Connecticut Department of
ENERGY &
ENVIRONMENTAL
PROTECTION

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To: William Wallach, Department of Economic and Community Development

From: Linda Brunza- Environmental Analyst **Telephone:** 860-424-3739

Date: 12/7/2022 **Email**: Linda.Brunza@ct.gov

Subject: 1 and 63 West Main Street, Plainville: Remediation and Mixed-Use Redevelopment

Staff at the Department of Energy and Environmental Protection (DEEP) reviewed the scoping notice for the proposed mixed-use development of 15 acres into offices, multi-family housing, condominiums, parking, and greenspace.

Remediation Division
The Town of Plainville received a Municipal Brownfield Grant pursuant to Connecticut General Statutes (CGS) Section 32-763 from the Department of Economic and Community Development (DECD) in association with the redevelopment of the former White Oak Corporation property. The Town recently selected Manafort Newport Realty LLC (Newport) as the developer for the site. DEEP supports the redevelopment of the former White Oak Corporation property.

The Town of Plainville entered the site in the Abandoned Brownfield Cleanup (ABC) Program (CGS Section 32-768) on December 14, 2020 but hasn't yet acquired the site. In August 2022 the Town entered into a land disposition agreement with the current property owner and with Newport. The Town will acquire the site, complete remediation, and convey the site to Newport. Newport applied to the Department of Economic & Community Development (DECD) on October 11, 2022 to enter the site into the ABC Program. CT DEEP is currently processing Newport's ABC application. DEEP plans to recommend to DECD in December 2022 that DECD accept Newport's application to enter the site into the ABC program.

DEEP's recommendations will note that CGS Section 32-768, as amended by Public Act 22-68, requires both the Town of Plainville and Newport to enter the site in DEEP's voluntary remediation program (CGS Section 22a-133x) within six months after each takes title to the site. Pursuant to CGS Section 22a-6(i), the Town and Newport will not be required to pay a fee for entering the site in the voluntary remediation program.

CGS Section 32-763 also requires brownfield grant recipients that are not subject to the Transfer Act (CGS Section 22a-134a) to enter a program for remediation of the property pursuant to either section 22a-133x, 22a-133y, 32-768 or 32-769 as determined by DECD. Newport's enrollment in the voluntary remediation program (CGS Section 22a-133x) will satisfy this requirement.

Newport's application to enter the ABC program provided copies of numerous documents prepared for the current owner of the Site. These documents include, among others: 1) a Phase I site assessment report dated July 2006 prepared by Fuss & O'Neill, Inc.; 2) a Phase I site assessment report dated November

2018 prepared by Loureiro Engineering Associates, Inc. (LEA); 3) a Phase II/III subsurface investigation report dated March 2020 prepared by LEA; 4) a Conceptual Remedial Action Plan (RAP) dated March 2020 prepared by LEA; 5) a remedial cost estimate dated March 2020 prepared by LEA; and 6) a groundwater reclassification application dated May 29, 2020, prepared by LEA.

DEEP's Remediation Division does not have any previous records for the Site, indicating that the Site has not previously been involved with any of the programs administered by the Division.

Please contact Monica Meschiatti from the Remediation Division with any questions or concerns at Monica.Meschiatti@ct.gov, or 860-424-3075.

Watersheds Program
The Pequabuck River, which the project sites are adjacent to, is a tributary to the Farmington River, which is a tributary to the Connecticut River. Water Quality in the Pequabuck River has been assessed and found to be "not supporting' for both aquatic life and recreation. Appendix A-1, B-1, B-2 and C-2 in the 2022 Integrated Water Quality Report to Congress (IWQR) can provide more information about this assessment. Please note the following information about the watershed, and watershed management:

- CT DEEP developed a Total Maximum Daily Load Analysis for the Pequabuck River Sub-Regional Basin (2009) for the water quality impairment associated with recreation (due to excess *E. coli*). For more info, see: A Total Maximum Daily Load Analysis for the Quinnipiac River Regional Basin (ct.gov).

- The 2022 IWQR Appendix C-1 identifies the Pequabuck River on the Priority List for Action Plan Development 2022-2024 for impairments related to Total Phosphorus. For more information, see: FINAL-2022-IWQR-Appendix-C-1-Priority-List-for-Action-Plan-Development-2022-2024.pdf.

