
LEWIS ROAD PRD CONSERVATION MANAGEMENT PLAN

Supplement to Central Pine Barrens Joint Planning & Policy Commission Approval per Covenants Lewis Road PRD, East Quogue, NY

NPV No. 05105

Prepared for:

Discovery Land Company
14605 N. 73rd Street
Scottsdale, AZ 85260

Central Pine Barrens Joint Planning & Policy Commission
624 Old Riverhead Road
Westhampton Beach, NY 11978

Prepared by:



NELSON POPE VOORHIS
environmental • land use • planning

70 Maxess Road
Melville, NY 11747

Contact: Charles J. Voorhis, CEP, AICP, Principal / Rusty Schmidt, Landscape Ecologist
o: 631.427.5665 | cvoorhis@nelsonpopevoorhis.com / rschmidt@nelsonpope.com

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LEWIS ROAD PRD

CONSERVATION MANAGEMENT PLAN

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1.0 INTRODUCTION AND BACKGROUND

Nelson, Pope & Voorhis, LLC (NPV) has prepared this Conservation Management Plan (CMP) pursuant to the Declaration of Covenants and Restrictions (C&Rs) dated January 3, 2023 which states:

(5) (n) Notwithstanding any provisions of this Declaration to the contrary, nothing herein shall be construed as precluding the Declarant, their heirs, legal representatives, successors and assigns, from instituting necessary conservation measures to protect and conserve the natural resources and features which are the subject of this Declaration, provided that said conservation measures protect and conserve the natural resources and features which are the subject of this Easement, provided that said conservation measures are part of a CONSERVATION MANAGEMENT PLAN which must be submitted to and approved by the Commission or its successor. Said plan may include the selective removal of noxious, dead or decayed vegetation and shrubbery, including tree trunks and limbs.

The subject site is located north of Lewis Road, south and north of Sunrise Highway, and east and west of Spinney Road in East Quogue. Pursuant to the most recent approval by the Central Pine Barrens Joint Planning & Policy Commission (CPBC) approval dated December 7, 2022, the property is approximately $608.45\pm$ acres in size and consists of an assembly of numerous tax parcels within the boundaries noted above. The components of the property include The Hills North (approximately $86.82\pm$ acres), The Hills South (approximately $340\pm$ acres), the Kracke property ($61.26\pm$ acres) and the Parlato property (approximately $120\pm$ acres). Development is proposed to occur on parts of The Hills South and the Kracke properties, with The Hills North (north of Sunrise Highway) and the Parlato property (east of The Hills South property) being offered for dedication. Within the Parlato property is an area of approximately $4\pm$ acres that is to be offered to the Suffolk County Water Authority (SCWA) for a future well field site.

Overall, 72 percent of the property will be retained as natural open space, with 28 percent of the site being subject to development. At the time of approval of the CPBC, the project involved retention of all existing vegetation within the Core Preservation Area (CPA) of the Pine Barrens, with clearing of approximately 171 acres within the Compatible Growth Area (CGA), thus retaining 437 acres of overall natural open space. The developed area includes a proposed residential subdivision consisting of 118 seasonal residences, 12 year-round workforce housing units, an 18-hole private golf course for residents and their guests, a sewage treatment plant to reduce nitrogen load, a clubhouse, recreational amenities (swimming pools, ballfields, tennis courts), aesthetic/utility features (several ponds and multiple drainage reserve areas), as well as parking, lighting landscaping and other infrastructure.

Discovery Land Company and its affiliated owners of the subject site, are interested in a Conservation Management Plan to include conservation measures to protect and conserve the natural resources and features of the land with allowance for limited activity that is consistent with the C&Rs provision (5)(n) and environmental open space management practice. This CMP is prepared to achieve this purpose, and is subject to review and approval by the Central Pine Barrens Commission. NPV qualifications to prepare this CMP are included in **Attachment A**.

2.0 CONSERVATION MEASURES

Certain restoration, maintenance and enhancement activities are requested within the open space areas of the site that are subject to Conservation Easements. These activities are considered conservation measures and are in keeping with open space management of natural lands. Discovery Land Company (DLC) has been in coordination with the Town Chief Environmental Analysis to manage natural open space for many years, and certain activities are in keeping with habitat restoration initiatives. Activities to date have included blocking unauthorized vehicular access (all-terrain vehicles, dirt bikes) to the property using strategic fencing and placement of downed vegetation along access and interior trails on the site. DLC has created brush piles to support ground habitat for the Northern Long-eared Bat. DLC has conducted harvest of native plants in areas proposed to be cleared toward the establishment of a transplant program. DLV also completed restoration of 0.16 acres prior clearing for well installation. This work was completed under authorization of CPBC and establishes precedent for restoration to address disturbed areas on the subject site. It is further noted that the Town of Southampton Planning Board required the restoration of 5.85 acres of previously disturbed, barren land located within conservation easement areas of the site. Based on the C&Rs, CPBC authorization would be required to complete this work. Continued maintenance, access limitations, management and restoration activities are warranted in the form of conservation measures for open space management.

All of the conservation measures outlined herein will be completed using on-site off-road equipment (ATV/Gator/mini-excavator, or similar device) which will navigate existing paths or open areas and will not require the removal of trees. Therefore, this plan includes operation of on-site ATVs by the developer and/or designated contractors within existing trails and/or unvegetated areas to access locations on-site for management as outlined in this plan. No use of herbicides, pesticides or other chemicals are proposed as part of this plan.

The following conservation measures are proposed for the Lewis Road PRD CMP and are intended to maintain and improve the natural integrity of site conditions:

2.1 General Maintenance Provided for in C&R

As provided for in C&R provision (5)(n), this plan includes the “selective removal of noxious dead or decayed vegetation and shrubbery, including tree trunks and limbs” as a safety and conservation measure. As noted, existing on-site, downed limbs and branches have been relocated within the site to obstruct pathways used for unauthorized access by ATVs and dirt bikes. Vegetation which is dead or decayed and poses a hazard or is unsightly will be removed, particularly in those areas proximate to (within 100') of development areas of the site. If unnatural debris, garbage, refuse, waste is encountered within open space areas, DLC will remove such material, provided that no trees, shrubs or other groundcover vegetation are necessary to be cut to remove the material.

2.2 Revegetation and Invasive Species Management

This measure is based on the December 8, 2022 Planning Board Final Subdivision approval. A Town Revegetation Plan prepared by NPV and dated February 7, 2024 was submitted to the Town Planning Board and approved on February 8, 2024 subject to CPBC review. This revegetation plan is included as **Attachment C** of this CMP. The proposed revegetation plan establishes native plantings within barren areas of the site that have been impacted by prior and continuing site disturbance, in part due to historical unauthorized activity (i.e., all-terrain vehicles, dirt bikes, unauthorized site access). Revegetation areas may include transplant species to re-establish vegetation removed from development areas to natural areas of the site. The plan also addresses areas infested with invasive vegetation (both in open space areas and within development areas), and involves physical removal of root rhizomes with re-establishment of native plantings. As noted, this plan was required by the Town Planning Board as a condition of Final Subdivision approval and is proposed for inclusion in this plan.

NPV has prepared a revegetation plan for twenty-three (23) unique revegetation units (RV) within the Lewis Road PRD property (“subject property”). Twenty-one (21) revegetation areas (RVs) throughout the subject property that do not contain invasive species and were damaged by all-terrain vehicles (ATVs) and related activities. These areas will be monitored for growth of native species, utilizing the CPBC “self-heal” methodology, and will be monitored for the establishment of invasive species. If revegetation within these 21 areas does not occur naturally, or if invasive species become established, active revegetation with native species will be required. Two (2) revegetation areas (RV-09, and RV-10) will require invasive species removal and management followed by active revegetation. The Town of Southampton Planning Board has approved the proposed revegetation plan, contingent upon approval by the CPBC. Provided herein is a detailed description of invasive species that have been found on the subject property, proposed management techniques for the removal and management of identified invasive species, methodology for revegetation, and monitoring requirements for all 23 revegetation units on the subject property.

2.2.1 Invasive Species Removal

Due to extensive presence of invasive species, within RV-09, $\pm 16,951$ SF of the $\pm 33,638$ SF area invasive species removal and active revegetation is warranted. The entirety of the $\pm 15,517$ SF RV-10 site will require invasive species removal followed by active revegetation. Provided below is a list of all invasive species identified by NPV staff within RV-09 and RV-10, and specific removal methodology for each species. Note, this list is not intended to be comprehensive, but provides a clear list of all identified invasive species and recommended removal techniques.

