**Honey Hollow Watershed Field Walking Tour**

#1: East Branch of Honey Hollow Creek: This is one of many headwater branch tributaries of the Aquetong Creek that eventually flows into the Delaware River at New Hope. The stream flows when it is not raining (baseflow) from groundwater that is draining into the channel via springs and seeps. The forest buffer protects the stream from sediment that may flow off of fields. The forest roots also draw up excess fertilizers from the fields that is in the groundwater that would have otherwise entered the stream. The forest canopy shades the stream to keep it cooler. Cold water holds more oxygen than warm water and thus promotes healthier aquatic life.

#2: Power Line Bend: The change in direction of this power line as it travels southeast is the result of the actions of concerned citizens in the 1960’s who opposed the swath of land the lines would cause coming right through the Honey Hollow Watershed. As a result of the opposition, the lines divert east to go around what is now the Bucks County Audubon Visitor Center. Because the watershed has National Historic Landmark designation, National Park Service requirements were placed on how vegetation is managed under the lines. Instead of being cut and sprayed to denude or remove all woody vegetation, the trees are clipped and shorter species of trees have been planted to retain a tree cover. The wires were installed in 1970. In 1971 a tornado took a metal roof off the barn at Tuckamony Farm and sent it up into the wires where it hung for a year until they could remove it.

#3: Diversion Terrace: This subtle berm was created in 1939 by repeated plowing to form a terrace that diverts runoff into the woods instead of continuing downslope to form large erosion gullies. The vegetated terrace helps to filter, slow and spread water to improve its quality. Soils from farm fields often absorbs phosphate from fertilizers that if it enters streams promotes algal blooms. Autumn Olive, multiflora rose and barberry, non native plants, were introduced to the hedgerows to reduce wind erosion and act as living filters for runoff. The plants spread beyond their intended purpose and became invasive and are an example of the unexpected consequences of introducing non native plants into an area.

#4: Roadway: This roadway is armored with recycled asphalt from road repaving. Subtle berms in the road divert water out of the road to reduce the potential for erosion. The water goes into broad grassed swales to diffuse and filter. Improperly managed stone roads and ditches can contribute significant quantities of sediment to streams that covers over aquatic life.

{Entering Private Property of the Crooks Family which is generally closed to visitors on weekends}

#5: Evergreen Farm: This tree farm was created in 1969. It does not result in the exposure of soils from plowing and uses minimal chemicals. The trees, which include the hollies to the south side of the road, provide habitat cover and food for wildlife. The farm employs local labor and uses local materials such as wood cut from on-site trees to construct man of the outbuildings.

#6: Pond: The pond was created out of a need for soil to backfill within the local gas pipeline in 1964. It provides a catchment area for runoff during large floods as well has wildlife habitat.

#7: Marsh: This wetlands was constructed in the 1970’s to provide an additional habitat for environmental education for Bucks County Audubon Society’s outdoor classroom activities. The wetland terrace captures runoff from the Red Fox Housing Development upslope to the west. The development was built in the 1970’s and did not employ current Best Management Practices. Thus, runoff rushes off the development without being retained, filtered or infiltrated. The wetland provides a catchment area to hold back the water during floods, reducing erosion and flooding of the stream channel further downstream. Besides the wetland providing habitat for wildlife, it filters and infiltrates water to feed the aquifer system that will in turn feed the stream with cool clear water during dry periods.

#8: The Crooks Home: The initial home was likely a small cottage built off the southwest corner of the existing home. The remains of the cottage have been use for archeological classes. Peg Tuckamony, a Lenape Native American, had lived in this cottage. She died in 1830. The west side of the existing house was built before the American Revolution and the east side in 1783 when the Constitution was signed. Thus the family that lived in the house during that period had been both British and later American citizens! The terrace was constructed to provide a flat area for gardening and to benefit from early spring warming of the soil by its southern exposure.

#9: Barn Offices: The east end of the barn once occupied the offices of Bucks County Audubon before they moved to the Visitor Center. The barn also housed the office of Malcolm Crooks who operated the Northeast Office of the National Association of Conservation Districts, a group of 3,000 districts dedicated to protecting land from soil and educating people on how to reduce loss of soils.