- The Town of Plainville is subject to the 2017 General Permit for the Discharge of Stormwater from Small Municipal Separate Storm Sewer Systems (MS4 GP) and associated stormwater requirements. For more information, see: Municipal Stormwater (ct.gov))

- With funding support from the CT DEEP federal Clean Water Act Sec 319 Nonpoint Source Pollution Grant program, the Farmington River Watershed Association (FRWA) developed a Pequabuck River Watershed Based Plan (2019) to address nonpoint sources of water quality impairment. Stakeholder partners that worked with FRWA to develop this plan include the watershed municipalities and the Pequabuck River Watershed Association. For more info, see: Watershed Management Plans and Documents (ct.gov).

- The Pequabuck River Watershed Association developed a Best Management Plan Addendum to the 2019 Pequabuck River Watershed Based Plan (2022). This Addendum was reviewed, approved, and accepted by CT DEEP and U.S. EPA. This Addendum has not yet been added to the CT DEEP Watershed Management webpage to support the associated watershed-based plan. However, please find a PDF copy of the Addendum attached to accompany these comments.

- **One of the two BMP sites in this addendum is the Plainville Police Department, located on the property adjacent to White Oak project.** The proposed best management practices (BMPs) have been recommended to reduce nonpoint source pollution run-off from the site and improve water

quality. Please also note the following language in the Addendum – Sec. 1.0 Introduction (p. 2, third paragraph):

"A third site was assessed for BMP and pollutant load reduction potential, the brownfield site directly west of the Plainville Police Department and Municipal Building. This site was considered to have potential for various BMPs; however due [to] the uncertain nature of its pending development and final site use as well as the status of remediation required to enable on-site development, accurate recommendations of BMP implementation and associated pollutant load reductions could not be determined."

Although not named specifically, the site referenced above is the White Oak project site. For these reasons, DEEP strongly encourages the Town of Plainville to consult with the Pequabuck River Watershed Association (PRWA) on the redevelopment of the White Oak site with regard to incorporation of potential BMPs and/or low impact development (LID) features to reduce nonpoint source pollution runoff from the site and to improve water quality in the adjacent Pequabuck River. The Pequabuck River Watershed Association is a non-profit, volunteer organization and can be contacted via email at pequabuckriverct@gmail.com.

- The Pequabuck River is a major tributary to the Farmington River. In 2019, the U.S. Congress designated the Lower Farmington River and Salmon Brook as national Wild & Scenic Rivers. Outstanding Resource Values (ORVs) identified for the Farmington River and Salmon Brook as part of the Wild & Scenic designation process include: biological diversity, cultural landscape, geology, recreation and water quality. As part of the designation process, a Lower Farmington and Salmon Brook Management Plan (2011) was developed. These Wild & Scenic Rivers are overseen by the Lower Farmington and Salmon Brook Wild & Scenic (LFSWS) Committee which meets monthly. Although the Pequabuck River is not part of this Wild & Scenic designation, members of PRWA sit on the LFSWS Committee. PRWA representatives recognize the important mission of working to improve water quality for the benefit of both the Pequabuck River and the Farmington River. (For more information please see the attached link: Lower Farmington River and Salmon Brook Wild and Scenic.

  For any questions or additional discussions on this watershed please contact Susan Peterson from the Water Planning and Management Division at Susan.Peterson@ct.gov, or 860-424-3854.

Fisheries Division

As noted previously, the project sites are located along the Pequabuck River. The Pequabuck River in an important area for diadromous fish to complete their lifecycle including sea lamprey, American eel, and stocked Atlantic salmon, as well as stocked trout. The Pequabuck River has and continues to suffer from pollution and impaired river function caused by increased runoff and sedimentation due to increased watershed development. A Pequabuck River Watershed Management Plan was released in 2019 to address impairment issues. Preventing erosion, sedimentation, and the introduction of additional pollutants through runoff should be addressed when developing site plans for this project. This can be accomplished through proper stormwater management best management practices. Please contact Shalyn Zappulla with any questions at Shalyn.Zappulla@ct.gov.

Natural Diversity Database
This project is not located in a Natural Diversity Database Area, which is a record of state or federal listed species maintained by the Wildlife Division. No application will be needed from the Wildlife Division for this project.

