Nature's Wilderness Campground – Conditional Use Application
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1640

February 27, 2020

Mr. Wes Sunderland, CEO
Town of Baldwin
534 Pequawket Trail
West Baldwin, ME 04091

Updated Conditional Use Application: Nature's Wilderness Campground

On behalf of Mr. Scott Efron & Natures Wilderness, LLC, and per request of the Town of Baldwin Planning Board, we present the attached plans and materials in support of the Conditional Use Application for the Nature's Wilderness Campground. The Board requested that we consolidate all current materials into one comprehensive submission package to make it easier for review.

Existing Property

The development parcel is several hundred acres in size and is shown as lot #22 on the Town of Baldwin Tax Map #7. It is located within the Rural Zoning District (R). The property is traversed by several existing roads. The site will be accessed off the Marstons Road and contains Upper Twain Road & a portion of Deacon Road. There is a 21 acre man-made pond (Marston's Pond) located on the south side of Marstons Road that was created several decades ago with the installation of a dam in a stream channel. According to the Planning Board, the area around Marston's Pond has been recently rezoned as Resource Protection (RP). No new development is proposed within 250' of the pond. Only structures and features permitted prior to March 2018 will be located within the Resource Protection Area. Upper Twain Road leads to a second, 2 acre man-made pond (Upper Pond) that is approximately a half-mile north Marston's Pond. The property contained a house, several out buildings and an extensive system of trails prior to 2016.

Proposed Project

The applicant intends to open a campground on the property. The development will be contained within the portion that lies north of Marston's Road and just east of Deacon Road. This development area is approximately 150 acres of the 469 acre property. The applicant proposes to develop the site with a series of camp sites, a club house and a general store. There will be a mix of RV compatible sites, cabins & tent sites. The campground will offer a wide variety of amenities to outdoor enthusiasts including swimming, fishing, hiking & mountain biking and use of miles of existing ATV trails. Our plans feature a maximum of **172 camp sites**. This can further be loosely broken down into 103 large RV sites and 69 cabin/tenting/small RV sites. All remaining land shall remain undisturbed. Each of the campsites will have, at a minimum, one parking space, fire pit & picnic table.

The development will be constructed over the course of no less than three phases. The phases are shown on the attached phasing plan and break down as follows:

Phase 1: This phase includes 60 total sites including 19 RV sites and 41 cabin/tent sites. The sites labeled as cabin/tent are interchangeable from a permitting perspective. They both have a smaller footprint than one of the large RV sites. Some of the cabin/tent sites may also be used for small RVs. This phase will also include:

- Updates to the onsite stormwater pond
- Retrofits necessary to install the dry hydrant (fire truck connection).
- Swimming pool
- Improvements to the Marston's Road from the intersection of Senator Black Road to the campground.
- Signage improvements to Senator Black Road.

Phase 2: This phase includes 67 total sites including 39 RV sites and 28 cabin/tent sites. This phase will also include the club house, sewer dump stations and the stormwater upgrades to Marston's Pond.

Phase 3: This phase includes the three remaining dead end roads and the associated 45 RV sites. These dead end sections will be built one at a time and really represent three mini-phases that will be constructed when the applicant has the resources to construct them.

The applicant has already cleared much of the proposed development area. No new development is proposed within 250' of Marston's Pond or within 100' of the onsite stream due to the RP zone. Only structures and features that were permitted prior to the enacting of the RP Zone in March 2018 will be located within the Resource Protection Area.

Project Utilities

The majority of sites will be served by an electrical service that will be fed via underground electric lines. Group septic systems will be regionally located around the campground to service the sites. The large cabin sites are expected to have individual water and sewer connections, while the majority of the other sites will rely on regionally located bath houses and laundry houses. Three dump stations will be centrally located to service clients with holding tanks. Septic locations are shown on the plans. HHE-200 forms will be provided by the project site evaluator.

The State of Maine Department of Health and Human Services (Department) requires that all sites have access to water carried sewage facilities. The Department stipulates that all water carried sewage effluent shall be disposed of by means of: a public system; or an approved sewage disposal system which is constructed and operated in conformance with applicable state and local laws, ordinances and regulations. Non-water carried sewage disposal facilities include pit privies, vault privies, chemical toilets, and composting toilets are only allowed if specifically permitted through the Department. By the State definition, the entirety of the campground will be serviced with conveniently located (within 500' of all camp sites) water carried sewage facilities. The Department defines sites without access to water or sanitary buildings as a primitive site. We believe that the density requirements of the Town Zoning Ordinances (5,000 SF per site vs. 20,000 SF per site) differentiate sites that have access to water carried sewer facilities vs. those that are classified as primitive sites.

Required State Permits & Project Consultants

This project will require a MDEP Site Location of Development Permit prior to beginning the second phase of development. We've had several meetings with MDEP representatives and followed the latest meeting up with a scoping/pre-application meeting at the MDEP Portland Office in October 2018. The project will also need a NRPA Wetland Alteration Permit.

The project has been reduced in size and no longer will need a MDOT traffic movement permit since the peak hour trips are now less than 100. William Bray, P.E. of Traffic Solutions has prepared a traffic study. The applicant has previously agreed to upgrade Marston's Road to the Town Road Standards from the intersection with Senator Black Road to the campground entrance. The applicant will also improve the intersection of Marston's Road with Senator Black Road by providing larger entrance radii.

The overall property boundary information shown on the attached plans is based upon a boundary survey that was completed in 1996 and was recorded in the Cumberland County Registry of Deeds (previously submitted). The property lines near the development area for the campground have been defined by Survey, Inc. (previously submitted). Statewide Surveys, Inc. & Longview Partners, Inc combined to perform a wetland & stream delineation of the project area. Longview Partners performed a vernal pool assessment in the spring of 2018. A significant vernal pool was found on the backside of Marston's Pond that is located within the town Resource Protection District. Onsite topography of the developed area was provided by Statewide Surveys, Inc. Middle Branch Land Surveying provided an existing conditions plan of Marston's Road. The remaining topography was obtained from the State of Maine Office of GIS and is shown at a 2' contour interval.

The United States Army Corp of Engineers requested that a site investigation be undertaken to look for the presence of the Small Whorled Pagonia. This type of pagonia is a threatened species. Flycatcher LLC performed a site survey in July of 2019. A grouping of four individual plants were found on the site. A copy of their report is attached. The plants are located approximately 300' from the nearest proposed area of development. The Maine Natural Areas Program will review the plan to ensure that adequate buffering has been provided.

Terradyn Consultants, LLC will assist the applicant with the local, state and federal permitting process.

Campground Rules

The campground rules were previously provided but are included here for your convenience. The campground will publish a series of rules & safety guidelines that its users will agree to adhere to. It will also operate under Department rules and regulations: Specific rules are discussed below:

a. **Dates of Operation**: The campground will be open from May 1st through October 31st.

b. **Hours of Entry**: The campground will be controlled by a gated entrance 24-hours a day. Controlled access to and from the campground will be available 24-hours a day. The registration office will be open from 7 AM to 8 PM each day the campground is open. Campers and visitors will be provided instructions on gate

access procedures upon check-in. No new (un-registered) visitors will be allowed in after 8 PM.

c. **Reservations & Rates**: The applicant has previously provided a sample rate sheet. Reservations will open February 1st of each year. Seasonal sites will need to reserve the site for the following year prior to the expiration of their rental term. After such time, the site will be offered via standard reservation on a first come, first serve basis.

d. **Vehicular Access**: All campers will be given directions to the campground from both east & west of the campground access and will be directed to come down Senator Black Road via Marston's Road. It is expected that signage along Route 113 will be allowable by the Town and MDOT to direct traffic away from Brown Road.

e. **Emergency Preparedness**: Campground safety regulations are published by the American Camp Association (see www.acacamps.org for more information). The applicant is researching those guidelines, will review them with the Baldwin Fire Dept. and intends to enact them. Copies of the campground safety regulations will be provided once prepared. The Nature's Wilderness plan will –at a minimum- feature the following:

   i. Campfires will be put out prior to quiet/bed time.
   ii. Camp employees will be trained in emergency procedures including first aid and fire control procedures.
   iii. All RV, Glamping and cabin sites will have water connections.
   iv. The campground owns a functioning fire truck that will be available to respond to any fire related emergency.
   v. A dry hydrant will be installed in the primary stormwater pond along the Marston's Road frontage. The connection will allow all area pumper trucks to connect to a large volume of water. As designed the stormwater/fire pond will contain more than 1,000,000 gallons of water.

f. **Number of sites**: The park will not permit the placement of any R.V.'s or tents exceeding the number of sites approved by the Town of Baldwin & the State of Maine.

g. **Primitive Recreation**: All hiking, biking & equestrian use will be limited to the campground property and abutting surrounding lands, based upon written agreements between the campground and the landowner that may be created/amended from time to time. Mounted maps will be posted at various points throughout the trail system and in the club house. Maps will be updated to reflect current land agreement areas each year.

h. **ATV use**: The campground proposes to allow ATV use within the land owned by the applicant described as lot 22 on Town of Baldwin Tax Map 7. This land area contains existing trails and the campground expects to prepare additional trail

networks. The applicant is proposing to reserve the right to obtain permission from abutting land owners for trail maintenance and access in an effort to expand ATV use to established trail networks located in this part of the State. All trails, existing and proposed are to be mapped and property/use limits clearly posted on the trails. The campground will display a series of maps located at various points along the trail system and will publish trail maps for the renters. A trail map exhibit is attached to this submittal. Signs will be placed at the perimeter of the defined trail limits signifying that ATV traffic must remain trails that are specifically indicated on the maps. ATVs will be prohibited from traveling along Marston's Road except at specified crossing locations. The hours of operation of ATV's on the site will be limited to 7 AM to a half hour after sunset each day. The campground reserves the right to impose additional restrictions and/or revoke privileges on the ATV use/users.

i. **Right of entry and inspection**: The Town of Baldwin Code Enforcement Officer (CEO) and any duly designated officer or employee of the State of Maine Department of Health and Human Services (Department) shall have the right, without an administrative inspection warrant, to enter upon and into the premises of the campground at any reasonable time in order to determine the state of compliance with this the permit and any rules in force pursuant thereto.

j. **Register**: The proprietor shall keep and maintain or cause to be kept and maintained therein, a register of guests renting or occupying sites. The register may be a book or separate registration form or card. The register shall be signed by the person renting sites or by someone under their direction. The proprietor or their agent shall write opposite each name the number of sites assigned to and occupied by each guest, and the state and license number of any automobile then being used or operated by the registrant. The proprietor or their agent shall keep and preserve the record for 5 years showing the date of registration and duration of occupancy of each site. Said register shall be available to the CEO or any agent of the Department upon request.

k. **Water analysis**: A copy of the current water analysis shall be at the park and in view of the public. A water sample shall be taken, tested and shown to be satisfactory before the campground opens for the season.

l. **Dump Station:** Dump stations will be provided consisting of at least a four inch (10 cm.) sewer riser pipe, connected to the R.V. sewage disposal system, surrounded at the inlet by a 3 foot by 3 foot concrete apron sloped to the drain, provided with a suitable hinged cover and/or screw cap; and a water outlet to permit periodic wash down of adjacent areas. This water outlet shall be protected with an anti-siphon backflow preventer. A sign shall be posted stating that the water from this outlet is not for drinking purposes.

m. **Garbage & Rubbish Disposal**: Garbage collection points will be installed and maintained at a number of locations within the campground. Most garbage collection points will be dumpsters, while smaller receptacles may be installed as

well. Garbage and rubbish will be kept in durable insect proof containers that do not leak and do not absorb liquids. Plastic bags and wet-strength paper bags may be used to line these containers. All containers will be provided with tight-fitting lids. The campground will provide a sufficient number of containers to hold all of the garbage and rubbish which accumulates between periods of removal.

n. **Swimming Pool**: The campground will contain a large swimming pool. It will be constructed and operated in accordance with all state rules applicable to swimming pools.

o. **Park Amenities & Services Limited to Paying Guests**: The park amenities, services & activities will be available only to campers & guests. The park is not open for use by the general public. The campground intends to offer a variety of amenities, services & activities including:

   i. **Swimming**: Swimming lessons will be offered to guests and taught by a certified instructor.
   ii. **Archery**: an archery range may be established in a suitable location. If and when the range is open, a safety instructor will be on duty.
   iii. **Canoes & Kayaks**: Canoes and Kayaks will be provided for free to campers and invited guests.
   iv. **Live Music**

   Note: ATV's will not be rented to the campers.

p. **Multi-purpose Building:** The multi-purpose building will function as a community center, general store & restaurant. It will be open to campers and registered guests between the hours of 8 am to 9 pm.

   The campground intends to sell retail goods from the general store. No limitations on goods that are offered for sale are proposed under this application.

   The restaurant will offer prepared and made-to-order food items for sale to campers and registered guests. Menu items are expected to include breakfast, lunch and dinner items. The applicant reserves the right to change the menu items as they see fit.

   The building will also contain games, TV's and other indoor recreational activities.

q. **Primitive Sites Prohibited:** The Nature's Wilderness Campground will not contain any primitive sites.

Conditional Use Information
This information is offered in support of the conditional use application.

Section A: Basic Information

1: Applicant's Legal Name:

The applicant's name is Nature's Wilderness, LLC. – A Maine Corporation

2: Applicants Mailing Address:

Nature's Wilderness, LLC
c/o Mr. Scott Efron
2 Upper Twain Road
Baldwin, ME 04091

3: Applicant's Phone Number:

Mr. Gerry Brown, General Manager, is the primary contact for the project and can be reached at 207-409-7724. Mr. Scott Efron, owner, can be reached at 207-787-6012.

4: Owner of Record:

Nature's Wilderness, LLC is the legal owner of the property. Mr. Scott Efron is the president of Nature's Wilderness, LLC. (Previously submitted)

5: Right, Title or Interest:

Nature's Wilderness, LLC is the legal owner of the property per deed recorded in the Cumberland County Registry of Deeds in book 33066, page 317. (Previously submitted)

6: Property Owner's Name:

Nature's Wilderness, LLC is the legal owner of the property. Mr. Scott Efron is the president of Nature's Wilderness, LLC.

7: Owner of Record Address

Nature's Wilderness, LLC
17569 Middlebrook Way
Boca Raton, FL 33496

8: Location of Property:

The property is located at 2 Upper Twain Road.

9: Tax Map & Lot Number:

The development is a portion of the property shown as Lot 22 on Tax Map 7.

10: Zoning District:

The development is located in the Rural Zoning District. The area surrounding Marston's Pond is zoned Resource Protection.

11: Conditional Use:

The applicant seeks to permit a campground use for the property. The project will be constructed in no less than three separate construction phases, likely separated by at least one year between phases. We are asking for approval of the first phase outright and approval of the future phases upon outside agency approvals. We believe that the entirety of the proposed operation falls beneath the use of a campground. However, the following uses will be accessory to the campground and available only for registered campers and registered guests:

a. Primitive Recreation
b. Retail Business
c. Service Business
d. Community Building
e. Eating & Drinking Places
f. Neighborhood Store
g. ATV Trails

12: Required Items:

a. Location Map

A location map was previously submitted. A second location map is shown on the cover sheet of the attached plan set.

b. Written Description of the Proposed Use. (See introduction of this letter)

The applicant intends to open a campground on the property. He proposes to develop the area between and adjacent to both ponds with a series of camp sites, support buildings, a pool, recreation areas and a multipurpose building with general store and restaurant. There will be a mix of sites offering access for large RVs, small RVs & tents. Cabins will also be provided at several sites. The attached site plans feature 172 campsites in total and 60 in the first phase.

c. Drawings of Proposed Activity

A plan set is attached that shows the proposed development. They show the location of existing & proposed buildings, structures, driveways, parking areas, campsites, natural features, etc.

Section B: Standards for Conditional Use Permit:

1. **The Planning board shall consider impact of:**

1a: Size of the proposed use compared to surrounding uses:

The campground is located on a large piece of property and is fairly isolated from other development. The area of Map 7/Lot 22 that is located north of Marston's Road is approximately 300 acres. The proposed development area is generally located on the central portion of the propery, with typically several hundred feet between the development and abutting property lines. Many of the abutting properties are also owned by the applicant. There are single family homes that front on the portion of Marstons Road that lies between Senator Black Road & the development. The single family lots located along Marstons Road appear to be between 5-10 acres. Other than the lots along Marstons Road, the property is surrounded by other large, undeveloped properties. The Town of Baldwin ordinance requires that the area intended for placement of the recreational vehicle, tent, or shelter and utility and service buildings, shall be set back a minimum of 100 feet from the exterior lot lines of the camping area and 100 feet from the normal high-water elevation of any water body. The proposed campground meets these setback requirements, except for the existing Marston House and an associated shed that have been on the property since before the ordinance was created.

1b: Intensity of the proposed use, including amount and type of traffic to be generated, hours of operation, expanse of pavement, and similar measures of intensity of use, compared with surrounding uses:

The campground will offer a variety of rental durations including daily, weekly, monthly & seasonal. The applicant intends to provide the necessary amenities & activities to allow the campers to remain onsite for the duration of their stay. Arrivals & departures do not typically coincide with the traditional heavy traffic times of the weekday A.M. & P.M. peak hour. The campground will serve recreational vehicles of all sizes as well as cars and trucks with & without pull behind campers. The applicants anticipate that the peak season will be from late spring to early fall. The campground will be open from May 1st through October 31st of any given year. Campers will be told that the entry gates will be open between 7 am & 9 pm every day. An exit gate will be accessible 24-hours a day. A system for secure entry of registered campers before and after hours will be set up, to allow 24-hour entry as well.

The project will make use of the existing roads & trails to the maximum extent possible. Most of the access roads will be built over the existing trails. The area around the multipurpose building will feature a large parking & maneuvering area to allow large vehicles to move safely & easily through the site. This area will also be defined as a visitor parking area as well as overflow parking for campsites. The expanded access roads, new access roads, parking lots & proposed buildings will create over 5 acres of new impervious areas.

The applicant is planning to upgrade the portion of Marston's Road that lies between the intersection with Senator Black Road and Upper Twain Road. They have supplied the necessary bonding paperwork. (See attachment)

We have submitted a traffic study that shows that no MDOT permitting is necessary. Traffic counts will be conducted prior to the start of the second and third construction phases to ensure that the development will not exceed 100 peak hour trips. If it does, then an MDOT traffic movement permit will be required and the applicant will return to the planning board for discussion.

1c: The potential generation of noise, dust, odor, vibration, glare, smoke, litter and other nuisances:

The applicant is proposing to maintain a watering truck (or like machine) to maintain dust generation for the interior roadways as well as Marston Road both during construction and operation of the campground. Construction noise by controlling the hours of construction. Once completed, a campground is not a large generator of noise, dust, odor, vibration, glare, smoke or litter. Most of the campground development is located far from any exterior property line.

1d: Unusual physical characteristics of the site, including size of the lot, shape of the lot, topography, and soils, which may tend to aggravate adverse impacts upon surrounding properties:

The size of the wooded property, as well as the varied terrain of the area, will help to control the impact of the proposed use to the surrounding properties. Most of the development is located far from any existing development.

1e: The degree to which landscaping, fencing, and other design elements have been incorporated to mitigate adverse impacts on surrounding properties:

The site will be able to maintain large undisturbed swaths of forest between the development & exterior property boundaries. All lighting will feature full cutoff fixtures to avoid excessive glare. The existing conditions of the property surrounding Marston's Pond will be remain as is. Marston's Pond was recently added to the Town's Resource Protection Zone. No campsites are proposed on the south side of Marston's Road as part of this proposal.

2. <u>The Planning board shall consider facilities:</u>

2a: The ability of traffic to safely move into and out of the site at the proposed location:

The applicant proposes to upgrade the portion of the road that lies between Senator Black Road & their property to allow for easy passage along the entire corridor. They have already upgraded the portion of the road that is located over their property. Upper Twain Road and all internal access roads will provide access throughout the site. Most of the internal roads will be widened/constructed to support two direction traffic. Additionally, several pull-offs have been incorporated into the design as an added safety measure. The sites located upgradient to the existing portion of Upper Twain Road will support one way traffic. We have provided a large hammer-head turnaround behind the club house to allow large vehicles a convenient place to turn around.

Bill Bray, P.E. of Traffic Solutions, Inc. prepared a traffic study of the project and found that 172 sites would not require any MDOT permitting.

We have also provided a signage plan that will improve driver awareness on Senator Black Road

2b: the presence of facilities to assure the safety of pedestrians passing by or through the site:

The site will be pedestrian friendly. The pedestrians will be camp site users in and around their camp sites and people using the multipurpose building. The multipurpose building will feature an open entrance area with clear visibility for drivers, bicyclists and pedestrians, as this will be a common area for all campers to utilize throughout their stay. The building and pool area will be separately from vehicular traffic and will have walkways focused on the movement of a relatively large number of pedestrians at any one time. Speed limit signs and warning signs for drivers to yield to pedestrians will be posted periodically within the campground.

2c: The capacity of the street network to accommodate the proposed use:

The existing street network will be upgraded to accommodate the proposed use. The internal circulation will be constructed to a level that allows for easy maneuvering & access throughout the site. Emergency access and parking locations will be considered when designing interior roadway widths.

2d: The capacity of the storm drainage system to accommodate the proposed use:

The project will require a MDEP Site Location of Development Act Permit. A large portion of this application revolves around the transport & treatment of stormwater. We have performed sizing calculations for each culvert, swale, stormwater pond and erosion control measure to ensure that all components of the stormwater & erosion control system are properly sized to handle the 25 year/24 hour storm event. MDEP will review the drainage & erosion control design & calculations.

Water quality treatment for much of the previously developed area will be provided with a new treatment pond that will receive runoff from most of Upper Twain Road, the RV camping areas around Roads “A” & “B”, the multipurpose building and pool area, approximately half of the glamping area and a portion of Marston’s Road. The treatment pond will remove sediment from the runoff before it enters Marston’s Pond. The new area that is closest to Deacon Road will flow to a series of level spreader/forested buffer combinations. Marston’s Pond will be outfitted with an under-drained gravel bench at the outlet to provide cooling to water as it enters the stream below the dam. Water quantity control will be done by modifying the outlet to the dam. The updated stormwater narrative is attached.

2e: The ability of the town of provide necessary fire protection services to the site & development:

The improvements to Marston's Road will allow for safe and easy access to the site for emergency vehicles. We have proposed a fire pond with a dry hydrant near the entrance to the site. The existing ponds are too shallow to support a standard dry hydrant installation. They are also protected natural resources. The proposed stormwater/fire pond will offer more than one million gallons as currently designed. Additionally, the campground will have park rules limiting the use of camp fires and will operate a fire truck to assist with fire protection.

3. <u>The Planning board shall consider natural characteristics:</u>

The natural characteristics of the site, including topography, drainage, and relationship to ground and surface waters and flood plains, shall not be such that the proposed use when placed in the site will cause undue harm to the environment or to neighboring properties.

The project is located on a large property that is mostly wooded with variable terrain. Much of the campground use will utilize areas that have already been disturbed, therefore retaining the natural state of the property for the enjoyment of campers. Roadways and campsites will follow the existing terrain, as much as possible. This will result in a wide variety of elevations for site throughout the campground. Drainage will be maintained using the natural grades and introducing a pond that will fit in the with natural pond settings already on the site. The man-made outlet of Marston's Pond will be altered and maintained to control flood waters as well as improve the water temperature control before flows enter the downstream brook.

Additionally, a number of wells will supply drinking water to the campground. The wells will be located throughout the campground and are to be located a great distance from any abutting wells. All wells will be located at least 300' from the nearest septic system. Given the specifics of the proposed development, it is not expected that the use, when placed in the site, will cause undue harm to the environment or to neighboring properties.

<u>Section C: Shoreland Standards:</u>

This section may be applicable since a stream flows from the upper pond to & through Marston's Pond. Some of the existing & proposed development is to be located within 100-feet of that stream. Additionally, the area around Marston's Pond is zoned Resource Protection. There is no proposed development around the pond (south of Marston's Road).

a: Will not result in unreasonable damage to spawning grounds, Fish aquatic life, bird and other wildlife habitat:

The Maine Department of Environmental Protection & the Maine Department of Inland Fisheries & Wildlife will be reviewing the project for its impact to all fish & wildlife. The site is not considered to be a high value wading bird or waterfowl habitat. The stream below Marston's Pond is considered a cold-water fishery habitat. Therefore, our proposed

modifications to the downstream end of Marston's Pond have been designed to improve the water quality & temperature of the stream flow.

b: Will reasonably conserve shoreland vegetation:

The MDEP has established a 100-foot no disturbance buffer along the stream. A permit by rule will be submitted for all camp sites that are proposed within the buffer.

There will be no campsites adjacent to Marston's Pond. All areas surrounding Marston's pond – except the areas surrounding Marston's Road and the recreational areas already permitted – will be left in its natural state. Any previous disturbance has been revegetated per MDEP criteria.

c: Will reasonably conserve visual points of access to waters as viewed from public facilities:

The view of Marston's Pond is one of the highlights of the proposed design. It will be preserved. Access to Upper Pond will be improved and the view preserved.

d: Will conserve actual points of public access to waters:

Marstons Road & Upper Twain Road will be improved & will provide easy access throughout the site. Marston's Pond & Upper Pond are private and will not be open to the general public.

e: Will reasonably conserve natural beauty:

Much of the site will be preserved in its natural state. The applicant sees the properties natural beauty as the main attraction for this campground. It will be preserved & improved wherever possible.

f: Will reasonably avoid problems associated with floodplain development or use:

There is not a floodplain associated with the stream outside of the existing banks.

The following items are attached as required by the Conditional Use Application procedures & per Planning Board request:

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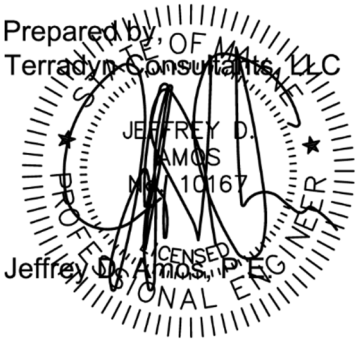
- Attachment 17: Signage Plan

Preliminary construction plans are included with this submittal.

We look forward to discussing this information with the Planning Board at an upcoming Planning Board Meeting. Thank you for your consideration, and please call me if you have any questions as you review the enclosed plans and information.

Prepared by,
Terradyn Consultants, LLC



Jeffrey D. Amos, P.E.

Attachment 1: Conditional Use Application

Town of Baldwin
534 Pequawket Trail
West Baldwin, Maine 04091
Phone: (207) 625-3581
Fax: (207) 625-7780

Date Application Received: _____
Received by: _____
Fee Paid: _____

APPLICATION FOR CONDITIONAL USE PERMIT (CUP)

The Land Use Ordinance of the Town of Baldwin allows the Planning Board to grant a Conditional Use Permit (CUP) for those uses listed specifically as Conditional Uses in Article 6, District Regulations of the code. Before granting a permit, the Board must find that the standards contained in Article 8, Conditional Uses have been met. It is your obligation to submit the necessary materials to allow the Planning Board to determine if those standards have been met. Three copies of the complete application and supporting materials and the applicable fee shall be submitted to the Code Enforcement Officer.

Section A. Basic Information (to be completed by all applicants)

1. Applicant's Legal Name: Nature's Wilderness, LLC

2. Applicant's Mailing Address: c/o Mr. Scott Efron, 2 Upper Twain Road
   Baldwin, ME 04091

3. Phone number where applicant can be reached during business hours. 207-787-6012

4. Are you the owner of record of the property for which the Conditional Use Permit is sought?
   x yes (provide copy of Title and go to question 8)
   _____ no (answer question 5, 6, and 7)

5. To apply for a Cond. Use Permit, you must have legal right, title or interest in the property. Please indicate you interest in the property and attach written evidence of this interest.

6. Property Owner's Name _____

7. Property Owner's Address _____

_____

_____

_____

8. Location of property for
Which the permit is sought? 2 Upper Twain Road

9. Indicate the Map and Lot number for the
Property from the Town's assessment records Map 7 Lot 22

10. Indicate Zoning District in which the
Property is located (check as many as apply)

x Natural Resource Protection
_____ Highlands
x Rural
_____ Village Commercial

11. List the use for which a Conditional Use Permit is being sought. Please refer to Article 6, District Regulations. The proposed use must be specifically listed as conditional use in the District in which it is located.

Primary Use: Campground. The following uses are accessory: Primitive Recreation, Retail Business, Service Business, Community Building, Eating & Drinking Place & Neighborhood Store

12. Attach the following information to this application as outlined in Article 8, Conditional Uses. For each item, please indicate by checking ☑ that item that it has been included with your application.

x a. A location map showing the location of the property with respect to Roadways and major natural features. This map should allow the Board to locate the parcel in the field and on the Town's zoning and tax maps.

__x__ b. A written description of the proposed use of the property. This statement shall describe the exact nature of the proposed use.

__x__ c. An accurate, scale drawing of the lot showing the location of any existing or proposed buildings, structures, and natural features, driveways and parking areas.

Section B. Standards for Conditional Use Permit
(The full text appears in Article 8.3).

1. The Planning Board shall consider impact:

__x__ a. the size of the proposed use compared with surrounding uses;

__x__ b. the intensity of the proposed use, including amount and type of traffic to be generated, hours of operation, expanse of pavement, and similar measures of intensity of use, compared with surrounding uses;

__x__ c. the potential generation of noise, dust, odor, vibration, glare, smoke, litter and other nuisances;

__x__ d. unusual physical characteristics of the site, including size of the lot, shape of the lot, topography, and soils, which may tend to aggravate adverse impacts upon surrounding properties.

__x__ e. the degree to which landscaping, fencing, and other design elements have been incorporated to mitigate adverse impacts on surrounding properties.

2. The Planning Board shall consider facilities:

__x__ a. the ability of traffic to safely move into and out of the site at the proposed location;

__x__ b. the presence of facilities to assure the safety of pedestrians passing by or through the site;

__x__ c. the capacity of the street network to accommodate the proposed use;

__x__ d. the capacity of the storm drainage system to accommodate the proposed use;

__x__ e. the ability of the Town to provide necessary fire protection services to the site and development.

3. The Planning Board shall consider natural characteristics:

__x__ The natural characteristics of the site, including topography, drainage, and relationship to ground and surface waters and flood plains, shall not be such that the proposed use when placed on the site will cause undue harm to the environment or to neighboring properties.

Section C. Shoreland Standards

Section to be completed only if any portion of the property is located within 250 feet of the normal high water mark of Ingalls Pond, Sand Pond, Southeast Pond, Adams Pond or the Saco River or within 75 feet of any stream. For each standard, attach a written statement demonstrating how the proposed use complies with that standard. For each item, please indicate by checking that item that it has been included with your application. Each standard must be addressed in your submission.

__x__ a. will not result in unreasonable damage to spawning grounds. Fish aquatic life, bird and other wildlife habitat;

__x__ b. will reasonably conserve shoreland vegetation;

__x__ c. will reasonably conserve visual points of access to waters as viewed from public facilities;

__x__ d. will conserve actual points of public access to waters;

__x__ e. will reasonably conserve natural beauty;

__x__ f. will reasonably avoid problems associated with floodplain development or use.

Section D. Certification (to be completed by all applicants)

I/we Scott Efron of Nature's Wilderness, LLC, certify that I/we are the legal applicants for the Conditional Use Permit requested by this application, that I/we are the owners of the property covered by this application or have the property owner's consent to the filing of this application and have legal interest in the property and that the information contained in this application and supporting material is accurate and true.

I/we further certify that I/we have read the standards for granting of Conditional Use Permits contained in the Land Use Ordinance.

Scott Efron 9/16/18

Signature of Applicant Date

Signature of Applicant Date

For Planning Board Use Only

Date Received by Baldwin Planning Board: _____

Received by: _____

Public Hearing Date: _____

Conditional Use Permit Application of: _____

Permit Denied (date): _____

Explanation of Denial: _____

Permit Approved (date): _____

Conditions to Permit if any, _____

Attachment 2: Property Deeds

DLN# 1001640007215

MAINE REAL ESTATE TAX-Paid

WARRANTY DEED

We, CAMP TWAIN, INC., a Maine Corporation, whose mailing address is 3 Bickford Street, Scarborough, Maine 04074, and MARY M. WAYE, now of 10 Bay Street, Scarborough, Maine 04074, for consideration paid, grant to NATURE'S WILDERNESS, LLC, a Florida Limited Liability Company with a mailing address of 17569 Middlebrook Way, Boca Raton, Florida 33496, with WARRANTY COVENANTS, the land in Baldwin, Cumberland County, Maine, more particularly described in EXHIBIT A attached hereto.

Being the same premises conveyed to Camp Twain, Inc. by Quitclaim Deed from Marianne G. Fenton, Cynthia J. Garner, Dana A. Garner, John W. Garner, Jr., and Suzanne G. Smith, dated December 28, 2001 and recorded in the Cumberland County Registry of Deeds in Book 17172, Page 120.

Also being the same premises conveyed to Mary M. Waye by deed from Sylvia B. Marston dated January 24, 1989 and recorded in the Cumberland County Registry of Deeds in Book 8638, Page 87.

WITNESS our hands and seals this 26 day of April, 2016.

CAMP TWAIN, INC.

Marianne G. Fenton

By: Marianne G. Fenton, President

Mary M. Waye

MARY M. WAYE

STATE OF MAINE
Cumberland, ss:

Date: 4/26/16

Personally appeared before me the above-named MARIANNE G. FENTON, duly authorized President of Camp Twain, Inc., and acknowledged the foregoing to be her free act and deed, individually and in her said capacity.

Jane L. Barriault

Notary Public/Attorney at Law

Please type or print name of Notary:

Jane L. Barriault
Attorney at Law

AGE

STATE OF MAINE
Cumberland, ss:

Date: 4/26/16

Personally appeared before me the above-named MARY M. WAYE and acknowledged the foregoing to be her free act and deed.

Jane L. Barriault
Notary Public/Attorney at Law

Please type or print name of Notary:

Jane L. Barriault
Attorney at Law

mmw
MEF

10 E

EXHIBIT A

Certain lots or parcels of real property located in Baldwin, County of Cumberland and State of Maine, together with all buildings and other improvements thereon, bounded and described as follows:

Parcel 1:

A certain lot or parcel of land situated in said Baldwin, bounded and described as follows: To the North by the town road leading from West Baldwin to East Baldwin by way of the so-called Flint neighborhood; to the East by land now or formerly of John F. Flint and land now or formerly of Foresti Sandborn; to the South by land now or formerly of Foresti Sandborn, land now or formerly of Jeremiah B. Yates, and land now or formerly of Sylvanus R. Yates; and to the West by land now or formerly of Sylvanus R. Yates. Known as the "meadow lot", so-called, formerly owned by the late Joseph Harding, Jr.

Parcel 2:

A certain lot or parcel of land in said Baldwin, bounded and described as follows: Commencing at a concrete post on the north side of the road leading from West Baldwin to East Baldwin, by way of the so-called Flint neighborhood, North 1° 10' East, 251 feet to a stone and iron axle, bounded on the East by land now or formerly of D. T. Flint; from the stone and iron axle, South 51° 33' West 673 feet to a concrete post, and South on the same line 810 feet to a stake, bounded on the Northwest by land now formerly of D. T. Flint. From the stake, North 71° 48' East 995 feet to a second stake, bounded on the South by land now or formerly of Wilson Burnell and Mary H. Burnell. Form the second stake, 400 feet North 30° 15' East to the concrete post at which measurement commenced, bounded on the East by land now or formerly of said Wilson Burnell and Mary H. Burnell.

Parcel 3:

A certain lot or parcel of land situated in said Baldwin and bounded and described as follows: To the West by the line running from the second stake referred to hereinabove in description of Parcel 2, North 30° 15' East to the concrete post at which measurement was commenced in said Parcel 2, being all of the land lying between said line and Parcel 1.

FMW MBF AGE

Parcel 4:

Also a certain lot or parcel of land situated in said Baldwin, now or formerly known as the Gore Lot, bounded and described as follows: To the North by land now or formerly of Scribner and Rankin; East by the land now or formerly known as the Binford Lot; South by land now or formerly of Wilson and Mary H. Burnell, and the now or formerly so-called Deacon's Fountain Road; west by land now or formerly of Walter Flint.

Subject to an easement granted to Dwight R. Mills, Incorporated, under deed dated November 7, 1979 recorded at Book 4524, Page 278 of said Deeds.

Parcel 5:

A certain lot or parcel of situated in said Baldwin and bounded and described as follows: On west by land now or formerly of Paul C. Marston and said John W. Garner; on the North by land now or formerly of the Paul C. Marston and said John W. Garner; on the East by the road leading to the now or formerly so-called "Jack Flint Place"; and on the South by the road leading from West Baldwin to the now or formerly so-called "Jack Flint Road".

Subject to the right reserved by Wilson Burnell and Mary H. Burnell to cut firewood on said lot, and a right of way to the Burnell family burial ground and around said ground to repair its fence as set forth in the deed at Book 1923, page 167 of said Deeds.

Parcel 6:

A certain lot or parcel of land situated in said Baldwin, bounded and described as follows: On the West by the road leading to the now or formerly so-called "Jack Flint place; on the North by land now or formerly of Paul C. Marston and said John W. Garner; on the East by land now or formerly of Paul C. Marston and said Garner; and on the South by the town road leading to East Baldwin;

Parcel 7:

A certain lot or parcel of land situated in said Baldwin, on the southerly side of the road leading from East Baldwin to West Baldwin, bounded and described as follows: Beginning on said road at a stone and hemlock tree at land now or formerly of S. W. Noyes, formerly known as Kennard's land; and South by land now or formerly of S. W. Noyes to an iron pipe driven in the ground at the land now or formerly of Harold H. Hawkes; West by land now or formerly of said Hawkes to a concrete post at land now or formerly of Wilson Burnell; North by land now or formerly of said Burnell to an iron pipe driven in the ground by said road to the point begun at.

MBF

Parcel 8:

A certain lot or parcel of land situated in said Baldwin, on the North side of the road leading from East Baldwin to West Baldwin, bounded and described as follows: Beginning on said road at the stone wall at the land now or formerly of Paul C. Marston and said John W. Garner, North by the stone wall and land now or formerly of Paul C. Marston and said Garner to a corner in said stone wall at the land now or formerly of Milliken; East by the stone wall with the land now or formerly of Milliken to the now or formerly so-called Milliken Road; Southeast by the now or formerly so-called Milliken Road to the first mentioned road; West by the first mentioned road to the point begun at.

Parcel 9:

A certain lot or parcel of land situated in said Baldwin, bounded and described as follows: Beginning at a point on the West side of the road leading across the now or formerly so-called "Jack Flint farm" at the Southeast corner of the portion of said farm which lies West of said road; North by said road to a stone wall; West by said stone wall by a line extended from said wall across a brook to the east line of an old farm road; South by the east side of said old farm road and by its East line extended from the point where it makes a substantial turn to the South line of said farm; East by the south line of said farm to the point beginning.

Excepting and reserving to Delmont R. Hawkes, his heirs and assigns, a right of way on foot and with vehicles, from the road first mentioned across said parcel to land belonging to said Hawkes adjoining said parcel on the West, said right of way to coincide as nearly as may be with the old farm road above referenced to.

Parcel 10:

A certain lot or parcel of land situated in said Baldwin, adjoining Parcel 9 on the North, bounded and described as follows: Beginning at a point on the North line of said Parcel 9, 300 feet East from the brook aforementioned; West along said North line a distance of 600 feet and from these two points extending to the north, embracing a tract 300 feet in width on either side of said brook to the North line of land now or formerly of Loren B. Burnell.

Excepting and reserving to Delmont R. Hawkes, his heirs and assigns, the right of way to cross said parcel on foot or with vehicles, at any convenient point or points for the purposes of accessing to the land of said Hawkes lying west of said parcel, but not to the injury of any erection or structure thereon.

MAF
FMW

Parcel 11:

A certain lot or parcel of land situated in said Baldwin, bounded and described as follows: Northeast by the Town Road leading from West to East Baldwin through the now or formerly so-called "Flint neighborhood"; Southeast by land now or formerly of Paul C. Marston and said John W. Garner and by Pigeon Brook; Southwest by land now or formerly of Wilson and Mary H. Burnell and land now or formerly of Henry W. and Nellie M. Black; Northwest by land now or formerly of Paul C. Marston and said Garner, and by land now or formerly of the heirs of Arthur P. Yates;

Parcel 12:

Also a certain lot or parcel of land situated in said Baldwin, bounded and described as follows: South by the land now or formerly of the heirs of Henry H. Pierce; Southeast by Pigeon Brook; Southwest by land now or formerly of Henry W. and Nellie M. Black; North by the parcel described hereinabove as Parcel 11.

Parcel 13:

A certain lot or parcel of land situated in Baldwin, bounded and described as follows: Measuring from the center of the Central Maine Power tower, 28 feet to a line running parallel to the center of the line of said tower, this line being the south boundary; bounded Northwest by land now or formerly of Donald T. Flint; Southeast by the land now or formerly of the heirs of Arthur P. Yates; East by the land now or formerly of Paul C. Marston and said John W. Garner.

Parcel 14:

A certain lot or parcel of land situated in said Baldwin on the Southwest side of a pond now or formerly called Burnell's Pond, bounded and described as follows: Beginning in the Northwest side line of land now or formerly of Ralph Yates and Lillie E. Hefler, Southwest from said Pond, at a spotted hemlock tree situated Northeast of a large double white pine tree, and running in a straight line South 55° 45' East to the Southeast side line land now or formerly of said Yates and Hefler, at a spotted beach tree on land now or formerly of Paul C. Marston, said spotted beach tree being located approximately ten feet East of a large white pine tree; Northeast along the division line between land now or formerly of said Yates and Hefler, and land now or formerly of Paul C. Marston to said pond; West or Northwest along the shore of said pond to the division line between land now or formerly of said Yates and Hefler and other land of Paul C. Marston; Southwest along said last named division line to the point of beginning;

Parcel 15:

A certain lot or parcel of land situated in said Baldwin, on the easterly side of the now or formerly so-called Deacon Road, leading from Route No. 113 past the "Jack Flint place," and bounded and described as follows: Beginning on said Deacon Road at a point in the above described Parcel 4, said point of beginning marked by a pipe set in the ground; North by said Deacon Road and land of Paul C. Marston past the cellar of the dwelling formerly of the late Jack Flint a distance of 677 feet, more or less, to the first stone wall on land formerly of Delmont R. Hawkes, now or formerly Dwight R. Mills, Incorporated; East by the stone wall at land formerly of said Hawkes, now or formerly of Dwight R. Mills, Incorporated, a distance of 690 feet, more or less, to an intersection with a stone wall running southerly at other land now or formerly of Dwight R. Mills, Incorporated; South by said stone wall and land now or formerly of Dwight R. Mills, Incorporated, formerly of said Hawkes, a distance of 1070 feet, more or less, to a stone wall on land of the Decedent; West by said stone wall and land of Paul C. Marston a distance of 300 feet, more or less, to the point of beginning;

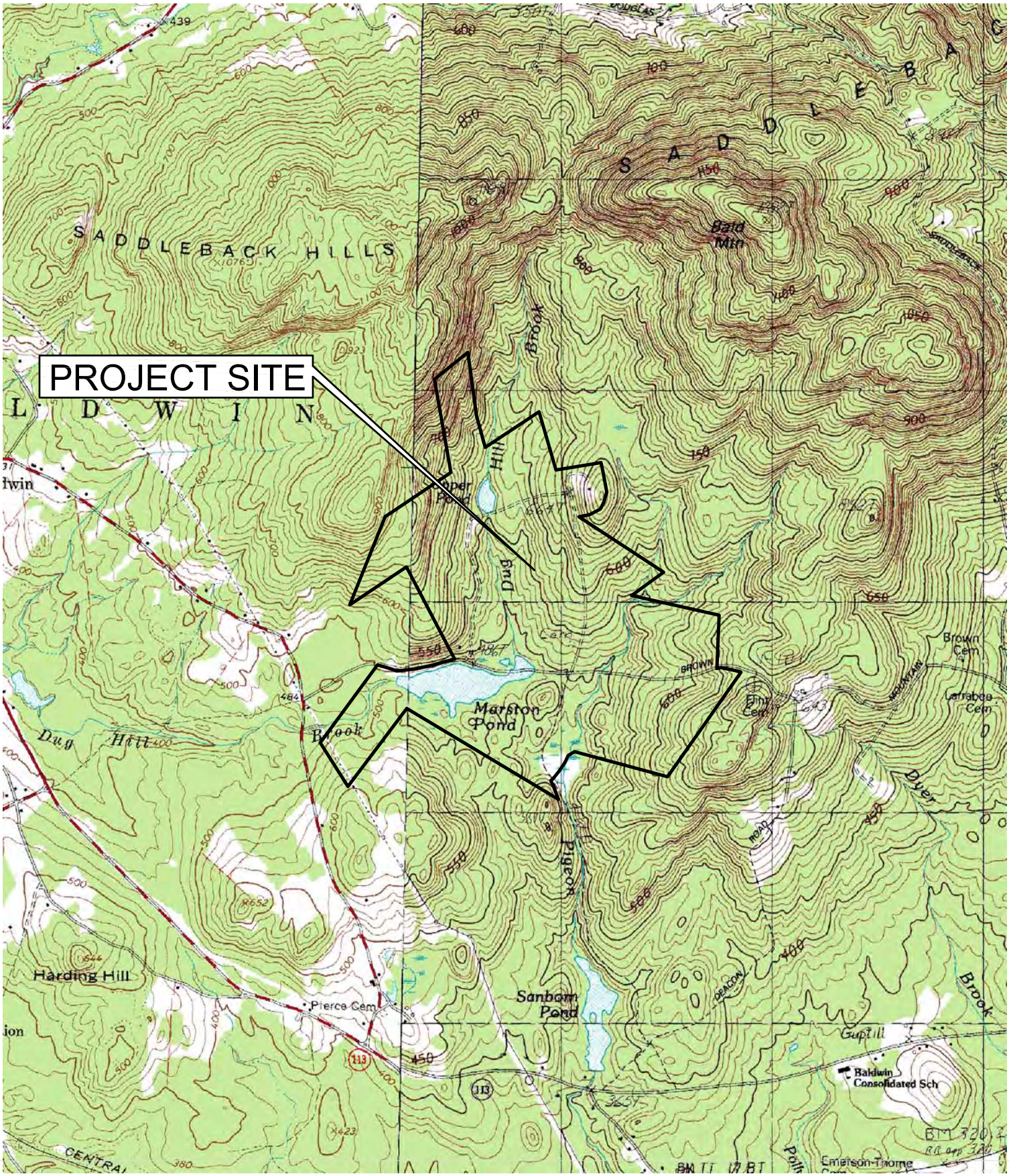
Parcel 16:

A certain lot or parcel of land situated in said Baldwin, lying South and East of the two lines hereinafter described: The first line begins on the West side of the Deacon Road at the second stone wall which is 1000 feet North from Parcel 4 hereinabove described, opposite the iron pipe being the point of beginning for Parcel 15 hereinabove described, said line running West a distance of 1200 feet, more or less, to a brook and continuing the same course across the brook 900 feet, more or less, to the East line of an old farm road marked by a line of iron posts. The second line begins at the West end of the first line of the East side of said farm road and runs South by said road and the line of iron posts a distance of 650 feet, more or less, to a point where the farm road turns at the East, and then continues on the extension of said farm road South an additional distance of 530 feet, more or less, to Parcel 4 hereinabove described.

Reference may be made to "Boundary Survey for Mary M. Waye and Pauline Garner, Baldwin, Maine" dated 12/28/1995, scale 1"=300', prepared by Lester Hammond, Jr. and duly recorded in Plan Book 196, Page 84 in the Cumberland County Registry, which shows most of the above described premises.

MBF
mmw ACE

Attachment 3: Location Map



SHEET DESCRIPTION U.S.G.S. QUADRANGLE MAP NATURES WILDERNESS	TERRADYN CONSULTANTS, LLC P.O. Box 339 111 Elderberry Lane New Gloucester, ME 04260 Office: (207) 926-5111 Fax: (207) 221-1317 www.terradynconsultants.com Civil Engineering - Land Planning - Stormwater Design - Environmental Permitting	JOB NO. 1640 DATE 9/28/2017 SCALE 1"=2000'	FIGURE 1 OF 1
PREPARED FOR MR. SCOTT EFRON 2 UPPER TWAIN ROAD BALDWIN ME 04091			

Attachment 4: Stormwater Management Report

Revised 10/22/2019

STORMWATER MANAGEMENT PLAN

Nature's Wilderness Campground
Baldwin, Maine

The following stormwater management plan has been prepared for the Nature's Wilderness Campground project to evaluate stormwater runoff and erosion control. The project consists of 300 mixed use campsites, multiple proposed gravel roadways, and typical campground amenities.

Site Calculations

Total Property Area	Approximately 300 Ac
New Impervious Area	12.22 Ac (532,358 SF)
New Developed Area	20.96 Ac (913,053 SF)

Assumptions

RV/Cabin Site Impervious Area	600 SF
RV/Cabin Site Landscaped Area	400 SF
RV/Cabin Site Developed Area	1,000 SF
Tent Site Impervious Area	200 SF
Tent Site Landscaped Area	400 SF
Tent Site Total Developed Area	600 SF

Existing Conditions

The development parcel is located on the easterly side of Route 113 in Baldwin, approximately 6 miles to the west of Sebago Lake. The property is approximately 300 acres and is accessed by Marston Road. The site is bounded to the west by large residential lots along Senator Black Road, while undeveloped properties are adjacent to the north, east and south. The property is mostly wooded and undeveloped.

The development area is located within the Marston Pond watershed. Marston Pond then outlets to Dug Hill Brook, which ultimately terminates in the Saco River. None of these watersheds are listed as a protected watershed by the MDEP.

The project area features topography that contains significant hills and steep banks surrounding the water bodies on the site. Dug Hill Brook is located in the valley. The site generally falls from elevation 1032 feet to the west, and 714 feet to the east, to an elevation of 496 at the surface of Marston Pond. This results in an average grade of approximately 6% to the east of Dug hill Brook, and 18% to the west. The central portion development area has flatter slopes and low areas that contain wetland areas, Upper Pond and a stream channel that is the major inlet of Marston Pond.

Proposed Development

The applicant intends to open a campground on the property. He proposes to develop the area with a series of camp sites, a club house and a general store. There will be a mix of RV compatible sites, cabins, drive up tent sites & walk in tent sites. The campground will offer a wide variety of amenities to outdoor enthusiasts including swimming, fishing, hiking & mountain biking and use of miles of existing ATV trails. Our plans feature 300 camp sites. Each of the campsites will have one parking space, fire pit & picnic table. Underground electric will be provided to the majority of the camp sites. Septic systems will be located around the campground to service the sites. Cabins will have individual water and sewer connections, while the majority of the other sites will rely on regionally located bathroom facilities.

