Island Workforce Housing

Oliver's Ridge

Preliminary Application for Subdivision Approval

Submitted to the **Planning Board**
for the Town of Deer Isle, Maine

Applicant: Island Workforce Housing
Sunset Crossroad – Tax Map 3, Lot 42
June 30, 2020

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PROJECT DESCRIPTION

Island Workforce Housing (IWH) is a 501c3 qualified Maine non-profit housing corporation, formed in 2019 to create long-term, high quality housing assets for the Deer Isle-Stonington community. The workforce housing project presented in this application is designed to help rebuild the population of year-round, younger residents on the island, to aid in reversing the long-term trend of population loss in all cohorts below 45. IWH's rental homes will target those who are already working on the island that cannot afford to live here, and workers living on the island who are spending more than 50% of their gross household income on rent and utilities. More specifically, this phase of workforce housing is targeted to working households earning between 61% and 120% of the Hancock County Median Income, adjusted for household size.

The project sits on a 27.5 acre parcel of land with 1744 feet of frontage on Sunset Crossroad and 2458 feet of frontage on Oliver's Pond and is shown as Lot 1 on the Standard Boundary Survey. The proposed development will consist of ten (10) dwelling units to be constructed in five (5) duplex, or two-unit, buildings, together with twenty (20) parking spaces and a private water and wastewater treatment system serving the ten dwelling units. All the units on the site will be owned by Island Workforce Housing and rented to income-eligible working households as described above. An Affordable Housing Covenant will restrict use of the 13.4 acre development area of the Lot to workforce housing use rented to working households earning between 61% and 120% of the Hancock County Median Income, adjusted for household size. In addition, 14.1 acres of the Lot will be subject to a conservation restriction which will limit this portion of the land to conservation and related stewardship activities to be enforced by Island Heritage Trust (See Standard Boundary Survey for location of Conservation Area).

Lot 2 as shown on the Standard Boundary Survey will be sold to a private party and will not be included as part of the subdivision application. It is shown on this preliminary application for informational purposes only.

APPLICATION FORM
Town of Deer Isle Subdivision Application

Subdivision Name: Oliver's Ridge
Application Number: _____

APPLICANT INFORMATION

Name of Property Owner: Oliver's Pond Associates LLC

Mailing Address: c/o Attorney Diane O'Connell, PO Box 712, Ellsworth, ME 04605
Telephone: 207-667-3005

Name of Applicant: Island Workforce Housing, a 501(c)3 qualified Maine non-profit housing corporation

Mailing Address: PO Box 523, Deer Isle, ME 04627

Telephone: 617-697-6530

If applicant is a corporation, check if licensed in Maine ☐ Yes ☒ No and attach a copy of State's Registration.

Name of applicant's authorized agent: John Steed, Esq.
Mailing address: Law Offices of Ellen S. Best, PO Box 386, Blue Hill, ME 04614
Telephone: 207-374-2573

Name of Land Surveyor, Engineer, Architect or others preparing plan:

Andrew McCullough, PE Civil Engineer & Site Evaluator PO Box 1497 Ellsworth, ME 04605 Tel: 207-667-6551 Email: mccengr@myfairpoint.net	Linda P. Campbell, PLS #2449 Due North, LLC – Land Surveying PO Box 211 Deer Isle, ME 04627 Tel: 207-479-8804 Email: lcampbell@duenorthllc.com	John Gordon, AIA Architect – License #ARC1914 17 Bayview Avenue Bucksport, ME 04416 Tel: 207-299-6172 Email: jpg@johngordonarch.com

Person and Address to which all correspondence regarding this application should be sent:
Andrew McCullough, PE – See Above

What legal interest does the applicant have in the property to be developed (ownership, option, purchase and sales contract, etc.)? Purchase & Sale Agreement (See Exhibit B)

What interest does the applicant have in any abutting property? Lot 2 as shown on the Standard Boundary Survey will be conveyed to a private party and is not included as part of this subdivision application.

LAND INFORMATION

Location of Property: (Street Location) Sunset Crossroad
(from County Registry of Deeds): Book 6980 Page 57
(from Tax Maps): Map 3 Lot 42

Current zoning of property: A portion of the property is in the Resource Protection District of Oliver's Pond and the remainder is considered "inland" property.

Is any portion of the property within 250 feet of the highwater mark of a pond, river or saltwater body?
☒ Yes ☐ No

Total Acreage of Parcel: 27.5 acres
Acreage to be developed: 2.0 acres

Indicate the nature of any restrictive covenants to be placed in the deeds:
The parcel will be conveyed to Island Workforce Housing with an Affordable Housing Covenant restricting use of the 13.4 acre development area to workforce housing use serving households with incomes between 61% and 120% of the Hancock County Median Income, adjusted for household size (See Exhibit R) and a Conservation Restriction encompassing 14.1 acres as shown on the Standard Boundary Survey restricting use of this portion of the property to land conservation and related stewardship activities. In addition, as required by Maine DEP, a restrictive covenant will be placed on the undisturbed wooded buffer areas shown on the Site Plan which are also shown on the Standard Boundary Survey as restricted buffer areas. This covenant will describe the location of the wooded buffers and require that the buffers be left in their natural condition with no disturbance (See Exhibit C). In addition, a deed restriction will be placed on the development area (13.4 acres) that will state the following: *Fertilizers containing phosphorus are prohibited from use except when establishing new turf or vegetation on bare soil.*

Has this land been part of a prior approved subdivision: ☐ Yes ☒ No
Or other divisions within the past 5 years: ☒ Yes ☐ No

Identify existing use(s) of land (farmland, woodlot, etc.) Property is vacant of any structures. May have been used as a wood lot in the past.

Does the parcel include any waterbodies? ☒ Yes ☐ No
Does the parcel include any wetlands? ☒ Yes ☐ No

Is any portion of the property within a special flood hazard area as identified by the Federal Emergency Management Agency? ☐ Yes ☒ No

List below the names and mailing addresses of abutting property owners and owners across the road:

Tax Map/Lot No.	Name	Mailing Address
003/041	Nicholas Robert Miscione, Marsha O. Connors & Joseph M. Connors as Trustees of the Nicholas Robert Miscione 2008 Trust	PO Box 98, Sunset, ME 04683
003/074	Norma Tewksbury Ooghe & Marjorie Reynolds	64 Rollingwood Drive San Rafael, CA 04901
003-73	Pamela A. Dewell	PO Box 82, Little Deer Isle, ME 04650
003-072 & 38	Barter Lumber Company	PO Box 330, Deer Isle, ME 04627
003-071 & 044	Judith Greenlaw	292 Sunset Crossroad Deer Isle, ME 04627
003-045-1	Alison & Brian Billings	239 Sunset Crossroad Deer Isle, ME 04627
003-045	Robin R. Dunham	PO Box 211, Sunset, ME 04683
003-069 & 070	Ethan W. Turner	PO Box 139, Stonington, ME 04681
003-068	Timothy E. Brophy	20 Daniels Drive, Deer Isle, ME 04627
003-040 & 043	Island Country Club	442 Sunset Road, Deer Isle, ME 04627

GENERAL INFORMATION

Proposed name of development: Oliver's Ridge

Number of Lots or units: 1 Lot - 10 Dwelling Units

Anticipated Date for construction: September 2020

Anticipated Date for completion: July 2021

Does this development require extension of public infrastructure? ☐ Yes ☒ No

Estimated cost for infrastructure improvements: no public infrastructure is required; estimated cost of private driveway and water/wastewater systems is $150,000.

Identify method of water supply to the proposed development:

- ☐ individual wells
- ☒ central well with distribution lines (2 wells will be installed)
- ☐ connection to public water system
- ☐ other, please state alternative

Identify method of sewage disposal to the proposed development:

- ☐ individual septic tanks
- ☒ central on-site disposal with distribution lines
- ☐ connection to public sewer system
- ☐ other, please state alternative

Identify method of fire protection for the proposed development:

- ☐ hydrants connected to public water system
- ☐ dry hydrants located on an existing pond or water body
- ☐ existing fire pond
- ☒ other, please state alternative <u>(no requirement requested by Fire Chief)</u>

Does the applicant propose to dedicate to the public any streets, recreation or common lands?

Street(s) ☐ Yes ☒ No Estimated Length _____
Recreation Areas(s) ☐ Yes ☒ No Estimated Length _____
Common Land(s) ☐ Yes ☒ No Estimated Length _____

Does the applicant intend to request waivers of any of the subdivision submission requirements?

REFERENCE	STANDARD	WAIVER REQUESTED	REASON FOR WAIVER
Section 2, 2.8B	Utilities shall be installed underground	Use of overhead electric & telephone lines	Customary use on island due to extensive ledge
Section 3, 3.1B	Monuments shall be concrete, stone or iron pipe	Install iron rods with plastic cap identifiers	Customary use within the State of Maine
		No Sidewalks along road	Sidewalks are not necessary along a rural road
Section 3, 3.3B(9)	Cul-de-sac turnaround	No Cul-de-sac	Fire chief states that cul-de-sac is not necessary so long as a hammerhead turnaround & staging area is provided

LETTER OF AUTHORITY

December 16, 2019

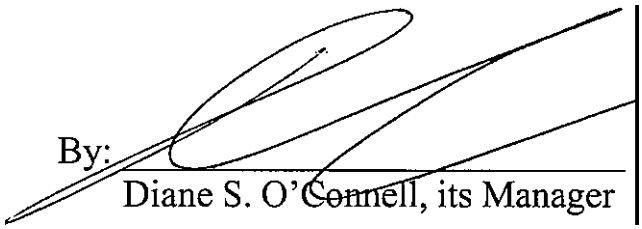
TO: Town of Deer Code Enforcement Officer and Planning Board Date:

I am the Registered Agent for Oliver's Pond Associates, LLC, a Maine limited liability company ("Owner") that owns property in Deer Isle by virtue of a deed dated September 27, 2019, from Jill Collins, recorded at the Hancock County Registry of Deeds in Book 6980, Page 57 ("Premises").

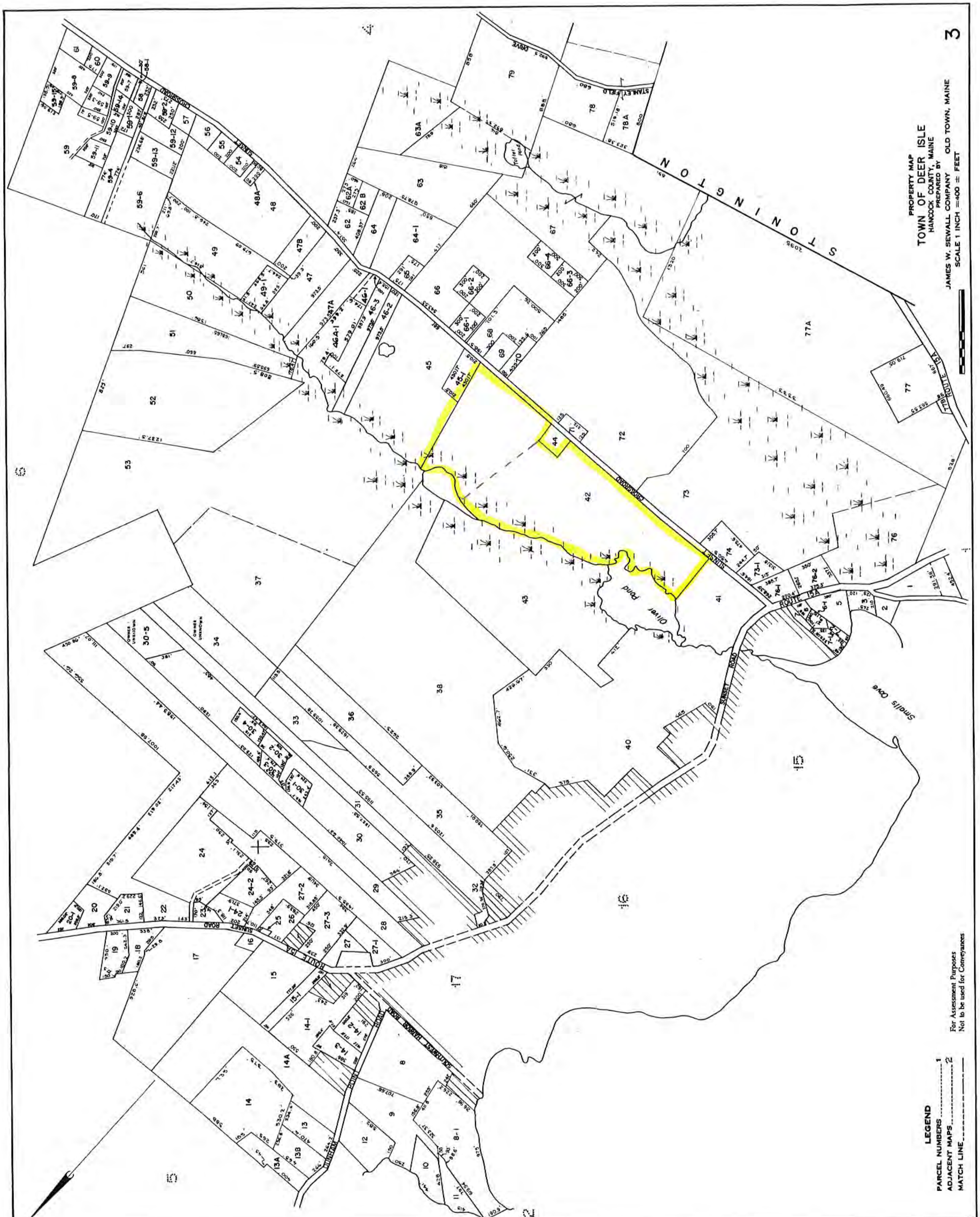
On behalf of said LLC, I hereby authorize Andrew McCullough, PE, and any board member of Island Workforce Housing, with which the Owner has entered into a Purchase and Sale Agreement with respect to the 27.5 parcel identified as Lot 1 on the attached plan, to make any application to the Town of Deer Code Enforcement Officer and/or Planning Board with respect to the Premises, and/or to appear before any municipal agency in that regard on behalf of said LLC.

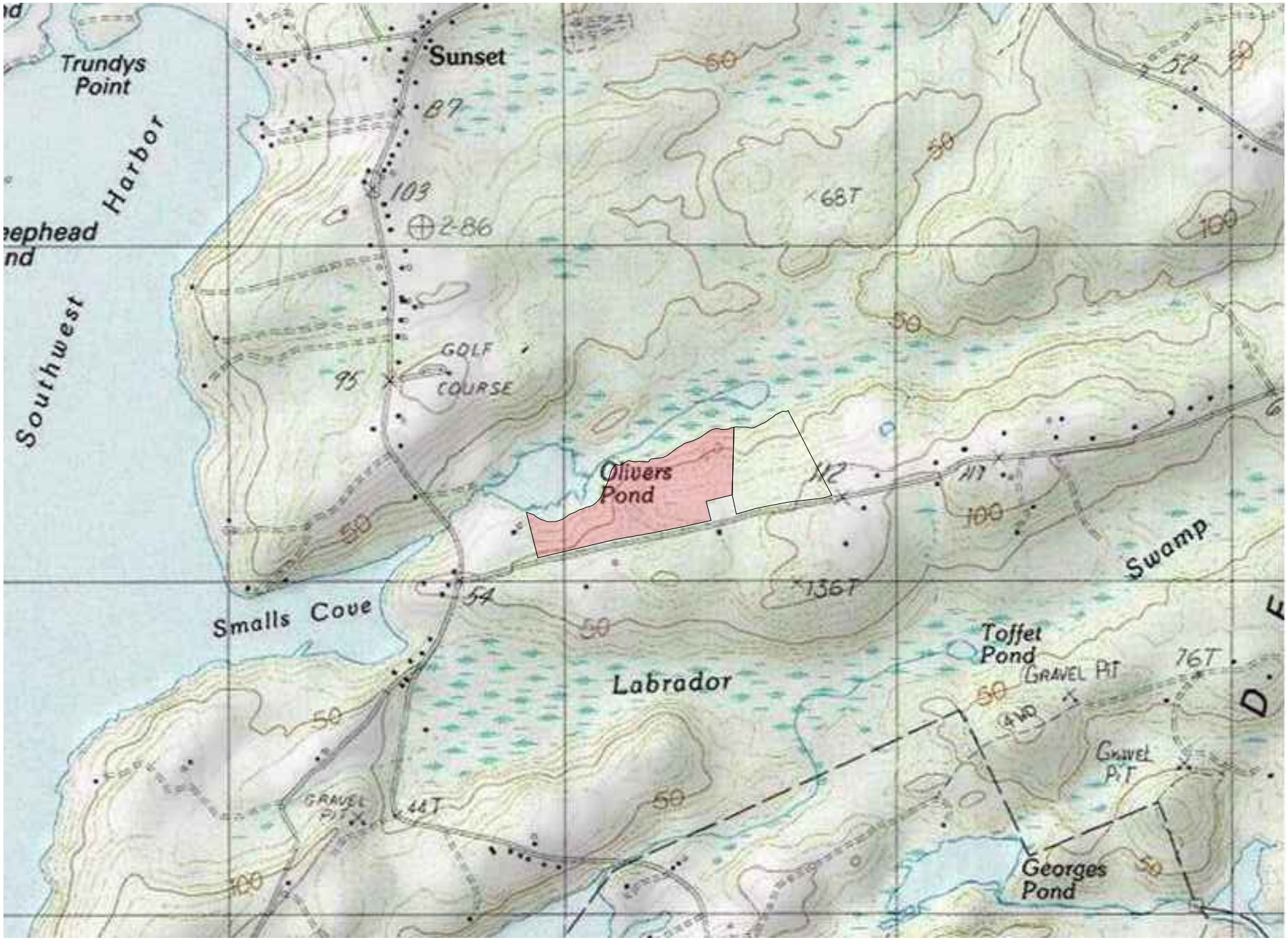
It is the intent of said LLC that Island Workforce Housing will own the Premises in due course.

OLIVER POND ASSOCIATES, LLC



By:
Diane S. O'Connell, its Manager


PROPERTY MAP
TOWN OF DEER ISLE
HANCOCK COUNTY, MAINE
PREPARED BY
JAMES W. SEWALL COMPANY OLD TOWN, MAINE
SCALE 1 INCH =400 ± FEET
3
LEGEND
PARCEL NUMBERS 1
ADJACENT MAPS 2
MATCH LINE
For Assessment Purposes
Not to be used for Conveyances
STONINGTON
Oliver Pond
Smalls Cove
SUNSET ROAD
ROUTE 15A


Trundys Point
Sunset
Harbor
Southwest
GOLF COURSE
Olivers Pond
Swamp
Smalls Cove
Labrador
Toffet Pond
GRAVEL PIT
4WD
Georges Pond
68T
136T
76T
44T
87
103
2-86
95
54
112
117
100
50

DEER ISLE SUBDIVISION REGULATIONS & APPLICANTS RESPONSE

The following paragraphs provide responses to the requirements found in the Town of Deer Isle Subdivision Regulations last amended May 11, 1989 and tables 10.15-1, 10.15-2, 10.15-3, & 10.15-4 from the Maine Model Subdivision Regulations, twelfth edition. Said tables were adopted by the voters of Deer Isle at the March 7, 2020 town meeting.

2.1 Conformance with Other Laws and Regulations

The applicant believes that the proposed subdivision will conform to the Deer Isle Subdivision Regulations. The applicant does not believe that the proposed subdivision meets the definition of subdivision as defined in the Site Location Act, Title 38, M.R.S.A., Section 482 because the project will not create more than 3 acres of new impervious areas (i.e. buildings, roads & parking). The project will require a DEP stormwater permit by rule and a NRPA Tier 1 permit for the filling of freshwater wetlands. The applicant is in the process of obtaining said permits.

2.2 Relationship to Community Services

A. The proposed subdivision shall not have an unsuitable adverse impact on community services.

1. **Schools, including busing**

   The proposed project includes ten (10) two-bedroom apartments in five two-unit duplex buildings. They are targeted for younger members of the island workforce who cannot currently afford to live on the island. As two-bedroom units, they are not designed to accommodate large families, and at most we anticipate the development might generate 6-12 school age children. According to Chris Elkington, the Superintendent of Schools, the island schools have significant excess capacity, and any additional school age children living in the proposed development would not burden the school system, but would actually strengthen the schools. He notes in the letter found in Exhibit D that he would not anticipate any additional impact on the school budget. He also notes that the school bus already serves households along the entire length of the Sunset Crossroad, and that there would likely be no impact on bus routes or the cost of busing students from the project.

2. **Road Maintenance and Snow Removal**

   The driveway serving the five buildings in the proposed project will remain a private road, with the responsibility of all maintenance and snow removal on the property owner. Consequently, the Town will bear no costs or responsibility for the driveway. A note to that effect will appear on the Final Subdivision Plan.

3. **Police and Fire Protection**

   The applicant does not anticipate that the proposed project will create any additional burden on police or fire protection.

The access road will be constructed in accordance with Deer Isle Subdivision Regulations and recently adopted street design standards from the State's model subdivision ordinance. The applicant has met with the Town's Fire Chief, Brent Morey, to discuss the road layout and associated staging areas and turnouts. Chief Morey is comfortable with the applicant's design. See letter from Chief Morey, Exhibit E.

The buildings will be constructed in strict conformance with all relevant building codes and should not pose any unusual fire hazard. At Chief Morey's request, the construction specifications will include a small beacon on the front of each unit that will be lighted in the event the individual unit fire alarm is triggered, to assist the fire crews in identifying the unit with a potential fire hazard.

4. Solid Waste Disposal

The Deer Isle Select Board has certified that the Deer Isle Transfer Station currently has the capacity to accept household waste and recycling from the proposed development. See letter from James Fisher, Town Manager, Exhibit F.

The solid waste generated by this subdivision will create modest additional costs, however the positive economic impact of ten additional households paying excise tax, buying goods and services locally and thereby generating additional sales tax revenue, and making other contributions to the civic welfare of the Deer Isle-Stonington community will far exceed the modest marginal cost to handle the solid waste generated by ten small households. See further discussion below.

5. Recreation Facilities

It is the understanding of the applicant that the Deer Isle-Stonington community has a number of recreational resources that can meet the needs of the households living in the proposed development. That notwithstanding, the Applicant intends to work with Island Heritage Trust (IHT) to develop public access trails over time from the public road to and along the shorefront of Oliver's Pond. This access trail will be a significant recreational resource for the residents of the proposed development, and the public at large.

As such, the proposed development is not likely to burden any Town recreational facilities.

6. Runoff water disposal drainage ways and/or storm sewer Enlargement with sediment traps

Sunset Crossroad does not have any town installed/maintained drainage structures. The proposed access road will cross the existing drainage ditch on the north side of Sunset Crossroad. A culvert will be placed under the new road to allow continuous flow of stormwater runoff from Sunset Crossroad.

B. While the long-range benefits of creating a permanent non-profit housing resource to support the island workforce are very significant to the long-term health and economic resiliency of the community, even the short-term fiscal benefits are projected to exceed the fiscal costs to the Town of Deer Isle.

Fiscal Costs

Based on the fact that all of the infrastructure serving the new housing (road, water and wastewater treatment) will be privately owned and maintained, the only sources of fiscal cost to the Town from ten new units of workforce housing are impacts to the transfer station operations and potential school-related costs.

An analysis of transfer station operations, which is budgeted for 2020 to cost the Town a total of $255,329, or $294 per household, indicate that adding 10 additional households would cost the town roughly $200 per household, or a total of $2,000 for 10 new households. (Note that the marginal cost per HH is less than the total average cost per HH due to significant fixed costs like salaries and utilities that would not increase due to the addition of 10 households.)

Recent discussions with Chris Elkington and members of the School Board about the budgetary impact of bringing in additional school-age children concluded that due to the significant excess capacity at every grade level of the island's schools, the school budget is likely not to be impacted at all. In addition, the school bus routes already include the full length of Sunset Crossroad, and there is sufficient capacity on the existing buses to handle the number of school-age children expected from ten 2-bedroom dwelling units. Please see the letter from Chris Elkington attached in Exhibit D confirming this conclusion.

It is possible that the Town of Deer Isle would see a temporary increase in its share of school funding from additional students, but such an impact would even out once the second phase of workforce housing, scheduled to be located in Stonington, is completed and occupied.

Fiscal Benefits/Revenue

Direct fiscal benefits from attracting additional working households to Deer Isle-Stonington include increased excise tax to the Town of Deer Isle, and increased revenue from the local share of state income and sales tax revenue. Based on population data from the ACS 2018 survey, the town has 870 households. Based on the 2020 Deer Isle town budget, these households are expected to contribute $518,746 in excise tax to the Town's coffers, which works out to over $293 in excise tax per household. It is reasonable to assume that the ten new households residing in the new workforce housing will have a similar rate of vehicle ownership, and therefore contribute similar excise tax revenue, or a total of just under $3,000 per year.

Property owned by a Maine non-profit housing corporation with a charitable 501(c)3 status, in use for the specific charitable purpose for which the organization was formed, is exempt from

real estate taxes. Island Workforce Housing does, however, anticipate making a payment in lieu of taxes (PILOT) to the Town of $1,500 per year, a per-unit contribution very similar to the payment in lieu of taxes contributed by Deer Run Apartments, the low-income senior housing complex near Deer Isle Village.

Adding approximately 20-30 persons to the Town's population and creating additional assessed value will generate a modest amount of additional revenue to the Town based on the State's income and sales tax revenue sharing model. While this number has a number of variables that are difficult to predict, a fair estimate would be based on the State's projected 2021 revenue share for Deer Isle of $90,991 broken down per household, which works out to be almost $105 per HH. Thus, ten additional households could generate over $1,000 of additional revenue to the Town.

Totaling state revenue sharing, excise tax, and the PILOT, this first IWH project will be a source of over $5,500 per year in additional revenue to the Town.

Fiscal Surplus Likely

Based on the analysis above, it is likely that in the long-run, the Town will net approximately $3,500 per year in a positive direct fiscal impact from the addition of ten units of workforce housing. Factors that could impact this projected fiscal benefit include changes to the state's revenue sharing model, and changes in the Town's fiscal structure, operating costs, or both, which are very hard to predict.

There are, however, further *economic* benefits generated by adding population to Deer Isle. These include increased sales at local businesses - more people living in Deer Isle results in more people purchasing goods and services in Deer Isle, enhancing cash flow throughout the island, and enriching local business owners and employees, giving them more purchasing power. Because these renters will be year-round residents of Deer Isle, they will contribute to an increased year-round cashflow for local businesses. A year-round economy is a more secure, stable, and sustainable economy than one driven by summer tourism, and IWH's development will only serve to enhance Deer Isle's year-round economy.

IWH also projects a long-term increase in property tax revenue for the Town of Deer Isle indirectly resulting from this development. IWH predicts its renters will turnover every two to four years, and many of these renters will go on to become homeowners, purchasing properties and fixing them up, increasing their assessed value. By bringing these future homeowners to the island, IWH will help contribute to a greater source of tax revenue to the Town in the long-term.

Furthermore, IWH predicts that many of its renters will participate in local volunteer organizations, such as the Fire Department or the Ambulance Corps. By increasing the number of volunteers for Deer Isle's emergency services, response times to calls will decrease and the ability for these organizations to do their work effectively will increase. This has a positive

impact on insurance rates for area homeowners, allowing them to pocket more of their earnings, and recirculate those saved dollars into the local economy.

Lastly, the general impetus behind IWH's development is community and economic development. By providing a place for local workers to live, IWH eliminates the off-island commute, and by doing that, IWH ensures more of the dollars earned in Deer Isle are spent in Deer Isle. Year-round rental housing is one of the most attractive forms of housing for young workers and their families, the demographic least-represented and most-needed on Deer Isle. IWH will provide that housing, therefore attracting that needed demographic, ensuring job positions are filled, getting more students enrolled at the local school, and helping create more economic activity all year long in Deer Isle. In the face of declining school enrollment, an aging population, and an ever-increasing amount of housing taken up for seasonal use, this project cannot come at a more-needed time.

2.3 Retention of Open Space and Natural or Historic Features

The parcel being developed consists of 27.5 acres of land, while the amount of land disturbed by the improvements is less than two (2) acres in total. There will thus be a great deal of open space retained on the parcel, most of which will be completely undisturbed. This will be for the enjoyment of the residents of the proposed workforce housing and will not be for the use of the general public. In addition, the land along the shorefront of Oliver's Pond will be under a conservation restriction enforced by Island Heritage Trust which is developing plans for stewardship of this area, including a public access trail from the Sunset Crossroad to and along the shorefront. This access trail will be a significant recreational resource for the residents of the proposed development, and the public at large.

As this site has not been previously developed, there are no known historic features to be retained.

2.4 Preservation of Natural and Historic Features

Landscape Plan:

The plan for construction of a private drive, parking area, and five small 1,800 sf buildings on approximately two (2) of the 27.5 acres of this parcel has been designed to minimize disturbance of the natural area, and promote a natural, woodsy feeling to this workforce housing community. All healthy trees outside the immediate construction area will be retained, while shrubs, ornamental trees, and small lawn areas typical of a Maine homestead will be added around the buildings to complement their modest residential scale.

Scenic:

The proposed development has been planned to largely maintain the existing scenic appearance of the site's frontage on Sunset Crossroad. All structures will be tucked behind the existing woods and substantial ledge outcroppings, more than 300 feet from the Sunset Crossroad. The nearest existing residential dwelling to the proposed development is located on the south side of Sunset Crossroad and is more than 500 feet away. The development will not be visible from Oliver's Pond due to the 250' Resource Protection District which does not allow any development.

Historic:
The applicant requested review and input regarding historic features related to the property from the Maine State Historic Preservation Commission (MHPC). On February 27, 2020, Kirk F. Mohney, preservation officer for MHPC concluded that there will be no historic properties affected by the proposed development. See Exhibit H.

Other Environmentally Sensitive Areas:
US Fish & Wildlife Service:
The applicant submitted an IPaC to the United States Department of the Interior, Fish and Wildlife Service (USIF&W) for review of their database of Endangered Species that were known to inhabit the project area. The IPaC determined that the only endangered species that could possibly be affected by this development was the Northern Long-eared Bat. The department further determined that any "taking" of the Northern Long-eared Bat would not be prohibited under the ESA Section 4(d) rule adopted for that species at 50 CFR paragraph 17.40(o). For consistency letter from USIF&W see Exhibit H.

Maine Department of Inland Fisheries & Wildlife
A similar inquiry was made to Maine's Department of Inland Fisheries and Wildlife (MDIFW) for review of the known locations of Endangered, Threatened, and Special Concern species; designated Essential and Significant Wildlife Habitats; and inland fisheries habitat concerns within the vicinity of the project area. In response to Essential Habitats, MDIFW has not mapped any Essential Habitats that would be directly affected by this project. In response to Endangered, Threatened, and Special Concern Species, MDIFW determined that various species of Bats might be considered either endangered or of special concern but did not anticipate significant impacts to any of the bat species as a result of this project. In response to Significant Wildlife habitat, MDIFW indicated no known presence of Significant Wildlife Habitat subject to protection under the Natural Resources Protection Act within the project area. They did note that a comprehensive statewide inventory for Significant Vernal Pools has not been completed and recommended that we perform a survey for vernal pools within 250 feet of the project area. No potential vernal pools were observed by Andrew McCullough, PE during the wetland delineation phase of this project. In response to Fisheries Habitat, MDIFW recommends that a 100-foot undisturbed vegetated buffer be maintained along any stream that may exist in the project area. There are no streams located within the bounds of the development parcel or within 100 feet of said bounds. For determination letter from MDIFW see Exhibit I.

Maine Department of Agriculture, Conservation & Forestry
The applicant requested a review from MDACF to determine the presence of documented rare or unique botanical features in the vicinity of the project area. The MDACF determined that there are no rare botanical features documented specifically within the project area. For determination letter see Exhibit J.

2.5 Land Not Suitable for Development

A.1 No portion of the proposed development is below sea level.

A.2 Unlike a traditional lotted subdivision, this development will be owned by one entity and therefore right-of-ways or drainage easements are not required. In traditional subdivisions, buyers must be given access to their lots by the creation of right-of-ways over the proposed access roads. Drainage easements may also be granted to individual lot owners to protect their properties from flooding, etc. With one owner of this development, there is no need to create a right-of-way along the access road since there would be no entity to which the right of way would be granted. This all assumes that the Planning Board does not intend to make the access road a public way in which case a right-of-way would be necessary for conveyance to the Inhabitants of the Town of Deer Isle.

The applicant expects that Emera (Electric Company) will require an easement for electric service to the 5 individual buildings. The location of this easement cannot be decided upon until the installation of utility poles and associated power lines. The applicant expects that the easement will be 30 feet wide and run along the access road to the individual buildings which we estimate to be about 700 feet in length. The land area of this easement is expected to be around 1/2 acre.

A.3 This development will not be located on lands which must be filled or drained or on land created by diverting a water course. The next portion of this requirements goes on to say *"In no instance shall the Board approve any part of a subdivision located on filled wetlands or filled or drained great ponds".* The applicant was perplexed by this statement since state law allows filling of wetlands with the appropriate permits and the Deer Isle Planning Board has permitted several subdivisions with filled wetlands. After inspecting Deer Isle's historic subdivision ordinances, we found that the 1979 ordinance stated Section 2.5 A4 as follows *"In no instance shall the Board approve any part of a subdivision located on filled tidal lands"* (emphasis added). The applicant wonders if there was a clerical error in the re-printing of the 1987 subdivision ordinance? No part of this development will be located on filled or drained great ponds.

A.4 The development will be serviced by a central subsurface wastewater disposal area designed with a capacity of 1800 gallons per day. The disposal area is staked out in the field. Soil in the vicinity of the system is glacial till over bedrock with bedrock being approximately 21 inches below the soil surface. The soil is identified as LuC or Lyman-Tunbridge Complex which is suitable for the proposed wastewater disposal area. Final Plans for the disposal system and HHE 200 forms will be completed prior to submission of the final subdivision plan.