Aquifer Protection
Staff from DEEP reviewed the location of this project and found that it is not in an aquifer protection area and has no comments on the proposed project.

Land and Water Resources Division
Any activity within federally regulated wetland areas or watercourses at the site may require a permit from the U.S. Army Corps of Engineers pursuant to section 404 of the Clean Water Act. Further information is available on-line at Army Corps of Engineers, New England District or by calling the Corps Regulatory Branch in Concord, Massachusetts at 978-318-8338. If a permit is required from the U.S. Army Corps of Engineers, a Water Quality Certificate will also be required from DEEP pursuant to section 401 of the Clean Water Act. For further information, contact the Land and Water Resources Division at 860-424-3019. A fact sheet regarding 401 Water Quality Certification is available online at 401 Certification.

Stormwater General Permit
The General Permit for Stormwater and Dewatering Wastewaters from Construction Activities may be applicable depending on the size of the disturbance regardless of phasing. The construction stormwater general permit dictates separate compliance procedures for Locally Exempt projects (projects primarily conducted by government authorities) and Locally Approvable projects (projects primarily by private developers).

This general permit applies to discharges of stormwater and dewatering wastewater from construction activities where the activity disturbs more than an acre. The requirements of the current general permit include registration to obtain permit coverage and development and implementation of a Stormwater Pollution Control Plan (SWPCP). The SWPCP contains requirements for the permittee to describe and manage their construction activity, including implementing erosion and sediment control measures as well as other control measures to reduce or eliminate the potential for the discharge of stormwater runoff pollutants (suspended solids and floatables such as oil and grease, trash, etc.) both during and after construction. A goal of 80 percent removal of the annual sediment load from the stormwater discharge shall be used in designing and installing post-construction stormwater management measures. Stormwater treatment systems must be designed to comply with the post-construction stormwater management performance requirements of the permit. These include post-construction performance standards requiring retention and/or infiltration of the runoff from the first inch of rain (the water quality volume or WQV) and incorporating control measures for runoff reduction and low impact development practices.

Projects that are exempt from local permitting (such as DOT) that disturb over one acre must submit a registration form and Stormwater Pollution Control Plan (SWPCP) to the Department at least 60 or 90 days, as identified in the permit, prior to the initiation of construction. In addition to measures such as erosion and sediment controls and post-construction stormwater management, the SWPCP must include a schedule for plan implementation and routine inspections. For further information, contact the division at 860-424-3025 or DEEP.StormwaterStaff@ct.gov. The construction stormwater general permit registrations must be filed electronically through DEEP's e-Filing system known as ezFile. Additional information can be found on-line at: Construction Stormwater GP.

Solid Waste Disposal
DEEP performed a high-level review and found that there are no hazardous waste concerns for this project. Demolition waste that is not contaminated with asbestos, PCBs, or other materials that require special handling is subject to Connecticut's solid waste statutes and regulations, and must be reused, recycled, or disposed of accordingly. Construction and demolition debris should be segregated on-site and reused or recycled to the greatest extent possible. Waste management plans for construction, renovation or demolition projects are encouraged to help meet the State's reuse and recycling goals. Connecticut's Comprehensive Materials Management Strategy outlines a goal of 60% recovery rate for municipal solid waste by the year 2024. Part of this effort includes increasing the amount of construction and demolition materials recovered for reuse and recycling in Connecticut. It is recommended that contracts be awarded only to those companies who present a sufficiently detailed construction/demolition waste management plan for reuse/recycling. Additional information concerning construction and demolition material management and waste management plans can be found on the DEEP's C&D Material Management and C&D Waste Management Plan web pages.

One way that certain types of construction and demolition waste can be reused is as clean fill. Clean fill is defined in section 22a-209-1 of the Regulations of Connecticut State Agencies (RCSA) and includes only natural soil, rock, brick, ceramics, concrete and asphalt paving fragments. Clean fill can be used on site or at appropriate off-site locations. Clean fill does not include uncured asphalt, demolition waste containing other than brick or rubble, contaminated demolition wastes (e.g. contaminated with oil or lead paint), tree stumps, or any kind of contaminated soils. Land-clearing debris and waste other than clean fill resulting from demolition activities is considered bulky waste, also defined in section 22a-209-1 of the RCSA. Bulky waste is classified as special waste and must be disposed of at a permitted landfill or other solid waste processing facility pursuant to section 22a-208c of the Connecticut General Statutes and section 22a-209-2 of the RCSA. A fact sheet regarding disposal of special wastes and the authorization application form may be obtained at: Special Waste Fact Sheet.

