

# The Fish River Chain of Lakes Concept Plan **AMENDMENTS**



IRVING WOODLANDS, LLC

**APRIL 2018**



Planning & Economic Development • Permitting • Project Management

April 11, 2018

Tim Beaucage, Senior Planner  
Land Use Planning Commission  
22 State House Station  
Augusta, Maine 04333-0022

**Re: Fish River Lakes Concept Plan, In the Matter of ZP 768  
Proposed Updates/Amendments**

Dear Tim:

Pursuant to Section II of the Fourth Procedural Order in this matter, please find the following proposed updates/amendments to Fish River Lakes Concept Plan.

As discussed, we have not included an updated Chapter 10 Explanatory Table at this time, with the understanding that this section of the Concept Plan (along with final section headings, cross references, etc.) will be amended as part of final approval to reflect revision that may occur as part of the remaining review process.

Please do not hesitate to contact me with any questions.

Sincerely,  
The Musson Group

Noel Musson, Principal

cc: Service List

## **1. Plan Area – Inclusion of Shoreline**

## 1. PLAN AREA - INCLUSION OF SHORELINE

In response to our discussions with LUPC Staff on the topic of undesignated shorelines (meaning, areas within 500 feet of a lake or pond that were not in the conservation easement or in a Development Area), the Concept Plan has been revised in the following ways:

### **AMENDMENTS RELATED TO LONG LAKE B**

The Concept Plan has been revised to include two small portions of undesignated shoreline at the north and south ends of Long Lake B as part of the Long Lake B residential development area. These areas are now within the D-FRL-RS zoning district, but are restricted to open space that will remain essentially undeveloped. In addition, provisions have been added to indicate that the West Van Buren Cove Road cannot be extended through the northernmost open space for vehicular traffic beyond its existing terminus. The change has been reflected on the revised maps and references are included in the Concept Plan and Chapter 10, as appropriate.

- **Text Changes – Concept Plan**

- **Concept Plan, page 4, E(1)(a), amend the last paragraph:** The second development area rezoned as D-FRL-RS is labeled “Long Lake B” on the Concept Plan Maps. See Map 22. Long Lake B is located on the west side of Van Buren Cove on Long Lake and is approximately ~~56~~ 75 acres in size. Approximately 19 acres of Long Lake B is designated as open space, subject to Sub-Chapter III, Section 10.25,S.

- **Text Changes – Chapter 10**

- **Ch. 10, freeze 10.25,S (meaning, add it in its entirety to Ch. 10) and amend § 1: Preservation and Maintenance of Open Space.** At the time of subdivision of any development area, areas designated as open ~~Open~~ space on the zoning maps shall ~~may~~ be owned, preserved and maintained as required by this section, by any of the following mechanisms or combinations thereof, listed in order of preference, upon approval by the Commission. In addition, prior to subdivision, areas designated as open space on the zoning maps shall be managed in a manner consistent with the intent of their open space designation and their current underlying zoning.

Low-intensity non-commercial use referred to in 10.25,S may include trails (as defined in Chapter 10.02.214), boardwalks, and overlooks, provided they do not exceed six (6) feet in width, with multiple bends in the pathway to divert channelized runoff and minimize visual impact. The restricted open space may be used to construct the single private hand-carry launch allowed in Long Lake B, provided it meets the standards of 10.27,L.

### **AMENDMENTS RELATED TO VAN BUREN COVE**

The Concept Plan has been clarified to guarantee public access to the beach at Van Buren Cove, from Mud Brook on the west to the proposed Long Lake A Development Area on the east, for the life of the Plan in much the same way as it is used today. Irving will propose improvements, in cooperation and coordination with the current leaseholder, to support public access, address water quality, and improve the aesthetics of the area within the small segment of the shoreline on the east side of the beach that will remain a P-GP zone.