- Asiatic Bittersweet (*Celastrus orbiculatus*) – The most effective removal method includes cutting the vine close to ground level and applying (by hand via the wiping method) an herbicide (triclopyr) on the cut stump. Once cut, the hanging vines can be pulled from trees and disposed of at licensed off-site facility. An alternative removal method, which does not use herbicides requires the continuous periodic cutting of the plant at ground level until the

stump does not resprout. The alternative approach is laborious but is the approach to be employed in this instance to avoid use of chemicals within the Central Pine Barrens (CPB).

- Chinese Bush Clover (*Lespedeza cuneata*) – The most effective method for eliminating this species requires the hand application of an herbicide (triclopyr) by hand on each stem. An alternative removal method, which does not use herbicides, requires cutting the plant close to ground level and smothering the cut stems with a tarp. The alternative approach is laborious but is the approach to be employed in this instance to avoid use of chemicals within the CPB.
- Chinese Silvergrass (*Miscanthus sacchariflorus*) – The recommended (most effective) removal method includes removing the entire plant, including its root system, with either a mini-excavator or by hand.
- Chinese Wisteria (*Wisteria sinensis*) – The most effective removal method requires the cutting of the vine near ground level followed by the hand application of an herbicide (triclopyr) on the cut stem. Once the treated plant is dead, the vine is removed from the tree and taken to a licensed off-site disposal facility. The alternative removal method requires continuous periodic cutting of the plant until the stump does not resprout. The alternative approach is laborious but is the approach to be employed in this instance to avoid use of chemicals within the CPB.
- Common Yucca (*Yucca filamentosa*): The recommended (most effective) removal method requires the removal of the entire plant, including the root system, from the ground by hand or with a mini-excavator or a honeysuckle popper (or similar device).
- English Ivy (*Hedera helix*) – The recommended (most effective) removal method requires the extraction of the entire plant, including its root system, from the ground with a “Pulaski” or other hand tool.
- Golden Bamboo (*Phyllostachys aurea*) – The recommended (most effective) removal method requires extraction of the entire plant, including its root system, from the ground with a mini-excavator or by hand with a honeysuckle popper or similar device.
- Japanese Holly (*Ilex crenata*) – The recommended (most effective) removal method requires the extraction of the entire plant, including its root system, with either a mini-excavator, or by hand with a honeysuckle popper or similar device.
- Japanese Honeysuckle (*Lonicera japonica*) – The recommended (most effective) removal method requires the extraction of the entire plant, including its root system, from the ground with a mini-excavator or by hand with a honeysuckle popper or similar device.

- Japanese Knotweed (*Fallopia japonica*) – The recommended (most effective) removal method requires the injection of an herbicide (triclopyr) into each stem with a stem injector since the roots of this plant are too deep to remove mechanically or by hand. An alternative method requires the cutting of the plant at ground level smothering the remaining stems with a tarp. The alternative approach is laborious but is the approach to be employed in this instance to avoid use of chemicals within the CPB.
- Lawn grass – The recommended (most effective) removal method requires smothering the grass with a tarp or cutting and rolling the grass for disposal at a licensed off-site facility.
- Multiflora Rose (*Rosa multiflora*) – The recommended (most effective) removal method requires the removal of the entire plant, including the root system, from the ground by hand or with a mini-excavator or a honeysuckle popper (or similar device).
- Winged Euonymus (*Euonymus alatus*) – The recommended (most effective) removal method requires the removal of the entire plant, including the root system, from the ground by hand or with a mini-excavator or a honeysuckle popper (or similar device).

The initial effort towards invasive species removal from the project areas must be completed prior to revegetation efforts. The invasive species management (careful hand removal) will be continued periodically throughout the growing season within the same year. As described in the Town Revegetation Plan prepared by NPV dated February 7, 2024, all existing invasive vegetation within RV-09 and RV-10 will be removed mechanically (mini-excavator) or by hand with standard handheld landscaping tools (such as a spade, shovel, honeysuckle popper, etc.) prior to the installation of native species in accordance with the approved plan. Any observed emerging invasive species growing near native vegetation will be removed by hand. The existing native vegetation within all 23 RV will not be destroyed during the execution of the invasive species management projects.

2.2.2 Revegetation Methodology

The two (2) RV units requiring invasive species removal (RV-09 and RV-10), and any areas of the remaining 21 RVs that may require active revegetation will be revegetated with seed collected on site and contract grown, followed by plants by purchased plants from Warrens Nursery and the Long Island Native Plant Initiative (LINPI), who are able to provide Long Island ecotypic native species for installation. Native seed collected from the subject property by NPV in 2022 and 2023 is currently being contract grown by Warren's Nursery in Southampton, NY. Provided below is a list of all native plants from which seed was collected from throughout the subject property:

- Bushy Bush Clover (*Lespedeza frutescens*)
- Butterfly Weed (*Asclepias tuberosa*)
- Early Goldenrod (*Solidago juncea*)

- Goat's Rue (*Tephrosia virginiana*)
- Hairy Lespedeza (*Lespedeza hirta*)
- Huckleberry (*Vaccinium spp.*)
- Hyssop-leaved Thoroughwort (*Eupatorium hyssopifolium*)
- Little Bluestem (*Schizachyrium scopiarum*)
- Maryland Goldenaster (*Chrysopsis mariana*)
- Milkweed (*Asclepias spp.*)
- Narrowleaf Whitetop Aster (*Sericocarpus linifolius*)
- Northern Bayberry (*Rubus ursinus*)
- Partridge Pea (*Chamaecrista fasciculata*)
- Purple Lovegrass (*Eragrostis pectinacea*)
- Sassafras (*Sassafras albidum*)
- Sickle-leaved Goldenaster (*Pityopsis falcata*)
- Striped Wintergreen (*Chimaphila maculata*)
- Stuve's Bush Clover (*Lespedeza stuvei*)
- Switchgrass (*Panicum virginianum*)
- Violet Lespedeza (*Lespedeza violacea*)
- Virginia Creeper (*Parthenocissus quinquefolia*)
- Wild Indigo (*Baptisia tinctoria*)
- Winged Sumac (*Rhus copallina*)
- Wrinkle-leaf Goldenrod (*Solidago spp.*)

Warren's Nursery will be providing both Long Island ecotypic species, and species that are hyper-local to the subject property. Plants grown from collected seed will be the primary plant species used on site, followed by plants provided by LINPI that are from Long Island. Warren's Nursery and NPV staff are unable to guarantee the germination or propagation rate of all seeds and plants collected from the project site, so we are unable to provide the exact number of plants grown from seed until they are ready to plant. Plants grown from the seed stock that was hand-collected from the subject property will be prioritized during revegetation efforts. Additional plants will be sourced as necessary from other Long Island ecotype sources. All revegetation work will commence in the fall of 2024, when growing conditions will be optimal for plant establishment and survival and a greater number of native plants being grown from seed stock will be ready for installation.

NPV recommends the installation of deer fence around the perimeter of the revegetation units prior to revegetation activities. Deer fence should only be removed after the full establishment of installed species. Deer repellents, such as organic odor and taste repellents, should be applied in the early spring along the perimeter of all planting areas. Chicken wire, plastic tree guards or mesh tree guards can be installed around the base of newly installed shrubs and trees to protect them from grazing herbivores. Temporary irrigation measures may be utilized to assist newly installed native plants to establish in the soil. Refer to the Town Revegetation Plan prepared by NPV dated February 7, 2024, which describes all maintenance practices for the 23 revegetation units.

2.2.3 Monitoring and Maintenance of Revegetation Areas

A qualified ecologist will complete annual monitoring of all 23 RVs. The monitoring will commence after the date that plants are installed within the first RV. This will continue for three (3) years to guarantee an 85% survival rate for all installed plants within the RVs. Any plant material that is determined to be dead, unsightly, unhealthy, or diseased within any of the RVs shall be removed and replaced in-kind within the 3-year period. Annual reports will be generated by a qualified ecologist to demonstrate success rates and will be sent to the CPBC.

For the invasive species areas (RV-09 and RV-10) maintenance and monitoring, the contractor will be required to revisit the site monthly within the first growing season to observe and manage invasive species that are attempting to become re-established (either growing from seeds, sprouting from cut plants, or plants that were inadvertently missed during the initial removal period). Most invasive species can continue to be removed by hand (Section 2.2.1). Within the second and third years of monitoring, the contractor will continue to monitor and manage invasive species as observed bi-monthly throughout the growing season. At the conclusion of year three, the qualified ecologist will determine if continued invasive species monitoring and management will be required, as well as guaranteeing at least 85% survivability of all installed native plants.