B No part of the proposed development is located within the Resource Protection District of Oliver's Pond as shown on the current Town of Deer Isle's Shoreland Zoning Map. See Exhibit K. No buildings, structures or improvements will be located within said district.

C. No part of the proposed development is located within a Federal Emergency Management Agency (FEMA) flood zone.

2.6 <u>Lots</u>

A. Not applicable

B. The proposed development consists of 5 buildings with 2 units in each building. During the pre-application review process, the applicant asked for clarification for the definition of *"multi-family".* After conferring with counsel, the chair of the Planning Board, Jeremy Stewart, returned to the applicant and stated that the development would fall under *"multi-family"* and would require 2.5 acres for each duplex building. This development would therefore require a minimum lot size of 12.5 acres. Section 2.5A(2) further states that the land area of easements must be deducted from the lot acreage and not used for meeting lot size requirements. The applicant expects to grant a future easement to Emera for electric service which will most likely amount to 1/2 acre in size (see paragraph 2.5 A.2 above). In addition, DEP requires that restrictive covenants be placed on the undisturbed wooded buffers shown on the site plan. The portion of the undisturbed wooded buffers that exist outside of the conservation area amount to 0.35 acres. The portion of the 27.5 acre lot that will be under a conservation restriction amounts to 14.1 acres. If we subtract the Emera easement, the DEP restrictive covenants and the conservation restriction area; the required lot size would be 12.55 acres (27.5 acres - 0.5 acres - 0.35 acres – 14.1 acres=12.55 acres) which exceeds the minimum acreage of 12.5 acres.

C. Not applicable

D. All lot parameters meet the requirements of the Subdivision Ordinance regarding lot size, width, depth, shape, orientation and building setbacks.

E. The proposed development meets or exceeds the design standards of Section 3 and the portions of Section 3 that were amended by Town meeting vote on March 7, 2020 with tables 10.15-1, 10.15-2, 10.15-3 and 10-15-4 of the Maine Model Subdivision Regulations, twelfth edition. Section 3 of the Subdivision Ordinance requires two (2) off-street parking spaces per dwelling unit. The applicant has provided twenty (20) off-street parking spaces (10 units x 2 spaces/unit).

F. The road frontage of the development parcel is 1744 feet which exceeds the minimum requirement of 200 feet.

G. The side lot lines are substantially at right angles to Sunset Crossroad.

H. The applicant does not plan to further sub-divide the development area.

I. The applicant is requesting a waiver to set 5/8" iron rods with plastic I.D. caps as these are customary monuments set by land surveyors in the State of Maine.

2.7 Easements

A. As discussed in paragraph 2.5 A(2), there is no need for a drainage easement since there is only one owner of the proposed development and therefore there is no party to which an easement would be granted.

B. Again, unlike a traditional subdivision where buyers are granted easements to protect the rights in their individual lots, this development will have one owner which makes the need for most easements unnecessary except in the case of an easement for electric and telephone. These easements would be granted to the electric/telephone company and would be located along the proposed access road. The exact location of the easement would not be determined until after utility poles and power lines are installed.

2.8 Utilities

A. The applicant anticipates the need for electric and telephone service and will work directly with those utility companies. Since the proposed lines will service eleven customers (the Owner for common infrastructure power needs, and ten resident households for individual dwelling unit electricity needs), a utility easement will be identified in conjunction with Emera's service division during construction. We can most likely assume a thirty (30) foot wide easement running the length of the access road (700 feet, more or less).

B. The applicant requests a variance to install electric/telephone lines above ground as there is a substantial amount of ledge between the road and the location of the five buildings and therefore the cost of underground utility lines will be prohibitive.

2.9 Additional Requirements

A. The plan for construction of a private drive, parking area, and five small 1,800 sf buildings on approximately two (2) acres of the 27.5 acres of this parcel has been

designed to minimize disturbance of the natural area, and promote a natural, woodsy feeling to this workforce housing community. All healthy trees outside the immediate construction area will be retained, while shrubs, ornamental trees, and small lawn areas typical of a Maine homestead will be added around the buildings to complement their modest residential scale.

B. Since the proposed development is not located near residential properties (the nearest proposed building is 230' away from Greenlaw's Tax Map 3 Lot 44 which consists of shop buildings with no residence), the applicant does not propose to provide vegetated strips. The nearest residence is over 500 feet away from the closest building of the proposed development.

C. The Subdivision Review Criteria from the current State of Maine's Subdivision Law, Title 30-A, M.R.S.A., Section 4407 is addressed in later parts of this application. The Deer Isle subdivision ordinance refers to Title 30, M.R.S.A., Section 4956 which dates back to the early 1970s. Title 30 was replaced by Title 30-A in 1989.

SECTION 3 DESIGN STANDARDS

3.1 Monuments

The applicant will set permanent monuments at all lot corners and significant angle points. However, the applicant requests a variance to set 5/8" iron rods with plastic I.D. caps as these are customary monuments set by land surveyors in the State of Maine.

3.2 Off-Street Parking

The ordinance requires that two (2) parking spaces (measuring 220 square feet each) be provided per dwelling unit. The applicant is meeting this requirement by providing twenty (20) parking spaces measuring 10'x22' (220 Sq. Feet) for the proposed development.

3.3 Roads

A. The private access driveway will be built to meet the Town of Deer Isle Subdivision Regulations and the recently adopted Tables 10.15-1, 10.15-2, 10.15-3 & 10.15-4 from the Maine Model Subdivision Regulations, twelfth edition. As a temporary control, a stabilized construction exit will be installed at the entrance to the project to help remove sediment on tires before vehicles enter the Crossroad during construction. See Sediment and Erosion Control Plan later in this application.

B-1. The access road will not cross any watercourses (as that term is defined in Black's Law Dictionary.)

B-2. Five (5) culverts will be installed. One at the entrance to the project to allow the drainage ditch on the north side of Sunset Crossroad to continue to flow, another part way up the access road and three others that will channel surface run-off towards the stone lip level spreaders. These culverts will be a minimum of 12" in diameter and be installed to insure proper elevation for storm flow.

B-3. See Sediment and Erosion Control Plan later in this application.

B-4. Not applicable

B-5. The access entrance to the proposed development was carefully selected to account for topography and to provide the greatest practical distance from existing houses. The minimum required site distance for the access entrance is 425 feet for standard vehicles in each direction. The provided site distance exceeds 650 feet to the east and over 1300 feet to the west. The proposed road is designed to balance cuts and fills and has a maximum grade of 5 percent.

B-6. This section has essentially been replaced by tables 10.15-1 thru 10.15-4 of the Maine Model Subdivision Regulations, twelfth edition. Under these regulations, the access road would be considered a medium volume road having a volume level between 50 ADTs (average daily trips) which requires an 18' wide traveled way, minimum grade of 0.5%, maximum grade of 8% and a minimum centerline radius of 100 feet. The design of the proposed access road meets or exceeds these requirements.

B-7. For discussion regarding the access road entrance see B-5 above. There are no corner lots in the proposed development and the curves on the access road are gentle enough to provide sufficient site distance for both pedestrian and vehicular traffic.

B-8. The proposed road alignment has been reviewed with Fire Chief Brent Morey who recommended that the applicant build a hammerhead turnout at the end of the access road (in lieu of a cul-de-sac) and provide a staging area for emergency vehicles (see Exhibit E). To prevent the staging area from being blocked or unavailable during an emergency, a gate-like barrier with a knox lock box will be installed.

B-9. As discussed above in B-8, Fire Chief Morey has approved the hammerhead turnaround as shown on the site plan in lieu of a cul-de-sac. The applicant is requesting a waiver of said cul-de-sac requirement.

3.4 Signs

A. The applicant proposes to name the private road "Oliver's Ridge Road.".

B-1. The name for the proposed development will be Oliver's Ridge. It is not anticipated that the applicant will install a sign signifying the name of the development, but will install a "street" sign with the approved name of the private road (proposed to be named Oliver's Ridge Road).

B-2. Each dwelling unit (2 for each of 5 buildings) will be numbered with metal unit numbers of contrasting color, affixed to the front of each building.

B-3. The proponent does not anticipate having any permanent signage other than the proposed "street" sign.

B-4. If "No Hunting" signs are posted, they will not exceed two (2) square feet in area.

B-5. Any signs discussed above will not exceed twenty (20) feet in height above the existing ground.

B-6. The applicant has no intention of illuminating signs.

3.5 Stormwater Management

A. The Stormwater Management Design can be found later in this application. A DEP Stormwater Permit by rule is required since there will be more than one (1) acre of developed area. The applicant is in the process of applying for this permit. The primary stormwater goal for this development is to remove sediments and therefore attached contaminants and to reduce the temperature of the runoff to avoid impacts to downstream aquatic species. The Stormwater Management system for this project is designed to meet those objectives.

1. The stormwater system meets the twenty-five (25) year storm requirement.

2. The minimum culvert size will be twelve (12) inches in diameter and will meet the installation standards of this section.

3. There are no catch basins designed for this project.

4. See the sediment and erosion control plan (Exhibit N) to address drainage outlets.

B. The structural components of the stormwater system (culverts and level spreaders) have been designed in excess of 25 percent reserve capacity.

C&D. Other than a small portion of the access road's flow into Sunset Crossroad, the majority of the downstream drainage effects of this development are solely

upon Oliver's Pond for which the applicant has addressed through the use of stone lip level spreaders and portions of undisturbed wooded buffers to treat post development phosphorous export. Surface waters from this development will not affect neighboring properties.

E. The town will not need easements for any storm drainage systems as all proposed stormwater systems are on and will remain on private land.

F. The soils within the project area do not require a subsurface drainage system.

3.6 Water Supply

A. The proposed development will create a private water supply system to provide potable drinking water for the 10 units. A public system is defined as a system that has at least 15 service connections or serves at least 25 individuals daily at least 60 days per year. With potential occupancy being approximately 40 persons, at least 2 separate well/water supply systems are proposed in order to create and maintain the water supply as a private system.

B. The applicant has met with Fire Chief Brent Morey who stated that water storage is not necessary to meet fire protection needs for a development of this size.

C. The applicants to not propose to install dug wells.

D. As stated in 3.6A above, the water supply system will be private and will meet the standards of the US EPA 2018 Edition for Drinking Water. Wells will be disinfected after development and the water supply tested to verify conformance with these standards.

3.6 Sewage Disposal

Wastewater from each building, consisting of 2 units, will drain to a 1500-gallon septic tank. Each tank will be equipped with a filter and effluent pump where necessary. Effluent will be pumped through 2-inch pressure pipes to a subsurface wastewater disposal area designed with a capacity of 1800 gallons per day. The disposal area will have a minimum of 130 Eljen Indrains or GSF units. Soil in this vicinity is glacial till over bedrock. Bedrock is at a depth of approximately 21 inches below the soil surface. The disposal area is staked out in the field. Final plans for the disposal system and HHE 200 forms will be completed prior to submission of the final subdivision application.

SECTION 4. PERFORMANCE GUARANTEES

4.10 Private Roads

The access road to the proposed development will remain private and the following words will appear on the final recorded subdivision plan "All roads in this subdivision are private roads to be maintained by the developer/owner and shall not be maintained by the Town".

SECTION 5. PREAPPLICATION REVIEW

5.1 Procedure

The applicant appeared before the planning board at their regularly scheduled meeting on December 18, 2019. A sketch plan was presented along with some written questions requesting that the planning board clarify how much lot area would be required in section 2.6. and a statement that this type of development would not require a right-of-way or any easements since all the dwelling units on the parcel will always be owned by one entity.

5.3 Contour Interval and On-Site Inspection

On January 22, 2020, the Deer Isle Planning Board visited the property. One week later, Jeremy Stewart, planning board chair, notified the applicant that 12.5 acres would be required under section 2.6 and that LiDAR contours showing a 2-foot interval were sufficient. Mr. Stewart also stated that the right-of-way for the access road and any easements would be conveyed to the Town of Deer Isle. The applicant asked Mr. Stewart to please clarify that statement as it is our belief that if the Town accepts the right-of-way it would mean that the access road would be a public way and the town would be responsible for maintenance of the way and any easements which they were granted. In mid-March, the Deer Isle Town Hall was closed to the public in response to the Covid-19 pandemic. Mr. Stewart stated that there was no way to accept and review the preliminary subdivision application until business resumed at the Town Hall. The applicant has yet to be notified about the right-of-way and easement questions.

5.5 Ownership

See Exhibit A for the Deed into the Owner, Olivers Pond Associations LLC. See Exhibit B for the Purchase and Sale Agreement between the Owner, Olivers Pond Associates LLC, and the Applicant, Island Workforce Housing, a 501(c)3 qualified Maine non-profit housing corporation.

SECTION 6. PRELIMINARY PLAN FOR A SUBDIVISION

6.2 Submissions

All items required by this section are either shown on the Preliminary Plan or as attachments to this application.

SUBDIVISION REVIEW CRITERIA

Narrative Response to Title 30-A, ¶4404

The Subdivision Review Criteria appear here verbatim (in italics). The applicant's responses immediately follow each of the criteria

1. Pollution *The proposed subdivision will not result in undue water or air pollution. In making this determination, it shall at least consider:*

A. The elevation of the land above sea level and its relation to the flood plains:

Applicant's Response:
The parcel ranges in elevation from 30 feet at the edge of Oliver's Pond to elevation 96 feet at the top of an exposed ledge outcropping between Sunset Crossroad and the south side of the proposed development. No part of the proposed development is located within a FEMA Special Flood Hazard Area or Zone. The development is located within the watershed of Oliver's Pond designated with the State as a Great Pond. See review criteria number 18. Lake Phosphorus Concentration for the response to pollution of a Great Pond.

B. The nature of soils and subsoils and their ability to adequately support waste disposal:

Applicant's Response:
The Medium intensity soil survey map and soil description (See Exhibit L) for this area indicate that the soils in the vicinity of the proposed development are identified as LuC or Lyman-Tunbridge Complex. Depth to bedrock is typically 20-40 inches in Tunbridge soil and 10-20 inches in Lyman soil. In late fall of 2019 and again in February of 2020, Andrew McCullough, professional engineer and licensed site evaluator, performed a number of test borings in order to determine the type of soil on the property and to find an optimal location for the subsurface wastewater disposal area. Mr. McCullough found that the soil characteristics summarized in the soil description above were consistent with the soil conditions found in the observed test pits and that they were suitable for wastewater disposal design. The Preliminary Plan shows the approximate location of the proposed wastewater disposal area. Final plans for the disposal system and HHE 200 forms will be completed prior to submission of the final subdivision application. The proposed development will consist of 5 residential buildings with associated roads, parking and utility infrastructure making up about 2 acres of disturbance out of the 13.4 acres of the "developed area" This disturbance accounts for only 15 percent of the developed area. Since the development is retaining large buffer areas in relation to the impervious area, the applicant believes there is limited potential for air and water pollution.

C. The slope of the land and its effect on effluents;

Applicant's Response:
Slopes in the vicinity of the proposed development range from 0-18 percent (with 18% in a very small section alongside the access road about 1/4 of the way in). The majority of the development will be built on 4-6% slopes. These slope characteristics provide positive drainage opportunities without erosion difficulties found on steeper slopes. The proposed wastewater disposal area has a slope of 6% which is well within the Subsurface Wastewater Disposal Rules of 20% maximum.

D. The availability of streams for disposal of effluents;

Applicant's Response:
There are no streams on the applicant's parcel. The applicant does not propose to dispose of any effluents other than household wastewater which will either flow by gravity or be pumped to a subsurface wastewater disposal area that will require approval from the Local Plumbing Inspector under Maine's Subsurface Wastewater Disposal Rules.

E. The applicable state and local health and water resource rules and regulations:

Applicant's Response:
Wetlands are present on the subject parcel and shown on the Preliminary Subdivision Plan. The proposed access road will impact 4600 sq. feet of wetland. Since the minimum wetland impact without a permit is 4300 sq. feet, this project will require a Tier 1 permit under the Natural Resources Protection Act from the Maine Department of Environmental Protection (MEDEP). Since the developed area exceeds one acre, a DEP stormwater permit by rule is required. The applicant is in the process of obtaining said permits. The project does not require approval under Maine's Site Location of Development Law, Title 38, M.R.S.A., Section 482 because the project will not create more than 3 acres of new impervious areas (i.e. buildings, roads & parking).

2. Sufficient Water; *The proposed subdivision has sufficient water available for the reasonably foreseeable needs of the subdivision;*

Applicant's Response:
Exhibit M shows the Maine Drinking Water Well Database Map for the project vicinity prepared by the Maine Geological Survey. Well yields in the project vicinity typically range from 0-4 gpm with some yielding as high as 10 gpm. The applicant's goal for this project is to create a private water supply system to provide potable drinking water for the 10 units. A public system is defined as a system that has at least 15 service connections or serves at least 25 individuals daily at least 60 days per year. With potential occupancy being approximately 40 persons, at least 2 separate well/water supply systems are proposed in order to create and maintain the water supply as a private system.

The water supplies shall meet the standards in the US EPA 2018 Edition of the Drinking Water Standards. Wells will be disinfected after development and the water supply tested to verify conformance with the standards.

The estimated typical water use for a 2-bedroom home is 180 gpd. Total water use can be estimated to be 1800 gpd for the development. One well yielding 1 gpm will produce 1440 gpd. Therefore, achieving high well yields is not required for the project. A combination of wells, storage volume in wells and pressure tanks can provide an adequate water supply to meet peak flows for this development.

3. Municipal Water Supply; *The proposed subdivision will not cause an unreasonable burden on an existing water supply, if one is to be used;*

Applicant's Response:
This paragraph is not applicable as no municipal water supply exists near the project vicinity.

4. Erosion; *The proposed subdivision will not cause unreasonable soil erosion or a reduction in the land's capacity to hold water so that a dangerous or unhealthy condition results.*

Applicant's Response:
The sediment and erosion control plan found in exhibit N will limit soil erosion and prevent sedimentation from areas that are disturbed during and after construction.

5. Traffic; The proposed subdivision will not cause unreasonable highway or public road congestion or unsafe conditions with respect to the use of highways or public roads existing or proposed and, if the proposed subdivision requires driveways or entrances onto a state or state aid highway located outside the urban compact area of an urban compact municipality as defined by Title 23, section 754, the Department of Transportation has provided documentation indicating that the driveways or entrances conform to Title 23, section 704 and any rules adopted under that section.

Applicant's Response:
The applicant notes the following regarding traffic:
Site Distance – There is no apparent speed limit posting on Sunset Crossroad. Therefore, in accordance with State Law, we assume a 45 mph speed limit. At that speed, Table 10.15-1 of the Deer Isle Subdivision Regulations requires a minimum site distance of 425 feet for standard vehicles in each direction. The proposed access location to the site has adequate site distance in each direction and meets this standard.

Road Design Standards – The access road will have greater than 50 ADTs (average daily trips) meeting the threshold for a Medium Volume Road. In accordance with Table 10.15-3 of the Deer Isle Subdivision Regulations, a medium volume road is required to have an 18' wide traveled way, minimum grade of 0.5%, maximum grade of 8%, and a minimum centerline radius

of 100'. The minimum curb radius for a medium volume road is 22 feet. The proposed Subdivision Plan and Typical Cross Section will conform to these standards.

Trip Generation – The ITE Trip Generation Manual, 6th Edition was referenced to estimate trip generation for the proposed development. One "trip" is defined as one vehicle movement entering or leaving the facility. The most suitable land use in the manual is "Apartment," Land Use 220. It is defined as rental dwelling units located within the same building with at least three other dwelling units. They include low-rise or "walk-up" units and high-rise multi-family dwellings. The only variance to this definition is that our structures contain two units, not three or greater.
Average Vehicle Trip Ends on a Weekday___6.63/unit
Average Vehicle Trip Ends on a Saturday____6.39/unit
Average Vehicle Trip Ends on a Weekday, PM peak hour of Adjacent Street Traffic___0.63/unit
This development or project will generate an estimated 66 vehicle trips per day and an estimated 6-7 vehicle trips during the peak hour.
Upon hearing that the Planning Board may have concerns about the impact of the applicant's development on the intersection of the Sunset Crossroad and Sunset Road (informally known as Route 15A), the applicant asked Jim Fisher, Deer Isle Town Manager to contact the MaineDOT for guidance. Bruce Mattson of MaineDOT responded to Jim saying that they had no control of development on town roads unless traffic generation is greater than 100 vehicle trips per hour. The expected traffic generation for this development is expected to be 6-7 vehicle trips during the peak hour which is well below MaineDOT's threshold.

6. Sewage Disposal *The proposed subdivision will provide for adequate sewage waste disposal and will not cause an unreasonable burden on municipal services if they are utilized;*

Applicant's Response:
The proposed development will not place any burden on the town in regard to sewage disposal. Andrew McCullough, Civil Engineer and Licensed Site Evaluator, located and documented an area of suitable soils meeting the Maine Subsurface Wastewater Disposal Rules for the proposed development. Wastewater from each building, consisting of 2 units, will drain to a 1500-gallon septic tank. Each tank will be equipped with a filter and effluent pump where necessary. Effluent will be pumped through 2-inch pressure pipes to a subsurface wastewater disposal area designed with a capacity of 1800 gallons per day. This disposal area is staked out in the field and shown on the Preliminary Site Plan. The disposal area will have a minimum of 130 Eljen Indrains or GSF units. Soil in this vicinity is glacial till over bedrock. Bedrock is at a depth of approximately 21 inches below the soil surface. Final plans for the disposal system and HHE 200 forms will be completed prior to submission of the final subdivision application.

7. Municipal Solid Waste Disposal *The proposed subdivision will not cause an unreasonable burden on the Municipality's ability to dispose of solid waste, if municipal services are to be utilized;*

Applicant's Response:
The Town of Deer Isle Office of the Select Board has certified that the Deer Isle Transfer Station currently has the capacity to accept household waste and recycling from the proposed development. See letter from Town Manager, Jim Fisher (Exhibit F).
The solid waste generated by this subdivision will create modest additional costs, however the positive economic impact of ten additional households paying excise tax, buying goods and services locally and thereby generating additional sales tax revenue, and making other contributions to the civic welfare of the Deer Isle-Stonington community will far exceed the modest marginal cost to handle the solid waste generated by ten small households.

8. Aesthetic, Cultural, and Natural Values *The proposed subdivision will not have an undue adverse effect on the scenic or natural beauty of the area, aesthetics, historic sites, significant wildlife habitat identified by the Department of Inland Fisheries and Wildlife or the municipality, or rare and irreplaceable natural areas or any public rights for physical or visual access to the shoreline.*

Applicant's Response:
Aesthetic Values - The proposed development will be tucked behind ledge outcroppings and be more than 300 feet from the Sunset Crossroad. The nearest residential dwelling to the proposed development is located on the south side of Sunset Crossroad and is nearly 500 feet away. The development will not be visible from Oliver's Pond due to the 250' Resource Protection District which does not allow any development.

Cultural Values - The applicant requested review and input regarding historic features related to the property from the Maine State Historic Preservation Commission (MHPC). On February 27, 2020, Kirk F. Mohney, preservation officer for MHPC concluded that there will be no historic properties affected by the proposed development. See Exhibit G.

Natural Values –
US Fish & Wildlife Service:
The applicant submitted an IPaC to the United States Department of the Interior, Fish and Wildlife Service for review of their database of Endangered Species that were known to inhabit the project area. The IPaC determined that the only endangered species that could possibly be affected by this development was the Northern Long-eared Bat. The department further determined that any "taking" of the Northern Long-eared Bat would not be prohibited under the ESA Section 4(d) rule adopted for that species at 50 CFR paragraph 17.40(o). For consistency letter from USIF&W see Exhibit H.

Maine Department of Inland Fisheries & Wildlife
A similar inquiry was made to Maine's Department of Inland Fisheries and Wildlife (MDIFW) for review of the known locations of Endangered, Threatened, and Special Concern species; designated Essential and Significant Wildlife Habitats; and inland fisheries habitat concerns within the vicinity of the project area. In response to Essential Habitats, MDIFW has not mapped any Essential Habitats that would be directly affected by this project. In response to

Endangered, Threatened, and Special Concern Species, MDIFW determined that various species of Bats might be considered either endangered or of special concern but did not anticipate significant impacts to any of the bat species as a result of this project. In response to Significant Wildlife habitat, MDIFW indicated no known presence of Significant Wildlife Habitat subject to protection under the Natural Resources Protection Act within the project area. They did note that a comprehensive statewide inventory for Significant Vernal Pools has not been completed and recommended that we perform a survey for vernal pools within 250 feet of the project area. No potential vernal pools were observed by Andrew McCullough, PE during the wetland delineation phase of this project. In response to Fisheries Habitat, MDIFW recommends that a 100-foot undisturbed vegetated buffer be maintained along any stream that may exist in the project area. The closest stream to the project area is 350 feet away and will not be impacted by the proposed development. For determination letter from MDIFW see Exhibit I.

Maine Department of Agriculture, Conservation & Forestry

The applicant requested a review from MDACF to determine the presence of documented rare or unique botanical features in the vicinity of the project area. The MDACF determined that there are no rare botanical features documented specifically within the project area. For determination letter see Exhibit J.

9. Conformity with Local Ordinances and Plans *The proposed subdivision conforms with a duly adopted subdivision regulation or ordinance, comprehensive plan, development plan or land use plan, if any. In making this determination, the municipal reviewing authority may interpret these Ordinances and plans;*

Applicant's Response:

The applicant believes that the Proposed Preliminary Subdivision conforms with the Deer Isle Subdivision Regulations. The applicant is not aware of any comprehensive, development or land use plans adopted by the Town of Deer Isle.

10. Financial and Technical Capacity *The subdivider has adequate financial and technical capacity to meet the standards of this section;*

Applicant's Response:

The Applicant is a 501(c)3 qualified Maine non-profit housing corporation governed by a 12-member Board of Directors bringing a broad range of experience and expertise to the organization, including real estate development and housing production, finance, law, construction, education, scientific research, land conservation, project management, aquaculture, land surveying, seafood marketing and sales, community development, architecture, and economic development. IWH has developed a financing plan for the proposed project that includes a mixture of bank debt and equity raised from charitable foundations and contributions from individual and family donors. IWH has already raised 100% of the funds required to complete the acquisition, design/engineering, and infrastructure required for the project.

The Treasurer of IWH who also serves as Co-Chair of its Real Estate Committee is a housing developer who has completed affordable and market-rate housing development valued in excess of $200 million, and has taught graduate-level courses in housing and real estate development at the Massachusetts Institute of Technology for over 30 years.

Andrew McCullough, Professional Engineer, is a graduate of Penn State University with a B.S. degree in Civil Engineering. Andrew has over 30 years of experience managing engineering project throughout downeast Maine. In addition to being a Professional Engineer, Andrew holds a State of Maine Site Evaluator's License and a VS Water System Operator Certification. He has also served on the State of Maine Department of Agriculture Water Management Board.

Linda P. Campbell, Professional Land Surveyor, is a graduate of Wentworth Institute of Technology with a B.S. degree in Civil Engineering Technology. Linda has over 40 years of experience in the field of Land Surveying and Civil Engineering and is the president of Due North Land Surveying located in Deer Isle village.

11. Surface waters; outstanding river segments. Whenever situated entirely or partially within the watershed of any pond or lake or within 250 feet of any wetland, great pond or river as defined in Title 38, chapter 3, subchapter I, article 2-B, the proposed subdivision will not adversely affect the quality of that body of water or unreasonably affect the shoreline of that body of water.

A. When lots in a subdivision have frontage on an outstanding river segment, the proposed subdivision plan must require principal structures to have a combined lot shore frontage and setback from the normal high-water mark of 500 feet.

(1) To avoid circumventing the intent of this provision, whenever a proposed subdivision adjoins a shoreland strip narrower than 250 feet which is not lotted, the proposed subdivision shall be reviewed as if lot lines extended to the shore.

(2) The frontage and set-back provisions of this paragraph do not apply either within areas zoned as general development or its equivalent under shoreland zoning, Title 38, chapter 3, subchapter I, article 2-B, or within areas designated by ordinance as densely developed. The determination of which areas are densely developed must be based on a finding that existing development met the definitional requirements of section 4401, subsection 1, on September 23, 1983

Applicant's Response:
The proposed development is within the watershed of Oliver's Pond which is considered by the State to be a Great Pond. The Maine Department of Environmental Protection has established allowable phosphorus export quantities for this watershed. Worksheet 1, found in Exhibit O, summarizes the existing watershed characteristics and the permitted phosphorus export for this project. The project phosphorus budget for this development is 0.998 lbs.

The completed project will have the following characteristics:
0.10 acres of road surface-untreated
0.23 acres of road surface treated by directing flow to wooded buffers.
0.286 acres of parking area-treated by directing flow to wooded buffers
0.75 acres landscaped area-treated by directing flow to wooded buffers
0.11 acres roof surface-treated by directing flow to wooded buffers.

The calculations for the developed site are summarized in Worksheet 2 found in Exhibit O. After development, the phosphorus export is calculated to be 1.007 lbs/year, within 0.01 lbs of the allowed export amount. This essentially meets the standards outlined in The Maine Stormwater Management Design Manual, Phosphorus Control Manual, Volume II. Phosphorus is attached to sediment particles. Phosphorus is removed when heavy sediments settle out of stormwater behind the level spreaders and as the stormwater flows through the wooded buffers sediments are filtered by the organic duff layer. The developed area of the parcel will be subject to a deed restriction that states the following: *Fertilizers containing phosphorus are prohibited from use except when establishing new turf or vegetation on bare soil.*

The proposed development does not have frontage on an outstanding river segment so paragraph A above is not applicable.

12. Ground Water *The proposed subdivision will not, alone or in conjunction with existing activities, adversely affect the quality or quantity of ground water.*

Applicant's Response:
There is no anticipated groundwater impact from the proposed development. The stormwater will be treated in wooded buffers with the specific objective of removing sediments and heavy metals. Potentially high pollutant land uses such as large parking areas, auto repair garages or industrial plants are not included in this project. The Sewage Disposal Area is on soil suitable for the size and type of effluent generated by the development. The proposed wells will not be withdrawing large groundwater volumes that can impact the permanent groundwater table. There will be no underground fuel tanks. In addition, the project is not sited over a sand and gravel aquifer which provides storage and transmission for large amounts of groundwater.

13. Flood areas. Based on the Federal Emergency Management Agency's Flood Boundary and Floodway Maps and Flood Insurance Rate Maps, and information presented by the applicant whether the subdivision is in a flood-prone area. If the subdivision, or any part of it, is in such an area, the subdivider shall determine the 100-year flood elevation and flood hazard boundaries within the subdivision. The proposed subdivision plan must include a condition of plan approval requiring that principal structures in the subdivision will be constructed with their lowest floor, including the basement, at least one foot above the 100-year flood elevation;

Applicant's Response:
The proposed development is not located within a FEMA designated flood prone area.

14. Freshwater wetlands. All freshwater wetlands within the proposed subdivision have been identified on any maps submitted as part of the application, regardless of the size of these wetlands. Any mapping of freshwater wetlands may be done with the help of the local soil and water conservation district;

Applicant's Response:
The National Wetland Inventory Map for the project site can be found in Exhibit P.
The only wetland area identified on said map is adjacent to the road and east of the project site. This wetland is characterized as Palustrine, forested, needle leaved evergreen and seasonally flooded or saturated. Other wetlands in the immediate vicinity of the proposed development were identified or delineated on-site in November 2019. These wetlands have similar characteristics. No potential vernal pools were identified within the vicinity of the proposed development. The proposed access road will impact 4600 square feet of wetland which exceeds the maximum of 4300 sq. feet without a permit; therefore a Tier 1 permit under the Natural Resources Protection Act from the Maine Department of Environmental Protection is required.

15. River, stream or brook. Any river, stream or brook within or abutting the proposed subdivision has been identified on any maps submitted as part of the application. For purposes of this section, "river, stream or brook" has the same meaning as in Title 38, section 480-B, subsection 9;

Applicant's Response:
There are no streams on the development parcel.

16. Storm Water. The subdivision will provide for adequate storm water management;

Applicant's Response:
Development of this project will create approximately 0.75 acres of "non-revegetated" or impervious area and a total of 1.5 acres of "developed area". A Stormwater Permit is required for projects which create greater than 1 acre of impervious area in Watersheds except those identified as those most at risk from new development or urban impaired streams. The primary goal for projects that create less than 3 acres of new impervious area is to remove sediments and therefore contaminants attached and to reduce the temperature of the runoff to avoid impacts to aquatic species. This project is designed to meet those objectives. See Exhibit Q for Stormwater Management.

17. Spaghetti-lots prohibited. If any lots in the proposed subdivision have shore frontage on a river, stream, brook, great pond or coastal wetland as these features are defined in Title 38, section 480-B, none of the lots created within the subdivision have a lot depth to shore frontage ratio greater than 5 to 1;

Applicant's Response:
There is only one lot in the subdivision and its lot depth to shore frontage ratio is 0.30 to 1 which is significantly less than 5 to 1.

18. Lake phosphorus concentration. The long-term cumulative effects of the proposed subdivision will not unreasonably increase a great pond's phosphorus concentration during the construction phase and life of the proposed subdivision;

Applicant's Response:
The proposed development is within the watershed of Oliver's Pond which is considered by the State to be a Great Pond. The Maine Department of Environmental Protection has established allowable phosphorus export quantities for this watershed. Worksheet 1, found in Exhibit O, summarizes the existing watershed characteristics and the permitted phosphorus export for this project. The project phosphorus budget for this development is 0.998 lbs.

The completed project will have the following characteristics:
0.10 acres of road surface-untreated
0.23 acres of road surface treated by directing flow to wooded buffers.
0.286 acres of parking area-treated by directing flow to wooded buffers
0.75 acres landscaped area-treated by directing flow to wooded buffers
0.11 acres roof surface-treated by directing flow to wooded buffers.

