of the NRCS, walked over the Park footpaths repeatedly with GPS units to record footpath location by satellite tracking. In early December, Dushku and Hiltunen worked alone in the Park to refine the students’ tracking results. The latest data resulted in a map of the Park footpath system, prepared at NRCS (Dushku).

It has been brought to our attention that the Town is willing to entertain proposals by the Conservation Commission for expenditure related to Whitney Hill Park activities. Last year’s proposal is worth repeating here – the design and establishment of two permanent stone markers identifying the Park at either end of the fire lane through the woods.

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