2.2.4 Revegetation Findings/Conclusion

NPV has prepared a Town Revegetation Plan for the native habitat restoration of 23 disturbed areas within the subject property. Of the 23 revegetation units, 2 units (RV-09 and RV-10) will require equipment and hand-removal of invasive species, followed by revegetation with native species. Native plantings will be provided by Warrens Nursery, grown from seed collected on site in 2022 and 2023 by NPV staff. Additional plants will be purchased from Warrens Nursery and LINPI. The remaining 21 RVs will be monitored for “self-heal.”. If these areas fail to heal naturally, or if invasive species become established, active revegetation will be required. All native plantings will be monitored for a 3-year period to ensure at least 85% survival of the revegetation units and ensure invasive species do not become re-established on the subject property.

3.0 SUMMARY AND CONCLUSION

NPV has prepared this Conservation Management Plan pursuant to Condition (5)(n) of the filed C&Rs for the Lewis Road PRD, East Quogue. The C&Rs contemplated that certain authorized activity may be appropriate within the permanently protected open space areas of the site. This plan identifies twelve (12) conservation measures to enhance and maintain the open space habitat associated with the defined open space areas of the site. The conservation measures seek to promote and restore natural growth, limit harmful unauthorized access to the property, maintain natural groundcover, protect natural integrity and manage habitat for protection of vegetation and wildlife on the site. This Conservation Management Plan is subject to approval by the CPBC and that approval is requested based on review of this plan.

ATTACHMENT A

NPV Ecological Qualifications

Ecological Services

Ecological Assessments

Statement of Qualifications

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NELSON POPE VOORHIS

environmental • land use • planning

70 Maxess Road, Melville, NY 11747
631.427.5665 | nelsonpopevoorhis.com

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INTRODUCTION

ECOLOGICAL & SUSTAINABLE SERVICES

PROJECT RELATED EXPERIENCE

KEY PERSONNEL

INTRODUCTION

Nelson, Pope & Voorhis, LLC (“Nelson Pope Voorhis” or “NPV”) is an environmental planning and consulting firm established in 1997 that serves governmental and private sector clients preparing creative solutions specialized in the area of complex environmental project management and land use planning/analysis. Our offices are strategically located in Melville, Long Island, NY and Suffern, NY in the Hudson River Valley. NPV consists of three divisions, created to better serve clients with high quality, innovative and responsive consulting services in all aspects of environmental planning. The three divisions are:



- **Environmental Resource and Wetland Division:** conducts ecological assessment and planning, landscape and coastal restoration, wetland delineation and restoration, habitat assessment, conducts stormwater modeling and green infrastructure planning and implementation. This division assists clients through permitting and SEQRA processes.
- **Environmental and Community Planning Division:** prepares comprehensive plans, long-term planning studies, corridor redevelopment studies, brownfield plans and comprehensive and strategic zoning amendments. The group is effective in the use of geographic information systems (GIS) mapping to evaluate issues and present baseline data. Effective community outreach strategies are developed and tailored for each project and the community in which the project is taking place. The group represents a number of planning boards in the region.
- **Phase I/II ESA and Remediation Division:** prepares Phase I/II Environmental Site Assessments with soil and groundwater sampling services, lead based paint, asbestos and radon inspection services, and all forms of environmental sampling. The division evaluates the implications of past and/or present contamination and property uses on future land uses.

The primary focus of the firm is to provide quality planning services that meet the needs and goals of our clients while respecting the environment. We pride ourselves being extremely responsive to each client. Clients rely on NPV’s depth of experience and expertise to provide solutions to each unique project within budget and on schedule. Our clientele, some of whom we have represented for decades, recognize NPV’s capabilities and are secure in knowing that they receive quality professional services from project inception through completion. NPV’s multidisciplinary staff includes AICP-certified planners, economists, ecologists, hydrologists, certified environmental professionals, grants specialists, and GIS specialists.

As a local firm, NPV has significant expertise in preparing and overseeing the development of ecological restoration plans. We have served as a primary consultant to many municipalities and

have established a solid track-record of completed projects and local government references throughout Long Island, with an emphasis on projects. NPV has the capabilities to provide the following services:

ENVIRONMENTAL RESOURCE & WETLAND	ENVIRONMENTAL & COMMUNITY PLANNING	PHASE I/II ESA & REMEDIATION
<p><u>SUSTAINABLE LANDSCAPE DESIGN</u></p> <ul style="list-style-type: none"> Green Infrastructure Design Environmental Education/Outreach Rain Garden Design/Installation Bio Retention/Low-Impact Design Interpretive Signage <p><u>ECOLOGY & WETLANDS</u></p> <ul style="list-style-type: none"> Wetland Delineation and Permits Permit Plans Restoration/Mitigation Plans Ecological Studies and Surveys Endangered Species Surveys Pond Management Plans Invasive Species Management Water Quality Evaluation Habitat Management Watershed Management Plans <p><u>COASTAL & WATERFRONT MANAGEMENT</u></p> <ul style="list-style-type: none"> Waterfront Management Plans Waterfront Certifications Coastal Erosion Hazard Area FEMA Compliance Shoreline Restoration Planning Ecological Landscape Design <p><u>STORMWATER MANAGEMENT</u></p> <ul style="list-style-type: none"> Stormwater Permitting Stormwater Pollution Prevention Plans (SWPPP) Erosion & Sediment Control Plans NYSDEC "Qualified Inspectors" for Construction Field Monitoring Stormwater Management Programs NYSDEC Annual Reports Construction Stormwater Field Monitoring Outfall & Infrastructure Inventory GIS Mapping & Analysis Stormwater BMP's Stormwater Management Planning 	<p><u>PLANNING</u></p> <ul style="list-style-type: none"> Development of Feasibility Studies LEED Planning Public Outreach Meetings Demographic Analysis Municipal Review Services Planning & Zoning Analysis Build Out Analysis GIS Analysis Code Preparation & Review Downtown Revitalization Regional Planning & Land Use Plans Recreation Planning LWRP & Harbor Management Plans Grant Writing & Administration Public Outreach & Community Surveys Community Visioning District Mapping Spatial Analysis of Call Database Needs Assessment Demographic Analysis <p><u>ECONOMIC</u></p> <ul style="list-style-type: none"> Fiscal Impact Analysis Economic Impact Analysis IMPLAN and RIMS II Economic Impact Modeling School District/Community Service Impact Analysis Market Studies Niche Market Analysis Demographic Studies Economic Development Planning Business Retention & Expansion Strategies Downtown Revitalization IDA Financing Assistance 	<p><u>ENVIRONMENTAL AUDITS</u></p> <ul style="list-style-type: none"> Phase I ESA & Due Diligence Investigations Phase II ESA Groundwater Investigations Soil Sampling, Boring and Classifications Soil Gas Surveys Monitoring Wells & Piezometers Tank Sampling Pesticide Sampling & Plans Soil Management Plans Remediation Brownfield/Voluntary Cleanup Plans RCRA Closures Superfund Sites Asbestos Surveys Influent/Effluent Sampling Lead Based Paint Surveys Subsurface Investigations Ground Penetrating Radar (GPR) Dewatering Services Pipe Camera Magnetometer Groundwater Monitoring Studies Flow Studies Water Supply Studies Nitrogen Load/TMDL Evaluation <p><u>ENVIRONMENTAL ANALYSIS</u></p> <ul style="list-style-type: none"> NYS SEQRA/NYC CEQR Administration NEPA Analysis/Documentation EIS/EAF Preparation GEIS & Regional Impact Analysis Noise Monitoring & Assessment Air Impact Analysis Visual Assessment

NPV has significant experience in waterfront and coastal projects, waterfront restoration and associated permitting, master and comprehensive plans, and stormwater, stream and ecological

monitoring. NPV serves governmental and private sector clients in preparing creative solutions in the specialized area of complex environmental project management and land use planning and analysis. NPV's environmental specialists assist clients through the permitting process for the New York State Department of Environmental Conservation, the U.S. Army Corps of Engineers, and the New York State Department of State permits and prepares landscape and restoration plans and Stormwater Pollution Prevention Plans (SWPPPs).

NPV can provide services individually or as part of a team. Our affiliate **N&P Engineering, Architecture and Land Surveying, PLLC ("Nelson + Pope" or "N+P")** has a 65-year plus tradition in multi-disciplined engineering, architecture and surveying partnership located in Melville, Town of Huntington, Suffolk County, New York. The firm has been serving municipal and private clients in Nassau and Suffolk Counties since 1954 and has fostered an excellent working relationship with many Town, County and State agencies. The firm provides a full range of services including site development; land use design and planning; highway design; park master planning and design; waterfront engineering; land surveying; construction observation, documentation and administration assistance; sanitary disposal and water supply design; traffic engineering; transportation planning; environmental engineering; architecture and landscape architecture.