Modeling Assumptions

The onsite stormwater facilities were sized utilizing the USDA Soil Conservation Service (SCS) TR-20 Runoff Simulation Model, as contained in the HydroCAD computer software program (Version 9.0). Runoff curve numbers were determined for each direct watershed by measuring the area of each hydrologic soil group within each type of land cover. Weighted curve numbers were then calculated using curve numbers for various cover types and hydrologic soil groups, assuming "good" conditions as defined in U.S Soil Conservation Service (SCS) publications. Times of concentration and travel times were determined from site topographic maps in accordance with SCS procedures. A maximum length of 150 feet was used for sheet flow.

All of the watersheds' peak runoff rates were analyzed for the 2, 10, and 25-year frequency, 24-hour duration storm events. A Type III rainfall distribution was applied to these storms. The rainfall amounts for Cumberland County are as follows:

Storm Frequency Precipitation (in./24 hr)	
2-year	3.0
10-year	4.3
25-year	5.4

Onsite Soils

The soils were delineated from Cumberland County medium intensity soil survey as shown on the Soil Data Viewer on the NRCS website (See attached map). The soil survey reports the watershed

soils as generally hydrologic group A, C, and D soils. All wetlands have been modeled as hydrologic group D soils.

Water Quantity (Flooding Standard)

Adjustments are proposed to the dam on Marston Pond to ensure that post-development flow rates for the 2, 10, and 25-year/24-hour design storm events will not exceed the pre-development flow conditions.

The following table summarizes the pre and post-development peak stormwater runoff rates for the 25-yr design storm event at the project site.

Table 1 - Stormwater Runoff Summary Table
Pre-Development vs. Post-Development

Study Point #	2-Yr/24Hr (cfs)	
	Pre	Post
1	229.0	215.0
2	341.8	341.8

As shown in the above table, the post-development peak flow rates for the 25-year/24-hour design storm do not exceed the pre-development flow rates.

Water Quality (BMP Standard)

The water quality requirements will be met by a series of forested buffers & the construction of a wet pond.

New Impervious Area: The project will result in the creation of approximately 532358 SF of impervious area in the form of gravel roadways, campsite parking, gravel RV pads, and building roofs. The combination of forested buffers will result in the treatment of approximately 521867 SF of impervious area resulting in a treatment percentage of (521867/532358) x 100%= 98.03%.

Percentage of Treatment of the Impervious Area =98.03% (95% required)

Project Developed Area: The project will result in the creation of approximately 913054 SF of developed area. The combination of forested buffers will result in the treatment of approximately 872234 SF of the developed area resulting in a treatment percentage of (616,179/669,979) x 100%= 95.5%

Percentage of Treatment of the Developed Area = 95.5% (80% required)

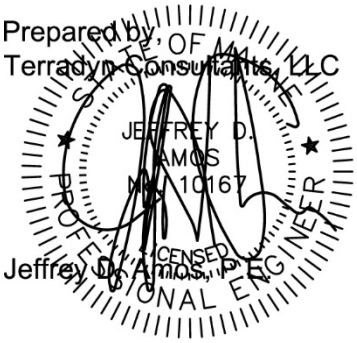
Forested Buffer with Level Lip Spreader Sizing

Level Spreader Sizing Calculations are attached.

Summary

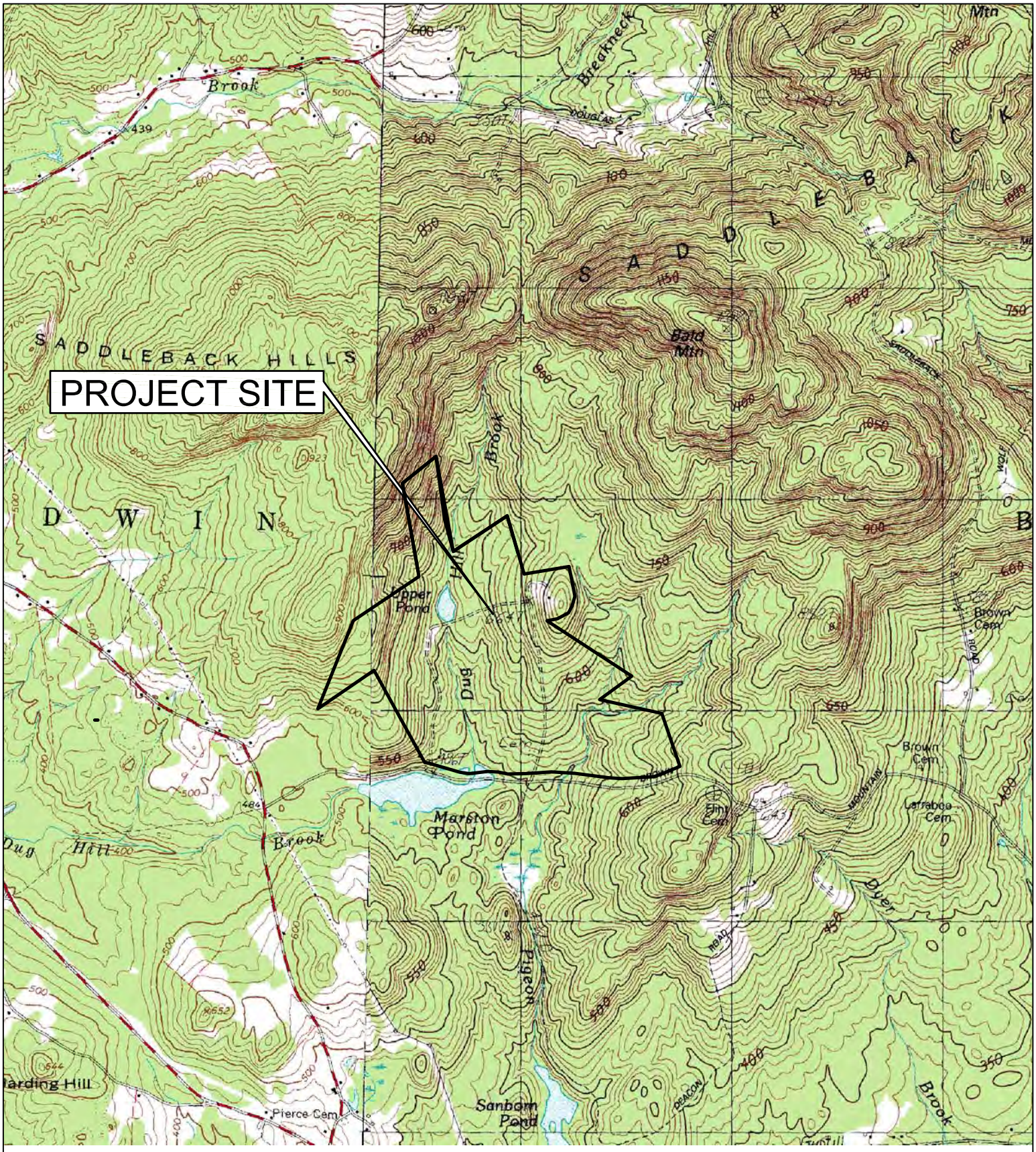
Based on the results of this evaluation, the proposed stormwater design is not expected to cause flooding, erosion or other significant adverse effects downstream of the site.

Prepared by,
Terradyn Consultants, LLC



Jeffrey D. Amos, PE

Attached:
U.S.G.S. Quadrangle Map
NRCS Medium Intensity Soil Survey
Water Quality Calculations
Level Spreader Sizing



SHEET DESCRIPTION U.S.G.S. QUADRANGLE MAP NATURES WILDERNESS	TERRADYN CONSULTANTS, LLC P.O. Box 339 111 Elderberry Lane New Gloucester, ME 04260 Office: (207) 926-5111 Fax: (207) 221-1317 www.terradynconsultants.com Civil Engineering - Land Planning - Stormwater Design - Environmental Permitting	JOB NO. 1640 DATE 10/3/2019 SCALE 1"=2000'	FIGURE 1 OF 1
PREPARED FOR MR. SCOTT EFRON 2 UPPER TWAIN ROAD BALDWIN ME 04091			

Hydrologic Soil Group—Cumberland County and Part of Oxford County, Maine

MAP LEGEND

Area of Interest (AOI)

Area of Interest (AOI)

Soils

Soil Rating Polygons

A

A/D

B

B/D

C

C/D

D

Not rated or not available

Soil Rating Lines

A

A/D

B

B/D

C

C/D

D

Not rated or not available

Soil Rating Points

A

A/D

B

B/D

C

C/D

D

Not rated or not available

Water Features

Streams and Canals

Transportation

Rails

Interstate Highways

US Routes

Major Roads

Local Roads

Background

Aerial Photography

MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:24,000.

Please rely on the bar scale on each map sheet for map measurements.

Source of Map: Natural Resources Conservation Service
Web Soil Survey URL:
Coordinate System: Web Mercator (EPSG:3857)

Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts distance and area. A projection that preserves area, such as the Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required.

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: Cumberland County and Part of Oxford County, Maine
Survey Area Data: Version 13, Sep 11, 2017

Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.

Date(s) aerial images were photographed: Apr 29, 2012—Jun 26, 2016

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

Hydrologic Soil Group

Map unit symbol	Map unit name	Rating	Acres in AOI	Percent of AOI
HgB	Hermon sandy loam, 3 to 8 percent slopes	A	14.7	0.9%
HgC	Hermon sandy loam, 8 to 15 percent slopes	A	20.4	1.3%
HgD	Hermon sandy loam, 15 to 25 percent slopes	A	52.9	3.3%
HhB	Hermon sandy loam, 0 to 8 percent slopes, very stony	A	0.0	0.0%
HhC	Hermon sandy loam, 8 to 15 percent slopes, very stony	A	242.0	15.0%
HhD	Hermon sandy loam, 15 to 35 percent slopes, very stony	A	261.3	16.2%
HkE	Hermon sandy loam, 20 to 60 percent slopes, extremely stony	A	1.7	0.1%
HrB	Lyman-Tunbridge complex, 0 to 8 percent slopes, rocky	D	0.0	0.0%
HrC	Lyman-Tunbridge complex, 8 to 15 percent slopes, rocky	D	74.4	4.6%
HrD	Lyman-Tunbridge complex, 15 to 35 percent slopes, rocky	D	4.2	0.3%
HsC	Lyman-Abram complex, 8 to 15 percent slopes, very rocky	D	71.2	4.4%
HsE	Lyman-Abram complex, 15 to 35 percent slopes, very rocky	D	130.4	8.1%
PbC	Paxton fine sandy loam, 8 to 15 percent slopes	C	82.9	5.1%
PfC	Paxton very stony fine sandy loam, 8 to 15 percent slopes	C	104.4	6.5%
PfD	Paxton very stony fine sandy loam, 15 to 25 percent slopes	C	119.2	7.4%
PkB	Peru fine sandy loam, 3 to 8 percent slopes	C/D	49.4	3.1%
PlB	Peru fine sandy loam, 0 to 8 percent slopes, very stony	C/D	105.3	6.5%

Map unit symbol	Map unit name	Rating	Acres in AOI	Percent of AOI
PIC	Peru fine sandy loam, 8 to 15 percent slopes, very stony	C/D	26.5	1.6%
RbA	Ridgebury fine sandy loam, 0 to 3 percent slopes	C/D	2.5	0.2%
RgA	Ridgebury very stony fine sandy loam, 0 to 3 percent slopes	C/D	5.9	0.4%
Sp	Sebago mucky peat	A/D	52.1	3.2%
W	Water		19.9	1.2%
Wa	Walpole fine sandy loam	A/D	0.3	0.0%
WrB	Woodbridge fine sandy loam, 0 to 8 percent slopes	C	23.5	1.5%
WrC	Woodbridge fine sandy loam, 8 to 15 percent slopes	C	37.5	2.3%
WsB	Woodbridge very stony fine sandy loam, 0 to 8 percent slopes	C	30.8	1.9%
WsC	Woodbridge very stony fine sandy loam, 8 to 15 percent slopes	C	78.2	4.9%
Totals for Area of Interest			**1,611.5**	**100.0%**

Description

Hydrologic soil groups are based on estimates of runoff potential. Soils are assigned to one of four groups according to the rate of water infiltration when the soils are not protected by vegetation, are thoroughly wet, and receive precipitation from long-duration storms.

The soils in the United States are assigned to four groups (A, B, C, and D) and three dual classes (A/D, B/D, and C/D). The groups are defined as follows:

Group A. Soils having a high infiltration rate (low runoff potential) when thoroughly wet. These consist mainly of deep, well drained to excessively drained sands or gravelly sands. These soils have a high rate of water transmission.

Group B. Soils having a moderate infiltration rate when thoroughly wet. These consist chiefly of moderately deep or deep, moderately well drained or well drained soils that have moderately fine texture to moderately coarse texture. These soils have a moderate rate of water transmission.

Group C. Soils having a slow infiltration rate when thoroughly wet. These consist chiefly of soils having a layer that impedes the downward movement of water or soils of moderately fine texture or fine texture. These soils have a slow rate of water transmission.

Group D. Soils having a very slow infiltration rate (high runoff potential) when thoroughly wet. These consist chiefly of clays that have a high shrink-swell potential, soils that have a high water table, soils that have a claypan or clay layer at or near the surface, and soils that are shallow over nearly impervious material. These soils have a very slow rate of water transmission.

If a soil is assigned to a dual hydrologic group (A/D, B/D, or C/D), the first letter is for drained areas and the second is for undrained areas. Only the soils that in their natural condition are in group D are assigned to dual classes.

Rating Options

Aggregation Method: Dominant Condition

Component Percent Cutoff: None Specified

Tie-break Rule: Higher

BMP SIZING WORKSHEET
1640 - NATURES WILDERNESS CAMPGROUND

Level Spreader Sizing Calculations:

LS-D1				Slope: 9-15%
Impervious Area	SF			Length: 100'
Road Impervious Area		3715.11		
RV Site Impervious Area		1800		
Pullout Impervious Area		650		
Bathroom impervious Area		0		
	SUM	6165.11		
	Area (Ac)	0.142		
Landscaped Area	SF			
Road Landscaped Area		2063.95		
RV Landscaped Area		800		
	SUM	2863.95		
	Area (Ac)	0.066		
Standard Sizing (FT/Ac)		Impervious	Landscaped	
		120	36	
Berm Length		19.35	30'	

LS-D2				Slope: 9-15%
Impervious Area	SF			Length: 100'
Road Impervious Area		4198.05		
RV Site Impervious Area		3000		
Pullout Impervious Area		650		
Bathroom impervious Area		600		
	SUM	8448.05		
	Area (Ac)	0.194		
Landscaped Area	SF			
Road Landscaped Area		4664.5		
RV Landscaped Area		2000		
	SUM	6664.5		
	Area (Ac)	0.153		
Standard Sizing (FT/Ac)		Impervious	Landscaped	
		120	36	
Berm Length		28.78	40'	

LS-D3				Slope: 9-15%
Impervious Area	SF			Length: 100'
Road Impervious Area		2250		
RV Site Impervious Area		1800		
Pullout Impervious Area		0		
Bathroom impervious Area		0		
	SUM	4050		
	Area (Ac)	0.093		
Landscaped Area	SF			
Road Landscaped Area		1250		
RV Landscaped Area		1200		
	SUM	2450		
	Area (Ac)	0.056		
Standard Sizing (FT/Ac)		Impervious	Landscaped	
		120	36	
Berm Length		13.18	20'	

LS-D4				Slope: 9-15%
Impervious Area	SF			Length: 150'
Road Impervious Area		4848.57		
RV Site Impervious Area		3000		
Pullout Impervious Area		0		
Bathroom impervious Area		600		
	SUM	8448.57		
	Area (Ac)	0.194		
Landscaped Area	SF			
Road Landscaped Area		2693.65		
RV Landscaped Area		2800		
	SUM	5493.65		
	Area (Ac)	0.126		
Standard Sizing (FT/Ac)		Impervious	Landscaped	
		90	30	
Berm Length		21.24	30'	

LS-D5			Slope: 9-15%
Impervious Area	SF		Length: 75'
Road Impervious Area		3150	
RV Site Impervious Area		1800	
Pullout Impervious Area		650	
Bathroom impervious Area		0	

	SUM	5600		
	Area (Ac)	0.129		
Landscaped Area	SF			
Road Landscaped Area		1750		
RV Landscaped Area		800		
	SUM	2550		
	Area (Ac)	0.059		
Standard Sizing (FT/Ac)		Impervious	Landscaped	
		150	42	
Berm Length		21.74	30'	

LS-D6				Slope: 9%-15%
Impervious Area	SF			Length: 75'
Road Impervious Area		1215		
RV Site Impervious Area		1800		
Pullout Impervious Area		0		
Bathroom impervious Area		0		
	SUM	3015		
	Area (Ac)	0.069		
Landscaped Area	SF			
Road Landscaped Area		675		
RV Landscaped Area		1200		
	SUM	1875		
	Area (Ac)	0.043		
Standard Sizing (FT/Ac)		Impervious	Landscaped	
		150	42	
Berm Length		12.19	20'	

LS-D7				Slope: 9%-15%
Impervious Area	SF			Length: 100'
Road Impervious Area		3870		
RV Site Impervious Area		3600		
Pullout Impervious Area		650		
Bathroom impervious Area		0		
	SUM	8120		
	Area (Ac)	0.186		
Landscaped Area	SF			
Road Landscaped Area		2150		
RV Landscaped Area		2400		

	SUM	4550	
	Area (Ac)	0.104	
Standard Sizing (FT/Ac)	Impervious	Landscaped	
	120	36	
Berm Length	26.13	40'	

LS-D8			Slope: 9%-15%
Impervious Area	SF		Length: 75'
Road Impervious Area		3375	
RV Site Impervious Area		3600	
Pullout Impervious Area		650	
Bathroom impervious Area		0	
	SUM	7625	
	Area (Ac)	0.175	
Landscaped Area	SF		
Road Landscaped Area		1875	
RV Landscaped Area		2400	
	SUM	4275	
	Area (Ac)	0.098	
Standard Sizing (FT/Ac)	Impervious	Landscaped	
	150	42	
Berm Length	30.38	40'	

LS-D9			Slope: 0%-8%
Impervious Area	SF		Length: 100'
Road Impervious Area		5850	
RV Site Impervious Area		4200	
Pullout Impervious Area		1300	
Bathroom impervious Area		0	
	SUM	11350	
	Area (Ac)	0.261	
Landscaped Area	SF		
Road Landscaped Area		3250	
RV Landscaped Area		2800	
	SUM	6050	
	Area (Ac)	0.139	
Standard Sizing (FT/Ac)	Impervious	Landscaped	
	100	30	
Berm Length	30.22	40'	

LS-D10				Slope: 0%-8%
Impervious Area	SF			Length: 150'
Road Impervious Area		21766.86		
RV Site Impervious Area		9000		
Pullout Impervious Area		650		
Bathroom impervious Area		600		
	SUM	32016.86		
	Area (Ac)	0.735		
Landscaped Area	SF			
Road Landscaped Area		12092.7		
RV Landscaped Area		5600		
	SUM	17692.7		
	Area (Ac)	0.406		
Standard Sizing (FT/Ac)		Impervious	Landscaped	
		75	25	
Berm Length		65.28	40' (2)	

LS-D11				Slope: 9-15%
Impervious Area	SF			Length: 75'
Road Impervious Area		8831.25		
RV Site Impervious Area		3600		
Pullout Impervious Area		650		
Bathroom impervious Area		0		
	SUM	13081.25		
	Area (Ac)	0.300		
Landscaped Area	SF			
Road Landscaped Area		4906.25		
RV Landscaped Area		2400		
	SUM	7306.25		
	Area (Ac)	0.168		
Standard Sizing (FT/Ac)		Impervious	Landscaped	
		150	42	
Berm Length		52.09	35' (2)	

LS-T1			Slope: 9%-15%
Impervious Area	SF		Length: 150'
Road Impervious Area		2925	
RV Site Impervious Area		1800	

Pullout Impervious Area		0		
Bathroom impervious Area		600		
	SUM	5325		
	Area (Ac)	0.122		
Landscaped Area	SF			
Road Landscaped Area		1625		
RV Landscaped Area		1200		
	SUM	2825		
	Area (Ac)	0.065		
Standard Sizing (FT/Ac)		Impervious	Landscaped	
		90	30	
Berm Length		12.95	20'	

LS-T2				Slope: 0%-8%
Impervious Area	SF			Length: 150'
Road Impervious Area		3600		
RV Site Impervious Area		1800		
Pullout Impervious Area		650		
Bathroom impervious Area		0		
	SUM	6050		
	Area (Ac)	0.139		
Landscaped Area	SF			
Road Landscaped Area		2000		
RV Landscaped Area		1200		
	SUM	3200		
	Area (Ac)	0.073		
Standard Sizing (FT/Ac)		Impervious	Landscaped	
		75	25	
Berm Length		12.25	20'	

LS-S1				Slope: 9%-15%
Impervious Area	SF			Length: 75'
Road Impervious Area		1575		
RV Site Impervious Area		2400		
Pullout Impervious Area		650		
Bathroom impervious Area		0		
	SUM	4625		
	Area (Ac)	0.106		
Landscaped Area	SF			

Road Landscaped Area		875	
RV Landscaped Area		1600	
	SUM	2475	
	Area (Ac)	0.057	
Standard Sizing (FT/Ac)	Impervious	Landscaped	
	150	42	
Berm Length	18.31	30'	

LS-S2			Slope: 9%-15%
Impervious Area	SF		Length: 150'
Road Impervious Area	14355		
RV Site Impervious Area	7800		
Pullout Impervious Area	650		
Bathroom impervious Area	600		
SUM	23405		
Area (Ac)	0.537		
Landscaped Area	SF		
Road Landscaped Area	7975		
RV Landscaped Area	5200		
SUM	13175		
Area (Ac)	0.302		
Standard Sizing (FT/Ac)	Impervious	Landscaped	
	90	30	
Berm Length	57.43	2*35	

LS-E1			Slope: 9-15%
Impervious Area	SF		Length: 100'
Road Impervious Area	9084.78		
RV Site Impervious Area	4200		
Pullout Impervious Area	650		
Bathroom impervious Area	0		
SUM	13934.78		
Area (Ac)	0.320		
Landscaped Area	SF		
Road Landscaped Area	5047.1		
RV Landscaped Area	2800		
SUM	7847.1		
Area (Ac)	0.180		
Standard Sizing (FT/Ac)	Impervious	Landscaped	

	120	36	
Berm Length	44.87	2*30	

LS-E2			Slope: 0-8%
Impervious Area	SF		Length: 100'
Road Impervious Area	1530		
RV Site Impervious Area	1200		
Pullout Impervious Area	0		
Bathroom impervious Area	0		
SUM	2730		
Area (Ac)	0.063		
Landscaped Area	SF		
Road Landscaped Area	850		
RV Landscaped Area	800		
SUM	1650		
Area (Ac)	0.038		
Standard Sizing (FT/Ac)	Impervious	Landscaped	
	100	30	
Berm Length	7.40	20	

LS-E3			Slope: 9-15%
Impervious Area	SF		Length: 100'
Road Impervious Area	3330		
RV Site Impervious Area	2400		
Pullout Impervious Area	0		
Bathroom impervious Area	0		
SUM	5730		
Area (Ac)	0.132		
Landscaped Area	SF		
Road Landscaped Area	1850		
RV Landscaped Area	1600		
SUM	3450		
Area (Ac)	0.079		
Standard Sizing (FT/Ac)	Impervious	Landscaped	
	120	36	
Berm Length	18.64	30'	

LS-E4		Slope: 0-8%
Impervious Area	SF	Length: 100'

Road Impervious Area		4950	
RV Site Impervious Area		3000	
Pullout Impervious Area		650	
Bathroom impervious Area		0	
	SUM	8600	
	Area (Ac)	0.197	
Landscaped Area	SF		
Road Landscaped Area		2750	
RV Landscaped Area		2000	
	SUM	4750	
	Area (Ac)	0.109	
Standard Sizing (FT/Ac)	Impervious	Landscaped	
	100	30	
Berm Length	23.01	30'	

LS-E5			Slope: 9%-15%
Impervious Area	SF		Length: 150'
Road Impervious Area		3150	
RV Site Impervious Area		1800	
Pullout Impervious Area		0	
Bathroom impervious Area		600	
	SUM	5550	
	Area (Ac)	0.127	
Landscaped Area	SF		
Road Landscaped Area		1750	
RV Landscaped Area		1200	
	SUM	2950	
	Area (Ac)	0.068	
Standard Sizing (FT/Ac)	Impervious	Landscaped	
	90	30	
Berm Length	13.50	20'	

LS-E6			Slope: 9%-15%
Impervious Area	SF		Length: 150'
Road Impervious Area		2700	
RV Site Impervious Area		1800	
Pullout Impervious Area		650	
Bathroom impervious Area		0	
	SUM	5150	
	Area (Ac)	0.118	

Landscaped Area	SF		
Road Landscaped Area		1500	
RV Landscaped Area		1200	
	SUM	2700	
	Area (Ac)	0.062	
Standard Sizing (FT/Ac)		Impervious	Landscaped
		90	30
Berm Length		12.50	20'

LS-E7			Slope: 9%-15%
Impervious Area	SF		Length: 150'
Road Impervious Area		4140	
RV Site Impervious Area		1800	
Pullout Impervious Area		650	
Bathroom impervious Area		0	
	SUM	6590	
	Area (Ac)	0.151	
Landscaped Area	SF		
Road Landscaped Area		2300	
RV Landscaped Area		1200	
	SUM	3500	
	Area (Ac)	0.080	
Standard Sizing (FT/Ac)		Impervious	Landscaped
		90	30
Berm Length		16.03	20'

LS-E8			Slope: 9%-15%
Impervious Area	SF		Length: 100'
Road Impervious Area		3150	
RV Site Impervious Area		3000	
Pullout Impervious Area		0	
Bathroom impervious Area		0	
	SUM	6150	
	Area (Ac)	0.141	
Landscaped Area	SF		
Road Landscaped Area		1750	
RV Landscaped Area		2000	
	SUM	3750	
	Area (Ac)	0.086	

Standard Sizing (FT/Ac)	Impervious	Landscaped	
	120	36	
Berm Length	20.04	30'	

LS-E9			Slope: 0%-8%
Impervious Area	SF		Length: 150'
Road Impervious Area	4050		
RV Site Impervious Area	1800		
Pullout Impervious Area	650		
Bathroom impervious Area	600		
SUM	7100		
Area (Ac)	0.163		
Landscaped Area	SF		
Road Landscaped Area	2250		
RV Landscaped Area	1200		
SUM	3450		
Area (Ac)	0.079		
Standard Sizing (FT/Ac)	Impervious	Landscaped	
	75	25	
Berm Length	14.20	20'	

LS-E10			Slope: 0%-8%
Impervious Area	SF		Length: 75'
Road Impervious Area	9270		
RV Site Impervious Area	6000		
Pullout Impervious Area	650		
Bathroom impervious Area	0		
SUM	15920		
Area (Ac)	0.365		
Landscaped Area	SF		
Road Landscaped Area	5150		
RV Landscaped Area	4000		
SUM	9150		
Area (Ac)	0.210		
Standard Sizing (FT/Ac)	Impervious	Landscaped	
	125	35	
Berm Length	53.04	35' (2)	

LS-B1				Slope: 0%-8%
Impervious Area	SF			Length: 150'
Road Impervious Area		19071		
RV Site Impervious Area		12600		
Pullout Impervious Area		1300		
Bathroom impervious Area		0		
	SUM	32971		
	Area (Ac)	0.757		
Landscaped Area	SF			
Road Landscaped Area		10585		
RV Landscaped Area		8400		
	SUM	18985		
	Area (Ac)	0.436		
Standard Sizing (FT/Ac)		Impervious	Landscaped	
		75	25	
Berm Length		67.66	40' (2)	

LS-B2				Slope: 0%-8%
Impervious Area	SF			Length: 75'
Road Impervious Area		900		
RV Site Impervious Area		0		
Pullout Impervious Area		0		
Bathroom impervious Area		600		
	SUM	1500		
	Area (Ac)	0.034		
Landscaped Area	SF			
Road Landscaped Area		500		
RV Landscaped Area		0		
	SUM	500		
	Area (Ac)	0.011		
Standard Sizing (FT/Ac)		Impervious	Landscaped	
		125	35	
Berm Length		4.71	20'	

Level Spreader G1			Slope: 9%-15%
Impervious Area	SF		Length: 75'
Road Impervious Area		4500	
RV Site Impervious Area		3000	
Pullout Impervious Area		650	
Bathroom impervious Area		0	

	SUM	8150		
	Area (Ac)	0.187		
Landscaped Area	SF			
Road Landscaped Area		2500		
RV Landscaped Area		2000		
	SUM	4500		
	Area (Ac)	0.103		
Standard Sizing (FT/Ac)		Impervious	Landscaped	
		150	42	
Berm Length		32.40	40'	

LS-G2				Slope: 0%-8%
Impervious Area	SF			Length: 75'
Road Impervious Area		6761.25		
RV Site Impervious Area		4800		
Pullout Impervious Area		650		
Bathroom impervious Area		0		
	SUM	12211.25		
	Area (Ac)	0.280		
Landscaped Area	SF			
Road Landscaped Area		3756.25		
RV Landscaped Area		3200		
	SUM	6956.25		
	Area (Ac)	0.160		
Standard Sizing (FT/Ac)		Impervious	Landscaped	
		125	35	
Berm Length		40.63	50	

LS-C1				Slope: 0%-8%
Impervious Area	SF			Length: 75'
Road Impervious Area		2394		
RV Site Impervious Area		0		
Pullout Impervious Area		650		
Bathroom impervious Area		0		
	SUM	3044		
	Area (Ac)	0.070		
Landscaped Area	SF			
Road Landscaped Area		1330		
RV Landscaped Area		0		

	SUM	1330	
	Area (Ac)	0.031	
Standard Sizing (FT/Ac)	Impervious	Landscaped	
	125	35	
Berm Length	9.80	20'	

Sizing Assumptions:

	RV/Cabin	Tent	Pullout	Bathroom
Impervious Area (SF)	600	200	650	600
Lanscaped Area (SF)	400	400		

Road Width with shoulders (FT)
18

Road Landscaped each side (FT)
5

1640 - NATURES WILDERNESS CAMPGROUND
WATER QUALITY CALCULATIONS

	SF	AC
New Impervious Area (SF) =	532358.08	12.22
New Landscaped Area (SF)=	380695.85	8.74
Developed Area (SF) =	913053.93	20.96

	FT
Existing Impervious Lane Width	5
Proposed Impervious Lane Width	9
Landscaped Width Per Lane	5

	FT
Existing Impervious Lane Width Upper Twain Road (Wide Lower Section)	7
Existing Impervious Lane Width Upper Twain Road (Narrow Upper Section)	5

Watershed	Area/Lot #	New Impervious Area (SF)	Total Impervious Area Treated (SF)	New Landscaped Area	Total Landscaped Area Treated (SF)	Developed Area (SF)	Total Developed Area Treated (SF)	Incremental Treatment % (Impervious)	Incremental Treatment % (Developed)	BMP
S1	Deacon Road ST: 0+00 - ST: 3+16.45 LEFT SIDE	1266	2848	1582	1582	2848	4430	0.53%	0.49%	Level Spreader D1
S3	Deacon Road ST: 0+00 - ST: 0+35.13 RIGHT SIDE	141	316	176	176	316	492	0.06%	0.05%	Level Spreader D1
S3	Deacon Road ST: 0+35.13 - ST: 3+16.45 RIGHT SIDE	1125.28	2531.88	1406.6	1406.6	2531.88	3938.48	0.48%	0.43%	Level Spreader D2
S3	Deacon Road ST: 3+16.45 - ST: 5+35.04 LEFT SIDE	874.36	1967.31	1092.95	1092.95	1967.31	3060.26	0.37%	0.34%	Level Spreader D3
S3	Deacon Road ST: 3+16.45 - ST: 5+05.73 RIGHT SIDE	757.12	1703.52	946.4	946.4	1703.52	2649.92	0.32%	0.29%	Forested Buffer FB-D1
S3	Deacon Road ST: 5+05.73 - ST: 5+35.04 RIGHT SIDE	117.24	263.79	146.55	146.55	263.79	410.34	0.05%	0.04%	Level Spreader D3
S3	Deacon Road ST: 5+35.04 - ST: 8+10.00 LEFT SIDE	1099.84	2474.64	1374.8	1374.8	2474.64	3849.44	0.46%	0.42%	Level Spreader D4
S3	Deacon Road ST: 5+35.04 - ST: 8+10.00 RIGHT SIDE	1099.84	2474.64	1374.8	1374.8	2474.64	3849.44	0.46%	0.42%	Forested Buffer FB-D2
S3	Deacon Road ST: 8+10.00 - ST: 10+85.00 LEFT SIDE	1100	2475	1375	1375	2475	3850	0.46%	0.42%	Level Spreader D5
S3	Deacon Road ST: 8+10.00 - ST: 10+74.22 RIGHT SIDE	1056.88	2377.98	1321.1	1321.1	2377.98	3699.08	0.45%	0.41%	Level Spreader D4
S3	Deacon Road ST: 10+74.22 - ST: 11+50.00 RIGHT SIDE	303.12	682.02	378.9	378.9	682.02	1060.92	0.13%	0.12%	Level Spreader D5
S3	Deacon Road ST: 10+85.00 - ST: 14+00.00 LEFT SIDE	1260	2835	1575	1575	2835	4410	0.53%	0.48%	Level Spreader D7
S3	Deacon Road ST: 11+50.00 - ST: 12+84.62 RIGHT SIDE	538.48	1211.58	673.1	673.1	1211.58	1884.68	0.23%	0.21%	Level Spreader D6
S3	Deacon Road ST: 12+84.62 - ST: 14+00.00 RIGHT SIDE	461.52	1038.42	676.9	676.9	1138.42	1715.32	0.20%	0.19%	Level Spreader D7

S5	Deacon Road ST: 14+00.00 - ST: 17+75.00 LEFT SIDE	1500	3375	1875	1875	3375	5250	0.63%	0.57%	Level Spreader D8
S5	Deacon Road ST: 14+00.00 - ST: 25+50.27 RIGHT SIDE	5401.08	12152.43	6751.35	6751.35	12152.43	18903.78	2.28%	2.07%	Level Spreader D10
S5	Deacon Road ST: 17+75.00 - ST: 24+25.00 LEFT SIDE	2600	5850	3250	3250	5850	9100	1.10%	1.00%	Level Spreader D9
S5	Deacon Road ST: 24+25.00 - ST: 25+37.13 LEFT SIDE	448.52	1009.17	560.65	560.65	1009.17	1569.82	0.19%	0.17%	Level Spreader D10
S5	Deacon Road ST: 24+25.00 - ST: 27+20.35 LEFT SIDE	1181.4	2658.15	1476.75	1476.75	2658.15	4134.9	0.50%	0.45%	Forested Buffer FB-D3
S5	Deacon Road ST: 25+50.27 - ST: 27+65.00 RIGHT SIDE	858.92	1932.57	1073.65	1073.65	1932.57	3006.22	0.36%	0.33%	Level Spreader D11
S5	Deacon Road ST: 27+20.35 - ST: 27+65.00 LEFT SIDE	178.6	401.85	223.25	223.25	401.85	625.1	0.08%	0.07%	Level Spreader D11
S3	Deacon Road ST: 27+65.00 - ST: 29+70.61 LEFT SIDE	822.44	0	1028.05	0	1850.49	0	0.00%	0.00%	No Treatment
S3	Deacon Road ST: 27+65.00 - ST: 29+70.61 RIGHT SIDE	822.44	0	1028.05	0	1850.49	0	0.00%	0.00%	No Treatment
S3	Efron Way ST: 0+00.00 - ST: 2+30.13 LEFT SIDE	2071.17	2071.17	1150.65	1150.65	3221.82	3221.82	0.39%	0.35%	Level Spreader E1
S3	Efron Way ST: 0+00.00 - ST: 2+30.13 RIGHT SIDE	2071.17	2071.17	1150.65	1150.65	3221.82	3221.82	0.39%	0.35%	Level Spreader E1
S3	Efron Way ST: 2+30.13 - ST: 5+00.00 LEFT SIDE	2428.83	2428.83	1349.35	1349.35	3778.18	3778.18	0.46%	0.41%	Level Spreader E3
S3	Efron Way ST: 2+30.13 - ST: 4+00.00 RIGHT SIDE	1528.83	1528.83	849.35	849.35	2378.18	2378.18	0.29%	0.26%	Level Spreader E2
S3	Efron Way ST: 4+00.00 - ST: 5+00.00 RIGHT SIDE	900	900	500	500	1400	1400	0.17%	0.15%	Level Spreader E3
S3	Efron Way ST: 5+00.00 - ST: 7+50.00 LEFT SIDE	2250	2250	1250	1250	3500	3500	0.42%	0.38%	Level Spreader E4
S3	Efron Way ST: 5+00.00 - ST: 7+50.00 RIGHT SIDE	2250	2250	1250	1250	3500	3500	0.42%	0.38%	Level Spreader E4
S3	Efron Way ST: 7+50.00 - ST: 10+00.00 LEFT SIDE	2250	2250	1250	1250	3500	3500	0.42%	0.38%	Level Spreader E5
S3	Efron Way ST: 7+50.00 - ST: 10+00.00 RIGHT SIDE	2250	2250	1250	1250	3500	3500	0.42%	0.38%	Forested Buffer FB-E1
S3	Efron Way ST: 10+00.00 - ST: 12+00.00 LEFT SIDE	1800	1800	1000	1000	2800	2800	0.34%	0.31%	Level Spreader E6
S3	Efron Way ST: 10+00.00 - ST: 11+00.00 RIGHT SIDE	900	900	500	500	1400	1400	0.17%	0.15%	Level Spreader E5

S3	Efron Way ST: 11+00.00 - ST: 12+00.00 RIGHT SIDE	900	900	500	500	1400	1400	0.17%	0.15%	Level Spreader E6
S3	Efron Way ST: 12+00.00 - ST: 12+40.00 LEFT SIDE	360	0	200	0	560	0	0.00%	0.00%	No Treatment
S3	Efron Way ST: 12+00.00 - ST: 13+00.00 RIGHT SIDE	900	0	500	0	1400	0	0.00%	0.00%	No Treatment
S3	Efron Way ST: 12+40.00 - ST: 15+00.00 LEFT SIDE	2340	2340	1300	1300	3640	3640	0.44%	0.40%	Level Spreader E7
S3	Efron Way ST: 13+00.00 - ST: 15+00.00 RIGHT SIDE	1800	1800	1000	1000	2800	2800	0.34%	0.31%	Level Spreader E7
S3	Efron Way ST: 15+00.00 - ST: 16+75.00 LEFT SIDE	1575	1575	875	875	2450	2450	0.30%	0.27%	Level Spreader E8
S3	Efron Way ST: 15+00.00 - ST: 16+75.00 RIGHT SIDE	1575	1575	875	875	2450	2450	0.30%	0.27%	Level Spreader E8
S3	Efron Way ST: 16+75.00 - ST: 19+00.00 LEFT SIDE	2025	2025	1125	1125	3150	3150	0.38%	0.34%	Level Spreader E9
S3	Efron Way ST: 16+75.00 - ST: 19+00.00 RIGHT SIDE	2025	2025	1125	1125	3150	3150	0.38%	0.34%	Level Spreader E9
S3	Efron Way ST: 19+00.00 - ST: 19+90.00 LEFT SIDE	810	0	450	0	1260	0	0.00%	0.00%	No Treatment
S3	Efron Way ST: 19+00.00 - ST: 19+33.59 RIGHT SIDE	302.31	0	167.95	0	470.26	0	0.00%	0.00%	No Treatment
S3	Efron Way ST: 19+33.59 - ST: 19+70.80 RIGHT SIDE	334.89	334.89	186.05	186.05	520.94	520.94	0.06%	0.06%	Level Spreader C1
S3	Efron Way ST: 19+90.00 - ST: 23+60.00 LEFT SIDE	3330	3330	1850	1850	5180	5180	0.63%	0.57%	Level Spreader B1
S3	Efron Way ST: 19+70.80 - ST: 23+60.00 RIGHT SIDE	3502.8	3502.8	1946	1946	5448.8	5448.8	0.66%	0.60%	Level Spreader B1
S3	Efron Way ST: 23+60.00 - ST: 26+75.00 LEFT SIDE	2835	2835	1575	1575	4410	4410	0.53%	0.48%	Level Spreader E10
S3	Efron Way ST: 23+60.00 - ST: 26+75.00 RIGHT SIDE	2835	2835	1575	1575	4410	4410	0.53%	0.48%	Level Spreader E10
S5	Efron Way ST: 26+75.00 - ST: 29+41.74 LEFT SIDE	2400.66	2400.66	1333.7	1333.7	3734.36	3734.36	0.45%	0.41%	Level Spreader D10
S5	Efron Way ST: 26+75.00 - ST: 29+41.74 RIGHT SIDE	2400.66	2400.66	1333.7	1333.7	3734.36	3734.36	0.45%	0.41%	Level Spreader D11
S3	Scott's Loop ST: 0+00.00 - ST: 2+75.00 LEFT SIDE	2475	2475	1375	1375	3850	3850	0.46%	0.42%	Level Spreader S1
S3	Scott's Loop ST: 0+00.00 - ST: 9+35.23 RIGHT SIDE	8417.07	8417.07	4676.15	4676.15	13093.22	13093.22	1.58%	1.43%	Level Spreader S1

S3	Scott's Loop ST: 2+75.00 - ST: 4+52.09 LEFT SIDE	1593.81	1593.81	885.45	885.45	2479.26	2479.26	0.30%	0.27%	Level Spreader S2
S3	Scott's Loop ST: 4+52.09 - ST: 9+35.23 INNER SIDE OF LOOP	4348.26	4348.26	2415.7	2415.7	6763.96	6763.96	0.82%	0.74%	Level Spreader S2
S5	Gary's Loop ST: 0+00.00 - ST: 2+00.00 LEFT SIDE	1800	1800	1000	1000	2800	2800	0.34%	0.31%	Level Spreader D10
S5	Gary's Loop ST: 0+00.00 - ST: 2+00.00 RIGHT SIDE	1800	1800	1000	1000	2800	2800	0.34%	0.31%	Level Spreader D10
S3	Gary's Loop ST: 2+00.00 - ST: 4+50.00 LEFT SIDE	2250	2250	1250	1250	3500	3500	0.42%	0.38%	Level Spreader G1
S3	Gary's Loop ST: 2+00.00 - ST: 4+50.00 RIGHT SIDE	2250	2250	1250	1250	3500	3500	0.42%	0.38%	Level Spreader G1
S3	Gary's Loop ST: 4+50.00 - ST: 9+10.97 LEFT SIDE	4148.73	4148.73	2304.85	2304.85	6453.58	6453.58	0.78%	0.71%	Level Spreader G2
S3	Gary's Loop ST: 4+50.00 - ST: 9+10.97 RIGHT SIDE	4148.73	4148.73	2304.85	2304.85	6453.58	6453.58	0.78%	0.71%	Level Spreader G2
S5	Gary's Loop ST: 9+10.97 - ST: 12+88.40 LEFT SIDE	3396.87	3396.87	1887.15	1887.15	5284.02	5284.02	0.64%	0.58%	Level Spreader D10
S3	Gary's Loop ST: 9+10.97 - ST: 11+50.00 RIGHT SIDE	2151.27	2151.27	1195.15	1195.15	3346.42	3346.42	0.40%	0.37%	Level Spreader E10
S5	Gary's Loop ST: 11+50.00 - ST: 12+88.40 RIGHT SIDE	1245.6	1245.6	692	692	1937.6	1937.6	0.23%	0.21%	Level Spreader D10
S3	Brown Road ST: 0+00.00 - ST: 4+50.00 LEFT SIDE	4050	4050	2250	2250	6300	6300	0.76%	0.69%	Level Spreader B1
S3	Brown Road ST: 0+00.00 - ST: 4+50.00 RIGHT SIDE	4050	4050	2250	2250	6300	6300	0.76%	0.69%	Level Spreader B1
S3	Brown Road ST: 4+50.00 - ST: 6+50.00 LEFT SIDE	1800	1800	1000	1000	2800	2800	0.34%	0.31%	Forested Buffer FB-B1
S3	Brown Road ST: 4+50.00 - ST: 6+50.00 LEFT SIDE	1800	1800	1000	1000	2800	2800	0.34%	0.31%	Level Spreader B1
S3	Brown Road ST: 4+50.00 - ST: 6+50.00 RIGHT SIDE	2400	2400	1000	1000	3400	3400	0.45%	0.37%	Level Spreader B1
S5	Brown Road ST: 6+50.00 - ST: 8+28.00 LEFT SIDE	1602	1602	890	890	2492	2492	0.30%	0.27%	Forested Buffer FB-B2
S5	Brown Road ST: 6+50.00 - ST: 7+50.00 RIGHT SIDE	900	900	500	500	1400	1400	0.17%	0.15%	Forested Buffer FB-B2
S5	Brown Road ST: 7+50.00 - ST: 10+95.00 RIGHT SIDE	3105	3105	1725	1725	4830	4830	0.58%	0.53%	Forested Buffer FB-B2
S5	Brown Road ST: 8+28.00 - ST: 11+39.51 LEFT SIDE	2803.59	2803.59	1557.55	1557.55	4361.14	4361.14	0.53%	0.48%	Level Spreader D11

S5	Brown Road ST: 10+95.00 - ST: 11+39.51 RIGHT SIDE	400.59	400.59	222.55	222.55	623.14	623.14	0.08%	0.07%	Level Spreader D11
S2	Crossover Way ST: 0+00.00 - ST: 4+04.01 LEFT SIDE	3636.09	3636.09	2020.05	2020.05	5656.14	5656.14	0.68%	0.62%	Pond 1
S2	Crossover Way ST: 0+00.00 - ST: 4+04.01 RIGHT SIDE	3636.09	3636.09	2020.05	2020.05	5656.14	5656.14	0.68%	0.62%	Pond 1
S3	Crossover Way ST: 4+04.01 - ST: 7+00.00 LEFT SIDE	2663.91	0	1479.95	0	4143.86	0	0.00%	0.00%	No Treatment
S3	Crossover Way ST: 4+04.01 - ST: 6+66.02 RIGHT SIDE	2358.09	0	1310.05	0	3668.14	0	0.00%	0.00%	No Treatment
S3	Crossover Way ST: 7+00.00 - ST: 9+66.42 LEFT SIDE	2397.78	2397.78	1332.1	1332.1	3729.88	3729.88	0.45%	0.41%	Level Spreader C1
S3	Crossover Way ST: 6+66.02 - ST: 9+66.42 LEFT SIDE	2703.6	2703.6	1502	1502	4205.6	4205.6	0.51%	0.46%	Level Spreader B1
S2	Upper Twain Road ST: 0+00.00 - ST: 9+00.00 LEFT SIDE	900	7200	0	0	900	7200	1.35%	0.79%	Pond 1
S2	Upper Twain Road ST: 0+00.00 - ST: 9+00.00 RIGHT SIDE	900	7200	0	0	900	7200	1.35%	0.79%	Pond 1
S2	Upper Twain Road ST: 9+00.00 - ST: 18+00.00 LEFT SIDE	1800	8100	4500	4500	6300	12600	1.52%	1.38%	Pond 1
S2	Upper Twain Road ST: 9+00.00 - ST: 9+50.00 RIGHT SIDE	100	450	250	250	350	700	0.08%	0.08%	Pond 1
S3	Upper Twain Road ST: 9+50.00 - ST: 18+00.00 RIGHT SIDE	1700	0	4250	0	5950	0	0.00%	0.00%	No Treatment
S3	Upper Twain Road ST: 18+00.00 - ST: 18+96.28 LEFT SIDE	192.56	0	481.4	0	673.96	0	0.00%	0.00%	No Treatment
S3	Upper Twain Road ST: 18+00.00 - ST: 18+96.28 RIGHT SIDE	192.56	0	481.4	0	673.96	0	0.00%	0.00%	No Treatment
S1	Upper Twain Road ST: 18+96.28 - ST: 30+75.00 LEFT SIDE	2357.44	0	5893.6	0	8251.04	0	0.00%	0.00%	No Treatment
S3	Upper Twain Road ST: 18+96.28 - ST: 29+00.00 RIGHT SIDE	2007.44	0	5018.6	0	7026.04	0	0.00%	0.00%	No Treatment
S3	Upper Twain Road ST: 29+00.00 - ST: 29+74.93 RIGHT SIDE	299.72	674.37	374.65	374.65	674.37	1049.02	0.13%	0.11%	Level Spreader S1
S3	Upper Twain Road ST: 29+74.93 - ST: 31+80.49 RIGHT SIDE	822.24	0	1027.8	0	1850.04	0	0.00%	0.00%	No Treatment
S1	Upper Twain Road ST: 30+75.00 - ST: 34+75.00 LEFT SIDE	1600	3600	2000	2000	3600	5600	0.68%	0.61%	Level Spreader T2
S3	Upper Twain Road ST: 31+80.49 - ST: 37+11.21 RIGHT SIDE	2125.44	4782.24	2656.8	2656.8	4782.24	7439.04	0.90%	0.81%	Level Spreader E1

