



NEW BEGINNINGS- THE WOODLAWN WILDLIFE AREA

New Beginnings- The Woodlawn Wildlife Area	
Name and Location	<p>Site Name: New Beginnings- The Woodlawn Wildlife Area</p> <p>Site Location: Port Deposit, MD (Cecil County)</p>
Site Description	<p>The property lies in a mostly rural setting north of Baltimore in Cecil County, Maryland, surrounded by rapidly expanding residential development in a formerly agricultural area. Its history of industrial use began in the 1950s, when the 37-acre site was first used as a sand and gravel quarry. During the 1960s and 1970s, it was used to dispose of agricultural, municipal and industrial wastes from the surrounding area. As with most landfills at that time, the undersurface of the landfill was not lined with an impermeable barrier, enabling infiltration of contamination from the landfill waste into groundwater. Consequently, EPA placed the site on the National Priority List in 1987. A thorough environmental investigation was undertaken to identify existing and potential future impacts to groundwater, soil, surface water or air quality from landfill wastes, and to select a restoration strategy. Vinyl chloride detected in the groundwater was attributed to waste materials disposed in the landfill by Bridgestone Americas (formerly Firestone) while the landfill was in operation. The company took responsibility for managing the site and purchased an adjoining 58-acre property to better enable site access to complete the study while establishing monitoring wells to track possible groundwater contamination. It is this portion of the property that has become a focal point for wildlife habitat enhancement, as well as providing natural resource education to the surrounding community.</p>
Site Reuse Description	<p>As the site was documented not to pose a threat to human health, wildlife or the environment, Bridgestone Americas explored the possibility of returning the land to the community and partnered with WHC in 1997 to develop a sustainable wildlife conservation area. Since January of 2000, WHC and Bridgestone Americas have collaborated extensively with local community members, youth groups, schools, extension services and local conservation groups. Together, these groups have worked toward a common vision for both the landfill and adjacent areas – restoring and conserving high wildlife habitat value and providing environmental education opportunities.</p>
Stakeholder Involvement	<p>In addition to the stakeholder collaboration required to enable consensus for an amended ROD, Bridgestone Americas Holding, Inc. and the Wildlife Habitat Council together provide supervision of this managed habitat and community education center. Management of wildlife habitat at New Beginnings is facilitated through community volunteerism in Cecil County. The Woodlawn Wildlife Team consists of representatives from Bridgestone</p>



	<p>Americas, WHC, Maryland Cooperative Extension, Fair Hill Nature Center, Cecil County Boys and Girls Club, Arcadis, several public and private schools within the county, and local bluebird expert and WHC 2001 Community Partner of the Year award winner, Jerry Newman, who monitors all bird boxes installed on-site. Together, the team works to enhance habitat for native wildlife, manage the encroachment of invasive species and develop environmental education programs for students of all ages within Cecil County.</p>
<p>Site Assessment Approach and Cleanup</p>	<p>The U.S. Environmental Protection Agency (EPA) placed the Woodlawn landfill on its National Priorities List (NPL) in 1987. Along with the various substances typically found in groundwater beneath landfill sites, the chemical vinyl chloride was also present. A “typical” CERCLA site investigation was completed which resulted in a “typical” landfill remedy: an impermeable (RCRA Subtitle C-compliant) cap and groundwater pumping to capture all flow from the site, with treatment.</p> <p>The Record Of Decision (ROD) was signed in 1993, after which data collected for remedial design demonstrated that naturally occurring microorganisms were utilizing the waste as a food source, and naturally attenuating groundwater contamination. Upon confirmation of natural attenuation, a new plan for site cleanup was established in partnership with EPA, state and local authorities, and the ROD was amended in 1999. The impermeable landfill cap was replaced with a vegetated soil cap to enable rain and oxygen to infiltrate and help sustain the naturally occurring bacteria, and natural attenuation of groundwater replaced pumping and treatment. The alternative capping approach opened the door for wildlife habitat enhancements on the landfill, including planting native trees, shrubs and wildflowers around the landfill cap, in an island configuration as opposed to rows, and placing raptor perches on the landfill. Hiking trails and environmental education facilities (signs, etc.) are also planned for the landfill area after vegetation is well established.</p>
<p>Reuse</p>	<p>The former landfill and an adjacent area are part of an ongoing effort to transform the land into a thriving wildlife area and to establish a unique natural resource in Cecil County, Maryland for community use.</p>
<p>Obstacles</p>	<p>The demonstration of natural attenuation was a technical challenge since few had been done at that time. This site was the first natural attenuation remedy at a landfill in Region III. Reaching consensus between EPA and the State took considerable time and effort. The natural attenuation demonstration and work to amend the ROD were undertaken under the auspices of the Remedial Design phase, which had specific deadlines. In order to stay compliant with the Administrative Order, two Remedial Designs were completed in parallel. Contingency provisions were put into the alternate design in case the remedy should fail to perform as intended.</p>