N+P possesses experienced professional, technical and support staff with direct knowledge of Long Island's land development, environment and infrastructure network. Through years of quality service to our clients, the firm has grown in both reputation and size. N+P now employs over 100 technical and support staff and includes experienced teams of dedicated professionals with diversified expertise. All of the firm's principals are New York State licensed Professional Engineers, Land Surveyors and Registered Architects. The firm has on staff licensed Professional Engineers, Architects, Land Surveyors and Landscape Architects. Many of our firm's partners and full-time employees have advanced degrees in such areas as traffic engineering, transportation engineering, civil engineering, urban and regional design and planning, environmental sciences, construction management, and sanitary engineering.

ECOLOGICAL & SUSTAINABLE SERVICES

NPV has significant experience in preparation of ecological assessments based on a wide body of experience in ecological inventory and habitat management. The following subsections identify the general services, followed by specific ecological assessment projects identified herein under Related Project Experience.

Ecological Services

NPV has an expert understanding and appreciation of ecological resources as related to applied land use planning for preservation, conservation and strategic development. Natural resource surveys and ecological inventory services are used to inform site acquisition and land use decisions. NPV

conducts endangered species management within applicable regulatory guidelines and provides wetland program administration for municipalities. As experts in wetland delineation, permitting and mitigation, NPV services private and municipal clients in coastal and wetland areas. NPV specializes in habitat restoration and all facets of ecological management and can provide the following services:

- Wildlife Surveys
- Endangered Species Surveys
- Invasive Species Control
- Wildlife Sweeps
- Natural Resource Surveys
- Habitat Management
- Coastal Erosion Hazard Areas
- Coastal Consistency Analysis
- Pond Management Plans

Sustainable Landscape

NPV helps communities and campuses plan for a better sustainable landscape environment. It is important to seek new ways to protect resources and manage developed and disturbed sites. NPV works with clients to understand site use goals, integrate sustainable management solutions, and implement plans that heal and restore the environmental, social, cultural and economic integrity of the landscape environment. Services include:

- Campus Sustainability Master Plans
- Ecological Landscape Restoration Plans
- Pollinator Gardens and Meadow Restoration
- Integrated Rain Garden and Sustainable Landscape Design
- Nature Educational Site Planning
- Recreational Use Area Management
- Carbon Footprint and Greenhouse Gas Reduction Strategies
- Coastal Resiliency and Climate Change Planning
- Solar Installation Groundcover Management
- Environmental Resource Inventory and Management

Green Infrastructure

NPV staff includes Rusty Schmidt, landscape ecologist. Mr. Schmidt has over 20 years' experience in ecological design with an emphasis in native plant restoration and stormwater mitigation on the site. Mr. Schmidt is a nationally known rainwater garden specialist who has created specialized landscapes for the small garden in a home to large scale campus designs to resolve water issues with multiple projects working together for an entire complex, mall church or university. Projects include

all types of landscapes including single-family residential yards, commercial, institutional, educational campus or religious use properties as well as parks, trails and wetlands.

Bioretention or Bioinfiltration Basins are gardens strategically placed to catch rainwater from downspouts, sidewalks, driveways, roads, or parking lots. Many beautiful plants thrive in bioretention (raingardens) and can be used to enhance your yard, property, or landscape. These strategically placed gardens soak up rain where it falls, mimicking nature. They reduce rainwater runoff, erosion and remove pollutants such as Nitrogen and Phosphorous. Raingardens create attractive landscapes that raise the value of the property, provide outdoor recreation, habitat for pollinators and wildlife, and decrease the maintenance needs of a property.

NPV has the experience to design these gardens and locating them to have the largest potential impact. As society's understanding and enforceable and mandated sustainability requirements for infrastructure projects continue, the potential environmental and social impacts of both large and small infrastructure projects have grown. NPV has worked diligently to integrate the latest technologies and concepts into our projects like bioretention. These concepts, such as sustainable design, low impact development, smart growth, and green infrastructure are not pursued simply as eco-friendly add-ons to an existing project. They are considered at the beginning of the design process and are seamlessly and almost invisibly integrated into the final product.

PROJECT RELATED EXPERIENCE

NPV has completed a wide range of ecological and native restoration projects for various clients throughout Long Island and New York City. Each project involves ecological inventory of species and habitats to understand the environmental conditions of a property. Based on ecological inventory, assessments, restoration plans and enhancement recommendations are provided. The following list of projects have been selected to demonstrate the team's qualifications and capabilities.

Sisters of St. Joseph Landscape Master Plan for the Brentwood Campus, Brentwood, NY

The Sisters of St. Joseph contracted NPV to prepare a Master Plan to guide sustainable use of their 200+ acre campus in Brentwood, NY. The intent of the Master Plan is to support the growth and development of the Brentwood Congregation as a sustainable landscape that reflects the Land Ethic Statement of the Congregation. NPV helped to develop a creative and implementable management plan that supports the Land Ethic Statement "to be aware of varying cultural, political and economic perspectives and the needs of all with whom we



share this earth both human and non-human.” The NPV team worked together with the Sisters and the Peconic Land Trust to develop a Master Plan for multiple use areas of the Campus. Components of the project included sustainable planning/implementation for: solar array groundcover landscaping, control of the Southern Pine Beetle, garden and meditation areas, optimized/sustainable use of the agricultural areas, protection of natural areas of the site, native landscape restoration of meadow areas, green infrastructure/stormwater management, preservation of historic features and overall site management for a sustainable future. See descriptions below for further detail on specific aspects of this Master Plan implementation.

Sisters of St. Joseph Native Meadow Restoration, Brentwood, NY

NPV assisted The Sisters of St. Joseph with the preparation of a Master Plan to guide sustainable management of their 200+ acre Brentwood campus. As part of implementation of this Master Plan, NPV was retained by the Sisters to prepare landscape and restoration plans for two native Long Island meadows on the property. The first meadow area is 3 acres (planted in 2018) and the second meadow is 4 acre meadow (planted in March 2020). The restoration involved conversion of prior lawn area to meadow in order to provide habitat for grassland songbirds, pollinators and to reduce the amount of lawn maintenance across the Brentwood campus. The project is a successful example of native meadow restoration for sustainable land practice.



Sisters of St. Joseph Pollinator Counts, Brentwood, NY

As part of implementation of this Master Plan, NPV was retained by the Sisters to prepare a landscape restoration plan for 4-acre solar array installed in 2017. The solar array, which was planted in the spring of 2018, has been maintained to ensure that the goals of the landscape restoration area met. Maintenance has included monitoring of health and survival of native plantings and removal of invasive species, shrubs and trees that may disrupt the restoration or shade the solar panels. Funded by a research grant from the Nature Conservancy, NPV was then hired by the Sisters to complete pollinator surveys and counts at the native species restoration installation to monitor its success. NPV developed the monitoring protocol for pollinators visiting the native pollinator plantings within the 4-acre solar array groundcover restoration area. Starting in late summer of 2019, a set of control and test plots were established within and surrounding the solar array. NPV has completed bee and butterfly counts to examine both the species richness and relative abundance of plant pollinators within the control and test plots. Surveys are being conducted monthly to capture the variety of species that visit the plots. Analysis of observations will continue to be documented to demonstrate the benefits and effectiveness of the solar array native groundcover restoration project.



Sisters of St. Joseph Southern Pine Beetle Forest Management Brentwood, NY

As part of implementation of this Master Plan, NPV was retained by the Sisters to assist with remediation and prevention of Southern Pine Beetle (SPB) infestation on the Brentwood campus. The SPB was discovered on the property in 2017 and a number of trees were cut down to prevent the spread. To further combat the infestation, NPV assisted the Sisters in obtaining a grant from New York State which was applied for and received in 2018. NPV was retained to provide technical oversight for all SPB control activities which included: monitoring of the infestation; tree marking and removal of infected trees; cutting of a buffer/setback around infected trees to prevent SPB transmission; thinning to reduce the basal area of the woodland, GPS location of trees in the affected area; planting new native vegetation in impacted areas to prevent invasive species; and continuation of a five year maintenance and monitoring program. Over the past several years of monitoring, there were fewer infected trees with each inspection to the point where there were no infected trees in late 2019. During the late fall of 2019, additional thinning was completed to further



reduce the basal area of the forest, and significant replanting of native species for the forest floor, sub canopy and canopy was undertaken to promote forest restoration efforts.

Westhampton Mine Restoration Plan, Town of Southampton, NY

NPV prepared a mine restoration plan for an active sand mine in Westhampton, NY. The reclamation included a native vegetation restoration plan which utilized native species to create habitats congruent with the surrounding existing habitats. Habitats proposed included Pitch Pine-Oak forest, native grasslands, slope stabilization native groundcover and wet meadow. The plan is intended to result in the long term restoration of native habitats to the site. The restoration plan included an invasive species control and monitoring component for removal of mugwort to control the potential establishment of invasive species located on and in the vicinity of the project site. The plan was approved by the Central Pine Barrens Joint Planning & Policy Commission.