S1	Upper Twain Road ST: 34+75.00 - ST: 38+00.00 LEFT SIDE	1300	2925	1625	1625	2925	4550	0.55%	0.50%	Level Spreader T1
S1	Upper Twain Road ST: 38+00.00 - ST: 38+96.34 LEFT SIDE	385.36	867.06	481.7	481.7	867.06	1348.76	0.16%	0.15%	Level Spreader D1
S3	Upper Twain Road ST: 37+11.21 - ST: 38+96.34 RIGHT SIDE	740.52	1666.17	925.65	925.65	1666.17	2591.82	0.31%	0.28%	Level Spreader D2
S3	Camper Site D1	600	600	400	400	1000	1000	0.11%	0.11%	Level Spreader D2
S3	Camper Site D2	600	600	400	400	1000	1000	0.11%	0.11%	Level Spreader D1
S3	Camper Site D3	600	600	400	400	1000	1000	0.11%	0.11%	Level Spreader D2
S3	Camper Site D4	600	600	400	400	1000	1000	0.11%	0.11%	Level Spreader D1
S3	Camper Site D5	600	600	400	400	1000	1000	0.11%	0.11%	Level Spreader D2
S3	Camper Site D6	600	600	400	400	1000	1000	0.11%	0.11%	Level Spreader D3
S3	Camper Site D7	600	600	400	400	1000	1000	0.11%	0.11%	Forested Buffer FB-D1
S3	Camper Site D8	600	600	400	400	1000	1000	0.11%	0.11%	Level Spreader D3
S3	Camper Site D9	600	600	400	400	1000	1000	0.11%	0.11%	Forested Buffer FB-D1
S3	Camper Site D10	600	600	400	400	1000	1000	0.11%	0.11%	Level Spreader D4
S3	Camper Site D11	600	600	400	400	1000	1000	0.11%	0.11%	Forested Buffer FB-D2
S3	Camper Site D12	600	600	400	400	1000	1000	0.11%	0.11%	Level Spreader D4
S3	Camper Site D13	600	600	400	400	1000	1000	0.11%	0.11%	Forested Buffer FB-D2
S3	Camper Site D14	600	600	400	400	1000	1000	0.11%	0.11%	Level Spreader D4
S3	Camper Site D15	600	600	400	400	1000	1000	0.11%	0.11%	Forested Buffer FB-D2
S3	Camper Site D16	600	600	400	400	1000	1000	0.11%	0.11%	Level Spreader D5
S3	Camper Site D17	600	600	400	400	1000	1000	0.11%	0.11%	Level Spreader D4
S3	Camper Site D18	600	600	400	400	1000	1000	0.11%	0.11%	Level Spreader D5
S3	Camper Site D19	600	600	400	400	1000	1000	0.11%	0.11%	Level Spreader D4
S3	Camper Site D20	600	600	400	400	1000	1000	0.11%	0.11%	Level Spreader D5
S3	Camper Site D21	600	600	400	400	1000	1000	0.11%	0.11%	Level Spreader D7
S3	Camper Site D22	600	600	400	400	1000	1000	0.11%	0.11%	Level Spreader D6
S3	Camper Site D23	600	0	400	0	1000	0	0.00%	0.00%	No Treatment
S3	Camper Site D24	600	600	400	400	1000	1000	0.11%	0.11%	Level Spreader D6
S3	Camper Site D25	600	0	400	0	1000	0	0.00%	0.00%	No Treatment
S3	Camper Site D26	600	600	400	400	1000	1000	0.11%	0.11%	Level Spreader D6
S3	Camper Site D27	600	0	400	0	1000	0	0.00%	0.00%	No Treatment
S5	Camper Site D28	600	600	400	400	1000	1000	0.11%	0.11%	Level Spreader D8
S5	Camper Site D29	600	600	400	400	1000	1000	0.11%	0.11%	Level Spreader D8
S3	Camper Site D30	600	600	400	400	1000	1000	0.11%	0.11%	Level Spreader D7
S5	Camper Site D31	600	600	400	400	1000	1000	0.11%	0.11%	Level Spreader D8
S5	Camper Site D32	600	600	400	400	1000	1000	0.11%	0.11%	Level Spreader D8
S3	Camper Site D33	600	600	400	400	1000	1000	0.11%	0.11%	Level Spreader G1
S5	Camper Site D34	600	600	400	400	1000	1000	0.11%	0.11%	Level Spreader D8
S5	Camper Site D35	600	600	400	400	1000	1000	0.11%	0.11%	Level Spreader D8
S5	Camper Site D36	600	600	400	400	1000	1000	0.11%	0.11%	Level Spreader D9
S5	Camper Site D37	600	600	400	400	1000	1000	0.11%	0.11%	Level Spreader D9
S5	Camper Site D38	600	600	400	400	1000	1000	0.11%	0.11%	Level Spreader D10
S5	Camper Site D39	600	600	400	400	1000	1000	0.11%	0.11%	Level Spreader D9
S5	Camper Site D40	600	600	400	400	1000	1000	0.11%	0.11%	Level Spreader D10
S5	Camper Site D41	600	600	400	400	1000	1000	0.11%	0.11%	Level Spreader D9
S5	Camper Site D42	600	600	400	400	1000	1000	0.11%	0.11%	Level Spreader D10
S5	Camper Site D43	600	600	400	400	1000	1000	0.11%	0.11%	Level Spreader D9
S5	Camper Site D44	600	600	400	400	1000	1000	0.11%	0.11%	Level Spreader D10
S5	Camper Site D45	600	600	400	400	1000	1000	0.11%	0.11%	Level Spreader D9
S5	Camper Site D46	600	600	400	400	1000	1000	0.11%	0.11%	Level Spreader D9
S5	Camper Site D47	600	600	400	400	1000	1000	0.11%	0.11%	Level Spreader D10
S5	Camper Site D48	600	600	400	400	1000	1000	0.11%	0.11%	Forested Buffer FB-D3
S5	Camper Site D49	600	600	400	400	1000	1000	0.11%	0.11%	Forested Buffer FB-D3
S5	Camper Site D50	600	600	400	400	1000	1000	0.11%	0.11%	Level Spreader D11
S1	PULLOUT	650	650	0	0	650	650	0.12%	0.07%	Level Spreader D1

S3	PULLOUT	650	650	0	0	650	650	0.12%	0.07%	Forested Buffer FB-D2
S3	PULLOUT	650	650	0	0	650	650	0.12%	0.07%	Level Spreader D5
S3	PULLOUT	650	650	0	0	650	650	0.12%	0.07%	Level Spreader D7
S5	PULLOUT	650	650	0	0	650	650	0.12%	0.07%	Level Spreader D10
S5	PULLOUT	650	650	0	0	650	650	0.12%	0.07%	Level Spreader D10
S5	PULLOUT	650	650	0	0	650	650	0.12%	0.07%	Level Spreader D10
S3	BATHROOM	600	600	0	0	600	600	0.11%	0.07%	Level Spreader D4
S5	BATHROOM	600	600	0	0	600	600	0.11%	0.07%	Level Spreader D10
S3	Sewage Pumpout Station	1000	0	0	0	1000	0	0.00%	0.00%	No Treatment
S3	Camper Site E1	600	600	400	400	1000	1000	0.11%	0.11%	Level Spreader E1
S3	Camper Site E2	600	600	400	400	1000	1000	0.11%	0.11%	Level Spreader E1
S3	Camper Site E3	600	600	400	400	1000	1000	0.11%	0.11%	Level Spreader E2
S3	Camper Site E4	600	600	400	400	1000	1000	0.11%	0.11%	Level Spreader E3
S3	Camper Site E5	600	600	400	400	1000	1000	0.11%	0.11%	Level Spreader E2
S3	Camper Site E6	600	600	400	400	1000	1000	0.11%	0.11%	Level Spreader E3
S3	Camper Site E7	600	600	400	400	1000	1000	0.11%	0.11%	Level Spreader E3
S3	Camper Site E8	600	600	400	400	1000	1000	0.11%	0.11%	Level Spreader E3
S3	Camper Site E9	600	600	400	400	1000	1000	0.11%	0.11%	Level Spreader E4
S3	Camper Site E10	600	600	400	400	1000	1000	0.11%	0.11%	Level Spreader E4
S3	Camper Site E11	600	600	400	400	1000	1000	0.11%	0.11%	Level Spreader E4
S3	Camper Site E12	600	600	400	400	1000	1000	0.11%	0.11%	Level Spreader E4
S3	Camper Site E13	600	600	400	400	1000	1000	0.11%	0.11%	Forested Buffer FB-E1
S3	Camper Site E14	600	600	400	400	1000	1000	0.11%	0.11%	Level Spreader E5
S3	Camper Site E15	600	600	400	400	1000	1000	0.11%	0.11%	Level Spreader E5
S3	Camper Site E16	600	600	400	400	1000	1000	0.11%	0.11%	Forested Buffer FB-E1
S3	Camper Site E17	600	600	400	400	1000	1000	0.11%	0.11%	Level Spreader E5
S3	Camper Site E18	600	600	400	400	1000	1000	0.11%	0.11%	Level Spreader E6
S3	Camper Site E19	600	600	400	400	1000	1000	0.11%	0.11%	Level Spreader E6
S3	Camper Site E20	600	600	400	400	1000	1000	0.11%	0.11%	Level Spreader E6
S3	Camper Site E21	600	600	400	400	1000	1000	0.11%	0.11%	Level Spreader E7
S3	Camper Site E22	600	600	400	400	1000	1000	0.11%	0.11%	Level Spreader E7
S3	Camper Site E23	600	600	400	400	1000	1000	0.11%	0.11%	Level Spreader E7
S3	Camper Site E24	600	600	400	400	1000	1000	0.11%	0.11%	Level Spreader E8
S3	Camper Site E25	600	600	400	400	1000	1000	0.11%	0.11%	Level Spreader E8
S3	Camper Site E26	600	600	400	400	1000	1000	0.11%	0.11%	Level Spreader E8
S3	Camper Site E27	600	600	400	400	1000	1000	0.11%	0.11%	Level Spreader E8
S3	Camper Site E28	600	600	400	400	1000	1000	0.11%	0.11%	Level Spreader E8
S3	Camper Site E29	600	600	400	400	1000	1000	0.11%	0.11%	Level Spreader E9
S3	Camper Site E30	600	600	400	400	1000	1000	0.11%	0.11%	Level Spreader E9
S3	Camper Site E31	600	600	400	400	1000	1000	0.11%	0.11%	Level Spreader E9
S3	Camper Site E32	600	600	400	400	1000	1000	0.11%	0.11%	Level Spreader B1
S3	Camper Site E33	600	600	400	400	1000	1000	0.11%	0.11%	Level Spreader B1
S3	Camper Site E34	600	600	400	400	1000	1000	0.11%	0.11%	Level Spreader B1
S3	Camper Site E35	600	600	400	400	1000	1000	0.11%	0.11%	Level Spreader B1
S3	Camper Site E36	600	600	400	400	1000	1000	0.11%	0.11%	Level Spreader B1
S3	Camper Site E37	600	600	400	400	1000	1000	0.11%	0.11%	Level Spreader B1
S3	Camper Site E38	600	600	400	400	1000	1000	0.11%	0.11%	Level Spreader B1
S3	Camper Site E39	600	600	400	400	1000	1000	0.11%	0.11%	Level Spreader B1
S3	Camper Site E40	600	600	400	400	1000	1000	0.11%	0.11%	Level Spreader B1
S3	Camper Site E41	600	600	400	400	1000	1000	0.11%	0.11%	Level Spreader E10
S3	Camper Site E42	600	600	400	400	1000	1000	0.11%	0.11%	Level Spreader E10
S3	Camper Site E43	600	600	400	400	1000	1000	0.11%	0.11%	Level Spreader E10
S3	Camper Site E44	600	600	400	400	1000	1000	0.11%	0.11%	Level Spreader E10
S3	Camper Site E45	600	600	400	400	1000	1000	0.11%	0.11%	Level Spreader E10
S3	Camper Site E46	600	600	400	400	1000	1000	0.11%	0.11%	Level Spreader E10
S3	Camper Site E47	600	600	400	400	1000	1000	0.11%	0.11%	Forested Buffer FB-B2
S5	Camper Site E48	600	600	400	400	1000	1000	0.11%	0.11%	Level Spreader D10
S5	Camper Site E49	600	600	400	400	1000	1000	0.11%	0.11%	Level Spreader D11
S5	Camper Site E50	600	600	400	400	1000	1000	0.11%	0.11%	Level Spreader D11
S3	PULLOUT	650	650	0	0	650	650	0.12%	0.07%	Level Spreader E1

S3	PULLOUT	650	650	0	0	650	650	0.12%	0.07%	Level Spreader E4
S3	PULLOUT	650	650	0	0	650	650	0.12%	0.07%	Level Spreader E6
S3	PULLOUT	650	650	0	0	650	650	0.12%	0.07%	Level Spreader E7
S3	PULLOUT	650	650	0	0	650	650	0.12%	0.07%	Level Spreader E9
S3	PULLOUT	650	650	0	0	650	650	0.12%	0.07%	Level Spreader E10
S3	BATHROOM	600	600	0	0	600	600	0.11%	0.07%	Level Spreader E5
S3	BATHROOM	600	600	0	0	600	600	0.11%	0.07%	Level Spreader E9
S3	Camper Site S1	600	600	400	400	1000	1000	0.11%	0.11%	Level Spreader S2
S3	Camper Site S2	600	600	400	400	1000	1000	0.11%	0.11%	Level Spreader S1
S3	Camper Site S3	600	600	400	400	1000	1000	0.11%	0.11%	Level Spreader S1
S3	Camper Site S4	600	600	400	400	1000	1000	0.11%	0.11%	Level Spreader S2
S3	Camper Site S5	600	600	400	400	1000	1000	0.11%	0.11%	Level Spreader S2
S3	Camper Site S6	600	600	400	400	1000	1000	0.11%	0.11%	Level Spreader S2
S3	Camper Site S7	600	600	400	400	1000	1000	0.11%	0.11%	Level Spreader S2
S3	Camper Site S8	600	600	400	400	1000	1000	0.11%	0.11%	Level Spreader S2
S3	Camper Site S9	600	600	400	400	1000	1000	0.11%	0.11%	Level Spreader S2
S3	Camper Site S10	600	600	400	400	1000	1000	0.11%	0.11%	Level Spreader S2
S3	Camper Site S11	600	600	400	400	1000	1000	0.11%	0.11%	Level Spreader S2
S3	Camper Site S12	600	600	400	400	1000	1000	0.11%	0.11%	Level Spreader S2
S3	Camper Site S13	600	600	400	400	1000	1000	0.11%	0.11%	Level Spreader S2
S3	Camper Site S14	600	0	400	0	1000	0	0.00%	0.00%	No Treatment
S3	Camper Site S15	600	0	400	0	1000	0	0.00%	0.00%	No Treatment
S3	PULLOUT	650	650	0	0	650	650	0.12%	0.07%	Level Spreader S1
S3	PULLOUT	650	650	0	0	650	650	0.12%	0.07%	Level Spreader S2
S3	BATHROOM	600	600	0	0	600	600	0.11%	0.07%	Level Spreader S2
S3	Camper Site G1	600	600	400	400	1000	1000	0.11%	0.11%	Level Spreader D10
S3	Camper Site G2	600	600	400	400	1000	1000	0.11%	0.11%	Level Spreader D10
S3	Camper Site G3	600	600	400	400	1000	1000	0.11%	0.11%	Level Spreader D10
S3	Camper Site G4	600	600	400	400	1000	1000	0.11%	0.11%	Level Spreader D10
S3	Camper Site G5	600	600	400	400	1000	1000	0.11%	0.11%	Level Spreader G1
S3	Camper Site G6	600	600	400	400	1000	1000	0.11%	0.11%	Level Spreader G2
S3	Camper Site G7	600	600	400	400	1000	1000	0.11%	0.11%	Level Spreader G1
S3	Camper Site G8	600	600	400	400	1000	1000	0.11%	0.11%	Level Spreader G2
S3	Camper Site G9	600	600	400	400	1000	1000	0.11%	0.11%	Level Spreader G1
S3	Camper Site G10	600	600	400	400	1000	1000	0.11%	0.11%	Level Spreader G2
S3	Camper Site G11	600	600	400	400	1000	1000	0.11%	0.11%	Level Spreader G1
S3	Camper Site G12	600	600	400	400	1000	1000	0.11%	0.11%	Level Spreader G2
S3	Camper Site G13	600	600	400	400	1000	1000	0.11%	0.11%	Level Spreader G2
S3	Camper Site G14	600	600	400	400	1000	1000	0.11%	0.11%	Level Spreader G2
S3	Camper Site G15	600	600	400	400	1000	1000	0.11%	0.11%	Level Spreader G2
S3	Camper Site G16	600	600	400	400	1000	1000	0.11%	0.11%	Level Spreader G2
S3	Camper Site G17	600	600	400	400	1000	1000	0.11%	0.11%	Level Spreader G2
S3	Camper Site G18	600	600	400	400	1000	1000	0.11%	0.11%	Level Spreader B1
S3	Camper Site G19	600	600	400	400	1000	1000	0.11%	0.11%	Level Spreader B1
S3	Camper Site G20	600	600	400	400	1000	1000	0.11%	0.11%	Level Spreader G2
S3	Camper Site G21	600	600	400	400	1000	1000	0.11%	0.11%	Level Spreader E10
S5	Camper Site G22	600	600	400	400	1000	1000	0.11%	0.11%	Level Spreader D10
S5	Camper Site G23	600	600	400	400	1000	1000	0.11%	0.11%	Level Spreader D10
S3	Camper Site G24	600	600	400	400	1000	1000	0.11%	0.11%	Level Spreader E10
S5	Camper Site G25	600	600	400	400	1000	1000	0.11%	0.11%	Level Spreader D10
S3	Camper Site G26	600	600	400	400	1000	1000	0.11%	0.11%	Level Spreader E10
S5	Camper Site G27	600	600	400	400	1000	1000	0.11%	0.11%	Level Spreader D10
S3	PULLOUT	650	650	0	0	650	650	0.12%	0.07%	Level Spreader G1
S5	PULLOUT	650	650	0	0	650	650	0.12%	0.07%	Level Spreader D10
S3	Camper Site B1	600	600	400	400	1000	1000	0.11%	0.11%	Level Spreader B1
S3	Camper Site B2	600	600	400	400	1000	1000	0.11%	0.11%	Level Spreader B1
S3	Camper Site B3	600	600	400	400	1000	1000	0.11%	0.11%	Level Spreader B1
S3	Camper Site B4	600	600	400	400	1000	1000	0.11%	0.11%	Level Spreader B1
S3	Camper Site B5	600	600	400	400	1000	1000	0.11%	0.11%	Level Spreader B1
S3	Camper Site B6	600	600	400	400	1000	1000	0.11%	0.11%	Level Spreader B1

S3	Camper Site B7	600	600	400	400	1000	1000	0.11%	0.11%	Level Spreader B1
S3	Camper Site B8	600	600	400	400	1000	1000	0.11%	0.11%	Level Spreader B1
S3	Camper Site B9	600	600	400	400	1000	1000	0.11%	0.11%	Forested Buffer FB-B1
S3	Camper Site B10	600	600	400	400	1000	1000	0.11%	0.11%	Forested Buffer FB-B1
S3	Camper Site B11	600	600	400	400	1000	1000	0.11%	0.11%	Forested Buffer FB-B1
S3	Camper Site B12	600	600	400	400	1000	1000	0.11%	0.11%	Forested Buffer FB-B1
S5	Camper Site B13	600	600	400	400	1000	1000	0.11%	0.11%	Forested Buffer FB-B2
S5	Camper Site B14	600	600	400	400	1000	1000	0.11%	0.11%	Forested Buffer FB-B2
S5	Camper Site B15	600	600	400	400	1000	1000	0.11%	0.11%	Forested Buffer FB-B2
S5	Camper Site B16	600	600	400	400	1000	1000	0.11%	0.11%	Level Spreader D11
S5	Camper Site B17	600	600	400	400	1000	1000	0.11%	0.11%	Forested Buffer FB-B2
S5	Camper Site B18	600	600	400	400	1000	1000	0.11%	0.11%	Level Spreader D11
S5	Camper Site B19	600	600	400	400	1000	1000	0.11%	0.11%	Level Spreader D11
S3	PULLOUT	650	650	0	0	650	650	0.12%	0.07%	Level Spreader B1
S3	PULLOUT	650	650	0	0	650	650	0.12%	0.07%	Forested Buffer FB-B2
S3	BATHROOM	600	600	0	0	600	600	0.11%	0.07%	Level Spreader B2
S2	Cabin Site C1	600	600	400	400	1000	1000	0.11%	0.11%	Pond 1
S2	Cabin Site C2	600	600	400	400	1000	1000	0.11%	0.11%	Pond 1
S2	Cabin Site C3	600	600	400	400	1000	1000	0.11%	0.11%	Pond 1
S2	Cabin Site C4	600	600	400	400	1000	1000	0.11%	0.11%	Pond 1
S2	Cabin Site C5	600	600	400	400	1000	1000	0.11%	0.11%	Pond 1
S2	Cabin Site C6	600	600	400	400	1000	1000	0.11%	0.11%	Pond 1
S2	Cabin Site C7	600	600	400	400	1000	1000	0.11%	0.11%	Pond 1
S2	Cabin Site C8	600	600	400	400	1000	1000	0.11%	0.11%	Pond 1
S2	Cabin Site C9	600	600	400	400	1000	1000	0.11%	0.11%	Pond 1
S3	Cabin Site C10	600	0	400	0	1000	0	0.00%	0.00%	No Treatment
S3	Cabin Site C11	600	0	400	0	1000	0	0.00%	0.00%	No Treatment
S3	Cabin Site C12	600	0	400	0	1000	0	0.00%	0.00%	No Treatment
S3	Cabin Site C13	600	0	400	0	1000	0	0.00%	0.00%	No Treatment
S3	Cabin Site C14	600	0	400	0	1000	0	0.00%	0.00%	No Treatment
S3	Cabin Site C15	600	0	400	0	1000	0	0.00%	0.00%	No Treatment
S2	Tent Site C16	0	0	400	400	400	400	0.00%	0.04%	Pond 1
S2	Tent Site C17	0	0	400	400	400	400	0.00%	0.04%	Pond 1
S2	Tent Site C18	0	0	400	400	400	400	0.00%	0.04%	Pond 1
S2	Tent Site C19	0	0	400	400	400	400	0.00%	0.04%	Pond 1
S2	Tent Site C20	0	0	400	400	400	400	0.00%	0.04%	Pond 1
S2	Tent Site C21	0	0	400	0	400	0	0.00%	0.00%	No Treatment
S3	Tent Site C22	0	0	400	0	400	0	0.00%	0.00%	No Treatment
S3	Tent Site C23	0	0	400	0	400	0	0.00%	0.00%	No Treatment
S3	Tent Site C24	0	0	400	0	400	0	0.00%	0.00%	No Treatment
S3	Tent Site C25	0	0	400	0	400	0	0.00%	0.00%	No Treatment
S3	Camper Site C26	600	600	400	400	1000	1000	0.11%	0.11%	Level Spreader B1
S3	Camper Site C27	600	600	400	400	1000	1000	0.11%	0.11%	Level Spreader B2
S3	PULLOUT	650	650	0	0	650	650	0.12%	0.07%	Level Spreader C1
S2	Gravel Parking Area	5240	5240	0	0	5240	5240	0.98%	0.57%	Pond 1
S3	Gravel Parking Area	1650	0	0	0	1650	0	0.00%	0.00%	No Treatment
S2	Gravel Path (Tent Sites C16-C25)	3219	3219	0	0	3219	3219	0.60%	0.35%	Pond 1
S2	Bathroom	600	600	0	0	600	600	0.11%	0.07%	Pond 1
S2	Laundry Building	200	200	0	0	200	200	0.04%	0.02%	Pond 1
S2	Crossover Lane Cabin Loop Roadway Impervious	8112	8112	3380	3380	11492	11492	1.52%	1.26%	Pond 1
S3	Crossover Lane Cabin Loop Roadway Impervious	9864	0	4110	0	13974	0	0.00%	0.00%	No Treatment
S2	Cabin Site T1	600	600	400	400	1000	1000	0.11%	0.11%	Pond 1
S2	Cabin Site T2	600	600	400	400	1000	1000	0.11%	0.11%	Pond 1
S2	Cabin Site T3	600	600	400	400	1000	1000	0.11%	0.11%	Pond 1
S2	Cabin Site T4	600	600	400	400	1000	1000	0.11%	0.11%	Pond 1
S2	Cabin Site T5	600	600	400	400	1000	1000	0.11%	0.11%	Pond 1
S2	Camper Site T6	600	600	400	400	1000	1000	0.11%	0.11%	Pond 1

S2	Camper Site T7	600	600	400	400	1000	1000	0.11%	0.11%	Pond 1
S2	Camper Site T8	600	600	400	400	1000	1000	0.11%	0.11%	Pond 1
S2	Camper Site T9	600	600	400	400	1000	1000	0.11%	0.11%	Pond 1
S3	Cabin Site T10	600	0	400	0	1000	0	0.00%	0.00%	No Treatment
S3	Cabin Site T11	600	0	400	0	1000	0	0.00%	0.00%	No Treatment
S3	Cabin Site T12	600	0	400	0	1000	0	0.00%	0.00%	No Treatment
S3	Cabin Site T13	600	0	400	0	1000	0	0.00%	0.00%	No Treatment
S3	Cabin Site T14	600	0	400	0	1000	0	0.00%	0.00%	No Treatment
S3	Cabin Site T15	600	0	400	0	1000	0	0.00%	0.00%	No Treatment
S3	Cabin Site T16	600	0	400	0	1000	0	0.00%	0.00%	No Treatment
S3	Cabin Site T17	600	0	400	0	1000	0	0.00%	0.00%	No Treatment
S3	Cabin Site T18	600	0	400	0	1000	0	0.00%	0.00%	No Treatment
S3	Cabin Site T19	600	0	400	0	1000	0	0.00%	0.00%	No Treatment
S3	Cabin Site T20	600	0	400	0	1000	0	0.00%	0.00%	No Treatment
S3	Cabin Site T21	600	0	400	0	1000	0	0.00%	0.00%	No Treatment
S3	Cabin Site T22	600	0	400	0	1000	0	0.00%	0.00%	No Treatment
S3	Cabin Site T23	600	0	400	0	1000	0	0.00%	0.00%	No Treatment
S3	Cabin Site T24	600	0	400	0	1000	0	0.00%	0.00%	No Treatment
S3	Cabin Site T25	600	0	400	0	1000	0	0.00%	0.00%	No Treatment
S3	Cabin Site T26	600	0	400	0	1000	0	0.00%	0.00%	No Treatment
S3	Cabin Site T27	600	0	400	0	1000	0	0.00%	0.00%	No Treatment
S3	Cabin Site T28	600	0	400	0	1000	0	0.00%	0.00%	No Treatment
S3	Camper Site T29	600	600	400	400	1000	1000	0.11%	0.11%	Forested Buffer FB-T2
S1	Camper Site T30	600	600	400	400	1000	1000	0.11%	0.11%	Level Spreader T2
S3	Camper Site T31	600	600	400	400	1000	1000	0.11%	0.11%	Individual Forested Buffer
S1	Camper Site T32	600	600	400	400	1000	1000	0.11%	0.11%	Level Spreader T2
S3	Camper Site T33	600	600	400	400	1000	1000	0.11%	0.11%	Level Spreader E1
S1	Camper Site T34	600	600	400	400	1000	1000	0.11%	0.11%	Level Spreader T2
S3	Camper Site T35	600	600	400	400	1000	1000	0.11%	0.11%	Level Spreader E1
S3	Camper Site T36	600	600	400	400	1000	1000	0.11%	0.11%	Level Spreader E1
S3	Camper Site T37	600	600	400	400	1000	1000	0.11%	0.11%	Level Spreader E1
S1	Camper Site T38	600	600	400	400	1000	1000	0.11%	0.11%	Level Spreader T1
S3	Camper Site T39	600	600	400	400	1000	1000	0.11%	0.11%	Level Spreader E1
S1	Camper Site T40	600	600	400	400	1000	1000	0.11%	0.11%	Level Spreader T1
S3	Camper Site T41	600	600	400	400	1000	1000	0.11%	0.11%	Level Spreader E1
S1	Camper Site T42	600	600	400	400	1000	1000	0.11%	0.11%	Level Spreader T1
S3	Camper Site T43	600	600	400	400	1000	1000	0.11%	0.11%	Level Spreader D2
S3	Camper Site T44	600	600	400	400	1000	1000	0.11%	0.11%	Level Spreader D2
S3	PULLOUT	650	650	0	0	650	650	0.12%	0.07%	Level Spreader D2
S1	PULLOUT	650	650	0	0	650	650	0.12%	0.07%	Level Spreader T2
S3	PULLOUT	650	650	0	0	650	650	0.12%	0.07%	No Treatment
S1	BATHROOM	600	600	0	0	600	600	0.11%	0.07%	Level Spreader T1
S1	Sewage Pumpout Station	1000	0	0	0	1000	0	0.00%	0.00%	No Treatment
S1	Sewage Pumpout Station	1000	0	0	0	1000	0	0.00%	0.00%	No Treatment
S2	Large Parking Area and Entrance Gravel	50453	50453	0	0	50453	50453	9.48%	5.53%	Pond 1
S2	Entrance Lanscaped Area (Grass)	0	0	84325	101527	84325	101527	0.00%	11.12%	Pond 1
S2	Dumpster Pad	100	100	0	0	100	100	0.02%	0.01%	Pond 1
S2	Main Building and Deck Impervious	9010	9010	0	0	9010	9010	1.69%	0.99%	Pond 1
S2	Pool Area Impervious	4536	4536	0	0	4536	4536	0.85%	0.50%	Pond 1
S2	Other Buildings	2045	2045	0	0	2045	2045	0.38%	0.22%	Pond 1
S2	Walkways	1180	1180	0	0	1180	1180	0.22%	0.13%	Pond 1
S2	Playground Area Lower	0	0	1740.5	1740.5	1740.5	1740.5	0.00%	0.19%	Pond 1
S3	Playground Area Upper	0	0	4764	4764	4764	4764	0.00%	0.52%	Forested Buffer FB-T1
S3	Parking Area Upper Twain Station +/- 14+50.00	5132	0	0	0	5132	0	0.00%	0.00%	No Treatment
S3	Parking Area Upper Twain Station +/- 16+50.00	1142	0	0	0	1142	0	0.00%	0.00%	No Treatment

S2	Tent Site A1	200	200	400	400	600	600	0.04%	0.07%	Pond 1
S2	Tent Site A2	200	200	400	400	600	600	0.04%	0.07%	Pond 1
S2	Tent Site A3	200	200	400	400	600	600	0.04%	0.07%	Pond 1
S2	Tent Site A4	200	200	400	400	600	600	0.04%	0.07%	Pond 1
S2	Tent Site A5	200	200	400	400	600	600	0.04%	0.07%	Pond 1
S2	Tent Site A6	200	200	400	400	600	600	0.04%	0.07%	Pond 1
S2	Tent Site A7	200	200	400	400	600	600	0.04%	0.07%	Pond 1
S2	Tent Site A8	200	200	400	400	600	600	0.04%	0.07%	Pond 1
S2	Tent Site A9	200	200	400	400	600	600	0.04%	0.07%	Pond 1
S2	Tent Site A10	200	200	400	400	600	600	0.04%	0.07%	Pond 1
S2	Tent Site A11	200	200	400	400	600	600	0.04%	0.07%	Pond 1
S2	Tent Site A12	200	200	400	400	600	600	0.04%	0.07%	Pond 1
S2	Tent Site A13	200	200	400	400	600	600	0.04%	0.07%	Pond 1
S2	Tent Site A14	200	200	400	400	600	600	0.04%	0.07%	Pond 1
S2	Tent Site A15	200	200	400	400	600	600	0.04%	0.07%	Pond 1
S2	Cabin Site A16	600	600	400	400	1000	1000	0.11%	0.11%	Pond 1
S2	Cabin Site A17	600	600	400	400	1000	1000	0.11%	0.11%	Pond 1
S2	Cabin Site A18	600	600	400	400	1000	1000	0.11%	0.11%	Pond 1
S2	Cabin Site A19	600	600	400	400	1000	1000	0.11%	0.11%	Pond 1
S2	Cabin Site A20	600	600	400	400	1000	1000	0.11%	0.11%	Pond 1
S2	Cabin Site A21	600	600	400	400	1000	1000	0.11%	0.11%	Pond 1
S2	Cabin Site A22	600	600	400	400	1000	1000	0.11%	0.11%	Pond 1
S2	Cabin Site A23	600	600	400	400	1000	1000	0.11%	0.11%	Pond 1
S2	Cabin Site A24	600	600	400	400	1000	1000	0.11%	0.11%	Pond 1
S2	Cabin Site A25	600	600	400	400	1000	1000	0.11%	0.11%	Pond 1
S2	Cabin Site A26	600	600	400	400	1000	1000	0.11%	0.11%	Pond 1
S2	Cabin Site A27	600	600	400	400	1000	1000	0.11%	0.11%	Pond 1
S2	Cabin Site A28	600	600	400	400	1000	1000	0.11%	0.11%	Pond 1
S2	Tent Site A29	200	200	400	400	600	600	0.04%	0.07%	Pond 1
S2	Tent Site A30	200	200	400	400	600	600	0.04%	0.07%	Pond 1
S2	Tent Site A31	200	200	400	400	600	600	0.04%	0.07%	Pond 1
S2	Tent Site A32	200	200	400	400	600	600	0.04%	0.07%	Pond 1
S2	Tent Site A33	200	200	400	400	600	600	0.04%	0.07%	Pond 1
S2	Tent Site A34	200	200	400	400	600	600	0.04%	0.07%	Pond 1
S2	Tent Site A35	200	200	400	400	600	600	0.04%	0.07%	Pond 1
S2	Tent Site A36	200	200	400	400	600	600	0.04%	0.07%	Pond 1
S2	Tent Site A37	200	200	400	400	600	600	0.04%	0.07%	Pond 1
S2	Tent Site A38	200	200	400	400	600	600	0.04%	0.07%	Pond 1
S2	Tent Site A39	200	200	400	400	600	600	0.04%	0.07%	Pond 1
S2	Tent Site A40	200	200	400	400	600	600	0.04%	0.07%	Pond 1
S2	Tent Site A41	200	200	400	400	600	600	0.04%	0.07%	Pond 1
S2	Tent Site A42	200	200	400	400	600	600	0.04%	0.07%	Pond 1
S2	Tent Site A43	200	200	400	400	600	600	0.04%	0.07%	Pond 1
S2	Tent Site A44	200	200	400	400	600	600	0.04%	0.07%	Pond 1
S2	Tent Site A45	200	200	400	400	600	600	0.04%	0.07%	Pond 1
S3	Tent Site A46	200	0	400	0	600	0	0.00%	0.00%	No Treatment
S3	Tent Site A47	200	0	400	0	600	0	0.00%	0.00%	No Treatment
S3	Tent Site A48	200	0	400	0	600	0	0.00%	0.00%	No Treatment
S3	Tent Site A49	200	0	400	0	600	0	0.00%	0.00%	No Treatment
S3	Tent Site A50	200	0	400	0	600	0	0.00%	0.00%	No Treatment
S3	Tent Site A51	200	0	400	0	600	0	0.00%	0.00%	No Treatment
S3	Tent Site A52	200	0	400	0	600	0	0.00%	0.00%	No Treatment
S3	Tent Site A53	200	0	400	0	600	0	0.00%	0.00%	No Treatment
S3	Tent Site A54	200	0	400	0	600	0	0.00%	0.00%	No Treatment
S3	Tent Site A55	200	0	400	0	600	0	0.00%	0.00%	No Treatment
S2	Tent Site A56	200	200	400	400	600	600	0.04%	0.07%	Pond 1
S2	Tent Site A57	200	200	400	400	600	600	0.04%	0.07%	Pond 1
S2	Tent Site A58	200	200	400	400	600	600	0.04%	0.07%	Pond 1
S2	Tent Site A59	200	200	400	400	600	600	0.04%	0.07%	Pond 1
S2	Tent Site A60	200	200	400	400	600	600	0.04%	0.07%	Pond 1

S2	Tent Site A61	200	200	400	400	600	600	0.04%	0.07%	Pond 1
S2	Tent Site A62	200	200	400	400	600	600	0.04%	0.07%	Pond 1
S2	Tent Site A63	200	200	400	400	600	600	0.04%	0.07%	Pond 1
S3	Tent Site A64	200	0	400	0	600	0	0.00%	0.00%	No Treatment
S2	Tent Site A65	200	200	400	400	600	600	0.04%	0.07%	Pond 1
S2	Bathroom	600	600	0	0	600	600	0.11%	0.07%	Pond 1
S2	A Sites Road Network	48776	46984	20904	20904	69680	67888	8.83%	7.44%	Pond 1
S3	A Sites Road Network	17794	0	7626	0	25420	0	0.00%	0.00%	No Treatment
S2	Lower Gravel Road	0	9870	0	5922	0	15792	1.85%	1.73%	Pond 1
S3	Upper Gravel Road (2 Sides)	0	0	0	0	0	0	0.00%	0.00%	No Treatment
S3	Upper Gravel Road (1 Side)	0	0	0	0	0	0	0.00%	0.00%	No Treatment
S1	Upper Pond Loop Road	0	0	0	0	0	0	0.00%	0.00%	No Treatment
S2	Boulder Retaining Wall Impervious	13435	13435	0	0	13435	13435	2.52%	1.47%	Pond 1
	Subtotal	532358	521867	380696	350367	913054	872234	98.03%	95.53%	

Attachment 5: Septic Test Pit Logs

LONGVIEW PARTNERS, LLC

ENVIRONMENTAL PERMITTING SPECIALISTS

Soil Suitability Report

prepared for

Nature's Wilderness Campground

(Terradyn Consultants, LLC)

Marston Road

Baldwin, Maine

February 2018

Soil test pits observed January 30, and February 6, 2018

Maps prepared for proposed campground utilizing private water supplies and on-site subsurface wastewater disposal

Map scaled 1" = 120', base map provided by Terradyn Consultants, LLC

Longview Partners was contracted by Terradyn Consulting, LLC to evaluate soils for a proposed campground and recreation facility. The campground, as we understand it, will include campsites with full sewer hook-ups, primitive tenting sites which will have access to public restrooms and showers, a full-service restaurant serving three meals per day, and multiple free-standing cabins.

Soils were evaluated at pre-selected locations as shown on a plan provided by Terradyn Consulting, LLC. Some locations were adjusted while on-site, as needed, to accommodate existing topograpohic features and to take advantage of soils suitable for siting *first*-time subsurface wastewater disposal fields per the standards of the *State of Maine Subsurface Wastewater Disposal Rules* (the *Rules*). All soils evaluated consist of stony, glacial till soils that generally exhibit 'perched' water tables above a restrictive substrata (hardpan). These soils require *medium-large* size ratings per the *Rules*, or 3.3 sq. ft. of suitable soil area per gallon of wastewater generated per day.

Design flows for some of the proposed uses are as follows:

> Campsites with full sewer & water hook-up: 75 gallons per day (gpd) per site
>
> Free-standing cabins (minimum 2 bedrooms/unit): 180 gpd per cabin (90 gpd per bedroom)
>
> Full-service restaurant serving 3 meals per day with china (non-paper) service: 45 gpd/seat and 12 gpd/employee (a grease trap will also be required and a multiplier of 1.8 x base design flow will be utilized to account for increased strength of restaurant wastewater flows)

A recreation hall is also shown on the plan, which includes space for limited café-style food preparation and a small bar service for individuals staying in the campground. This design flow (bar/tavern/cocktail lounge w/ limited food per the *Rules*) will be assessed at either 15 gallons per seat or 13 gallons per patron.

Since it is uncertain where vehicular traffic/parking may be needed in the vicinity of the proposed disposal fields, we recommend installation of H-20 rated concrete chambers which can withstand heavy loads. Due to shallow water tables and existing topography in certain locations, pump stations are likely to be needed to convey wastewater collected to final disposal field locations.

Please take note that *public water supplies* (i.e. 25 or more users per day) require 300' setbacks to all disposal fields. Disposal fields less than 1,000 gpd must be located 100' to the ponds located on site and the stream identified. Disposal fields of 1,000 to 1,999 gpd must maintain setbacks of 200' to ponds and streams. Fields designed for more than 2,000 gpd require 300' setbacks and must be stamped by a Professional Engineer. Fields of this size also require additional review and approval by the State of Maine Division of Environmental Health. Nitrate and mounding analysis are also required for disposal fields designed for 2,000 gpd or more.

The project site has significant areas of suitable soils available for final placement of wastewater disposal fields, or reserve areas if engineered designs are required. Longview Partners can return to the site, if necessary, to provide additional soil test pit data for final designs. Please note that additional field work is required to complete full subsurface wastewater design applications (form HHE-200) for final review and permitting once wastewater design flows have been quantified.

Town, City, Plantation: BALDWIN | Street, Road Subdivision: NATURE'S WILDERNESS | Owner's Name: (FOR) TERRADYN CONSULTANTS

TP'S BY EXCAVATOR — C.G.

SOIL DESCRIPTION AND CLASSIFICATION (Location of Observation Holes Shown Above)

Observation Hole TP1 ■ Test Pit ☐ Boring
" Depth of Organic Horizon Above Mineral Soil

Depth Below Mineral Soil Surface (inches)	Texture	Consistency	Color	Mottling
0	SANDY LOAM & LOAMY SAND (FILL)	FROZEN	VARIABLE BROWN	
20	STONY SANDY LOAM	FRIABLE	DARK YELLOWISH BROWN	FEW FAINT
40	STONY LOAMY SAND	SOMEWHAT FIRM TO FIRM	OLIVE BROWN	COMMON, DISTINCT
50	LIMIT OF EXCAVATION			

FOR WASTEWATER DISPOSAL: Fill Over | Soil Classification: 3 (Profile) C (Condition) | Slope: % | Limiting Factor: 30" * | ☒ Ground Water ☒ Restrictive Layer ☐ Bedrock ☐ Pit Depth

FOR SOILS MAPPING: Soil Series Name: SKERRY | Drainage Class: MWD | Hydrologic Group: C

* BELOW TOP OF FILL

Observation Hole TP2 ■ Test Pit ☐ Boring
" Depth of Organic Horizon Above Mineral Soil

Depth Below Mineral Soil Surface (inches)	Texture	Consistency	Color	Mottling
0	SANDY LOAM & LOAMY SAND (FILL)	FROZEN	VARIABLE BROWN	
30	STONY FINE SANDY LOAM	FRIABLE	DARK YELLOWISH BROWN	
40			YEL. BROWN	
50	ST. LOAMY S.	FIRM	OL. BR.	COM. FAINT

FILL OVER | Soil Classification: 3 (Profile) C (Condition) | Slope: % | Limiting Factor: 48" * | ☒ Ground Water ☒ Restrictive Layer ☐ Bedrock ☐ Pit Depth

Soil Series Name: SKERRY | Drainage Class: MWD | Hydrologic Group: C

* BELOW TOP OF FILL

SOIL DESCRIPTION AND CLASSIFICATION (Location of Observation Holes Shown Above)

Observation Hole TP3 ■ Test Pit ☐ Boring
" Depth of Organic Horizon Above Mineral Soil

Depth Below Mineral Soil Surface (inches)	Texture	Consistency	Color	Mottling
0	LOAMY SAND & SAND (FILL)	FROZEN	LIGHT OLIVE BROWN	
30	STONY F.S.L.	FRIABLE	DK. BR.	
40		FIRM @ 54"	DK. YEL. BROWN	COMMON @ 54"
50	LIMIT OF EXCAVATION @ 61"			

FOR WASTEWATER DISPOSAL: FILL OVER | Soil Classification: 3 (Profile) C (Condition) | Slope: % | Limiting Factor: 54" * | ☒ Ground Water ☒ Restrictive Layer ☐ Bedrock ☐ Pit Depth

FOR SOILS MAPPING: Soil Series Name: SKERRY | Drainage Class: MWD | Hydrologic Group: C

* BELOW TOP OF FILL

Observation Hole TP4 ■ Test Pit ☐ Boring
" Depth of Organic Horizon Above Mineral Soil

Depth Below Mineral Soil Surface (inches)	Texture	Consistency	Color	Mottling
0	STONY SANDY LOAM		LT GRAY (ALBIC)	
			DK. YEL. BROWN	
20	LOAMY SAND & SAND	FRIABLE	YELLOWISH BROWN	
			LIGHT OLIVE BROWN	FEW, FAINT COMMON, FAINT △ △ △
40		SOMEWHAT FIRM TO FIRM	OLIVE	SATURATED
50	LIMIT OF EXCAVATION @ 53"			

Soil Classification: 3 (Profile) C (Condition) | Slope: % | Limiting Factor: 20" | ☒ Ground Water ☒ Restrictive Layer ☐ Bedrock ☐ Pit Depth

Soil Series Name: SKERRY | Drainage Class: MWD | Hydrologic Group: C

237/213 — SE/DEP

Site Evaluator / Soil Scientist Signature

1/30/18 — Date

JAMES LOGAN – LONGVIEW PARTNERS, LLC – 6 SECOND STREET – BUXTON, ME 04093 – longviewpartners213@gmail.com

Town, City, Plantation: BALDWIN | Street, Road, Subdivision: NATURE'S WILDERNESS C.G. | Owner's Name: (FOR) TERRADYN CONSULTANTS

TP'S BY EXCAVATOR

SOIL DESCRIPTION AND CLASSIFICATION (Location of Observation Holes Shown Above)

Observation Hole TP5 ■ Test Pit ☐ Boring
" Depth of Organic Horizon Above Mineral Soil

Depth below mineral soil surface (inches)	Texture	Consistency	Color	Mottling
0	STONY SANDY LOAM	FRIABLE	DARK YELLOWISH BROWN	
20			LIGHT OL. BROWN	FEW FAINT
30	STONY LOAMY SAND & SAND	SOMEWHAT FIRM TO FIRM	OLIVE	COMMON, DISTINCT
50	LIMIT OF EXCAVATION @ 62"			

FOR WASTEWATER DISPOSAL: Soil Classification: 3 C (Profile / Condition) | Slope: % | Limiting Factor: 17" | X Ground Water, X Restrictive Layer, ☐ Bedrock, ☐ Pit Depth
FOR SOILS MAPPING: Soil Series Name: SKERRY | Drainage Class: MWD | Hydrologic Group: C

Observation Hole TP6 ■ Test Pit ☐ Boring
" Depth of Organic Horizon Above Mineral Soil

Depth below mineral soil surface (inches)	Texture	Consistency	Color	Mottling
0	STONY FINE SANDY LOAM	FRIABLE	LT. GRAY (ALBIC)	
10			DARK YELLOWISH BROWN	
			YEL.-BR.	COM. FAINT
20	STONY LOAMY SAND & SAND	FIRM	(MIXED) OLIVE BROWN	COMMON, DISTINCT
50	LIMIT OF EXCAVATION			

Soil Classification: 3 D (Profile / Condition) | Slope: % | Limiting Factor: 13" | X Ground Water, X Restrictive Layer, ☐ Bedrock, ☐ Pit Depth
Soil Series Name: COLONEL | Drainage Class: SWP | Hydrologic Group: C

SOIL DESCRIPTION AND CLASSIFICATION (Location of Observation Holes Shown Above)

Observation Hole TP7 ■ Test Pit ☐ Boring
" Depth of Organic Horizon Above Mineral Soil

Depth below mineral soil surface (inches)	Texture	Consistency	Color	Mottling
0	STONY FINE SANDY LOAM	FRIABLE	DARK BROWN	
10			DARK YELLOWISH BROWN	
20			OLIVE BROWN	COMMON, FAINT
	STONY LOAMY SAND & SAND	FIRM	OLIVE GRAY	COMMON DISTINCT & FREE H2O
50	LIMIT OF EXCAVATION			

FOR WASTEWATER DISPOSAL: Soil Classification: 3 D (Profile / Condition) | Slope: % | Limiting Factor: 12" | X Ground Water, X Restrictive Layer, ☐ Bedrock, ☐ Pit Depth
FOR SOILS MAPPING: Soil Series Name: COLONEL | Drainage Class: SWP | Hydrologic Group: C

Observation Hole TP8 ■ Test Pit ☐ Boring
" Depth of Organic Horizon Above Mineral Soil

Depth below mineral soil surface (inches)	Texture	Consistency	Color	Mottling
0	STONY FINE SANDY LOAM	FRIABLE	DARK YELLOWISH BROWN	NONE EVIDENT
20	REFUSAL			

Soil Classification: 2 A (Profile / Condition) | Slope: % | Limiting Factor: 15-18" | ☐ Ground Water, ☐ Restrictive Layer, X Bedrock, ☐ Pit Depth
Soil Series Name: LYMAN | Drainage Class: EWD | Hydrologic Group: D

237/213 — 1/30/18
Site Evaluator / Soil Scientist Signature — Date

JAMES LOGAN – LONGVIEW PARTNERS, LLC – 6 SECOND STREET – BUXTON, ME 04093 – longviewpartners213@gmail.com

Town, City, Plantation: BALDWIN | Street, Road Subdivision: NATURE'S WILDERNESS C.G. | Owner's Name: (FOR) TERRADYN CONSULTANTS

TP's BY EXCAVATOR

SOIL DESCRIPTION AND CLASSIFICATION (Location of Observation Holes Shown Above)

Observation Hole: TP9 ■ Test Pit ☐ Boring
" Depth of Organic Horizon Above Mineral Soil

Depth (inches)	Texture	Consistency	Color	Mottling
0–16	FINE SANDY LOAM	FRIABLE	DARK YELLOWISH BROWN	NONE EVIDENT
16	BEDROCK			

FOR WASTEWATER DISPOSAL: Soil Classification: 2 (Profile) A (Condition) | Slope: % | Limiting Factor: 10-16" ☒ Ground Water ☐ Restrictive Layer ☒ Bedrock ☐ Pit Depth

FOR SOILS MAPPING: Soil Series Name: LYMAN | Drainage Class: EWD | Hydrologic Group: D

Observation Hole: TP10 ■ Test Pit ☐ Boring
" Depth of Organic Horizon Above Mineral Soil

Depth (inches)	Texture	Consistency	Color	Mottling
0–10	STONY FINE SANDY LOAM	FRIABLE	DARK YELLOWISH BROWN	
10–20			OLIVE BROWN	FEW, FAINT
20–50	STONY LOAMY SAND & SAND	FIRM	OLIVE GRAY	COMMON, FAINT
50	LIMIT OF EXCAVATION			

Soil Classification: 3 (Profile) C (Condition) | Slope: % | Limiting Factor: 15" ☒ Ground Water ☐ Restrictive Layer ☐ Bedrock ☐ Pit Depth

Soil Series Name: SKERRY | Drainage Class: MWD | Hydrologic Group: C

SOIL DESCRIPTION AND CLASSIFICATION (Location of Observation Holes Shown Above)

Observation Hole: TP11 ■ Test Pit ☐ Boring
" Depth of Organic Horizon Above Mineral Soil

Depth (inches)	Texture	Consistency	Color	Mottling
0–10	STONY FINE SANDY LOAM	FRIABLE	DK. BROWN	
10–16			DARK YELL. BR.	
16–20			YELLOWISH BROWN	
20–30	STONY LOAMY SAND & SAND	SOMEWHAT FIRM TO FIRM	OL. BROWN	FEW, FAINT
30–52			OLIVE	COMMON, DISTINCT
52	LIMIT OF EXCAVATION @ 52"			

FOR WASTEWATER DISPOSAL: Soil Classification: 3 (Profile) C (Condition) | Slope: % | Limiting Factor: 16" ☒ Ground Water ☐ Restrictive Layer ☐ Bedrock ☐ Pit Depth

FOR SOILS MAPPING: Soil Series Name: SKERRY | Drainage Class: MWD | Hydrologic Group: C

Observation Hole: TP12 ■ Test Pit ☐ Boring
" Depth of Organic Horizon Above Mineral Soil

Depth (inches)	Texture	Consistency	Color	Mottling
0–10	STONY FINE SANDY LOAM	FRIABLE	DARK BROWN	
10–16			DARK YELLOWISH BROWN	
16–20			YELL. BR.	
20–30			OLIVE BROWN	FEW, FAINT
30–40	STONY LOAMY SAND & SAND	SOMEWHAT FIRM TO FIRM	OLIVE	COMMON, DISTINCT
40	LIMIT OF EXCAVATION			