	<p>An attempt was made to demonstrate equivalency of the soil cap with a RCRA Subtitle C cap, however it was finally determined that the site had been closed under State Subtitle D – equivalent standards from an earlier date, therefore only those regulations were determined applicable.</p> <p>Wildlife Habitat Council biologists reviewed the ecological conditions and setting of the site and wrote an “Opportunities Report” describing potential activities to be undertaken at the site to enhance conditions for wildlife and public participation and education. That report was included as a reference in the alternate Remedial Design, to help illustrate the alternate vision for managing the site. The inclusion of Wildlife Habitat Council’s recommendations was deemed quite helpful in convincing some more resistant regulatory personnel that the alternate remedy was in fact more beneficial.</p> <p>Several public meetings were held to help educate the public. The public was mostly supportive, and relatively few comments were received regarding the ROD amendment.</p> <p>Funding for the extra work under the design phase was problematic, since the parallel designs cost several hundred thousand dollars more than just one. However the potential cost savings from the alternate remedy justified the extra up-front expense.</p>
<p>Costs and Funding</p>	<p>The cost estimate from the original ROD was over \$23 million, and internal company estimates were even higher (up to \$50 million, due to anticipated difficulties with groundwater capture and metals treatment). The total cost of the revised remedy implementation is approximately \$6 million, saving at least \$17 million. In addition, the risk of cap failure is far lower (compared to the original Subtitle C cap), as are construction and overall maintenance risks and costs. All costs were paid by Bridgestone Americas, of which some was recovered from other PRPs.</p>
<p>Economic and Other Incentives</p>	<p><i>New Beginnings</i> has become part of the Maryland Department Natural Resource’s (MDNR) Forest Stewardship Program, where landowners are provided assistance to manage their wooded areas. Citizens have volunteered their time, planting over 300 native trees and shrubs, including red and white oak, red maple, flowering dogwood, sumac, highbush blueberry, elderberry and winterberry. The Forest Stewardship Program is designed to encourage landowners to “practice forest stewardship and leave the land and its resources in a better condition for future generations.” WHC and Bridgestone Americas believe that the purpose of this program fits nicely with the vision of a perpetually protected and restored natural area at <i>New Beginnings</i>. The MDNR plan works in union with WHC’s habitat management strategy. MDNR identifies fish and wildlife habitat improvements as the plan’s primary goal with outdoor recreational and</p>