- **Text Changes – Concept Plan**
  - **Concept Plan, revise pg. 20, E,4,b,iii:**
    - iii. **Lake Access:** The Concept Plan also provides the following to ~~promote~~ guarantee and improve public access to the lakes:
      - a. **Long Lake.** The beach at Van Buren Cove, as identified on Map 27, will be a managed by Petitioners as a public access point for the life of the Concept Plan. Access will be from Van Buren via Lake Road. In addition, Petitioners will take the following steps:
        1. Within 2 years of the effective date, develop a site improvement plan for Van Buren Cove that protects water quality and improves the aesthetics of the area within the small segment of the shoreline on the east side of the beach that will remain a P-FRL-GP zone;
        2. Renew and potentially revise license agreement with a qualified holder annually; and
        3. Develop a maintenance plan for the license holder or, in the absence of a license holder, maintenance commitments from Petitioner.
      - b. ~~**Mud Lake.** The hand carry launch discussed above in Section E(3) of the Concept Plan will be a public access point once constructed. Access will be from Route 162. See Map 35.~~
      - c. **Cross Lake.** The Cross Lake boat launch, picnic area, parking lot, and beach will become a permanent public access point via a deed restriction or other suitable mechanism within 14 months of the effective date. Access will be from Route 161 via Disy Road and Landing Road. In addition, Petitioners will, either on their own initiative or cause by lease or other suitable instrument a third party to take the following steps:
        1. Improve the public restrooms on site within 1 year of the effective date;
        2. Develop a maintenance plan for the license holder or, in the absence of a license holder, maintenance commitments from Petitioner; and
        3. Within 1 year of the effective date, renew and/or potentially revise the license agreement with a qualified holder and/or seek a qualified entity for fee ownership of the property.
- **Text Changes – Chapter 10**
  - No change to Ch. 10

#### **AMENDMENTS RELATED TO CROSS LAKE**

The Concept Plan has been revised to include the shoreline and portions of the adjacent upland area between Cross Lake D and E as part of the Cross Lake E development area. This area will be within the D-FRL-RS zoning district, but will be restricted to open space that will remain essentially undeveloped. The change is reflected on the revised maps and references are included in the Concept Plan and Chapter 10, as appropriate.

- **Text Changes – Concept Plan**
  - **Concept Plan, pg. 5, E,1,a, amend 6<sup>th</sup> paragraph:** The eighth development area rezoned as D-FRL-RS is labeled “Cross Lake E” on the Concept Plan Maps. See Map 25. Cross Lake E is located on the southeastern side of Cross Lake and is approximately ~~163~~ 229 acres in size. Approximately 66 acres of Cross Lake E is designated as open space, subject to Sub-Chapter III, Section 10.25,S.

- **Text Changes – Chapter 10**
  - No further change to Ch. 10 – already covered above.

***AMENDMENTS RELATED TO SQUARE LAKE WEST.***

The Concept Plan has been revised to include the undesignated shoreline between Square Lake W and a point near the southern end of the existing camp lots. This area has been added to the Square Lake W development area and is included within the D-FRL-RS zoning district, but will be restricted to open space that will remain essentially undeveloped. The change has been reflected on the revised maps and references included in the Concept Plan and Chapter 10, as appropriate.

- **Text Changes – Concept Plan**
  - **Concept Plan, pg. 5, E,1,a, amend 8<sup>th</sup> paragraph:** The tenth development area rezoned as D-FRL-RS is labeled “Square Lake W” on the Concept Plan Maps. See Map 26. Cross Lake E is located on the southeastern side of Cross Lake and is approximately ~~124~~ 169 acres in size. Approximately 48 acres of Square Lake W is designated as open space, subject to Sub-Chapter III, Section 10.25,S.
- **Text Changes – Chapter 10**
  - No further change to Ch. 10 – already covered above.

***AMENDMENTS RELATED TO LITTLE CALIFORNIA POND***

Little California Pond is included in the conservation easement in Cross Lake TWP and is included in a revised boundary for the conservation easement.

- **Text Changes – Concept Plan**
  - No change to Concept Plan
- **Text Changes – Chapter 10**
  - No change to Ch. 10.