Air Management
DEEP Bureau of Air Management typically recommends the use of newer off-road construction equipment that meets the latest EPA or California Air Resources Board (CARB) standards. If newer equipment cannot be used, equipment with the best available controls on diesel emissions including retrofitting with diesel oxidation catalysts or particulate filters in addition to the use of ultra-low sulfur fuel would be the second choice that can be effective in reducing exhaust emissions. The use of newer equipment that meets EPA standards would obviate the need for retrofits.
DEEP also recommends the use of newer on-road vehicles that meet either the latest EPA or California Air Resources Board (CARB) standards for construction projects. These on-road vehicles include dump trucks, fuel delivery trucks and other vehicles typically found at construction sites. On-road vehicles older than the 2007-model year typically should be retrofitted with diesel oxidation catalysts or diesel particulate filters for projects. Again, the use of newer vehicles that meet EPA standards would eliminate the need for retrofits.

Additionally, Section 22a-174-18(b)(3)(C) of the Regulations of Connecticut State Agencies (RCSA) limits the idling of mobile sources to 3 minutes. This regulation applies to most vehicles such as trucks and other diesel engine-powered vehicles commonly used on construction sites. Adhering to the regulation will reduce unnecessary idling at truck staging zones, delivery or truck dumping areas and further reduce on-road and construction equipment emissions. Use of posted signs indicating the three-minute idling limit is recommended. It should be noted that only DEEP can enforce Section 22a-174-18(b)(3)(C) of the RCSA. Therefore, it is recommended that the project sponsor include language similar to the anti-idling

regulations in the contract specifications for construction to allow them to enforce idling restrictions at the project site without the involvement of DEEP.

Thank you for the opportunity to review this project. These comments are based on the reviews provided by relevant staff and offices within DEEP during the designated comment period. They may not represent all applicable programs within DEEP. Feel free to contact me if you have any questions concerning these comments.

cc: Camille Fontanella

BMP ADDENDUM TO THE 2019 PEQUABUCK RIVER WATERSHED BASED PLAN

HARTFORD COUNTY, CT

SEPTEMBER 2022

PREPARED FOR:

PEQUABUCK RIVER WATERSHED ASSOCIATION
ATTN: MARY RYDINGSWARD
PO BOX 1461
BRISTOL, CT 06011

PREPARED BY:

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1.0 INTRODUCTION

Princeton Hydro completed the Pequabuck River Watershed Based Plan for the Farmington River Watershed Association in September 2019. This 9-element plan was funded in part by the Connecticut Department of Energy & Environmental Protection through a United States Environmental Protection Agency Clean Water Act Section 319 Nonpoint Source Grant. As part of this grant, twelve (12) sites were evaluated for potential best management practices (BMPs) to reduce *E. coli* which was the pollutant of concern under the Total Maximum Daily Load (TMDL).

Princeton Hydro was contacted by the Pequabuck River Watershed Association (PRWA) in 2021 to follow-up on this report to conduct several additional field investigations, recommendation of BMPs, and evaluation of pollutant removal. This addendum work was funded in part by the Lower Farmington River and Salmon Brook Wild and Scenic Coordinating Committee and the Farmington River Watershed Association. The following sections detail this effort at Kern Park and the Plainville Police Department. These BMP recommendations are offered as an addendum to the 2019 Watershed Based Plan, subject to CT DEEP approval.

A third site was assessed for BMP and pollutant load reduction potential, the brownfield site directly west of the Plainville Police Department and Municipal Building. This site was considered to have potential for various BMPs; however due the uncertain nature of its pending development and final site use as well as the status of remediation required to enable on-site development, accurate recommendations of BMP implementation and associated pollutant load reductions could not be determined.

2.0 METHODOLOGY

Princeton Hydro's water resource engineer evaluated Kern Park and the Plainville Police Department during a one (1) day field visit on September 24, 2021. During this visit, topographic features, stormwater infrastructure, visible utilities, vegetative communities, and general observational features were recorded to document storm influence and areas for potential treatment.

