

Indian Hill High School Article – Indian Hill Bulletin Summer 2006

The Indian Hill Water Quality Project officially began in 1993 as a cooperative effort between Indian Hill high school students, Greenacres Foundation, the Metropolitan Sewer District, and the Village of Indian Hill. This project involves the regular monitoring of four major Indian Hill watersheds. Students collect water samples and run a series of nine chemical tests, including temperature, pH, dissolved oxygen, fecal coliform, biochemical oxygen demand, total solids, turbidity, total phosphates and nitrates. Also, stream macroinvertebrates, which serve as biological indicators of water quality, are surveyed. Each school year culminates in a presentation made to Indian Hill Village officials, where students report their findings and make recommendations. Over the past thirteen years, many of the parameters studied have remained relatively stable. Two areas of concern, however, are total solids and fecal coliform levels. Total solids are a direct result of increased soil erosion, as well as road salt. Elevated solids in a stream can reduce light penetration and obliterate clean rocky stream bottoms, destroying macroinvertebrate habitats. Fecal coliform levels are not high enough to indicate a sewage leak, but still exceed levels recommended for full body contact. Residents can contribute to protecting local watersheds. Any activities that reduce runoff and improve the quality of runoff water will have positive impacts on surface waters. For example, a minimal number of fertilizer applications should be applied, vegetation should be protected, cleared areas should be replanted, logjams and debris should be cleared from culverts and small creeks, and chemicals should not be dumped into storm drains. The Watershed Studies course taught at Indian Hill High School centers around the Indian Hill Water Quality Project. This unique course offers juniors and seniors the opportunity to experience field research, and connects students with local governmental officials. Students have had opportunities to reach citizens, as well, through the yearly presentations, distribution of flyers, storm drain stenciling, and watershed signage installation. These activities have helped students and residents alike recognize the importance of maintaining and/or improving our freshwater resources.