Longwood Public Library Site Restoration, Middle Island, NY

NPV provides environmental consulting services to the Longwood Public Library, Middle Island, NY. Services have included a detailed inventory of pre-existing site natural and landscape vegetation, and preparation of a native vegetation restoration plan in fulfillment of a previously approved Pine Barrens Commission hardship waiver. Longwood Library is a steward of environmental resources on their site, and through guidance of NPV and their commitment to the community, have purchased and cleaned up a natural site with pine barrens and freshwater wetlands habitat. This main library property has been further restored as part of the building expansion with a variety of ecosystem types, including grasslands, pitch pine-oak forest and freshwater wetlands, for which NPV has provided design and construction oversight services. Monitoring of restoration areas, including the identification and targeted removal of invasive species is ongoing.



Calverton Grasslands Restoration, Town of Southampton, NY

NPV, utilizing staff ecologists, performed avian surveys along the eastern runway at the former Naval Weapons Industrial Reserve Plant (NWIRP) located in Calverton, NY. Avian surveys were performed during breeding season utilizing methodology recommended by the NYSDEC in order to provide a comprehensive inventory of avian species utilizing the grasslands along the runway as potential breeding grounds.



Additionally, winder observations were collected in order to provide a comprehensive inventory of species utilizing the site. Several rare, threatened and endangered species were encountered within the former NWIRP site including grasshopper sparrows, vesper sparrows, whip-poor-wills, short eared owls, northern harriers, and Eastern meadowlarks.

NPV also surveyed a ±300 acre portion of the NWIRP to characterize the existing habitats exhibited at the property. Multi-season site inspections were performed to collect data for vegetation and wildlife species and their associated densities in order to provide a habitat characterization for the study area, as defined by Edinger (2002). Habitats identified on-site included pitch pine-oak forest, pitch-pine heath barrens, successional pine barrens grassland, conifer plantation and freshwater wetlands.

Willow Wood at Coram Restoration & Invasive Species Management Plan, Coram, NY

NPV prepared a restoration plan for a property in Coram which had been substantially impacted by clearing, soil removal, erosion, dumping and ATV use. The restoration plan included slope stabilization, meadow habitat, pine barrens habitat revegetation and transplanting of areas of existing vegetation where development was to occur to the proposed restoration area. Species native to the Central Pine Barrens were specified for all restoration areas. Additionally, NPV prepared a restoration and invasive species monitoring & control plan for the site. Invasive species control methods considered the sensitivity of the Pine Barrens habitat and did not include use of pesticides or herbicides. The restoration plan was approved by the Pine Barrens Joint Planning & Policy Commission and the Brookhaven Town Board.



Ethical Humanist Society Rain Garden, Garden City, NY

NPV worked with the Ethical Humanist Society of Garden City to address flooding concerns within their parking lot area by designing two rain gardens located between the parking lot and Old Country Road. The rain gardens are designed to allow stormwater to enter the rain gardens, provide for pollutant removal and recharge. The rain gardens were planted with native species by volunteers of the Ethical Humanist Society. NPV provided budgets, documents for construction, construction inspections to the contractor and layout of the plantings for installation by volunteers.



Manorhaven Preserve Sustainable Planting, Manorhaven, NY

NPV developed a Master Plan for the Manorhaven Preserve within the Village of Manorhaven. NPV worked in cooperation with the Native Greenway Corporation who received grant money to install and implement some of the objectives of the Master Plan. Over the past four years, NPV has been working with volunteers, Master Gardeners, and others to install and maintain Native Plant Demonstration gardens and tree groves at key locations within the preserve. In addition, educational signage was designed and installed at the demonstration sites to help with interpretation by visitors.



Suffolk County Department of Public Works NFWF & HGMP Wetlands- Gardiner's County Park East & West, Timber Point County Park, Smith's Point, and West Sayville Wetlands

The team of NPV/N+P served as a consultant engineer for the County Wetlands Restorations Project under NFWF and HMGP Grants. The project encompassed Environmental and Permit Services for Suffolk County's wetland restoration grants: Coastal Resiliency via Integrated Salt Marsh Management and Tidal Wetland Restoration to Improve Natural Protection against Flooding and Storm Surge Damage. Services for this project included survey of wetlands areas, preparation of engineering design with site plan drawings, and preparation of permit applications for projects located in Smith Point Park North, Timber Point Park, West Sayville and Gardiner Park (east and west) in conjunction with the two wetland grants received through NFWF and HMGP.

NPV/N+P has followed the restoration work of Suffolk County Vector Control at the Wertheim National Wildlife Refuge to design and obtain the necessary permits for modification of former linear mosquito ditch grids into meandering tidal streams and ponds that facilitate tidal inundation, improved water circulation, replicate natural conditions, and facilitate tidal wetlands restoration for improved habitat, reduced mosquito breeding areas, erosion control and other essential functions associated with improved tidal wetlands. NPV and N+P prepared project plans, cross sections and note details needed to implement the restoration. Plans included earthwork quantities, with the intent to balance cut and fill to the maximum extent in carefully filling existing linear ditches to be replaced with meandering tidal streams and ponds.

NPV also assisted Suffolk County Department of Public Works (SCDPW) to complete the National Environmental Policy Act (NEPA) Environmental Assessments (EA) for the two grants, which were reviewed and accepted by the Federal Emergency Management Agency (FEMA) and the Department of Interior. NPV obtained all the necessary wetland permit applications and prepared the SEQRA documentation for review and acceptance by the County Council on Environmental Quality. NP/NPV is assisting with construction field mark out of the proposed modified wetland channels and micropools, and the first of the projects was constructed in the 2018/2019 winter construction season. The projects required close coordination and permitting with the NYSDEC, and a 5-year monitoring protocol has been established.



KEY PERSONNEL

All NPV professionals are available to assist on an as-needed basis. Charles Voorhis will serve as the project coordinator, working as the primary contact to the client and assigning projects to the various professionals on the team. Specific individuals expected to provide services and their individual roles for ecological restoration initiatives are noted as follows:

Personnel	Qualifications, Project Role
Charles Voorhis, CEP, AICP Managing Partner	Project Oversight
Rusty Schmidt Landscape Ecologist	Landscape Design, Ecological Inventory
Sylvia Ner-Karas Senior Environmental Scientist	Ecological Inventory, Report Writing, Permitting
Brant Reiner Project Manager/Senior Environmental Scientist	Report Writing, Permitting
Cassandra Castaño Assistant Landscape Ecologist	Designs, Cost Estimates, Inspections, Field Data Collection, Plantings

Nelson Pope Voorhis is managed by a select group of partners. Each provides specific expertise in the field of environmental planning, land use planning/analysis, remediation, engineering and land surveying that is unique within the industry. The diverse leadership of NPV couples the experience of our senior partners with the innovation and enthusiasm of our younger partners. Many of the team's staff have advanced technical degrees and/or technical certifications. Such as LEED Accredited Professional (LEED AP), OSHA 40 Hour HAZWOPER, and American Institute of Certified Planners (AICP), etc.

Charles Voorhis, CEP, AICP has 42 years of diverse planning and environmental problem-solving experience. Mr. Voorhis has managed municipal projects including regional and local planning studies, wetlands and shoreline restoration, environmental impact statements, permit compliance and environmental analysis. He served in the position of Director of Environmental Protection of the Town of Brookhaven and supervised the environmental implementation of the Town of Brookhaven Comprehensive Plan Update. As a private consultant for the past 31 years, Mr. Voorhis has managed environmental planning and analysis of large-scale planning and development projects throughout Nassau and Suffolk Counties. Mr. Voorhis is the environmental consultant to the Southampton ZBA

and Sag Harbor Village Harbor Committee, delineates all wetlands on sites, and oversees wetland and coastal applications for these Villages.

Rusty Schmidt is a Landscape Ecologist with NPV and moved to Long Island from MN, where he was a Landscape Ecologist with the Washington Conservation District designing and building over 100 to 150 projects dedicated to improving water quality annually. Prior to the District, Mr. Schmidt conducted EIS, wetland delineations, wetland restoration and alternative storm water designs and, site planning for new and renovated developments and habitat restorations for URS Corporation. Mr. Schmidt is a wildlife biologist and landscape ecologist with over 20 years of natural resource experience. He has expertise in designing and constructing alternative methods for managing storm water runoff in an environmentally conscious way. Mr. Schmidt has created designs for habitat restorations, rain gardens, bio-infiltration swales, bio-retention basins and stormwater ponds for many different sized sites and locations ranging from small backyard rain gardens to a large 500-foot long rain garden for a commercial property. He has assisted in the design of rain gardens, such as the "10,000 Rain Garden Initiative" in Kansas City, Missouri and the Metro Blooms and Blue Thumb Programs in Minnesota. Mr. Schmidt is a co-author of three books on plant selections for stormwater management applications entitled, "Plants for Stormwater Design" Volumes 1 and 2, and the "Blue Thumb Guide to Rain Gardens".