Following this assessment, BMPs were evaluated and recommended as based on initial site conditions. *E. coli* loading and subsequent removal estimates, on a per site basis, were conducted.

3.0 BMP RECOMMENDATIONS

3.1 BMP 13 - KERN PARK

Kern Park is located in the City of Bristol and receives stormwater inputs from the upgradient Ivy Drive School and from a culvert in the southeast corner draining stormwater from several properties adjacent to State Route 6. This culvert drains to an existing wetland. The park property contains a mixture of turf grass, deciduous forest, wetland, and an inactive tennis court. The stormwater discharged into the park forms a stream that flows into the Coppermine Brook.

Management of sheet flow and associated pollutant loading from this area could be achieved with installation of a sizeable rain garden at the defunct tennis court area (22,000 square feet) and potentially another green infrastructure BMP (i.e.-vegetated buffer) as pretreatment upgradient of that rain garden. These BMPs would accept sheet flow from the upgradient school. In addition, restoration of the current gully in the deciduous forest to a step pool conveyance system would serve to stabilize the channel and transport stormwater from that section to the rain garden for treatment.

Installation of a rain garden may involve removal of the tennis courts, soil test pit investigation, and potentially soil amendment. A vegetated buffer could involve minor regrading and certainly planting of native species of plants.

Installation of a step pool conveyance system would involve bank stabilization with potential slight grading and installation of hard substrate for creation of pools and riffles in this channel.

Cost for creation of the rain gardens and associated BMPs would be moderate due to the need to remove the tennis court material and potentially amend the soil strata. Re-purposing tennis court materials (cover and substrate) and existing fencing will enhance the project and reduce materials cost. Estimated costs for design, permitting and installation would range from $150,000 to $200,000. An aerial view of the potential project site is provided below.

Kern Park BMPs
Coppermine Brook Basin – 4314-09
City of Bristol
41.703602°, -72.901295°
Catchment ~ 3.5 Ha (8.6 Ac)

Management Measures
Rain Garden
Vegetated Buffer
Step Pool Conveyance

Estimated Load Reductions

Nitrogen (Kg)	5.30
Phosphorus (Kg)	0.15
Solids (Kg)	153.80
Bacteria	1.21E+11

Other Benefits
Stream Channel Creation/Protection
Groundwater Recharge
Pollinator / Bird Habitat

Cost	Medium
Maintenance	Low

Maintenance would be associated with checking for invasive species and the overall structural integrity of the basin annually.

Drawing name: P:\2033\Projects\2033001\CAD\SHEETS\KERN_PARK.dwg Plotted on: Oct 14, 2021 - 12:35pm

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PROJECT NOTES

1. FOR DISCUSSION PURPOSES ONLY. NOT FOR CONSTRUCTION

DATE	DESCRIPTION

REVISIONS

STATE OF CONNECTICUT CERTIFICATE OF REGISTRATION NO.: 0001188

DATE

PRINCETON HYDRO ENGINEERING, PC
931 MAIN STREET, SUITE 2
SOUTH GLASTONBURY
CONNECTICUT 06073
PHONE. 860.652.8911
FAX. 860.652.8922
WWW.PRINCETONHYDRO.COM

PROJECT NAME/LOCATION:

KERN PARK
BRISTOL, CT

DRAWING NAME:

KERN PARK POTENTIAL BMPS

DATE:	10/11/2021
PROJECT NO.:	2033.001
SCALE:	1" = 30'
DRAWN BY:	JD
CHECKED BY:	MH, JS

SHEET NO.

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3.2 BMP 14 - PLAINVILLE POLICE DEPARTMENT

The Plainville Police Department is located in Plainville adjacent to an animal hospital, the Plainville Central Square municipal building, and a bank. It is separated from the Pequabuck River by a railroad track and abandoned industrial property. This Police Department property contains a significant amount of impervious area and limited patches of turf grass and deciduous trees.

Management of sheet flow and drainage from the various impervious areas may be managed by a series of separate rain gardens and conversion of turf grass areas to warm season meadows dispersed strategically throughout the property. Locations of the various rain gardens and meadows are depicted on the site layout on the following page.