Soil Classification: 3 (Profile) C (Condition) | Slope: % | Limiting Factor: 20" ☒ Ground Water ☒ Restrictive Layer ☐ Bedrock ☐ Pit Depth

Soil Series Name: SKERRY | Drainage Class: MWD | Hydrologic Group: C

Site Evaluator / Soil Scientist Signature: SE/CSS 237/213 | Date: 1/30/18

JAMES LOGAN – LONGVIEW PARTNERS, LLC – 6 SECOND STREET – BUXTON, ME 04093 – longviewpartners213@gmail.com

Town, City, Plantation: BALDWIN | Street, Road, Subdivision: NATURE'S WILDERNESS C.G. | Owner's Name: (FOR) TERRADYN CONSULTANTS

TP'S BY EXCAVATOR

SOIL DESCRIPTION AND CLASSIFICATION (Location of Observation Holes Shown Above)

Observation Hole: TP13 ■ Test Pit ☐ Boring
" Depth of Organic Horizon Above Mineral Soil

Depth below mineral soil surface (inches)	Texture	Consistency	Color	Mottling
0	STONY FINE SANDY LOAM	FRIABLE	DK. BROWN / DARK YELLOWISH BROWN	
20			YELL. BR.	FEW FAINT
20	STONY LOAMY SAND & SAND	FIRM	OLIVE GRAY	COMMON, DISTINCT
60	LIMIT OF EXCAVATION			

FOR WASTEWATER DISPOSAL: Soil Classification: 3 C (Profile / Condition) | Slope: % | Limiting Factor: 16" | ☒ Ground Water ☐ Restrictive Layer ☐ Bedrock ☐ Pit Depth
FOR SOILS MAPPING: Soil Series Name: SKERRY | Drainage Class: MWD | Hydrologic Group: C

Observation Hole: TP14 ■ Test Pit ☐ Boring
" Depth of Organic Horizon Above Mineral Soil

Depth below mineral soil surface (inches)	Texture	Consistency	Color	Mottling
0	STONY FINE SANDY LOAM	FRIABLE	DARK BROWN / DARK YELLOWISH BROWN	FEW FAINT
20	STONY LOAMY SAND & SAND	FIRM	OLIVE GRAY	COMMON, DISTINCT
40			OLIVE	FEW FAINT
40				FREE H2O
60	LIMIT OF EXCAVATION @ 53"			

Soil Classification: 3 D (Profile / Condition) | Slope: % | Limiting Factor: 11" | ☒ Ground Water ☐ Restrictive Layer ☐ Bedrock ☐ Pit Depth
Soil Series Name: COLONEL | Drainage Class: SWP | Hydrologic Group: C

SOIL DESCRIPTION AND CLASSIFICATION (Location of Observation Holes Shown Above)

Observation Hole: TP15 ■ Test Pit ☐ Boring
" Depth of Organic Horizon Above Mineral Soil

Depth below mineral soil surface (inches)	Texture	Consistency	Color	Mottling
0	STONY FINE SANDY LOAM	FRIABLE	DARK BROWN / DK. YELL. BROWN / YELLOWISH BROWN	
20			OLIVE GRAY	FEW FAINT
30	STONY LOAMY SAND & SAND	FIRM	OLIVE BROWN	COMMON, DISTINCT
50	LIMIT OF EXCAVATION			

FOR WASTEWATER DISPOSAL: Soil Classification: 3 C (Profile / Condition) | Slope: % | Limiting Factor: 18" | ☒ Ground Water ☐ Restrictive Layer ☐ Bedrock ☐ Pit Depth
FOR SOILS MAPPING: Soil Series Name: SKERRY | Drainage Class: MWD | Hydrologic Group: C

Observation Hole: TP16 ■ Test Pit ☐ Boring
" Depth of Organic Horizon Above Mineral Soil

Depth below mineral soil surface (inches)	Texture	Consistency	Color	Mottling
0	STONY FINE SANDY LOAM	FRIABLE	DK. BROWN / DARK YELLOWISH BROWN / YELLOWISH BROWN	
20			OLIVE BROWN	FEW FAINT
30	STONY LOAMY SAND & SAND	FIRM		COMMON DISTINCT
50	LIMIT OF EXCAVATION			

Soil Classification: 3 C (Profile / Condition) | Slope: % | Limiting Factor: 19" | ☒ Ground Water ☐ Restrictive Layer ☐ Bedrock ☐ Pit Depth
Soil Series Name: SKERRY | Drainage Class: MWD | Hydrologic Group: C

Site Evaluator / Soil Scientist Signature: 237/213 SE/CSS | Date: 1/30/18 & 2/12/18

JAMES LOGAN – LONGVIEW PARTNERS, LLC – 6 SECOND STREET – BUXTON, ME 04093 – longviewpartners213@gmail.com

Town, City, Plantation: BALDWIN | Street, Road, Subdivision: NATURE'S WILDERNESS C.G. | Owner's Name: (FOR) TERRADYN CONSULTANTS

TP's BY EXCAVATOR

SOIL DESCRIPTION AND CLASSIFICATION (Location of Observation Holes Shown Above)

Observation Hole TP17 ■ Test Pit ☐ Boring
" Depth of Organic Horizon Above Mineral Soil

Depth below mineral soil surface (inches)	Texture	Consistency	Color	Mottling
0	STONY FINE SANDY LOAM	FRIABLE	LT. GRAY (ALBIC) / DARK YELLOWISH BROWN	
20	STONY SANDY LOAM		OLIVE BROWN	FEW, FAINT
30	STONY LOAMY SAND & SAND	FIRM	OLIVE	COMMON, DISTINCT
50	LIMIT OF EXCAVATION			

FOR WASTEWATER DISPOSAL: Soil Classification 3 C (Profile / Condition) | Slope ___ % | Limiting Factor 18" | ☒ Ground Water ☒ Restrictive Layer ☐ Bedrock ☐ Pit Depth
FOR SOILS MAPPING: Soil Series Name: SKERRY | Drainage Class: MWD | Hydrologic Group: C

Observation Hole TP18 ■ Test Pit ☐ Boring
" Depth of Organic Horizon Above Mineral Soil

Depth below mineral soil surface (inches)	Texture	Consistency	Color	Mottling
0	STONY SANDY LOAM	FRIABLE	LT. GRAY (ALBIC) / MIXED DK. YEL. BR.	
20	STONY LOAMY SAND & SAND	FIRM	OLIVE	COMMON DISTINCT
50	LIMIT OF EXCAVATION			

Soil Classification 3 E (Profile / Condition) | Slope ___ % | Limiting Factor 28" | ☒ Ground Water ☒ Restrictive Layer ☐ Bedrock ☐ Pit Depth
Soil Series Name: BRAYTON | Drainage Class: P.D. | Hydrologic Group: D

SOIL DESCRIPTION AND CLASSIFICATION (Location of Observation Holes Shown Above)

Observation Hole TP19 ■ Test Pit ☐ Boring
" Depth of Organic Horizon Above Mineral Soil

Depth below mineral soil surface (inches)	Texture	Consistency	Color	Mottling
0	STONY FINE SANDY LOAM	FRIABLE	DK. BROWN / DARK YELLOWISH BROWN	
20			MIXED Y. BROWN	FEW FAINT
30	STONY LOAMY SAND & SAND	FIRM	OLIVE BROWN	COMMON DISTINCT
50	LIMIT OF EXCAVATION			

FOR WASTEWATER DISPOSAL: Soil Classification 3 C (Profile / Condition) | Slope ___ % | Limiting Factor 18" | ☒ Ground Water ☒ Restrictive Layer ☐ Bedrock ☐ Pit Depth
FOR SOILS MAPPING: Soil Series Name: SKERRY | Drainage Class: MWD | Hydrologic Group: C

Observation Hole TP20 ■ Test Pit ☐ Boring
" Depth of Organic Horizon Above Mineral Soil

Depth below mineral soil surface (inches)	Texture	Consistency	Color	Mottling
0	STONY FINE SANDY LOAM	FRIABLE	DARK BROWN / DARK YELLOWISH BROWN	
20			YELLOWISH BROWN	FEW FAINT
30	STONY LOAMY SAND & SAND	SOMEWHAT FIRM TO FIRM	MIXED OLIVE BROWN	COMMON, DISTINCT
50	LIMIT OF EXCAVATION			

Soil Classification 3 C (Profile / Condition) | Slope ___ % | Limiting Factor 18" | ☒ Ground Water ☒ Restrictive Layer ☐ Bedrock ☐ Pit Depth
Soil Series Name: SKERRY | Drainage Class: MWD | Hydrologic Group: C

237/213 SE/096 — Site Evaluator / Soil Scientist Signature

2/12/18 — Date

JAMES LOGAN – LONGVIEW PARTNERS, LLC – 6 SECOND STREET – BUXTON, ME 04093 – longviewpartners213@gmail.com

Town, City, Plantation: BALDWIN

Street, Road Subdivision: NATURE'S WILDERNESS

Owner's Name: (FOR) TERRADYN CONSULTANTS, LLC

TP'S BY EXCAVATOR C.G.

SOIL DESCRIPTION AND CLASSIFICATION (Location of Observation Holes Shown Above)

Observation Hole: TP21 ■ Test Pit ☐ Boring

" Depth of Organic Horizon Above Mineral Soil

Depth (inches)	Texture	Consistency	Color	Mottling
0	ORGANIC		REDDISH BROWN	
10	FRIABLE			
20	FINE SANDY LOAM		BLACK	FREE H2O
30	STONY LOAMY SAND	FIRM	OLIVE GRAY	
40				
50				

FOR WASTEWATER DISPOSAL — Soil Classification: 3 E (Profile / Condition) | Slope: % | Limiting Factor: 0" | ☒ Ground Water ☐ Restrictive Layer ☐ Bedrock ☐ Pit Depth

FOR SOILS MAPPING — Soil Series Name: PEACHAM | Drainage Class: V.P.D. | Hydrologic Group: D

Observation Hole: TP22 ■ Test Pit ☐ Boring

" Depth of Organic Horizon Above Mineral Soil

Depth (inches)	Texture	Consistency	Color	Mottling
0	STONY FINE SANDY LOAM	FRIABLE	DK. BROWN DARK YELLOWISH BROWN	
10				
20	STONY LOAMY SAND & SAND	FIRM	Y. BROWN OLIVE BROWN	FEW, FAINT COMMON, DISTINCT
30				
40				
50				

Soil Classification: 3 C (Profile / Condition) | Slope: % | Limiting Factor: 15" | ☒ Ground Water ☒ Restrictive Layer ☐ Bedrock ☐ Pit Depth

Soil Series Name: SKERRY | Drainage Class: MWD | Hydrologic Group: C

SOIL DESCRIPTION AND CLASSIFICATION (Location of Observation Holes Shown Above)

Observation Hole: TP23 ■ Test Pit ☐ Boring

" Depth of Organic Horizon Above Mineral Soil

Depth (inches)	Texture	Consistency	Color	Mottling
0	STONY FINE SANDY LOAM	FRIABLE	DK. BROWN DARK YELLOWISH BROWN	
10				
20	STONY LOAMY SAND & SAND	FIRM	YELLOWISH BROWN OLIVE BROWN	FEW, FAINT COMMON, DISTINCT
30				
40				
50	LIMIT OF EXCAVATION			

FOR WASTEWATER DISPOSAL — Soil Classification: 3 C (Profile / Condition) | Slope: % | Limiting Factor: 16" | ☒ Ground Water ☒ Restrictive Layer ☐ Bedrock ☐ Pit Depth

FOR SOILS MAPPING — Soil Series Name: SKERRY | Drainage Class: MWD | Hydrologic Group: C

Observation Hole: ■ Test Pit ☐ Boring

" Depth of Organic Horizon Above Mineral Soil

Depth (inches)	Texture	Consistency	Color	Mottling
0				
10				
20				
30				
40				
50				

Soil Classification: Profile / Condition | Slope: % | Limiting Factor: " | ☐ Ground Water ☐ Restrictive Layer ☐ Bedrock ☐ Pit Depth

Soil Series Name: | Drainage Class: | Hydrologic Group:

Site Evaluator / Soil Scientist Signature — SE/SSS # 237/213 — Date 2/12/18

JAMES LOGAN – LONGVIEW PARTNERS, LLC – 6 SECOND STREET – BUXTON, ME 04093 – longviewpartners213@gmail.com

Attachment 6: HHE-200 forms

SUBSURFACE WASTEWATER DISPOSAL SYSTEM APPLICATION

Maine Dept.Health & Human Services
Div of Environmental Health , 11 SHS
(207) 287-5672 Fax: (207) 287-4172

PROPERTY LOCATION

City, Town, or Plantation	BALDWIN
Street or Road	2 UPPER TWAIN ROAD
Subdivision, Lot #	

OWNER/APPLICANT INFORMATION

Name (last, first, MI) — Owner / Applicant
NATURE'S WILDERNESS RESORT

Mailing Address of Owner/Applicant
c/o SCOTT EFRON
2 UPPER TWAIN ROAD
BALDWIN, ME 04091

Daytime Tel. # 207-787-6012

OWNER OR APPLICANT STATEMENT

I state and acknowledge that the information submitted is correct to the best of my knowledge and understand that any falsification is reason for the Department and/or Local Plumbing Inspector to deny a Permit.

Signature of Owner or Applicant _____ Date _____

>> CAUTION: LPI APPROVAL REQUIRED <<

Town/City _____ Permit # _____

Date Permit Issued ___/___/___ Fee: $_____ Double Fee Charged

Local Plumbing Inspector Signature _____ LPI. # _____

□ Owner □ Town □ State

The Subsurface Wastewater Disposal System shall not be installed until a Permit is issued by the Local Plumbing Inspector: The Permit shall authorize the owner or installer to install the disposal system in accordance with this application and the Maine Subsurface Wastewater Disposal Rules.

Municipal Tax Map # 7 Lot # 22

CAUTION: INSPECTION REQUIRED

I have inspected the installation authoirzed above and found it to be in compliance with the Subsurface Wastewater Disposal Rules Application. _____ (1st) date approved

Local Plumbing Inspector Signature _____ (2nd) date approved

PERMIT INFORMATION

TYPE OF APPLICATION

[1. First Time System]
2. Replacement System
Type replaced: _____
Year installed: _____
3. Expanded System
a. <25% Expansion
b. >25% Expansion
4. Experimental System
5. Seasonal Conversion

THIS APPLICATION REQUIRES

[1. No Rule Variance]
2. First Time System Variance
a. Local Plumbing Inspector Approval
b. State & Local Plumbing Inspector Approval
3. Replacement System Variance
a. Local Plumbing Inspector Approval
b. State & Local Plumbing Inspector Approval
4. Minimum Lot Size Variance
5. Seasonal Conversion Permit

DISPOSAL SYSTEM COMPONENTS

[1. Complete Non-engineered System]
2. Primitive System (graywater & alt. toilet)
3. Alternative Toilet, specify: _____
4. Non-engineered Treatment Tank (only)
5. Holding Tank, _____ gallons.
6. Non-engineered Disposal Field (only)
7. Separated Laundry System
8. Complete Engineered System (2000 gpd or more)
9. Engineered Treatment Tank (only)
10. Engineered Disposal Field (only)
11. Pre-treatment, specify: _____
12. Miscellaneous Components

SIZE OF PROPERTY

301.08+/- [SQ. FT.] [ACRES]

SHORELAND ZONING

Yes [No]

DISPOSAL SYSTEM TO SERVE

1. Single Family Dwelling Unit, No. of Bedrooms: ____
2. Multiple Family Dwelling, No. of Units: ____
3. Other: CAMPGROUND-14 SITES (specify)

Current Use Seasonal Year Round [Undeveloped]

TYPE OF WATER SUPPLY

PROPOSED
[1. Drilled Well] 2. Dug Well 3. Private
4. Public 5. Other

DESIGN DETAILS (SYSTEM LAYOUT SHOWN ON PAGE 3)

TREATMENT TANKS

[1. Concrete]
a. Regular H-20 RATED
b. Low Profile
2. Plastic
3. Other: _____
CAPACITY: 1500 GAL.

DISPOSAL FIELD TYPE & SIZE

1. Stone Bed 2. Stone Trench
[3. Proprietary Device]
[a. cluster array] c. Linear
b. regular load [d. H-20 load]
4. Other: _____
SIZE: 3328 [sq. ft.] lin. ft.
52 CONCRETE CHAMBERS

GARBAGE DISPOSAL UNIT

[1. No] 2. Yes 3. Maybe
If Yes or Maybe, specify one below:
a. multi-compartment tank
b. ___ tanks in series
c. increase in tank capacity
[d. Filter on Tank Outlet]

DESIGN FLOW

840 gallons per day
BASED ON:
1. Table 4A (dwelling unit(s))
[2. Table 4C(other facilities)]
SHOW CALCULATIONS for other facilites
-CAMPGROUND-
14 SITES AT 60 GALLONS PER DAY/SITE
14 X 60 = 840 GPD
SHARED RESTROOM WITH SHOWERS
3. Section 4G (meter readings)
ATTACH WATER METER DATA

SOIL DATA & DESIGN CLASS

PROFILE CONDITION
3 / D
at Observation Hole # TP 6
Depth 13 "
of Most Limiting Soil Factor

DISPOSAL FIELD SIZING

1. Medium---2.6 sq. ft. / gpd
[2. Medium---Large 3.3 sq. f.t / gpd]
3. Large---4.1 sq. ft. / gpd
4. Extra Large---5.0 sq. ft. / gpd

EFFLUENT/EJECTOR PUMP

1. Not Required
[2. May Be Required] SEE NOTE ON PAGE 3
3. Required
Specify only for engineered systems:
DOSE: _____ gallons

LATITUDE AND LONGITUDE

at center of disposal area
Lat. 43 d 38 m 09 s
Lon. 70 d 20 m 48 s
if g.p.s, state margin of error: _____

SITE EVALUATOR STATEMENT

I certify that on 8/30/18 (date) I completed a site evaluation on this property and state that the data reported are accurate and that the proposed system is in compliance with the State of Maine Subsurface Wastewater Disposal Rules (10-144A CMR 241).

James Logan
Site Evaluator Signature

237
SE #

9/24/18
Date

JAMES LOGAN
Site Evaluator Name Printed

207-693-8799
Telephone Number

longviewpartners213@gmail.com
E-mail Address

Note : Changes to or deviations from the design should be confirmed with the Site Evaluator.

SUBSURFACE WASTEWATER DISPOSAL SYSTEM APPLICATION

Department of Human Services
Division of Health Engineering
(207) 287-5672 Fax: (207) 287-3165

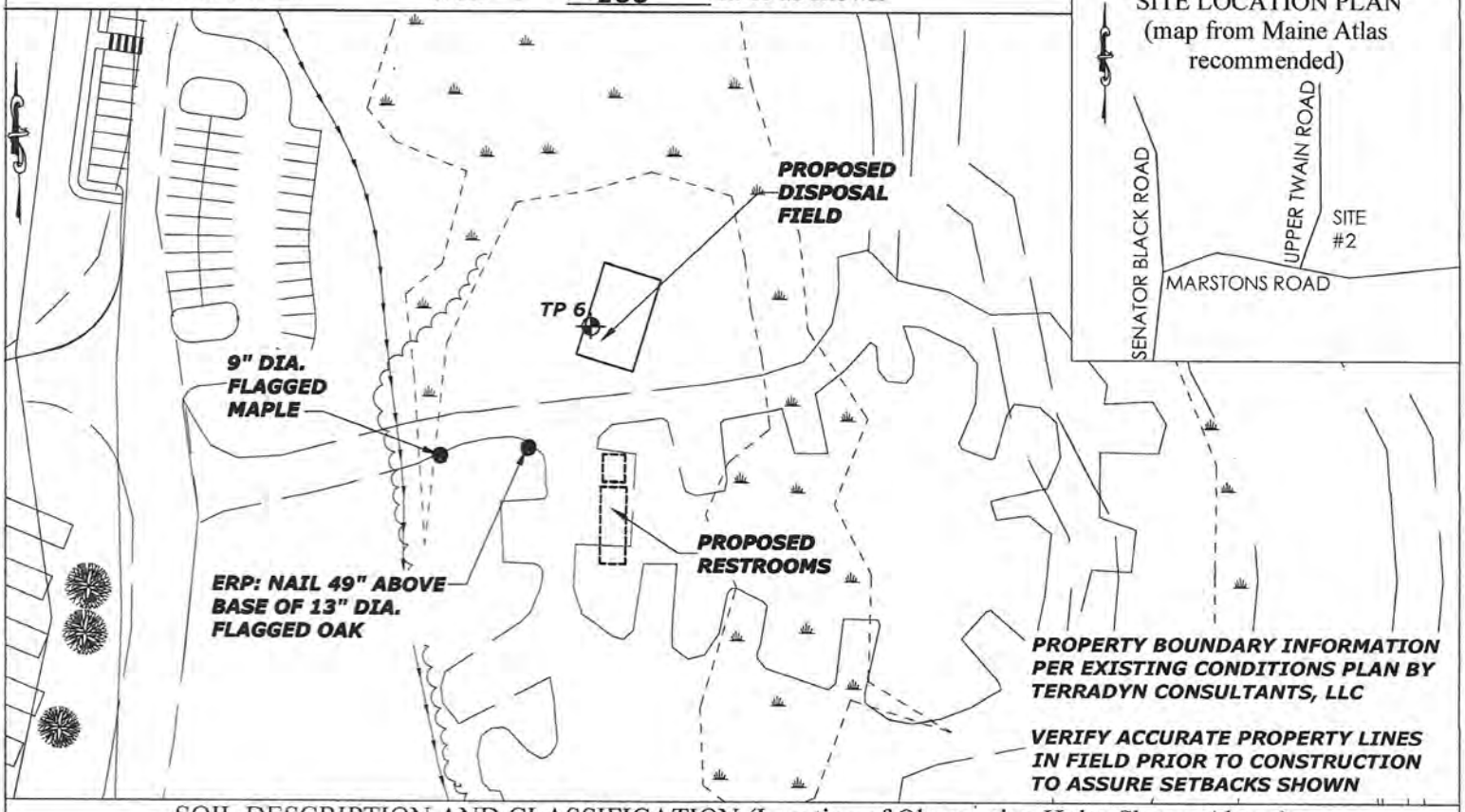
Town, City, Plantation: **BALDWIN**

Street, Road, Subdivision: **2 UPPER TWAIN ROAD**

Owner's Name: **NATURE'S WILDERNESS RESORT**

SITE PLAN

Scale 1" = **100** ft. or as shown



SITE LOCATION PLAN
(map from Maine Atlas recommended)

SOIL DESCRIPTION AND CLASSIFICATION (Location of Observation Holes Shown Above)

Observation Hole **TP 6** ■ Test Pit □ Boring

" Depth of Organic Horizon Above Mineral Soil

SOIL TEST PIT BY BACKHOE

Depth Below Mineral Soil Surface (inches)	Texture	Consistency	Color	Mottling
0–10	STONY FINE SANDY LOAM	FRIABLE	LIGHT GRAY (ALBIC); DARK YELLOWISH BROWN; YELLOWISH BROWN	COMMON FAINT
10–20	STONY LOAMY SAND & SAND	FIRM	MIXED OLIVE BROWN	COMMON DISTINCT
20–50				

LIMIT OF EXCAVATION @ 51"

Soil Classification	Slope	Limiting Factor	
3 (Profile) D (Condition)	3-4 %	13 "	[X] Ground Water [ ] Restrictive Layer [ ] Bedrock [ ] Pit Depth

Observation Hole _____ □ Test Pit □ Boring

" Depth of Organic Horizon Above Mineral Soil

Depth Below Mineral Soil Surface (inches)	Texture	Consistency	Color	Mottling
0–50				

Soil Classification	Slope	Limiting Factor	
Profile Condition	%	"	[ ] Ground Water [ ] Restrictive Layer [ ] Bedrock [ ] Pit Depth

James Logan — Site Evaluator Signature

237 — SE #

9/24/18 — Date

SUBSURFACE WASTEWATER DISPOSAL SYSTEM APPLICATION

Department of Human Services
Division of Health Engineering
(207) 287-5672 Fax: (207) 287-3165

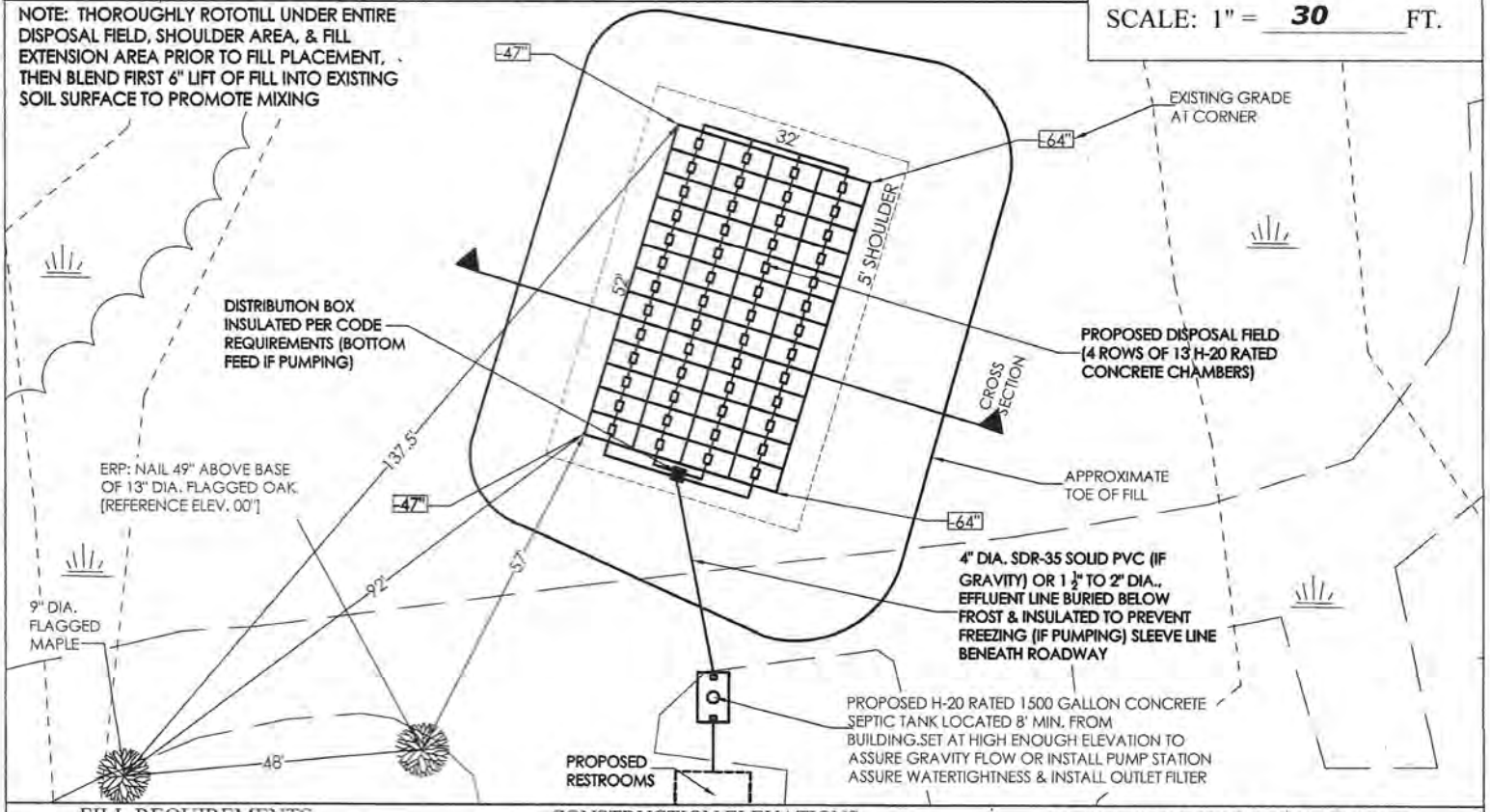
Town, City, Plantation: **BALDWIN**

Street, Road, Subdivision: **2 UPPER TWAIN ROAD**

Owner's Name: **NATURE'S WILDERNESS RESORT**

SUBSURFACE WASTEWATER DISPOSAL PLAN

SCALE: 1" = **30** FT.



FILL REQUIREMENTS

Depth of Fill (Upslope): **36"**

Depth of Fill (Downslope): **50"- 53"**

CONSTRUCTION ELEVATIONS

Finished Grade Elevation	**-11"**
Top of Distribution Pipe or Proprietary Device	**-23"**
Bottom of Disposal Area	**-42"**

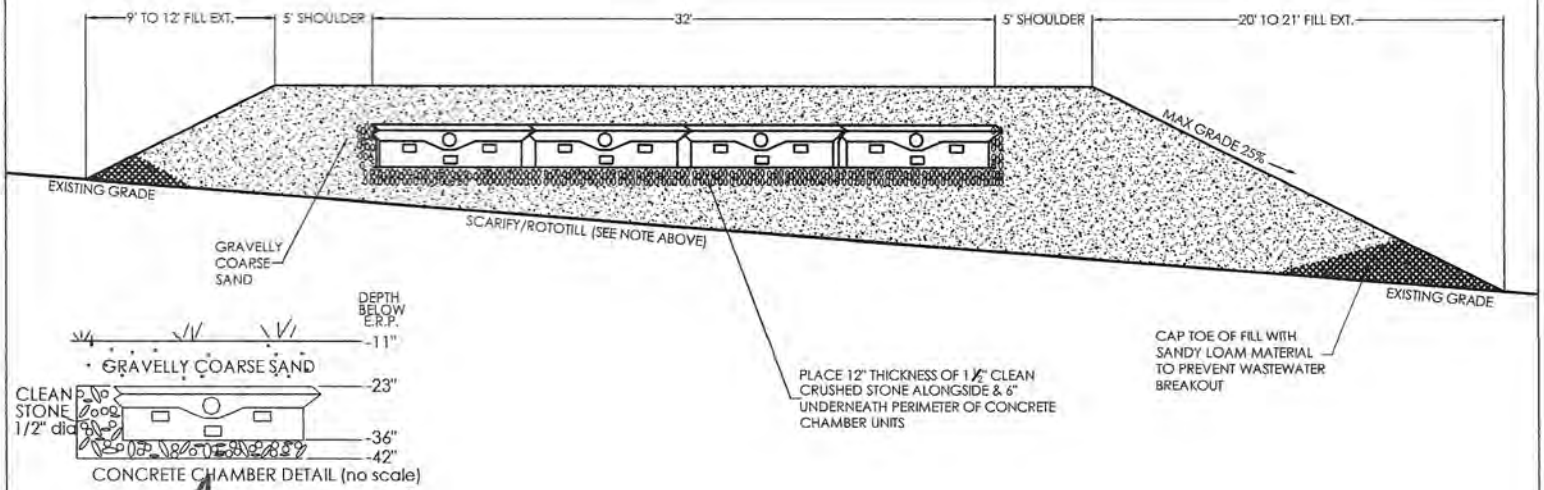
ELEVATION REFERENCE POINT

Location & Description: ***NAIL 49" ABOVE BASE OF 13" DIA. FLAGGED OAK***

Reference Elevation: **00"**

DISPOSAL AREA CROSS SECTION

Scale
Horizontal 1" = **10** ft.
Vertical 1" = **5** ft.



James Logan — Site Evaluator Signature

237 — SE #

9/24/18 — Date

SUBSURFACE WASTEWATER DISPOSAL SYSTEM APPLICATION

Maine Dept.Health & Human Services
Div of Environmental Health , 11 SHS
(207) 287-5672 Fax: (207) 287-4172

PROPERTY LOCATION

City, Town, or Plantation	**BALDWIN**
Street or Road	**2 UPPER TWAIN ROAD**
Subdivision, Lot #	

OWNER/APPLICANT INFORMATION

Name (last, first, MI): **NATURE'S WILDERNESS RESORT** Owner Applicant

Mailing Address of Owner/Applicant: **c/o SCOTT EFRON**
2 UPPER TWAIN ROAD
BALDWIN, ME 04091

Daytime Tel. #: **207-787-6012**

OWNER OR APPLICANT STATEMENT

I state and acknowledge that the information submitted is correct to the best of my knowledge and understand that any falsification is reason for the Department and/or Local Plumbing Inspector to deny a Permit.

Signature of Owner or Applicant _____ Date _____

>> CAUTION: LPI APPROVAL REQUIRED <<

Town/City _____ Permit # _____

Date Permit issued ___/___/___ Fee: $_____ Double Fee Charged

Local Plumbing Inspector Signature _____ LPI. # _____

□ Owner □ Town □ State

The Subsurface Wastewater Disposal System shall not be installed until a Permit is issued by the Local Plumbing Inspector: The Permit shall authorize the owner or installer to install the disposal system in accordance with this application and the Maine Subsurface Wastewater Disposal Rules.

Municipal Tax Map # **7** Lot # **22**

CAUTION: INSPECTION REQUIRED

I have inspected the installation authoirzed above and found it to be in compliance with the Subsurface Wastewater Disposal Rules Application. _____ (1st) date approved

Local Plumbing Inspector Signature _____ (2nd) date approved

PERMIT INFORMATION

TYPE OF APPLICATION

[1. First Time System]
2. Replacement System
Type replaced: _____
Year installed: _____
3. Expanded System
a. <25% Expansion
b. >25% Expansion
4. Experimental System
5. Seasonal Conversion

THIS APPLICATION REQUIRES

[1. No Rule Variance]
2. First Time System Variance
a. Local Plumbing Inspector Approval
b. State & Local Plumbing Inspector Approval
3. Replacement System Variance
a. Local Plumbing Inspector Approval
b. State & Local Plumbing Inspector Approval
4. Minimum Lot Size Variance
5. Seasonal Conversion Permit

DISPOSAL SYSTEM COMPONENTS

[1. Complete Non-engineered System]
2. Primitive System (graywater & alt. toilet)
3. Alternative Toilet, specify: _____
4. Non-engineered Treatment Tank (only)
5. Holding Tank, _____ gallons .
6. Non-engineered Disposal Field (only)
7. Separated Laundry System
8. Complete Engineered System (2000 gpd or more)
9. Engineered Treatment Tank (only)
10. Engineered Disposal Field (only)
11. Pre-treatment, specify: _____
12. Miscellaneous Components

SIZE OF PROPERTY

301.08+/- [SQ. FT.] ACRES

SHORELAND ZONING

Yes [No]

DISPOSAL SYSTEM TO SERVE

1. Single Family Dwelling Unit, No. of Bedrooms: ____
2. Multiple Family Dwelling, No. of Units: ____
3. Other: **CAMPGROUND-12 RV SITES**
(specify)

Current Use Seasonal Year Round [Undeveloped]

TYPE OF WATER SUPPLY

PROPOSED

[1. Drilled Well] 2. Dug Well 3. Private
[4. Public] 5. Other

DESIGN DETAILS (SYSTEM LAYOUT SHOWN ON PAGE 3)

TREATMENT TANKS

[1. Concrete]
a. Regular **H-20 RATED**
b. Low Profile
2. Plastic
3. Other: _____
CAPACITY: **1500** GAL
(OR 2-1000's IN SERIES)

DISPOSAL FIELD TYPE & SIZE

1. Stone Bed 2. Stone Trench
[3. Proprietary Device]
[a. cluster array] c. Linear
b. regular load [d. H-20 load]
4. Other: _____
SIZE: **3264** [sq. ft.] lin. ft.
51 CONCRETE CHAMBERS

GARBAGE DISPOSAL UNIT

[1. No] 2. Yes 3. Maybe
If Yes or Maybe, specify one below:
a. multi-compartment tank
b. ___ tanks in series
c. increase in tank capacity
[d. Filter on Tank Outlet]

DESIGN FLOW

900 gallons per day
BASED ON:
1. Table 4A (dwelling unit(s))
[2. Table 4C(other facilities)]
SHOW CALCULATIONS for other facilites
-CAMPGROUND-
12 RV SITES (WITH WATER & SEWER AT EACH SITE) AT 75 GALLONS PER DAY/SITE
12 X 75 = 900 GPD
3. Section 4G (meter readings)
ATTACH WATER METER DATA

SOIL DATA & DESIGN CLASS

PROFILE **3** CONDITION **C**
at Observation Hole # **TP 2**
Depth **48** "
of Most Limiting Soil Factor

DISPOSAL FIELD SIZING

1. Medium---2.6 sq. ft. / gpd
[2. Medium---Large 3.3 sq. ft / gpd]
3. Large---4.1 sq. ft. / gpd
4. Extra Large---5.0 sq. ft. / gpd

EFFLUENT/EJECTOR PUMP

1. Not Required
[2. May Be Required]
3. Required
SEE NOTE ON PAGE 3
Specify only for engineered systems:
DOSE: _____ gallons

LATITUDE AND LONGITUDE

at center of disposal area
Lat. **43** d **49** m **41** s
Lon. **70** d **44** m **33** s
if g.p.s, state margin of error: _____

SITE EVALUATOR STATEMENT

I certify that on **8/30/18** (date) I completed a site evaluation on this property and state that the data reported are accurate and that the proposed system is in compliance with the State of Maine Subsurface Wastewater Disposal Rules (10-144A CMR 241).

James Logan — **237** — 9/24/18
Site Evaluator Signature | SE # | Date

JAMES LOGAN — **207-693-8799** — **longviewpartners213@gmail.com**
Site Evaluator Name Printed | Telephone Number | E-mail Address

Note : Changes to or deviations from the design should be confirmed with the Site Evaluator.

HHE-200 Rev. 08/2011

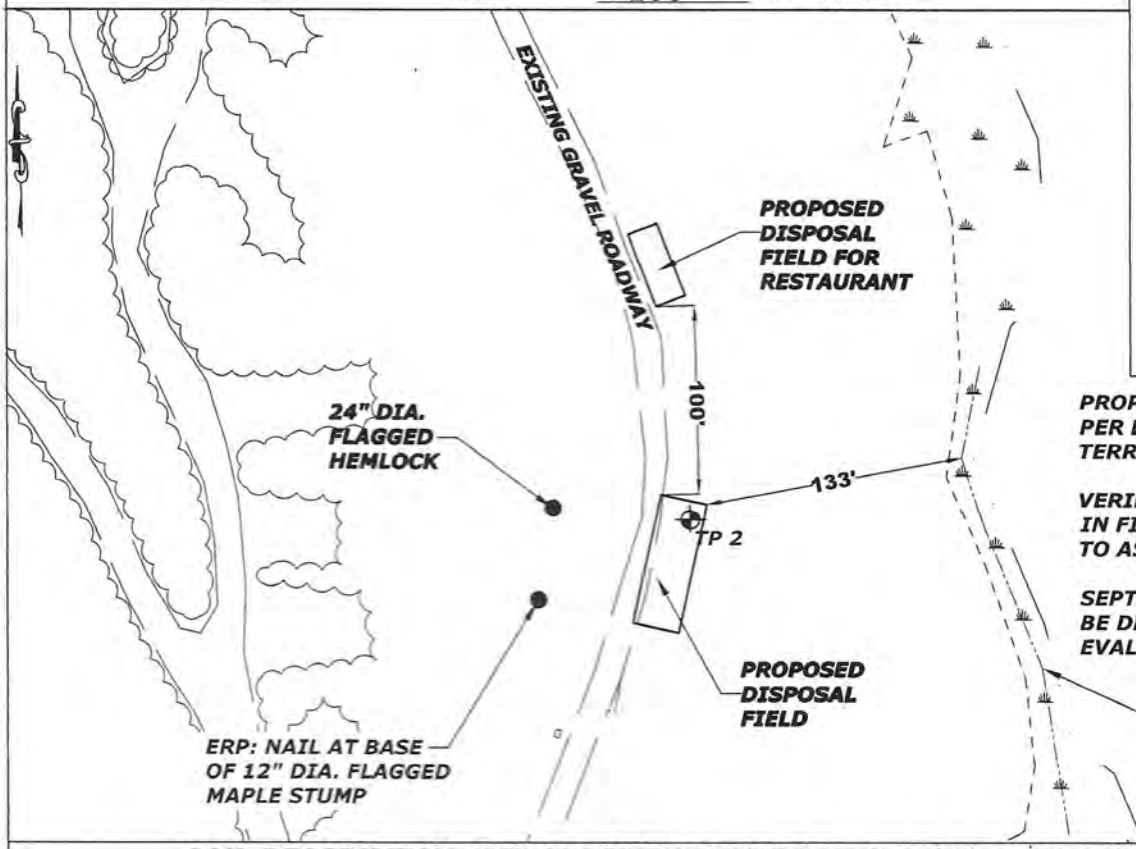
SUBSURFACE WASTEWATER DISPOSAL SYSTEM APPLICATION

Department of Human Services
Division of Health Engineering
(207) 287-5672 Fax: (207) 287-3165

Town, City, Plantation	Street, Road, Subdivision	Owner's Name
BALDWIN	**2 UPPER TWAIN ROAD**	**NATURE'S WILDERNESS RESORT**

SITE PLAN

Scale 1" = **100** ft. or as shown



SITE LOCATION PLAN
(map from Maine Atlas recommended)

PROPERTY BOUNDARY INFORMATION PER EXISTING CONDITIONS PLAN BY TERRADYN CONSULTANTS, LLC

VERIFY ACCURATE PROPERTY LINES IN FIELD PRIOR TO CONSTRUCTION TO ASSURE SETBACKS SHOWN

SEPTIC TANK/PIPING LOCATIONS TO BE DETERMINED ON-SITE WITH SITE EVALUATOR

SOIL DESCRIPTION AND CLASSIFICATION (Location of Observation Holes Shown Above)

Observation Hole **TP 2** ■ Test Pit □ Boring

" Depth of Organic Horizon Above Mineral Soil

SOIL TEST PIT BY BACKHOE

Depth Below Mineral Soil Surface (inches)	Texture	Consistency	Color	Mottling
0–10	SANDY LOAM & LOAMY SAND (FILL)		VARIABLE BROWN	
10–20		FRIABLE		
20–30				
30–40	STONY FINE SANDY LOAM		DARK YELLOWISH BROWN	
40–50			YELLOWISH BROWN	
50	STONY LOAMY SAND	FIRM	OLIVE BROWN	COMMON FAINT

Soil Classification	Slope	Limiting Factor	
FILL OVER 3 / C (Profile / Condition)	0-1 %	48 "	[X] Ground Water [X] Restrictive Layer [ ] Bedrock [ ] Pit Depth

Observation Hole _____ □ Test Pit □ Boring

" Depth of Organic Horizon Above Mineral Soil

Depth Below Mineral Soil Surface (inches)	Texture	Consistency	Color	Mottling
0–50				

Soil Classification	Slope	Limiting Factor	
Profile / Condition	%	"	[ ] Ground Water [ ] Restrictive Layer [ ] Bedrock [ ] Pit Depth

James Logan — Site Evaluator Signature

237 — SE #

9/24/18 — Date

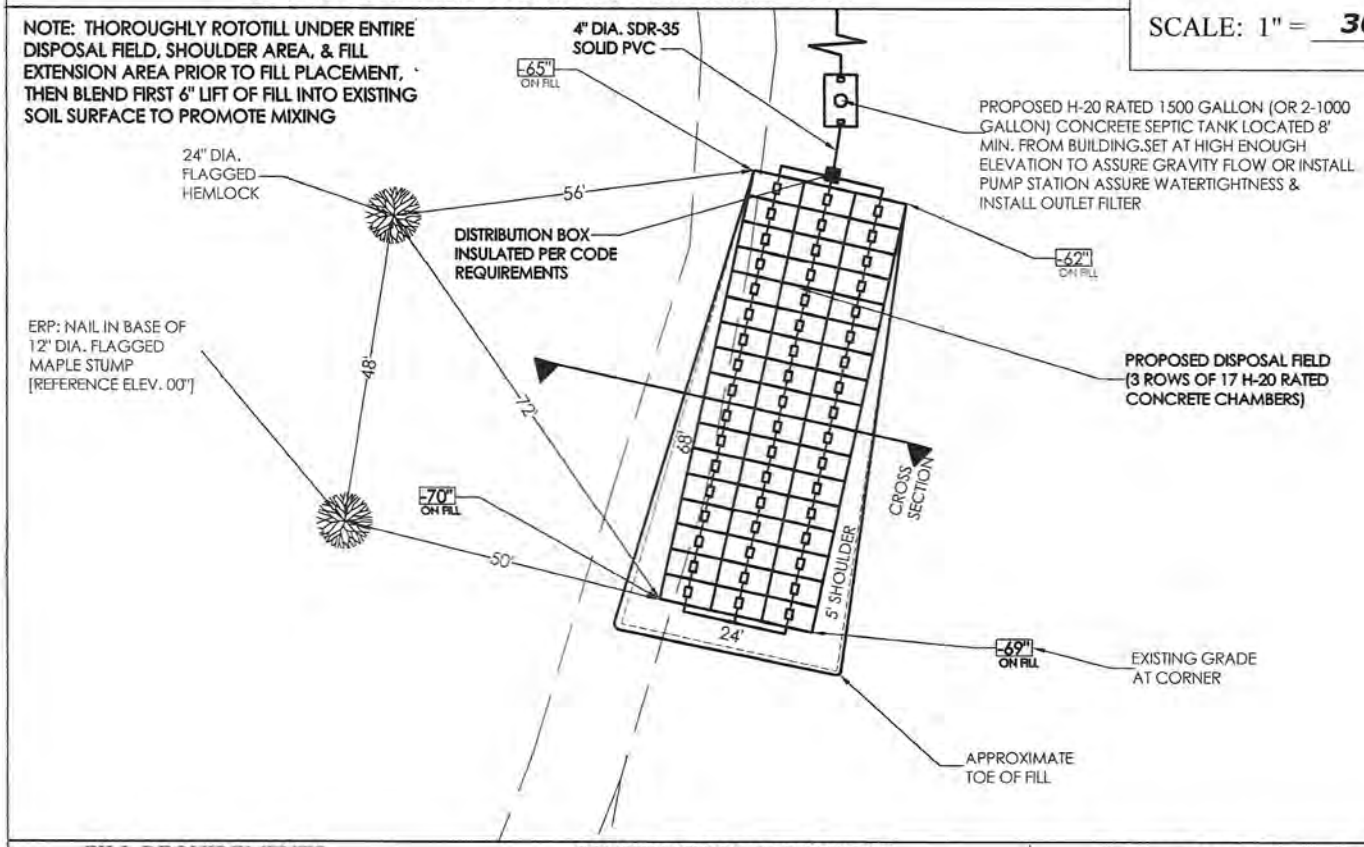
SUBSURFACE WASTEWATER DISPOSAL SYSTEM APPLICATION

Department of Human Services
Division of Health Engineering
(207) 287-5672 Fax: (207) 287-3165

Town, City, Plantation	Street, Road, Subdivision	Owner's Name
BALDWIN	**2 UPPER TWAIN ROAD**	**NATURE'S WILDERNESS RESORT**

SUBSURFACE WASTEWATER DISPOSAL PLAN

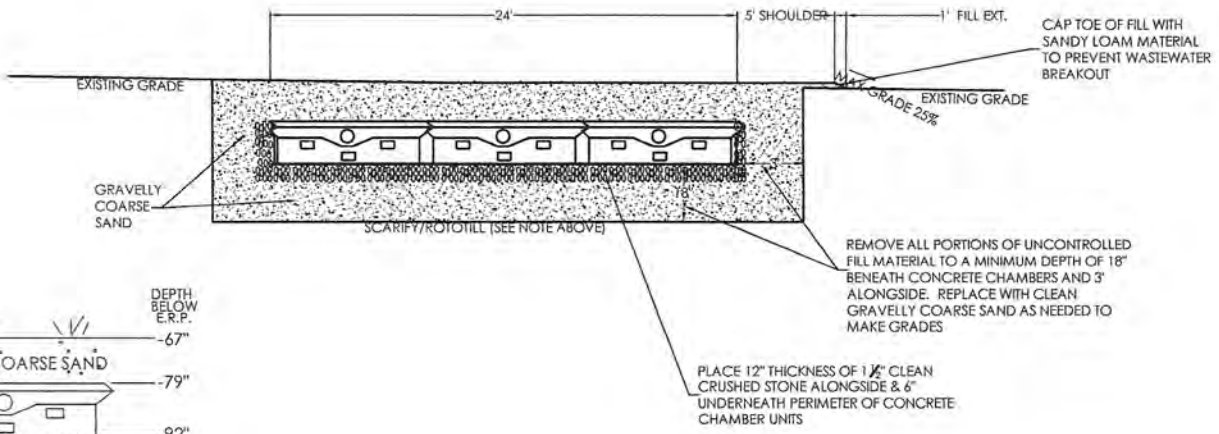
SCALE: 1" = **30** FT.

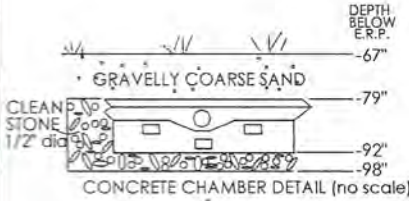


FILL REQUIREMENTS		CONSTRUCTION ELEVATIONS		ELEVATION REFERENCE POINT
Depth of Fill (Upslope)	**0"- 2"**	Finished Grade Elevation	**-67"**	Location & Description: ***NAIL AT BASE OF 12" DIA. FLAGGED MAPLE STUMP***
Depth of Fill (Downslope)	**0"- 3"**	Top of Distribution Pipe or Proprietary Device	**-79"**	Reference Elevation: **00"**
		Bottom of Disposal Area	**-98"**	

DISPOSAL AREA CROSS SECTION

Scale
Horizontal 1" = **10** ft.
Vertical 1" = **5** ft.





CONCRETE CHAMBER DETAIL (no scale)

James Logan — Site Evaluator Signature

237 — SE #

9/24/18 — Date

SUBSURFACE WASTEWATER DISPOSAL SYSTEM APPLICATION

Maine Dept.Health & Human Services
Div of Environmental Health , 11 SHS
(207) 287-5672 Fax: (207) 287-4172

PROPERTY LOCATION

City, Town, or Plantation	**BALDWIN**
Street or Road	**2 UPPER TWAIN ROAD**
Subdivision, Lot #	

OWNER/APPLICANT INFORMATION

Name (last, first, MI): **NATURE'S WILDERNESS RESORT** Owner Applicant

Mailing Address of Owner/Applicant	**c/o SCOTT EFRON** **2 UPPER TWAIN ROAD** **BALDWIN, ME 04091**
Daytime Tel. #	**207-787-6012**

OWNER OR APPLICANT STATEMENT

I state and acknowledge that the information submitted is correct to the best of my knowledge and understand that any falsification is reason for the Department and/or Local Plumbing Inspector to deny a Permit.