The calculations for the developed site are summarized in Worksheet 2 found in Exhibit O. After development, the phosphorus export is calculated to be 1.007 lbs/year, within 0.01 lbs of the allowed export amount. This essentially meets the standards outlined in The Maine Stormwater Management Design Manual, Phosphorus Control Manual, Volume II. Phosphorus is attached to sediment particles. Phosphorus is removed when heavy sediments settle out of stormwater behind the level spreaders and as the stormwater flows through the wooded buffers sediments are filtered by the organic duff layer. The developed area of the parcel will be subject to a deed restriction that states the following: *Fertilizers containing phosphorus are prohibited from use except when establishing new turf or vegetation on bare soil.*

19. Impact on adjoining municipality. For any proposed subdivision that crosses municipal boundaries, the proposed subdivision will not cause unreasonable traffic congestion or unsafe conditions with respect to the use of existing public ways in an adjoining municipality in which part of the subdivision is located; and

Applicant's Response:
The proposed development does not cross municipal boundaries.

20. Lands subject to liquidation harvesting. Timber on the parcel being subdivided has not been harvested in violation of rules adopted pursuant to Title 12, section 8869, subsection 14. If

a violation of rules adopted by the Maine Forest Service to substantially eliminate liquidation harvesting has occurred, the municipal reviewing authority must determine prior to granting approval for the subdivision that 5 years have elapsed from the date the landowner under whose ownership the harvest occurred acquired the parcel. A municipal reviewing authority may request technical assistance from the Department of Agriculture, Conservation and Forestry, Bureau of Forestry to determine whether a rule violation has occurred, or the municipal reviewing authority may accept a determination certified by a forester licensed pursuant to Title 32, chapter 76. If a municipal reviewing authority requests technical assistance from the bureau, the bureau shall respond within 5 working days regarding its ability to provide assistance. If the bureau agrees to provide assistance, it shall make a finding and determination as to whether a rule violation has occurred. The bureau shall provide a written copy of its finding and determination to the municipal reviewing authority within 30 days of receipt of the municipal reviewing authority's request. If the bureau notifies a municipal reviewing authority that the bureau will not provide assistance, the municipal reviewing authority may require a subdivision applicant to provide a determination certified by a licensed forester.
For the purposes of this subsection, "liquidation harvesting" has the same meaning as in Title 12, section 8868, subsection 6 and "parcel" means a contiguous area within one municipality, township or plantation owned by one person or a group of persons in common or joint ownership. This subsection takes effect on the effective date of rules adopted pursuant to Title 12, section 8869, subsection 14.

Applicant’s Response:
The forest on this site is relatively mature and has not been harvested in decades. The applicant does not plan to do any timber harvesting on the subject property since the presence of the forest is important to the aesthetic value of the property and an important part of the stormwater management and phosphorous mitigation plans.

BOOK: OR 6980 PAGE:57, # OF PGS: 3
10/01/2019 01:59:56 PM INSTR#: 2019014845
JULIE A. CURTIS, REGISTER OF DEEDS
HANCOCK COUNTY MAINE
MAINE REAL ESTATE TRANSFER TAX PAID

QUITCLAIM DEED WITH COVENANT

JILL COLLINS ("Grantor"), having a mailing address of 158 Picketts Ridge Road, Redding, Connecticut 06896, for consideration paid, GRANTS to **OLIVER POND ASSOCIATES, LLC** ("Grantee"), a Maine limited liability company, c/o Patterson & O'Connell, LLC, Post Office Box 712, Ellsworth, Maine 04605, with Quitclaim Covenant, a certain lot or parcel of land, together with any improvements thereon, situated in Deer Isle, Hancock County, Maine, being more fully described in Exhibit A attached hereto and made a part hereof.

WITNESS my hand and seal this 27th day of September, 2019.

Jill P. Collins

JILL COLLLINS

STATE OF CONNECTICUT
COUNTY OF Fairfield

On this 27th day of September, 2019, before me, the undersigned notary public, personally appeared Jill Collins, proved to me through satisfactory evidence of identification, which was Drivers License and acknowledged to me that she signed it voluntarily for its stated purposes.

Before me,

Sonja M. Zilweg

Notary Public
Print Name: SONJA M. ZILWEG
My Commission Expires: MAY 31 2021

EXHIBIT A

EXHIBIT A
COLLINS TO OLIVER POND ASSOCIATES, LLC

A certain lot or parcel of land, together with any improvements thereon, situated in Deer Isle, Hancock County, Maine, bounded and described as follows:

> Beginning at an iron pipe in the ground at or near the northerly side line of the town road known as the "Sunset Crossroad" at the southeasterly corner of land conveyed to E. Walker Pickering by deed of Christie Austin dated September 30, 1971, recorded in the Hancock County, Maine, Registry of Deeds in Book 1127, Page 191; thence North three degrees fifteen minutes East (N. 3° 15' E.) by and along the easterly sideline of said land conveyed to E. Walker Pickering five hundred four and fourteen hundredths (504.14) feet, more or less, to an iron pipe near the shore of a fresh water pond sometimes known as Oliver's Pond; thence continuing on the same course (N. 3° 15' E.) continuing along the easterly sideline of said land of E. Walker Pickering to the waters of said Pond; thence in a generally southeasterly direction by and along the waters of said Oliver's Pond to land now or formerly of Harry Davis at a stone wall; thence in a generally southerly direction by and along said land now or formerly of Harry Davis and said stone wall to the northerly sideline of said "Sunset Crossroad"; thence in a generally westerly direction by and along the northerly sideline of said "Sunset Crossroad" to the point of beginning; containing twenty-nine acres, more or less.

Together with all of the Grantor's right, title and interest in and to that area located between the northerly sideline of the above described lot and the location of the brook known as "Meadow Brook," formerly located in the valley where said Oliver's Pond is now located.

Further conveying all of the Grantor's right, title and interest in and to so much of said "Sunset Crossroad" as lies adjacent to the above described premises to the centerline thereof.

EXCEPTING and not conveying so much of the above described premises as was conveyed by deed of Raymond H. Small to Arthur Patenaude and Mildred Patenaude dated September 9, 1952, recorded in Book 750, Page 131, wherein said excepted premises is described as follows, to wit:

> Beginning on the South West corner by the town road at a stake and stone; thence easterly by said road fifteen rods more or less, taking in the well; thence northerly to stake and stone twelve rods more or less; thence westerly to a fir tree marked fifteen rods more or less; thence South twelve rods more or less, to the first mentioned bound said lot contains ¾ of an acre more or less.

Meaning and intending to convey and hereby conveying the same premises as described in the deed from John F. Balenski to Jill Collins acknowledged January 28, 2016, and recorded in the Hancock County Registry of Deeds in Book 6954, Page 277. Reference may be further made to the deed from Christie Austin to John F. Balenski and Nancy J. Balenski dated October 29, 1971 and recorded in the Hancock County Registry of Deeds in Book 1129, Page 326. Nancy J. Balenski died on July 16, 2014, leaving John F. Balenski, surviving joint tenant.

(3) Roth
Patterson
O'Connell

REAL ESTATE PURCHASE AND SALE AGREEMENT
LAND ONLY

AGREEMENT made by and between Oliver's Pond Associates, LLC, with a mailing address of c/o Patterson & O'Connell, LLC, PO Box 712, Ellsworth, ME 04605, hereinafter referred to as the "Seller" and Island Workforce Housing, a Maine non-profit housing corporation, with a mailing address of P.O. Box 532, Deer Isle, ME 04627, hereinafter collectively referred to as the "Buyer" as follows:

1. Purchase and Sale of Property. The Seller hereby agrees to sell and the Buyer agrees to buy on the terms and conditions hereinafter set forth, a certain parcel of land containing approximately twenty-seven and one-half (27.5) acres situated adjacent to Sunset Crossroad in the town of Deer Isle, Hancock County, Maine, and being a *portion* of the premises described in the deed dated September 27, 2019, from Jill Collins to Oliver Pond Associates, LLC and recorded at the Hancock County Registry of Deeds in Book 6980, Page 57 (hereinafter referred to as the "Premises"). The Premises are depicted as Lot 1 on the Plan of Land attached hereto as Exhibit A (hereinafter referred to as the "Plan").

2. Purchase Price. The Purchase Price shall be [redacted] which shall be payable as follows:

a. [redacted] deposit payable at the time of execution of this Agreement by the Buyer, by certified check or wire transfer, to the client trust account of Sellers' attorney, Patterson & O'Connell, LLC, hereinafter referred to as the Escrow Agent, to be held in escrow pending closing hereof or default by the Buyer or refund to the Buyer in accordance with the terms of this Agreement. In the event of any disagreement between the parties, the Escrow Agent may retain the deposit made under this Agreement pending instructions mutually given by the parties or pending a judgment from a court of competent jurisdiction. In the event of a lawsuit regarding the security deposit, the losing party shall pay the prevailing party's reasonable attorney fees.

b. The balance of the closing funds of [redacted] together with customary pro-rations and Buyers' closing costs shall be paid at closing by the Buyer in immediately available funds.

3. Conveyance; Title. In consideration of such Purchase Price, the Seller shall execute and deliver to the Buyer at closing a quitclaim deed with covenant in accordance with the Maine Short Form Deeds Act, Title 33 M.R.S. §§ 761 et seq., (the "Deed"), conveying the Real Property in fee simple with good and marketable title according to the Title Standards promulgated by the Maine State Bar Association free and clear of all encumbrances except covenants, conditions, easements and restrictions of record acceptable to Buyer, and any laws, ordinances, or regulations governing the use of the Real Property. In the event that the Buyers' attorney cannot certify good and marketable title in accordance with the Standards adopted by the Maine State Bar Association, the Buyer shall notify the Seller of such fact in writing and the Seller shall have a reasonable time, but in no event longer than sixty (60) days, to remedy the defect complained of by the Buyer. Other than for clearance of monetary liens if any, Seller shall not be obligated to spend more than $1,000 on a cumulative basis to remedy title in the event of title defect(s). If such defect is not remedied, the Buyer may either (a) terminate this Agreement, in which case both parties shall be released from their obligations hereunder and the deposit, without interest, shall be returned to the Buyer, or (b) consummate this sale in accordance with this Agreement, the Buyer in such latter event accepting title subject to such defect. In the event a defect is reported, the closing date shall be postponed sixty (60) days (or, if the 60th day is a Saturday, Sunday, or holiday, until the next business day thereafter). Except as to Quitclaim Covenants arising under the deed, the closing of the

transaction and Seller's delivery of the deed at closing shall be deemed to satisfy, and shall merge and extinguish all obligations of the Seller as to title hereunder.

The Seller shall deliver to the Buyer at closing an executed original Owner's Affidavit, No-Survey Affidavit, and any required Mechanic's Lien Releases in forms reasonably acceptable to the Buyers' attorney and/or title insurance company, and appropriate residency affidavits, and other customary closing documents.

4. Additional Conditions to Buyer's Obligations. It is a further condition precedent to Buyer's obligations hereunder that, prior to closing (or as otherwise stated herein):

a. The Buyer, at its expense, shall have received from the Town of Deer Isle Planning Board, subdivision approval for an affordable housing development.

b. The Buyer, at its expense, shall have received from the Town of Deer Isle and/or from the State of Maine, any and all permits necessary to allow the Buyer to construct a driveway off Sunset Cross Road.

5. Affordable Housing Covenant. Buyer acknowledges that Seller has agreed to convey the premises for the Purchase Price on the condition that the approximately 13.4 acre area shown in the attached Plan as the Development Area shall be permanently restricted for use as workforce housing for moderate-income households in accordance with an Affordable Housing Covenant pursuant to Title 33, Section 121-126, and the Affordable Housing Partnership Act of 1989. Attached hereto as Exhibit B is a sample covenant that captures the intent of the Seller, and the Seller and Buyer shall agree on its final form prior to closing.

6. Conservation Restriction. Buyer further acknowledges that Seller has agreed to convey the premises for the Purchase Price on the condition that the approximately 14.1 acre area shown in the Plan as the Conservation Area shall be used for environmental conservation, education and stewardship, and that a conservation restriction will be placed on this portion of the land at the time of conveyance, with Island Heritage Trust granted the rights to enforce said restriction.

7. Seller's Representations. The Seller represents to the Buyer as follows, and these representations shall survive the closing of this transaction:

(i) That to the best of its knowledge, no underground oil storage tank, as defined in the Underground Oil Storage Facilities and Ground Water Protection Act are located on the premises. Seller since acquiring the premises has not used the premises on any regular basis and on account of lack of familiarity will not certify further with respect thereto.

(ii) That no work has been performed on the premises for the past 120 days for which a mechanic's lien may be filed.

(iii) That to the best of its knowledge, there is no subsurface wastewater disposal system within the shore land zone.

8. No Broker's Commission. The parties each represent to the other that no real estate broker has been involved in this transaction, or is entitled to a commission. These representations shall survive the closing.

9. Closing. The closing shall take place no earlier than August 1, 2020 and no later than October 15, 2020, unless a further written agreement is executed by both Buyer and Seller. When it is ready to close, Buyer shall give at least ten (10) days' notice to Seller of the closing date, which shall be performed by the Buyer's attorney and under such conditions as said attorney advises taking into account current COVID-19 recommendations of the Maine CDC, and the Maine Bar Association.

10. Transfer Tax; Closing Costs. The Seller shall be responsible for payment of the Maine Seller's real estate transfer tax, if any, preparation of the deed, and the cost of preparing and recording any instruments necessary to vest full title in the Seller. The Buyer shall be responsible the Maine Buyer's real estate transfer tax, if any, title exam, title insurance and the closing of this transaction.

The Buyer shall be responsible for payment of the Maine Buyer's real estate transfer tax, the cost of recording the deed, preparation of this Agreement, the cost of inspections, and the costs of title examination, abstract of title, title certification, and title insurance, if any.

11. Tax Proration. The real estate taxes shall be prorated as of the date of closing based on the municipal fiscal year.

12. Risk of Loss. All risk of loss to the premises prior to the closing shall be on Seller. It shall be a condition of the Buyer's obligation to close that the premises be in substantially the same condition at closing as they are on the date of the Buyer's execution of this Agreement.

13. Default; Liquidated Damages. In the event the Buyer fails to consummate the purchase of the premises in accordance with the provisions of this Agreement, for any reason other than those specified hereunder as giving the Buyer the right to terminate the transaction, the Escrow Agent shall pay over to the Seller the [redacted] deposit made pursuant to Paragraph 2(a), without interest. The parties hereby agree that the Seller's damages caused by the breach of this contract are very difficult to estimate accurately and that the amount so fixed is a reasonable forecast of the amount necessary to justly compensate the Seller for the loss occasioned by the Buyer's breach. Therefore, the Seller shall retain for liquidated damages, and not as a penalty, in full and complete satisfaction of all claims against the Buyer, [redacted] deposit, whereupon all obligations of the parties under this Agreement shall terminate. If the sale of the property as contemplated hereunder is not consummated by reason of the Seller's default hereunder, Buyer shall have the following remedy but no other: either (i) to cancel the Agreement and receive back its earnest money deposit or (ii) to seek to enforce whatever rights it may have to specific performance of the Agreement.

14. Possession. Full possession of the premises is to be delivered to the Buyer at the time of the delivery of the deed.

15. Seller's Disclosure Not Required. The Seller need not provide the Buyer with the property disclosure required by 33 M.R.S.A. §173 because the property is not a residential real property as defined by 33 M.R.S.A. §171.

16. Binding Effect; Assignment; Survival of Agreement. This Agreement shall inure to the benefit of and be binding upon the parties hereto and their respective heirs, executors, personal representatives, successors and assigns, except that this Agreement may not be assigned without the written consent of the Seller.

17. Entire Agreement; Amendment. This Agreement constitutes the entire agreement between the parties. It is understood and agreed that all understandings and agreements heretofore made between the parties hereto are merged in this contract, which alone fully and completely expresses their agreement, and that the same is entered into after full investigation, neither party relying upon any statements or representation not embodied in this agreement, made by the other. This agreement may not be changed or terminated orally; it may be amended only by a written memorandum executed by all the parties or by their attorneys as provided above.

18. Counterparts. This Agreement may be simultaneously executed in any number of counterparts, each of which when so executed and delivered shall be an original; but such counterparts shall constitute but one and the same instrument. Signatures transmitted by facsimile and electronic mail are binding and fully enforceable.

19. Effective Date. This agreement shall become binding on the day when both the Seller, the Buyer, and Escrow agent have signed it and that has been communicated to both parties or to their attorneys. At such time the Seller's attorney shall insert the Effective Date in the place provided on in this paragraph. The Effective Date is June 12, 2020.

IN WITNESS WHEREOF the parties have executed this Agreement as a sealed instrument on the day, month, and year written below by each party.

Seller

Oliver's Pond Associates, LLC

Diane O'Connell 06/13/20 00:25:32

By: _____
Diane O'Connell, Duly authorized
Date: June 12, 2020

Buyer

Island Workforce Housing

By: _____
Mike Wood, its Chairman
Date: June 12, 2020

ESCROW AGENT

The undersigned Escrow Agent acknowledges the receipt of [redacted] under this Agreement and agrees to hold in his non-interest-bearing IOLTA trust account, account for, and deliver the same in accordance with the terms of this Agreement, provided said funds are in fact actually and finally collected by the Escrow Agent's bank.

Diane O'Connell 06/13/20 00:26:18

PATTERSON & O'CONNELL, LLC
By: Diane S. O'Connell, Member

EXHIBIT A

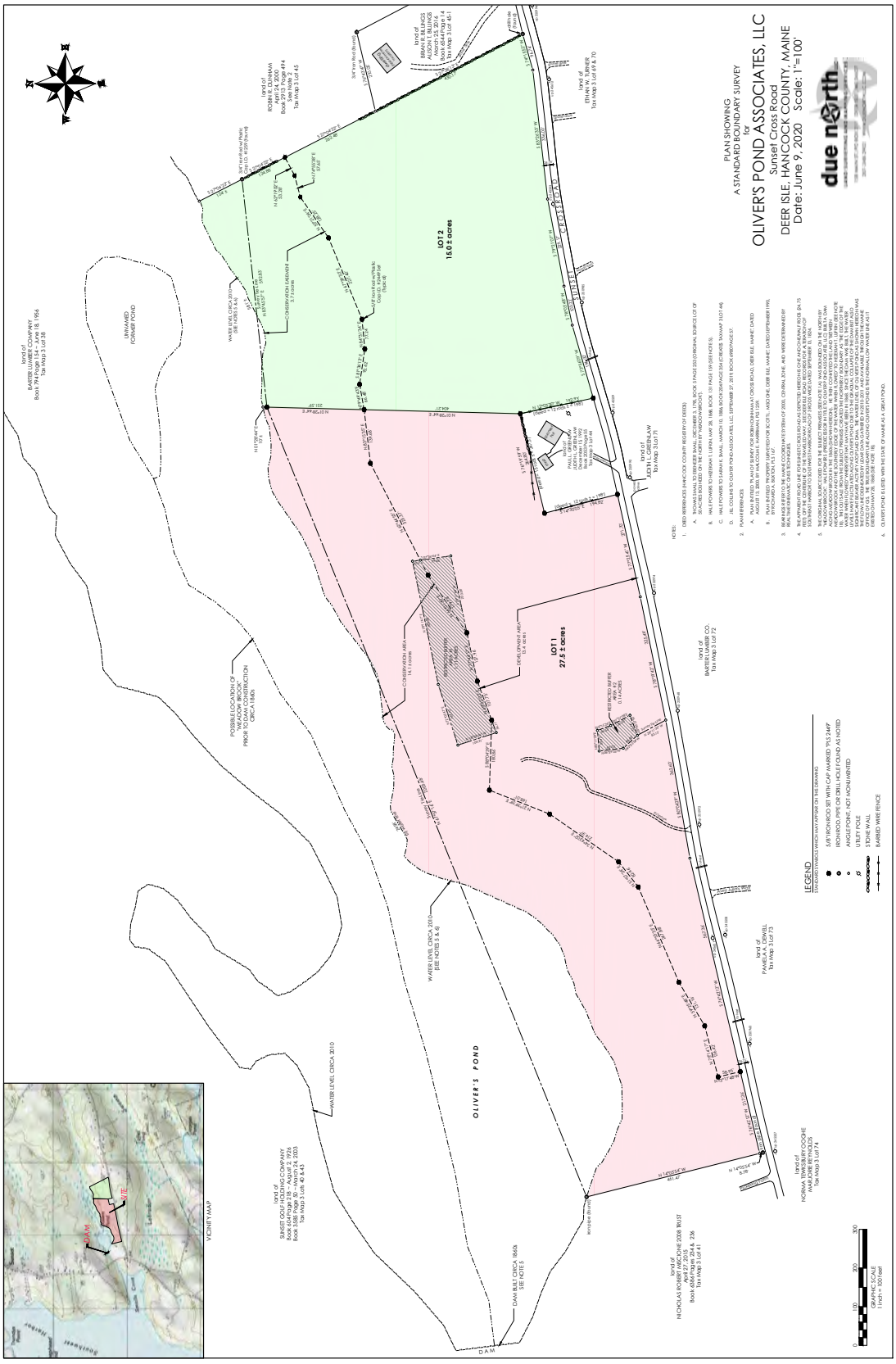


EXHIBIT B
Page 5

AFFORDABLE HOUSING COVENANTS & RESTRICTIONS

This Affordable Housing Covenant is made this ___ day of ____, 2020 concurrent with transfer of ownership of a certain parcel of land located on Sunset Crossroad in Deer Isle, ME from Oliver's Pond Associates LLC ("Declarant") to Island Workforce Housing, a Maine non-profit housing corporation ("Recipient").

Whereas the Declarant holds title to certain real property situated in Deer Isle, Maine, being a portion of the property described in a deed from Jill Collins to Oliver's Pond Associates LLC, dated September 27, 2019 and recorded in Book 6980, Page 57 at the Hancock Country Registry of Deeds, and has divided said property in order to convey a portion of said property, as further described below, to Recipient; and

WHEREAS, Declarant desires to place affordable house covenants pursuant to Title 33, Section 118-126, and the Affordable Housing Partnership Act of 1989, under the terms and conditions herein, over a portion of said real property (hereinafter referred to as the "Restricted Area") described as follows:

> That portion of Declarant's property, containing approximately 13.4 acres and identified as Development Area on the plan entitled "_____" dated _____, prepared by Due North LLC, and approved by the Town of Deer Isle Planning Board on _____, and recorded at the Hancock County Registry of Deeds in Plan File ___, Page ___ (hereinafter referred to as the "Plan") containing approximately 13.4 acres, with frontage on Sunset Crossroad, as described in the attached Exhibit A, and depicted on the plan recorded at the Hancock County Registry of Deeds in Plan File ___, Page ___.

NOW, THEREFORE, the Declarant hereby declares that the Restricted Area is and shall forever be held, transferred, sold, conveyed, occupied, and maintained subject to the covenants and restrictions set forth herein (hereinafter referred to as the "Affordable Housing Covenant"). The Affordable Housing Covenant shall run with the Restricted Area and shall be binding on all parties having any right, title or interest in and to said Restricted Area, or any portion thereof, and their heirs, personal representatives, successors, and assigns. Any present or future owner or occupant of the Restricted Area or any portion thereof, by the acceptance of a deed of conveyance of all or part of the Restricted Area or an instrument conveying any interest therein, whether or not the deed or instrument shall so express, shall be deemed to have accepted and to be bound by, to comply with, and to be subject to the Affordable Housing Covenant and terms set forth herein as follows:

1. The use of the Restricted Area shall be restricted in perpetuity to ten (10) units of rental housing affordable to households earning between 61% and 120% of the Hancock County Median income, adjusted for household size ("the Median Income"), as follows:

two units shall be made available to households earning no more than 70% of the Median Income;

four units shall be made available to households earning no more than 80% of the Median Income;

three units shall be made available to households earning no more than 100% of the Median Income; and

one unit shall be made available to households earning no more than 120% of the Median Income.

2. Any Grantee of the Restricted Area and its successors and assigns shall not enter into a lease with a tenant household unless it has received and approved a complete and accurate accounting of 1) the names and ages of all members of the household; and 2) all current income by all members of said household; which accounting has

been submitted with appropriate documentation and certified as accurate by the head(s) of the household signing the lease, and that Recipient has verified that the tenant's household income is within the income limits set forth above. Such household and income certifications shall be submitted annually at lease renewal, or earlier in the event that the household size increases.

So long as the tenant's household income is no more than the income limit set forth for that unit, rent for the unit shall be set at no more than 85% of the maximum allowable rent for each income category, as adjusted for utilities, as established annually by the United States Department of Housing and Urban Development for Hancock County.

Should the tenant's household income increase at any time during the tenant's tenure to the extent that it exceeds the income limit set forth for that unit by more than 10%, Recipient may charge a higher rent, commensurate with the tenant's higher household income.

3. Enforcement. Declarant or its successors or assigns may enforce any of the Restrictions set forth herein.

4. Binding Effect. The restrictions set forth herein shall be binding on any present or future owner of the Restricted Area. If the Area is at any time owned by more than one owner, each owner shall be bound by the foregoing restrictions to the extent that any portion of the Restricted Area is included within such owner's property.

5. Amendment. Any provision contained in this Declaration may be amended or revoked only by the recording of a written instrument or instruments specifying the amendment or the revocation signed by the Declarant or its successors and assigns and the owner or owners of the Restricted Area. However, in no case shall the use of the Restricted Area be allowed for anything other than housing for moderate-income households as such households are defined in the Affordable Housing Partnership Act of 1989, MRS Title 30-A, Chapter 202, Section 5001.12, including any amendments thereto.

6. Effective Provisions of Declaration. Each provision of this Declaration, and any agreement, promise, covenant and undertaking to comply with each provision of this Declaration, shall be deemed a land use restriction running with the land as a burden and upon the title to the Workforce Housing Development Area.

7. Severability. Invalidity or unenforceability of any provision of this Declaration in whole or in part shall not affect the validity or enforceability of any other provision or any valid and enforceable part if a provision of this Declaration.

8. Governing Law. This Declaration shall be governed by and interpreted in accordance with the laws of the State of Maine.

IN WITNESS WHEREOF, the said Oliver's Pond Associates LLC has caused this instrument to be signed by _____, its _____, this _____ day of _____, 2020.

Oliver's Pond Associates LLC

_____

By: _____

Its: _____

STATE OF MAINE

Hancock County Dated _____, 2020

Personally appeared the above named _____, _____ of Oliver's Pond Associates LLC and acknowledged the foregoing instrument to be his free act and deed in his said capacity and the free act and deed of said corporation before me,

_____

notary public

_____

(print or type notary's name)

2. Forested buffer, no disturbance

DECLARATION OF RESTRICTIONS (Forested Buffer, No Disturbance)

THIS DECLARATION OF RESTRICTIONS is made this _____day of _____ , 20___, by _____, _____ ,
(name) (street address)
_____, _____County, Maine, _____, (herein referred to as the
(city or town) (county) (zipcode)
"Declarant", pursuant to a permit received from the Maine Department of Environmental Protection under the Stormwater Management Law, to preserve a buffer area on a parcel of land near _____, _____ .
(road name) (known feature and/or town)

WHEREAS, the Declarant holds title to certain real property situated in _____, Maine
(town)
described in a deed from _____to _____, dated
(name) (name of Declarant)
_____, 20____, and recorded in Book ____ Page ____ at the _____County Registry of Deeds, herein referred to as the "property"; and

WHEREAS, Declarant desires to place certain restrictions, under the terms and conditions herein, over a portion of said real property (hereinafter referred to as the "Restricted Buffer") described as follows: (Note: Insert description of restricted buffer location here)

WHEREAS, pursuant to the Stormwater Management Law, 38 M.R.S.A. Section 420-D and Chapter 500 of rules promulgated by the Maine Board of Environmental Protection ("Stormwater Management Rules"), Declarant has agreed to impose certain restrictions on the Restricted Buffer Area as more particularly set forth herein and has agreed that these restrictions may be enforced by the Maine Department of Environmental Protection or any successor (hereinafter the "MDEP"),

NOW, THEREFORE, the Declarant hereby declares that the Restricted Buffer Area is and shall forever be held, transferred, sold, conveyed, occupied and maintained subject to the conditions and restrictions set forth herein. The Restrictions shall run with the Restricted Buffer Area and shall be binding on all parties having any right, title or interest in and to the Restricted Buffer Area, or any portion thereof, and their heirs, personal representatives, successors, and assigns. Any present or future owner or occupant of the Restricted Buffer Area or any portion thereof, by the acceptance of a deed of conveyance of all or part of the Covenant Area or an instrument conveying any interest therein, whether or not the deed or instrument

EXHIBIT C

shall so express, shall be deemed to have accepted the Restricted Buffer Area subject to the Restrictions and shall agree to be bound by, to comply with and to be subject to each and every one of the Restrictions hereinafter set forth.

1. Restrictions on Restricted Buffer Area. Unless the owner of the Restricted Buffer Area, or any successors or assigns, obtains the prior written approval of the MDEP, the Restricted Buffer Area must remain undeveloped in perpetuity. To maintain the ability of the Restricted Buffer Area to filter and absorb stormwater, and to maintain compliance with the Stormwater Management Law and the permit issued thereunder to the Declarant, the use of the Restricted Buffer Area is hereinafter limited as follows.

a. No soil, loam, peat, sand, gravel, concrete, rock or other mineral substance, refuse, trash, vehicle bodies or parts, rubbish, debris, junk waste, pollutants or other fill material will be placed, stored or dumped on the Restricted Buffer Area, nor shall the topography of the area be altered or manipulated in any way;

b. No trees may be cut or sprayed with biocides except for the normal maintenance of dead, windblown or damaged trees and for pruning of tree branches below a height of 12 feet provided two thirds of the tree's canopy is maintained;

c. No undergrowth, ground cover vegetation, leaf litter, organic duff layer or mineral soil may be disturbed except that one winding path, that is no wider than six feet and that does not provide a downhill channel for runoff, is allowed through the area;

d. No building or other temporary or permanent structure may be constructed, placed or permitted to remain on the Restricted Buffer Area, except for a sign, utility pole or fence;

e. No trucks, cars, dirt bikes, ATVs, bulldozers, backhoes, or other motorized vehicles or mechanical equipment may be permitted on the Restricted Buffer Area;

f. Any level lip spreader directing flow to the Restricted Buffer Area must be regularly inspected and adequately maintained to preserve the function of the level spreader.

Any activity on or use of the Restricted Buffer Area inconsistent with the purpose of these Restrictions is prohibited. Any future alterations or changes in use of the Restricted Buffer Area must receive prior approval in writing from the MDEP. The MDEP may approve such alterations and changes in use if such alterations and uses do not impede the stormwater control and treatment capability of the Restricted Buffer Area or if adequate and appropriate alternative means of stormwater control and treatment are provided.

2. Enforcement. The MDEP may enforce any of the Restrictions set forth in Section 1 above.

3. Binding Effect. The restrictions set forth herein shall be binding on any present or future owner of the Restricted Buffer Area. If the Restricted Buffer Area is at any time owned by more than one owner, each owner shall be bound by the foregoing restrictions to the extent that any of the Restricted Buffer Area is included within such owner's property.

4. Amendment. Any provision contained in this Declaration may be amended or revoked only by the recording of a written instrument or instruments specifying the amendment or the revocation signed by the owner or owners of the Restricted Buffer Area and by the MDEP.

5. Effective Provisions of Declaration. Each provision of this Declaration, and any agreement, promise, covenant and undertaking to comply with each provision of this Declaration, shall be deemed a land use restriction running with the land as a burden and upon the title to the Restricted Buffer Area.

6. Severability. Invalidity or unenforceability of any provision of this Declaration in whole or in part shall not affect the validity or enforceability of any other provision or any valid and enforceable part of a provision of this Declaration.

7. Governing Law. This Declaration shall be governed by and interpreted in accordance with the laws of the State of Maine.

_____

(NAME)

STATE OF MAINE, _____ County, dated _____, 20__.
(County)

Personally appeared before me the above named _____, who swore to the truth of the foregoing to the best of (his/her) knowledge, information and belief and acknowledged the foregoing instrument to be (his/her) free act and deed.

_____
Notary Public

_____

SCHOOL UNION 76

BROOKLIN – DEER ISLE-STONINGTON CSD – SEDGWICK

Office of the Superintendent

"It Takes a Whole Community to Teach a Child"

Christian M. Elkington
Superintendent
celkington@su76.org

Mary Bridgham
Director of Special Services
mbridgham@su76.org

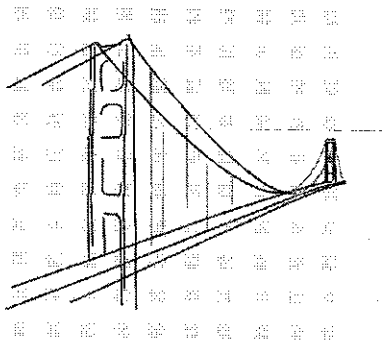
Lynne Witham
Director of Adult Ed., Prof. Dev. & Certification
lwitham@su76.org

Rhonda Eaton
Assistant to the Superintendent
reaton@su76.org

Amy Billings
Payroll & Benefits
abillings@su76.org

Tiffany Dauk
Special Services Assistant
tdauk@su76.org

Whitney Brown
Receptionist
wbrown@su76.org



251 N. DEER ISLE ROAD
UNIT 1
DEER ISLE, ME 04627

(207) 348-9100
Fax (207) 348-9103

March 25, 2020

Linda Campbell
Island Workforce Housing
P.O. Box 532
Deer Isle, ME 04627

RE: Impact of proposed workforce housing on Deer Isle-Stonington Schools

Dear Linda,

Due to current and projected excess capacity in all grade levels, there would be little if any impact to the Deer Isle-Stonington School Budget resulting from families with school-age children who might take up residence in new units. If the ten new dwelling units, Island Workforce Housing proposes to develop are completed I can confirm little impact. There would also be no impact on busing costs, as the bus route currently includes the length of Sunset Cross Road, where the new homes would be located.