Sylvia Ner-Karas is a Senior Environmental Scientist with 20 years of experience in performing numerous field studies, wetland delineations as well as freshwater and tidal wetlands inspections. She routinely has prepared Tidal & Freshwater Wetland Applications, planning and executing the work. Ms. Ner-Karas is experienced in environmental permitting with NYSDEC, ACOE and DOS, as well as Town permitting and is familiar with the flora and fauna of Long Island. Ms. Ner-Karas is familiar with utilizing various trapping methods for wildlife surveys, and with using Trimble GPS to identify markers in the field. She is capable of handling small and large mammals, as well as various amphibian and reptiles. In addition, she also has experience in the preparation of Phase I and II Environmental Site Assessments with a thorough knowledge of the Unified Soil Classification System.

Brant Reiner is a Project Manager/Senior Environmental Scientist with 18+ years of experience in the planning and environmental field. He brings to NPV an in-depth knowledge of the east end of Long Island. His skillset spans from land use and environmental planning to high quality scientific and regulatory analysis. He has a thorough understanding of the municipal review and regulatory processes and his expertise includes all forms of environmental analysis, land use, planning and feasibility assessment, SEQRA administration, project review and presentation, board representation, landscape and wetlands restoration plans and coastal management projects.

Cassandra Castaño is an Assistant Landscape Ecologist provides field skills in support of the Senior Landscape Ecologist to assist in designs, cost estimates and inspections. She is skilled in field data

collection, vegetation identification, CAD and graphical designs, rain garden design and installation and computer graphic products. Ms. Castano holds a degree in Horticulture with a concentration in Design Landscape Development. She has assisted in the creation of rain garden designs and sustainable landscape for a variety of projects across Long Island.

ATTACHMENT B
Town Planning Board Revegetation Plan Approval
(February 8, 2024)



Planning Board
Town Hall
Southampton, NY 11968

ADOPTED

Meeting: 02/08/24 02:00 PM
Department: Planning
Category: Site Plan
Prepared By: Clare Shea

PLANNING BOARD RESOLUTION (ID # 45652)

DOC ID: 45652

Lewis Road Site Plan (formerly The Hills at Southampton)

WHEREAS, the Site Plan/Subdivision Application of Lewis Road PRD was conditionally approved by the Planning Board on December 8, 2022;

WHEREAS, the Site Plan application which is for the golf course, clubhouse, eight (8) condo units, pro-shop, pool bar, gatehouse, two (2) halfway houses, field house, tennis house, pond house, twelve (12) work force housing units, admin/operations building, turf care building, environmental center, soils bins, the pump house structure and recreational fields including tennis courts (2), pickle ball courts (4) basketball court and combination soccer/baseball field on ten lots described in the December 8, 2022 Site Plan Staff Report (SCTM Nos. 900-250-250-3-1 et al);

WHEREAS, Condition 6. of the PRD approval stated:

- 6) Submission and approval of a re-vegetation plan of the existing disturbed areas in the open space.

WHEREAS, the applicant submitted a revegetation plan prepared by Nelson Pope dated March 30, 2023 and last revised February 7, 2024 (7 sheets) for the twenty one (21) areas for a total of 5.85 acres located in the open space to be revegetated with native trees, shrubs, groundcover and grasses; and

WHEREAS, two of the areas, RV – 9 and RV – 10, will be revegetated due to invasive species removal (0.75-acres)

WHEREAS, the Planning Board reviewed the plan at the February 8, 2024 meeting and finds the proposed revegetation plan is acceptable subject to the mulch being noted to be natural leaf litter or pine needles and to the Central Pine Barrens reviewing and approving the revegetation plan; now, therefore

BE IT RESOLVED, the Planning Board hereby approves the re-vegetation plan of the existing disturbed areas in the open space for the Lewis Road Site Plan/Subdivision as shown on the revegetation plan prepared by Nelson Pope dated March 30, 2023 and last revised February 7, 2024 (7 sheets), subject to the following conditions:

1. Mulch noted on the plans to be natural leaf litter or pine needles.
2. Plan shall be reviewed and approved by the Central Pine Barrens Commission prior to commencement of planting.
3. Prior to issuance of a Certificate of Occupancy, a maintenance bond having a term of two (2) years shall be submitted to guarantee the survival of the landscaping prior to the issuance of a Certificate of Occupancy. The Planning Division upon completion of the work and acceptance of the landscaping as shown on the approved plan shall set the amount of this bond. The applicant shall submit a cost estimate of the approved landscaping for review and approval in conjunction with setting this bond
4. Submission of six (6) sets of plans for signature.

RESULT:	ADOPTED [UNANIMOUS]
MOVER:	Kate Fullam, Board Member
SECONDER:	Glorian Berk, Secretary
AYES:	Lofaro, Finnerty, Berk, Catalanotto, Mootoo, Neely, Fullam

ATTACHMENT C
NPV Town Revegetation Plan
(February 7, 2024)



GENERAL LANDSCAPE NOTES

MAINTENANCE NOTES

1. THE CONTRACTOR SHALL BE HELD RESPONSIBLE FOR THE MAINTENANCE OF ALL WORK AND PARTS THEREOF TO FULL ACCEPTANCE.
2. THE CONTRACTOR SHALL REPLACE ALL PLANT MATERIAL THAT ARE DEAD IN WHOLLY OR PART UNHEALTHY, WITHIN THE THREE YEAR PERIOD FROM THE COMPLETION AND FULL ACCEPTANCE OF THE COMPLETE CONTRACT. THE WARRANTY PERIOD SHALL BE 3 YEARS FROM DATE OF FULL ACCEPTANCE WORK TO A SURVIVAL RATE OF 95%.
3. SHOULD RELOCATION BE NEEDED WITHIN THE THREE YEAR PERIOD FROM COMPLETION, A WATER TRUCK WILL BE USED TO MOVE THE PLANT IN AGRICULTURE.

PLANTING NOTES

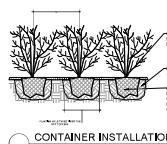
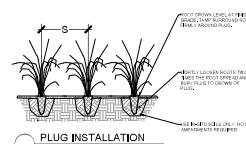
1. ALL PLANT MATERIAL SUPPLIED BY THE MANUFACTURER IS CURRENT AND
(AMERICAN ASSOCIATION OF NURSERYERS) AND ACCEPTED INDUSTRY STANDARDS. NO SUBSTITUTION
OF MATERIAL SHALL BE MADE WITHOUT THE APPROVAL OF THE LINCOLN COUNTY BOARD OF ARBITRATORS.
2. THE PLANT MATERIAL IS SHIPPED IN A SHALLOW CONTAINER. THE PLANT MATERIAL IS TO BE PLANTED
AS FORMED IN THE CONTAINER. THE PLANT MATERIAL IS TO BE PLANTED AS FORMED IN THE CONTAINER.
3. PLANT MATERIAL IS TO BE SHIPPED SOILLESS. FROM WARDEN'S NURSERY AND LONG ISLAND NURS-
ERY. PLANT MATERIAL IS TO BE PLANTED IN THE GROWER'S OWN SOIL. THE PLANT MATERIAL IS TO BE PLANTED
GROWER'S OWN SOIL. THE PLANT MATERIAL IS TO BE PLANTED IN THE GROWER'S OWN SOIL.
4. TEMPORARY DETER FENCE OR STAKE SHOULD BE INSTALLED PRIOR TO INSTALLATION TO ENSURE
THE PLANT MATERIAL IS NOT DISTURBED. THE GROWER IS ADVISED TO RECOMMENDED THAT THE DETER FENCE REMAIN
IN PLACE UNTIL THE PLANT MATERIAL IS PLANTED.