Signature of Owner or Applicant _____ Date _____

>> CAUTION: LPI APPROVAL REQUIRED <<

Town/City _____ Permit # _____

Date Permit Issued ___/___/___ Fee: $_____ Double Fee Charged

_____
Local Plumbing Inspector Signature

LPI. # _____

□ Owner □ Town □ State

The Subsurface Wastewater Disposal System shall not be installed until a Permit is issued by the Local Plumbing Inspector: The Permit shall authorize the owner or installer to install the disposal system in accordance with this application and the Maine Subsurface Wastewater Disposal Rules.

Municipal Tax Map # **7** Lot # **22**

CAUTION: INSPECTION REQUIRED

I have inspected the installation authoirzed above and found it to be in compliance with the Subsurface Wastewater Disposal Rules Application. _____ (1st) date approved

_____ Local Plumbing Inspector Signature _____ (2nd) date approved

PERMIT INFORMATION

TYPE OF APPLICATION

[1. First Time System]
2. Replacement System
Type replaced: _____
Year installed: _____
3. Expanded System
a. <25% Expansion
b. ≥25% Expansion
4. Experimental System
5. Seasonal Conversion

THIS APPLICATION REQUIRES

[1. No Rule Variance]
2. First Time System Variance
a. Local Plumbing Inspector Approval
b. State & Local Plumbing Inspector Approval
3. Replacement System Variance
a. Local Plumbing Inspector Approval
b. State & Local Plumbing Inspector Approval
4. Minimum Lot Size Variance
5. Seasonal Conversion Permit

DISPOSAL SYSTEM COMPONENTS

[1. Complete Non-engineered System]
2. Primitive System (graywater & alt. toilet)
3. Alternative Toilet, specify: _____
4. Non-engineered Treatment Tank (only)
5. Holding Tank, _____ gallons .
6. Non-engineered Disposal Field (only)
7. Separated Laundry System
8. Complete Engineered System (2000 gpd or more)
9. Engineered Treatment Tank (only)
10. Engineered Disposal Field (only)
11. Pre-treatment, specify: _____
[12. Miscellaneous Components ***750 GALLON GREASE TRAP***]

SIZE OF PROPERTY

301.08+/- SQ. FT. [ACRES]

SHORELAND ZONING

Yes [No]

DISPOSAL SYSTEM TO SERVE

1. Single Family Dwelling Unit, No. of Bedrooms: ____
2. Multiple Family Dwelling, No. of Units: ____
3. Other: ***25 SEAT RESTAURANT*** (specify)

Current Use Seasonal Year Round [Undeveloped]

TYPE OF WATER SUPPLY

PROPOSED
[1. Drilled Well] 2. Dug Well 3. Private
[4. Public] 5. Other

DESIGN DETAILS (SYSTEM LAYOUT SHOWN ON PAGE 3)

TREATMENT TANKS

[1. Concrete]
a. Regular ***H-20***
b. Low Profile ***RATED***
2. Plastic
3. Other: _____
CAPACITY: ***1000*** GAL.
& 750 GAL. GREASE TRAP

DISPOSAL FIELD TYPE & SIZE

1. Stone Bed 2. Stone Trench
[3. Proprietary Device]
[a. cluster array] c. Linear
b. regular load [d. H-20 load]
4. Other: _____
SIZE: ***1280*** [sq. ft.] lin. ft.
20 CONCRETE CHAMBERS

GARBAGE DISPOSAL UNIT

[1. No] 2. Yes 3. Maybe
If Yes or Maybe, specify one below:
a. multi-compartment tank
b. ___ tanks in series
c. increase in tank capacity
[d. Filter on Tank Outlet]
& GREASE FILTER ON GREASE TRAP

DESIGN FLOW

351 gallons per day
BASED ON:
1. Table 4A (dwelling unit(s))
[2. Table 4C(other facilities)]
SHOW CALCULATIONS for other facilites
-25 SEAT RESTAURANT-
3 MEALS PER DAY, PAPER SERVICE
7 GPD/SEAT (USING 1.8 MULTIPLIER) = 315 GPD
3 EMPLOYEES AT 12 GPD/EMPLOYEE
315 + 36 = 351 GPD
3. Section 4G (meter readings)
ATTACH WATER METER DATA

SOIL DATA & DESIGN CLASS

PROFILE CONDITION
3 / ***C***
at Observation Hole #***TP 1***
Depth ***30*** "
of Most Limiting Soil Factor

DISPOSAL FIELD SIZING

1. Medium---2.6 sq. ft. / gpd
[2. Medium---Large 3.3 sq. f.t / gpd]
3. Large---4.1 sq. ft. / gpd
4. Extra Large---5.0 sq. ft. / gpd

EFFLUENT/EJECTOR PUMP

1. Not Required
[2. May Be Required]
3. Required
SEE NOTE ON PAGE 3
Specify only for engineered systems:
DOSE: _____ gallons

LATITUDE AND LONGITUDE

at center of disposal area
Lat. ***43*** d ***49*** m ***43*** s
Lon. ***70*** d ***44*** m ***43*** s
if g.p.s, state margin of error: _____

SITE EVALUATOR STATEMENT

I certify that on ***8/30/18*** (date) I completed a site evaluation on this property and state that the data reported are accurate and that the proposed system is in compliance with the State of Maine Subsurface Wastewater Disposal Rules (10-144A CMR 241).

James Logan
Site Evaluator Signature

237 SE #

9/24/18 Date

JAMES LOGAN
Site Evaluator Name Printed

207-693-8799 Telephone Number

longviewpartners213@gmail.com E-mail Address

Note : Changes to or deviations from the design should be confirmed with the Site Evaluator.

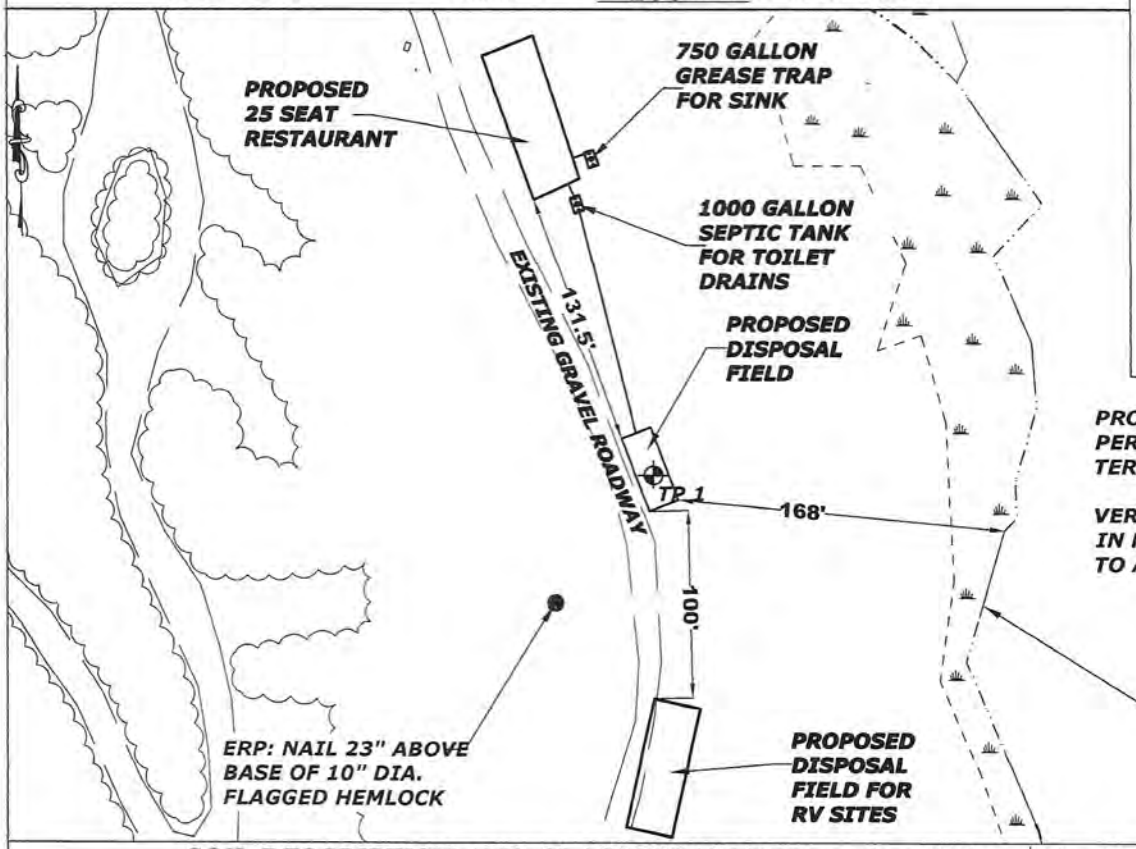
SUBSURFACE WASTEWATER DISPOSAL SYSTEM APPLICATION

Department of Human Services
Division of Health Engineering
(207) 287-5672 Fax: (207) 287-3165

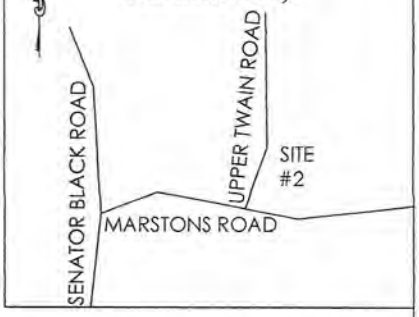
Town, City, Plantation	Street, Road, Subdivision	Owner's Name
BALDWIN	**2 UPPER TWAIN ROAD**	**NATURE'S WILDERNESS RESORT**

SITE PLAN

Scale 1" = **100** ft. or as shown



SITE LOCATION PLAN
(map from Maine Atlas recommended)



PROPERTY BOUNDARY INFORMATION PER EXISTING CONDITIONS PLAN BY TERRADYN CONSULTANTS, LLC

VERIFY ACCURATE PROPERTY LINES IN FIELD PRIOR TO CONSTRUCTION TO ASSURE SETBACKS SHOWN

SOIL DESCRIPTION AND CLASSIFICATION (Location of Observation Holes Shown Above)

Observation Hole **TP 1** ■ Test Pit □ Boring

_____ " Depth of Organic Horizon Above Mineral Soil

SOIL TEST PIT BY BACKHOE

Depth Below Mineral Soil Surface (inches)	Texture	Consistency	Color	Mottling
0–10	SANDY LOAM & LOAMY SAND (FILL)		VARIABLE BROWN DARK	
10–20	STONY SANDY LOAM	FRIABLE	YELLOWISH BROWN	
20–30				COMMON FAINT
30–40	STONY LOAMY SAND	SOMEWHAT FIRM TO FIRM	OLIVE BROWN	COMMON DISTINCT
40–50				

Soil Classification	Slope	Limiting Factor	
FILL OVER 3 / C (Profile / Condition)	1-2 %	30 "	[X] Ground Water [ ] Restrictive Layer [ ] Bedrock [ ] Pit Depth

Observation Hole _____ □ Test Pit □ Boring

_____ " Depth of Organic Horizon Above Mineral Soil

Depth Below Mineral Soil Surface (inches)	Texture	Consistency	Color	Mottling
0–50				

Soil Classification	Slope	Limiting Factor	
Profile / Condition	%	"	[ ] Ground Water [ ] Restrictive Layer [ ] Bedrock [ ] Pit Depth

James Logan — Site Evaluator Signature

237 — SE #

9/24/18 — Date

SUBSURFACE WASTEWATER DISPOSAL SYSTEM APPLICATION

Department of Human Services
Division of Health Engineering
(207) 287-5672 Fax: (207) 287-3165

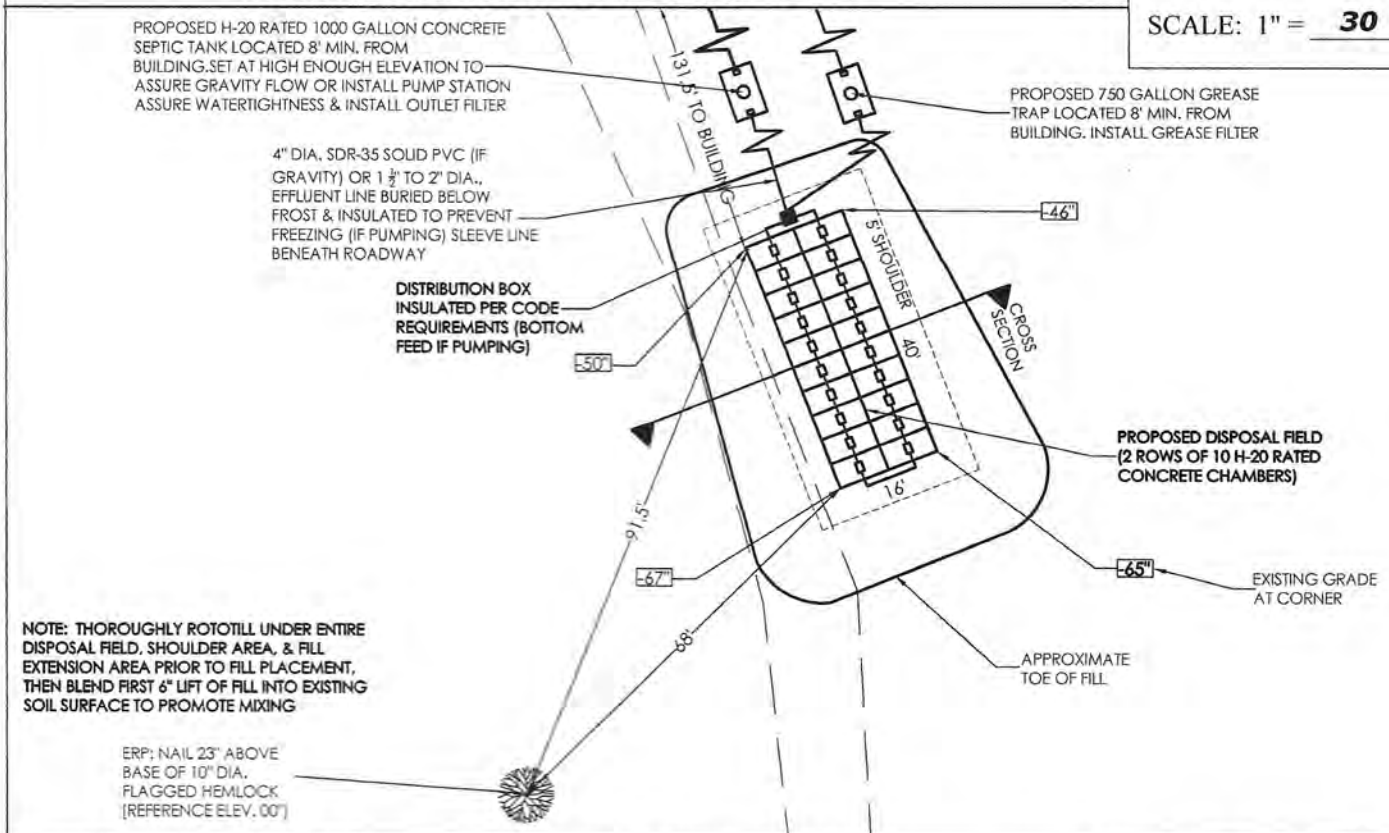
Town, City, Plantation: **BALDWIN**

Street, Road, Subdivision: **2 UPPER TWAIN ROAD**

Owner's Name: **NATURE'S WILDERNESS RESORT**

SUBSURFACE WASTEWATER DISPOSAL PLAN

SCALE: 1" = **30** FT.



FILL REQUIREMENTS

Depth of Fill (Upslope): **13"- 32"**

Depth of Fill (Downslope): **17"- 34"**

CONSTRUCTION ELEVATIONS

Finished Grade Elevation	**-33"**
Top of Distribution Pipe or Proprietary Device	**-45"**
Bottom of Disposal Area	**-64"**

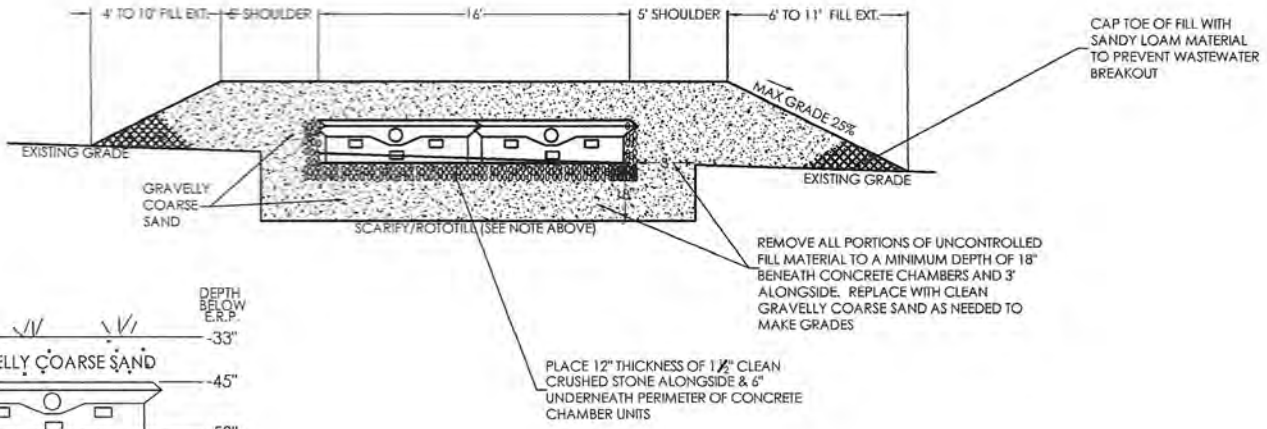
ELEVATION REFERENCE POINT

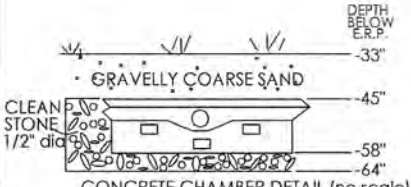
Location & Description: ***NAIL 23" ABOVE BASE OF 10" DIA. FLAGGED HEMLOCK***

Reference Elevation: **00"**

DISPOSAL AREA CROSS SECTION

Scale
Horizontal 1" = **10** ft.
Vertical 1" = **5** ft.





CONCRETE CHAMBER DETAIL (no scale)

James Logan — Site Evaluator Signature

237 — SE #

9/24/18 — Date

SUBSURFACE WASTEWATER DISPOSAL SYSTEM APPLICATION

Maine Dept.Health & Human Services
Div of Environmental Health , 11 SHS
(207) 287-5672 Fax: (207) 287-4172

PROPERTY LOCATION

City, Town, or Plantation	**BALDWIN**
Street or Road	**2 UPPER TWAIN ROAD**
Subdivision, Lot #	

OWNER/APPLICANT INFORMATION

Name (last, first, MI): **NATURE'S WILDERNESS RESORT** Owner / Applicant

Mailing Address of Owner/Applicant: **c/o SCOTT EFRON**
2 UPPER TWAIN ROAD
BALDWIN, ME 04091

Daytime Tel. #: **207-787-6012**

OWNER OR APPLICANT STATEMENT

I state and acknowledge that the information submitted is correct to the best of my knowledge and understand that any falsification is reason for the Department and/or Local Plumbing Inspector to deny a Permit.

Signature of Owner or Applicant _____ Date _____

>> CAUTION: LPI APPROVAL REQUIRED <<

Town/City _____ Permit # _____

Date Permit Issued ___/___/___ Fee: $_____ Double Fee Charged

Local Plumbing Inspector Signature _____ LPI. # _____

☐ Owner ☐ Town ☐ State

The Subsurface Wastewater Disposal System shall not be installed until a Permit is issued by the Local Plumbing Inspector: The Permit shall authorize the owner or installer to install the disposal system in accordance with this application and the Maine Subsurface Wastewater Disposal Rules.

Municipal Tax Map # **7** Lot # **22**

CAUTION: INSPECTION REQUIRED

I have inspected the installation authoirzed above and found it to be in compliance with the Subsurface Wastewater Disposal Rules Application. _____ (1st) date approved

Local Plumbing Inspector Signature _____ (2nd) date approved

PERMIT INFORMATION

TYPE OF APPLICATION

[1. First Time System]
2. Replacement System
Type replaced: _____
Year installed: _____
3. Expanded System
a. <25% Expansion
b. ≥25% Expansion
4. Experimental System
5. Seasonal Conversion

THIS APPLICATION REQUIRES

[1. No Rule Variance]
2. First Time System Variance
a. Local Plumbing Inspector Approval
b. State & Local Plumbing Inspector Approval
3. Replacement System Variance
a. Local Plumbing Inspector Approval
b. State & Local Plumbing Inspector Approval
4. Minimum Lot Size Variance
5. Seasonal Conversion Permit

DISPOSAL SYSTEM COMPONENTS

[1. Complete Non-engineered System]
2. Primitive System (graywater & alt. toilet)
3. Alternative Toilet, specify: _____
4. Non-engineered Treatment Tank (only)
5. Holding Tank, _____ gallons.
6. Non-engineered Disposal Field (only)
7. Separated Laundry System
8. Complete Engineered System (2000 gpd or more)
9. Engineered Treatment Tank (only)
10. Engineered Disposal Field (only)
11. Pre-treatment, specify: _____
12. Miscellaneous Components

SIZE OF PROPERTY

301.08+/- [SQ. FT.] [ACRES]

SHORELAND ZONING

Yes [No]

DISPOSAL SYSTEM TO SERVE

1. Single Family Dwelling Unit, No. of Bedrooms: ____
2. Multiple Family Dwelling, No. of Units: ____
3. Other: **CAMPGROUND-14 RV SITES** (specify)

Current Use Seasonal Year Round [Undeveloped]

TYPE OF WATER SUPPLY

PROPOSED

[1. Drilled Well] 2. Dug Well 3. Private
4. Public 5. Other

DESIGN DETAILS (SYSTEM LAYOUT SHOWN ON PAGE 3)

TREATMENT TANKS

[1. Concrete]
a. Regular **H-20**
b. Low Profile **RATED**
2. Plastic
3. Other: _____
CAPACITY: **2000** GAL
(OR 2-1000's)

DISPOSAL FIELD TYPE & SIZE

1. Stone Bed 2. Stone Trench
[3. Proprietary Device]
[a. cluster array] c. Linear
b. regular load [d. H-20 load]
4. Other: _____
SIZE: **3840** [sq. ft.] lin. ft.
60 CONCRETE CHAMBERS

GARBAGE DISPOSAL UNIT

[1. No] 2. Yes 3. Maybe
If Yes or Maybe, specify one below:
a. multi-compartment tank
b. ___ tanks in series
c. increase in tank capacity
[d. Filter on Tank Outlet]

DESIGN FLOW

1050 gallons per day
BASED ON:
1. Table 4A (dwelling unit(s))
[2. Table 4C(other facilities)]
SHOW CALCULATIONS for other facilites
-CAMPGROUND-
14 RV SITES (WITH WATER & SEWER AT EACH SITE) AT 75 GALLONS PER DAY/SITE
14 X 75 = 1050 GPD
3. Section 4G (meter readings)
ATTACH WATER METER DATA

SOIL DATA & DESIGN CLASS

PROFILE CONDITION
3 / **D**
at Observation Hole #**TP 14**
Depth **11** "
of Most Limiting Soil Factor

DISPOSAL FIELD SIZING

1. Medium---2.6 sq. ft. / gpd
[2. Medium---Large 3.3 sq. f.t / gpd]
3. Large---4.1 sq. ft. / gpd
4. Extra Large---5.0 sq. ft. / gpd

EFFLUENT/EJECTOR PUMP

1. Not Required
2. May Be Required
[3. Required]
Specify only for engineered systems:
DOSE: _____ gallons

LATITUDE AND LONGITUDE

at center of disposal area
Lat. **43** d **49** m **53** s
Lon. **70** d **44** m **39** s
if g.p.s, state margin of error: _____

SITE EVALUATOR STATEMENT

I certify that on **8/30/18** (date) I completed a site evaluation on this property and state that the data reported are accurate and that the proposed system is in compliance with the State of Maine Subsurface Wastewater Disposal Rules (10-144A CMR 241).

James Logan
Site Evaluator Signature

237 SE #

9/24/18 Date

JAMES LOGAN
Site Evaluator Name Printed

207-693-8799 Telephone Number

longviewpartners213@gmail.com E-mail Address

Note : Changes to or deviations from the design should be confirmed with the Site Evaluator.

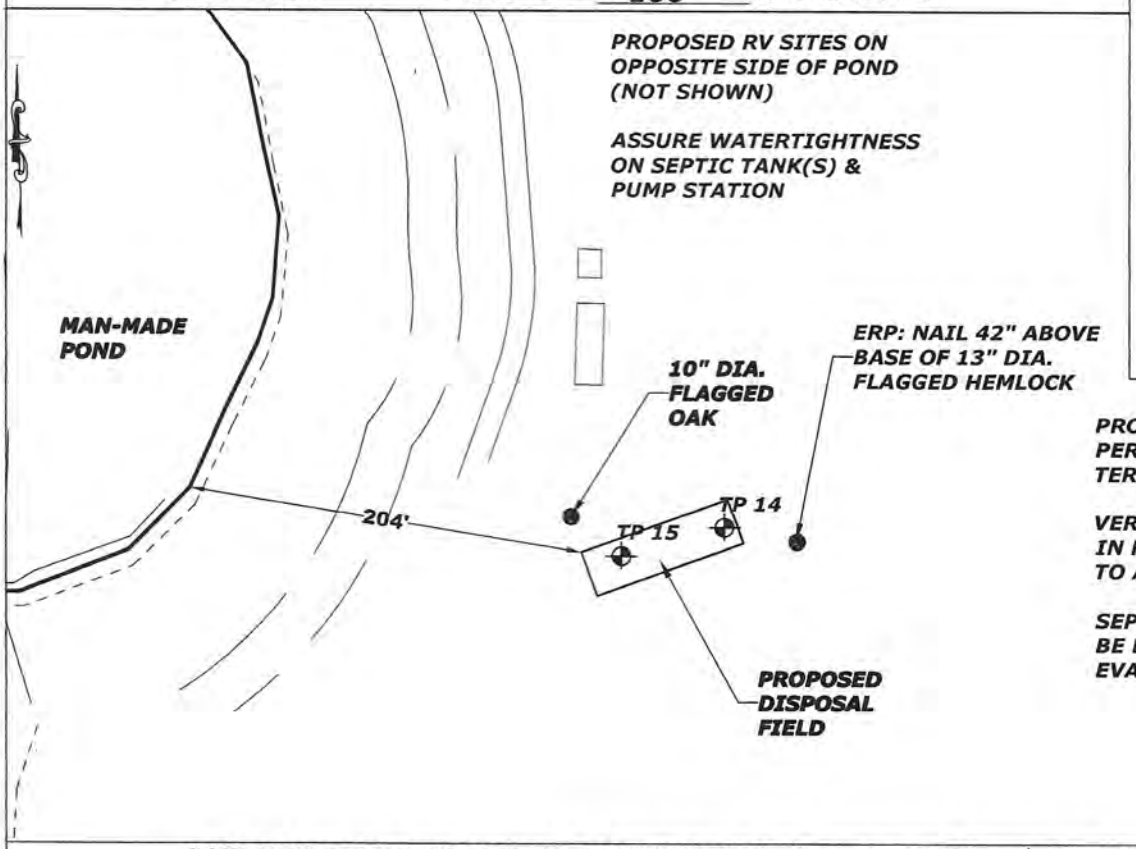
SUBSURFACE WASTEWATER DISPOSAL SYSTEM APPLICATION

Department of Human Services
Division of Health Engineering
(207) 287-5672 Fax: (207) 287-3165

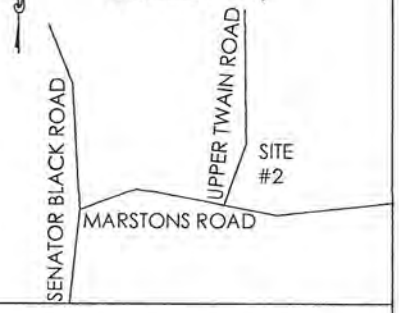
Town, City, Plantation	Street, Road, Subdivision	Owner's Name
BALDWIN	**2 UPPER TWAIN ROAD**	**NATURE'S WILDERNESS RESORT**

SITE PLAN

Scale 1" = **100** ft. or as shown



SITE LOCATION PLAN
(map from Maine Atlas recommended)



PROPERTY BOUNDARY INFORMATION PER EXISTING CONDITIONS PLAN BY TERRADYN CONSULTANTS, LLC

VERIFY ACCURATE PROPERTY LINES IN FIELD PRIOR TO CONSTRUCTION TO ASSURE SETBACKS SHOWN

SEPTIC TANK/PIPING LOCATIONS TO BE DETERMINED ON-SITE WITH SITE EVALUATOR

SOIL DESCRIPTION AND CLASSIFICATION (Location of Observation Holes Shown Above)

Observation Hole **TP 14** ■ Test Pit □ Boring

_____ " Depth of Organic Horizon Above Mineral Soil

SOIL TEST PIT BY BACKHOE

Depth Below Mineral Soil Surface (inches)	Texture	Consistency	Color	Mottling
0	STONY FINE SANDY LOAM	FRIABLE	DARK BROWN	
10			DARK YELLOWISH BROWN	FEW FAINT
20	STONY LOAMY SAND & SAND	FIRM	OLIVE GRAY	COMMON DISTINCT
30			OLIVE	FREE WATER
40				
50	LIMIT OF EXCAVATION @ 53"			

Soil Classification	Slope	Limiting Factor	
3 Profile / D Condition	2-3 %	11 "	[X] Ground Water [ ] Restrictive Layer [ ] Bedrock [ ] Pit Depth

Observation Hole **TP 15** ■ Test Pit □ Boring

_____ " Depth of Organic Horizon Above Mineral Soil

SOIL TEST PIT BY BACKHOE

Depth Below Mineral Soil Surface (inches)	Texture	Consistency	Color	Mottling
0	STONY FINE SANDY LOAM	FRIABLE	DARK BROWN	
10			DARK YELLOWISH BROWN	
20			YELLOWISH BROWN	FEW FAINT
30	STONY LOAMY SAND & SAND	FIRM	OLIVE GRAY	COMMON DISTINCT
40			OLIVE BROWN	
50	LIMIT OF EXCAVATION @ 48"			

Soil Classification	Slope	Limiting Factor	
3 Profile / C Condition	2-3 %	18 "	[X] Ground Water [ ] Restrictive Layer [ ] Bedrock [ ] Pit Depth

James Logan — Site Evaluator Signature

237 — SE #

9/24/18 — Date

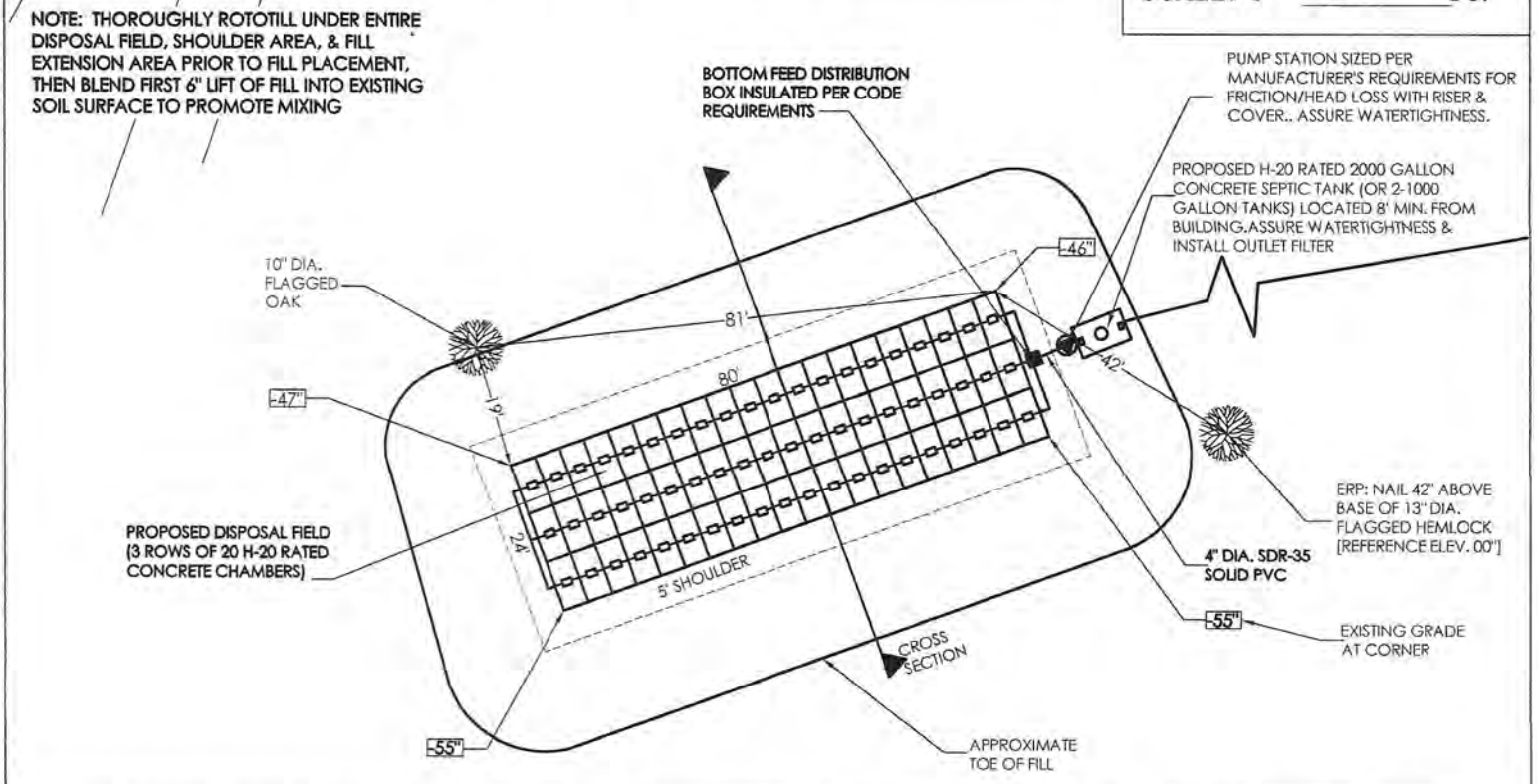
SUBSURFACE WASTEWATER DISPOSAL SYSTEM APPLICATION

Department of Human Services
Division of Health Engineering
(207) 287-5672 Fax: (207) 287-3165

Town, City, Plantation	Street, Road, Subdivision	Owner's Name
BALDWIN	***2 UPPER TWAIN ROAD***	***NATURE'S WILDERNESS RESORT***

SUBSURFACE WASTEWATER DISPOSAL PLAN

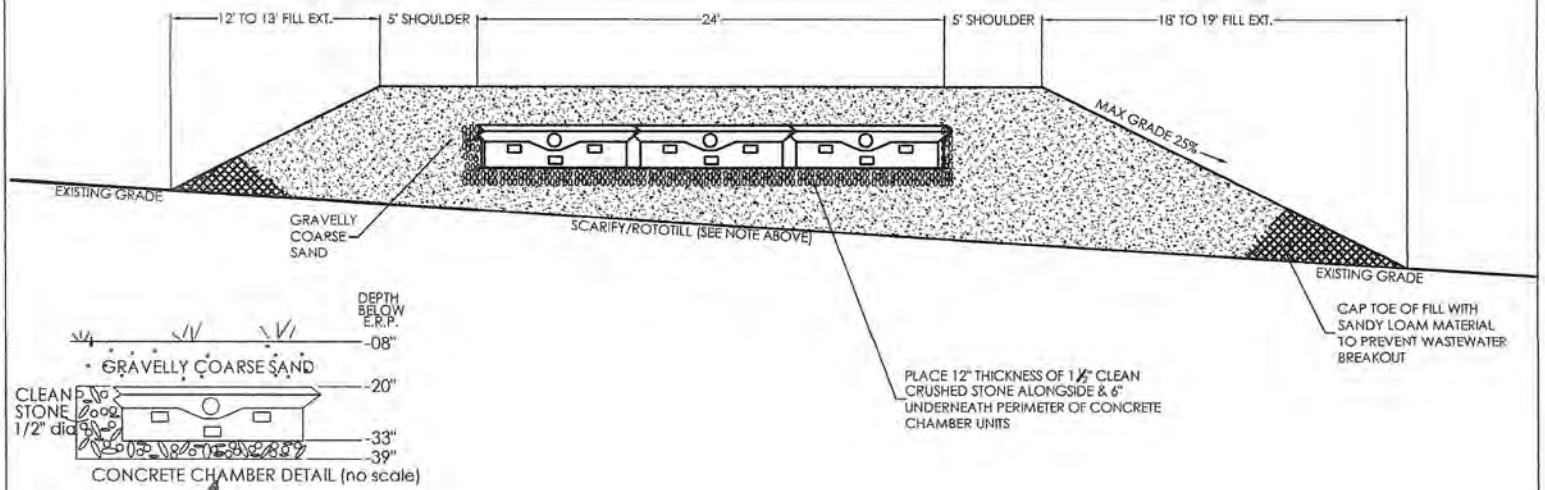
SCALE: 1" = ***30*** FT.



FILL REQUIREMENTS		CONSTRUCTION ELEVATIONS		ELEVATION REFERENCE POINT
Depth of Fill (Upslope)	***38"- 39"***	Finished Grade Elevation	***-08"***	Location & Description: ***NAIL 42" ABOVE BASE OF 13" DIA. FLAGGED HEMLOCK***
		Top of Distribution Pipe or Proprietary Device	***-20"***	
Depth of Fill (Downslope)	***47"***	Bottom of Disposal Area	***-39"***	Reference Elevation: ***00"***

DISPOSAL AREA CROSS SECTION

Scale
Horizontal 1" = ***10*** ft.
Vertical 1" = ***5*** ft.



CONCRETE CHAMBER DETAIL (no scale)

James Logan — Site Evaluator Signature

237 — SE #

9/24/18 — Date

Attachment 7: Traffic Study

Updated Traffic Impact Study Numbers – Based on 172 Campsites

SITE TRAFFIC

Site Trip Generation: Trip generation was determined for the proposed Nature's Wilderness Campground project based upon trip tables presented in the seventh edition of the Institute of Transportation Engineers (ITE) "**TRIP GENERATION**" handbook. The following trip rates were used in that effort:

Land-Use Code 416 – Campground/Recreational Vehicle Park

Weekday Street Peak Hour – AM Peak	*=0.20 trips/campsite*
Weekday Street Peak Hour – PM Peak	*=0.37 trips/campsite*
Weekday Peak Hour of Site – AM Peak	*=0.220 trips/campsite*
Weekday Peak Hour of Site – PM Peak	*=0.41 trips/campsite*
Saturday Peak Hour	*=0.55 trips/campsite*[(1)]

(1) NOTE: Saturday peak hour trip rate estimated based upon comparative trips rates presented for Land Use Code #417 Regional Park. The trip rate for a typical Saturday peak hour for the noted regional park land use is approximately 35% greater than the trip rate provided for the weekday PM peak hour of the site.

Accordingly, the proposed 172 campsite Natures Wilderness Campground project can be expected to generate a total of 34 trips in the weekday morning peak hour of the street; 64 trips in the weekday evening peak hour of the street; 38 and 71 trips during the weekday morning and evening peak hours of the site, respectively, and approximately 95 trips on a typical summer Saturday peak hour.

TRAFFIC IMPACT STUDY

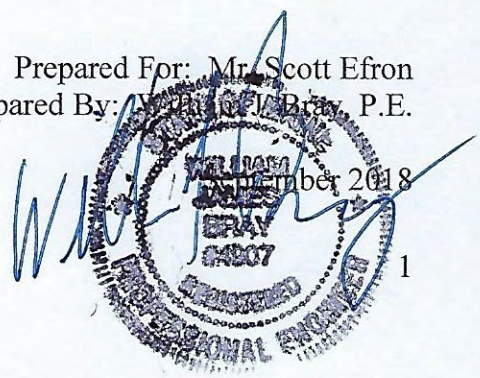
FOR

PROPOSED

Nature's Wilderness Campground

Prepared For: Mr. Scott Efron
Prepared By: William J. Bray, P.E.

September 2018



1

INTRODUCTION

Mr. Scott Efron is proposing to develop a 250-site campground on several hundred acres of land located in the general vicinity of Lower and Upper Ponds in the Town of Baldwin. The proposed project, Nature's Wilderness Campground, will include a mix of RV, tent, cabins and "*glamping*" sites. Proposed amenities include: swimming, fishing, hiking, mountain biking, etc. The campground is directly accessed from Marstons Road and other local gravel roads including Upper Twain Road and a portion of Deacon Road.

The purpose of this study is to examine existing traffic conditions in the general vicinity of the proposed project, estimate the total number of site trips generated by the project and, make a determination as to whether the existing transportation system can safely accommodate the added traffic demand generated by the project.

EXISTING CONDITIONS

Existing Design Hour Traffic: Manual turning movement counts were conducted at the following intersections during the month of October 2017 in the afternoon of a weekday and mid-day on Saturday:

- Senator Black Road (N) @ SR 113 - (Saturday, October 14 & Monday, October 16)
- Senator Black Road (S) @ SR 113 (Saturday, October 21 & Monday, October 23)
- SR 113 @ SR 5/117 (aka Depot Road) - (Saturday, October 28 & Wednesday, October 25)
- Senator Black Road @ Marstons Road – (Saturday, October 21 & Tuesday, October 24)

All traffic entering and exiting each intersection were recorded in 15-minute intervals between 2:00 and 6:00 PM weekdays and, again, between 11:00 AM and 3:00PM on Saturday (A copy of the traffic data is attached as an appendix to the report). From a summary of the data, peak hour times were established for each location and day of week. Generally, the weekday afternoon peak hour occurred between 4:30 and 5:30 PM at each intersection except Senator Black Road @ Marstons Road, which occurred much earlier in the day between 2:45 and 3:45 PM. The Saturday peak hour falls between 11:00 AM and 12:00 PM at both Senator Black Road/ME 113 intersections; 11:15 AM – 12:15 PM at Marstons Road and Senator Black Road and between 12:45 and 1:45 PM at the SR. 113 @ SR. 5/117 intersection.

Traffic data collected during time periods other than the summer months of July and August require adjustment to reflect "*peak*" travel conditions. MaineDOT provides factors for adjusting traffic data collected during other periods of time. MaineDOT utilizes highway classifications of I, II, or III for all State and Local roadways. Group I roadways are defined as urban roadways or those roads that typically see commuter traffic and experience little fluctuation from week to week throughout the year. Group II roadways or arterial roads are those that see a combination of commuter and recreational traffic and, therefore, experience moderate fluctuations during the year. Group III roads or recreational roadways are typically used for recreational purposes and experience significant seasonal fluctuations. MaineDOT has designated the noted sections of both SR 113 and SR 5/117 Group II roadways and Senator Black Road a Group I roadway. MaineDOT's standards for a Group II roadway requires a seasonal adjustment of 1.22 to approximate "*peak*" summer travel conditions. The 2017 design hour traffic forecast for the study intersections are illustratively presented on Figure 1.

Roadway Safety Conditions: MaineDOT's Accident Records Section provided the latest three-year (2015 through 2017) crash data for the sections of SR 113 (aka Pequawket Trail) between both ends of Senator Black Road and the section of Marstons Road between Senator Black Road and Brown Road. MaineDOT's report is presented as follows:

2015 -2017 Traffic Accident Summary

Location	Total Crashes	Critical Rate Factor
1. Pequawket Trail @ Depot Road	6	2.15
2. Pequawket Trail @ Senator Black Road (N)	0	0
3. Pequawket Trail @ Senator Black Road (S)	0	0
4. Pequawket Trail btw. Senator Black Road (S) and Rocky Dunn Road	3	0.44
5. Pequawket Trail btw. Rocky Dunn Road and Depot Road	6	0.49
6. Pequawket Trail btw. Depot Road and Chase Road	3	0.29
7. Pequawket Trail btw. Chase Road and Senator Black Road (N) and Hamlin Road	3	0.30
8. Senator Black Road btw. both ends of Pequawket Trail	0	0
9. Marstons Road btw. Senator Black Road and Brown Road	0	0

The MaineDOT considers any roadway intersection or segment a high crash location if both of the following criteria are met:

- ***8 or more accidents***
- ***A Critical Rate Factor greater than 1.00***

As the data presented in the table shows, the incidence of traffic crashes does not meet MaineDOT's threshold criteria for identification of a high crash location.

SITE TRAFFIC

Site Trip Generation: Trip generation was determined for the proposed Nature's Wilderness Campground project based upon trip tables presented in the seventh edition of the Institute of Transportation Engineers (ITE) "**TRIP GENERATION**" handbook. The following trip rates were used in that effort:

Land-Use Code 416 – Campground/Recreational Vehicle Park

Weekday Street Peak Hour – AM Peak	*= 0.20 trips/campsite*
Weekday Street Peak Hour – PM Peak	*= 0.37 trips/campsite*
Weekday Peak Hour of Site – AM Peak	*= 0.22 trips/campsite*
Weekday Peak Hour of Site – PM Peak	*= 0.41 trips/campsite*
Saturday Peak Hour	*= 0.55 trips/campsite* (1)

(1) NOTE: Saturday peak hour trip rate estimated based upon comparative trips rates presented for Land-Use Code #417 Regional Park. The trip rate for a typical Saturday peak hour for the noted regional park land-use is approximately 35% greater than the trip rate provided for the weekday PM peak hour of the site.

Accordingly, the proposed 250 campsite Nature's Wilderness Campground project can be expected to generate a total of 50 trips in the weekday morning peak hour of the street; 93 trips in the weekday evening peak hour of the street; 55 and 103 trips during the weekday morning and evening peak hours of the site, respectively, and approximately 139 trips on a typical summer Saturday peak hour.

NOTE: all further analysis was completed for the weekday PM peak hour of the site and Saturday peak hour conditions, which represent the two time periods with the highest volumes of site trip generation.

Site Trip Distribution: The Institute of Transportation Engineers handbook provides the following directional distribution rates for a Campground/Recreational Vehicle Park for both the weekday PM peak hour of the site and Saturday peak hour time periods:

Land-Use Code 416 – Campground/Recreational Vehicle Park

Weekday Peak Hour of Campground– PM Peak	*= 62% enter site/38% exit site*
Saturday Peak Hour	*= 48% enter site/52% exit site* (1)

(1) NOTE: Saturday peak hour trip distribution percentages derived from Land-Use Code # 417 Regional Park.

Based upon the noted directional distribution patterns, 64 trips during the weekday PM peak hour of the site and 67 trips in the Saturday peak hour will enter the site and the remaining trips (39 Weekday PM Peak Hour trips and 72 Saturday peak hour trips) will exit the site.

Vehicle Trip Composition: This report has assumed all vehicle trips generated by the proposed project are "*primary*" or "*new*" vehicle trips to the area street network.

Vehicle Trip Assignment: Peak hour site trips generated by the proposed Nature's Wilderness Campground project were assigned to the adjacent roadway system based upon existing directional travel patterns as follows:

Depot Road = 25%
SR 113 South = 40%
SR 113 North = 35%

Figure 2 is a "*stick*" diagram that presents the assignment of the site trips to the study intersections.

FUTURE TRAFFIC

Annual Growth: Mr. Scott Efron anticipates the proposed Nature's Wilderness Campground project will be fully developed by 2021. MaineDOT's historical traffic data for three traffic count stations on State Route 113 (#35908, 36304, and 36308) in the general vicinity of Senator Black Road show a relative robust growth of average annual daily traffic (AADT) volume between the years of 2013 and 2016. The combined AADT volume of the three count stations in 2013 was 10,380 vehicles and the estimated AADT volumes in 2016 were 11,860 vehicles, an increase of 14.3%. To conservatively estimate future travel conditions at the study intersections, the 2017 design hour traffic volumes were increased by an annual growth rate of 1.048 per year to project 2021 travel conditions.

2021 Pre-Development Traffic for the study intersections are presented on Figure 3.

2021 Post-Development Traffic: 2021 Post-Development traffic forecasts were prepared for the study intersections by combining the 2021 pre-development travel forecasts illustrated on Figure 3 with the estimated site generated trips highlighted on Figure 2. Figure 4 presents the estimated 2021 post-development traffic forecasts for the proposed Nature's Wilderness Campground project.

MOBILITY ANALYSIS

Capacity analyses of both 2021 Pre- and Post-Development traffic conditions were performed utilizing the Synchro and SimTraffic computer models. Level of Service rankings are similar to the academic grading system, where an "*A*" is very good with little delay and "*F*" represents very poor conditions. The following table summarizes the relationship between delay and Level of Service for an unsignalized intersection:

Level of Service Criteria for Unsignalized Intersections

Level of Service	Total Control Delay (sec/veh)
A	Up to 10.0
B	10.1 to 15.0
C	15.1 to 25.0
D	25.1 to 35.0
E	35.1 to 50.0
F	Greater than 50.0

The results of the capacity analyses are presented in the following table:

Level of Service Summary
2021 Pre- and Post-Development Conditions

	2021 Pre-Development				2021 Post-Development			
	Weekday PM Peak Hour		Saturday Peak Hour		Weekday PM Peak Hour		Saturday Peak Hour	
Intersection/Approach	Delay (sec.)	LOS	Delay (sec.)	LOS	Delay (sec.)	LOS	Delay (sec.)	LOS
SR 113 @ Senator Black Rd. (N)								
- SR 113 NB	1 sec.	A	1 sec.	A	1 sec.	A	1 sec.	A
- SR 113 SB	1 sec.	A	1 sec.	A	1 sec.	A	1 sec.	A
- Senator Black Road WB	5 sec.	A	6 sec.	A	5 sec.	A	6 sec.	A
- **Overall Intersection**	**1 sec.**	**A**	**1 sec.**	**A**	**1 sec.**	**A**	**1 sec.**	A
SR 113 @ Senator Black Rd. (S)								
- SR 113 NB	1 sec.	A	1 sec.	A	1 sec.	A	1 sec.	A
- SR 113 SB	1 sec.	A	1 sec.	A	1 sec.	A	1 sec.	A
- Senator Black Road WB	4 sec.	A	6 sec.	A	7 sec.	A	8 sec.	A
- **Overall Intersection**	**1 sec.**	**A**	**1 sec.**	**A**	**1 sec.**	**A**	**2 sec.**	**A**
SR 113 @ Depot Road								
- SR 113 NB	2 sec.	A	2 sec.	A	2 sec.	A	3 sec.	A
- SR 113 SB	1 sec.	A	2 sec.	A	1 sec.	A	2 sec.	A
- Depot Rd. EB	7 sec.	A	8 sec.	A	7 sec.	A	9 sec.	A
- **Overall Intersection**	**3 sec.**	**A**	**4 sec.**	**A**	**3 sec.**	**A**	**4 sec.**	**A**

Each of the three unsignalized study intersections, highlighted in the preceding table, operate overall at the highest or "*best*" level of service under both 2021 Pre- and Post-Development travel conditions.

VEHICLE SIGHT DISTANCE

Vehicle sight distance information will be provided under separate cover at a later date.