We would be delighted to see new housing built that supports the island workforce, and look forward to its potential to support island businesses while also supporting the school-age population on the islands.

Very truly yours,

Christian M. Elkington
Superintendent

EXHIBIT D

June 8, 2020

Linda Campbell
Island Workforce Housing
P.O. Box 532
Deer Isle, ME

RE: Approval of road design for proposed Workforce Housing

Dear Linda-

I am writing to confirm that I have reviewed the proposed subdivision plan prepared by Andrew McCullough PE for the workforce housing development on Sunset Cross Road from the perspective of fire fighting access, and see no problem with the design as presented in terms of fire truck access and turnaround.

Sincerely,

Brent Morey
Fire Chief
Deer Isle Fire Department
Deer Isle, ME

EXHIBIT E

Town of Deer Isle Office of the Select Board
PO Box 627
70 Church Street
Deer Isle, ME 04627
Ph. 207-348-2324 Fax 207-348-9398
deerislemanager@gmail.com

Andrew McCulough, PE, has provided the following solid waste generation estimate for the proposed Oliver Pond Island Workforce Housing subdivision in Deer Isle. This letter certifies that the Deer Isle Transfer station currently has the capacity to accept household waste and recycling from these ten proposed units.

The development will increase year-round residences 1%, without requiring the town to make a major capital investment. There will be an increase in day to day cost operating costs which may range between ½ and 1% in the off season and ¼ to ½% in the summer season. Currently Deer Isle has no policy to collect development impact fees.

Signed,

James H. Fisher

James H. Fisher, Town Manager

Solid Waste Generation Estimate - Prepared by Andrew McCulough

Project: Island Workforce Housing
Location: Sunset Crossroad, Deer Isle

Description: The subject property presently undeveloped. Five duplex units with a total of 10- 2 bedroom units will be developed.

The U. S. EPA prepared a report titled “Facts and Figures about Materials, Waste and Recycling.” In that report, they estimated that 267.8 million tons of MSW or municipal solid waste was generated in the United States in 2017. 67.2 million tons of that amount was recycled and 27 million tons was composted. This data equates to 4.51 lbs of solid waste generated per capita per day. In other data prepared by Statista, the current average household size in the United States is 2.52 persons.

After development of this parcel, a total of 114 lbs of MSW will be generated daily from the residences.

EXHIBIT F

Andrew McCullough

Engineering Consultants

93 Bucksport Road PO Box 1497 Ellsworth, Maine 04605
Phone: 207-667-6551 Fax: 207-667-7137 e-mail: mccengr@myfairpoint.net

February 13, 2020

Maine State Historic Preservation Commission
65 State House Station
Augusta, ME 04333

RE: Request for file review

Attached is a Site Location Map for a project in Deer Isle. The proposed project consists of approximately 800 linear feet of access road, parking, subsurface disposal areas and 5 duplexes. All work will be located outside the 250' setback from Oliver's Pond and potentially result in approximately 1 acre of cleared area and less than 1 acre impervious area.

We request your review and input regarding historic features related to this property. Please contact my office if you need additional information.

Thank you for your assistance.

Sincerely,

Andrew McCullough, PE

Based on the information submitted, I have concluded that there will be no historic properties affected by the proposed undertaking, as defined by Section 106 of the National Historic Preservation Act. Consequently, pursuant to 36 CFR 800.4(d)(1), no further Section 106 consultation is required unless additional resources are discovered during project implementation pursuant to 36 CFR 800.13.

Kirk F. Mohney

Kirk F. Mohney,
State Historic Preservation Officer
Maine Historic Preservation Commission

2/27/2020
Date

EXHIBIT G

United States Department of the Interior

FISH AND WILDLIFE SERVICE
Maine Ecological Services Field Office
P. O. Box A
East Orland, ME 04431
Phone: (207) 469-7300 Fax: (207) 902-1588
http://www.fws.gov/mainefieldoffice/index.html

IPaC Record Locator: 159-20208036 February 10, 2020

Subject: Consistency letter for the 'Island Workforce Housing' project indicating that any take of the northern long-eared bat that may occur as a result of the Action is not prohibited under the ESA Section 4(d) rule adopted for this species at 50 CFR §17.40(o).

Dear Andrew McCullough:

The U.S. Fish and Wildlife Service (Service) received on February 10, 2020 your effects determination for the 'Island Workforce Housing' (the Action) using the northern long-eared bat (*Myotis septentrionalis*) key within the Information for Planning and Consultation (IPaC) system. You indicated that no Federal agencies are involved in funding or authorizing this Action. This IPaC key assists users in determining whether a non-Federal action may cause "take"[1] of the northern long-eared bat that is prohibited under the Endangered Species Act of 1973 (ESA) (87 Stat.884, as amended; 16 U.S.C. 1531 et seq.).

Based upon your IPaC submission, any take of the northern long-eared bat that may occur as a result of the Action is not prohibited under the ESA Section 4(d) rule adopted for this species at 50 CFR §17.40(o). Unless the Service advises you within 30 days of the date of this letter that your IPaC-assisted determination was incorrect, this letter verifies that the Action is not likely to result in unauthorized take of the northern long-eared bat.

Please report to our office any changes to the information about the Action that you entered into IPaC, the results of any bat surveys conducted in the Action area, and any dead, injured, or sick northern long-eared bats that are found during Action implementation.

If your Action proceeds as described and no additional information about the Action's effects on species protected under the ESA becomes available, no further coordination with the Service is required with respect to the northern long-eared bat.

The IPaC-assisted determination for the northern long-eared bat **does not** apply to the following ESA-protected species that also may occur in your Action area:

- Atlantic Salmon, *Salmo salar* (Endangered)

EXHIBIT H

You may coordinate with our Office to determine whether the Action may cause prohibited take of the animal species listed above.

---

[1]Take means to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or to attempt to engage in any such conduct [ESA Section 3(19)].

Action Description
You provided to IPaC the following name and description for the subject Action.

1. Name

Island Workforce Housing

2. Description

The following description was provided for the project 'Island Workforce Housing':

Driveway, Parking and 5 duplex units

Approximate location of the project can be viewed in Google Maps: https://www.google.com/maps/place/44.19468218065235N68.69232233211753W

Determination Key Result

This non-Federal Action may affect the northern long-eared bat; however, any take of this species that may occur incidental to this Action is not prohibited under the final 4(d) rule at 50 CFR §17.40(o).

Determination Key Description: Northern Long-eared Bat 4(d) Rule
This key was last updated in IPaC on **May 15, 2017**. Keys are subject to periodic revision.

This key is intended for actions that may affect the threatened northern long-eared bat.

The purpose of the key for non-Federal actions is to assist determinations as to whether proposed actions are excepted from take prohibitions under the northern long-eared bat 4(d) rule.

If a non-Federal action may cause prohibited take of northern long-eared bats or other ESA-listed animal species, we recommend that you coordinate with the Service.

Determination Key Result

Based upon your IPaC submission, any take of the northern long-eared bat that may occur as a result of the Action is not prohibited under the ESA Section 4(d) rule adopted for this species at 50 CFR §17.40(o).

Qualification Interview

1. Is the action authorized, funded, or being carried out by a Federal agency?

   No

2. Will your activity purposefully **Take** northern long-eared bats?

   No

3. Is the project action area located wholly outside the White-nose Syndrome Zone?

   Automatically answered

   No

4. Is the project action area located within 0.25 miles of a known northern long-eared bat hibernaculum?

   Note: The map queried for this question contains proprietary information and cannot be displayed. If you need additional information, please contact your State wildlife agency

   Automatically answered

   No

5. Is the project action area located within 150 feet of a known occupied northern long-eared bat maternity roost tree?

   Note: The map queried for this question contains proprietary information and cannot be displayed. If you need additional information, please contact your State wildlife agency

   Automatically answered

   No

Project Questionnaire

If the project includes forest conversion, report the appropriate acreages below. Otherwise, type '0' in questions 1-3.

1. Estimated total acres of forest conversion:

1

2. If known, estimated acres of forest conversion from April 1 to October 31

1

3. If known, estimated acres of forest conversion from June 1 to July 31

0

If the project includes timber harvest, report the appropriate acreages below. Otherwise, type '0' in questions 4-6.

4. Estimated total acres of timber harvest

1

5. If known, estimated acres of timber harvest from April 1 to October 31

1

6. If known, estimated acres of timber harvest from June 1 to July 31

0

If the project includes prescribed fire, report the appropriate acreages below. Otherwise, type '0' in questions 7-9.

7. Estimated total acres of prescribed fire

0

8. If known, estimated acres of prescribed fire from April 1 to October 31

0

9. If known, estimated acres of prescribed fire from June 1 to July 31

0

If the project includes new wind turbines, report the megawatts of wind capacity below. Otherwise, type '0' in question 10.

10. What is the estimated wind capacity (in megawatts) of the new turbine(s)?

0

JANET T. MILLS
GOVERNOR

STATE OF MAINE
DEPARTMENT OF
INLAND FISHERIES & WILDLIFE
284 STATE STREET
41 STATE HOUSE STATION
AUGUSTA ME 04333-0041

JUDITH CAMUSO
COMMISSIONER

March 26, 2020

Andrew Mccullough
Andrew McCullough Engineering Consultants
93 Bucksport road, PO Box 1497
Ellsworth, ME 04605

RE: Information Request – Workforce Housing Project, Deer Isle

Dear Andrew:

Per your request received on March 13, 2020, we have reviewed current Maine Department of Inland Fisheries and Wildlife (MDIFW) information for known locations of Endangered, Threatened, and Special Concern species; designated Essential and Significant Wildlife Habitats; and inland fisheries habitat concerns within the vicinity of the *Workforce Housing* project in Deer Isle.

Our Department has not mapped any Essential Habitats that would be directly affected by your project.

Endangered, Threatened, and Special Concern Species

Bats – Of the eight species of bats that occur in Maine, the three *Myotis* species are protected under Maine's Endangered Species Act (MESA) and are afforded special protection under 12 M.R.S §12801 - §12810. The three *Myotis* species include little brown bat (State Endangered), northern long-eared bat (State Endangered), and eastern small-footed bat (State Threatened). The five remaining bat species are listed as Special Concern: big brown bat, red bat, hoary bat, silver-haired bat, and tri-colored bat. While a comprehensive statewide inventory for bats has not been completed, based on historical evidence it is likely that several of these species occur within the project area during migration and/or the breeding season. However, our Agency does not anticipate significant impacts to any of the bat species as a result of this project.

Significant Wildlife Habitat

Significant Vernal Pools - At this time MDIFW Significant Wildlife Habitat (SWH) maps indicate no known presence of SWHs subject to protection under the Natural Resources Protection Act (NRPA) within the project area, which include Waterfowl and Wading Bird Habitats, Seabird Nesting Islands, Shorebird Areas, and Significant Vernal Pools. However, a comprehensive statewide inventory for Significant Vernal Pools has not been completed. Therefore, we recommend that surveys for vernal pools be conducted within the project boundary by qualified wetland scientists prior to final project design to determine whether there are Significant Vernal Pools present in the area. These surveys should extend up to 250 feet beyond the anticipated project footprint because of potential performance standard requirements for off-site Significant Vernal Pools, assuming such pools are located on land owned or controlled by the applicant. Once surveys are completed, survey forms should be submitted to our Agency for review well before the submission of any necessary permits. Our Department will need to review and verify any vernal pool data prior to final determination of significance.

EXHIBIT I

Fisheries Habitat

We recommend that 100-foot undisturbed vegetated buffers be maintained along streams. Buffers should be measured from the edge of stream or associated fringe and floodplain wetlands. Maintaining and enhancing buffers along streams that support coldwater fisheries is critical to the protection of water temperatures, water quality, natural inputs of coarse woody debris, and various forms of aquatic life necessary to support conditions required by many fish species. Stream crossings should be avoided, but if a stream crossing is necessary, or an existing crossing needs to be modified, it should be designed to provide full fish passage. Small streams, including intermittent streams, can provide crucial rearing habitat, cold water for thermal refugia, and abundant food for juvenile salmonids on a seasonal basis and undersized crossings may inhibit these functions. Generally, MDIFW recommends that all new, modified, and replacement stream crossings be sized to span at least 1.2 times the bankfull width of the stream. In addition, we generally recommend that stream crossings be open bottomed (i.e. natural bottom), although embedded structures which are backfilled with representative streambed material have been shown to be effective in not only providing habitat connectivity for fish but also for other aquatic organisms. Construction Best Management Practices should be closely followed to avoid erosion, sedimentation, alteration of stream flow, and other impacts as eroding soils from construction activities can travel significant distances as well as transport other pollutants resulting in direct impacts to fish and fisheries habitat. In addition, we recommend that any necessary instream work occur between July 15 and October 1.

This consultation review has been conducted specifically for known MDIFW jurisdictional features and should not be interpreted as a comprehensive review for the presence of other regulated features that may occur in this area. Prior to the start of any future site disturbance we recommend additional consultation with the municipality, and other state resource agencies including the Maine Natural Areas Program, Maine Department of Marine Resources, and Maine Department of Environmental Protection in order to avoid unintended protected resource disturbance.

Please feel free to contact my office if you have any questions regarding this information, or if I can be of any further assistance.

Best regards,

Becca Settele
Wildlife Biologist

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

JANET T. MILLS
GOVERNOR

AMANDA E. BEAL
COMMISSIONER

March 6, 2020

Andrew McCullough
Andrew McCullough Engineering Consultants
PO Box 1497
Ellsworth, ME 04605

Via email: mccengr@myfairpoint.net

Re: Rare and exemplary botanical features in proximity to: Subdivision with 5 duplexes, access road, parking, disposal areas, Deer Isle, Maine

Dear Mr. McCullough:

I have searched the Maine Natural Areas Program's Biological and Conservation Data System files in response to your request received February 18, 2020 for information on the presence of rare or unique botanical features documented from the vicinity of the project in Deer Isle, 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
BLOSSOM LANE, DEERING BUILDING

DEPARTMENT OF Agriculture Conservation & Forestry

PHONE: (207) 287-804490
WWW.MAINE.GOV/DACF/MNAP

EXHIBIT J

The Maine Natural Areas Program (MNAP) 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. MNAP welcomes coordination with individuals or organizations proposing environmental alteration or conducting environmental assessments. If, however, data provided by MNAP are to be published in any form, the Program should be informed at the outset and credited as the source.

The Maine 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 MNAP 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

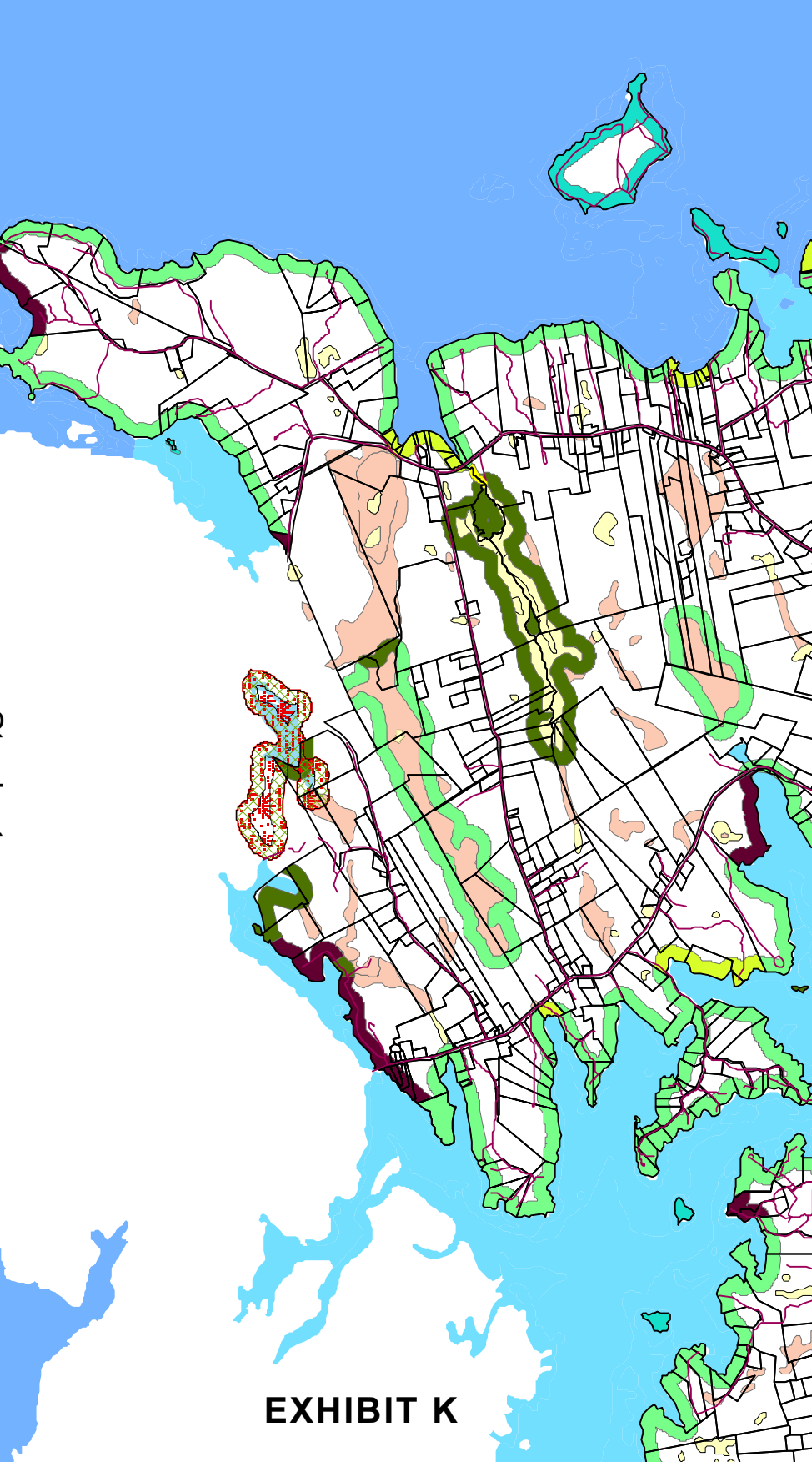


EXHIBIT K

EXHIBIT L

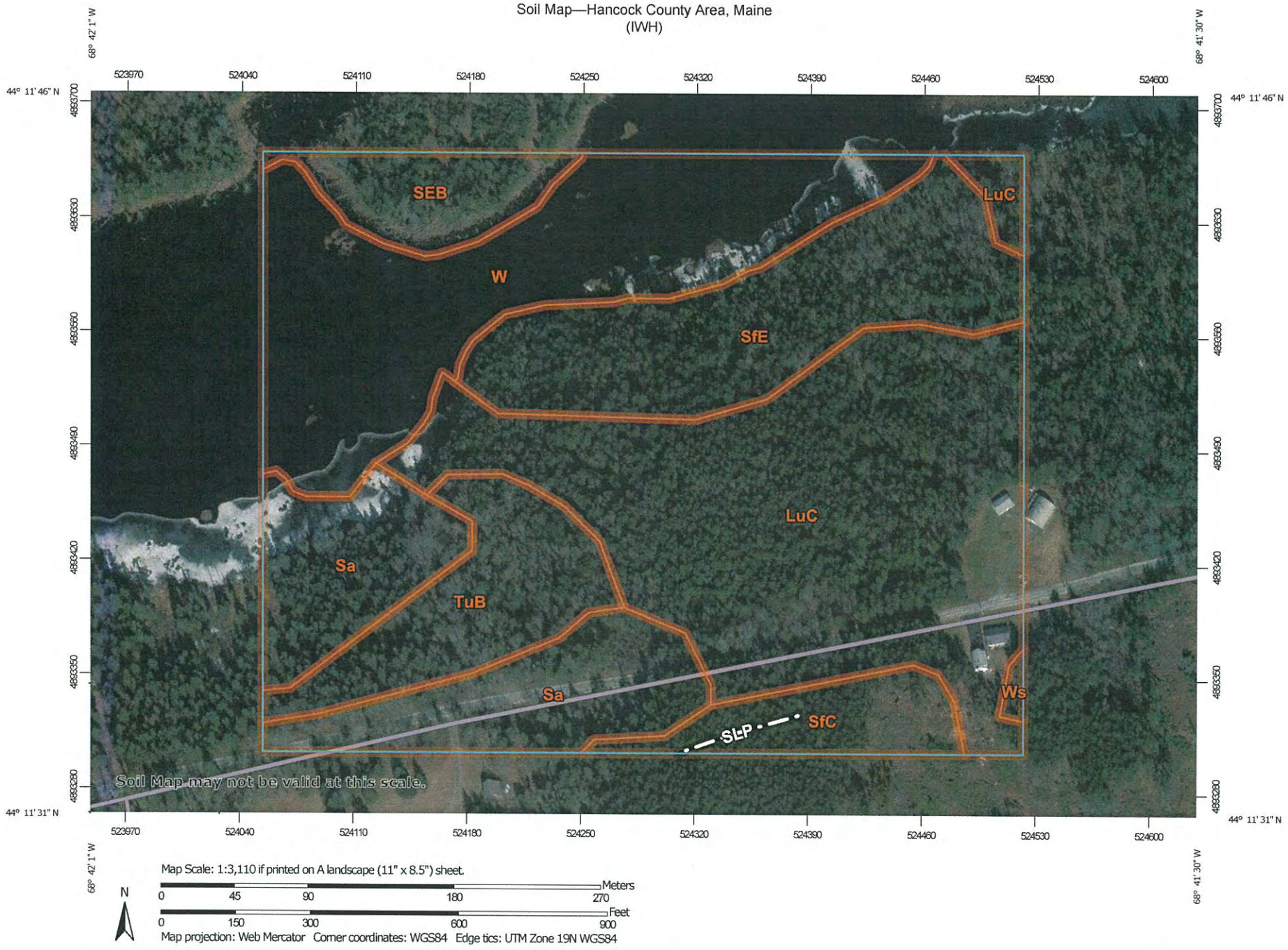

Soil Map—Hancock County Area, Maine
(IWH)
68° 42' 1" W
68° 41' 30" W
44° 11' 46" N
44° 11' 31" N
523970
524040
524110
524180
524250
524320
524390
524460
524530
524600
4893700
4893630
4893560
4893490
4893420
4893350
4893280
SEB
LuC
W
SfE
LuC
Sa
TuB
Sa
Ws
SfC
SLP
Soil Map may not be valid at this scale.
Map Scale: 1:3,110 if printed on A landscape (11" x 8.5") sheet.
N
Meters
0 45 90 180 270
Feet
0 150 300 600 900
Map projection: Web Mercator Corner coordinates: WGS84 Edge tics: UTM Zone 19N WGS84

EXHIBIT L
Page 2

MAP LEGEND

Area of Interest (AOI)
- Area of Interest (AOI)

Soils
- Soil Map Unit Polygons
- Soil Map Unit Lines
- Soil Map Unit Points

Special Point Features
- Blowout
- Borrow Pit
- Clay Spot
- Closed Depression
- Gravel Pit
- Gravelly Spot
- Landfill
- Lava Flow
- Marsh or swamp
- Mine or Quarry
- Miscellaneous Water
- Perennial Water
- Rock Outcrop
- Saline Spot
- Sandy Spot
- Severely Eroded Spot
- Sinkhole
- Slide or Slip
- Sodic Spot
- Spoil Area
- Stony Spot
- Very Stony Spot
- Wet Spot
- Other
- Special Line Features

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 1:20,000.

Warning: Soil Map may not be valid at this scale.

Enlargement of maps beyond the scale of mapping can cause misunderstanding of the detail of mapping and accuracy of soil line placement. The maps do not show the small areas of contrasting soils that could have been shown at a more detailed scale.

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: Hancock County Area, Maine
Survey Area Data: Version 19, Sep 16, 2019

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

Date(s) aerial images were photographed: Sep 2, 2007—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.

Map Unit Legend

Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
LuC	Lyman-Tunbridge complex, 0 to 15 percent slopes, very stony	14.0	32.9%
Sa	Scantic silt loam, 0 to 3 percent slopes	6.1	14.2%
SEB	Scantic-Lamoine-Peru complex, 0 to 8 percent slopes, very stony	1.9	4.4%
SfC	Schoodic-Rock outcrop complex, 0 to 15 percent slopes	1.9	4.4%
SfE	Schoodic-Rock outcrop complex, 15 to 65 percent slopes	6.4	14.9%
TuB	Tunbridge-Lyman complex, 3 to 8 percent slopes, rocky	3.4	8.0%
W	Water bodies	9.0	21.0%
Ws	Wonsqueak and Bucksport mucks, 0 to 2 percent slopes	0.1	0.3%
Totals for Area of Interest		**42.7**	**100.0%**

LuC – Lyman-Tunbridge Complex0-15 percent slopes, very stony

This nearly level to rolling unit is on the crests and side slopes of upland glacial till ridges. Slopes are mainly complex. Slope ranges form 3 to 15 percent on Lyman soils and from 0 to 15 percent on Tunbridge soils. Areas are irregularly shaped and range from 3 to 200 acres. Up to 3 percent of the surface of the areas is covered with stones.

This unit consists of about 40 percent shallow, somewhat excessively drained Lyman soils; 35 percent moderately deep, well drained Tunbridge soils; and 25 percent other soils

Typically, the surface of the Lyman soil is covered with a mat of leaves, needles, and twigs 1 inch thick. The surface layer is 2 inches of very dark brown highly decomposed organic material, over 1 inch of brown fine sandy loam. The subsoil is 16 inches thick. It is reddish brown fine sandy loam in the upper part and dark brown fine sandy loam to dark yellowish brown gravelly fine sandy loam in the lower part. Hard bedrock is at 19 inches.

Typically, the surface layer of the Tunbridge soil is 4 inches of black highly decomposed organic material over 2 inches of reddish gray fine sandy loam. The subsoil is 13 inches thick. It is dark reddish brown to yellowish red fine sandy loam in the upper part and yellowish brown to light olive brown fine sandy loam in the lower part. The substratum is olive gravelly fine sandy loam. Hard bedrock is at depth of 33 inches.

Included with this unit in mapping are areas of very shallow, excessively drained Schoodic soils; a soil similar to Schoodic soils, but with less than 35 percent rock fragments; shallow, sandy till soils and rock outcrop on the crests of ridges; and well drained Marlow soils; moderately well drained Dixfield soils; moderately deep, moderately well drained, loamy till soils; and deep, well drained, loamy till soils on the the side slopes and between the ridges of Lyman and Tunbridge soils. These areas make up about 20 percent of the maped acreage. Also included are areas of somewhat poorly drained Colonel soils and poorly drained Brayton soils in depressions and drainageways. These areas make up about 5 percent of the mapped acreage.

Depth to bedrock is 10 to 20 inches in the Lyman soils and 20 to 40 inches in the Tunbridge soils. Permeability is moderately rapid for Lyman soils and moderate or moderately rapid for Tunbridge soils.

Available water capacity is low or very low in the Lyman soils and moderate in the Tunbridge soils. Rooting depth is restricted by the depth to bedrock.

This unit is used mostly for woodland. A few areas are used for residential development and wild blueberry production.

This unit is fairly well suited for softwood production. The main tree species are red spruce and balsam fir on Lyman soils. On the moderately deep Tunbridge soils and deeper inclusions, northern hardwoods are the main species. The abundant natural reproduction of spruce and fir makes this unit best suited for pulpwood production. The main limitations of this unit are plant competition and depth to bedrock. If this unit is managed for softwoods, competition form hardwoods must be controlled. Seedling mortality is moderate on the Lyman soils because of droughtiness. Windthrow hazard is severe on the Lyman soils because the shallow depth to bedrock cause trees to be shallow rooted. Strip or clearcutting will reduce windthrow damage.

This unit will produce fair to good yields of blueberries. The main limitations are droughtiness and stones on the surface. During dry years, yields will be reduced because of the droughtiness of the Lyman soils and inclusions of very shallow soils. The very stony surface and inclusions of rock outcr4op will restrict the use of flail mowers and mechanical harvesters on this unit.

The major limitations of this unit as a site for dwellings are depth to bedrock and slope. Cuts needed to provide essentially level building sites can expose bedrock. Dwellings with basements should be located on inclusion of deep soils in this unit, the bedrock should be removed, or the foundation should be set on the bedrock and backfilled to the established grade. The buildings should be designed to conform to the natural slope.

Depth to bedrock is also the major limitation of the unit for septic tank absorption fields. The systems can be located in deeper inclusions in the unit, if available, or fill material can be used to raise the level of the absorption field. The systems should be designed to conform to the natural slope.

EXHIBIT M

Sediment and Erosion Control Plan

Island Workforce Housing 2020
Sunset Cross Road, Deer Isle

The purpose or intent is to limit soil erosion and prevent sedimentation from areas that are disturbed during and after construction. See also the Construction Details and Construction Notes prepared for this project.

Temporary Sediment and Erosion Controls

- Establishing a construction schedule that will facilitate soil disturbance during times when historically rainfall amounts are lowest and therefore surface runoff is limited.
- Inspecting the site before and after each storm event. Taking actions necessary to maintain Temporary Sediment and Erosion Controls, repair eroded areas and remove sediment trapped behind sediment barriers.
- Installing a Stabilized Construction Exit to help remove sediment on tires before vehicles enter the Road.
- Silt Fence or a Filter Berm at the perimeter down gradient of the areas of soil disturbance.
- Water and Calcium Chloride or similar material on disturbed soil to limit dust during construction.

  Water—Applying adequate amounts of water on the exposed soil surface periodically to moisten the soil.

  Calcium Chloride---Applying liquid or dry-flake Calcium Chloride or equivalent dust control chemicals at recommended rates on the exposed soil surface to maintain moisture on the soil surface.

- Application of hay or straw mulch to disturbed soil that will remain exposed greater than 7 days and prior to any storm event.
- Applying hay or straw mulch to areas that are seeded to prevent erosion during seed germination and until grass can be established.
- Smoothing and Compacting exposed soil at the end of each work day to promote sheet flow off the site during a storm event while limiting sediment transport.
- Installing Curlex I blankets in concentrated flow paths to limit sediment transport while vegetation is established.

EXHIBIT N

Permanent Sediment and Erosion Controls

- Permanent grass seed and or other suitable vegetation on exposed soil beyond the limits of parking and vehicle maneuvering.
- Installing rip-rap pipe inlet and outlet protection
- Grading slopes uniformly to promote sheet flow
- Constructing Level-lip spreaders to disperse concentrated stormwater flows

Section 02200-E
Erosion Control

Part 1: General

1.1 Work covered under this section consists of furnishing all labor, materials and equipment and performing all work required for the prevention of environmental pollution during and as the result of construction operations under this contract. In the event the measures set forth in other Technical Provisions of these specifications and this Section conflict, the most stringent standard shall apply. The control of environmental pollution requires consideration of air, water, and land.

1.2 The contractor shall acquaint himself with all erosion control measures identified in the plans and specifications.

1.3 The contractor shall comply with the provisions of all permits issued for construction by the Local, State, and Federal government.

1.4 Notification – The contractor shall notify the Engineer upon completing installation of Temporary Erosion Controls. The Engineer shall inspect, notify the Contractor of any deficiencies and issue a written approval of temporary measures prior to any soil disturbance.

Part 2: Products

2.1 Temporary Hay or Straw Mulch

A. Mulch shall consist of weed free hay or straw. Straw mulch is recommended to limit the propagation of weeds.

2.2 Temporary Seed

Seed Mixture:

Seed type	Quantity per acre
Creeping red fescue	20 lbs per acre
Redtop	2 lbs per acre
Tall Fescue	20 lbs per acre
Total:	**42 lbs. per acre**

2.3 Silt Fence

A. Product: Synthetic Industries Geotex Silt Fence 914SC or approved equivalent.

B. Properties: Synthetic filter fabric shall be pervious sheet of propylene, nylon, polyester, or ethylene yarn and shall be certified by the manufacturer or supplier as conforming to the following requirements:

Physical Property	***Test***	***Requirements***
Filtering Efficiency	VTM-51	75% (min)
Tensile Strength at 20% (max) elongation	VTM-52	Extra Strength 50 lbs/ lin inch (min) Standard Strength 30 lbs/ lin inch (min)
Flow Rate	VTM-51	0.3 gal/ sq. ft./min (min)

2.4 Rip-rap

A. Stones shall consist of sound durable rock which will not disintegrate by exposure to weather or water. Either field stone or rough, unhewn quarry stone may be used.

B. Exposed stones shall be angular and as rectangular in cross-section as practicable. ***Rounded boulders or cobbles will not be permitted.***

C. The mixture shall be composed of a well-graded mixture down to the one-inch size particle such that 50% of the mixture by weight shall be larger than the D50 listed on the plan. The largest size shall be 1.5 times the D50 size.

D. Well Graded Mixture: A well graded mixture is composed of larger stone, but with a sufficient mixture of other sizes to fill the progressively smaller voids between the stones.

2.5 Stone for Stabilized Construction Entrance and Stone Check Dams

A. The materials shall consist of 2" to 3" stone with no more than 5% by volume smaller than 0.4 inches.

B. It shall be clean, uniform in size and free of fines, dust, ashes, or clay.

2.6 Curlex I Erosion Control Blanket

A. Curlex I Blankets manufactured by American Excelsior Co.
B. Roll dimensions: 48" x 180', 80 sq. yds./ roll.
C. Wire Staples: 0.091" diameter, 'U' shaped with 6" legs and 1" crown.

Part 3: Execution

3.1 In accordance with the Erosion Control Plan and Specifications, the contractor shall:

A. Install erosion controls before any soil disturbance other than incidental occurrences during clearing.
B. Reduce to the greatest extent practicable the area and duration of exposure of readily erodible soils.
C. Protect the soils by use of temporary vegetation, or seeding and mulch.
D. Not pollute streams, lakes or reservoirs with fuels, oils, bitumens, calcium chloride, construction wastes or other harmful materials
E. Perform all work in such a manner that objectionable conditions will not be created in streams through or adjacent to the project areas.
F. Complete and protect segments of work as rapidly as is consistent with construction schedules.
G. Retard the rate of runoff from the construction site and control disposal of runoff.
H. Provide temporary measures for the control of erosion in the event construction operations are suspended for any appreciable length of time.