Installation of the sizeable rain gardens may involve installation of underdrains depending on site specific conditions. Development of the large meadows would be relatively straightforward without any major costs.

Cost for creation of the rain gardens and meadows would likely be approximately $200,000. An aerial view of the potential project site is provided on the following page.

Maintenance would involve removal of invasive species at the rain gardens and meadows.

Plainville Police Department BMPs	
Pequabuck River Basin 4315-00	
Town of Plainville	
41.672806°, -72.865988°	
Catchment (Cumulative) 2.8 Ha (6.9 Ac)	
Management Measures	
Rain Garden (2)	
Meadow (2)	
Estimated Load Reductions	
Nitrogen (Kg)	4.60
Phosphorus (Kg)	0.13
Solids (Kg)	144.50
Bacteria	3.49E+10
Other Benefits	
Groundwater Recharge	
Pollinator / Bird Habitat	
Cost	Medium/High
Maintenance	Medium

Drawing name: P:\2033\Projects\2033001\CAD\SHEETS\PLAINVILLE_BMPS.dwg Plotted on: Oct 14, 2021 - 12:40pm

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PROJECT NOTES

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DATE	DESCRIPTION

REVISIONS

STATE OF CONNECTICUT CERTIFICATE OF REGISTRATION NO.: 0001188

DATE

PRINCETON HYDRO

PRINCETON HYDRO ENGINEERING, PC
931 MAIN STREET, SUITE 2
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CONNECTICUT 06073
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FAX. 860.652.8922
WWW.PRINCETONHYDRO.COM

PROJECT NAME/LOCATION:

PLAINVILLE, CT

DRAWING NAME:

PLAINVILLE SITES POTENTIAL BMPS

DATE:	10/11/2021
PROJECT NO.:	2033.001
SCALE:	1" = 50'
DRAWN BY:	JD
CHECKED BY:	MH, JS

SHEET NO.

1 OF 1

4.0 BMP TYPES

The following section provides a brief description of BMP types that were not addressed in the original watershed-based plan.

4.1 MEADOW

Meadow creation as a landscape restoration tool for stormwater management is implemented outside of the riparian buffer areas as a conversion of turf grass to meadow. The purpose of meadow creation is to minimize traditional turf lawn area and maximize landscape restoration with native vegetation. This involves the careful selection and use of vegetation that is native to the project area that does not require significant maintenance by fertilizers or pesticides. Native species are typically strong growers with dense, strong root systems. These landscapes provide frictional area to slow stormwater and increased infiltration to reduce sheetflow. Furthermore, native vegetation will help reduce stormwater discharge through evapotranspiration.

Design considerations for meadow creation largely mimic many of the considerations for riparian restoration. Soil amendments may be needed in those sites where soils have been compromised or topsoil has been considerably diminished. Native species should be those native to the upland habitat of Connecticut and would include primarily herbaceous species and forbs. Maintenance would include removal of any invasive species if they were to begin to colonize the site.