AUXILIARY LANE WARRANT ANALYSIS

The Maine Department of Transportation has published warrants for auxiliary left-turn lanes in their December 2004 Highway Design Manual. The warrants are predicated upon the volume of two-way traffic traveling on the designated highway; the volume of left-turning vehicles from the principal roadway to the minor roadway and the posted speed limit of the principal roadway. Each of the three study intersections located on State Route 113 were evaluated based upon projected 2021 post-development travel conditions. The following detail was applied in completing the analysis:

State Route 113 @ Senator Black Road (North) Intersection

Posted Speed Limit of SR 113 = 40mph

MaineDOT's Chart Reference (Figure 8-19)

Chart Inputs:

Weekday PM Peak Hour		Saturday Peak Hour	
Va	= 220	Va	= 246
Vo	= 267	Vo	= 439
Lt%	= 11.8%	Lt%	= 10.1%

State Route 113 @ Depot Road

Posted Speed Limit of SR 113 = 50mph

MaineDOT's Chart Reference (Figure 8-18)

Chart Inputs:

Weekday PM Peak Hour		Saturday Peak Hour	
Va	= 226	Va	= 234
Vo	= 198	Vo	= 292
Lt%	= 34.0%	Lt%	= 32.0%

State Route 113 @ Senator Black Road (South) Intersection

Posted Speed Limit of SR 113 = 55mph

MaineDOT's Chart Reference (Figure 8-17)

Chart Inputs:

Weekday PM Peak Hour		Saturday Peak Hour	
Va	= 286	Va	= 281
Vo	= 276	Vo	= 503
Lt%	= 8.0%	Lt%	= 7.8%

Copies of the respective charts with the superimposed traffic values are attached as an appendix to the report.

The analysis demonstrates that projected "*build*" travel conditions do not warrant or require consideration of a left-turn treatment at any of the three study intersections.

CONCLUSIONS/RECOMMENDATIONS

- The proposed Nature's Wilderness Campground project can be expected to generate a total of 103 vehicle trips during a typical weekday PM peak hour of the proposed site and a slightly greater volume of 139 vehicle trips in a Saturday peak hour.

- MaineDOT's Traffic Safety Bureau's latest three-year (2015 through 2017) safety report for the section of State Routes 113 between both intersections with Senator Black Road; the full length of Senator Black Road and the section of Marston Road between Senator Black Road and Brown Road shows the incidence of traffic crashes and corresponding critical rate factors at each identified intersection and road segment do not meet MaineDOT's threshold criteria for identification of a high crash location.

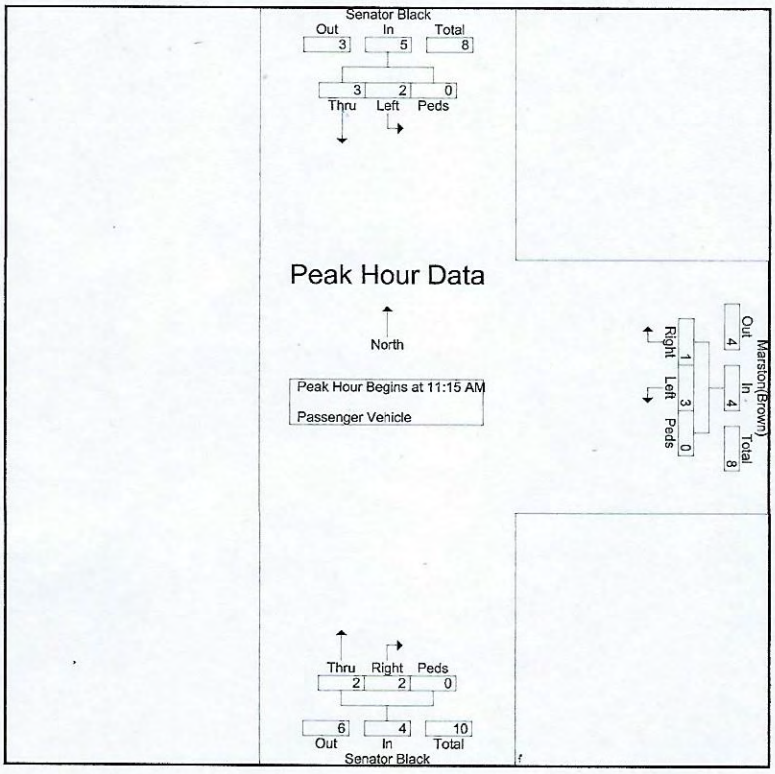
- Peak hour traffic generated by the proposed Nature's Wilderness Campground project has very minimal impact on traffic operations at each of the three study intersections along State Route 113. Each intersection, under both 2021 pre- and post-development traffic loadings is projected to operate at the highest or "*best*" level of service (Level of Service A) with very low levels of vehicle delay.

- The results of the auxiliary lane warrant analysis completed for each study intersection under forecast 2021 post-development traffic loadings demonstrates a dedicated left-turn lane is not warranted at any of the three study intersections.

- The proposed Nature's Wilderness Campground project is projected to generate in excess of 100 passenger car equivalent trips during both the weekday PM peak hour of the street and the proposed site and during a typical Saturday peak hour; accordingly, the proposed project must file for and receive a Maine Department of Transportation Traffic Movement Permit for the project.

Baldwin: Senator Black & Marston(Brown)
Saturday October 21, 2017
Sunny
Count By: Patrick Frie

File Name : Baldwin Senator Black & Marstons(Brown) 102117
Site Code : 00102117
Start Date : 10/21/2017
Page No : 5



Baldwin: Senator Black & Marstons(Brown)
Tuesday October 24, 2017
Cloudy with ocassional mist
Count By: Dawn-Marie Fahey

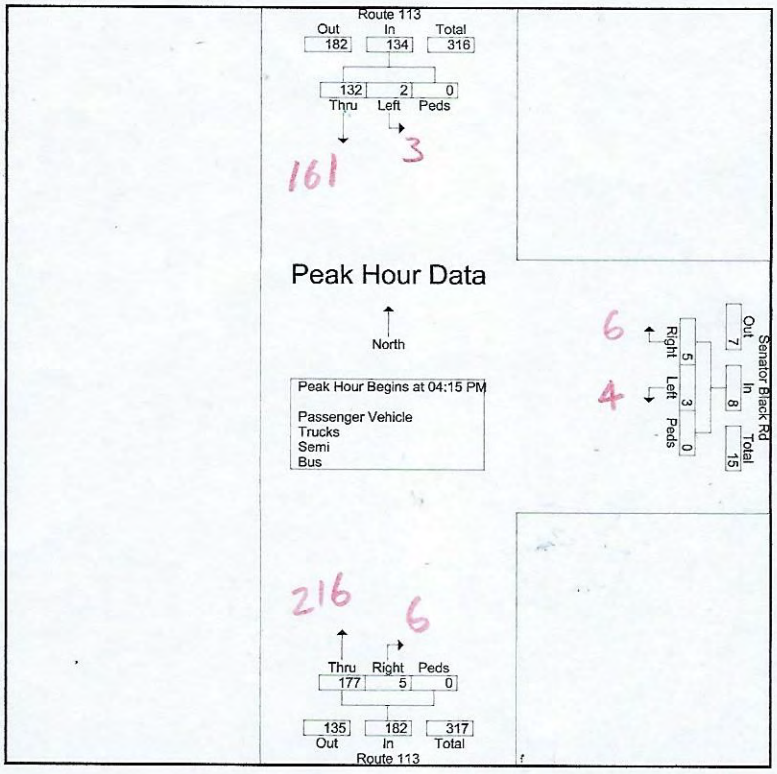
File Name : Baldwin Senator Black & Marstons(Brown) 102417
Site Code : 01024171
Start Date : 10/24/2017
Page No : 5

	Route 113 From North				Marston(Brown) From East				Route 113 From South				
Start Time	Thru	Left	Peds	App. Total	Right	Left	Peds	App. Total	Right	Thru	Peds	App. Total	Int. Total
Peak Hour Analysis From 02:00 PM to 05:45 PM - Peak 1 of 1													
Peak Hour for Entire Intersection Begins at 02:45 PM													
02:45 PM	**1**	0	0	**1**	0	0	0	0	**4**	1	0	**5**	**6**
03:00 PM	0	0	0	0	**1**	**1**	0	**2**	1	0	0	1	3
03:15 PM	0	0	0	0	0	1	0	1	0	0	0	0	1
03:30 PM	0	**1**	0	1	0	1	0	1	1	**2**	0	3	5
Total Volume	1	1	0	2	1	3	0	4	6	3	0	9	15
% App. Total	50	50	0		25	75	0		66.7	33.3	0		
PHF	.250	.250	.000	.500	.250	.750	.000	.500	.375	.375	.000	.450	.625

Senator Black Road
(North Int.)
@
S.R. 113

Baldwin:Senator Black & Rte 113 Loc#1
Monday October 16,2017
Cloudy
Count By: Dawn-Marie Fahey

File Name : Baldwin Senator Black & Route 113 Location #1 101617
Site Code : 01016171
Start Date : 10/16/2017
Page No : 6



Senator Black Road
(North Int.)
@
S.R. 113

Baldwin:Senator Black Rd & Rte 113 Loc1
Saturday October 14, 2017
Sunny
Count By: Dawn-Marie Fahey

File Name : Baldwin Senator Black & Route 113 Location #1 101417
Site Code : 00101417
Start Date : 10/14/2017
Page No : 5

	Route 113 From North				Senator Black Rd From East				Route 113 From South				
Start Time	Thru	Left	Peds	App. Total	Right	Left	Peds	App. Total	Right	Thru	Peds	App. Total	Int. Total
Peak Hour Analysis From 11:00 AM to 02:45 PM - Peak 1 of 1													
Peak Hour for Entire Intersection Begins at 11:00 AM													
11:00 AM	29	0	0	29	**2**	1	0	**3**	0	60	0	60	92
11:15 AM	**44**	**1**	0	**45**	0	1	0	1	0	**109**	0	**109**	**155**
11:30 AM	42	0	0	42	1	0	0	1	**2**	68	0	70	113
11:45 AM	35	0	0	35	0	**2**	0	2	2	57	0	59	96
Total Volume	150	1	0	151	3	4	0	7	4	294	0	298	456
% App. Total	99.3	0.7	0		42.9	57.1	0		1.3	98.7	0		
PHF	.852	.250	.000	.839	.375	.500	.000	.583	.500	.674	.000	.683	.735

183 2 4 5 5 359

Baldwin: Depot Rd & Rte 113
Wednesday October 25, 2017
Cloudy with occasional mist
Count By: Dawn-Marie Fahey

File Name : Baldwin Depot & Route 113 Location 1012517
Site Code : 01025171
Start Date : 10/25/2017
Page No : 5

	Route 113 From North				Route 113 From South				Depot Rd From West				
Start Time	Right	Thru	Peds	App. Total	Thru	Left	Peds	App. Total	Right	Left	Peds	App. Total	Int. Total
Peak Hour Analysis From 02:00 PM to 05:45 PM - Peak 1 of 1													
Peak Hour for Entire Intersection Begins at 04:30 PM													
04:30 PM	19	16	0	35	23	**14**	0	37	**11**	**22**	0	**33**	**105**
04:45 PM	13	15	0	28	26	11	0	37	8	21	0	29	94
05:00 PM	17	8	0	25	**29**			**39**	10	19	0	29	93
05:15 PM	**22**	**21**	0	**43**	21	14	0	35	11	14	0	25	103
Total Volume	71	60	0	131	99	49	0	148	40	76	0	116	395
% App. Total	54.2	45.8	0		66.9	33.1	0		34.5	65.5	0		
PHF	.807	.714	.000	.762	.853	.875	.000	.949	.909	.864	.000	.879	.940

87 73 121 60 49 93

105

Baldwin: Depot Rd & Route 113
Saturday October 28, 2017
Sunny
Count By: Dawn-Marie Fahey

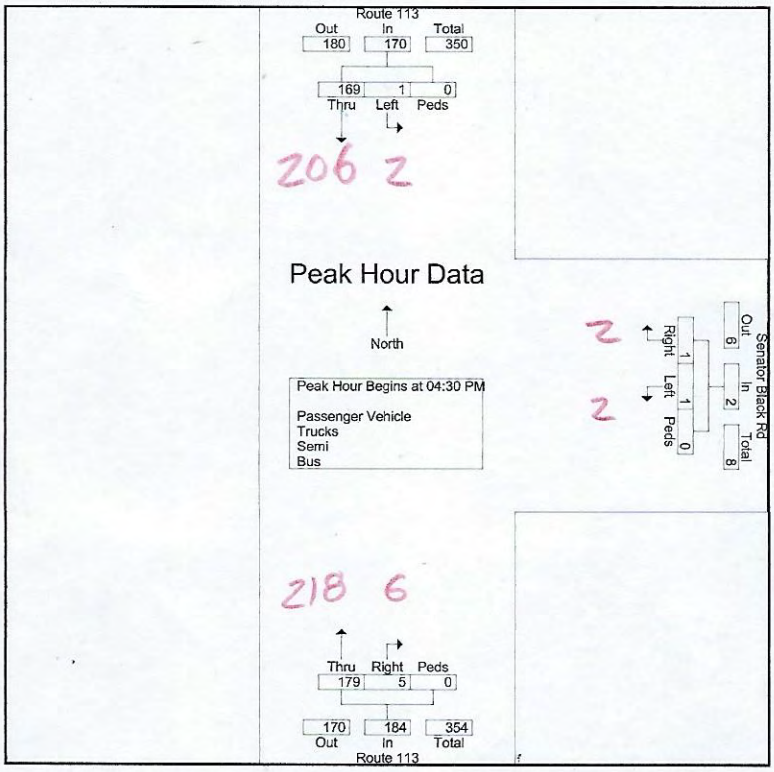
File Name : Baldwin Depot & Route 113 Location 1012817
Site Code : 01028171
Start Date : 10/28/2017
Page No : 5

	Route 113 From North				Route 113 From South				Depot Road From West				
Start Time	Right	Thru	Peds	App. Total	Thru	Left	Peds	App. Total	Right	Left	Peds	App. Total	Int. Total
Peak Hour Analysis From 11:00 AM to 02:45 PM - Peak 1 of 1													
Peak Hour for Entire Intersection Begins at 12:45 PM													
12:45 PM	24	**29**	0	53	25	14	0	39	**16**	**30**	0	**46**	**138**
01:00 PM	19	23	0	42	17	9	0	26	13	26	0	39	107
01:15 PM	**29**	28	0	**57**	30	7	0	37	15	21	0	36	130
01:30 PM	17	23	0	40	**36**	**15**	0	**51**	7	29	0	36	127
Total Volume	89	103	0	192	108	45	0	153	51	106	0	157	502
% App. Total	46.4	53.6	0		70.6	29.4	0		32.5	67.5	0		
PHF	.767	.888	.000	.842	.750	.750	.000	.750	.797	.883	.000	.853	.909
	109	126			132	55			62	129			

Senator Black Road
(South Int.)
@
S.R. 113

Baldwin: Senator Black & Rte 113 Loc2
Monday October 23, 2017
Cloudy
Count By: Dawn-Marie Fahey

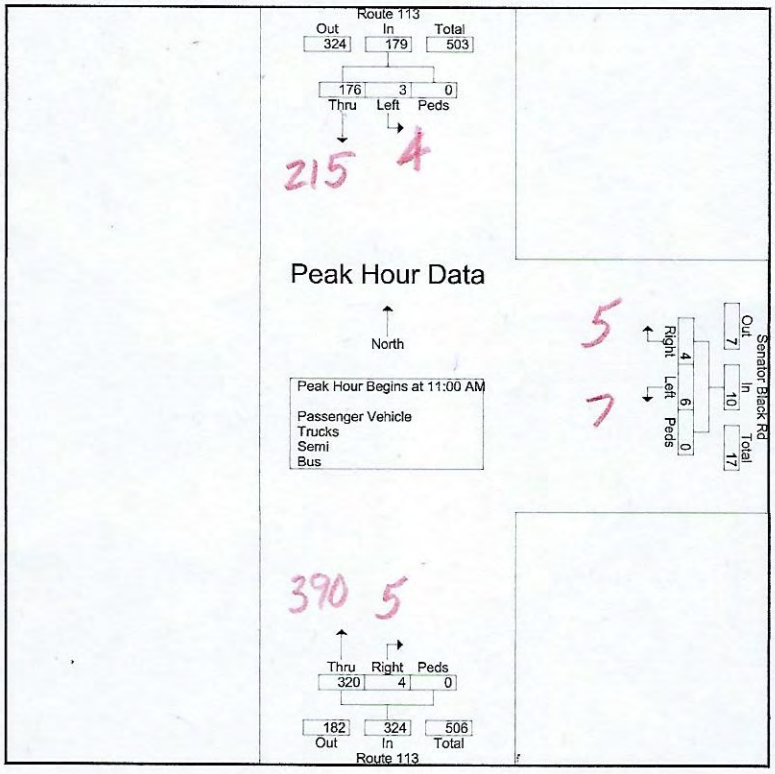
File Name : Baldwin Senator Black & Route 113 Location #2 102417
Site Code : 01023171
Start Date : 10/23/2017
Page No : 6



Senator Black Road
(South Int.)
@
S.R. 113

Baldwin: Senator Black & Rte 113 Loc2
Saturday October 21, 2017
Sunny
Count By: Dawn-Marie Fahey

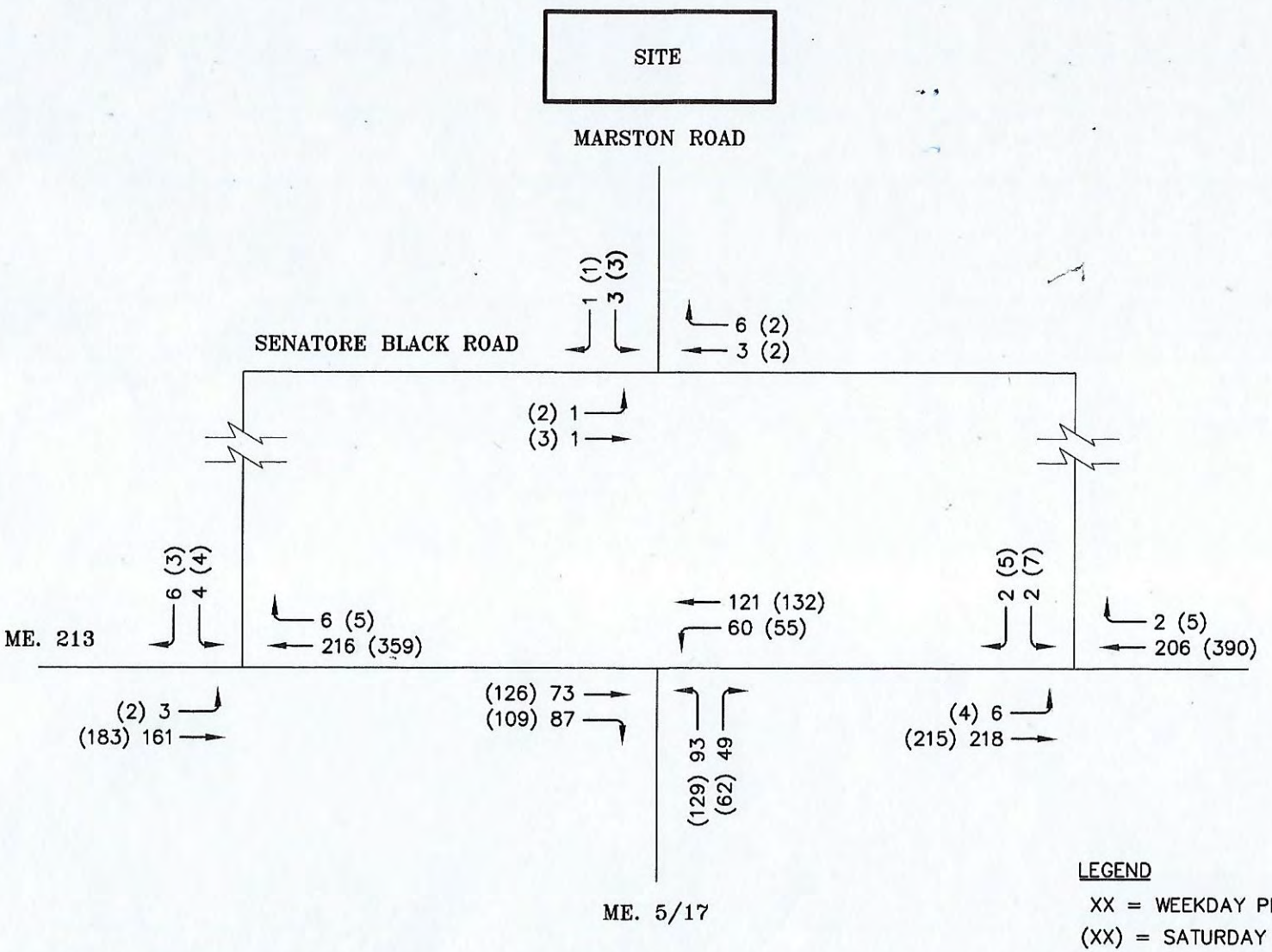
File Name : Baldwin Senator Black & Route 113 Location #2 102117
Site Code : 02102117
Start Date : 10/21/2017
Page No : 6



2017 Maine Transportation Count Book

County
Cumberland

TOWN	STA	ROAD-PN	LOCATION	GROUP	AADT12	AADT13	AADT14	AADT15	AADT16	AADT17
BALDWIN	40508	01729-6	IR 1729(SAND PD) NW/O SR 11/107(BRDGTN)	I	-	70 C	-	-	-	-
BALDWIN	34808	05030-6	IR 503 (CRAWFORD) NW/O IR 624 @ BR# 2098	I	-	-	-	-	50 S	-
BALDWIN	36402	05030-6	IR 5030 (DOUGLAS HILL) NE/O SR 5/113/117	I	-	-	-	-	640 C	-
BALDWIN	71608	00620-6	IR 620 (MOUNTAIN RD) NW/O IR 627	I	-	160 C	-	-	-	-
BALDWIN	86207	00624-6	IR 624 (DOUGLAS HILL) W/O IR 623@BR#5036	I	-	320 C	-	-	310 C	-
BALDWIN	71604	00627-6	IR 627 (CRAM RD) SE/O IR 626	I	-	-	-	-	180 C	-
BALDWIN	31203	00630-6	IR 630 (SEN. BLACK RD) E/O SR 5/113/117	I	-	-	-	-	140 C	-
BALDWIN	36008	00631-6	IR 631 (BROWN) NW/O SR 113 (PEQUAWET TR)	I	-	150 C	-	-	150 C	-
BALDWIN	71406	00635-6	IR 635 (PIGEON BK) SW/O SR 113 (E JCT)	I	-	250 C	-	-	-	-
BALDWIN	31107	00636-6	IR 636 (FREEMONT) W/O SR 11/107 (BRDGTN)	II	-	480 C	-	-	620 C	-
BALDWIN	35801	0107X-5	SR 107(BRIDGTON) N/O SR11(SEBAGO)@BR5045	II	-	960 C	-	-	1200 S	-
BALDWIN	35805	0011X-4	SR 11 S/O SR 107	II	-	-	-	-	2090 C	-
BALDWIN	35803	0011X-4	SR 11(SEBAGO RD) E/O SR 107 @ BR# 3693	II	-	810 C	-	-	1180 S	-
BALDWIN	31101	0011X-4	SR 11/107 (BRDGTON) N/O IR 636(FREEMONT)	II	-	1700 C	-	-	-	-
BALDWIN	35901	0011X-4	SR 11/107 (BRIDGTON RD) N/O SR 113	II	-	1370 C	-	-	1540 S	-
BALDWIN	35904	0011X-4	SR 11/113 SE/O SR 11/107 @BR# 2694	II	-	4120 C	-	-	4700 C	-
BALDWIN	36007	0113X-4	SR 113 (PEQUAWET TR) W/O IR 631 (BROWN)	II	-	3460 C	-	-	-	-
BALDWIN	35908	0113X-4	SR 113 (PEQUAWKET TR) NW/O SR 11/107	II	-	3380 C	-	-	3300 C	-
BALDWIN	36304	0113X-4	SR 113 (PEQUAWKET TR) SE/O SR 5/117	II	-	3190 C	-	-	3760 C	-
BALDWIN	36308	0005X-3	SR 5/113/117 (PEQUAWET TR) NW/O SR 5/117	II	-	3810 C	-	-	4800 C	-
BALDWIN	36500	0005X-3	SR 5/113/117 @ HIRAM TL	II	-	-	-	-	4040 C	-
BALDWIN	36206	0005X-3	SR 5/117 SW/O IR 634 @ CORNISH TL	II	-	3130 C	-	-	3530 C	-
BALDWIN	36306	0005X-3	SR 5/117 SW/O IR 8126 (ROCKY DUNN RD)	II	-	-	-	-	3550 C	-
BRIDGTON	07503	02033-6	BRICKYARD HILL RD E/O OLD ELM RD@BR#3607	III	-	110 C	-	-	-	-
BRIDGTON	04704	02033-6	BRICKYARD HILL RD SE/O SR 117	III	-	100 C	-	-	-	-
BRIDGTON	08103	00592-6	BURNHAM RD E/O SR 107 (S BRIDGTON RD)	I	-	380 C	-	-	-	-
BRIDGTON	08207	05028-6	BURNHAM RD W/O US 302 (ROOSEVELT TR)	I	-	410 C	-	-	470 C	-
BRIDGTON	06902	00572-6	CHADBOURNE HILL RD NE/O HIGHLAND RD	III	-	440 C	-	-	-	-
BRIDGTON	07307	00572-6	CHADBOURNE HILL RD W/O SR 37(N BRIDGTON)	III	-	520 C	-	-	560 C	-
BRIDGTON	00403	04028-6	CHURCH ST E/O S HIGH ST	II+III	-	580 C	-	-	-	-
BRIDGTON	01505	04028-6	CHURCH ST S/O US 302 (MAIN ST)	II+III	-	860 C	-	-	-	-
BRIDGTON	03401	00582-6	CROSS ST N/O MAIN ST	II+III	-	500 C	-	-	-	-

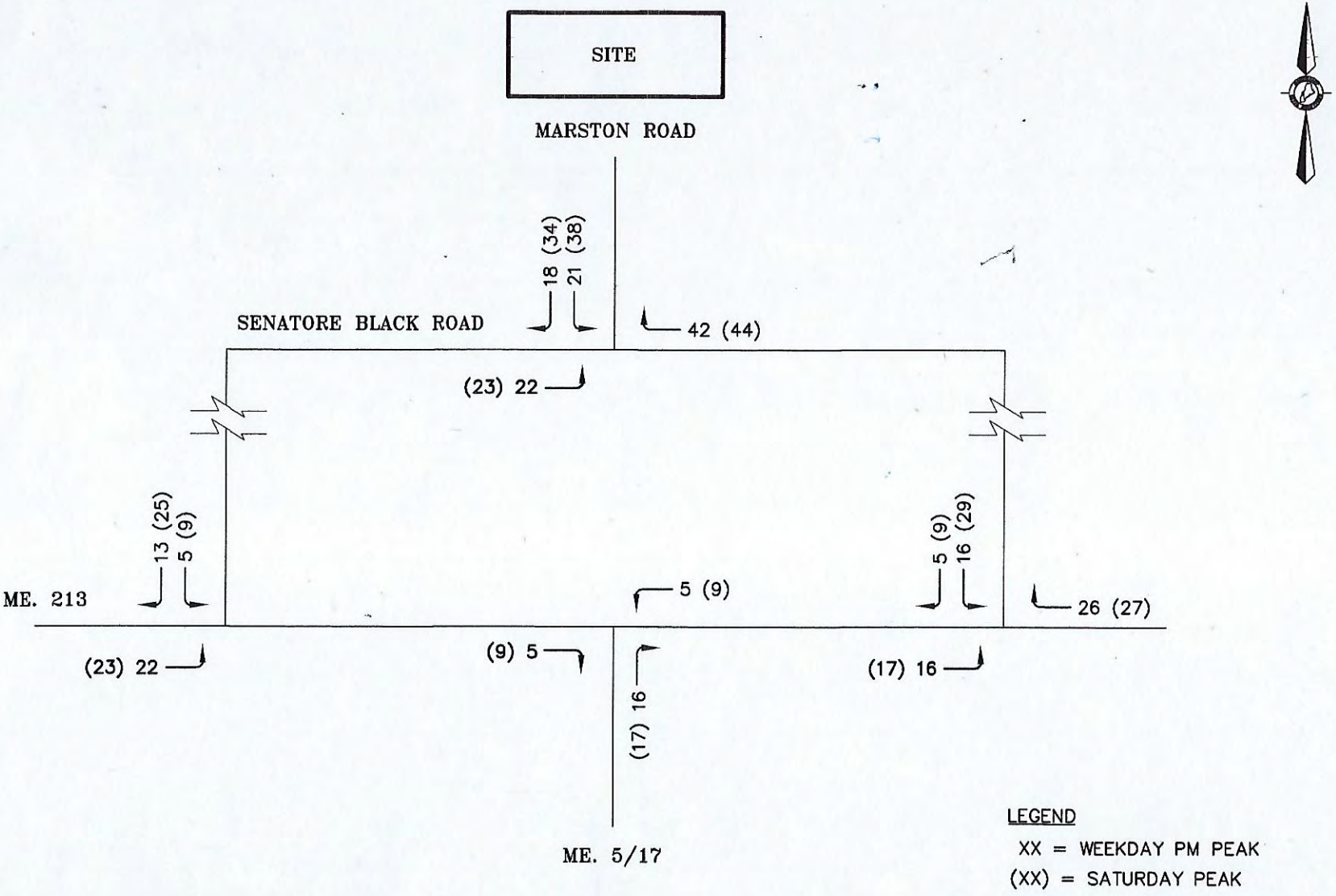


2017 DESIGN HOUR TRAFFIC

FIGURE 1

E:\LAND PROJECTS\34000\344399 TRAFFIC SOLUTIONS\NATURES WILDERNESS CAMPGROUND\PLANSET\NATURES WILDERNESS.DWG

Project Name and Location: NATURE'S WILDERNESS CAMPGROUND, BALDWIN, MAINE	TRAFFIC SOLUTIONS, 17 MOUNTVIEW DRIVE, GORHAM, MAINE 04038
DATE: SEPTEMBER, 2018	FIGURE: 1

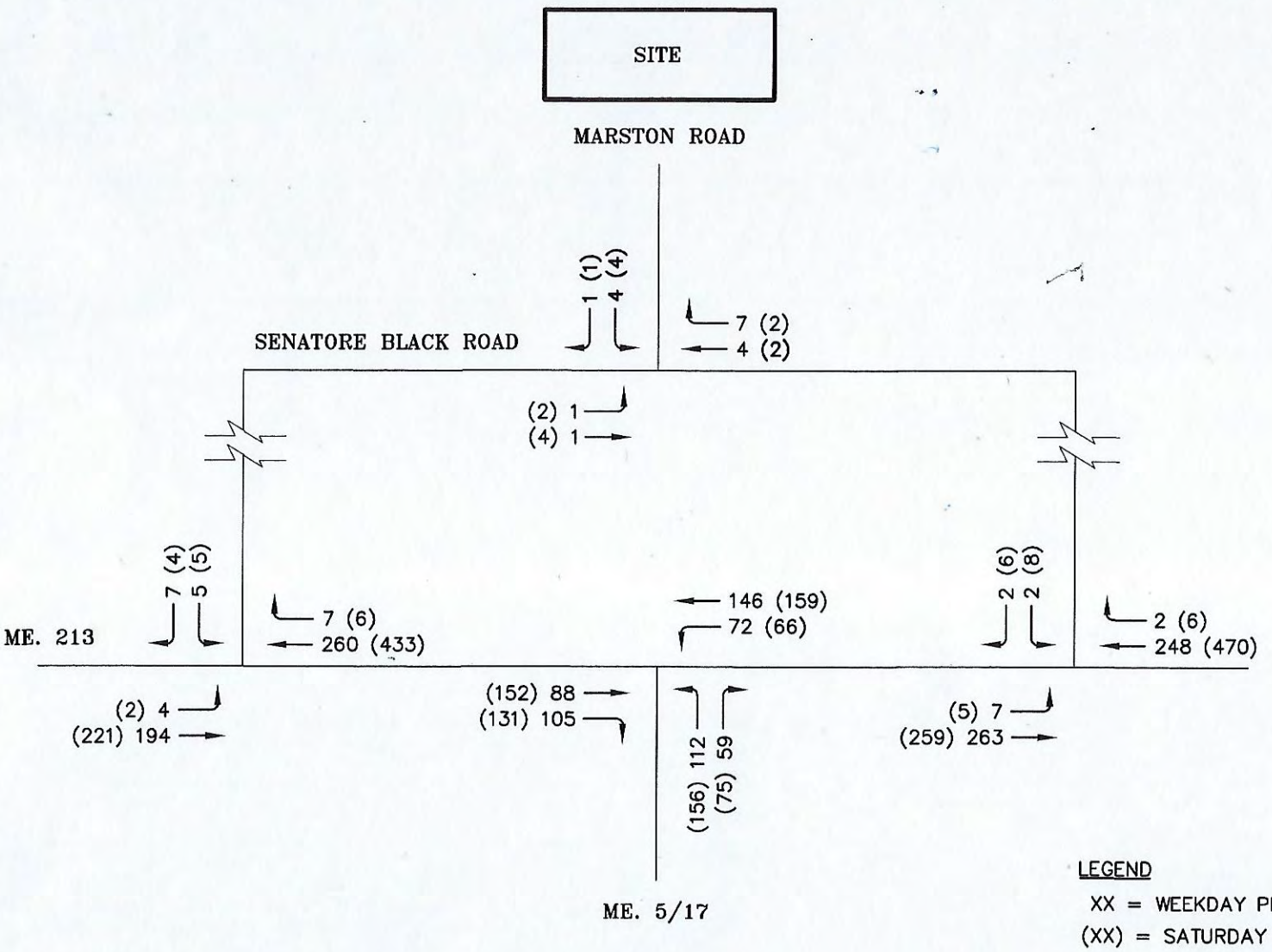


SITE TRIP ASSIGNMENT

FIGURE 2

E:\LAND PROJECTS\34000\344399 TRAFFIC SOLUTIONS\NATURES WILDERNESS CAMPGROUND\PLANSET\NATURES WILDERNESS.DWG

Project Name and Location: NATURE'S WILDERNESS CAMPGROUND BALDWIN, MAINE	TRAFFIC SOLUTIONS 17 MOUNTVIEW DRIVE, GORHAM, MAINE 04038
DATE: SEPTEMBER, 2018 FIGURE: 2	

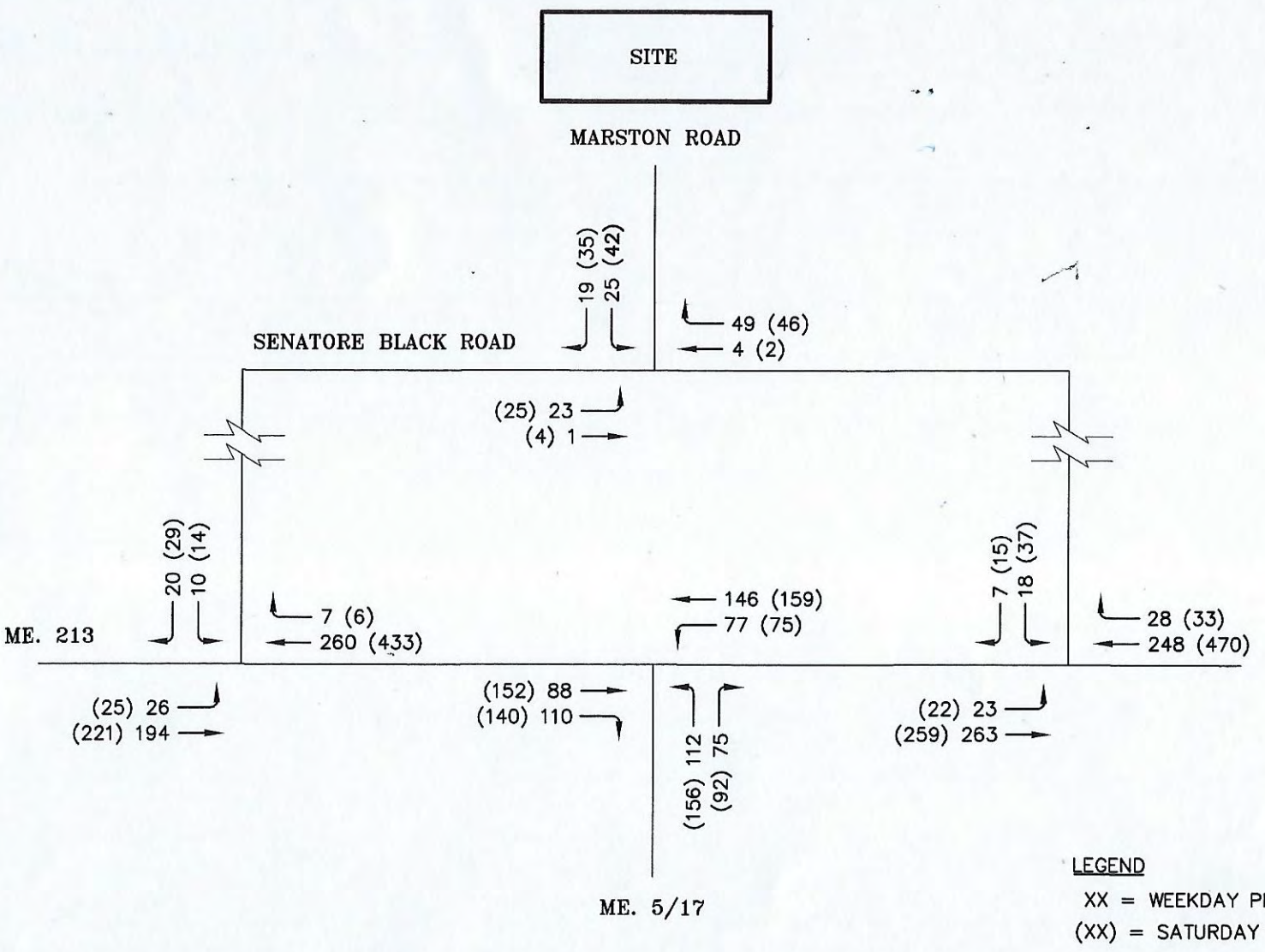


2021 DESIGN HOUR TRAFFIC

FIGURE 3

E:\LAND PROJECTS\34000\344399 TRAFFIC SOLUTIONS\NATURES WILDERNESS CAMPGROUND\PLANSET\NATURES WILDERNESS.DWG

Project Name and Location: NATURE'S WILDERNESS CAMPGROUND BALDWIN, MAINE	TRAFFIC SOLUTIONS 17 MOUNTVIEW DRIVE, GORHAM, MAINE 04038
DATE: SEPTEMBER, 2018 FIGURE: 3	

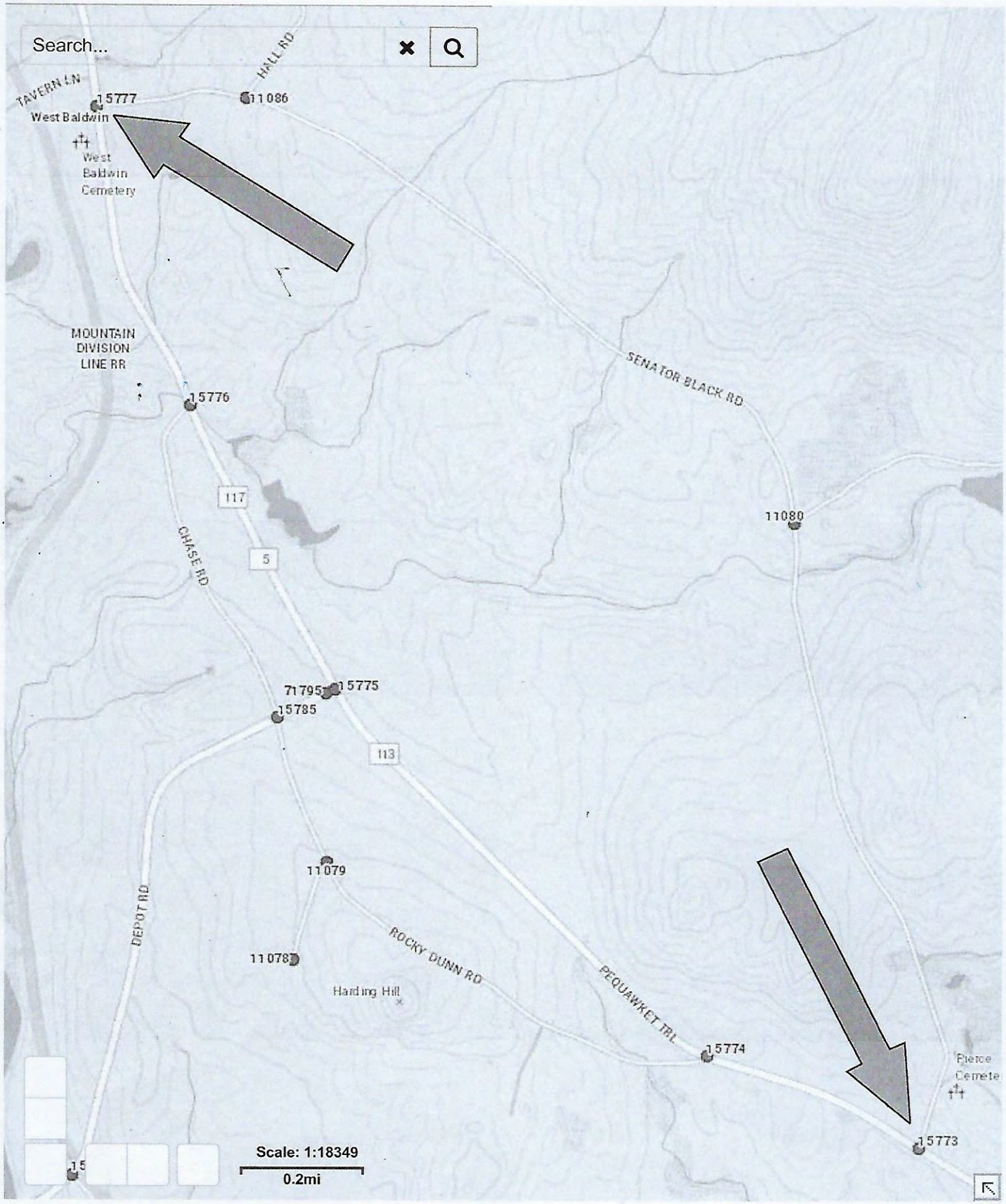


2021 POST-DEVELOPMENT TRAFFIC

FIGURE 4

E:\LAND PROJECTS\34000\344399 TRAFFIC SOLUTIONS\NATURES WILDERNESS CAMPGROUND\PLANSET\NATURES WILDERNESS.DWG

Project Name and Location: NATURE'S WILDERNESS CAMPGROUND, BALDWIN, MAINE	TRAFFIC SOLUTIONS, 17 MOUNTVIEW DRIVE, GORHAM, MAINE 04038
DATE: SEPTEMBER, 2018	FIGURE: 4


Search...
TAVERN LN
15777
West Baldwin
West Baldwin Cemetery
HALL RD
11086
MOUNTAIN DIVISION LINE RR
15776
SENATOR BLACK RD
11080
117
5
CHASE RD
71795
15775
15785
113
11079
DEPOT RD
ROCKY DUNN RD
11078
Harding Hill
PEQUAWKET TRL
15774
Pierce Cemete
15773
Scale: 1:18349
0.2mi

Maine Department Of Transportation - Traffic Engineering, Crash Records Section

Crash Summary Report

Report Selections and Input Parameters

REPORT SELECTIONS

☑ Crash Summary I ☐ Section Detail ☑ Crash Summary II ☐ 1320 Public ☐ 1320 Private ☑ 1320 Summary

REPORT DESCRIPTION

Baldwin
Rte. 113 from Senator Black Rd-South to Senator Black Rd-North

REPORT PARAMETERS

Year 2015, Start Month 1 through Year 2017 End Month: 12

Route: **0113X**	Start Node: **15773**	Start Offset: **0**	☐ Exclude First Node
	End Node: **15775**	End Offset: **0**	☐ Exclude Last Node
Route: **0005X**	Start Node: **15775**	Start Offset: **0**	☑ Exclude First Node
	End Node: **15777**	End Offset: **0**	☐ Exclude Last Node

115

Crash Summary I

Nodes

Node	Route - MP	Node Description	U/R	Total Crashes	Injury Crashes K	A	B	C	PD	Percent Injury	Annual M Ent-Veh	Crash Rate	Critical Rate	CRF
15774	0113X - 11.18	Int of PEQUAWKET TRL ROCKY DUNN RD	1	0	0	0	0	0	0	0.0	1.422	0.00	0.46	0.00
												Statewide Crash Rate:	0.13	
15773	0113X - 10.80	Int of PEQUAWKET TRL SENATOR BLACK RD	1	0	0	0	0	0	0	0.0	1.478	0.00	0.46	0.00
												Statewide Crash Rate:	0.13	
15775	0113X - 12.03	Int of DEPOT RD PEQUAWKET TRL	1	6	0	0	2	2	2	66.7	2.248	0.89	0.41	2.15
												Statewide Crash Rate:	0.13	
15776	0005X - 41.12	Int of CHASE RD PEQUAWKET TRL	1	0	0	0	0	0	0	0.0	1.784	0.00	0.44	0.00
												Statewide Crash Rate:	0.13	
15777	0005X - 41.64	Int of PEQUAWKET TRL SENATOR BLACK RD	1	0	0	0	0	0	0	0.0	1.756	0.00	0.44	0.00
												Statewide Crash Rate:	0.13	
Study Years:	3.00	**NODE TOTALS:**		6	0	0	2	2	2	66.7	8.688	0.23	0.29	0.79

Maine Department Of Transportation - Traffic Engineering, Crash Records Section

Crash Summary I

Sections

Start Node	End Node	Element	Offset Begin - End	Route - MP	Section Length	U/R	Total Crashes	Injury Crashes K	A	B	C	PD	Percent Injury	Annual HMVM	Crash Rate	Critical Rate	CRF
15773	15774	3105870	0 - 0.38	0113X - 10.80	0.38	1	3	0	0	1	0	2	33.3	0.00537	186.20	419.05	0.00
Int of PEQUAWKET TRL SENATOR BLACK RD				ST RTE 113											Statewide Crash Rate: 178.75		
15774	15775	3100368	0 - 0.85	0113X - 11.18	0.85	1	6	0	0	2	0	4	33.3	0.01186	168.58	347.26	0.00
Int of PEQUAWKET TRL ROCKY DUNN RD				ST RTE 113											Statewide Crash Rate: 178.75		
15775	15776	3105871	0 - 0.52	0005X - 40.60	0.52	1	3	0	0	0	1	2	33.3	0.00927	107.92	367.33	0.00
Int of DEPOT RD PEQUAWKET TRL				ST RTE 5											Statewide Crash Rate: 178.75		
15776	15777	3105873	0 - 0.52	0005X - 41.12	0.52	1	3	0	1	0	0	2	33.3	0.00913	109.49	368.57	0.00
Int of CHASE RD PEQUAWKET TRL				ST RTE 5											Statewide Crash Rate: 178.75		
Study Years: 3.00				**Section Totals:**	2.27		15	0	1	3	1	10	33.3	0.03563	140.32	279.41	0.50
				Grand Totals:	2.27		21	0	1	5	3	12	42.9	0.03563	196.44	319.09	0.62

Maine Department Of Transportation - Traffic Engineering, Crash Records Section

Crash Summary Report

Report Selections and Input Parameters

REPORT SELECTIONS

☑ Crash Summary I ☐ Section Detail ☑ Crash Summary II ☐ 1320 Public ☐ 1320 Private ☑ 1320 Summary

REPORT DESCRIPTION

Baldwin
Martson Rd. from Senator Black Rd. to Brown Rd.