3.2 Dust Control

A. Dust shall be kept within tolerable limits by sprinkling or applying dust suppressors on the road and at the work site.

1.Sprinkling to be approved, must be repeated at such intervals as to keep all parts of the disturbed area at least damp at all times, and the contractor must have sufficient competent equipment on the job to accomplish this if sprinkling is used.

2. Dust Control shall be performed as the work proceeds whenever a dust nuisance or hazard occurs.

3.Sprinkle or apply dust suppressers, or otherwise keep dust within tolerable limits on haul roads and at the site.

3.3 Silt Fence:

A. Silt fence shall be installed at the locations shown on the Site Plan, and along the limits of soil disturbance.
B. Silt fence or other sediment barriers shall be installed parallel to the land contours.
C. Silt fence shall be installed so that no greater than ¼ acre of area drains to each 100' section of silt fence.
D. Silt fence shall not be installed across ditches, brooks, streams, or other channels.
E. When joints are necessary, the fence shall be spliced together at posts, with a minimum 6 inch overlap securely sealed.
F. Posts shall be spaced 6 - 8 feet apart. Posts shall be driven securely into the ground to a minimum depth of 12 inches.
G. A trench shall be excavated approximately 4 inches wide and 4 inches deep along the line of the posts up-slope from the sediment barrier.
H. Staple standard strength filter fabric shall be stapled to the fence.
I. Eight inches of fabric shall be placed in the trench. The fabric shall be installed to a height no greater than 36 inches above the original ground surface. Filter-fabric shall not be stapled to existing trees. Wire mesh support fence may be eliminated when using extra strength filter fabric. In this case, staple the filter fabric directly to the posts with all other provisions of item G applying. The trench shall be back-filled with soil and compacted over the filter fabric.
J. The silt fence shall be removed after all up-slope areas are permanently stabilized with grass or permanent mulch.

3.4 Temporary Mulch

A. Temporary Mulch shall be applied to disturbed areas prior to any storm event and within seven days of soil disturbance.
B. Straw Mulch application rates shall be 70 to 90 lbs. (2 bales per 1000 sq. ft.) per 1000 sq. ft or 1.5 to 2 tons of hay or straw per acre. Winter and sensitive area application rates shall be 150 to 200 lbs. per 1,000 sq. ft. or four to five bales per 1,000 sq. ft.
C. Mulch shall be anchored on areas with slopes greater than 5% by tracking the hay or straw with a dozer or excavator or installing Erosion Control Netting by American Excelsior or equivalent

3.5 Temporary Seeding

A. Seed shall be applied uniformly by hand, cyclone seeder, drill, cultipacker type seeder, or hydroseeder (slurry including seed and fertilizer). Normal seeding depth is from ¼" to ½". Hydroseedings which are mulched may be left on the soil surface.
B. All seeding shall be done on the contour.

C. Where possible, unless using a cultipacker type seeder or hydroseeder, the seed bed shall be firmed following seeding operations with a roller or light drag.

3.6 Stabilized Construction Exit

A. Stabilized areas shall be located at the exit to the work area.
B. It shall have minimum dimensions of:
   Thickness: 6" minimum
   Width: 10'
   Length: 24'
C. Installation:
   1. Place a non-woven geotextile over the entire area to be covered with aggregate.
   2. Place aggregate to the dimensions listed above in the location shown on the Site Plan

3.7 Rip-Rap

A. All brush, stumps, trees, and other objectionable materials shall be removed before placing filter fabric and rip-rap.
B. The sub-grade shall be compacted to a density of the surrounding undisturbed materials or 95% of the maximum dry density.
C. Mirafi 180N filter fabric or equivalent shall be installed on the compacted sub-grade.
D. The edges of the filter fabric shall be overlapped a minimum of 12 inches. Anchor pins or wire staples shall be used as recommended by the manufacturer to secure the filter fabric. The lower end of the filter fabric shall be toed in.
E. Rip-rap shall be placed immediately after placing the filter fabric.
F. The rip-rap shall be placed to produce a dense well graded mass of stone with a minimum of voids.
G. The Rip-rap shall be placed to its full thickness in one operation.
H. Filter fabric shall not be dislodged during placement of the Rip-rap.

3.8 Curlex Erosion Control Blanket

A. Execution:
   1. Seed and fertilizer shall be applied before Curlex Blankets.
   2. The blanket shall be applied with the netting on top and the fibers in contact with the soil over the entire area.
   3. Installation in Channels
      a. In ditches or channels, the blankets shall be applied beginning at the downstream end of the channel.
      b. The end of the blanket shall be anchored in a trench 12" deep and 6" wide across the channel.

c. The end shall be secured with staples at 12" intervals across the end of the channel.
d. Check slots 6" x 6" across the channel shall be installed at 30' intervals.
e. Anchor slots 4" x 4" shall be cut along each side of the channel and the blanket edges shall be buried in these slots.
f. Adjacent rolls shall be overlapped a minimum of 6 inches.

4. Installation on Slopes
   a. The blankets shall be anchored at the top of slope in a 6" x 6" trench. The trench shall be backfilled and tamped firmly.
   b. Blankets shall be rolled down the slope in the direction of water flow.
   c. The edges of adjacent rows shall be overlapped a minimum of 3 inches.
   d. At splices in blankets, blankets shall be placed end over end with a 6" minimum overlap and stapled at 12 inch intervals.
   e. Four (4) staples shall be inserted at the beginning and end of each roll. Staples shall be inserted along each edge at 4' intervals. An additional row of staples shall be inserted in the center of each blanket alternately spaced between each side.

Part 4: Maintenance

4.1 During the life of the project, the contractor shall maintain all facilities constructed for erosion control under this contract as long as the operations creating this particular pollutant are being carried our or pollution is no longer being created.

4.2 Temporary Mulch
   A. The Contractor shall inspect the mulched areas each week and after each storm.
   B. All areas where erosion has occurred shall be repaired and mulch reapplied at required rates.

4.3 Seeding
   A. All planted areas shall be inspected after each rainfall and at least daily during prolonged rainfall for erosion or sedimentation.
   B. Any repairs and reseeding required shall be completed immediately

4.4 Silt Fence
   A. Silt fence shall be inspected immediately after each rainfall and at least daily during prolonged rainfall or if there are any signs of erosion or sedimentation below them.

B. All repairs shall be completed immediately
C. Fabric that has decomposed or become ineffective shall be replaced immediately.
D. Silt fence shall be replaced with Stone Check Dams if large volumes of water become impounded behind them or at any sign of undercutting.
E. Sediment deposits shall be removed after each storm event and before deposits reach six inches.
F. After removing silt fence, remove any sediment deposits, Re-grade the area into the surrounding site, seed, and mulch.

4.5 Bark Mulch Filter Berm

A. The filter berms shall be inspected 1X/ 2 weeks and after each storm event.
B. Any breaches shall be repaired by adding additional wood waste and removing sediment when it reaches halfway up the height of the berm.

Worksheet 1 - PPB calculations

Project Name:

Lake Watershed:

Town:

Standard Calculations

Watershed per acre phosphorus budget (Appendix C)	**PAPB**	0.044	lbs P/acre/year
Total acreage of development parcel:	**TA**	25	acres
NWI wetland acreage:	**WA**	1	acres
Steep slope acreage:	**SA**	0	acres
Project acreage: A = TA - (WA+ SA)	**A**	24	acres
Project Phosphorus Budget: PPB = P x A	**PPB**	1.056	**lbs P/year**

Small Watershed Adjustment

If Project Acreage (A) is greater than the threshold acreage for the small watershed threshold (SWT, from pertinent lake and town info in the table in Appendix C), calculate an alternative PPB using the analysis below and use this value if it is less than the the Standard Calculation PPB.

Small Watershed Threshold (Appendix C):	**SWT**	20	acres
Project acreage:	**A**	24	acres
Allowable increase in town's share of annual phosphorus load to lake (Appendix C):	**FC**	3.57	lbs P/year
Area available for development (Appendix C):	**AAD**	407	acres
Ratio of A to AAD (R=A/AAD)	**R**	0.059	

Project Phosphorus Budget

If R < 0.5, PPB = [(FC x R)/2] + [FC/4]	**PPB**	0.998	**lbs P/year**
If R> 0.5, PPB = FC x R	**PPB**	0.211	**lbs P/year**

Worksheet 2

Pre-PPE and Post-PPE Calculations

Calculate phosphorus export from development for before and after treatment
Use as many sheets as needed for each development type (commercial, roads, residential lots, etc.)

Project name: _____ **Development type:** _____ Sheet # _____

Land Surface Type or Lot #(s) with description	Acres or # of lots	Export Coefficient from Table 3.1 Table 3.2	Pre-treatment Algal Av. P Export (lbs P/year)	Treatment Factor for BMP(s) from Chapter 6	Post-treatment Algal Av. P Export (lbs P/year)	Description of BMPs
Roads	0.23	1.75	0.4025	0.8	0.322	wooded buffer
Parking	0.286	1.25	0.3575	0.8	0.286	wooded buffer
Roofs	0.11	0.5	0.055	0.8	0.044	wooded buffer
Landscaped Areas	0.75	0.3	0.225	0.8	0.18	wooded buffer-low export option
Roads	0.1	1.75	0.175	1	0.175	none
Parking	0.02	1.25	0.025	1	0.025	none
Roofs	0	0.5	0	1	0	none
			0	1	0	
			0	1	0	
			0	1	0	
		Total Pre-PPE (lbs P/year)	1.215	**Total PostPPE (lbs P/year)**	1.007	

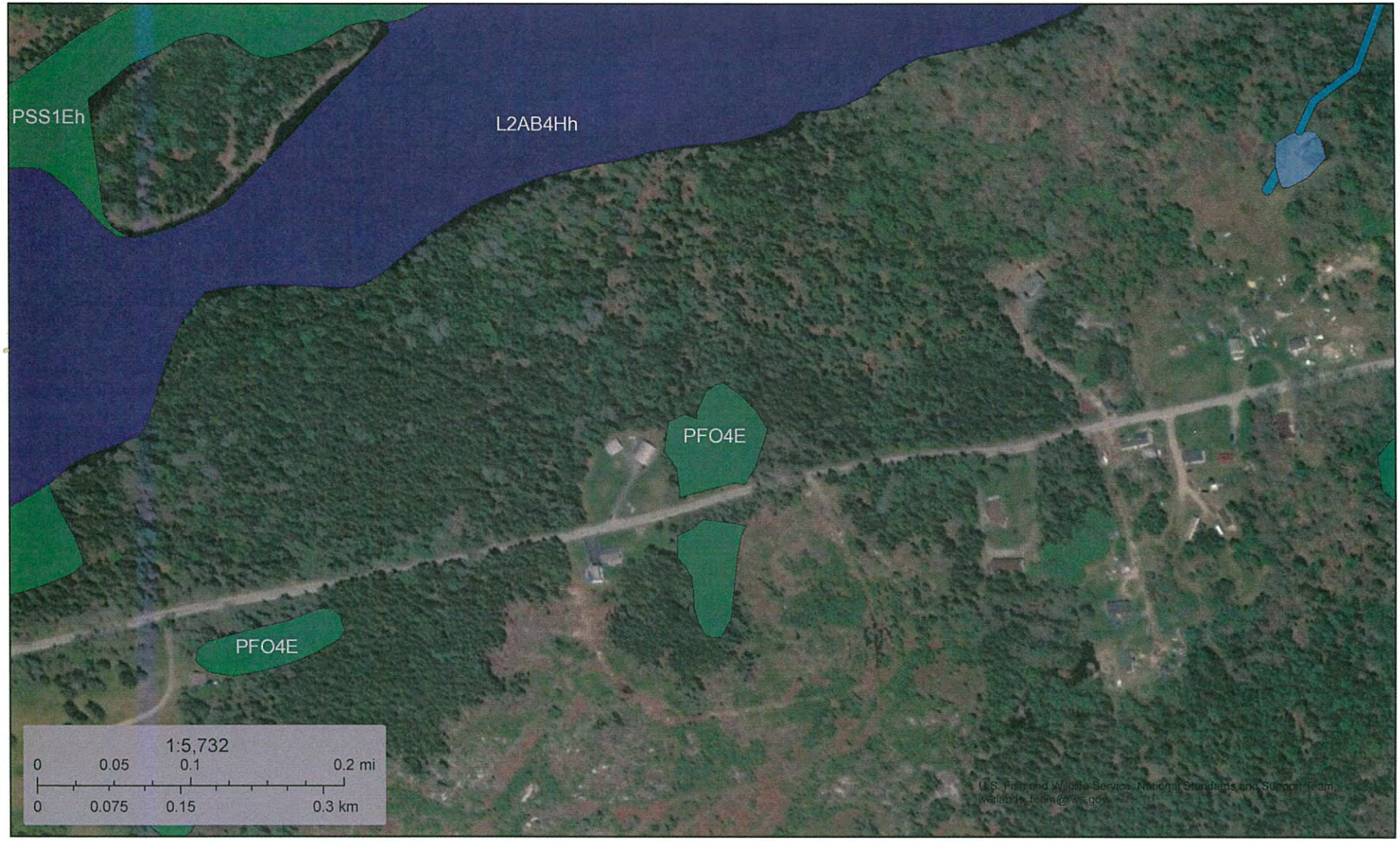
EXHIBIT O
Page 2

U.S. Fish and Wildlife Service

National Wetlands Inventory

IWH NWI Map

EXHIBIT P



February 10, 2020

Wetlands

- Estuarine and Marine Deepwater
- Estuarine and Marine Wetland
- Freshwater Emergent Wetland
- Freshwater Forested/Shrub Wetland
- Freshwater Pond
- Lake
- Other
- Riverine

This map is for general reference only. The US Fish and Wildlife Service is not responsible for the accuracy or currentness of the base data shown on this map. All wetlands related data should be used in accordance with the layer metadata found on the Wetlands Mapper web site.

National Wetlands Inventory (NWI)

Island Workforce Housing
Stormwater Peak Flow Calculations Summary

Stormwater Permit Requirements/ Standards

Development of this project will create approximately 0.75 acres of "non-revegetated" or impervious area and a total of 1.5 acres of "developed" area. A Stormwater Permit is required for projects which create greater than 1 acre of impervious area in Watersheds except those identified as those most at risk from new development or urban impaired streams. The primary goals for projects that create less than 3 acres of new impervious area is to remove sediments and therefore contaminants attached and to reduce the temperature of the runoff to avoid impacts to aquatic species. This project is designed to meet those objectives.

This project requires a Stormwater Permit-by-Rule for conformance with Sediment and Erosion Control BMP's from the Maine Department of Environmental Protection. For projects of this size, the Erosion Control Standards including implementation of BMP's or Best Management Practices are required. Temporary and Permanent Sediment and Erosion Controls are summarized separately in this Application.

Stormwater Modeling

Watershed boundaries, flow paths and soil conditions for the site were identified using a combination of on-site observations, the Topographic Survey Plan and the Medium Intensity Soil Survey. The stormwater model was created using HydroCAD stormwater modeling software to calculate peak flows for existing and developed conditions. HydroCAD is based on the TR-20 stormwater model developed by the Soil Conservation Service. Calculations were prepared for the 2.7 inch and 4.9 inch rainfall event.

Existing Conditions:

The area of proposed development was divided into 2 subcatchments, Subcatchment 1 and Subcatchment 2.

Subcatchment 1

Area-230, 350 sq. ft. Wooded, good condition, HSG C/D, CN 73

Flow Path

1A – 1B 150' sheet flow, ground slope 7 percent, woods, light underbrush

1B – 1C 270' shallow concentrated flow, ground slope 7.4 percent, woodland

Subcatchment 2

Area-152,230 sq. ft. Wooded, good condition, HSG C/D, CN 73

41,870 sq. ft. Wooded, good condition, HSG D, CN 77

Flow Path

2A – 2B 150' sheet flow, ground slope 6 percent, woods, light underbrush

2B – 2C 340' shallow concentrated flow, ground slope 3 percent, woodland

2C – 2D 270' shallow concentrated flow, ground slope 4.5 percent, woodland

Developed Conditions:

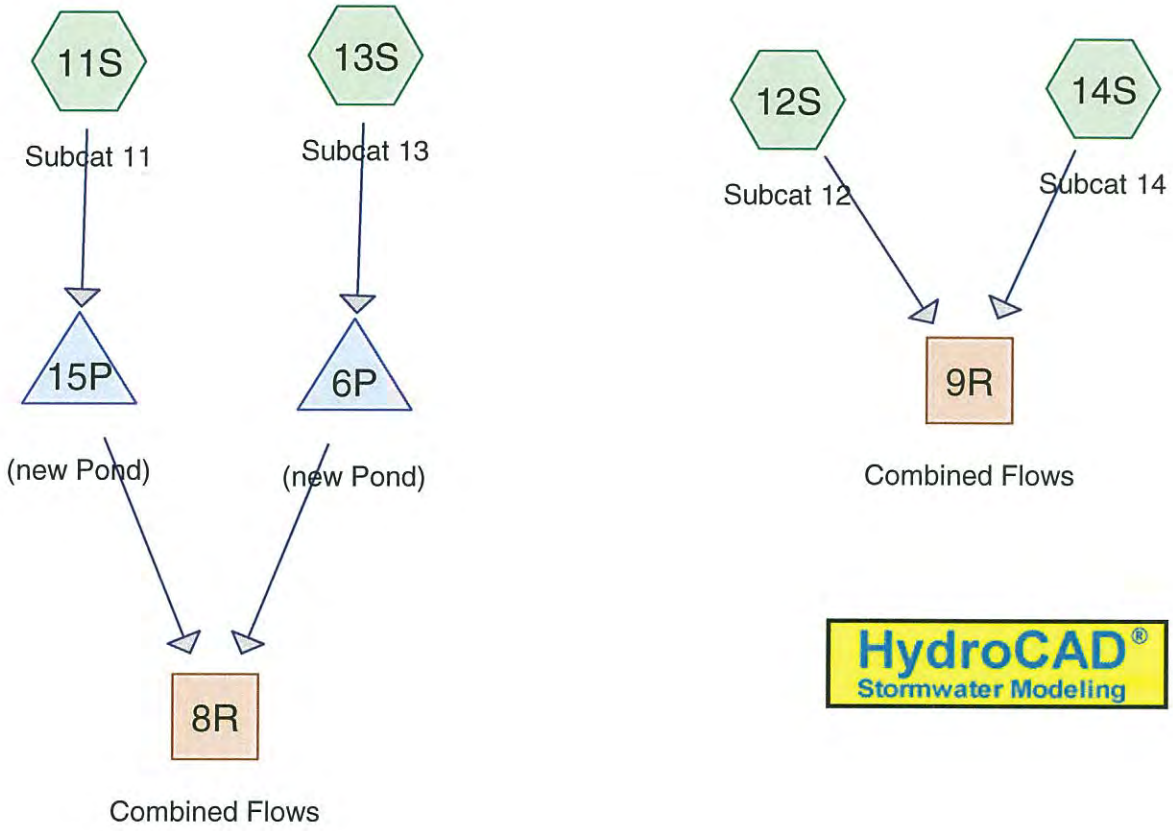
The area of proposed development was divided into 4subcatchments, Subcatchment 11, 12, 13 and 14. Subcatchments 11 and 13 flow to the the Study Point for Subcatchment 1 for existing conditions. Subcatchments 12 and 14 flow to the Study Point for Subcatchment 2 for existing conditions.

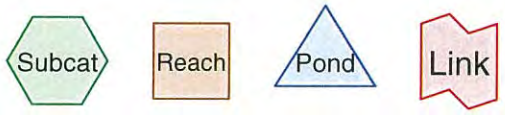
Peak Flow Comparison

Watershed	2-yr Storm Event		25-yr Storm Event	
	Existing Condition	Developed Condition	Existing Condition	Developed Condition
1	2.35	1.73	8.49	10.79
2	1.88	3.15	6.52	5.61

Stormwater Peak Flow Summary:

Peak Flows increase at the Study Point 2 and decrease at Study Point 1. Stormwater from Watershed 1 is dispersed into wooded buffers down-gradient of the developed area. The level-spreaders and wooded buffers are sized to meet or exceed the typical sizing requirements for the soil type and ground slope. These area buffer areas will remain undisturbed and stable after development. In subcatchment 2, the stormwater will be flowing through or across a portion of forested freshwater wetland. Sediment removal and temperature reduction also occurs as stormwater flows through this natural land feature. This project conforms to the intent of the current Stormwater Standards Contained in Chapter 500 and 502 for Stormwater Management for projects with less than 3 acres impervious area.





Drainage Diagram for 2837-dev2
Prepared by {enter your company name here}, Printed 6/17/2020
HydroCAD® 9.10 s/n 00973 © 2011 HydroCAD Software Solutions LLC

Summary for Subcatchment 11S: Subcat 11

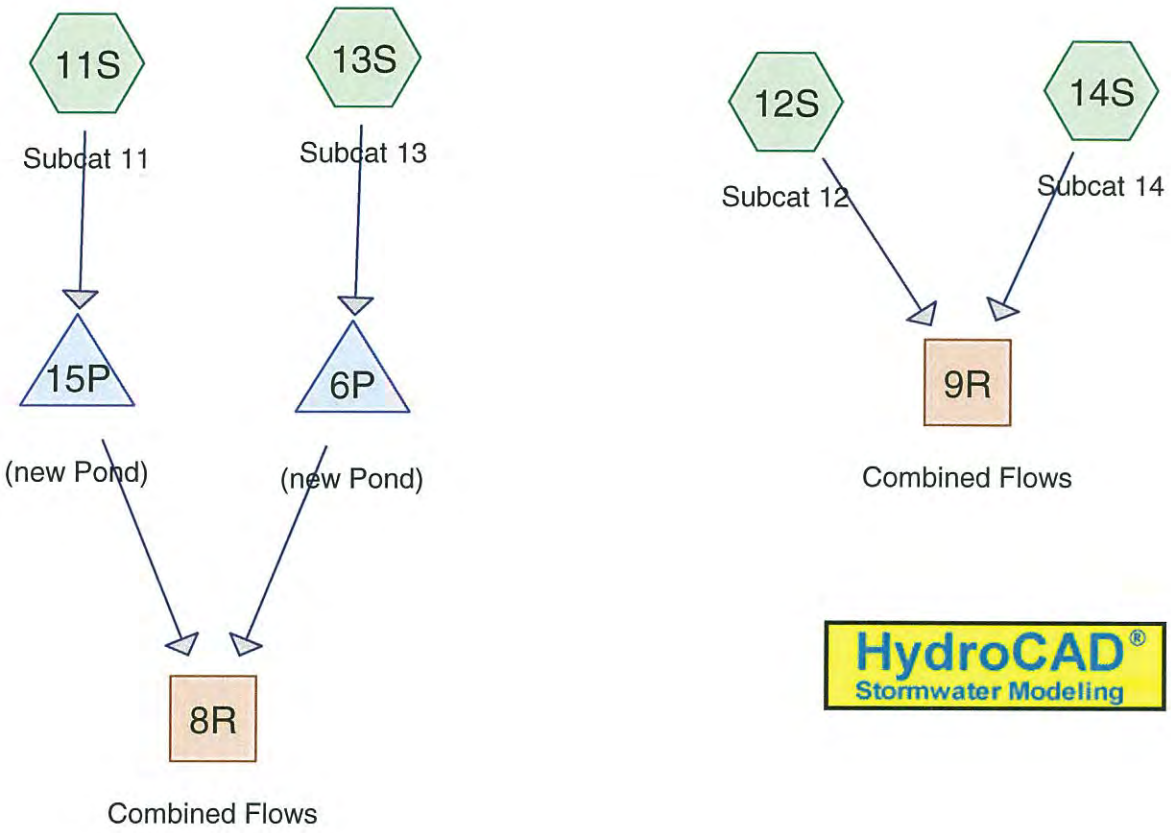
Runoff = 2.15 cfs @ 12.27 hrs, Volume= 0.253 af, Depth= 0.77"

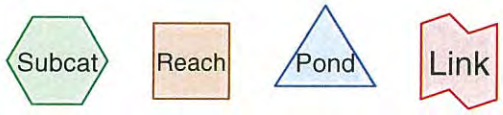
Runoff by SCS TR-20 method, UH=SCS, Time Span= 9.00-40.00 hrs, dt= 0.10 hrs
Type III 24-hr 2-yr Rainfall=2.70"

	Area (sf)	CN	Description	Land Use
	145,602	73	Woods, Fair, HSG C	Woods
	16,184	74	>75% Grass cover, Good, HSG C	Open Space
*	10,019	98	Impervious	
	171,805	75	Weighted Average	
	161,786		94.17% Pervious Area	
	10,019		5.83% Impervious Area	

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
19.6	150	0.0700	0.13		**Sheet Flow, 1A-1B** Woods: Light underbrush n= 0.400 P2= 2.70"
0.2	66	0.0100	4.90	19.60	**Trap/Vee/Rect Channel Flow, 11B-11C** Bot.W=2.00' D=1.00' Z= 2.0 '/' Top.W=6.00' n= 0.022 Earth, clean & straight
0.2	174	0.0600	12.00	48.02	**Trap/Vee/Rect Channel Flow, 11C-11D** Bot.W=2.00' D=1.00' Z= 2.0 '/' Top.W=6.00' n= 0.022
20.0	390	Total			

Developed Conditions
Stormwater Calculations
Island Workforce Housing Project





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	16,184	74	>75% Grass cover, Good, HSG C	Open Space
*	10,019	98	Impervious	
	171,805	75	Weighted Average	
	161,786		94.17% Pervious Area	
	10,019		5.83% Impervious Area	

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
19.6	150	0.0700	0.13		**Sheet Flow, 1A-1B** Woods: Light underbrush n= 0.400 P2= 2.70"
0.2	66	0.0100	4.90	19.60	**Trap/Vee/Rect Channel Flow, 11B-11C** Bot.W=2.00' D=1.00' Z= 2.0 '/' Top.W=6.00' n= 0.022 Earth, clean & straight
0.2	174	0.0600	12.00	48.02	**Trap/Vee/Rect Channel Flow, 11C-11D** Bot.W=2.00' D=1.00' Z= 2.0 '/' Top.W=6.00' n= 0.022
20.0	390	Total			

Hydrograph for Subcatchment 11S: Subcat 11

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
9.00	0.39	0.00	0.00
9.50	0.45	0.00	0.00
10.00	0.51	0.00	0.00
10.50	0.58	0.00	0.00
11.00	0.68	0.00	0.00
11.50	0.80	0.01	0.04
12.00	1.35	0.12	**0.73**
12.50	1.90	0.33	**1.55**
13.00	2.02	0.39	0.53
13.50	2.12	0.44	0.37
14.00	2.19	0.48	0.31
14.50	2.25	0.51	0.27
15.00	2.31	0.54	0.24
15.50	2.35	0.57	0.21
16.00	2.39	0.59	0.17
16.50	2.43	0.61	0.15
17.00	2.46	0.62	0.14
17.50	2.48	0.64	0.12
18.00	2.51	0.65	0.11
18.50	2.53	0.67	0.10
19.00	2.55	0.68	0.09
19.50	2.57	0.69	0.09
20.00	2.58	0.70	0.09
20.50	2.60	0.71	0.08
21.00	2.62	0.72	0.08
21.50	2.63	0.73	0.08
22.00	2.65	0.74	0.07
22.50	2.66	0.75	0.07
23.00	2.68	0.76	0.06
23.50	2.69	0.76	0.06
24.00	**2.70**	**0.77**	0.06
24.50	2.70	0.77	0.00
25.00	2.70	0.77	0.00
25.50	2.70	0.77	0.00
26.00	2.70	0.77	0.00
26.50	2.70	0.77	0.00
27.00	2.70	0.77	0.00
27.50	2.70	0.77	0.00
28.00	2.70	0.77	0.00
28.50	2.70	0.77	0.00
29.00	2.70	0.77	0.00
29.50	2.70	0.77	0.00
30.00	2.70	0.77	0.00
30.50	2.70	0.77	0.00
31.00	2.70	0.77	0.00
31.50	2.70	0.77	0.00
32.00	2.70	0.77	0.00
32.50	2.70	0.77	0.00
33.00	2.70	0.77	0.00
33.50	2.70	0.77	0.00
34.00	2.70	0.77	0.00
34.50	2.70	0.77	0.00
35.00	2.70	0.77	0.00
35.50	2.70	0.77	0.00
36.00	2.70	0.77	0.00
36.50	2.70	0.77	0.00
37.00	2.70	0.77	0.00
37.50	2.70	0.77	0.00
38.00	2.70	0.77	0.00
38.50	2.70	0.77	0.00
39.00	2.70	0.77	0.00
39.50	2.70	0.77	0.00
40.00	2.70	0.77	0.00

Hydrograph for Subcatchment 11S: Subcat 11

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
9.00	0.39	0.00	0.00
9.50	0.45	0.00	0.00
10.00	0.51	0.00	0.00
10.50	0.58	0.00	0.00
11.00	0.68	0.00	0.00
11.50	0.80	0.01	0.04
12.00	1.35	0.12	**0.73**
12.50	1.90	0.33	**1.55**
13.00	2.02	0.39	0.53
13.50	2.12	0.44	0.37
14.00	2.19	0.48	0.31
14.50	2.25	0.51	0.27
15.00	2.31	0.54	0.24
15.50	2.35	0.57	0.21
16.00	2.39	0.59	0.17
16.50	2.43	0.61	0.15
17.00	2.46	0.62	0.14
17.50	2.48	0.64	0.12
18.00	2.51	0.65	0.11
18.50	2.53	0.67	0.10
19.00	2.55	0.68	0.09
19.50	2.57	0.69	0.09
20.00	2.58	0.70	0.09
20.50	2.60	0.71	0.08
21.00	2.62	0.72	0.08
21.50	2.63	0.73	0.08
22.00	2.65	0.74	0.07
22.50	2.66	0.75	0.07
23.00	2.68	0.76	0.06
23.50	2.69	0.76	0.06
24.00	**2.70**	**0.77**	0.06
24.50	2.70	0.77	0.00
25.00	2.70	0.77	0.00
25.50	2.70	0.77	0.00
26.00	2.70	0.77	0.00
26.50	2.70	0.77	0.00
27.00	2.70	0.77	0.00
27.50	2.70	0.77	0.00
28.00	2.70	0.77	0.00
28.50	2.70	0.77	0.00
29.00	2.70	0.77	0.00
29.50	2.70	0.77	0.00
30.00	2.70	0.77	0.00
30.50	2.70	0.77	0.00
31.00	2.70	0.77	0.00
31.50	2.70	0.77	0.00
32.00	2.70	0.77	0.00
32.50	2.70	0.77	0.00
33.00	2.70	0.77	0.00
33.50	2.70	0.77	0.00
34.00	2.70	0.77	0.00
34.50	2.70	0.77	0.00
35.00	2.70	0.77	0.00
35.50	2.70	0.77	0.00
36.00	2.70	0.77	0.00
36.50	2.70	0.77	0.00
37.00	2.70	0.77	0.00
37.50	2.70	0.77	0.00
38.00	2.70	0.77	0.00
38.50	2.70	0.77	0.00
39.00	2.70	0.77	0.00
39.50	2.70	0.77	0.00
40.00	2.70	0.77	0.00

Summary for Subcatchment 12S: Subcat 12

Runoff = 0.77 cfs @ 12.60 hrs, Volume= 0.125 af, Depth= 0.82"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 9.00-40.00 hrs, dt= 0.10 hrs
Type III 24-hr 2-yr Rainfall=2.70"

	Area (sf)	CN	Description	Land Use
*	55,580	73	Woods, Good, HSG C/D	Woods
*	9,494	98	Impervious	
*	14,619	74	Lawn	
	79,693	76	Weighted Average	
	70,199		88.09% Pervious Area	
	9,494		11.91% Impervious Area	

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
17.7	150	0.0900	0.14		**Sheet Flow, 2A-2B** Woods: Light underbrush n= 0.400 P2= 2.70"
4.7	242	0.0300	0.87		**Shallow Concentrated Flow, 2B-2C** Woodland Kv= 5.0 fps
0.1	38	0.0200	6.42	5.04	**Pipe Channel, 12C-12D** 12.0" Round Area= 0.8 sf Perim= 3.1' r= 0.25' n= 0.013 Corrugated PE, smooth interior
16.6	176	0.0050	0.18		**Shallow Concentrated Flow, 12D-12E** Forest w/Heavy Litter Kv= 2.5 fps
3.8	162	0.0800	0.71		**Shallow Concentrated Flow, 12E-12F** Forest w/Heavy Litter Kv= 2.5 fps
42.9	768	Total			