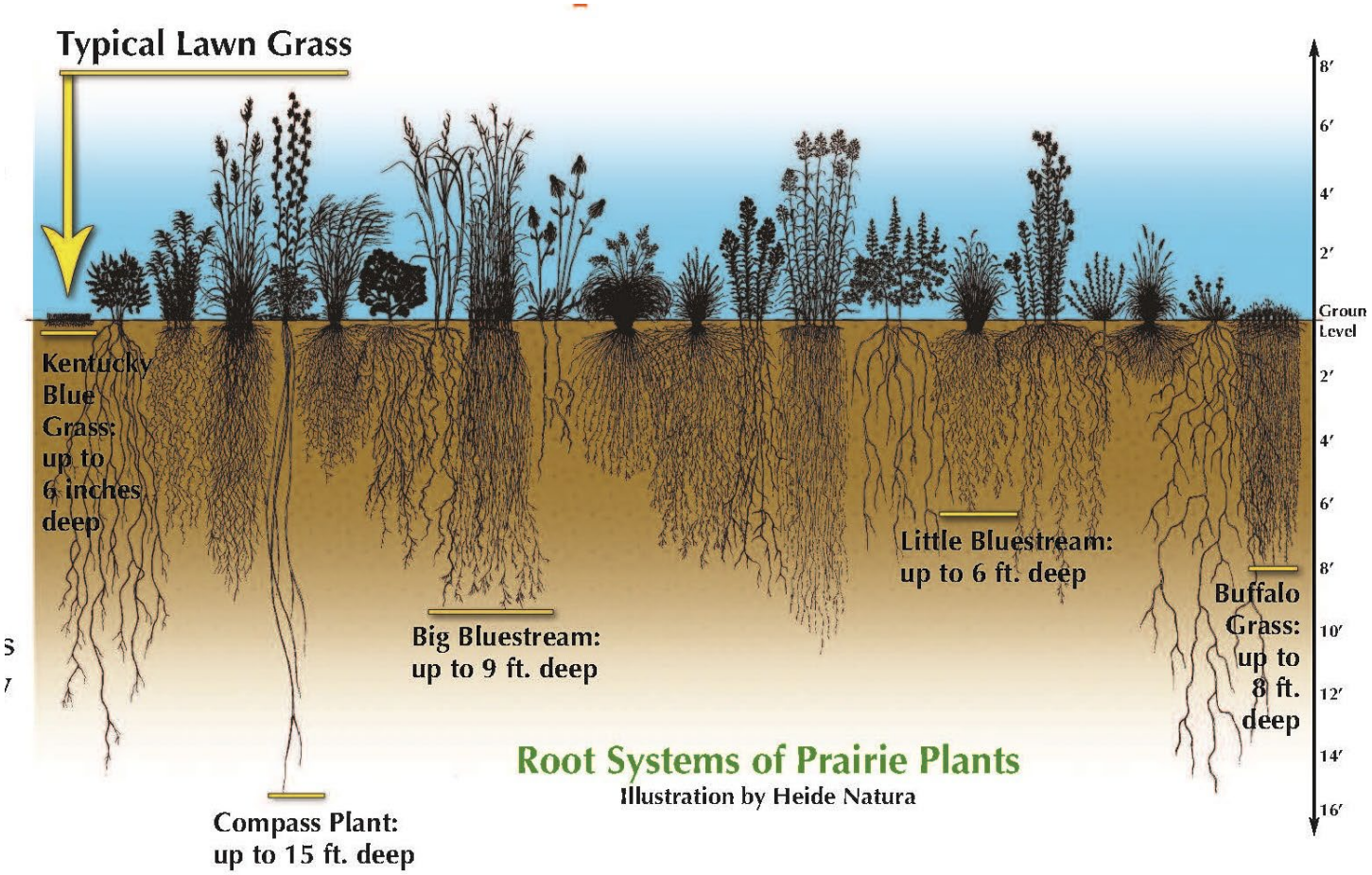

Figure 1: Native versus turf grass root zones
Source: Heide Natura, Villageofisle.org

Conversion of turf grass to meadow can provide the following stormwater benefits (PA BMP Manual, 2006).

- Volume reduction: Low/Medium
- Recharge: Low/Medium
- Peak Rate Control: Low/Medium
- Water Quality: Very High

4.2 STEP POOL CONVEYANCE

Step pool conveyance systems are open channel conveyance structures that convert, through attenuation ponds and sand seepage filters, surface storm flow to shallow groundwater flow (Anne Arundel County, 2022). These systems dissipate stormwater energy allowing for water to slowly infiltrate into groundwater via constructed riffles and pools that mimic stream systems. In this capacity, nutrients and sediments can settle out and provide cleaner water to a terminal BMP.

Step pool conveyance systems should be integrated into the natural features of the site whenever possible. For this project, the integration of a step pool conveyance system into the hillside of Kern Park is an attractive choice.

Stormwater benefits of step pool conveyance are as follows:

- Volume reduction: Low/Medium
- Recharge: Low/Medium
- Peak Rate Control: Medium
- Water Quality: Medium

Increases in stormwater treatment benefits from these systems can be obtained through implementation of vegetative features, such as small wetland plantings, were possible. An example of a step pool conveyance system is provided below in Figure 2.

Figure 2: Step pool conveyance
Source: Anne Arundel County, aacounty.org

REFERENCES

Aacounty.org, Accessed September 28, 2022

Stormwaterpa.org. Accessed September 28, 2022

Villageofisle.org/discover. Accessed September 28, 2022