REPORT PARAMETERS

Year 2015, Start Month 1 through Year 2017 End Month: 12

Route: **0500628**	Start Node: **11080**	Start Offset: **0**	☑ **Exclude First Node**
	End Node: **15317**	End Offset: **0**	☐ **Exclude Last Node**

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Maine Department Of Transportation - Traffic Engineering, Crash Records Section

Crash Summary I

Nodes

Node	Route - MP	Node Description	U/R	Total Crashes	Injury Crashes K	A	B	C	PD	Percent Injury	Annual M Ent-Veh	Crash Rate	Critical Rate	CRF
15317	0500628 - 1.54	Int of BROWN RD MARSTON RD MCNEIL RD	1	0	0	0	0	0	0	0.0	0.017	0.00	-5.74	0.00
											Statewide Crash Rate:	0.13		
Study Years:	3.00	**NODE TOTALS:**		0	0	0	0	0	0	0.0	0.017	0.00	-5.77	0.00

Crash Summary I

Sections																
Start Node	End Node	Element	Offset Begin - End	Route - MP	Section Length	U/R	Total Crashes	Injury Crashes K	A	B	C	PD	Percent Injury	Annual HMVM	Crash Rate	Critical Rate	CRF
11080	15317	184914	0 - 1.54	0500628 - 0	1.54	1	0	0	0	0	0	0	0.0	0.00026	0.00	996.20	0.00
Int of MARSTON RD		SENATOR BLACK RD		RD INV 05 00628											Statewide Crash Rate: 232.00		
Study Years: 3.00				**Section Totals:**	1.54		0	0	0	0	0	0	0.0	0.00026	0.00	996.24	0.00
				Grand Totals:	1.54		0	0	0	0	0	0	0.0	0.00026	0.00	1092.74	0.00

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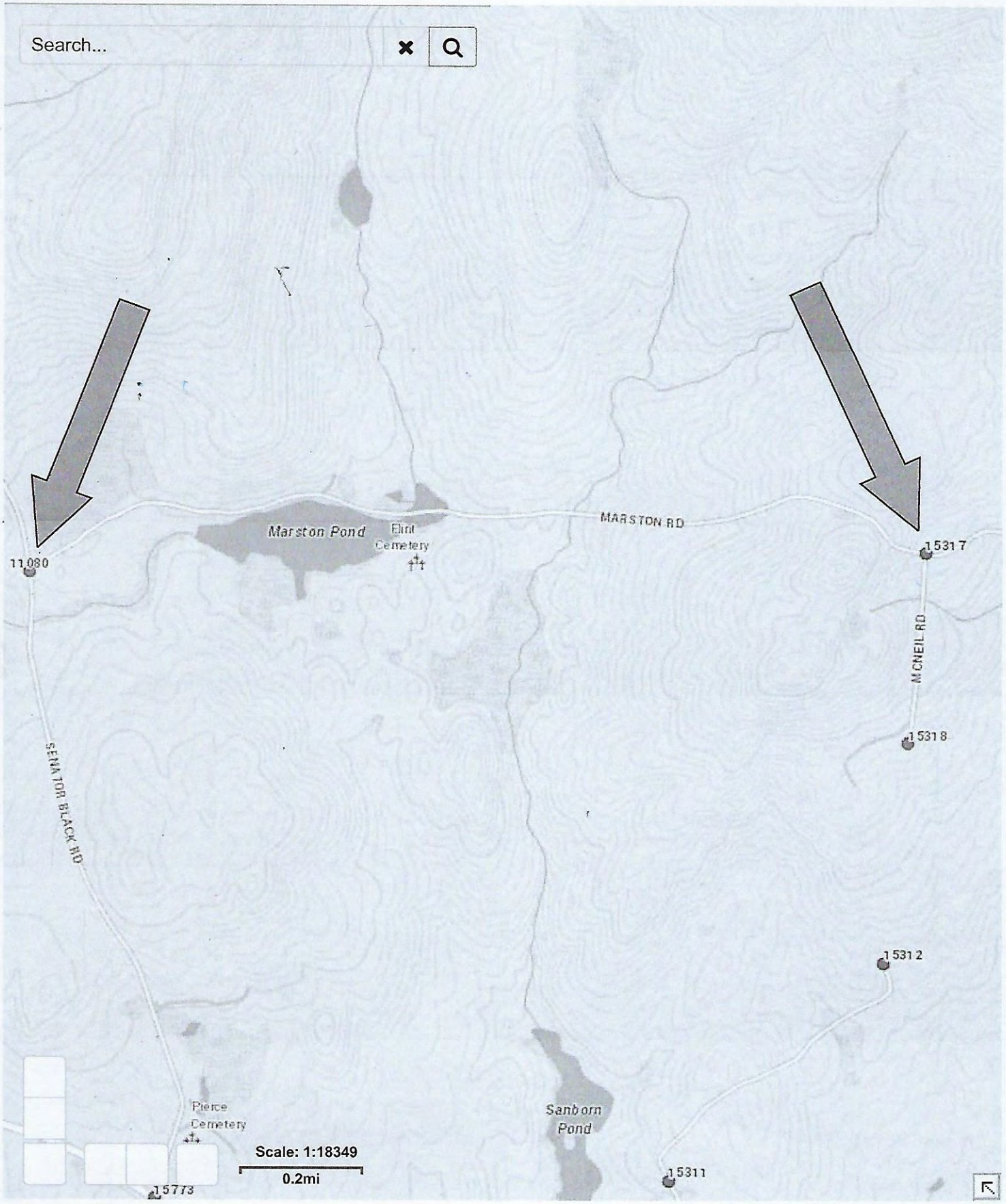
Search...
Marston Pond
Flint Cemetery
MARSTON RD
11080
15317
MCNEIL RD
15318
SENATOR BLACK RD
15312
Pierce Cemetery
Sanborn Pond
15773
15311
Scale: 1:18349
0.2mi

Maine Department Of Transportation - Traffic Engineering, Crash Records Section

Crash Summary Report

Report Selections and Input Parameters

REPORT SELECTIONS

☑ **Crash Summary I** ☐ **Section Detail** ☑ **Crash Summary II** ☐ **1320 Public** ☐ **1320 Private** ☑ **1320 Summary**

REPORT DESCRIPTION

Baldwin
Senator Black Rd from Rte 113-South to Rte 113-North

REPORT PARAMETERS

Year 2015, Start Month 1 through Year 2017 End Month: 12

Route: **0500630**	Start Node: **15773**	Start Offset: **0**	☑ **Exclude First Node**
	End Node: **15777**	End Offset: **0**	☑ **Exclude Last Node**

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Maine Department Of Transportation - Traffic Engineering, Crash Records Section

Crash Summary I

Nodes

Node	Route - MP	Node Description	U/R	Total Crashes	Injury Crashes K	A	B	C	PD	Percent Injury	Annual M Ent-Veh	Crash Rate	Critical Rate	CRF
11080	0500630 - 1.08	Int of MARSTON RD SENATOR BLACK RD	1	0	0	0	0	0	0	0.0	0.058	0.00	-0.53	0.00
												Statewide Crash Rate:	0.13	
11086	0500630 - 2.24	Int of HALL RD, SENATOR BLACK RD	1	0	0	0	0	0	0	0.0	0.049	0.00	-0.84	0.00
												Statewide Crash Rate:	0.13	
Study Years:	3.00	**NODE TOTALS:**		0	0	0	0	0	0	0.0	0.107	0.00	0.15	0.00

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Crash Summary I

Sections

Start Node	End Node	Element	Offset Begin - End	Route - MP	Section Length	U/R	Total Crashes	Injury Crashes K	A	B	C	PD	Percent Injury	Annual HMVM	Crash Rate	Critical Rate	CRF
11080	15773	184915	0 - 1.08	0500630 - 0	1.08	1	0	0	0	0	0	0	0.0	0.00064	0.00	866.29	0.00
Int of MARSTON RD		SENATOR BLACK RD		RD INV 05 00630											Statewide Crash Rate: 232.00		
11080	11086	184913	0 - 1.16	0500630 - 1.08	1.16	1	0	0	0	0	0	0	0.0	0.00045	0.00	928.41	0.00
Int of MARSTON RD		SENATOR BLACK RD		RD INV 05 00630											Statewide Crash Rate: 232.00		
11086	15777	184927	0 - 0.26	0500630 - 2.24	0.26	1	0	0	0	0	0	0	0.0	0.00013	0.00	946.64	0.00
Int of HALL RD, SENATOR BLACK RD				RD INV 05 00630											Statewide Crash Rate: 232.00		
Study Years: 3.00				**Section Totals:**	2.50		0	0	0	0	0	0	0.0	0.00123	0.00	742.35	0.00
				Grand Totals:	2.50		0	0	0	0	0	0	0.0	0.00123	0.00	799.78	0.00

Summary of All Intervals

Run Number	2	4	5	6	7	Avg
Start Time	4:57	4:57	4:57	4:57	4:57	4:57
End Time	6:00	6:00	6:00	6:00	6:00	6:00
Total Time (min)	63	63	63	63	63	63
Time Recorded (min)	60	60	60	60	60	60
# of Intervals	2	2	2	2	2	2
# of Recorded Intervals	1	1	1	1	1	1
Vehs Entered	1586	1533	1583	1543	1651	1579
Vehs Exited	1586	1539	1592	1546	1656	1585
Starting Vehs	18	16	23	17	25	20
Ending Vehs	18	10	14	14	20	13
Travel Distance (mi)	689	670	694	673	721	689
Travel Time (hr)	17.6	17.2	17.7	17.2	18.5	17.6
Total Delay (hr)	0.9	0.9	1.0	0.9	1.0	0.9
Total Stops	207	190	207	198	205	202
Fuel Used (gal)	22.0	21.4	21.8	21.2	22.9	21.9

Interval #0 Information Seeding

Start Time	4:57
End Time	5:00
Total Time (min)	3

Volumes adjusted by Growth Factors.
No data recorded this interval.

Interval #1 Information Recording

Start Time	5:00
End Time	6:00
Total Time (min)	60

Volumes adjusted by Growth Factors.

Run Number	2	4	5	6	7	Avg
Vehs Entered	1586	1533	1583	1543	1651	1579
Vehs Exited	1586	1539	1592	1546	1656	1585
Starting Vehs	18	16	23	17	25	20
Ending Vehs	18	10	14	14	20	13
Travel Distance (mi)	689	670	694	673	721	689
Travel Time (hr)	17.6	17.2	17.7	17.2	18.5	17.6
Total Delay (hr)	0.9	0.9	1.0	0.9	1.0	0.9
Total Stops	207	190	207	198	205	202
Fuel Used (gal)	22.0	21.4	21.8	21.2	22.9	21.9

3: Route 113 & Senator Black Rd (N) Performance by approach

Approach	WB	NB	SB	All
Denied Del/Veh (s)	0.1	0.2	0.2	0.2
Total Del/Veh (s)	4.6	0.5	0.3	0.6

7: Route 113 & Route 5/17 Performance by approach

Approach	EB	NB	SB	All
Denied Del/Veh (s)	0.2	0.2	0.2	0.2
Total Del/Veh (s)	6.5	2.1	1.2	3.0

11: Route 113 & Senator Black Rd (S) Performance by approach

Approach	EB	WB	SB	All
Denied Del/Veh (s)	0.2	0.2	0.1	0.2
Total Del/Veh (s)	0.3	0.3	3.8	0.4

Total Network Performance

Denied Del/Veh (s)	0.2
Total Del/Veh (s)	1.9

Intersection: 3: Route 113 & Senator Black Rd (N)

Movement	WB	SB
Directions Served	LR	LT
Maximum Queue (ft)	36	22
Average Queue (ft)	11	1
95th Queue (ft)	35	10
Link Distance (ft)	1006	1191
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 7: Route 113 & Route 5/17

Movement	EB	NB	SB
Directions Served	LR	LT	TR
Maximum Queue (ft)	101	56	4
Average Queue (ft)	50	13	0
95th Queue (ft)	80	41	3
Link Distance (ft)	1205	1245	1241
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 11: Route 113 & Senator Black Rd (S)

Movement	EB	SB
Directions Served	LT	LR
Maximum Queue (ft)	15	27
Average Queue (ft)	1	4
95th Queue (ft)	7	19
Link Distance (ft)	913	1176
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Network Summary

Network wide Queuing Penalty: 0

Summary of All Intervals

Run Number	2	3	4	5	6	Avg
Start Time	4:57	4:57	4:57	4:57	4:57	4:57
End Time	6:00	6:00	6:00	6:00	6:00	6:00
Total Time (min)	63	63	63	63	63	63
Time Recorded (min)	60	60	60	60	60	60
# of Intervals	2	2	2	2	2	2
# of Recorded Intervals	1	1	1	1	1	1
Vehs Entered	2146	2107	2080	2131	2160	2126
Vehs Exited	2142	2101	2079	2134	2155	2122
Starting Vehs	23	17	24	23	21	21
Ending Vehs	27	23	25	20	26	24
Travel Distance (mi)	932	910	902	928	939	922
Travel Time (hr)	24.0	23.6	22.9	23.7	24.2	23.7
Total Delay (hr)	1.7	1.6	1.4	1.5	1.7	1.6
Total Stops	277	300	257	272	270	277
Fuel Used (gal)	29.9	29.0	28.7	29.6	29.8	29.4

Interval #0 Information Seeding

Start Time	4:57
End Time	5:00
Total Time (min)	3

Volumes adjusted by Growth Factors.
No data recorded this interval.

Interval #1 Information Recording

Start Time	5:00
End Time	6:00
Total Time (min)	60

Volumes adjusted by Growth Factors.

Run Number	2	3	4	5	6	Avg
Vehs Entered	2146	2107	2080	2131	2160	2126
Vehs Exited	2142	2101	2079	2134	2155	2122
Starting Vehs	23	17	24	23	21	21
Ending Vehs	27	23	25	20	26	24
Travel Distance (mi)	932	910	902	928	939	922
Travel Time (hr)	24.0	23.6	22.9	23.7	24.2	23.7
Total Delay (hr)	1.7	1.6	1.4	1.5	1.7	1.6
Total Stops	277	300	257	272	270	277
Fuel Used (gal)	29.9	29.0	28.7	29.6	29.8	29.4

3: Route 113 & Senator Black Rd (N) Performance by approach

Approach	WB	NB	SB	All
Denied Del/Veh (s)	0.1	0.3	0.2	0.3
Total Del/Veh (s)	5.6	0.7	0.4	0.7

7: Route 113 & Route 5/17 Performance by approach

Approach	EB	NB	SB	All
Denied Del/Veh (s)	0.2	0.2	0.3	0.2
Total Del/Veh (s)	8.1	2.2	1.8	3.9

11: Route 113 & Senator Black Rd (S) Performance by approach

Approach	EB	WB	SB	All
Denied Del/Veh (s)	0.2	0.4	0.1	0.3
Total Del/Veh (s)	0.4	0.6	5.9	0.6

Total Network Performance

Denied Del/Veh (s)	0.3
Total Del/Veh (s)	2.4

Intersection: 3: Route 113 & Senator Black Rd (N)

Movement	WB
Directions Served	LR
Maximum Queue (ft)	36
Average Queue (ft)	10
95th Queue (ft)	33
Link Distance (ft)	1006
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (ft)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Intersection: 7: Route 113 & Route 5/17

Movement	EB	NB	SB
Directions Served	LR	LT	TR
Maximum Queue (ft)	101	57	9
Average Queue (ft)	59	15	0
95th Queue (ft)	93	44	5
Link Distance (ft)	1205	1245	1241
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 11: Route 113 & Senator Black Rd (S)

Movement	EB	SB
Directions Served	LT	LR
Maximum Queue (ft)	21	41
Average Queue (ft)	2	11
95th Queue (ft)	12	34
Link Distance (ft)	913	1176
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Network Summary

Network wide Queuing Penalty: 0

Summary of All Intervals

Run Number	1	3	4	5	7	Avg
Start Time	4:57	4:57	4:57	4:57	4:57	4:57
End Time	6:00	6:00	6:00	6:00	6:00	6:00
Total Time (min)	63	63	63	63	63	63
Time Recorded (min)	60	60	60	60	60	60
# of Intervals	2	2	2	2	2	2
# of Recorded Intervals	1	1	1	1	1	1
Vehs Entered	1678	1695	1659	1686	1718	1688
Vehs Exited	1674	1694	1662	1690	1722	1688
Starting Vehs	17	21	16	18	22	19
Ending Vehs	21	22	13	14	18	15
Travel Distance (mi)	730	737	724	736	750	735
Travel Time (hr)	19.4	19.5	19.0	19.3	19.8	19.4
Total Delay (hr)	1.2	1.2	1.1	1.1	1.3	1.2
Total Stops	253	261	257	260	268	258
Fuel Used (gal)	23.8	23.9	23.6	23.8	24.2	23.8

Interval #0 Information Seeding

Start Time	4:57
End Time	5:00
Total Time (min)	3

Volumes adjusted by Growth Factors.

No data recorded this interval.

Interval #1 Information Recording

Start Time	5:00
End Time	6:00
Total Time (min)	60

Volumes adjusted by Growth Factors.

Run Number	1	3	4	5	7	Avg
Vehs Entered	1678	1695	1659	1686	1718	1688
Vehs Exited	1674	1694	1662	1690	1722	1688
Starting Vehs	17	21	16	18	22	19
Ending Vehs	21	22	13	14	18	15
Travel Distance (mi)	730	737	724	736	750	735
Travel Time (hr)	19.4	19.5	19.0	19.3	19.8	19.4
Total Delay (hr)	1.2	1.2	1.1	1.1	1.3	1.2
Total Stops	253	261	257	260	268	258
Fuel Used (gal)	23.8	23.9	23.6	23.8	24.2	23.8

3: Route 113 & Senator Black Rd (N) Performance by approach

Approach	WB	NB	SB	All
Denied Del/Veh (s)	0.1	0.2	0.2	0.2
Total Del/Veh (s)	4.1	0.5	0.8	0.8

7: Route 113 & Route 5/17 Performance by approach

Approach	EB	NB	SB	All
Denied Del/Veh (s)	0.2	0.2	0.2	0.2
Total Del/Veh (s)	7.1	1.9	1.2	3.3

11: Route 113 & Senator Black Rd (S) Performance by approach

Approach	EB	WB	SB	All
Denied Del/Veh (s)	0.2	0.2	0.1	0.2
Total Del/Veh (s)	0.8	0.6	6.9	1.0

Total Network Performance

Denied Del/Veh (s)	0.2
Total Del/Veh (s)	2.3

Intersection: 3: Route 113 & Senator Black Rd (N)

Movement	WB	SB
Directions Served	LR	LT
Maximum Queue (ft)	45	40
Average Queue (ft)	20	5
95th Queue (ft)	45	25
Link Distance (ft)	1006	1191
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 7: Route 113 & Route 5/17

Movement	EB	NB	SB
Directions Served	LR	LT	TR
Maximum Queue (ft)	119	55	4
Average Queue (ft)	53	10	0
95th Queue (ft)	92	36	4
Link Distance (ft)	1205	1245	1241
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 11: Route 113 & Senator Black Rd (S)

Movement	EB	SB
Directions Served	LT	LR
Maximum Queue (ft)	32	51
Average Queue (ft)	3	19
95th Queue (ft)	17	45
Link Distance (ft)	913	1176
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Network Summary

Network wide Queuing Penalty: 0

Summary of All Intervals

Run Number	2	3	4	5	6	Avg
Start Time	4:57	4:57	4:57	4:57	4:57	4:57
End Time	6:00	6:00	6:00	6:00	6:00	6:00
Total Time (min)	63	63	63	63	63	63
Time Recorded (min)	60	60	60	60	60	60
# of Intervals	2	2	2	2	2	2
# of Recorded Intervals	1	1	1	1	1	1
Vehs Entered	2335	2255	2294	2305	2285	2298
Vehs Exited	2332	2245	2295	2315	2284	2294
Starting Vehs	25	17	31	31	29	28
Ending Vehs	28	27	30	21	30	25
Travel Distance (mi)	1013	975	995	1003	989	995
Travel Time (hr)	27.2	26.0	26.6	26.9	26.2	26.6
Total Delay (hr)	2.2	2.1	2.1	2.1	2.1	2.1
Total Stops	402	374	382	401	340	379
Fuel Used (gal)	33.9	32.0	33.1	33.0	32.6	32.9

Interval #0 Information Seeding

Start Time	4:57
End Time	5:00
Total Time (min)	3

Volumes adjusted by Growth Factors.
No data recorded this interval.

Interval #1 Information Recording

Start Time	5:00
End Time	6:00
Total Time (min)	60

Volumes adjusted by Growth Factors.

Run Number	2	3	4	5	6	Avg
Vehs Entered	2335	2255	2294	2305	2285	2298
Vehs Exited	2332	2245	2295	2315	2284	2294
Starting Vehs	25	17	31	31	29	28
Ending Vehs	28	27	30	21	30	25
Travel Distance (mi)	1013	975	995	1003	989	995
Travel Time (hr)	27.2	26.0	26.6	26.9	26.2	26.6
Total Delay (hr)	2.2	2.1	2.1	2.1	2.1	2.1
Total Stops	402	374	382	401	340	379
Fuel Used (gal)	33.9	32.0	33.1	33.0	32.6	32.9

3: Route 113 & Senator Black Rd (N) Performance by approach

Approach	WB	NB	SB	All
Denied Del/Veh (s)	0.1	0.3	0.2	0.3
Total Del/Veh (s)	5.1	0.9	0.8	1.1

7: Route 113 & Route 5/17 Performance by approach

Approach	EB	NB	SB	All
Denied Del/Veh (s)	0.2	0.2	0.3	0.2
Total Del/Veh (s)	8.6	2.4	1.8	4.2

11: Route 113 & Senator Black Rd (S) Performance by approach

Approach	EB	WB	SB	All
Denied Del/Veh (s)	0.2	0.4	0.1	0.3
Total Del/Veh (s)	0.9	1.2	8.2	1.6

Total Network Performance

Denied Del/Veh (s)	0.3
Total Del/Veh (s)	3.0

Intersection: 3: Route 113 & Senator Black Rd (N)

Movement	WB	SB
Directions Served	LR	LT
Maximum Queue (ft)	49	47
Average Queue (ft)	24	6
95th Queue (ft)	49	29
Link Distance (ft)	1006	1191
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 7: Route 113 & Route 5/17

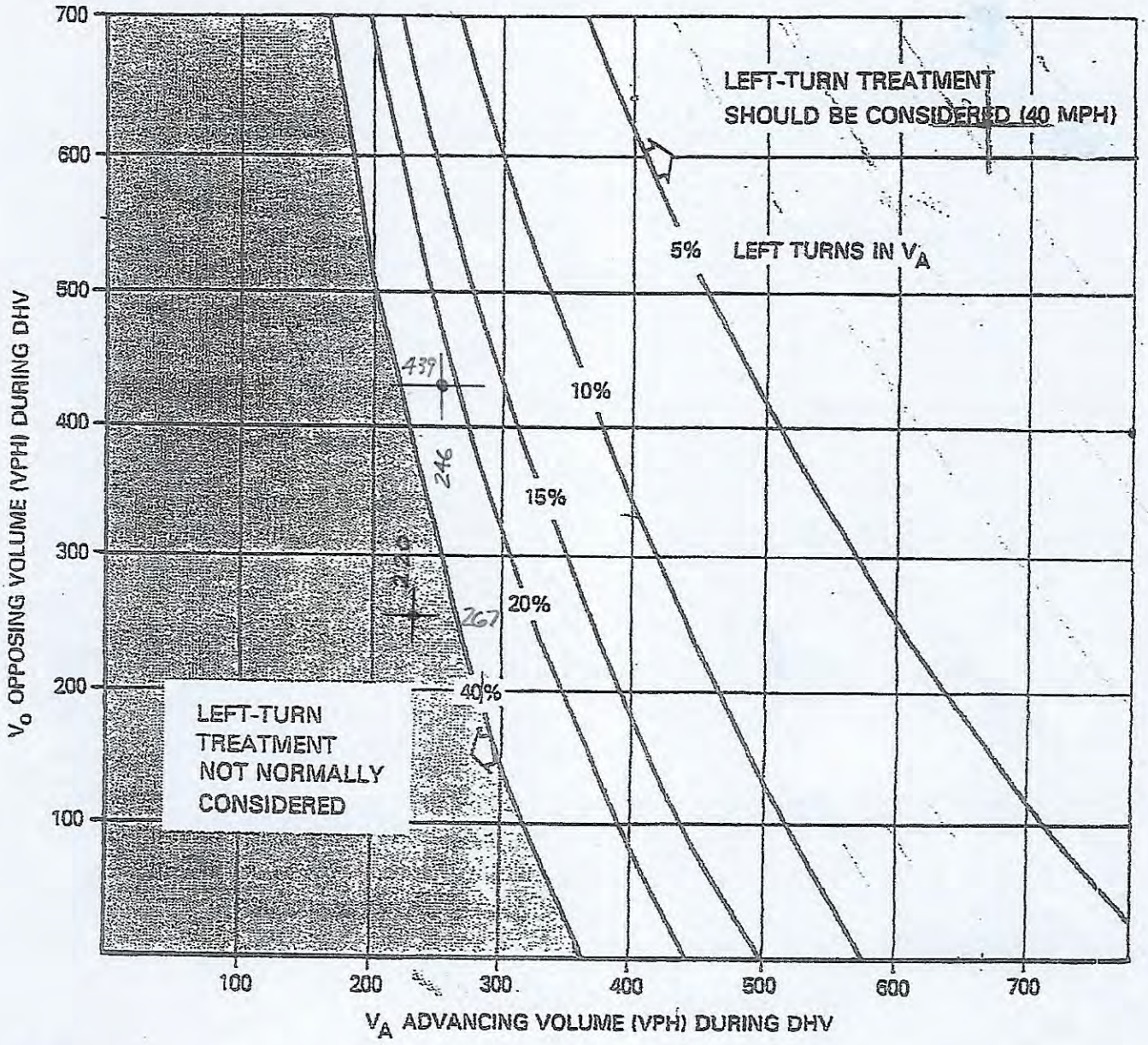
Movement	EB	NB	SB
Directions Served	LR	LT	TR
Maximum Queue (ft)	134	69	4
Average Queue (ft)	64	15	0
95th Queue (ft)	104	48	3
Link Distance (ft)	1205	1245	1241
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 11: Route 113 & Senator Black Rd (S)

Movement	EB	SB
Directions Served	LT	LR
Maximum Queue (ft)	47	63
Average Queue (ft)	6	25
95th Queue (ft)	27	50
Link Distance (ft)	913	1176
Upstream Blk Time (%)		
Queuing Penalty (veh)		
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Network Summary

Network wide Queuing Penalty: 0



Instructions:

1. The family of curves represent the percent of left turns in the advancing volume (V_A). The designer should locate the curve for the actual percentage of left turns. When this is not an even increment of 5, the designer should estimate where the curve lies.

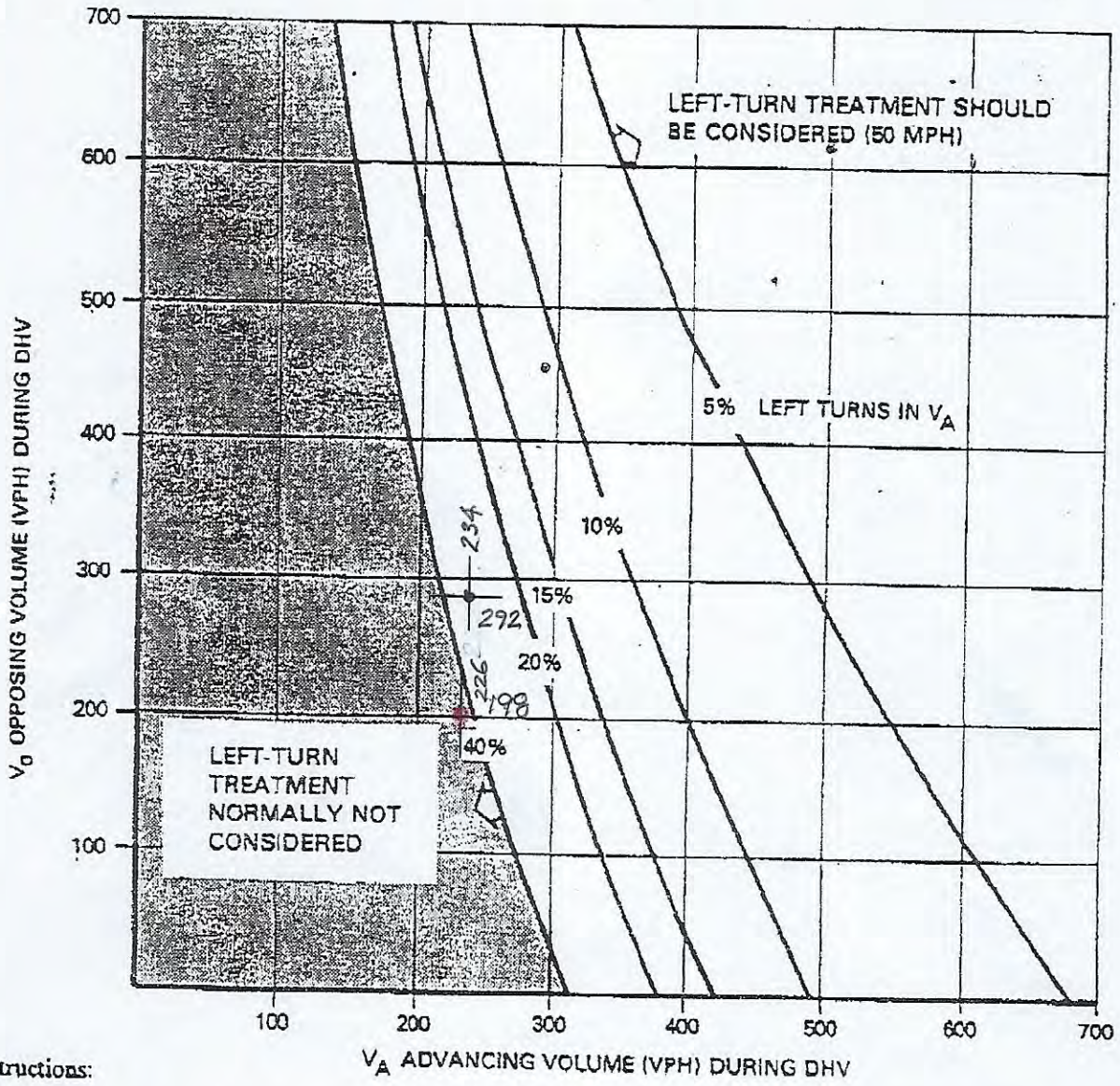
4. Read V_A and V_O into the chart and locate the intersection of the two volumes.

5. Note the location of the point in #2 relative to the line in #1. If the point is to the right of the line, then a left-turn lane is warranted. If the point is to the left of the line, then a left-turn lane is not warranted based on traffic volumes.

VOLUME WARRANTS FOR LEFT-TURN LANES AT UNSIGNALIZED INTERSECTIONS ON 2-LANE HIGHWAYS (40 mph)

Figure 8-19

Senator Black Rd. @ S.R. 113 North Intersection



Instructions:

1. The family of curves represent the percent of left turns in the advancing volume (V_A). The designer should locate the curve for the actual percentage of left turns. When this is not an even increment of 5, the designer should estimate where the curve lies.

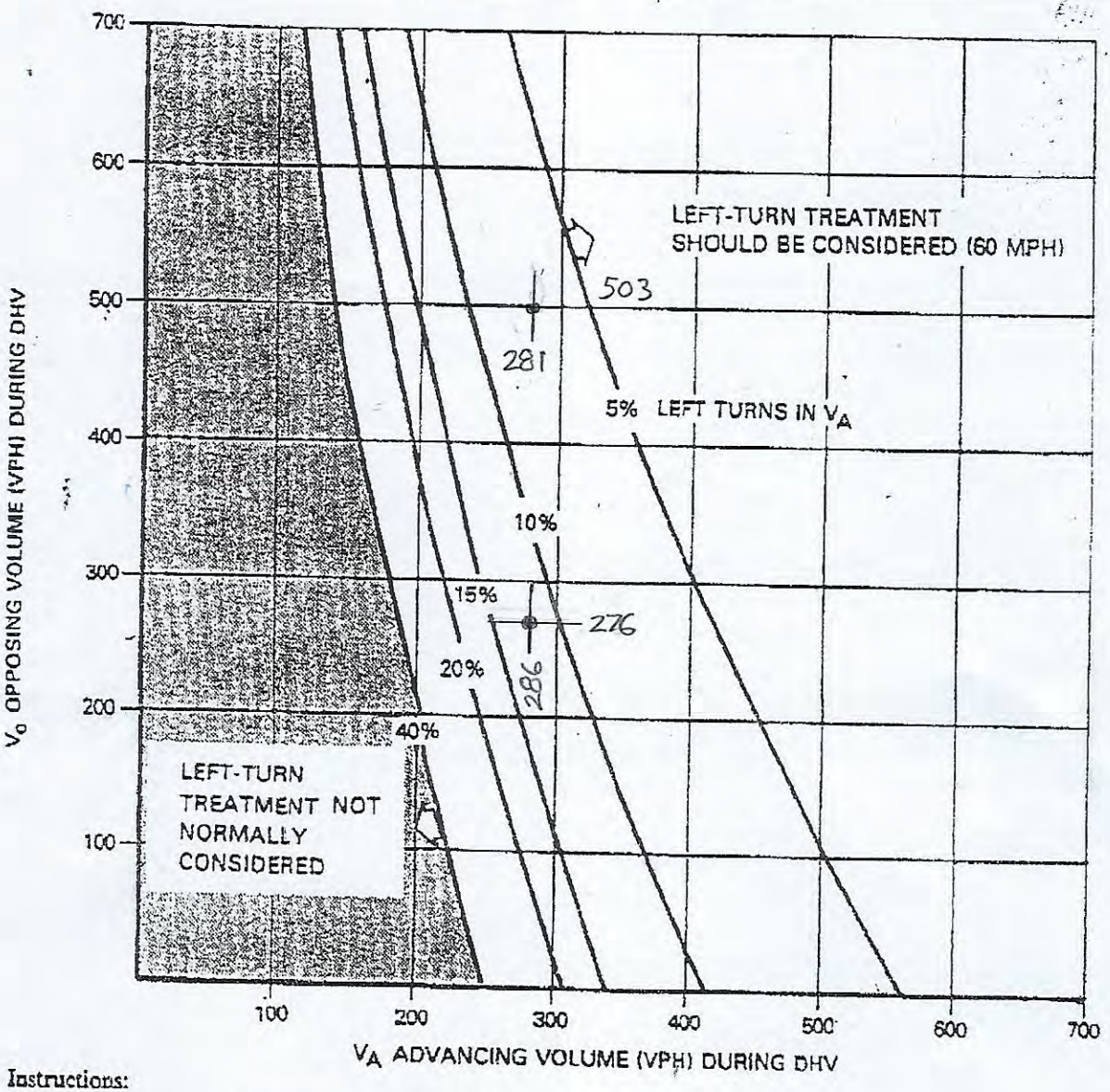
2. Read V_A and V_O into the chart and locate the intersection of the two volumes.

3. Note the location of the point in #2 relative to the line in #1. If the point is to the right of the line, then a left-turn lane is warranted. If the point is to the left of the line, then a left-turn is not warranted based on traffic volumes.

VOLUME WARRANTS FOR LEFT-TURN LANES AT UNSIGNALIZED INTERSECTIONS ON 2-LANE HIGHWAYS (50 mph)

Figure 8-18

Senator Black Road @ Depot Road



Instructions:

1. The family of curves represent the percent of left turns in the advancing volume (V_A). The designer should locate the curve for the actual percentage of left turns. When this is not an even increment of 5, the designer should estimate where the curve lies.

2. Read V_A and V_O into the chart and locate the intersection of the two volumes.

3. Note the location of the point in #2 relative to the line in #1. If the point is to the right of the line, then a left-turn lane is warranted. If the point is to the left of the line, then a left-turn is not warranted based on traffic volumes.

VOLUME WARRANTS FOR LEFT-TURN LANES
AT UNSIGNALIZED INTERSECTIONS ON 2-LANE HIGHWAYS
(60 mph)

Figure 8-17

Senator Black Rd. @ S.R. 113
South Intersection

Attachment 8: Response Letter from Unusual & Natural Areas Program

STATE OF MAINE
DEPARTMENT OF AGRICULTURE, CONSERVATION & FORESTRY
93 STATE HOUSE STATION
AUGUSTA, MAINE 04333

PAUL R. LEPAGE
GOVERNOR

WALTER E. WHITCOMB
COMMISSIONER

October 10, 2017

Katy Bouchard
Terradyn Consultants
PO Box 339
New Gloucester, ME 04260

Via email: katy@terradynconsultants.com

Re: Rare and exemplary botanical features in proximity to: #1640, Nature's Wilderness Campground, Baldwin, Maine

Dear Ms. Bouchard:

I have searched the Natural Areas Program's Biological and Conservation Data System files in response to your request received October 5, 2017 for information on the presence of rare or unique botanical features documented from the vicinity of the project in Baldwin, Maine. Rare and unique botanical features include the habitat of rare, threatened, or endangered plant species and unique or exemplary natural communities. Our review involves examining maps, manual and computerized records, other sources of information such as scientific articles or published references, and the personal knowledge of staff or cooperating experts.

Our official response covers only botanical features. For authoritative information and official response for zoological features you must make a similar request to the Maine Department of Inland Fisheries and Wildlife, 284 State Street, Augusta, Maine 04333.

According to the information currently in our Biological and Conservation Data System files, there are no rare botanical features documented specifically within the project area. This lack of data may indicate minimal survey efforts rather than confirm the absence of rare botanical features. You may want to have the site inventoried by a qualified field biologist to ensure that no undocumented rare features are inadvertently harmed.

If a field survey of the project area is conducted, please refer to the enclosed supplemental information regarding rare and exemplary botanical features documented to occur in the vicinity of the project site. The list may include information on features that have been known to occur historically in the area as well as recently field-verified information. While historic records have not been documented in several years, they may persist in the area if suitable habitat exists. The enclosed list identifies features with potential to occur in the area, and it should be considered if you choose to conduct field surveys.

This finding is available and appropriate for preparation and review of environmental assessments, but it is not a substitute for on-site surveys. Comprehensive field surveys do not exist for all natural areas in Maine, and in the absence of a specific field investigation, the Maine Natural Areas Program cannot provide a definitive statement on the presence or absence of unusual natural features at this site.

MOLLY DOCHERTY, DIRECTOR
MAINE NATURAL AREAS PROGRAM

PHONE: (207) 287-8044
FAX: (207) 287-8040
WWW.MAINE.GOV/DACF/MNAP

The Natural Areas Program is continuously working to achieve a more comprehensive database of exemplary natural features in Maine. We would appreciate the contribution of any information obtained should you decide to do field work. The Natural Areas Program welcomes coordination with individuals or organizations proposing environmental alteration, or conducting environmental assessments. If, however, data provided by the Natural Areas Program are to be published in any form, the Program should be informed at the outset and credited as the source.

The Natural Areas Program has instituted a fee structure of $75.00 an hour to recover the actual cost of processing your request for information. You will receive an invoice for $150.00 for two hours of our services.

Thank you for using the Natural Areas Program in the environmental review process. Please do not hesitate to contact me if you have further questions about the Natural Areas Program or about rare or unique botanical features on this site.

Sincerely,

Kristen Puryear | Ecologist | Maine Natural Areas Program
207-287-8043 | kristen.puryear@maine.gov

Rare and Exemplary Botanical Features within 4 miles of
Project: #1640, Nature's Wilderness Campground, Baldwin Maine

Common Name	State Status	State Rank	Global Rank	Date Last Observed	Occurrence Number	Habitat
Atlantic White Cedar						
	SC	S2	G4	1933	14	Forested wetland
Cliff Muhly						
	E	S1	G5	1974-09-17	1	Hardwood to mixed forest (forest, upland),Rocky summits and outcrops (non-forested, upland)
Comb-leaved Mermaid-weed						
	E	S1	G5	1913-07-26	2	Open wetland, not coastal nor rivershore (non-forested, wetland)
Douglas' Knotweed						
	SC	S2	G5	1933-08-01	7	Rocky summits and outcrops (non-forested, upland)
Ebony Spleenwort						
	SC	S2	G5	1985-07-20	3	Rocky summits and outcrops (non-forested, upland),Hardwood to mixed forest (forest, upland)
Fall Fimbry						
	SC	S2S3	G5	2004-08-24	11	Open wetland, not coastal nor rivershore (non-forested, wetland)
Fern-leaved False Foxglove						
	SC	S3	G5	1916-08-29	15	Dry barrens (partly forested, upland),Hardwood to mixed forest (forest, upland)
Slender Cliffbrake						
	T	S1	G5	1905-07-27	4	Rocky summits and outcrops (non-forested, upland),Hardwood to mixed forest (forest, upland)
Small Whorled Pogonia						
	E	S2	G2	1985-06-06	6	Hardwood to mixed forest (forest, upland)
	E	S2	G2	2013-06-19	10	Hardwood to mixed forest (forest, upland)
Smooth Winterberry Holly						
	SC	S3	G5	1916-08-30	8	Forested wetland
Spotted Wintergreen						

Rare and Exemplary Botanical Features within 4 miles of
Project: #1640, Nature's Wilderness Campground, Baldwin Maine

Common Name	State Status	State Rank	Global Rank	Date Last Observed	Occurrence Number	Habitat
	E	S2	G5	1975-07-05	4	Conifer forest (forest, upland),Hardwood to mixed forest (forest, upland)
Wild Chess						
	E	S1	G5	1933-07-28	4	Dry barrens (partly forested, upland)
Wild Coffee						
	E	S1	G5	1933-08-17	4	Non-tidal rivershore (non-forested, seasonally wet),Hardwood to mixed forest (forest, upland)

STATE RARITY RANKS

S1 Critically imperiled in Maine because of extreme rarity (five or fewer occurrences or very few remaining individuals or acres) or because some aspect of its biology makes it especially vulnerable to extirpation from the State of Maine.

S2 Imperiled in Maine because of rarity (6-20 occurrences or few remaining individuals or acres) or because of other factors making it vulnerable to further decline.

S3 Rare in Maine (20-100 occurrences).

S4 Apparently secure in Maine.

S5 Demonstrably secure in Maine.

SU Under consideration for assigning rarity status; more information needed on threats or distribution.

SNR Not yet ranked.

SNA Rank not applicable.

S#? Current occurrence data suggests assigned rank, but lack of survey effort along with amount of potential habitat create uncertainty (e.g. S3?).

Note: **State Rarity Ranks** are determined by the Maine Natural Areas Program for rare plants and rare and exemplary natural communities and ecosystems. The Maine Department of Inland Fisheries and Wildlife determines State Rarity Ranks for animals.

GLOBAL RARITY RANKS

G1 Critically imperiled globally because of extreme rarity (five or fewer occurrences or very few remaining individuals or acres) or because some aspect of its biology makes it especially vulnerable to extinction.

G2 Globally imperiled because of rarity (6-20 occurrences or few remaining individuals or acres) or because of other factors making it vulnerable to further decline.

G3 Globally rare (20-100 occurrences).

G4 Apparently secure globally.

G5 Demonstrably secure globally.

GNR Not yet ranked.

Note: **Global Ranks** are determined by NatureServe.

STATE LEGAL STATUS

Note: State legal status is according to 5 M.R.S.A. § 13076-13079, which mandates the Department of Conservation to produce and biennially update the official list of Maine's **Endangered** and **Threatened** plants. The list is derived by a technical advisory committee of botanists who use data in the Natural Areas Program's database to recommend status changes to the Department of Conservation.

E ENDANGERED; Rare and in danger of being lost from the state in the foreseeable future; or federally listed as Endangered.

T THREATENED; Rare and, with further decline, could become endangered; or federally listed as Threatened.

NON-LEGAL STATUS

SC SPECIAL CONCERN; Rare in Maine, based on available information, but not sufficiently rare to be considered Threatened or Endangered.

PE Potentially Extirpated; Species has not been documented in Maine in past 20 years or loss of last known occurrence has been documented.

Visit our website for more information on rare, threatened, and endangered species!
http://www.maine.gov/dacf/mnap

ELEMENT OCCURRENCE RANKS - EO RANKS

Element Occurrence ranks are used to describe the quality of a rare plant population or natural community based on three factors:

- **Size**: Size of community or population relative to other known examples in Maine. Community or population's viability, capability to maintain itself.
- **Condition**: For communities, condition includes presence of representative species, maturity of species, and evidence of human-caused disturbance. For plants, factors include species vigor and evidence of human-caused disturbance.
- **Landscape context**: Land uses and/or condition of natural communities surrounding the observed area. Ability of the observed community or population to be protected from effects of adjacent land uses.

These three factors are combined into an overall ranking of the feature of **A**, **B**, **C**, or **D**, where **A** indicates an **excellent** example of the community or population and **D** indicates a **poor** example of the community or population. A rank of **E** indicates that the community or population is **extant** but there is not enough data to assign a quality rank. The Maine Natural Areas Program tracks all occurrences of rare (S1-S3) plants and natural communities as well as A and B ranked common (S4-S5) natural communities.

Note: **Element Occurrence Ranks** are determined by the Maine Natural Areas Program for rare plants and rare and exemplary natural communities and ecosystems. The Maine Department of Inland Fisheries and Wildlife determines Element Occurrence ranks for animals.

Visit our website for more information on rare, threatened, and endangered species!
http://www.maine.gov/dacf/mnap

Attachment 9: Sample Reservations & Rate Sheet

2019 Season Rate Schedule Open May 1 to October 31

SEASON RATE SCHEDULE: (updated 11/12/18)

SEASONAL SITE	**Peak Summer (7+ nights) 6/22 - 8/31**	**Peak Summer (3-6 nights) 6/22 - 8/31**	**Spring Season 5/1 - 6/21**	**Fall Season 9/1 - 10/31**
Wooded Site Tent (water only)	$43	$46	$28	$38
Wooded Site Upper pond (water only)	$47	$52	$31	$47
Wooded Upper pond (water and electric)	$49	$52	$31	$43
Wooded RV Site (water & 30 amp)	$48	$51	$30	$42
Wooded RV Site (water & 50 amp)	$55	$58	$36	$49
RV Site (water, 30 amp, sewer)	$55	$58	$36	$49
RV Site (water, 50 amp, sewer)	$59	$62	$40	$55
Upper pond (water & 30 amp)	$65	$68	$37	$53
Upper pond (water & 50 amp)	$68	$72	$41	$58
Medium Size Glamping Cabin	$129	$139	$99	$99
Large Size Glamping Cabin	$139	$159	$119	$119
Two Bedroom Cabins	$189	$199	$169	$169
Two Bedroom Trailers	$129	$139	$99	$99

Attachment 10: Examples of Campgrounds with Rental Cabins

GOOGLE maine campgrounds cabins

Rating Hours Your past visits

Papoose Pond Family Campground & Cabins
4.6 (185) · Campground
Waterford, ME

Bar Harbor / Woodlands KOA
4.4 (165) · Campground
Bar Harbor, ME
"The grounds were clean, staff was super friendly and private bathrooms."

Big Moose Inn Cabins & Campground
4.5 (63) · Campground
Warm rooms & cabins in a low-key lodge offering a cozy restaurant, plus free parking & breakfast.
Millinocket, ME
"Easy booking process, reasonably prices, nice staff, and very good facilities."

Sherwood Forest Campsite
4.8 (30) · Campground
New Harbor, ME
"**Cabins** had everything ..."

Quietside Campground & Cabins
4.7 (40) · Campground
Bernard, ME

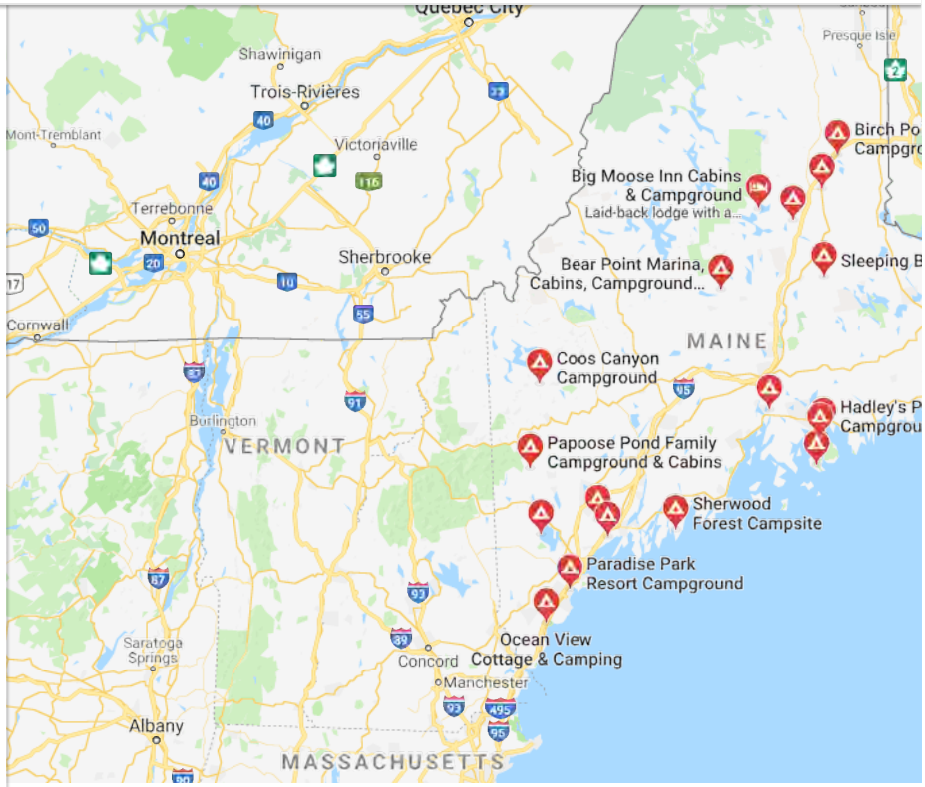
Discover more places

Bear Point Marina, Cabins, Campground and Restaurar
4.6 (29) · Vacation Home Re...
Bowerbank, ME

Seaview Campground & Cottages
4.4 (43) · Campground
Eastport, ME

Birch Point Lodge Campgrounds
4.4 (63) · Campground
Island Falls, ME
"Awesome place, full bar, restaurant, and vintage bowling alley downstairs!"

Ocean View Cottage & Camping
4.0 (60) · Campground



GOOGLE maine campsites cabins

Rating Hours Your past visits

Bar Harbor / Woodlands KOA
4.4 (165) · Campground
Bar Harbor, ME
"The grounds were clean, staff was super friendly and private bathrooms."

Sherwood Forest Campsite
4.8 (30) · Campground
New Harbor, ME
"**Cabins** had everything ..."

Papoose Pond Family Campground & Cabins
4.6 (185) · Campground
Waterford, ME

Quietside Campground & Cabins
4.7 (40) · Campground
Bernard, ME

Big Moose Inn Cabins & Campground
4.5 (63) · Campground
Warm rooms & cabins in a low-key lodge offering a cozy restaurant, plus free parking & breakfast.
Millinocket, ME
"Easy booking process, reasonably prices, nice staff, and very good facilities."