Hydrograph for Subcatchment 12S: Subcat 12

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
9.00	0.39	0.00	0.00
9.50	0.45	0.00	0.00
10.00	0.51	0.00	0.00
10.50	0.58	0.00	0.00
11.00	0.68	0.00	0.00
11.50	0.80	0.01	0.01
12.00	1.35	0.13	0.11
12.50	1.90	0.36	**0.74**
13.00	2.02	0.43	**0.50**
13.50	2.12	0.47	0.26
14.00	2.19	0.51	0.18
14.50	2.25	0.55	0.14
15.00	2.31	0.58	0.13
15.50	2.35	0.61	0.11
16.00	2.39	0.63	0.10
16.50	2.43	0.65	0.08
17.00	2.46	0.67	0.07
17.50	2.48	0.68	0.06
18.00	2.51	0.70	0.06
18.50	2.53	0.71	0.05
19.00	2.55	0.72	0.05
19.50	2.57	0.73	0.04
20.00	2.58	0.75	0.04
20.50	2.60	0.76	0.04
21.00	2.62	0.77	0.04
21.50	2.63	0.78	0.04
22.00	2.65	0.79	0.04
22.50	2.66	0.79	0.03
23.00	2.68	0.80	0.03
23.50	2.69	0.81	0.03
24.00	**2.70**	**0.82**	0.03
24.50	2.70	0.82	0.02
25.00	2.70	0.82	0.00
25.50	2.70	0.82	0.00
26.00	2.70	0.82	0.00
26.50	2.70	0.82	0.00
27.00	2.70	0.82	0.00
27.50	2.70	0.82	0.00
28.00	2.70	0.82	0.00
28.50	2.70	0.82	0.00
29.00	2.70	0.82	0.00
29.50	2.70	0.82	0.00
30.00	2.70	0.82	0.00
30.50	2.70	0.82	0.00
31.00	2.70	0.82	0.00
31.50	2.70	0.82	0.00
32.00	2.70	0.82	0.00
32.50	2.70	0.82	0.00
33.00	2.70	0.82	0.00
33.50	2.70	0.82	0.00
34.00	2.70	0.82	0.00
34.50	2.70	0.82	0.00
35.00	2.70	0.82	0.00
35.50	2.70	0.82	0.00
36.00	2.70	0.82	0.00
36.50	2.70	0.82	0.00
37.00	2.70	0.82	0.00
37.50	2.70	0.82	0.00
38.00	2.70	0.82	0.00
38.50	2.70	0.82	0.00
39.00	2.70	0.82	0.00
39.50	2.70	0.82	0.00
40.00	2.70	0.82	0.00

Summary for Subcatchment 13S: Subcat 13

Runoff = 1.00 cfs @ 12.32 hrs, Volume= 0.125 af, Depth= 0.72"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 9.00-40.00 hrs, dt= 0.10 hrs
Type III 24-hr 2-yr Rainfall=2.70"

	Area (sf)	CN	Description	Land Use
	83,001	73	Woods, Fair, HSG C	Woods
*	1,411	74	Lawn	
*	4,107	98	Impervious	
*	1,664	77	Wooded, HSG D	
	90,183	74	Weighted Average	
	86,076		95.45% Pervious Area	
	4,107		4.55% Impervious Area	

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
18.6	150	0.0800	0.13		**Sheet Flow, 13A-13B** Woods: Light underbrush n= 0.400 P2= 2.70"
1.1	65	0.0400	1.00		**Shallow Concentrated Flow, 13B-13C** Woodland Kv= 5.0 fps
3.0	94	0.0450	0.53		**Shallow Concentrated Flow, 13C-13D** Forest w/Heavy Litter Kv= 2.5 fps
22.7	309	Total			

Hydrograph for Subcatchment 13S: Subcat 13

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
9.00	0.39	0.00	0.00
9.50	0.45	0.00	0.00
10.00	0.51	0.00	0.00
10.50	0.58	0.00	0.00
11.00	0.68	0.00	0.00
11.50	0.80	0.00	0.01
12.00	1.35	0.10	**0.28**
12.50	1.90	0.30	**0.81**
13.00	2.02	0.36	0.29
13.50	2.12	0.41	0.19
14.00	2.19	0.44	0.16
14.50	2.25	0.47	0.14
15.00	2.31	0.50	0.12
15.50	2.35	0.53	0.11
16.00	2.39	0.55	0.09
16.50	2.43	0.57	0.08
17.00	2.46	0.58	0.07
17.50	2.48	0.60	0.06
18.00	2.51	0.61	0.06
18.50	2.53	0.62	0.05
19.00	2.55	0.63	0.05
19.50	2.57	0.65	0.05
20.00	2.58	0.66	0.04
20.50	2.60	0.67	0.04
21.00	2.62	0.68	0.04
21.50	2.63	0.68	0.04
22.00	2.65	0.69	0.04
22.50	2.66	0.70	0.03
23.00	2.68	0.71	0.03
23.50	2.69	0.72	0.03
24.00	**2.70**	**0.72**	0.03
24.50	2.70	0.72	0.00
25.00	2.70	0.72	0.00
25.50	2.70	0.72	0.00
26.00	2.70	0.72	0.00
26.50	2.70	0.72	0.00
27.00	2.70	0.72	0.00
27.50	2.70	0.72	0.00
28.00	2.70	0.72	0.00
28.50	2.70	0.72	0.00
29.00	2.70	0.72	0.00
29.50	2.70	0.72	0.00
30.00	2.70	0.72	0.00
30.50	2.70	0.72	0.00
31.00	2.70	0.72	0.00
31.50	2.70	0.72	0.00
32.00	2.70	0.72	0.00
32.50	2.70	0.72	0.00
33.00	2.70	0.72	0.00
33.50	2.70	0.72	0.00
34.00	2.70	0.72	0.00
34.50	2.70	0.72	0.00
35.00	2.70	0.72	0.00
35.50	2.70	0.72	0.00
36.00	2.70	0.72	0.00
36.50	2.70	0.72	0.00
37.00	2.70	0.72	0.00
37.50	2.70	0.72	0.00
38.00	2.70	0.72	0.00
38.50	2.70	0.72	0.00
39.00	2.70	0.72	0.00
39.50	2.70	0.72	0.00
40.00	2.70	0.72	0.00

Summary for Subcatchment 14S: Subcat 14

Runoff = 1.06 cfs @ 12.39 hrs, Volume= 0.141 af, Depth= 0.82"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 9.00-40.00 hrs, dt= 0.10 hrs
Type III 24-hr 2-yr Rainfall=2.70"

	Area (sf)	CN	Description	Land Use
*	47,496	73	Wooded	
*	2,253	74	Lawn	
*	3,222	98	Impervious	
*	37,000	77	Wooded, HSG D	
	89,971	76	Weighted Average	
	86,749		96.42% Pervious Area	
	3,222		3.58% Impervious Area	

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
14.7	125	0.1000	0.14		**Sheet Flow, 14A-14B** Woods: Light underbrush n= 0.400 P2= 2.70"
0.1	48	0.0400	9.07	7.13	**Pipe Channel, 14B-14C** 12.0" Round Area= 0.8 sf Perim= 3.1' r= 0.25' n= 0.013 Corrugated PE, smooth interior
13.5	350	0.0300	0.43		**Shallow Concentrated Flow, 14C-14D** Forest w/Heavy Litter Kv= 2.5 fps
28.3	523	Total			

Hydrograph for Subcatchment 14S: Subcat 14

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
9.00	0.39	0.00	0.00
9.50	0.45	0.00	0.00
10.00	0.51	0.00	0.00
10.50	0.58	0.00	0.00
11.00	0.68	0.00	0.00
11.50	0.80	0.01	0.02
12.00	1.35	0.13	**0.26**
12.50	1.90	0.36	**0.98**
13.00	2.02	0.43	0.38
13.50	2.12	0.47	0.22
14.00	2.19	0.51	0.18
14.50	2.25	0.55	0.15
15.00	2.31	0.58	0.13
15.50	2.35	0.61	0.12
16.00	2.39	0.63	0.10
16.50	2.43	0.65	0.09
17.00	2.46	0.67	0.08
17.50	2.48	0.68	0.07
18.00	2.51	0.70	0.06
18.50	2.53	0.71	0.05
19.00	2.55	0.72	0.05
19.50	2.57	0.73	0.05
20.00	2.58	0.75	0.05
20.50	2.60	0.76	0.04
21.00	2.62	0.77	0.04
21.50	2.63	0.78	0.04
22.00	2.65	0.79	0.04
22.50	2.66	0.79	0.04
23.00	2.68	0.80	0.04
23.50	2.69	0.81	0.03
24.00	**2.70**	**0.82**	0.03
24.50	2.70	0.82	0.01
25.00	2.70	0.82	0.00
25.50	2.70	0.82	0.00
26.00	2.70	0.82	0.00
26.50	2.70	0.82	0.00
27.00	2.70	0.82	0.00
27.50	2.70	0.82	0.00
28.00	2.70	0.82	0.00
28.50	2.70	0.82	0.00
29.00	2.70	0.82	0.00
29.50	2.70	0.82	0.00
30.00	2.70	0.82	0.00
30.50	2.70	0.82	0.00
31.00	2.70	0.82	0.00
31.50	2.70	0.82	0.00
32.00	2.70	0.82	0.00
32.50	2.70	0.82	0.00
33.00	2.70	0.82	0.00
33.50	2.70	0.82	0.00
34.00	2.70	0.82	0.00
34.50	2.70	0.82	0.00
35.00	2.70	0.82	0.00
35.50	2.70	0.82	0.00
36.00	2.70	0.82	0.00
36.50	2.70	0.82	0.00
37.00	2.70	0.82	0.00
37.50	2.70	0.82	0.00
38.00	2.70	0.82	0.00
38.50	2.70	0.82	0.00
39.00	2.70	0.82	0.00
39.50	2.70	0.82	0.00
40.00	2.70	0.82	0.00

Summary for Reach 8R: Combined Flows

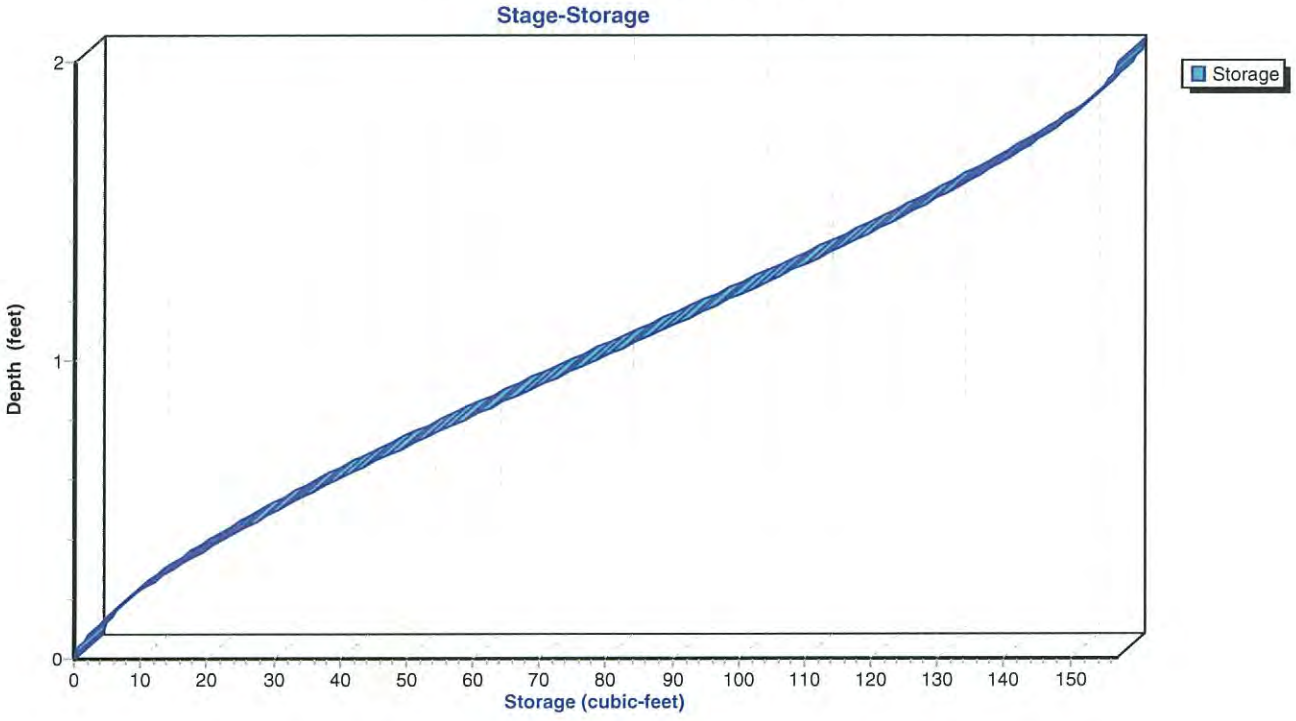
Inflow Area = 6.014 ac, 5.39% Impervious, Inflow Depth = 0.75" for 2-yr event
Inflow = 3.15 cfs @ 12.31 hrs, Volume= 0.375 af
Outflow = 3.15 cfs @ 12.32 hrs, Volume= 0.375 af, Atten= 0%, Lag= 0.2 min

Routing by Stor-Ind+Trans method, Time Span= 9.00-40.00 hrs, dt= 0.10 hrs
Max. Velocity= 5.07 fps, Min. Travel Time= 0.2 min
Avg. Velocity = 2.29 fps, Avg. Travel Time= 0.4 min

Peak Storage= 31 cf @ 12.32 hrs
Average Depth at Peak Storage= 0.50'
Bank-Full Depth= 2.00', Capacity at Bank-Full= 22.62 cfs

24.0" Round Pipe
n= 0.013
Length= 50.0' Slope= 0.0100 '/'
Inlet Invert= 0.00', Outlet Invert= -0.50'

Reach 8R: Combined Flows



Hydrograph for Reach 8R: Combined Flows

Time (hours)	Inflow (cfs)	Storage (cubic-feet)	Elevation (feet)	Outflow (cfs)
9.00	0.00	0	0.00	0.00
10.00	0.00	0	0.00	0.00
11.00	0.00	0	0.00	0.00
12.00	**0.89**	**12**	**0.27**	**0.85**
13.00	**0.84**	**12**	**0.26**	**0.85**
14.00	0.47	8	0.20	0.47
15.00	0.36	7	0.18	0.36
16.00	0.27	5	0.15	0.27
17.00	0.21	5	0.14	0.21
18.00	0.16	4	0.12	0.16
19.00	0.14	4	0.11	0.14
20.00	0.13	3	0.11	0.13
21.00	0.12	3	0.10	0.12
22.00	0.11	3	0.10	0.11
23.00	0.10	3	0.09	0.10
24.00	0.09	3	0.09	0.09
25.00	0.00	0	0.00	0.00
26.00	0.00	0	0.00	0.00
27.00	0.00	0	0.00	0.00
28.00	0.00	0	0.00	0.00
29.00	0.00	0	0.00	0.00
30.00	0.00	0	0.00	0.00
31.00	0.00	0	0.00	0.00
32.00	0.00	0	0.00	0.00
33.00	0.00	0	0.00	0.00
34.00	0.00	0	0.00	0.00
35.00	0.00	0	0.00	0.00
36.00	0.00	0	0.00	0.00
37.00	0.00	0	0.00	0.00
38.00	0.00	0	0.00	0.00
39.00	0.00	0	0.00	0.00
40.00	0.00	0	0.00	0.00

Stage-Discharge for Reach 8R: Combined Flows

Elevation (feet)	Velocity (ft/sec)	Discharge (cfs)	Elevation (feet)	Velocity (ft/sec)	Discharge (cfs)
0.00	0.00	0.00	1.04	7.32	12.08
0.02	0.64	0.00	1.06	7.38	12.47
0.04	1.01	0.02	1.08	7.43	12.86
0.06	1.32	0.04	1.10	7.48	13.25
0.08	1.60	0.07	1.12	7.54	13.64
0.10	1.85	0.11	1.14	7.58	14.03
0.12	2.08	0.16	1.16	7.63	14.42
0.14	2.30	0.22	1.18	7.68	14.81
0.16	2.51	0.30	1.20	7.72	15.20
0.18	2.70	0.38	1.22	7.76	15.59
0.20	2.89	0.47	1.24	7.81	15.97
0.22	3.07	0.58	1.26	7.84	16.35
0.24	3.24	0.69	1.28	7.88	16.73
0.26	3.41	0.82	1.30	7.92	17.11
0.28	3.57	0.95	1.32	7.95	17.49
0.30	3.72	1.10	1.34	7.98	17.86
0.32	3.87	1.26	1.36	8.01	18.22
0.34	4.02	1.42	1.38	8.04	18.58
0.36	4.16	1.60	1.40	8.06	18.94
0.38	4.30	1.79	1.42	8.09	19.29
0.40	4.43	1.98	1.44	8.11	19.64
0.42	4.56	2.19	1.46	8.13	19.97
0.44	4.69	2.40	1.48	8.15	20.31
0.46	4.81	2.62	1.50	8.16	20.63
0.48	4.93	2.86	1.52	8.18	20.94
0.50	5.05	3.10	1.54	8.19	21.25
0.52	5.16	3.35	1.56	8.20	21.55
0.54	5.27	3.61	1.58	8.20	21.84
0.56	5.38	3.87	1.60	8.21	22.11
0.58	5.49	4.15	1.62	**8.21**	22.38
0.60	5.59	4.43	1.64	8.21	22.63
0.62	5.69	4.72	1.66	8.21	22.87
0.64	5.79	5.02	1.68	8.20	23.10
0.66	5.88	5.32	1.70	8.19	23.31
0.68	5.98	5.63	1.72	8.18	23.51
0.70	6.07	5.95	1.74	8.16	23.69
0.72	6.16	6.27	1.76	8.14	23.85
0.74	6.25	6.60	1.78	8.12	23.99
0.76	6.33	6.94	1.80	8.10	24.11
0.78	6.42	7.28	1.82	8.07	24.21
0.80	6.50	7.62	1.84	8.03	24.28
0.82	6.58	7.97	1.86	7.99	24.32
0.84	6.65	8.33	1.88	7.94	**24.33**
0.86	6.73	8.69	1.90	7.88	24.31
0.88	6.80	9.05	1.92	7.82	24.24
0.90	6.87	9.42	1.94	7.74	24.11
0.92	6.94	9.79	1.96	7.65	23.90
0.94	7.01	10.17	1.98	7.52	23.57
0.96	7.08	10.55	2.00	7.20	22.62
0.98	7.14	10.93			
1.00	7.20	11.31			
1.02	7.26	11.70			

Summary for Reach 9R: Combined Flows

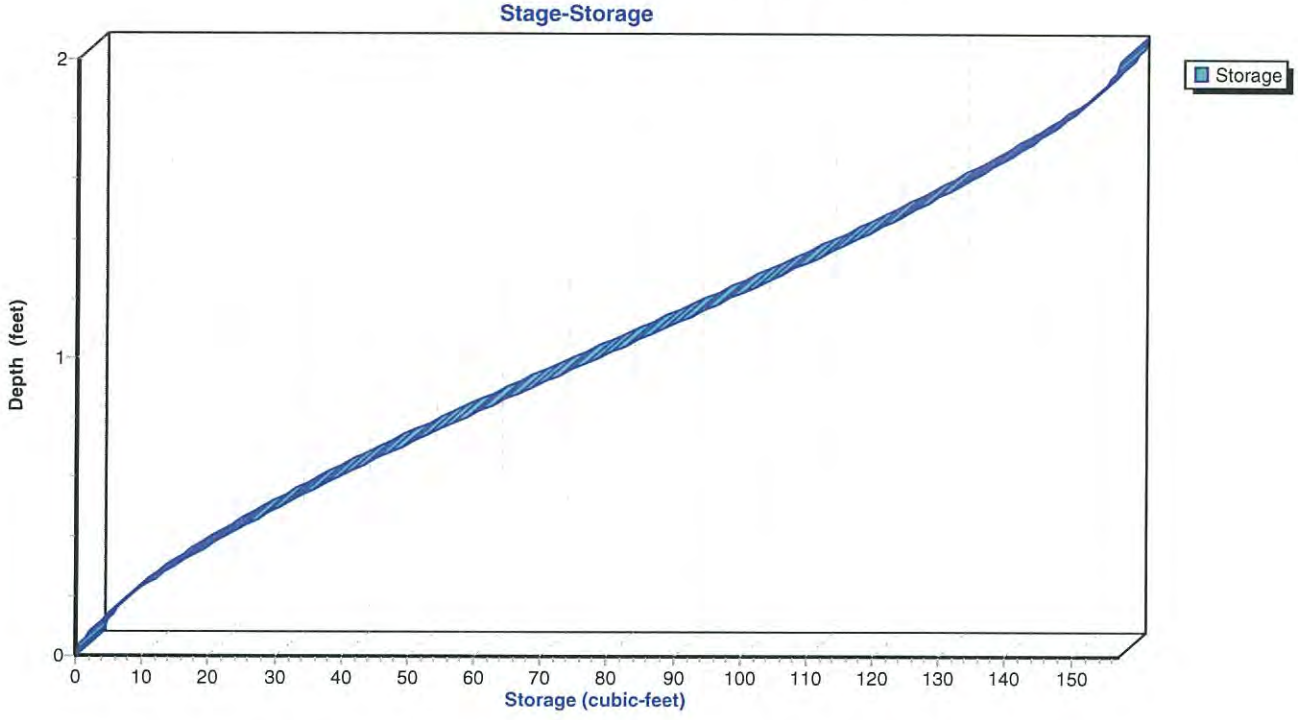
Inflow Area = 3.895 ac, 7.49% Impervious, Inflow Depth = 0.82" for 2-yr event
Inflow = 1.73 cfs @ 12.46 hrs, Volume= 0.266 af
Outflow = 1.73 cfs @ 12.47 hrs, Volume= 0.266 af, Atten= 0%, Lag= 0.5 min

Routing by Stor-Ind+Trans method, Time Span= 9.00-40.00 hrs, dt= 0.10 hrs
Max. Velocity= 4.26 fps, Min. Travel Time= 0.2 min
Avg. Velocity = 1.93 fps, Avg. Travel Time= 0.4 min

Peak Storage= 20 cf @ 12.47 hrs
Average Depth at Peak Storage= 0.37'
Bank-Full Depth= 2.00', Capacity at Bank-Full= 22.62 cfs

24.0" Round Pipe
n= 0.013
Length= 50.0' Slope= 0.0100 '/'
Inlet Invert= 0.00', Outlet Invert= -0.50'

Reach 9R: Combined Flows



Hydrograph for Reach 9R: Combined Flows

Time (hours)	Inflow (cfs)	Storage (cubic-feet)	Elevation (feet)	Outflow (cfs)
9.00	0.00	0	0.00	0.00
10.00	0.00	0	0.00	0.00
11.00	0.00	0	0.00	0.00
12.00	**0.36**	**7**	**0.17**	**0.35**
13.00	**0.88**	**13**	**0.27**	**0.88**
14.00	0.36	7	0.18	0.36
15.00	0.26	5	0.15	0.26
16.00	0.19	4	0.13	0.20
17.00	0.15	4	0.12	0.15
18.00	0.12	3	0.10	0.12
19.00	0.10	3	0.10	0.10
20.00	0.09	3	0.09	0.09
21.00	0.08	2	0.09	0.08
22.00	0.07	2	0.08	0.08
23.00	0.07	2	0.08	0.07
24.00	0.06	2	0.08	0.06
25.00	0.00	0	0.02	0.00
26.00	0.00	0	0.00	0.00
27.00	0.00	0	0.00	0.00
28.00	0.00	0	0.00	0.00
29.00	0.00	0	0.00	0.00
30.00	0.00	0	0.00	0.00
31.00	0.00	0	0.00	0.00
32.00	0.00	0	0.00	0.00
33.00	0.00	0	0.00	0.00
34.00	0.00	0	0.00	0.00
35.00	0.00	0	0.00	0.00
36.00	0.00	0	0.00	0.00
37.00	0.00	0	0.00	0.00
38.00	0.00	0	0.00	0.00
39.00	0.00	0	0.00	0.00
40.00	0.00	0	0.00	0.00

Stage-Discharge for Reach 9R: Combined Flows

Elevation (feet)	Velocity (ft/sec)	Discharge (cfs)
0.00	0.00	0.00
0.02	0.64	0.00
0.04	1.01	0.02
0.06	1.32	0.04
0.08	1.60	0.07
0.10	1.85	0.11
0.12	2.08	0.16
0.14	2.30	0.22
0.16	2.51	0.30
0.18	2.70	0.38
0.20	2.89	0.47
0.22	3.07	0.58
0.24	3.24	0.69
0.26	3.41	0.82
0.28	3.57	0.95
0.30	3.72	1.10
0.32	3.87	1.26
0.34	4.02	1.42
0.36	4.16	1.60
0.38	4.30	1.79
0.40	4.43	1.98
0.42	4.56	2.19
0.44	4.69	2.40
0.46	4.81	2.62
0.48	4.93	2.86
0.50	5.05	3.10
0.52	5.16	3.35
0.54	5.27	3.61
0.56	5.38	3.87
0.58	5.49	4.15
0.60	5.59	4.43
0.62	5.69	4.72
0.64	5.79	5.02
0.66	5.88	5.32
0.68	5.98	5.63
0.70	6.07	5.95
0.72	6.16	6.27
0.74	6.25	6.60
0.76	6.33	6.94
0.78	6.42	7.28
0.80	6.50	7.62
0.82	6.58	7.97
0.84	6.65	8.33
0.86	6.73	8.69
0.88	6.80	9.05
0.90	6.87	9.42
0.92	6.94	9.79
0.94	7.01	10.17
0.96	7.08	10.55
0.98	7.14	10.93
1.00	7.20	11.31
1.02	7.26	11.70
1.04	7.32	12.08
1.06	7.38	12.47
1.08	7.43	12.86
1.10	7.48	13.25
1.12	7.54	13.64
1.14	7.58	14.03
1.16	7.63	14.42
1.18	7.68	14.81
1.20	7.72	15.20
1.22	7.76	15.59
1.24	7.81	15.97
1.26	7.84	16.35
1.28	7.88	16.73
1.30	7.92	17.11
1.32	7.95	17.49
1.34	7.98	17.86
1.36	8.01	18.22
1.38	8.04	18.58
1.40	8.06	18.94
1.42	8.09	19.29
1.44	8.11	19.64
1.46	8.13	19.97
1.48	8.15	20.31
1.50	8.16	20.63
1.52	8.18	20.94
1.54	8.19	21.25
1.56	8.20	21.55
1.58	8.20	21.84
1.60	8.21	22.11
1.62	**8.21**	22.38
1.64	8.21	22.63
1.66	8.21	22.87
1.68	8.20	23.10
1.70	8.19	23.31
1.72	8.18	23.51
1.74	8.16	23.69
1.76	8.14	23.85
1.78	8.12	23.99
1.80	8.10	24.11
1.82	8.07	24.21
1.84	8.03	24.28
1.86	7.99	24.32
1.88	7.94	**24.33**
1.90	7.88	24.31
1.92	7.82	24.24
1.94	7.74	24.11
1.96	7.65	23.90
1.98	7.52	23.57
2.00	7.20	22.62

Summary for Pond 6P: (new Pond)

Inflow Area = 2.070 ac, 4.55% Impervious, Inflow Depth = 0.72" for 2-yr event
Inflow = 1.00 cfs @ 12.32 hrs, Volume= 0.125 af
Outflow = 1.00 cfs @ 12.34 hrs, Volume= 0.124 af, Atten= 0%, Lag= 1.4 min
Primary = 1.00 cfs @ 12.34 hrs, Volume= 0.124 af

Routing by Stor-Ind method, Time Span= 9.00-40.00 hrs, dt= 0.10 hrs
Peak Elev= 77.17' @ 12.34 hrs Surf.Area= 137 sf Storage= 117 cf

Plug-Flow detention time= 6.6 min calculated for 0.124 af (99% of inflow)
Center-of-Mass det. time= 2.5 min (888.6 - 886.1)

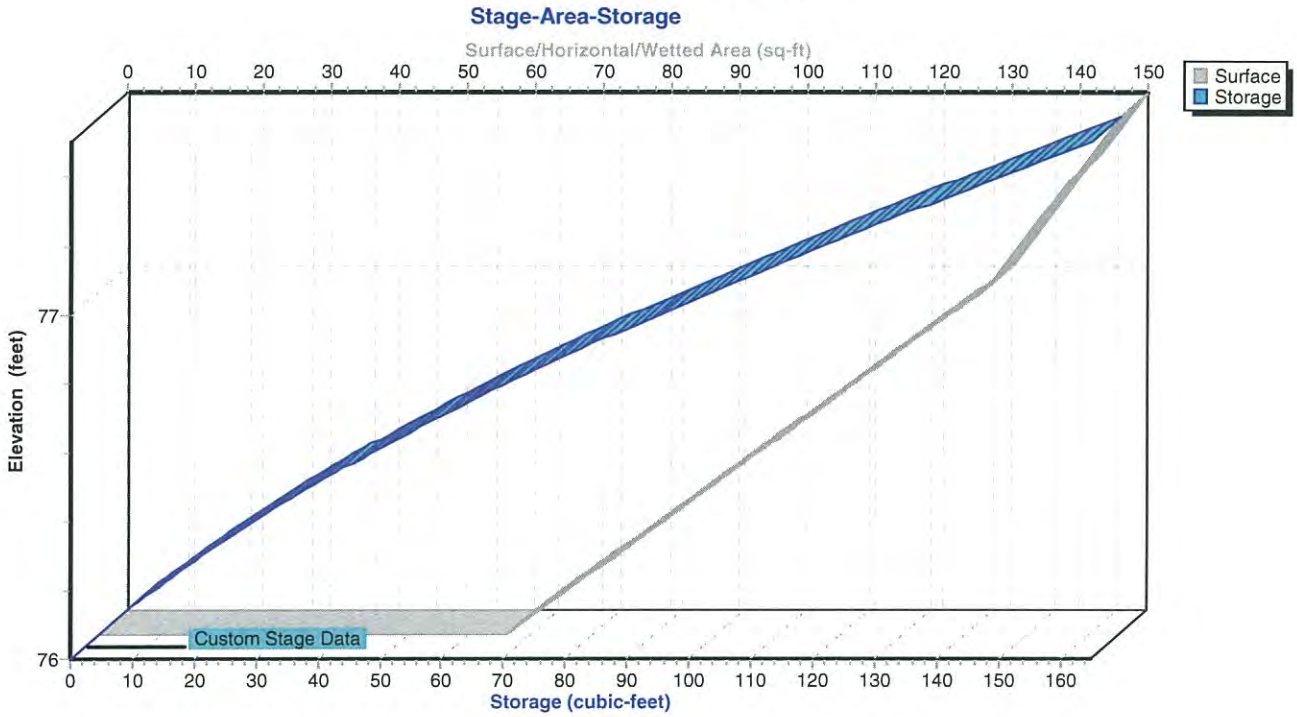
Volume	Invert	Avail.Storage	Storage Description
#1	76.00'	165 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
76.00	60	0	0
77.00	130	95	95
77.50	150	70	165

Device	Routing	Invert	Outlet Devices
#1	Primary	77.50'	**50.0' long x 1.0' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 Coef. (English) 2.69 2.72 2.75 2.85 2.98 3.08 3.20 3.28 3.31 3.30 3.31 3.32
#2	Primary	76.50'	**1.50 cfs Exfiltration when above 76.50'** Phase-In= 1.00'

Primary OutFlow Max=0.98 cfs @ 12.34 hrs HW=77.15' (Free Discharge)
1=Broad-Crested Rectangular Weir (Controls 0.00 cfs)
2=Exfiltration (Exfiltration Controls 0.98 cfs)

Pond 6P: (new Pond)



Hydrograph for Pond 6P: (new Pond)

Time (hours)	Inflow (cfs)	Storage (cubic-feet)	Elevation (feet)	Primary (cfs)
9.00	0.00	0	76.00	0.00
10.00	0.00	0	76.00	0.00
11.00	0.00	0	76.00	0.00
12.00	**0.28**	**54**	**76.66**	**0.23**
13.00	**0.29**	**59**	**76.70**	**0.30**
14.00	0.16	49	76.61	0.16
15.00	0.12	47	76.58	0.12
16.00	0.09	45	76.56	0.09
17.00	0.07	43	76.55	0.07
18.00	0.06	42	76.54	0.06
19.00	0.05	42	76.53	0.05
20.00	0.04	42	76.53	0.04
21.00	0.04	41	76.53	0.04
22.00	0.04	41	76.52	0.04
23.00	0.03	41	76.52	0.03
24.00	0.03	41	76.52	0.03
25.00	0.00	39	76.50	0.00
26.00	0.00	39	76.50	0.00
27.00	0.00	39	76.50	0.00
28.00	0.00	39	76.50	0.00
29.00	0.00	39	76.50	0.00
30.00	0.00	39	76.50	0.00
31.00	0.00	39	76.50	0.00
32.00	0.00	39	76.50	0.00
33.00	0.00	39	76.50	0.00
34.00	0.00	39	76.50	0.00
35.00	0.00	39	76.50	0.00
36.00	0.00	39	76.50	0.00
37.00	0.00	39	76.50	0.00
38.00	0.00	39	76.50	0.00
39.00	0.00	39	76.50	0.00
40.00	0.00	39	76.50	0.00

Stage-Discharge for Pond 6P: (new Pond)

Elevation (feet)	Primary (cfs)	Elevation (feet)	Primary (cfs)	Elevation (feet)	Primary (cfs)
76.00	0.00	76.52	0.03	77.04	0.81
76.01	0.00	76.53	0.05	77.05	0.82
76.02	0.00	76.54	0.06	77.06	0.84
76.03	0.00	76.55	0.07	77.07	0.85
76.04	0.00	76.56	0.09	77.08	0.87
76.05	0.00	76.57	0.10	77.09	0.89
76.06	0.00	76.58	0.12	77.10	0.90
76.07	0.00	76.59	0.14	77.11	0.91
76.08	0.00	76.60	0.15	77.12	0.93
76.09	0.00	76.61	0.16	77.13	0.94
76.10	0.00	76.62	0.18	77.14	0.96
76.11	0.00	76.63	0.19	77.15	0.98
76.12	0.00	76.64	0.21	77.16	0.99
76.13	0.00	76.65	0.23	77.17	1.01
76.14	0.00	76.66	0.24	77.18	1.02
76.15	0.00	76.67	0.26	77.19	1.03
76.16	0.00	76.68	0.27	77.20	1.05
76.17	0.00	76.69	0.28	77.21	1.06
76.18	0.00	76.70	0.30	77.22	1.08
76.19	0.00	76.71	0.31	77.23	1.10
76.20	0.00	76.72	0.33	77.24	1.11
76.21	0.00	76.73	0.35	77.25	1.13
76.22	0.00	76.74	0.36	77.26	1.14
76.23	0.00	76.75	0.38	77.27	1.15
76.24	0.00	76.76	0.39	77.28	1.17
76.25	0.00	76.77	0.40	77.29	1.19
76.26	0.00	76.78	0.42	77.30	1.20
76.27	0.00	76.79	0.44	77.31	1.22
76.28	0.00	76.80	0.45	77.32	1.23
76.29	0.00	76.81	0.47	77.33	1.24
76.30	0.00	76.82	0.48	77.34	1.26
76.31	0.00	76.83	0.49	77.35	1.27
76.32	0.00	76.84	0.51	77.36	1.29
76.33	0.00	76.85	0.52	77.37	1.31
76.34	0.00	76.86	0.54	77.38	1.32
76.35	0.00	76.87	0.56	77.39	1.34
76.36	0.00	76.88	0.57	77.40	1.35
76.37	0.00	76.89	0.59	77.41	1.36
76.38	0.00	76.90	0.60	77.42	1.38
76.39	0.00	76.91	0.61	77.43	1.40
76.40	0.00	76.92	0.63	77.44	1.41
76.41	0.00	76.93	0.65	77.45	1.43
76.42	0.00	76.94	0.66	77.46	1.44
76.43	0.00	76.95	0.68	77.47	1.45
76.44	0.00	76.96	0.69	77.48	1.47
76.45	0.00	76.97	0.70	77.49	1.48
76.46	0.00	76.98	0.72	77.50	**1.50**
76.47	0.00	76.99	0.73		
76.48	0.00	77.00	0.75		
76.49	0.00	77.01	0.77		
76.50	0.00	77.02	0.78		
76.51	0.02	77.03	0.80		