REVEGETATION AREAS

TOTAL: 254,787 (P 5,95 45)

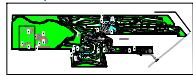
LEGEND

- NATURAL VEGETATION TO REMAIN (OUTSIDE DEVELOPMENT)
- NATURAL VEGETATION TO REMAIN (INSIDE DEVELOPMENT)
- EXISTING ROAD CLEARING ON PLATINUM PROPERTY
- EXISTING CLEARED AREA (INSIDE DEVELOPMENT)
- AREA TO BE REVEGETATED (155 AC)
- AN ADDITIONAL AREA TO BE REVEGETATED DUE TO INVADE SPECIES REMOVAL (10 AC)
- AREA REVEGETATED BY CHP ORDER ON CONVENT (214 AC)

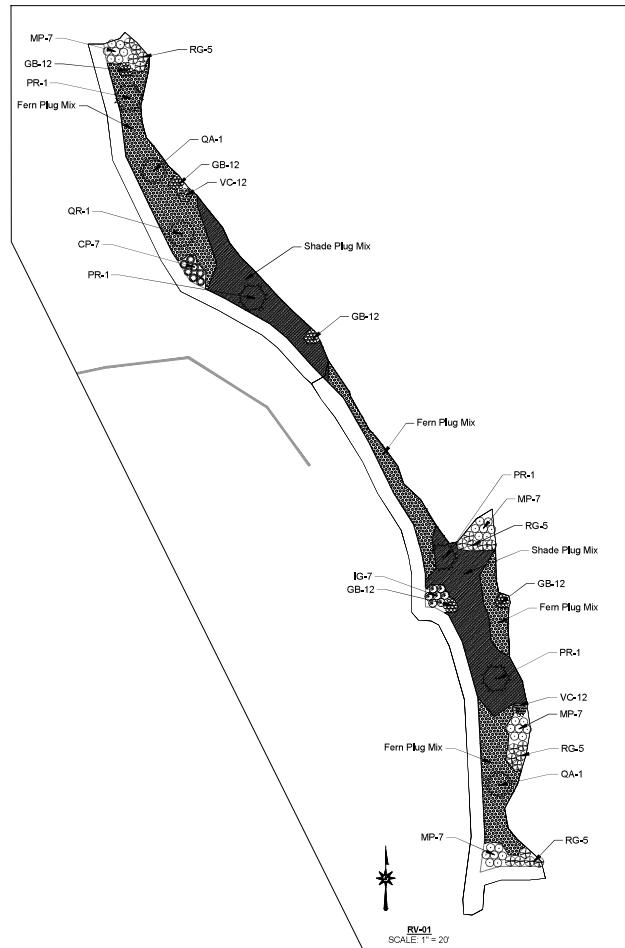


SCALE 1" = 200'

NOTE:
BOUNDARY AND EXISTING CLEARING LIMITS FROM
"SURVEY OF EXISTING CLEARING LIMITS" PREPARED
BY THE LOCAL BUREAU OF LAND MANAGEMENT, JULY 6, 2000.

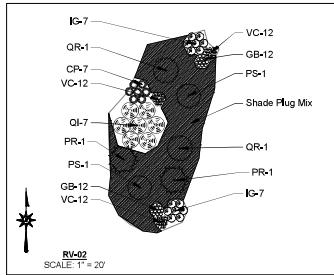


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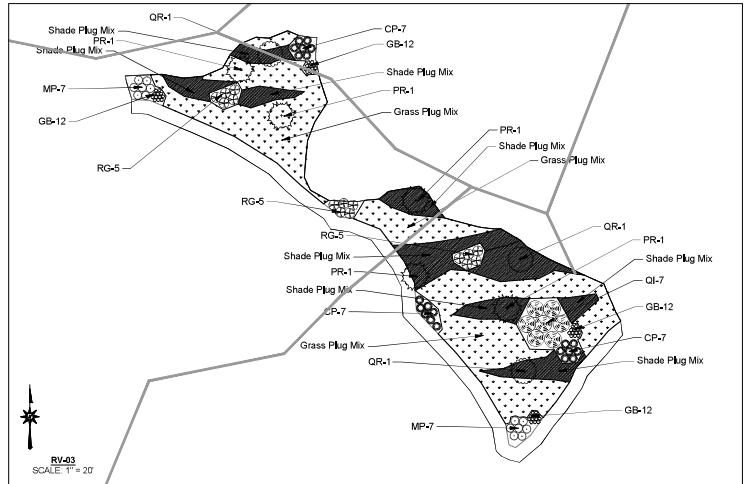


RV-01
SCALE: 1" = 2'

SCALE: 1" = 2'



SCALE: 1"



SCALE: 1'

APPENDIX A

AREA IS 5,346 SF

		PLANT LIST - GROWING SPOTS				
Type	Symbol	Qty	Botanical Name	Common Name	Size	Spacings
PERENNIAL		1,000	<i>Eurybia divaricata</i>	White Wood Aster	PLUG	19" x 12"
			<i>Bleeding heart</i>	Bleeding heart	PLUG	19" x 12"
			<i>Symphytum cordatum</i>	Blue Viper's bugloss	PLUG	19" x 12"
			<i>Agastache foeniculum</i>	Big Bluestem	PLUG	19" x 12"
			<i>Agastache speciosa</i>	Purple Longstock	PLUG	19" x 12"
ANNUAL		12	<i>Centranthus ruber</i>	Saxifrage	1 GAL	60" x 60"
		21	<i>Convolvulus sepium</i>	Bindweed	1 GAL	60" x 60"
		1	<i>Coreopsis tinctoria</i>	Coreopsis	1 GAL	20" x 20"
		1	<i>Coreopsis verticillata</i>	Whorled Coreopsis	1 GAL	20" x 20"
		10	<i>Phlox diffusa</i>	Winged Sweet	2 GAL	19" x 12"
		15	<i>Phlox diffusa</i>	Winged Sweet	2 GAL	19" x 12"
SHRUB		1	<i>Quercus rubra</i>	Red Oak	3 GAL	19" x 12"

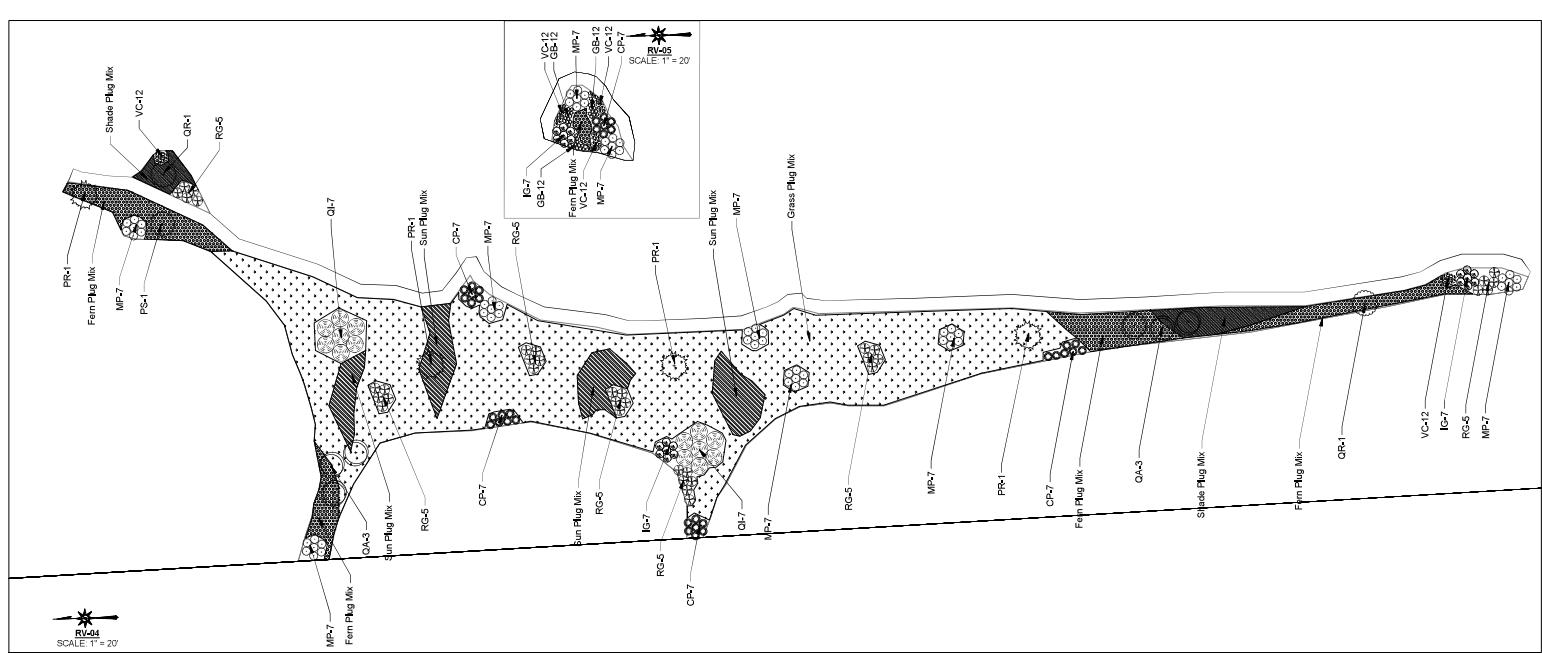
AREA IS 15,532 S



NOTE: BOUNDARY AND EXISTING CLEARING UNITS FROM "SURVEY OF EXISTING CLEARING UNITS" PREPARED BY ARKANSAS FOREST SERVICE, JULY 1970.