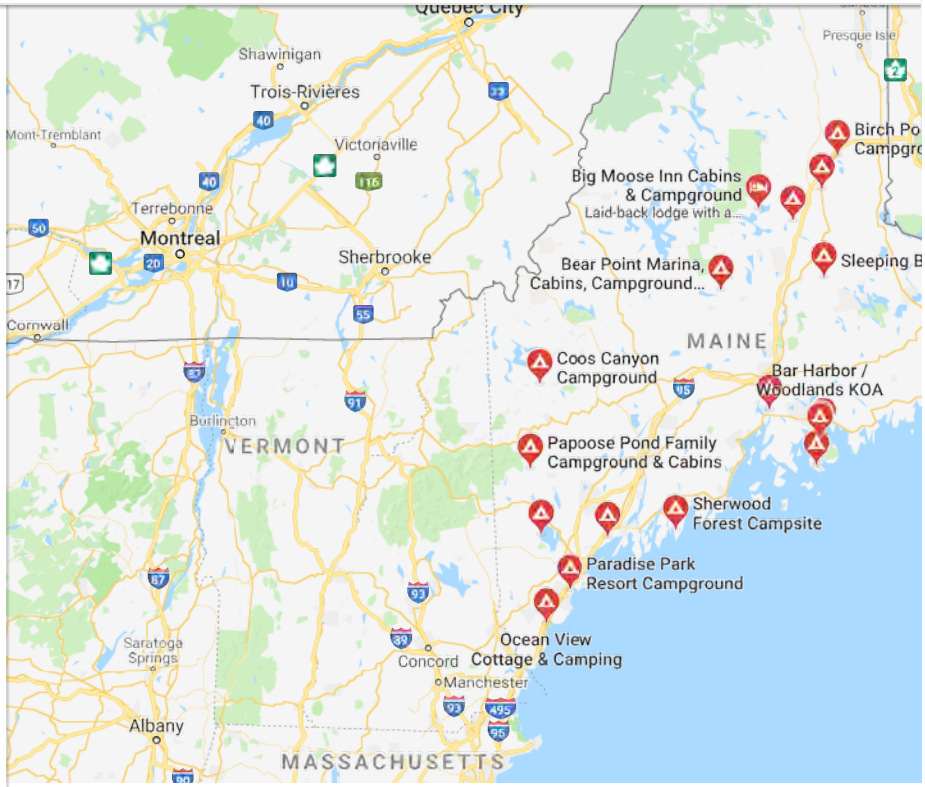
Discover more places

Bear Point Marina, Cabins, Campground and Restaura
4.6 (29) · Vacation Home R…
Bowerbank, ME

Mt Desert Narrows Camping Resort
4.1 (131) · Campground
Bar Harbor, ME
"Loved it amazing views Hot water Laundry room Showers included in…

Paradise Park Resort Campground
4.7 (198) · Campground
Old Orchard Beach, ME

Ocean View Cottage & Camping



Attachment 11: List of Campgrounds approved by the State in 2018

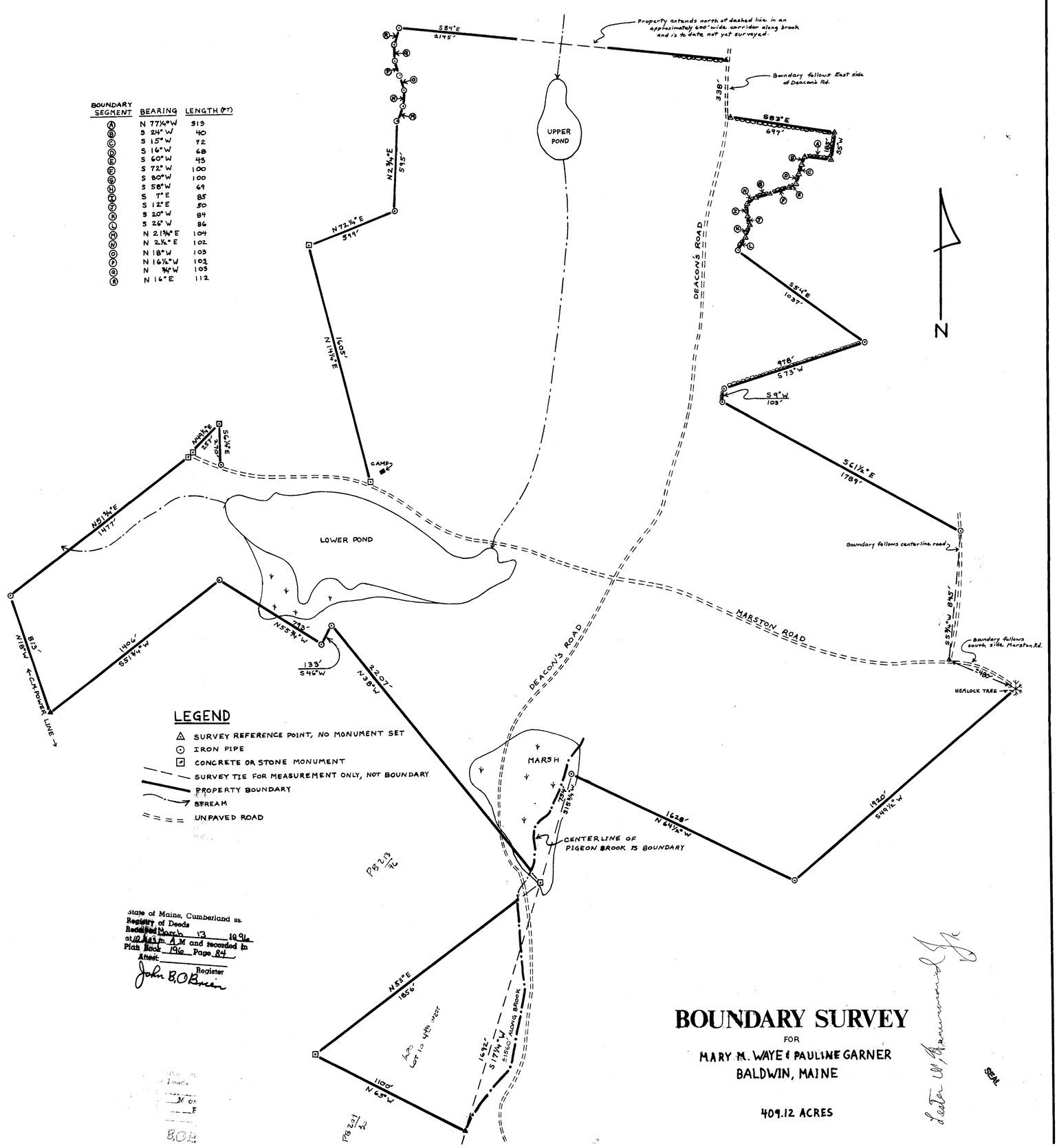
Est ID	Exp Date	Establishment Name	Mail Street 1	Mail City	Mail State	Zip Code
26750	5/21/2019	LONE MOUNTAIN CAMPGROUND	424 SOUTH MAIN ST	ANDOVER	ME	04216
27273	5/22/2019	NORTHEAST WHITEWATER	PO BOX 1623	GREENVILLE	ME	04441
27372	5/18/2019	FOX CARLTON POND CAMPGROUND	PO BOX 103	PHILLIPS	ME	04966
27515	6/15/2019	ACADIA EAST CAMPGROUND	200 METCALF RD	WINTHROP	ME	04364
27517	8/31/2019	LIVING WATERS	PO BOX 250	DANFORTH	ME	04424
27669	8/24/2019	WOODS AND WATERS CAMPGROUND	973 CENTRAL ST	MILLINOCKET	ME	04462

Email Address	Owner Name	LicenseType	Phone
TLEARNED@ROADRUNNER.COM	LONE MOUNTAIN CAMPGROUND LLC	CAMPGROUND 25-124 SITES	207-713-3617
JESSICA@NOTHEASTWHITEWATER.COM	NORTHEAST GUIDE SERVICE LLC	CAMPGROUND 5-24 SITES	207-695-0151
JON.POUND1947@GMAIL.COM	FOX CARLTON POND SPORTING CAMPS LLC	CAMPGROUND 5-24 SITES	207-491-5865
POCKETPARKCAMPING@GMAIL.COM	POCKET PARKS CAMPGROUND LLC	CAMPGROUND 5-24 SITES	207-431-7226
MOREINFO@LWCAMP.COM	LIVING WATERS INC	CAMPGROUND 25-124 SITES	207-448-2310
INFO@PAMOLODGE.COM	KATAHDIN SERVICES LLC	CAMPGROUND 5-24 SITES	207-723-9746

Phone	Loc Street	Loc City
207-713-3617	424 SOUTH MAIN ST	ANDOVER
207-695-0151	155 GREENVILLE RD	SHIRLEY
207-491-5865	TOOTHAKER POND RD	PHILLIPS
207-431-7226	574 US ROUTE 1	GOULDSBORO
207-448-2310	47 DARK COVE RD	WESTON
207-723-9746	973 CENRAL ST	MILLINOCKET

Attachment 12: Recorded Boundary Survey

BASI FILE CORP. IRVINE, CA
196 | 84



P52 13/12

P52 21/12

State of Maine, Cumberland ss.
Registry of Deeds
Received March 13 1996
at 10 M. o'clock A.M. and recorded in
Plan Book 196 Page 84
Attest:
John B. O'Brien
Register

BOUNDARY SURVEY

FOR

MARY M. WAYE & PAULINE GARNER

BALDWIN, MAINE

409.12 ACRES

Lester W. Drummond Jr.

SEAL

Attachment 13: Bonding Paperwork & Town Agreement

Western Surety Company

PERFORMANCE BOND

Bond Number: 722CC982

KNOW ALL PERSONS BY THESE PRESENTS, That we Gerry Arnold Brown Jr. dba Brown Construction of 96 Brown Rd., West Baldwin, ME 04091, hereinafter referred to as the Principal, and Western Surety Company, as Surety, are held and firmly bound unto Town of Baldwin of 534 Pequawket Trail, West Baldwin, ME 04091, hereinafter referred to as the Obligee, in the sum of Forty Thousand and 00/100 Dollars ($ 4C,CCC.CC), for the payment of which we bind ourselves, our legal representatives, successors and assigns, jointly and severally, firmly by these presents.

WHEREAS, Principal has entered into a contract with Obligee, dated the _____ day of _____, _____, for Reconstruction and Redefinition of Marston Road _____.

NOW, THEREFORE, if the Principal shall faithfully perform such contract or shall indemnify and save harmless the Obligee from all cost and damage by reason of Principal's failure so to do, then this obligation shall be null and void; otherwise it shall remain in full force and effect.

ANY PROCEEDING, legal or equitable, under this Bond may be instituted in any court of competent jurisdiction in the location in which the work or part of the work is located and shall be instituted within two years after Contractor Default or within two years after the Contractor ceased working or within two years after the Surety refuses or fails to perform its obligations under this Bond, whichever occurs first. If the provisions of this Paragraph are void or prohibited by law, the minimum period of limitation available to sureties as a defense in the jurisdiction of the suit shall be applicable.

NO RIGHT OF ACTION shall accrue on this Bond to or for the use of any person or corporation other than the Obligee named herein or the heirs, executors, administrators or successors of the Obligee.

SIGNED, SEALED AND DATED this 25th day of September, 2019.

Gerry Arnold Brown Jr. dba Brown Construction
(Principal)

By Gerry Brown (Seal)

Western Surety Company
(Surety)

By JEFFREY A. VERMETTE Attor

WESTERN SURETY COMPANY CORPORATE SEAL SOUTH DAKOTA

Form F4587

Western Surety Company

PAYMENT BOND

Bond Number: 72200982

KNOW ALL PERSONS BY THESE PRESENTS, That we Gerry Arnold Brown Jr. dba Brown Construction of 96 Brown Rd., West Baldwin, ME 04091, hereinafter referred to as the Principal, and Western Surety Company, as Surety, are held and firmly bound unto Town of Baldwin of 534 Pequawket Trail, West Baldwin, ME 04091, hereinafter referred to as the Obligee, in the sum of Forty Thousand and 00/100 Dollars ($40,000.00), for the payment of which we bind ourselves, our legal representatives, successors and assigns, jointly and severally, firmly by these presents.

WHEREAS, Principal has entered into a contract with Obligee, dated _____ day of _____, _____, for Reconstruction and Redefinition of Marston Road

copy of which contract is by reference made a part hereof.

NOW, THEREFORE, if Principal shall, in accordance with applicable Statutes, promptly make payment to all persons supplying labor and material in the prosecution of the work provided for in said contract, and any and all duly authorized modifications of said contract that may hereafter be made, notice of which modifications to Surety being waived, then this obligation to be void; otherwise to remain in full force and effect.

No suit or action shall be commenced hereunder

(a) After the expiration of one (1) year following the date on which Principal ceased work on said contract it being understood, however, that if any limitation embodied in this bond is prohibited by any law controlling the construction hereof such limitation shall be deemed to be amended so as to be equal to the minimum period of limitation permitted by such law.

(b) Other than in a state court of competent jurisdiction in and for the county or other political subdivision of the state in which the project, or any part thereof, is situated, or in the United States District Court for the district in which the project, or any part thereof, is situated, and not elsewhere.

The amount of this bond shall be reduced by and to the extent of any payment or payments made in good faith hereunder.

SIGNED, SEALED AND DATED this 25th day of September, 2019.

Gerry Arnold Brown Jr. dba Brown Construction
(Principal)

By _____ (Seal)

Western Surety Company
(Surety)

By _____
JEFFREY A. VERMETTE Attor

WESTERN SURETY COMPANY CORPORATE SEAL SOUTH DAKOTA

Western Surety Company

POWER OF ATTORNEY - CERTIFIED COPY

Bond No. 72200982

Know All Men By These Presents, that WESTERN SURETY COMPANY, a corporation duly organized and existing under the laws of the State of South Dakota, and having its principal office in Sioux Falls, South Dakota (the "Company"), does by these presents make, constitute and appoint JEFFREY A VERMETTE

its true and lawful attorney(s)-in-fact, with full power and authority hereby conferred, to execute, acknowledge and deliver for and on its behalf as Surety, bonds for:

Principal: Corry Arnold Brown Jr. dba Brown Construction

Obligee: City of Baldwin

Amount: $1,000,000.00

and to bind the Company thereby as fully and to the same extent as if such bonds were signed by the Vice President, sealed with the corporate seal of the Company and duly attested by its Secretary, hereby ratifying and confirming all that the said attorney(s)-in-fact may do within the above stated limitations. Said appointment is made under and by authority of the following bylaw of Western Surety Company which remains in full force and effect.

"Section 7. All bonds, policies, undertakings, Powers of Attorney or other obligations of the corporation shall be executed in the corporate name of the Company by the President, Secretary, any Assistant Secretary, Treasurer, or any Vice President or by such other officers as the Board of Directors may authorize. The President, any Vice President, Secretary, any Assistant Secretary, or the Treasurer may appoint Attorneys in Fact or agents who shall have authority to issue bonds, policies, or undertakings in the name of the Company. The corporate seal is not necessary for the validity of any bonds, policies, undertakings, Powers of Attorney or other obligations of the corporation. The signature of any such officer and the corporate seal may be printed by facsimile."

If Bond No. 72200982 is not issued on or before midnight of November 15, 2019, all authority conferred in this Power of Attorney shall expire and terminate.

In Witness Whereof, Western Surety Company has caused these presents to be signed by its Vice President, Paul T. Bruflat, and its corporate seal to be affixed this 25th day of September, 2019.

WESTERN SURETY COMPANY

Paul T. Bruflat, Vice President

STATE OF SOUTH DAKOTA }
} ss
COUNTY OF MINNEHAHA }

On this 25th day of September, in the year 2019, before me, a notary public, personally appeared Paul T. Bruflat, who being to me duly sworn, acknowledged that he signed the above Power of Attorney as the aforesaid officer of WESTERN SURETY COMPANY and acknowledged said instrument to be the voluntary act and deed of said corporation.

J. MOHR
NOTARY PUBLIC
SOUTH DAKOTA

Notary Public - South Dakota

My Commission Expires June 23, 2021

I the undersigned officer of Western Surety Company, a stock corporation of the State of South Dakota, do hereby certify that the attached Power of Attorney is in full force and effect and is irrevocable, and furthermore, that Section 7 of the bylaws of the Company as set forth in the Power of Attorney is now in force.

In testimony whereof, I have hereunto set my hand and seal of Western Surety Company this 25th day of September, 2019.

WESTERN SURETY COMPANY

Paul T. Bruflat, Vice President

To validate bond authenticity, go to www.cnasurety.com > Owner/Obligee Services > Validate Bond Coverage.

Form F5306-10-2017

INSURANCE BINDER

DATE (MM/DD/YYYY): 10/1/2019

THIS BINDER IS A TEMPORARY INSURANCE CONTRACT, SUBJECT TO THE CONDITIONS SHOWN ON PAGE 2 OF THIS FORM.

AGENCY Cross Insurance-Windham 745 Roosevelt Trail Windham ME 04062	COMPANY: Concord Group Ins Co BINDER #: B1910121278 EFFECTIVE DATE: 10/1/2019 TIME: 12:01 X AM ___ PM EXPIRATION DATE: 10/31/2019 TIME: X 12:01 AM ___ NOON
PHONE (A/C, No, Ext): (207) 892-7996 FAX (A/C, No): (207) 892-8229 CODE: 262 SUB CODE:	___ THIS BINDER IS ISSUED TO EXTEND COVERAGE IN THE ABOVE NAMED COMPANY PER EXPIRING POLICY #: 20078893
AGENCY CUSTOMER ID: 00481129	DESCRIPTION OF OPERATIONS / VEHICLES / PROPERTY (Including Location) Loc# 00001/Bldg# 00001 2 Upper Twain Road West Baldwin, ME 04091-3149
INSURED AND MAILING ADDRESS Gerry Brown, DBA: Brown Construction 2 Upper Twain Road West Baldwin ME 04091	

COVERAGES

TYPE OF INSURANCE	COVERAGE / FORMS	DEDUCTIBLE	COINS %	LIMITS AMOUNT
PROPERTY — CAUSES OF LOSS: ___ BASIC ___ BROAD X SPEC	Personal Property, Special form	500		3,000
GENERAL LIABILITY		EACH OCCURRENCE		$ 500,000
X COMMERCIAL GENERAL LIABILITY		DAMAGE TO RENTED PREMISES		$
___ CLAIMS MADE X OCCUR		MED EXP (Any one person)		$ 5,000
		PERSONAL & ADV INJURY		$
		GENERAL AGGREGATE		$ 1,000,000
	RETRO DATE FOR CLAIMS MADE:	PRODUCTS - COMP/OP AGG		$ 1,000,000
VEHICLE LIABILITY		COMBINED SINGLE LIMIT		$
___ ANY AUTO		BODILY INJURY (Per person)		$
___ ALL OWNED AUTOS		BODILY INJURY (Per accident)		$
___ SCHEDULED AUTOS		PROPERTY DAMAGE		$
___ HIRED AUTOS		MEDICAL PAYMENTS		$
___ NON-OWNED AUTOS		PERSONAL INJURY PROT		$
		UNINSURED MOTORIST		$
				$
VEHICLE PHYSICAL DAMAGE DED ___ COLLISION: ___ OTHER THAN COL:	___ ALL VEHICLES ___ SCHEDULED VEHICLES	___ ACTUAL CASH VALUE ___ STATED AMOUNT		$
GARAGE LIABILITY		AUTO ONLY - EA ACCIDENT		$
___ ANY AUTO		OTHER THAN AUTO ONLY:		
		EACH ACCIDENT		$
		AGGREGATE		$
EXCESS LIABILITY		EACH OCCURRENCE		$
___ UMBRELLA FORM		AGGREGATE		$
___ OTHER THAN UMBRELLA FORM	RETRO DATE FOR CLAIMS MADE:	SELF-INSURED RETENTION		$
WORKER'S COMPENSATION AND EMPLOYER'S LIABILITY		___ PER STATUTE		
		E.L. EACH ACCIDENT		$
		E.L. DISEASE - EA EMPLOYEE		$
		E.L. DISEASE - POLICY LIMIT		$
SPECIAL CONDITIONS / OTHER COVERAGES		FEES		$
		TAXES		$
		ESTIMATED TOTAL PREMIUM		$

NAME & ADDRESS

Town of Baldwin
534 Pequawket Trail
West Baldwin, ME 04091

___ MORTGAGEE X ADDITIONAL INSURED
___ LOSS PAYEE

LOAN #:

AUTHORIZED REPRESENTATIVE

Travis Guerrette, MBA/TG4 Travis Guerrette

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CONDITIONS

This Company binds the kind(s) of insurance stipulated on page 1 of this form. The Insurance is subject to the terms, conditions and limitations of the policy(ies) in current use by the Company.

This binder may be cancelled by the Insured by surrender of this binder or by written notice to the Company stating when cancellation will be effective. This binder may be cancelled by the Company by notice to the Insured in accordance with the policy conditions. This binder is cancelled when replaced by a policy. If this binder is not replaced by a policy, the Company is entitled to charge a premium for the binder according to the Rules and Rates in use by the Company.

Applicable in Arizona

Binders are effective for no more than ninety (90) days.

Applicable in California

When this form is used to provide insurance in the amount of one million dollars ($1,000,000) or more, the title of the form is changed from "Insurance Binder" to "Cover Note".

Applicable in Colorado

With respect to binders issued to renters of residential premises, home owners, condo unit owners and mobile home owners, the insurer has thirty (30) business days, commencing from the effective date of coverage, to evaluate the issuance of the insurance policy.

Applicable in Delaware

The mortgagee or Obligee of any mortgage or other instrument given for the purpose of creating a lien on real property shall accept as evidence of insurance a written binder issued by an authorized insurer or its agent if the binder includes or is accompanied by: the name and address of the borrower; the name and address of the lender as loss payee; a description of the insured real property; a provision that the binder may not be canceled within the term of the binder unless the lender and the insured borrower receive written notice of the cancellation at least ten (10) days prior to the cancellation; except in the case of a renewal of a policy subsequent to the closing of the loan, a paid receipt of the full amount of the applicable premium, and the amount of insurance coverage.

Chapter 21 Title 25 Paragraph 2119

Applicable in Florida

Except for Auto Insurance coverage, no notice of cancellation or nonrenewal of a binder is required unless the duration of the binder exceeds 60 days. For auto insurance, the insurer must give 5 days prior notice, unless the binder is replaced by a policy or another binder in the same company.

Applicable in Maryland

The insurer has 45 business days, commencing from the effective date of coverage to confirm eligibility for coverage under the insurance policy.

Applicable in Michigan

The policy may be cancelled at any time at the request of the insured.

Applicable in Nevada

Any person who refuses to accept a binder which provides coverage of less than $1,000,000.00 when proof is required: (A) Shall be fined not more than $500.00, and (B) is liable to the party presenting the binder as proof of insurance for actual damages sustained therefrom.

Applicable in Oklahoma

All policies shall expire at 12:01 a.m. standard time on the expiration date stated in the policy.

Applicable in Oregon

Binders are effective for no more than ninety (90) days. A binder extension or renewal beyond such 90 days would require the written approval by the Director of the Department of Consumer and Business Services.

Applicable in the Virgin Islands

This binder is effective for only ninety (90) days. Within thirty (30) days of receipt of this binder, you should request an insurance policy or certificate (if applicable) from your agent and/or insurance company.

Amended Agreement

Re: Reconstruction and Redefinition of Marston Road

This Agreement is made as of the 24th of September 2019, by and between the Town of Baldwin, and Gerry Brown.

Whereas, Gerry Brown, and Brown Construction (collectively "Contractor") undertook the unauthorized improvement, alteration of the surface of Marston Road, a public road crossing their property as to which they are the principal user, and have located a private electrical line within the Marston Road right of way without a permit so to do; and

Whereas, the unauthorized work done by Contractor to date appears to be satisfactory to the Town, but remains incomplete due to a stop work order from the Town's CEO; and

Whereas both parties wish to see the road work completed properly and expeditiously, that the Town's right of way be properly located by action of the Town as relocated many years ago, and that Contractor's electrical installations be made consistent with state law to the extent such installation is located within the public right of way;

Now therefore it is agreed that the Town: (1) accepts the work completed to date by Contractor as sufficient for acceptance, (2) authorizes utility location permit(s) with respect to the electrical line where now situate, (3) waives all fees and penalties for work done to date with respect to public rights in Marston Road, and (4) authorizes further work to complete Contractor's proposed improvement of an additional section of Marston Road in accordance with Exhibit A attached hereto, in consideration and upon the condition that the Contractor promptly proceeds with such work and pursues it to a satisfactory conclusion. More specifically, Contractor shall undertake the following:

1. Prior to undertaking any additional work on Marston Road, the Contractor will obtain general liability insurance against claims for bodily injury or property damage in an amount of $400,000 or more, combined single limit, which insurance shall name the Town of Baldwin as an additional insured. Contractor shall provide a certificate of insurance to the Town evidencing such insurance prior to the start of the work.

2. Contractor shall obtain a good and sufficient performance and payment bond naming the Town of Baldwin as obligee guaranteeing the completion of the work on Marston Road within one year in an amount estimated to complete the work shown on Exhibit A located within the right of way, or immediately adjacent thereto.

3. All work within the Marston Road right of way shall be subject to the direction and control of the Road Commissioner of the Town of Baldwin. Any dispute between Contractor and said Road Commissioner as to the quality, sufficiency, or completeness of the work shall be finally decided by the Board of Selectmen of the Town of Baldwin.

4. Contractor shall not extend the work on Marston Road beyond the property line of Nature's Wilderness, LLC, without the prior written consent of the Town of Baldwin.

Nor shall Contractor, its successor or assigns undertake any maintenance or construction work within the right of way in the future without the prior written consent of the Town of Baldwin.

5. Contractor shall defend, indemnify and hold the Town of Baldwin, its officers and employees harmless against any and all claims for damages or other relief (just or unjust) and for all costs and expense (including reasonable attorney's fees) made with respect to this agreement, or arising out of Contractor's work on, or maintenance of Marston Road, regardless of the date of the work, and the date of this Agreement; provided such claim is made within one year of this Agreement, or the Completion of the work authorized by it, whichever occurs later.

6. Contractor agrees that the work to be done will be performed within the existing public right of way for Marston Road is believed to be 3 rods in width, and centered on the travelled roadbed as located on the date of this Agreement shown on Exhibit A.

7. This Agreement shall be binding on the successors and assigns of the parties, and any dispute over it, or arising out of it shall be brought in a court of the State of Maine located in Cumberland County, and shall not be subject to removal or transfer to any other court.

WHEREFORE Gerry Brown on the one part, and the municipal officers of the Town of Baldwin on the other have caused this Agreement to be signed and sealed as of the date first stated above.

Bond Amount.
40,000.00

Dwight Warren
Selectman

James Dolloff
Selectman

Selectman

Gerry Brown
Gerry Brown

Date: Personally Appeared the named Gerry Brown and made oath that the above is his free act and deed.

Deborah L Wakefield
Notary Public
Printed name: Deborah Wakefield
Attach Exhibit A

DEBORAH L. WAKEFIELD My Commission Expires 05-22-2022 NOTARY PUBLIC MAINE

DEBORAH L. WAKEFIELD My Commission Expires 05-22 NOTARY PUBLIC

Attachment 14: Small Whorled Pagonia Site Report

Small Whorled Pogonia (*Isotria medeoloides*)

Site Survey

Nature's Wilderness Campground
Marston's Road, Baldwin, Maine

Report Submitted: July 29, 2019

Submitted to:

Jeff Amos (PE) - Terradyn Consultants, LLC
41 Campus Dr., Suite 101, New Gloucester, ME 04260

Prepared By:

Flycatcher LLC + 463 Blackstrap Road + Falmouth, Maine + 04105
info@flycatcherllc.com + http://www.flycatcherllc.com/

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FIGURE 2. APPROXIMATION OF SURVEY AREA ON 2018 AERIAL PHOTOGRAPH. 5
FIGURE 3. TARGET SURVEY AREA (GREEN-SHADED AREA) 6

1.0 INTRODUCTION

In July 2019, per request of Terradyn Consultants, LLC, two experienced biologists (Rich Jordan and Erik Lema – qualifications below) conducted a field survey for small whorled pogonia (*Isotria medeoloides*, a federally threatened and state-listed S2 terrestrial orchid) on approximately 160 acres of land located north of Marstons Road in Baldwin, Maine ("Survey Area", Figure 1). This report provides a description of the methods and findings of the survey effort.

1.1 Summary of Findings

The biologists investigated the property and determined approximate target survey areas based on slopes, presence of development, soils, wetlands and other factors according to habitat preferences for small whorled pogonia. They then performed systematic, paired meandering-transect surveys across and within all the areas designated as potential habitat for small whorled pogonia. One population of four individual plants were located during this survey – global position system (GPS) location data were collected and provided to Jeff Amos of Terradyn Consultants, LLC via email on July 23, 2019. The four small whorled pogonia plants were observed growing near the base of a steep, upland slope adjacent to a narrow wetland. All four plants were located with an approximately 20-foot radius circle. No other small whorled pogonia were observed within the Survey Area.

2.0 SURVEY AREA

2.1 Survey Area Location & Access

The Survey Area is located north of Marstons Road (also called "Brown Road"), across from Lower Pond and approximately 0.5 miles east of Senator Black Road. The survey area is approximately bounded on the east and west by Upper Twain Road (on the west) and Deacon Road (on the east), although the Survey Area extends slightly west and north of Upper Twain Road (see Figure 1).

2.2 Survey Area Description & Landuse

There is an existing commercial campground located within the southwestern quarter of the property, adjacent to Marstons Road. There are several gravel roads and associated utility infrastructure (powerlines, etc.) located throughout this portion of the property. Much of the Survey Area that is not currently used as part of the campground is crisscrossed with existing woods roads, apparently used primary for logging access and by recreational ATV riders. The forest composition across the site is mixed, with most of the Survey Area (outside of the campground), having a mixture of soft and hardwood trees, and showing evidence of historic and recent timber harvests. Skidder trails and cut stumps are prevalent throughout the Survey Area.

The Survey Area has several very steep areas, with all topography generally tending to slope downward toward the wetland basin and streams that run through the western part of the site (see Figures 1 and 2).

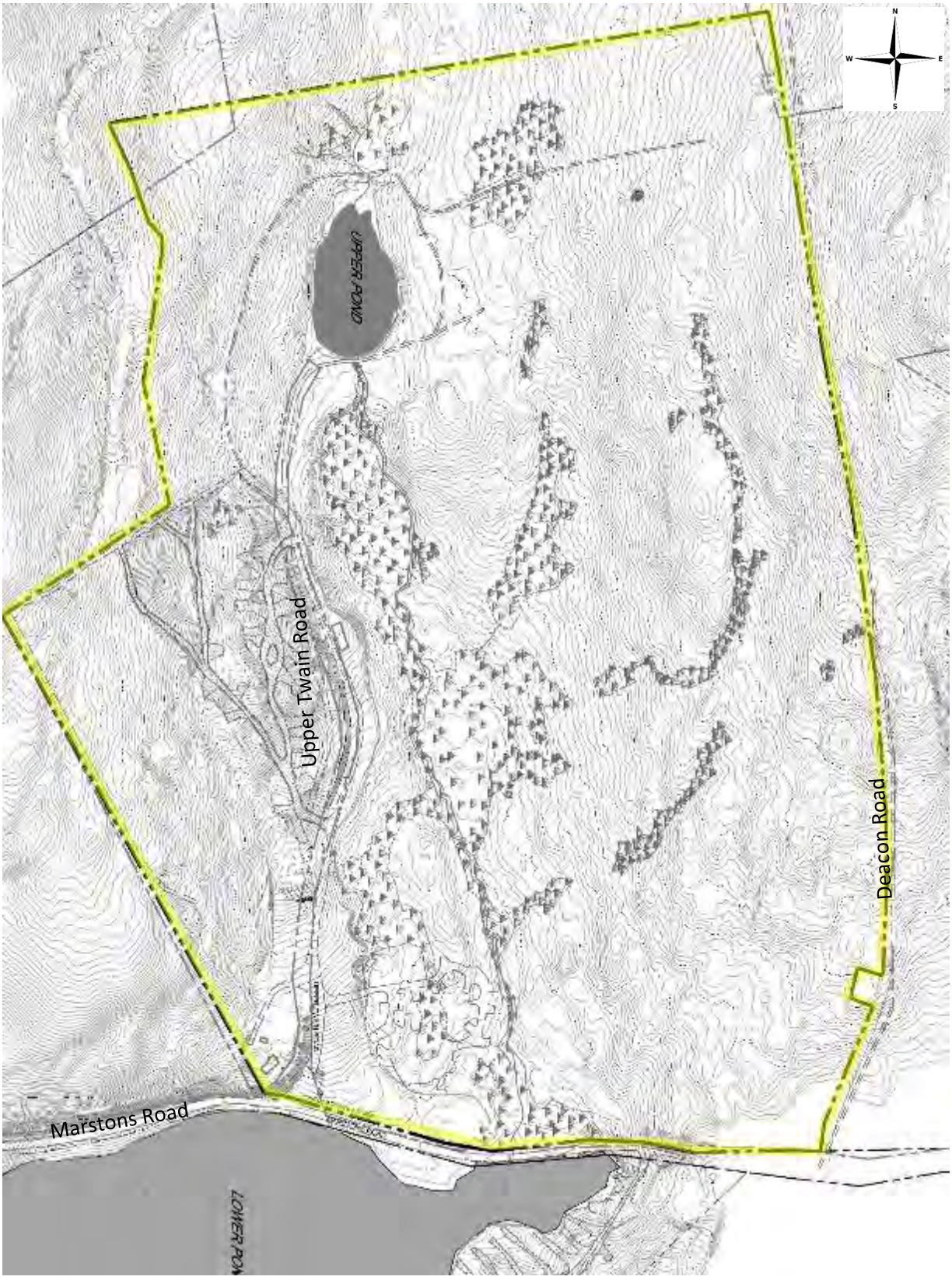


Figure 1. Survey Area (bounded in yellow) per Terradyn Consultants, LLC.

Figure 2. Approximation of Survey Area on 2018 aerial photograph.

3.0 METHODS

3.1 Investigator Credentials

The site survey was conducted by Rich Jordan of Flycatcher LLC and Erik Lema of Basswood Environmental, LLC. Mr. Jordan is a professional wetland scientist (#1517) and has been a consulting biologist in Maine for 20 years. Mr. Jordan has worked on over two dozen rare plant surveys and has worked in the field and/or studied with several of the pre-eminent consulting botanists in New England. Mr. Lema is an experienced botanist, having performed intensive surveys for rare, threatened and endangered plant species throughout the New England region, as well as the mid-Atlantic and intermountain west. Based in Cape Elizabeth, Maine, he has studied botany for over 17 years and has been a consulting biologist for over 10 years.

3.2 Small Whorled Pogonia Habitat

Research on the species has indicated that small whorled pogonia grows in a variety of upland, mid-successional, wooded habitats, usually mixed-deciduous or mixed-deciduous/coniferous forests that are in second or third-growth successional stages. Several studies of existing populations have noted a habitat preference for a sparse and relatively open understory canopy, thick leaf litter, and gently sloping ground.

Additionally, "(s)oils in which small whorled pogonia grows are generally acidic and dry during most of the growing season. Many sites where this plant occurs are underlain by soils with a hardpan layer that impedes the downward flow of water and leads to the formation of shallow braided channels on the ground surface. Small whorled pogonia is almost always found in proximity to features that create long-persisting breaks in the forest canopy; light availability could be a limiting factor for this species."[1]

3.3 Small Whorled Pogonia Survey

The biologists surveyed the Survey Area specifically and only for small whorled pogonia.

Based on literature research (Section 5), colleague consultation, and the initial, overall Survey Area review, the investigating biologists devised a target site survey area which included nearly all the Survey Area located east of Upper Twain Road (Figure 3).

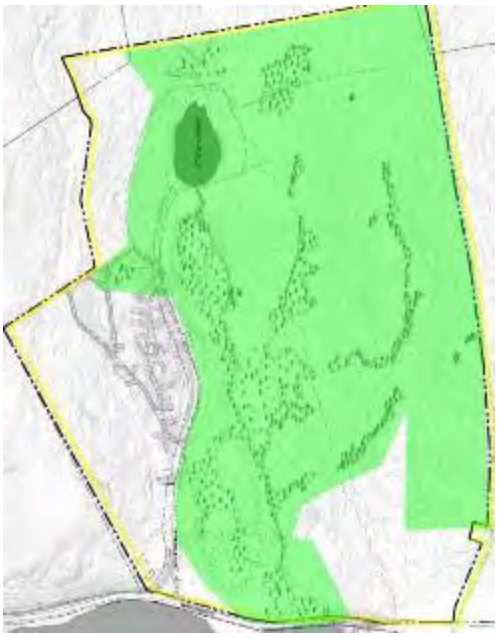


Figure 3. Target survey area (green-shaded area)

West of Upper Twain Road, the site is characterized by very steep slopes and well-drained soils, and includes the bulk of the existing development.

The biologists focused the survey within the target survey area. In that area, they did not conduct detailed surveys within steep slopes (>approximately 20%), wetlands, recent clear-cuts or logging trails (these had very intensely-thick understories), or developed areas (e.g. roads and camper pads). The biologists performed paired transects across the remainder of the target site survey area with higher focus provided to areas adjacent to wetlands and near the base of slopes, areas with broken canopy cover, and areas with sparse understory vegetation.

4.0 FINDINGS

4.1 Dominant Vegetation in Survey Area

The following table provides a sample listing of dominant vegetation observed within the target site survey areas (generally including uplands in primary and secondary stage growth patterns, following historic and modern tree clearing).

Stratum	Common Name	Scientific Name
Tree/Sapling	American beech	*Fagus grandifolia*
	Balsam fir	*Abies balsamea*
	Eastern hemlock	*Tsuga canadensis*
	Red maple	*Acer rubrum*
	Red oak	*Quercus rubra*
	White pine	*Pinus strobus*

[1] USFWS, Maine Field Office – Ecological Services. 2015.
http://www.fws.gov/mainefieldoffice/Small_whorled_pogonia.html

Stratum	Common Name	Scientific Name
	Yellow birch	*Betula alleghaniensis*
Shrub	Hobblebush	*Viburnum lantanoides*
	Morrow's honeysuckle	*Lonicera morrowii*
	Striped maple	*Acer pennsylvanicum*
	Witch hazel	*Hamamelis virginiana*
	(+young specimens from tree stratum)	
Understory	American hog-peanut	*Amphicarpaea bracteata*
	Bracken fern	*Pteridium aquilinum* ssp. *latiusculum*
	Canada-mayflower	*Maianthemum canadense*
	Cinnamon fern	*Osmundastrum cinnamomeum*
	Eastern hay-scented fern	*Dennstaedtia punctilobula*
	Indian cucumber-root	*Medeola virginiana*
	Interrupted fern	*Osmunda claytoniana*
	Lance-leaved twistedstalk	*Streptopus lanceolatus*
	Long beech fern	*Phegopteris connectilis*
	Lowbush blueberry	*Vaccinium angustifolium*
	New York fern	*Parathelypteris noveboracensis*
	Northern wood sorrel	*Oxalis montana*
	Partridge-berry	*Mitchella repens*
	Sharp-toothed nodding-aster	*Oclemena acuminata*
	Starflower	*Lysimachia borealis*
	Tall rattlesnake-root	*Nabalus altissimus*
	Wild sarsaparilla	*Aralia nudicaulis*

4.2 Small whorled pogonia

While conducting surveys for small whorled pogonia, the biologists found a single, non-flowering/fruiting small whorled pogonia near the base of a slope and approximately 20 feet from a narrow wetland. The plant is located approximately 400-450 feet from Deacon Road, on a level terrace below a west-facing slope. Location data is not being provided in this report. This area has been historically cutover, and there were skidder ruts in the adjacent wetland. Additionally, there was dappled sunlight on the relatively clear understory provided by a canopy break caused by the nearby wetland area.

The biologists tentatively agreed on the identification of the non-flowering individual, primarily based on its fleshy stem, leaf whorl configuration, habitat, and overall distinction between it and the similar and ubiquitous Indian cucumber-root. Upon finding the plant, the biologists closely surveyed similar habitats within approximately 200 feet of the small whorled pogonia. They identified three more individual plants, two in fruit and one with no flowers. The individuals with seed capsules made for unequivocal identification of the small whorled pogonia.

All four plants were located within an approximately 20-foot radius circle. A GPS point was collected within the approximate middle of the four plants and the data were emailed to Jeff Amos, P.E., at Terradyn Consultants, LLC.

5.0 REFERENCES

Adamovic, Mike. 2014. *Botanical Treasure Hunt – Searching for the small whorled pogonia.* New York State Conservationist. New York Natural Heritage Program. August, 2014. pp 17-19.

Congalton, Russell G., and Sperduto, M. 1996. *Predicting Rare Orchid (Small Whorled Pogonia) Habitat Using GIS*. Photogrammetric Engineering and Remote Sensing. 62(11):1269-1279 · November 1996

Haines, Arthur. 2011. Flora Novae Angliae. New England Wildflower Society.

Maine Natural Areas Program. *Isotria medeoloides* (Pursh) Raf. Small Whorled Pogonia. Online: http://www.maine.gov/dacf/mnap/features/isotmed.htm. Accessed 2019, July.

US Fish & Wildlife Service. *Small Whorled Pogonia* Isotria medeoloides. Online: https://www.fws.gov/southeast/wildlife/plants/small-whorled-pogonia/#conservation-challenges-section. Accessed 2019, July.

6.0 REPRESENTATIVE PHOTOGRAPHS

Forested wetland/upland boundary adjacent to stream just south of Upper Pond.

Typical cleared area in primary/secondary succession; very thick understory. Areas such as this were generally not surveyed for small whorled pogonia due to lack of sunlight at ground-level.

Typical steep slope dominated by hemlock with beech, maple and a sparse understory.

Typical mesic upland on slope breaks near wetlands.

Typical steep slope observed during site survey; dominated by maples, oaks and beach, with hemlock and a relatively sparse understory.

Typical potential small whorled pogonia habitat within target site survey area – gentle slope between wetlands.

Typical potential small whorled pogonia habitat within target site survey area – level upland with limited understory and dappled sunlight.

Habitat within which small whorled pogonia was identified.

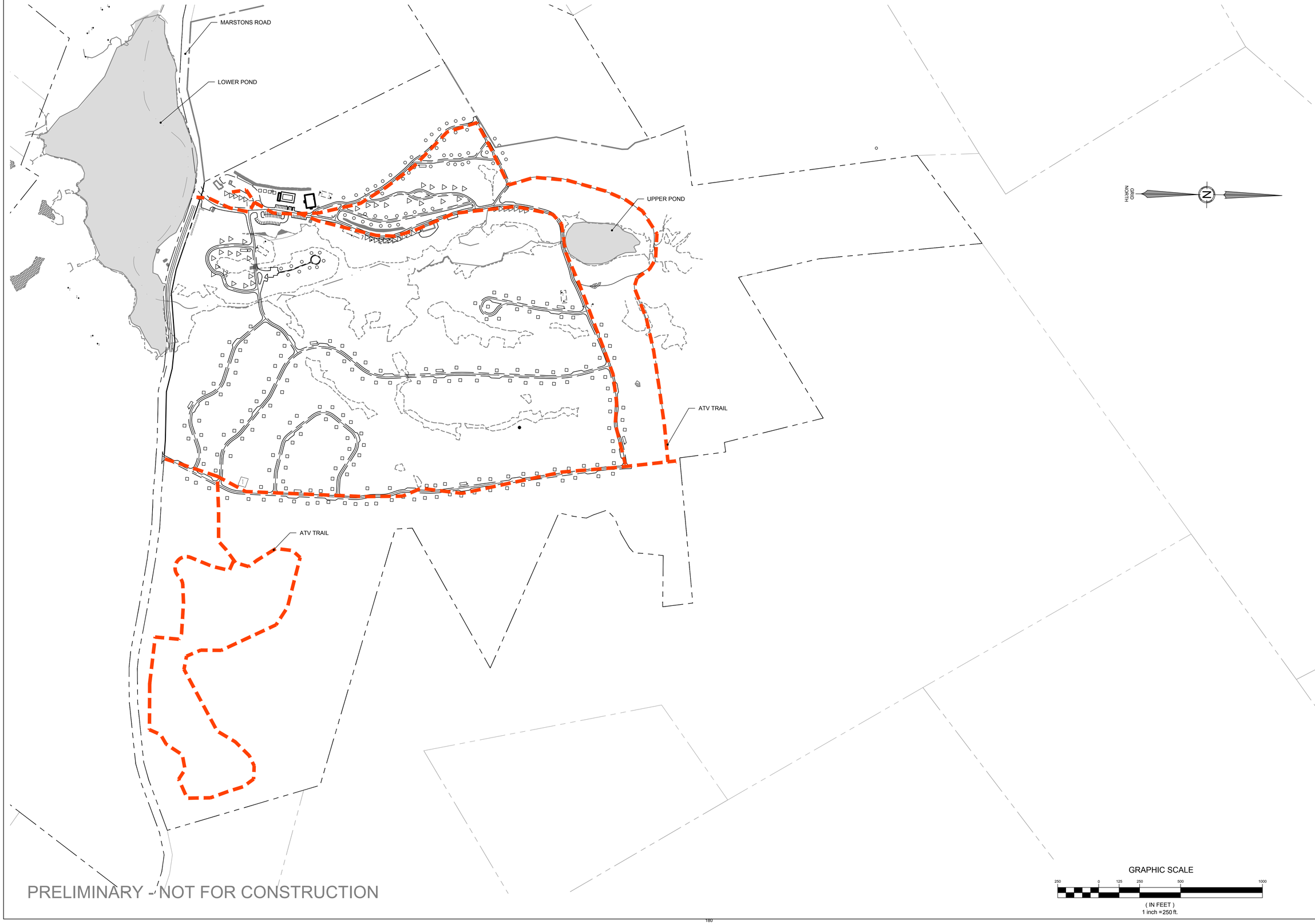
Indian cucumber-root.

Potentially suitable habitat growth within target site survey area; as seen here, these areas were often dominated in the understory by Indian cucumber-root and starflower.

First small whorled pogonia observed in population of four.

One of the fruiting specimens observed.

Attachment 15: Trail Map Exhibit



PRELIMINARY - NOT FOR CONSTRUCTION

STATE OF MAINE
JEFFREY D. AMOS
10167
LICENSED PROFESSIONAL ENGINEER

DATE: 10-03-2019
P.E.: JEFFREY D. AMOS

NO.	DATE	REVISIONS	APP'D BY

TERRADYN CONSULTANTS, LLC
41 CAMPUS DRIVE
SUITE 101
NEW GLOUCESTER, ME 04260
OFFICE: (207) 926-5111
www.terradynconsultants.com
565 CONGRESS STREET
SUITE 201
PORTLAND, ME 04102

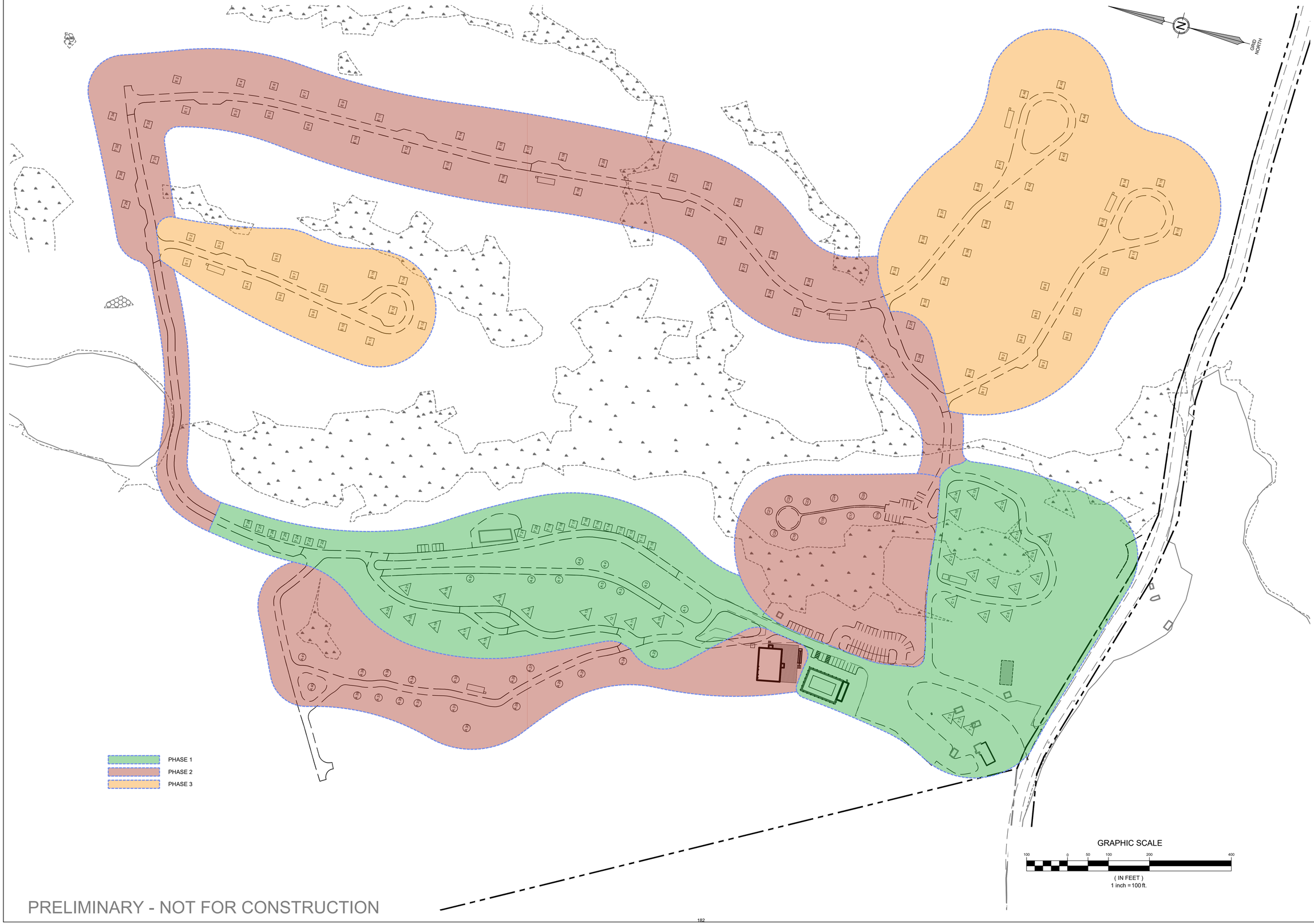
CIVIL ENGINEERING | LAND PLANNING | STORMWATER DESIGN | ENVIRONMENTAL PERMITTING

SHEET DESCRIPTION
NATURE'S WILDERNESS
MARSTONS ROAD
EXHIBIT 1 - ATV TRAILS

PREPARED FOR
MR. SCOTT EFRON
2 UPPER TWAIN ROAD
WEST BALDWIN, MAINE 04091

DATE:	10/3/2019
SCALE:	1"=250'
DESIGNED:	JDA
JOB NO:	1640
FILE: 1640 G.DWG	
SHEET	1 OF 1

Attachment 16: Phasing Plan



PRELIMINARY - NOT FOR CONSTRUCTION

STATE OF MAINE
JEFFREY D. AMOS
No. 10167
LICENSED PROFESSIONAL ENGINEER

DATE: 2/27/2020
P.E.: JEFFREY D. AMOS

NO.	DATE	REVISIONS	APP'D BY
1	2/27/2020	REDUCED PROJECT SIZE AND PHASING PLAN	JDA

TERRADYN CONSULTANTS, LLC
41 CAMPUS DRIVE SUITE 101 NEW GLOUCESTER, ME 04260
565 CONGRESS STREET SUITE 201 PORTLAND, ME 04102
OFFICE: (207) 926-5111
www.terradynconsultants.com

CIVIL ENGINEERING | LAND PLANNING | STORMWATER DESIGN | ENVIRONMENTAL PERMITTING

SHEET DESCRIPTION
NATURE'S WILDERNESS
MARSTONS ROAD
PHASING PLAN

PREPARED FOR
MR. SCOTT EFRON
2 UPPER TYWAN ROAD
WEST BALDWIN, MAINE 04091

DATE:	2/27/2020
SCALE:	1"=100'
DESIGNED:	JDA
JOB NO:	1640
FILE: 1640 SK.DWG	

SHEET PH-1.0

Attachment 17: Signage Plan

NATURES WILDERNESS RESORT
1.4 MILES

HALL ROAD

CONGESTED AREA

SENATOR BLACK ROAD

SITE LOCATION

UPPER POND

UPPER TWAIN ROAD

SACO RIVER

MARSTONS ROAD

LOWER POND

CHASE ROAD

DEPOT ROAD

8% GRADE
NEXT
1,500 FEET

ROUTE 113

ROCKY DUNN ROAD

13% GRADE
NEXT
500 FEET

CONGESTED AREA

NATURES WILDERNESS RESORT
1.1 MILES

TERRADYN
CONSULTANTS, LLC

NATURES WILDERNESS RESORT, BALDWIN, MAINE

FEBRUARY 2020 | SCALE: 1" = 500'

N