Summary for Pond 15P: (new Pond)

Inflow Area = 3.944 ac, 5.83% Impervious, Inflow Depth = 0.77" for 2-yr event
Inflow = 2.15 cfs @ 12.27 hrs, Volume= 0.253 af
Outflow = 2.16 cfs @ 12.30 hrs, Volume= 0.251 af, Atten= 0%, Lag= 2.0 min
Primary = 2.16 cfs @ 12.30 hrs, Volume= 0.251 af

Routing by Stor-Ind method, Time Span= 9.00-40.00 hrs, dt= 0.10 hrs
Peak Elev= 77.22' @ 12.30 hrs Surf.Area= 278 sf Storage= 249 cf

Plug-Flow detention time= 6.4 min calculated for 0.251 af (99% of inflow)
Center-of-Mass det. time= 2.5 min (882.3 - 879.8)

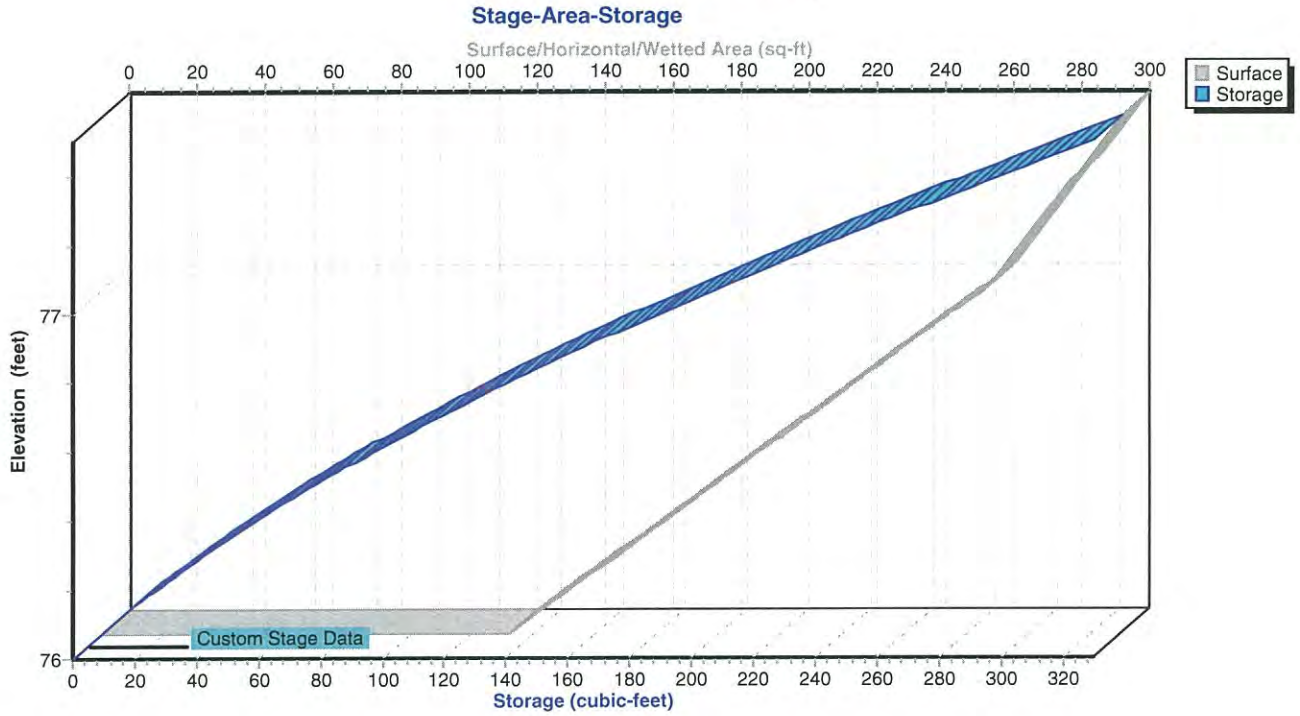
Volume	Invert	Avail.Storage	Storage Description
#1	76.00'	330 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
76.00	120	0	0
77.00	260	190	190
77.50	300	140	330

Device	Routing	Invert	Outlet Devices
#1	Primary	77.50'	**50.0' long x 1.0' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 Coef. (English) 2.69 2.72 2.75 2.85 2.98 3.08 3.20 3.28 3.31 3.30 3.31 3.32
#2	Primary	76.50'	**3.00 cfs Exfiltration when above 76.50'** Phase-In= 1.00'

Primary OutFlow Max=2.15 cfs @ 12.30 hrs HW=77.22' (Free Discharge)
↑—**1=Broad-Crested Rectangular Weir** (Controls 0.00 cfs)
└—**2=Exfiltration** (Exfiltration Controls 2.15 cfs)

Pond 15P: (new Pond)



Hydrograph for Pond 15P: (new Pond)

Time (hours)	Inflow (cfs)	Storage (cubic-feet)	Elevation (feet)	Primary (cfs)
9.00	0.00	0	76.00	0.00
10.00	0.00	0	76.00	0.00
11.00	0.00	0	76.00	0.00
12.00	**0.73**	**122**	**76.72**	**0.66**
13.00	**0.53**	**115**	**76.68**	**0.55**
14.00	0.31	98	76.60	0.31
15.00	0.24	93	76.58	0.24
16.00	0.17	89	76.56	0.18
17.00	0.14	86	76.55	0.14
18.00	0.11	84	76.54	0.11
19.00	0.09	84	76.53	0.09
20.00	0.09	83	76.53	0.09
21.00	0.08	83	76.53	0.08
22.00	0.07	82	76.52	0.07
23.00	0.06	82	76.52	0.07
24.00	0.06	81	76.52	0.06
25.00	0.00	78	76.50	0.00
26.00	0.00	78	76.50	0.00
27.00	0.00	78	76.50	0.00
28.00	0.00	78	76.50	0.00
29.00	0.00	78	76.50	0.00
30.00	0.00	78	76.50	0.00
31.00	0.00	78	76.50	0.00
32.00	0.00	78	76.50	0.00
33.00	0.00	78	76.50	0.00
34.00	0.00	78	76.50	0.00
35.00	0.00	78	76.50	0.00
36.00	0.00	78	76.50	0.00
37.00	0.00	78	76.50	0.00
38.00	0.00	78	76.50	0.00
39.00	0.00	78	76.50	0.00
40.00	0.00	78	76.50	0.00

Stage-Discharge for Pond 15P: (new Pond)

Elevation (feet)	Primary (cfs)	Elevation (feet)	Primary (cfs)	Elevation (feet)	Primary (cfs)
76.00	0.00	76.52	0.06	77.04	1.62
76.01	0.00	76.53	0.09	77.05	1.65
76.02	0.00	76.54	0.12	77.06	1.68
76.03	0.00	76.55	0.15	77.07	1.71
76.04	0.00	76.56	0.18	77.08	1.74
76.05	0.00	76.57	0.21	77.09	1.77
76.06	0.00	76.58	0.24	77.10	1.80
76.07	0.00	76.59	0.27	77.11	1.83
76.08	0.00	76.60	0.30	77.12	1.86
76.09	0.00	76.61	0.33	77.13	1.89
76.10	0.00	76.62	0.36	77.14	1.92
76.11	0.00	76.63	0.39	77.15	1.95
76.12	0.00	76.64	0.42	77.16	1.98
76.13	0.00	76.65	0.45	77.17	2.01
76.14	0.00	76.66	0.48	77.18	2.04
76.15	0.00	76.67	0.51	77.19	2.07
76.16	0.00	76.68	0.54	77.20	2.10
76.17	0.00	76.69	0.57	77.21	2.13
76.18	0.00	76.70	0.60	77.22	2.16
76.19	0.00	76.71	0.63	77.23	2.19
76.20	0.00	76.72	0.66	77.24	2.22
76.21	0.00	76.73	0.69	77.25	2.25
76.22	0.00	76.74	0.72	77.26	2.28
76.23	0.00	76.75	0.75	77.27	2.31
76.24	0.00	76.76	0.78	77.28	2.34
76.25	0.00	76.77	0.81	77.29	2.37
76.26	0.00	76.78	0.84	77.30	2.40
76.27	0.00	76.79	0.87	77.31	2.43
76.28	0.00	76.80	0.90	77.32	2.46
76.29	0.00	76.81	0.93	77.33	2.49
76.30	0.00	76.82	0.96	77.34	2.52
76.31	0.00	76.83	0.99	77.35	2.55
76.32	0.00	76.84	1.02	77.36	2.58
76.33	0.00	76.85	1.05	77.37	2.61
76.34	0.00	76.86	1.08	77.38	2.64
76.35	0.00	76.87	1.11	77.39	2.67
76.36	0.00	76.88	1.14	77.40	2.70
76.37	0.00	76.89	1.17	77.41	2.73
76.38	0.00	76.90	1.20	77.42	2.76
76.39	0.00	76.91	1.23	77.43	2.79
76.40	0.00	76.92	1.26	77.44	2.82
76.41	0.00	76.93	1.29	77.45	2.85
76.42	0.00	76.94	1.32	77.46	2.88
76.43	0.00	76.95	1.35	77.47	2.91
76.44	0.00	76.96	1.38	77.48	2.94
76.45	0.00	76.97	1.41	77.49	2.97
76.46	0.00	76.98	1.44	77.50	**3.00**
76.47	0.00	76.99	1.47		
76.48	0.00	77.00	1.50		
76.49	0.00	77.01	1.53		
76.50	0.00	77.02	1.56		
76.51	0.03	77.03	1.59		

Summary for Subcatchment 11S: Subcat 11

Runoff = 7.28 cfs @ 12.24 hrs, Volume= 0.778 af, Depth> 2.37"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 9.00-40.00 hrs, dt= 0.10 hrs
Type III 24-hr 25-yr Rainfall=4.90"

	Area (sf)	CN	Description	Land Use
	145,602	73	Woods, Fair, HSG C	Woods
	16,184	74	>75% Grass cover, Good, HSG C	Open Space
*	10,019	98	Impervious	
	171,805	75	Weighted Average	
	161,786		94.17% Pervious Area	
	10,019		5.83% Impervious Area	

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
19.6	150	0.0700	0.13		**Sheet Flow, 1A-1B** Woods: Light underbrush n= 0.400 P2= 2.70"
0.2	66	0.0100	4.90	19.60	**Trap/Vee/Rect Channel Flow, 11B-11C** Bot.W=2.00' D=1.00' Z= 2.0 '/' Top.W=6.00' n= 0.022 Earth, clean & straight
0.2	174	0.0600	12.00	48.02	**Trap/Vee/Rect Channel Flow, 11C-11D** Bot.W=2.00' D=1.00' Z= 2.0 '/' Top.W=6.00' n= 0.022
20.0	390	Total			

Hydrograph for Subcatchment 11S: Subcat 11

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
9.00	0.71	0.00	0.00
9.50	0.81	0.01	0.04
10.00	0.93	0.02	0.10
10.50	1.06	0.04	0.18
11.00	1.22	0.08	0.30
11.50	1.46	0.15	0.57
12.00	2.45	0.62	**3.25**
12.50	3.44	1.26	**4.60**
13.00	3.67	1.43	1.45
13.50	3.84	1.55	0.97
14.00	3.97	1.65	0.80
14.50	4.09	1.73	0.68
15.00	4.19	1.81	0.60
15.50	4.27	1.87	0.52
16.00	4.34	1.93	0.44
16.50	4.40	1.97	0.38
17.00	4.46	2.02	0.34
17.50	4.50	2.05	0.30
18.00	4.55	2.09	0.26
18.50	4.59	2.12	0.24
19.00	4.62	2.15	0.23
19.50	4.66	2.17	0.22
20.00	4.69	2.20	0.21
20.50	4.72	2.22	0.20
21.00	4.75	2.25	0.19
21.50	4.78	2.27	0.18
22.00	4.81	2.29	0.17
22.50	4.83	2.31	0.16
23.00	4.86	2.33	0.16
23.50	4.88	2.35	0.15
24.00	**4.90**	**2.37**	0.14
24.50	4.90	2.37	0.01
25.00	4.90	2.37	0.00
25.50	4.90	2.37	0.00
26.00	4.90	2.37	0.00
26.50	4.90	2.37	0.00
27.00	4.90	2.37	0.00
27.50	4.90	2.37	0.00
28.00	4.90	2.37	0.00
28.50	4.90	2.37	0.00
29.00	4.90	2.37	0.00
29.50	4.90	2.37	0.00
30.00	4.90	2.37	0.00
30.50	4.90	2.37	0.00
31.00	4.90	2.37	0.00
31.50	4.90	2.37	0.00
32.00	4.90	2.37	0.00
32.50	4.90	2.37	0.00
33.00	4.90	2.37	0.00
33.50	4.90	2.37	0.00
34.00	4.90	2.37	0.00
34.50	4.90	2.37	0.00
35.00	4.90	2.37	0.00
35.50	4.90	2.37	0.00
36.00	4.90	2.37	0.00
36.50	4.90	2.37	0.00
37.00	4.90	2.37	0.00
37.50	4.90	2.37	0.00
38.00	4.90	2.37	0.00
38.50	4.90	2.37	0.00
39.00	4.90	2.37	0.00
39.50	4.90	2.37	0.00
40.00	4.90	2.37	0.00

Summary for Subcatchment 12S: Subcat 12

Runoff = 2.48 cfs @ 12.55 hrs, Volume= 0.374 af, Depth> 2.45"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 9.00-40.00 hrs, dt= 0.10 hrs
Type III 24-hr 25-yr Rainfall=4.90"

	Area (sf)	CN	Description	Land Use
*	55,580	73	Woods, Good, HSG C/D	Woods
*	9,494	98	Impervious	
*	14,619	74	Lawn	
	79,693	76	Weighted Average	
	70,199		88.09% Pervious Area	
	9,494		11.91% Impervious Area	

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
17.7	150	0.0900	0.14		**Sheet Flow, 2A-2B** Woods: Light underbrush n= 0.400 P2= 2.70"
4.7	242	0.0300	0.87		**Shallow Concentrated Flow, 2B-2C** Woodland Kv= 5.0 fps
0.1	38	0.0200	6.42	5.04	**Pipe Channel, 12C-12D** 12.0" Round Area= 0.8 sf Perim= 3.1' r= 0.25' n= 0.013 Corrugated PE, smooth interior
16.6	176	0.0050	0.18		**Shallow Concentrated Flow, 12D-12E** Forest w/Heavy Litter Kv= 2.5 fps
3.8	162	0.0800	0.71		**Shallow Concentrated Flow, 12E-12F** Forest w/Heavy Litter Kv= 2.5 fps
42.9	768	Total			

Hydrograph for Subcatchment 12S: Subcat 12

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
9.00	0.71	0.00	0.00
9.50	0.81	0.01	0.01
10.00	0.93	0.03	0.04
10.50	1.06	0.05	0.07
11.00	1.22	0.09	0.11
11.50	1.46	0.17	0.19
12.00	2.45	0.66	0.59
12.50	3.44	1.32	**2.45**
13.00	3.67	1.49	**1.44**
13.50	3.84	1.62	0.69
14.00	3.97	1.72	0.47
14.50	4.09	1.81	0.36
15.00	4.19	1.88	0.31
15.50	4.27	1.95	0.27
16.00	4.34	2.00	0.23
16.50	4.40	2.05	0.20
17.00	4.46	2.10	0.17
17.50	4.50	2.13	0.16
18.00	4.55	2.17	0.14
18.50	4.59	2.20	0.12
19.00	4.62	2.23	0.11
19.50	4.66	2.26	0.11
20.00	4.69	2.28	0.10
20.50	4.72	2.31	0.10
21.00	4.75	2.33	0.09
21.50	4.78	2.35	0.09
22.00	4.81	2.38	0.08
22.50	4.83	2.40	0.08
23.00	4.86	2.42	0.08
23.50	4.88	2.44	0.07
24.00	**4.90**	**2.45**	0.07
24.50	4.90	2.45	0.04
25.00	4.90	2.45	0.01
25.50	4.90	2.45	0.00
26.00	4.90	2.45	0.00
26.50	4.90	2.45	0.00
27.00	4.90	2.45	0.00
27.50	4.90	2.45	0.00
28.00	4.90	2.45	0.00
28.50	4.90	2.45	0.00
29.00	4.90	2.45	0.00
29.50	4.90	2.45	0.00
30.00	4.90	2.45	0.00
30.50	4.90	2.45	0.00
31.00	4.90	2.45	0.00
31.50	4.90	2.45	0.00
32.00	4.90	2.45	0.00
32.50	4.90	2.45	0.00
33.00	4.90	2.45	0.00
33.50	4.90	2.45	0.00
34.00	4.90	2.45	0.00
34.50	4.90	2.45	0.00
35.00	4.90	2.45	0.00
35.50	4.90	2.45	0.00
36.00	4.90	2.45	0.00
36.50	4.90	2.45	0.00
37.00	4.90	2.45	0.00
37.50	4.90	2.45	0.00
38.00	4.90	2.45	0.00
38.50	4.90	2.45	0.00
39.00	4.90	2.45	0.00
39.50	4.90	2.45	0.00
40.00	4.90	2.45	0.00

Summary for Subcatchment 13S: Subcat 13

Runoff = 3.47 cfs @ 12.28 hrs, Volume= 0.394 af, Depth> 2.28"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 9.00-40.00 hrs, dt= 0.10 hrs
Type III 24-hr 25-yr Rainfall=4.90"

	Area (sf)	CN	Description	Land Use
	83,001	73	Woods, Fair, HSG C	Woods
*	1,411	74	Lawn	
*	4,107	98	Impervious	
*	1,664	77	Wooded, HSG D	
	90,183	74	Weighted Average	
	86,076		95.45% Pervious Area	
	4,107		4.55% Impervious Area	

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
18.6	150	0.0800	0.13		**Sheet Flow, 13A-13B** Woods: Light underbrush n= 0.400 P2= 2.70"
1.1	65	0.0400	1.00		**Shallow Concentrated Flow, 13B-13C** Woodland Kv= 5.0 fps
3.0	94	0.0450	0.53		**Shallow Concentrated Flow, 13C-13D** Forest w/Heavy Litter Kv= 2.5 fps
22.7	309	Total			

Hydrograph for Subcatchment 13S: Subcat 13

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
9.00	0.71	0.00	0.00
9.50	0.81	0.00	0.01
10.00	0.93	0.01	0.04
10.50	1.06	0.03	0.08
11.00	1.22	0.07	0.14
11.50	1.46	0.13	0.26
12.00	2.45	0.58	**1.40**
12.50	3.44	1.20	**2.53**
13.00	3.67	1.36	0.81
13.50	3.84	1.48	0.51
14.00	3.97	1.58	0.42
14.50	4.09	1.66	0.35
15.00	4.19	1.73	0.31
15.50	4.27	1.80	0.27
16.00	4.34	1.85	0.23
16.50	4.40	1.90	0.20
17.00	4.46	1.94	0.18
17.50	4.50	1.98	0.16
18.00	4.55	2.01	0.14
18.50	4.59	2.04	0.12
19.00	4.62	2.07	0.12
19.50	4.66	2.09	0.11
20.00	4.69	2.12	0.11
20.50	4.72	2.14	0.10
21.00	4.75	2.17	0.10
21.50	4.78	2.19	0.09
22.00	4.81	2.21	0.09
22.50	4.83	2.23	0.08
23.00	4.86	2.25	0.08
23.50	4.88	2.27	0.08
24.00	**4.90**	**2.28**	0.07
24.50	4.90	2.28	0.01
25.00	4.90	2.28	0.00
25.50	4.90	2.28	0.00
26.00	4.90	2.28	0.00
26.50	4.90	2.28	0.00
27.00	4.90	2.28	0.00
27.50	4.90	2.28	0.00
28.00	4.90	2.28	0.00
28.50	4.90	2.28	0.00
29.00	4.90	2.28	0.00
29.50	4.90	2.28	0.00
30.00	4.90	2.28	0.00
30.50	4.90	2.28	0.00
31.00	4.90	2.28	0.00
31.50	4.90	2.28	0.00
32.00	4.90	2.28	0.00
32.50	4.90	2.28	0.00
33.00	4.90	2.28	0.00
33.50	4.90	2.28	0.00
34.00	4.90	2.28	0.00
34.50	4.90	2.28	0.00
35.00	4.90	2.28	0.00
35.50	4.90	2.28	0.00
36.00	4.90	2.28	0.00
36.50	4.90	2.28	0.00
37.00	4.90	2.28	0.00
37.50	4.90	2.28	0.00
38.00	4.90	2.28	0.00
38.50	4.90	2.28	0.00
39.00	4.90	2.28	0.00
39.50	4.90	2.28	0.00
40.00	4.90	2.28	0.00

Summary for Subcatchment 14S: Subcat 14

Runoff = 3.40 cfs @ 12.35 hrs, Volume= 0.422 af, Depth> 2.45"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 9.00-40.00 hrs, dt= 0.10 hrs
Type III 24-hr 25-yr Rainfall=4.90"

	Area (sf)	CN	Description	Land Use
*	47,496	73	Wooded	
*	2,253	74	Lawn	
*	3,222	98	Impervious	
*	37,000	77	Wooded, HSG D	
	89,971	76	Weighted Average	
	86,749		96.42% Pervious Area	
	3,222		3.58% Impervious Area	

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
14.7	125	0.1000	0.14		**Sheet Flow, 14A-14B** Woods: Light underbrush n= 0.400 P2= 2.70"
0.1	48	0.0400	9.07	7.13	**Pipe Channel, 14B-14C** 12.0" Round Area= 0.8 sf Perim= 3.1' r= 0.25' n= 0.013 Corrugated PE, smooth interior
13.5	350	0.0300	0.43		**Shallow Concentrated Flow, 14C-14D** Forest w/Heavy Litter Kv= 2.5 fps
28.3	523	Total			

Hydrograph for Subcatchment 14S: Subcat 14

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
9.00	0.71	0.00	0.01
9.50	0.81	0.01	0.03
10.00	0.93	0.03	0.05
10.50	1.06	0.05	0.10
11.00	1.22	0.09	0.16
11.50	1.46	0.17	0.28
12.00	2.45	0.66	**1.19**
12.50	3.44	1.32	**2.99**
13.00	3.67	1.49	1.03
13.50	3.84	1.62	0.57
14.00	3.97	1.72	0.45
14.50	4.09	1.81	0.38
15.00	4.19	1.88	0.33
15.50	4.27	1.95	0.29
16.00	4.34	2.00	0.24
16.50	4.40	2.05	0.21
17.00	4.46	2.10	0.19
17.50	4.50	2.13	0.17
18.00	4.55	2.17	0.15
18.50	4.59	2.20	0.13
19.00	4.62	2.23	0.12
19.50	4.66	2.26	0.12
20.00	4.69	2.28	0.11
20.50	4.72	2.31	0.11
21.00	4.75	2.33	0.10
21.50	4.78	2.35	0.10
22.00	4.81	2.38	0.09
22.50	4.83	2.40	0.09
23.00	4.86	2.42	0.08
23.50	4.88	2.44	0.08
24.00	**4.90**	**2.45**	0.07
24.50	4.90	2.45	0.02
25.00	4.90	2.45	0.00
25.50	4.90	2.45	0.00
26.00	4.90	2.45	0.00
26.50	4.90	2.45	0.00
27.00	4.90	2.45	0.00
27.50	4.90	2.45	0.00
28.00	4.90	2.45	0.00
28.50	4.90	2.45	0.00
29.00	4.90	2.45	0.00
29.50	4.90	2.45	0.00
30.00	4.90	2.45	0.00
30.50	4.90	2.45	0.00
31.00	4.90	2.45	0.00
31.50	4.90	2.45	0.00
32.00	4.90	2.45	0.00
32.50	4.90	2.45	0.00
33.00	4.90	2.45	0.00
33.50	4.90	2.45	0.00
34.00	4.90	2.45	0.00
34.50	4.90	2.45	0.00
35.00	4.90	2.45	0.00
35.50	4.90	2.45	0.00
36.00	4.90	2.45	0.00
36.50	4.90	2.45	0.00
37.00	4.90	2.45	0.00
37.50	4.90	2.45	0.00
38.00	4.90	2.45	0.00
38.50	4.90	2.45	0.00
39.00	4.90	2.45	0.00
39.50	4.90	2.45	0.00
40.00	4.90	2.45	0.00

Summary for Reach 8R: Combined Flows

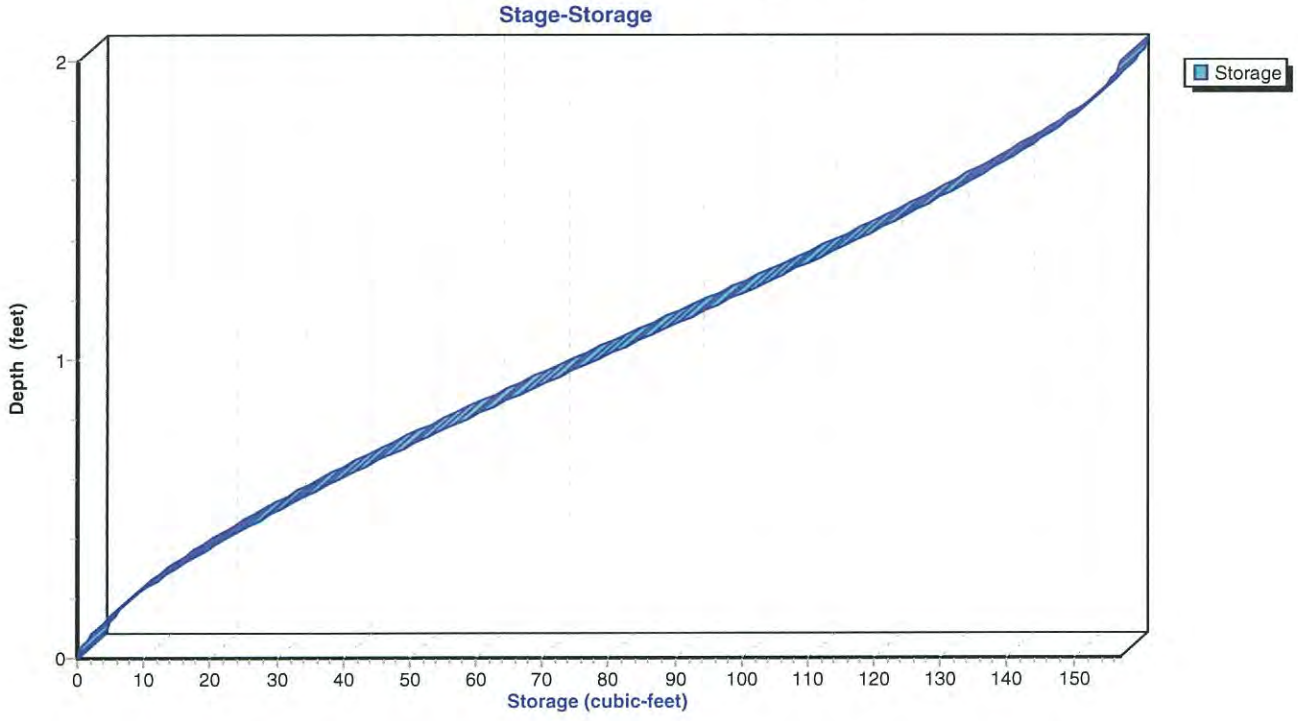
Inflow Area = 6.014 ac, 5.39% Impervious, Inflow Depth = 2.33" for 25-yr event
Inflow = 10.79 cfs @ 12.27 hrs, Volume= 1.170 af
Outflow = 10.72 cfs @ 12.27 hrs, Volume= 1.170 af, Atten= 1%, Lag= 0.0 min

Routing by Stor-Ind+Trans method, Time Span= 9.00-40.00 hrs, dt= 0.10 hrs
Max. Velocity= 7.09 fps, Min. Travel Time= 0.1 min
Avg. Velocity = 2.97 fps, Avg. Travel Time= 0.3 min

Peak Storage= 76 cf @ 12.27 hrs
Average Depth at Peak Storage= 0.97'
Bank-Full Depth= 2.00', Capacity at Bank-Full= 22.62 cfs

24.0" Round Pipe
n= 0.013
Length= 50.0' Slope= 0.0100 '/'
Inlet Invert= 0.00', Outlet Invert= -0.50'

Reach 8R: Combined Flows



Hydrograph for Reach 8R: Combined Flows

Time (hours)	Inflow (cfs)	Storage (cubic-feet)	Elevation (feet)	Outflow (cfs)
9.00	0.00	0	0.00	0.00
10.00	0.16	3	0.11	0.14
11.00	0.43	8	0.19	0.43
12.00	**4.16**	**38**	**0.58**	**4.10**
13.00	**2.33**	**26**	**0.44**	**2.44**
14.00	1.23	16	0.32	1.26
15.00	0.92	13	0.28	0.93
16.00	0.67	10	0.24	0.67
17.00	0.52	9	0.21	0.52
18.00	0.40	7	0.19	0.41
19.00	0.35	7	0.17	0.35
20.00	0.31	6	0.16	0.32
21.00	0.29	6	0.16	0.29
22.00	0.26	5	0.15	0.26
23.00	0.24	5	0.14	0.24
24.00	0.21	5	0.14	0.21
25.00	0.00	0	0.00	0.00
26.00	0.00	0	0.00	0.00
27.00	0.00	0	0.00	0.00
28.00	0.00	0	0.00	0.00
29.00	0.00	0	0.00	0.00
30.00	0.00	0	0.00	0.00
31.00	0.00	0	0.00	0.00
32.00	0.00	0	0.00	0.00
33.00	0.00	0	0.00	0.00
34.00	0.00	0	0.00	0.00
35.00	0.00	0	0.00	0.00
36.00	0.00	0	0.00	0.00
37.00	0.00	0	0.00	0.00
38.00	0.00	0	0.00	0.00
39.00	0.00	0	0.00	0.00
40.00	0.00	0	0.00	0.00

Stage-Discharge for Reach 8R: Combined Flows

Elevation (feet)	Velocity (ft/sec)	Discharge (cfs)
0.00	0.00	0.00
0.02	0.64	0.00
0.04	1.01	0.02
0.06	1.32	0.04
0.08	1.60	0.07
0.10	1.85	0.11
0.12	2.08	0.16
0.14	2.30	0.22
0.16	2.51	0.30
0.18	2.70	0.38
0.20	2.89	0.47
0.22	3.07	0.58
0.24	3.24	0.69
0.26	3.41	0.82
0.28	3.57	0.95
0.30	3.72	1.10
0.32	3.87	1.26
0.34	4.02	1.42
0.36	4.16	1.60
0.38	4.30	1.79
0.40	4.43	1.98
0.42	4.56	2.19
0.44	4.69	2.40
0.46	4.81	2.62
0.48	4.93	2.86
0.50	5.05	3.10
0.52	5.16	3.35
0.54	5.27	3.61
0.56	5.38	3.87
0.58	5.49	4.15
0.60	5.59	4.43
0.62	5.69	4.72
0.64	5.79	5.02
0.66	5.88	5.32
0.68	5.98	5.63
0.70	6.07	5.95
0.72	6.16	6.27
0.74	6.25	6.60
0.76	6.33	6.94
0.78	6.42	7.28
0.80	6.50	7.62
0.82	6.58	7.97
0.84	6.65	8.33
0.86	6.73	8.69
0.88	6.80	9.05
0.90	6.87	9.42
0.92	6.94	9.79
0.94	7.01	10.17
0.96	7.08	10.55
0.98	7.14	10.93
1.00	7.20	11.31
1.02	7.26	11.70
1.04	7.32	12.08
1.06	7.38	12.47
1.08	7.43	12.86
1.10	7.48	13.25
1.12	7.54	13.64
1.14	7.58	14.03
1.16	7.63	14.42
1.18	7.68	14.81
1.20	7.72	15.20
1.22	7.76	15.59
1.24	7.81	15.97
1.26	7.84	16.35
1.28	7.88	16.73
1.30	7.92	17.11
1.32	7.95	17.49
1.34	7.98	17.86
1.36	8.01	18.22
1.38	8.04	18.58
1.40	8.06	18.94
1.42	8.09	19.29
1.44	8.11	19.64
1.46	8.13	19.97
1.48	8.15	20.31
1.50	8.16	20.63
1.52	8.18	20.94
1.54	8.19	21.25
1.56	8.20	21.55
1.58	8.20	21.84
1.60	8.21	22.11
1.62	**8.21**	22.38
1.64	8.21	22.63
1.66	8.21	22.87
1.68	8.20	23.10
1.70	8.19	23.31
1.72	8.18	23.51
1.74	8.16	23.69
1.76	8.14	23.85
1.78	8.12	23.99
1.80	8.10	24.11
1.82	8.07	24.21
1.84	8.03	24.28
1.86	7.99	24.32
1.88	7.94	**24.33**
1.90	7.88	24.31
1.92	7.82	24.24
1.94	7.74	24.11
1.96	7.65	23.90
1.98	7.52	23.57
2.00	7.20	22.62