SITE PLAN



AREA 18 1 212 SE

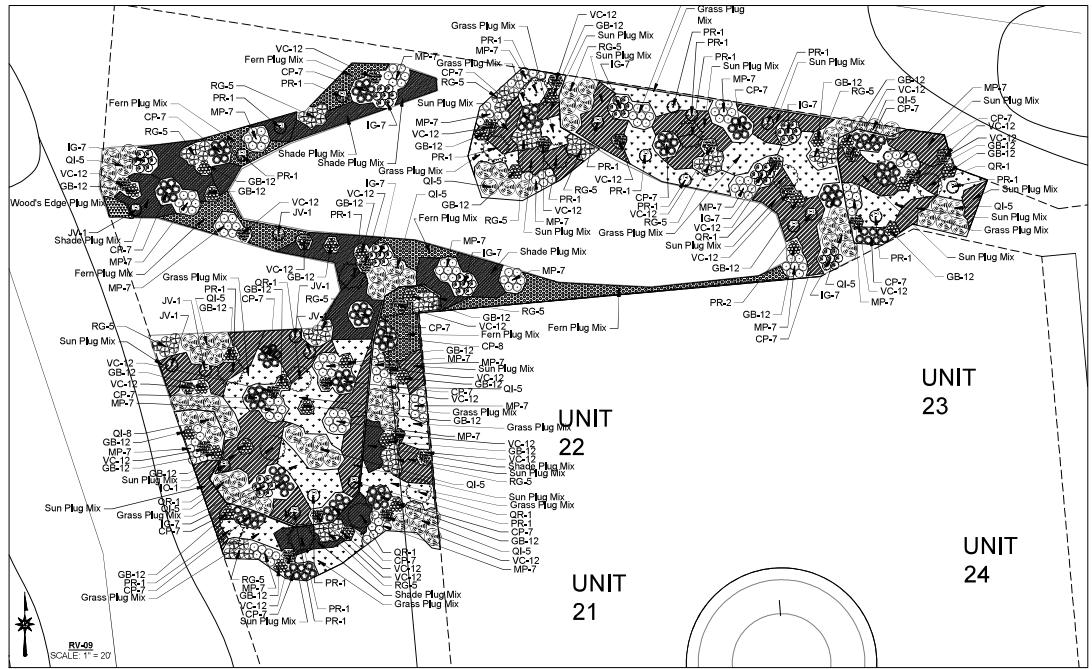
PLANT LIST - (RV-51)						
TYPE	SYM	QTY	BOTANICAL NAME	COMMON NAME	SIZE	SPACE
FBFBs		71	55% <i>Canex pensylvanica</i> 15% <i>Damalanthus punctulata</i> 25% <i>Thunbergia alata</i>	Pennsylvania Sedge Damalanthus Laceleaf Thunbergia	PLUG	16" O
FBFBs		7	25% <i>Clitoria ternatea</i>	Bluebell Pea	PLUG	16" O
CP		7	<i>Clitoria ternatea</i>	Bluebell Pea	3 G	16" O
IK		7	<i>Crinum asiaticum</i>	Crinum	3 G	16" O
IK		7	<i>Crinum asiaticum</i>	Crinum	3 G	16" O
MP		14	<i>Mossella canescens</i>	Bayberry	2 GAL	60" O
MP		14	<i>Mossella canescens</i>	Bayberry	2 GAL	60" O

Quercus rubra

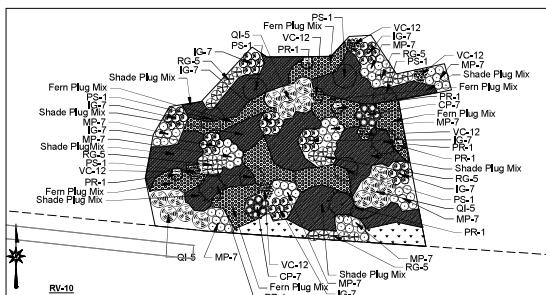
NOTE:

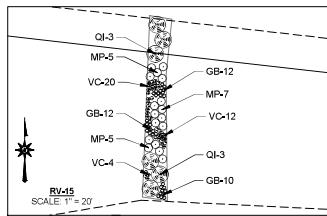
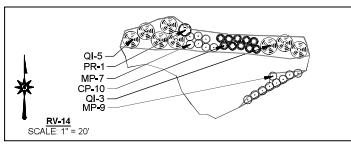
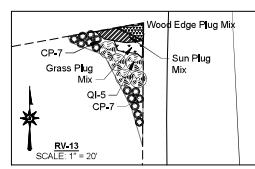
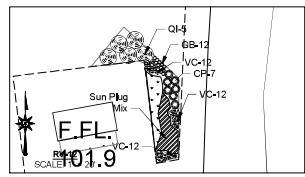
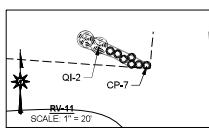


AREA IS 33,638 SF



AREA IS 15,518 SF





PLANT LIST (RV-11)						
TYPE	SYM	QTY	BOTANICAL NAME	COMMON NAME	SIZE	SPACING
CP	7	1	Comptonia peregrina	Sweetfern	1 GAL	6'x0'c
QI	2	2	Quercus ilex	Scrub oak	2 GAL	8'x0'c

AREA IS 263 SF

PLANT LIST (RV-11)						
TYPE	SYM	QTY	BOTANICAL NAME	COMMON NAME	SIZE	SPACING
SUN		118				
SHADE		106				
SHRUBS	QI	2	Comptonia peregrina	Sweetfern	1 GAL	6'x0'c
SHRUBS	QI	5	Quercus ilex	Scrub oak	2 GAL	8'x0'c
SHRUBS	QI	36	Myrsinaceae	Lowbush Blueberry	1 GAL	8'x0'c

AREA IS 1,343 SF

PLANT LIST (RV-11)						
TYPE	SYM	QTY	BOTANICAL NAME	COMMON NAME	SIZE	SPACING
SUN		32				
SHADE		56				
SHRUBS	QI	45	Comptonia peregrina	Sweetfern	1 GAL	6'x0'c
SHRUBS	QI	5	Quercus ilex	Scrub oak	2 GAL	8'x0'c
SHRUBS	QI	36	Myrsinaceae	Lowbush Blueberry	1 GAL	8'x0'c

AREA IS 1,119 SF

PLANT LIST (RV-14)						
TYPE	SYM	QTY	BOTANICAL NAME	COMMON NAME	SIZE	SPACING
CP	10	1	Comptonia peregrina	Sweetfern	1 GAL	6'x0'c
MP	18	1	Morella carolinensis	Berry	2 GAL	8'x0'c
QI	0	0	Quercus ilex	Scrub oak	2 GAL	8'x0'c
SHRUBS		1				

AREA IS 1,585 SF

PLANT LIST (RV-15)						
TYPE	SYM	QTY	BOTANICAL NAME	COMMON NAME	SIZE	SPACING
SUN	QI	14	Comptonia peregrina	Sweetfern	1 GAL	6'x0'c
SHADE	QI	5	Quercus ilex	Scrub oak	2 GAL	8'x0'c
SHRUBS	QI	36	Myrsinaceae	Lowbush Blueberry	1 GAL	8'x0'c

AREA IS 1,348 SF

PLANT LIST (RV-15)						
TYPE	SYM	QTY	BOTANICAL NAME	COMMON NAME	SIZE	SPACING
SUN	QI	14	Comptonia peregrina	Sweetfern	1 GAL	6'x0'c
SHADE	QI	5	Quercus ilex	Scrub oak	2 GAL	8'x0'c
SHRUBS	QI	36	Myrsinaceae	Lowbush Blueberry	1 GAL	8'x0'c

AREA IS 789 SF

AREA IS 11,684 SF

PLANT LIST (RV-16)						
TYPE	SYM	QTY	BOTANICAL NAME	COMMON NAME	SIZE	SPACING
SUN		138				
SHADE		125				
SHRUBS	QI	45	Comptonia peregrina	Sweetfern	1 GAL	6'x0'c
SHRUBS	QI	5	Quercus ilex	Scrub oak	2 GAL	8'x0'c
SHRUBS	QI	36	Myrsinaceae	Lowbush Blueberry	1 GAL	8'x0'c