	<p>educational activities as additional objectives. As with all forest stewardship plans, the <i>New Beginnings</i> plan is crafted for a 15-year period and will require steady monitoring and maintenance. Once certified, Bridgestone Americas will save almost \$800 a year with a property tax decrease. The plan lasts for 15 years before requiring renewal, resulting in possible savings of over \$11,000 over the course of the Plan (inspections are required every three years at approximately \$100 each time).</p> <p>As part of site Operation and Maintenance, Bridgestone Americas partnered with Perdue Farms, Inc. to use their “AgriRecycle” product, a slow-release, high nutrient, high organic content fertilizer made from chicken-farming waste. This product captures value from this waste stream, while helping keep excess nutrients out of Chesapeake Bay. Because of its slow release characteristics, high nutrient value, and relative low cost, this product will enable less frequent fertilizer applications, saving thousands of dollars.</p> <p>Community groups, local schools and volunteers with the help of WHC biologist staff will be responsible for the success of the Forest Stewardship Program at <i>New Beginnings</i>. Nest box care, invasives species control, erosion repair, trail maintenance, and tree reforestation will be on-going projects in and around the former landfill. This and many other habitat and community projects have provided tremendous positive public relations benefits for Bridgestone Americas and the local community.</p> <p>The collaborative approach used at New Beginnings earned Bridgestone Americas a special certificate of recognition from EPA, distinguishing the site for continued wildlife habitat efforts, use of recycled materials, strong community involvement and innovative cleanup technology. Barry Breen, Principal Deputy Assistant Administrator, EPA OSWER, presented the honor to Tim Bent, Director of Environmental Affairs, Bridgestone Americas, during WHC’s Philadelphia conference, which engaged EPA Regions 2 and 3.</p>
<p>Time</p>	<p>The landfill was closed in 1981, the site was listed in 1987, and the Remedial Investigation phase culminated in the ROD in 2003. The ROD was amended in 1999, and construction was completed in 2001. The original remedy implementation was estimated to take 30 years or more to complete, whereas the revised remedy is expected to be complete within 15 years of construction (it is now ahead of that schedule). The land use provisions of the remedy are permanent, through deed restrictions placed on the land to allow only conservation-related land use.</p>
<p>Other</p>	<p><i>New Beginnings</i> - The Woodlawn Wildlife Area, was named officially by a local student, Sierra Maxwell, from Perryville Middle School, in a local contest. The new name represents the vision that many have for this site – a turnaround of the waste disposal history of the site, into a refuge for wildlife and a place to learn.</p>



	<p>An Arbor Day celebration was hosted on-site in 2003, with 150 students from local schools participating in hands-on activities while learning about proper tree planting methods, tree care and conservation methods for local wildlife. In 2004, Earth Day was a pivotal event with WHC highlighting the partnership of Bridgestone Americas and Perdue AgriRecycle, LLC. As part of the long-term ongoing restoration plans at the site, an organic-derived fertilizer created by Perdue AgriRecycle called Microstart60® is being used to help improve soil quality on this former landfill as an environmentally responsible alternative to traditional chemical-based fertilizers. Ramona Trovato, Senior Advisor to the Assistant Administrator, EPA OSWER, and Anthony Iacobone, Remedial Project Manager, EPA Region III, who manages the site, expressed their support and encouragement for the use of organic fertilizers. Senator Barbara Mikulski (D-MD) issued congratulatory letters to the participants of the Earth Day gathering.</p> <p>The adjacent 58 acres of buffer land bordering on the former landfill is the central area for community involvement housing bat boxes and bluebird nest boxes. Presently, over 16 species of songbirds have been documented using the nest boxes. An education pavilion and separate information kiosk, built through Eagle Scout projects, serve as shelters for workshops. A three-acre wildflower and grass meadow was planted on this adjoining property with the help of the Cecil County Land Trust and a District Conservationist for Cecil County. In preparation for the meadow, invasive species were removed to allow six species of native warm-season grasses and 17 species of wildflowers to be sown along with a cover crop of oats. The meadow provides many benefits for a wide variety of wildlife including insects, mammals, songbirds and upland game birds. In an effort to incorporate an education component while benefiting the site, local students volunteered their time to construct nature trails that wind along the site.</p> <p>As the vegetation matures over the landfill, additional public-use amenities such as trails and educational resources will be added, further increasing the value to the community.</p> <p>Visit <i>New Beginnings</i>- The Woodlawn Wildlife Area on the web at: http://www.wildlifehc.org/brownfields/woodlawn.cfm</p>
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