Summary for Reach 9R: Combined Flows

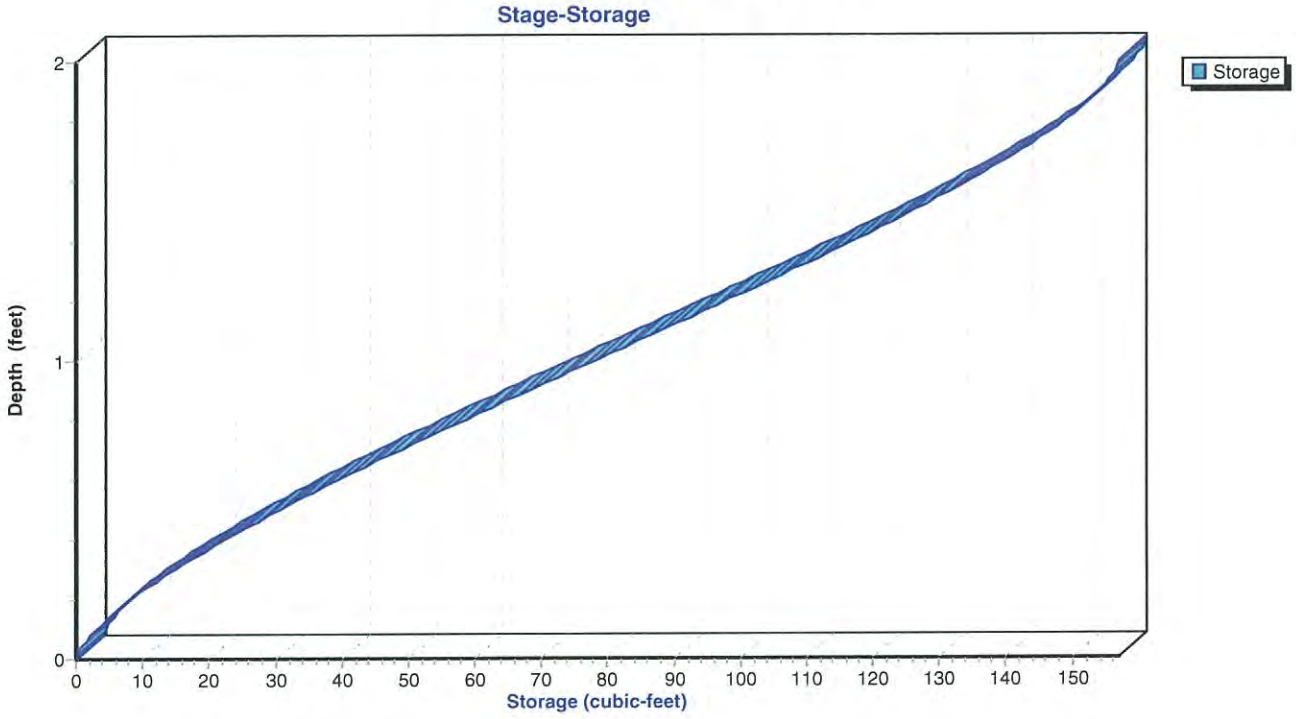
Inflow Area = 3.895 ac, 7.49% Impervious, Inflow Depth > 2.45" for 25-yr event
Inflow = 5.61 cfs @ 12.42 hrs, Volume= 0.796 af
Outflow = 5.60 cfs @ 12.43 hrs, Volume= 0.796 af, Atten= 0%, Lag= 0.2 min

Routing by Stor-Ind+Trans method, Time Span= 9.00-40.00 hrs, dt= 0.10 hrs
Max. Velocity= 5.97 fps, Min. Travel Time= 0.1 min
Avg. Velocity = 2.52 fps, Avg. Travel Time= 0.3 min

Peak Storage= 47 cf @ 12.43 hrs
Average Depth at Peak Storage= 0.68'
Bank-Full Depth= 2.00', Capacity at Bank-Full= 22.62 cfs

24.0" Round Pipe
n= 0.013
Length= 50.0' Slope= 0.0100 '/'
Inlet Invert= 0.00', Outlet Invert= -0.50'

Reach 9R: Combined Flows



Hydrograph for Reach 9R: Combined Flows

Time (hours)	Inflow (cfs)	Storage (cubic-feet)	Elevation (feet)	Outflow (cfs)
9.00	0.01	0	0.00	0.00
10.00	0.09	3	0.09	0.09
11.00	0.27	6	0.15	0.27
12.00	**1.79**	**21**	**0.38**	**1.76**
13.00	**2.47**	**26**	**0.45**	**2.49**
14.00	0.92	13	0.27	0.92
15.00	0.64	10	0.23	0.64
16.00	0.48	8	0.20	0.48
17.00	0.36	7	0.18	0.36
18.00	0.28	6	0.16	0.28
19.00	0.24	5	0.14	0.24
20.00	0.21	5	0.14	0.21
21.00	0.19	4	0.13	0.19
22.00	0.18	4	0.13	0.18
23.00	0.16	4	0.12	0.16
24.00	0.14	4	0.11	0.14
25.00	0.01	0	0.03	0.01
26.00	0.00	0	0.00	0.00
27.00	0.00	0	0.00	0.00
28.00	0.00	0	0.00	0.00
29.00	0.00	0	0.00	0.00
30.00	0.00	0	0.00	0.00
31.00	0.00	0	0.00	0.00
32.00	0.00	0	0.00	0.00
33.00	0.00	0	0.00	0.00
34.00	0.00	0	0.00	0.00
35.00	0.00	0	0.00	0.00
36.00	0.00	0	0.00	0.00
37.00	0.00	0	0.00	0.00
38.00	0.00	0	0.00	0.00
39.00	0.00	0	0.00	0.00
40.00	0.00	0	0.00	0.00

Stage-Discharge for Reach 9R: Combined Flows

Elevation (feet)	Velocity (ft/sec)	Discharge (cfs)
0.00	0.00	0.00
0.02	0.64	0.00
0.04	1.01	0.02
0.06	1.32	0.04
0.08	1.60	0.07
0.10	1.85	0.11
0.12	2.08	0.16
0.14	2.30	0.22
0.16	2.51	0.30
0.18	2.70	0.38
0.20	2.89	0.47
0.22	3.07	0.58
0.24	3.24	0.69
0.26	3.41	0.82
0.28	3.57	0.95
0.30	3.72	1.10
0.32	3.87	1.26
0.34	4.02	1.42
0.36	4.16	1.60
0.38	4.30	1.79
0.40	4.43	1.98
0.42	4.56	2.19
0.44	4.69	2.40
0.46	4.81	2.62
0.48	4.93	2.86
0.50	5.05	3.10
0.52	5.16	3.35
0.54	5.27	3.61
0.56	5.38	3.87
0.58	5.49	4.15
0.60	5.59	4.43
0.62	5.69	4.72
0.64	5.79	5.02
0.66	5.88	5.32
0.68	5.98	5.63
0.70	6.07	5.95
0.72	6.16	6.27
0.74	6.25	6.60
0.76	6.33	6.94
0.78	6.42	7.28
0.80	6.50	7.62
0.82	6.58	7.97
0.84	6.65	8.33
0.86	6.73	8.69
0.88	6.80	9.05
0.90	6.87	9.42
0.92	6.94	9.79
0.94	7.01	10.17
0.96	7.08	10.55
0.98	7.14	10.93
1.00	7.20	11.31
1.02	7.26	11.70
1.04	7.32	12.08
1.06	7.38	12.47
1.08	7.43	12.86
1.10	7.48	13.25
1.12	7.54	13.64
1.14	7.58	14.03
1.16	7.63	14.42
1.18	7.68	14.81
1.20	7.72	15.20
1.22	7.76	15.59
1.24	7.81	15.97
1.26	7.84	16.35
1.28	7.88	16.73
1.30	7.92	17.11
1.32	7.95	17.49
1.34	7.98	17.86
1.36	8.01	18.22
1.38	8.04	18.58
1.40	8.06	18.94
1.42	8.09	19.29
1.44	8.11	19.64
1.46	8.13	19.97
1.48	8.15	20.31
1.50	8.16	20.63
1.52	8.18	20.94
1.54	8.19	21.25
1.56	8.20	21.55
1.58	8.20	21.84
1.60	8.21	22.11
1.62	**8.21**	22.38
1.64	8.21	22.63
1.66	8.21	22.87
1.68	8.20	23.10
1.70	8.19	23.31
1.72	8.18	23.51
1.74	8.16	23.69
1.76	8.14	23.85
1.78	8.12	23.99
1.80	8.10	24.11
1.82	8.07	24.21
1.84	8.03	24.28
1.86	7.99	24.32
1.88	7.94	**24.33**
1.90	7.88	24.31
1.92	7.82	24.24
1.94	7.74	24.11
1.96	7.65	23.90
1.98	7.52	23.57
2.00	7.20	22.62

Summary for Pond 6P: (new Pond)

Inflow Area = 2.070 ac, 4.55% Impervious, Inflow Depth > 2.28" for 25-yr event
Inflow = 3.47 cfs @ 12.28 hrs, Volume= 0.394 af
Outflow = 3.48 cfs @ 12.28 hrs, Volume= 0.393 af, Atten= 0%, Lag= 0.1 min
Primary = 3.48 cfs @ 12.28 hrs, Volume= 0.393 af

Routing by Stor-Ind method, Time Span= 9.00-40.00 hrs, dt= 0.10 hrs
Peak Elev= 77.56' @ 12.28 hrs Surf.Area= 150 sf Storage= 165 cf

Plug-Flow detention time= 3.1 min calculated for 0.393 af (100% of inflow)
Center-of-Mass det. time= 1.6 min (852.6 - 850.9)

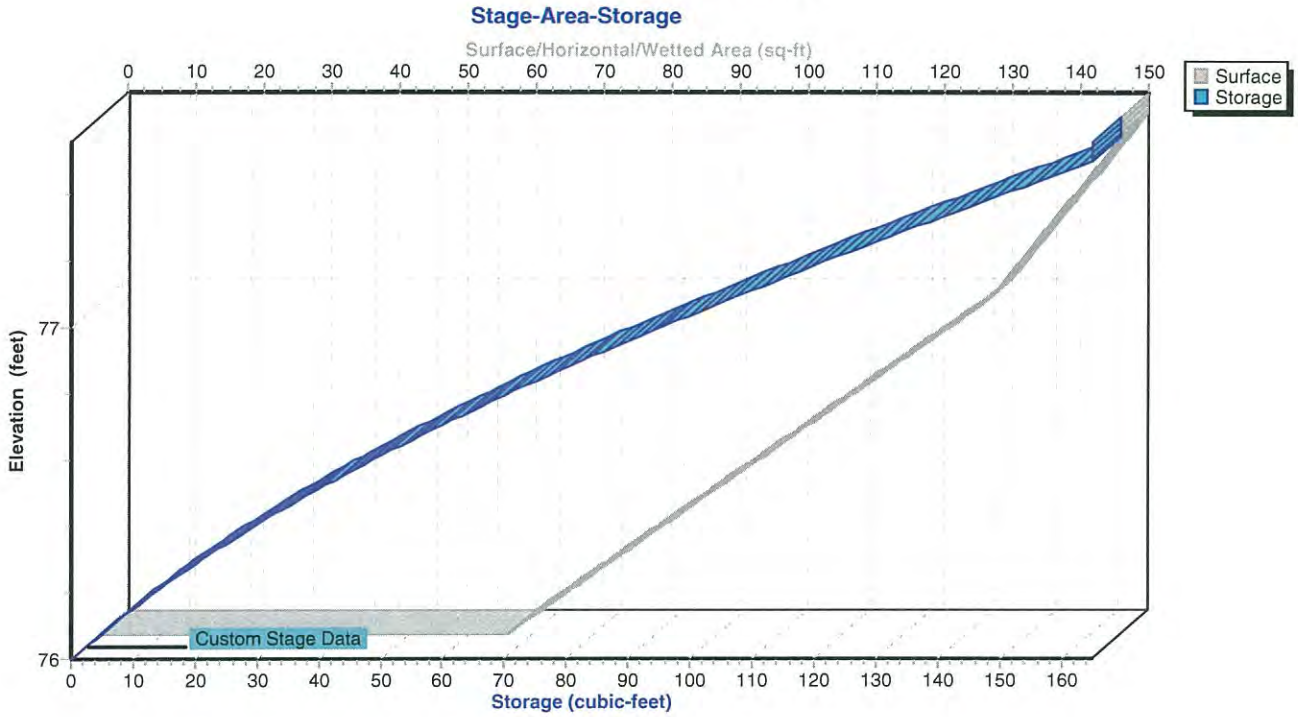
Volume	Invert	Avail.Storage	Storage Description
#1	76.00'	165 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
76.00	60	0	0
77.00	130	95	95
77.50	150	70	165

Device	Routing	Invert	Outlet Devices
#1	Primary	77.50'	**50.0' long x 1.0' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 Coef. (English) 2.69 2.72 2.75 2.85 2.98 3.08 3.20 3.28 3.31 3.30 3.31 3.32
#2	Primary	76.50'	**1.50 cfs Exfiltration when above 76.50'** Phase-In= 1.00'

Primary OutFlow Max=3.44 cfs @ 12.28 hrs HW=77.56' (Free Discharge)
└**1=Broad-Crested Rectangular Weir** (Weir Controls 1.94 cfs @ 0.65 fps)
└**2=Exfiltration** (Exfiltration Controls 1.50 cfs)

Pond 6P: (new Pond)



Hydrograph for Pond 6P: (new Pond)

Time (hours)	Inflow (cfs)	Storage (cubic-feet)	Elevation (feet)	Primary (cfs)
9.00	0.00	0	76.00	0.00
10.00	0.04	42	76.53	0.05
11.00	0.14	48	76.59	0.13
12.00	**1.40**	**141**	**77.34**	**1.26**
13.00	**0.81**	**103**	**77.06**	**0.84**
14.00	0.42	68	76.78	0.42
15.00	0.31	60	76.71	0.31
16.00	0.23	54	76.65	0.23
17.00	0.18	50	76.62	0.18
18.00	0.14	48	76.59	0.14
19.00	0.12	46	76.58	0.12
20.00	0.11	46	76.57	0.11
21.00	0.10	45	76.57	0.10
22.00	0.09	45	76.56	0.09
23.00	0.08	44	76.55	0.08
24.00	0.07	43	76.55	0.07
25.00	0.00	39	76.50	0.00
26.00	0.00	39	76.50	0.00
27.00	0.00	39	76.50	0.00
28.00	0.00	39	76.50	0.00
29.00	0.00	39	76.50	0.00
30.00	0.00	39	76.50	0.00
31.00	0.00	39	76.50	0.00
32.00	0.00	39	76.50	0.00
33.00	0.00	39	76.50	0.00
34.00	0.00	39	76.50	0.00
35.00	0.00	39	76.50	0.00
36.00	0.00	39	76.50	0.00
37.00	0.00	39	76.50	0.00
38.00	0.00	39	76.50	0.00
39.00	0.00	39	76.50	0.00
40.00	0.00	39	76.50	0.00

Stage-Discharge for Pond 6P: (new Pond)

Elevation (feet)	Primary (cfs)	Elevation (feet)	Primary (cfs)	Elevation (feet)	Primary (cfs)	Elevation (feet)	Primary (cfs)
76.00	0.00	76.52	0.03	77.04	0.81	77.56	**3.48**
76.01	0.00	76.53	0.05	77.05	0.82		
76.02	0.00	76.54	0.06	77.06	0.84		
76.03	0.00	76.55	0.07	77.07	0.85		
76.04	0.00	76.56	0.09	77.08	0.87		
76.05	0.00	76.57	0.10	77.09	0.89		
76.06	0.00	76.58	0.12	77.10	0.90		
76.07	0.00	76.59	0.14	77.11	0.91		
76.08	0.00	76.60	0.15	77.12	0.93		
76.09	0.00	76.61	0.16	77.13	0.94		
76.10	0.00	76.62	0.18	77.14	0.96		
76.11	0.00	76.63	0.19	77.15	0.98		
76.12	0.00	76.64	0.21	77.16	0.99		
76.13	0.00	76.65	0.23	77.17	1.01		
76.14	0.00	76.66	0.24	77.18	1.02		
76.15	0.00	76.67	0.26	77.19	1.03		
76.16	0.00	76.68	0.27	77.20	1.05		
76.17	0.00	76.69	0.28	77.21	1.06		
76.18	0.00	76.70	0.30	77.22	1.08		
76.19	0.00	76.71	0.31	77.23	1.10		
76.20	0.00	76.72	0.33	77.24	1.11		
76.21	0.00	76.73	0.35	77.25	1.13		
76.22	0.00	76.74	0.36	77.26	1.14		
76.23	0.00	76.75	0.38	77.27	1.15		
76.24	0.00	76.76	0.39	77.28	1.17		
76.25	0.00	76.77	0.40	77.29	1.19		
76.26	0.00	76.78	0.42	77.30	1.20		
76.27	0.00	76.79	0.44	77.31	1.22		
76.28	0.00	76.80	0.45	77.32	1.23		
76.29	0.00	76.81	0.47	77.33	1.24		
76.30	0.00	76.82	0.48	77.34	1.26		
76.31	0.00	76.83	0.49	77.35	1.27		
76.32	0.00	76.84	0.51	77.36	1.29		
76.33	0.00	76.85	0.52	77.37	1.31		
76.34	0.00	76.86	0.54	77.38	1.32		
76.35	0.00	76.87	0.56	77.39	1.34		
76.36	0.00	76.88	0.57	77.40	1.35		
76.37	0.00	76.89	0.59	77.41	1.36		
76.38	0.00	76.90	0.60	77.42	1.38		
76.39	0.00	76.91	0.61	77.43	1.40		
76.40	0.00	76.92	0.63	77.44	1.41		
76.41	0.00	76.93	0.65	77.45	1.43		
76.42	0.00	76.94	0.66	77.46	1.44		
76.43	0.00	76.95	0.68	77.47	1.45		
76.44	0.00	76.96	0.69	77.48	1.47		
76.45	0.00	76.97	0.70	77.49	1.48		
76.46	0.00	76.98	0.72	77.50	1.50		
76.47	0.00	76.99	0.73	77.51	1.63		
76.48	0.00	77.00	0.75	77.52	1.88		
76.49	0.00	77.01	0.77	77.53	2.20		
76.50	0.00	77.02	0.78	77.54	2.58		
76.51	0.02	77.03	0.80	77.55	3.00		

Summary for Pond 15P: (new Pond)

Inflow Area = 3.944 ac, 5.83% Impervious, Inflow Depth > 2.37" for 25-yr event
Inflow = 7.28 cfs @ 12.24 hrs, Volume= 0.778 af
Outflow = 7.31 cfs @ 12.27 hrs, Volume= 0.777 af, Atten= 0%, Lag= 1.7 min
Primary = 7.31 cfs @ 12.27 hrs, Volume= 0.777 af

Routing by Stor-Ind method, Time Span= 9.00-40.00 hrs, dt= 0.10 hrs
Peak Elev= 77.60' @ 12.27 hrs Surf.Area= 300 sf Storage= 330 cf

Plug-Flow detention time= 3.2 min calculated for 0.777 af (100% of inflow)
Center-of-Mass det. time= 1.7 min (847.5 - 845.8)

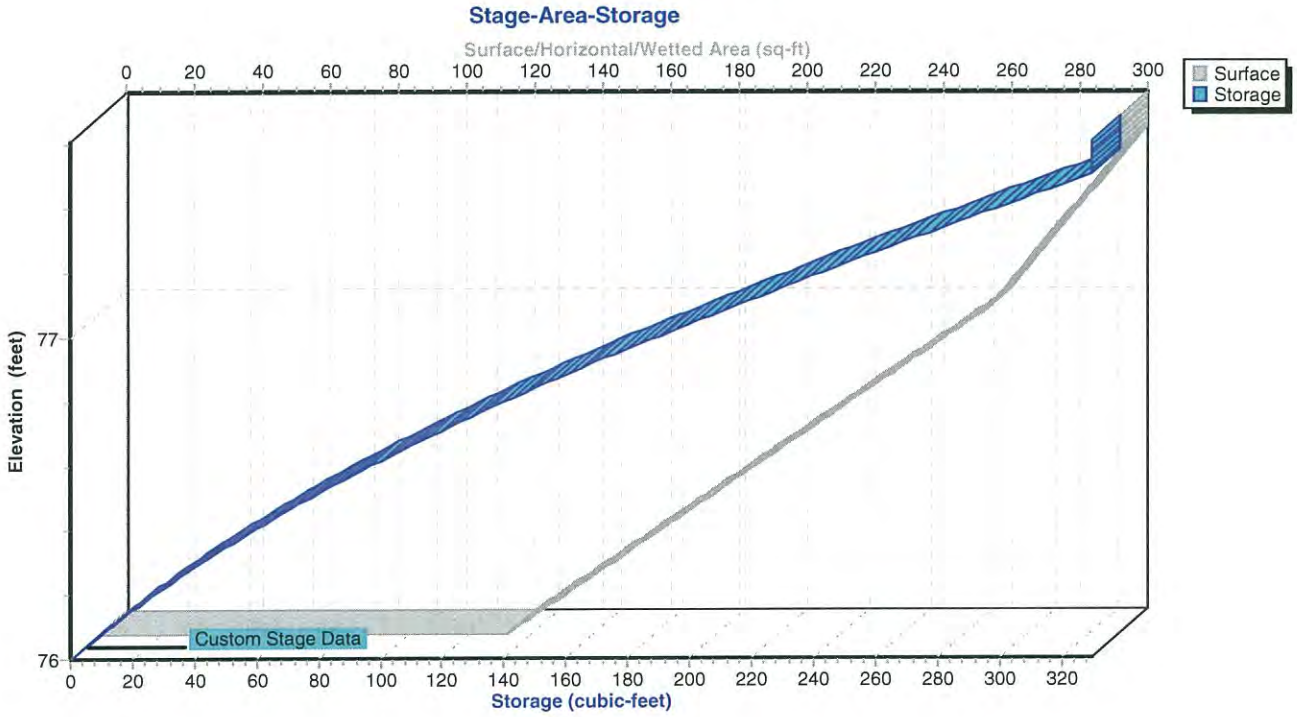
Volume	Invert	Avail.Storage	Storage Description
#1	76.00'	330 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
76.00	120	0	0
77.00	260	190	190
77.50	300	140	330

Device	Routing	Invert	Outlet Devices
#1	Primary	77.50'	**50.0' long x 1.0' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 Coef. (English) 2.69 2.72 2.75 2.85 2.98 3.08 3.20 3.28 3.31 3.30 3.31 3.32
#2	Primary	76.50'	**3.00 cfs Exfiltration when above 76.50'** Phase-In= 1.00'

Primary OutFlow Max=7.07 cfs @ 12.27 hrs HW=77.60' (Free Discharge)
↑—**1=Broad-Crested Rectangular Weir** (Weir Controls 4.07 cfs @ 0.84 fps)
└—**2=Exfiltration** (Exfiltration Controls 3.00 cfs)

Pond 15P: (new Pond)



Hydrograph for Pond 15P: (new Pond)

Time (hours)	Inflow (cfs)	Storage (cubic-feet)	Elevation (feet)	Primary (cfs)
9.00	0.00	1	76.01	0.00
10.00	0.10	84	76.53	0.10
11.00	0.30	97	76.60	0.30
12.00	**3.25**	**321**	**77.47**	**2.90**
13.00	**1.45**	**189**	**77.00**	**1.49**
14.00	0.80	134	76.77	0.81
15.00	0.60	118	76.70	0.60
16.00	0.44	107	76.65	0.44
17.00	0.34	100	76.61	0.34
18.00	0.26	95	76.59	0.27
19.00	0.23	92	76.58	0.23
20.00	0.21	91	76.57	0.21
21.00	0.19	90	76.56	0.19
22.00	0.17	89	76.56	0.17
23.00	0.16	88	76.55	0.16
24.00	0.14	86	76.55	0.14
25.00	0.00	78	76.50	0.00
26.00	0.00	78	76.50	0.00
27.00	0.00	78	76.50	0.00
28.00	0.00	78	76.50	0.00
29.00	0.00	78	76.50	0.00
30.00	0.00	78	76.50	0.00
31.00	0.00	78	76.50	0.00
32.00	0.00	78	76.50	0.00
33.00	0.00	78	76.50	0.00
34.00	0.00	78	76.50	0.00
35.00	0.00	78	76.50	0.00
36.00	0.00	78	76.50	0.00
37.00	0.00	78	76.50	0.00
38.00	0.00	78	76.50	0.00
39.00	0.00	78	76.50	0.00
40.00	0.00	78	76.50	0.00

Stage-Discharge for Pond 15P: (new Pond)

Elevation (feet)	Primary (cfs)	Elevation (feet)	Primary (cfs)	Elevation (feet)	Primary (cfs)	Elevation (feet)	Primary (cfs)
76.00	0.00	76.52	0.06	77.04	1.62	77.56	4.98
76.01	0.00	76.53	0.09	77.05	1.65	77.57	5.49
76.02	0.00	76.54	0.12	77.06	1.68	77.58	6.04
76.03	0.00	76.55	0.15	77.07	1.71	77.59	6.63
76.04	0.00	76.56	0.18	77.08	1.74	77.60	**7.25**
76.05	0.00	76.57	0.21	77.09	1.77		
76.06	0.00	76.58	0.24	77.10	1.80		
76.07	0.00	76.59	0.27	77.11	1.83		
76.08	0.00	76.60	0.30	77.12	1.86		
76.09	0.00	76.61	0.33	77.13	1.89		
76.10	0.00	76.62	0.36	77.14	1.92		
76.11	0.00	76.63	0.39	77.15	1.95		
76.12	0.00	76.64	0.42	77.16	1.98		
76.13	0.00	76.65	0.45	77.17	2.01		
76.14	0.00	76.66	0.48	77.18	2.04		
76.15	0.00	76.67	0.51	77.19	2.07		
76.16	0.00	76.68	0.54	77.20	2.10		
76.17	0.00	76.69	0.57	77.21	2.13		
76.18	0.00	76.70	0.60	77.22	2.16		
76.19	0.00	76.71	0.63	77.23	2.19		
76.20	0.00	76.72	0.66	77.24	2.22		
76.21	0.00	76.73	0.69	77.25	2.25		
76.22	0.00	76.74	0.72	77.26	2.28		
76.23	0.00	76.75	0.75	77.27	2.31		
76.24	0.00	76.76	0.78	77.28	2.34		
76.25	0.00	76.77	0.81	77.29	2.37		
76.26	0.00	76.78	0.84	77.30	2.40		
76.27	0.00	76.79	0.87	77.31	2.43		
76.28	0.00	76.80	0.90	77.32	2.46		
76.29	0.00	76.81	0.93	77.33	2.49		
76.30	0.00	76.82	0.96	77.34	2.52		
76.31	0.00	76.83	0.99	77.35	2.55		
76.32	0.00	76.84	1.02	77.36	2.58		
76.33	0.00	76.85	1.05	77.37	2.61		
76.34	0.00	76.86	1.08	77.38	2.64		
76.35	0.00	76.87	1.11	77.39	2.67		
76.36	0.00	76.88	1.14	77.40	2.70		
76.37	0.00	76.89	1.17	77.41	2.73		
76.38	0.00	76.90	1.20	77.42	2.76		
76.39	0.00	76.91	1.23	77.43	2.79		
76.40	0.00	76.92	1.26	77.44	2.82		
76.41	0.00	76.93	1.29	77.45	2.85		
76.42	0.00	76.94	1.32	77.46	2.88		
76.43	0.00	76.95	1.35	77.47	2.91		
76.44	0.00	76.96	1.38	77.48	2.94		
76.45	0.00	76.97	1.41	77.49	2.97		
76.46	0.00	76.98	1.44	77.50	3.00		
76.47	0.00	76.99	1.47	77.51	3.13		
76.48	0.00	77.00	1.50	77.52	3.38		
76.49	0.00	77.01	1.53	77.53	3.70		
76.50	0.00	77.02	1.56	77.54	4.08		
76.51	0.03	77.03	1.59	77.55	4.50		

AFFORDABLE HOUSING COVENANTS & RESTRICTIONS

This Affordable Housing Covenant is made this ___ day of ____, 2020 concurrent with transfer of ownership of a certain parcel of land located on Sunset Crossroad in Deer Isle, ME from Oliver's Pond Associates LLC ("Declarant") to Island Workforce Housing, a Maine non-profit housing corporation ("Recipient").

Whereas the Declarant holds title to certain real property situated in Deer Isle, Maine, being a portion of the property described in a deed from Jill Collins to Oliver's Pond Associates LLC, dated September 27, 2019 and recorded in Book 6980, Page 57 at the Hancock Country Registry of Deeds, and has divided said property in order to convey a portion of said property, as further described below, to Recipient; and

WHEREAS, Declarant desires to place affordable house covenants pursuant to Title 33, Section 118-126, and the Affordable Housing Partnership Act of 1989, under the terms and conditions herein, over a portion of said real property (hereinafter referred to as the "Restricted Area") described as follows:

> That portion of Declarant's property, containing approximately 13.4 acres and identified as Development Area on the plan entitled "_____" dated _____, prepared by Due North LLC, and approved by the Town of Deer Isle Planning Board on _____, and recorded at the Hancock County Registry of Deeds in Plan File ___, Page ___ (hereinafter referred to as the "Plan") containing approximately 13.4 acres, with frontage on Sunset Crossroad, as described in the attached Exhibit A, and depicted on the plan recorded at the Hancock County Registry of Deeds in Plan File ___, Page ___.

NOW, THEREFORE, the Declarant hereby declares that the Restricted Area is and shall forever be held, transferred, sold, conveyed, occupied, and maintained subject to the covenants and restrictions set forth herein (hereinafter referred to as the "Affordable Housing Covenant"). The Affordable Housing Covenant shall run with the Restricted Area and shall be binding on all parties having any right, title or interest in and to said Restricted Area, or any portion thereof, and their heirs, personal representatives, successors, and assigns. Any present or future owner or occupant of the Restricted Area or any portion thereof, by the acceptance of a deed of conveyance of all or part of the Restricted Area or an instrument conveying any interest therein, whether or not the deed or instrument shall so express, shall be deemed to have accepted and to be bound by, to comply with, and to be subject to the Affordable Housing Covenant and terms set forth herein as follows:

1. The use of the Restricted Area shall be restricted in perpetuity to ten (10) units of rental housing affordable to households earning between 61% and 120% of the Hancock County Median income, adjusted for household size ("the Median Income"), as follows:

two units shall be made available to households earning no more than 70% of the Median Income;
four units shall be made available to households earning no more than 80% of the Median Income;

three units shall be made available to households earning no more than 100% of the Median Income; and
one unit shall be made available to households earning no more than 120% of the Median Income.

2. Any Grantee of the Restricted Area and its successors and assigns shall not enter into a lease with a tenant household unless it has received and approved a complete and accurate accounting of 1) the names and ages of all members of the household; and 2) all current income by all members of said household; which accounting has been submitted with appropriate documentation and certified as accurate by the head(s) of the household signing the lease, and that Recipient has verified that the tenant's household income is within the income limits set forth above. Such household and income certifications shall be submitted annually at lease renewal, or earlier in the event that the household size increases.

So long as the tenant's household income is no more than the income limit set forth for that unit, rent for the unit shall be set at no more than 85% of the maximum allowable rent for each income category, as adjusted for utilities, as established annually by the United States Department of Housing and Urban Development for Hancock County.

Should the tenant's household income increase at any time during the tenant's tenure to the extent that it exceeds the income limit set forth for that unit by more than 10%, Recipient may charge a higher rent, commensurate with the tenant's higher household income.

3. Enforcement. Declarant or its successors or assigns may enforce any of the Restrictions set forth herein.

4. Binding Effect. The restrictions set forth herein shall be binding on any present or future owner of the Restricted Area. If the Area is at any time owned by more than one owner, each owner shall be bound by the foregoing restrictions to the extent that any portion of the Restricted Area is included within such owner's property.

5. Amendment. Any provision contained in this Declaration may be amended or revoked only by the recording of a written instrument or instruments specifying the amendment or the revocation signed by the Declarant or its successors and assigns and the owner or owners of the Restricted Area. However, in no case shall the use of the Restricted Area be allowed for anything other than housing for moderate-income households as such households are defined in the Affordable Housing Partnership Act of 1989, MRS Title 30-A, Chapter 202, Section 5001.12, including any amendments thereto.

6. Effective Provisions of Declaration. Each provision of this Declaration, and any agreement, promise, covenant and undertaking to comply with each provision of this Declaration, shall be deemed a land use restriction running with the land as a burden and upon the title to the Workforce Housing Development Area.

7. Severability. Invalidity or unenforceability of any provision of this Declaration in whole or in part shall not affect the validity or enforceability of any other provision or any valid and enforceable part if a provision of this Declaration.

8. Governing Law. This Declaration shall be governed by and interpreted in accordance with the laws of the State of Maine.

IN WITNESS WHEREOF, the said Oliver's Pond Associates LLC has caused this instrument to be signed by _____, its _____, this _____ day of _____, 2020.

Oliver's Pond Associates LLC

_____
By: _____
Its: _____

STATE OF MAINE
Hancock County

Dated _____, 2020

Personally appeared the above named _____, _____ of Oliver's Pond Associates LLC and acknowledged the foregoing instrument to be his free act and deed in his said capacity and the free act and deed of said corporation.

Before me,

_____
notary public

_____
(print or type notary's name)