## **2. Hillside Development**

## 2. HILLSIDE DEVELOPMENT

The Concept Plan will be revised to include the hillside around Square Lake W, which was previously within an M-GN zone and where development in the future (beyond the life of the Concept Plan) could potentially be visible from Eagle Lake, in the Conservation Easement. In addition, the Concept Plan and Chapter 10 will be amended in the following ways:

- ***Text Changes in the Concept Plan***

- **Amend page 10, E,1,a, by adding a new paragraph at the end, just before E,1, b:**

The Concept Plan also provides new standards to minimize the potential impacts from hillside development in the D-FRL-RS zone:

- i. Prior to development activities, timber harvesting in development areas that are within the viewshed of any lake within the Plan area will be limited to selective harvesting only. See Subsection IV, Section 10.34,A.
- ii. Development on hillsides visible from a public viewpoint or waterbody will meet the following standards designed to minimize potential visual impacts:
  - a. Developments must be designed to fit harmoniously into the visual environment when viewed by the public from public viewpoints. Site clearing must be minimized and vegetation must be retained or provided to minimize the visual intrusion of the development. See Sub-Chapter IV, Section 10.34,B,1.
  - b. As part of an application for a new residential subdivision that may be visible from a lake or other public viewpoint, the developer shall submit design standards for new construction to ensure that new housing units, garages, roads, lighting, and other components of the development will not have an unreasonable potential visual impact on scenic resources within and adjacent to the Plan area. See Sub-Chapter IV, Section 10.34,B,2.
  - c. Subdivisions planning shall include professionals who are trained and have experience in the application of principles of visual quality management and hillside development. As part of the planning process, the developer shall identify areas with high and moderate visual sensitivity (both on and off the site), and take appropriate measures to avoid unreasonable potential visual impacts wherever necessary. See Sub-Chapter IV, Section 10.34,B,3.
  - d. Alterations to existing contours for roads, driveways, utilities, homes, and non-residential structures shall be kept to a minimum by using design and construction techniques that are appropriate to the natural topography of the site. See Sub-Chapter IV, Section 10.34,B,4.
  - e. Vegetated ridgelines shall be preserved to the extent practical by establishing limits to clearing and construction in certain areas (e.g., requiring existing vegetation and natural contours to remain intact; establishing minimum horizontal or vertical setbacks from ridgelines; and incorporating ridgelines into the required open space). See Sub-Chapter IV, Section 10.34,B,5.
  - f. The design standards to be provided by the developer shall include measures to address visual impacts from color, form, line and texture. See Sub-Chapter IV, Section 10.34,B,6. This may include provisions that require:

- o The use of colors and materials that minimize color contrasts with surrounding forestland;
  - o Lighting used for roadways and residential use must be shielded to prevent glare and off-site visibility (e.g., the use of shields may effectively block visibility of light sources);
  - o Consideration of limits on the amount of windows and other reflective surfaces that may be visible from lakes or other public viewpoints;
  - o Cleared openings for building sites, septic systems, roads, driveways, or community uses must have a minimal visual impact if seen from public vantage points (e.g., maintaining a vegetative buffer of a sufficient height, density and composition to make the cleared opening visually indistinct);
  - o Clearing for views may be allowed, but should be limited to minimize potential visual impacts, as seen from public viewpoints (e.g., narrow view openings between trees and beneath tree canopies downslope from development sites may be more effective than removal of mature trees);
  - o Buildings shall be designed to complement the site and topography (e.g., avoiding long unbroken roof lines; orienting buildings in the same direction of the slope; stepping the building down the slope rather than creating building pads requiring extensive excavation and slope filling);
  - o Existing vegetation shall be preserved / maintained where practicable in areas necessary to help screen hillside development from public view points;
  - o Slopes >20% should be avoided (e.g., wherever possible, development should be located in areas where sustained slopes are less than 15%; development may not be allowed on sustained slopes in excess of 25%); and
  - o Homes shall be sited to avoid extensive areas of steep slopes immediately below the homesite where clearing may expose significant portions of the building.
- g. Education and enforceability of these hillside development provisions will also be addressed.

- ***Text Changes in the Chapter 10***

- **On page 22, delete E,4,e.**

- **Add a new Section 10.34:**

**10.34 HILLSIDE DEVELOPMENT**

**A. Timber Harvesting on Hillsides in Development Areas**

Timber harvesting on hillsides within the viewshed of any lake within Development Area is limited to selective harvesting only. This provision applies in such areas regardless of the provisions of Sub-Chapter IV, Section 10.30.

## **B. Development on Hillsides**

Development on hillsides visible from a public viewpoint or waterbody will meet the following standards to minimize unreasonable visual impacts on public viewpoints and waterbodies within the Plan area.

1. Developments must be designed to fit harmoniously into the visual environment when viewed by the public from public viewpoints. Site clearing must be minimized and vegetation must be retained or provided to minimize the visual intrusion of the development.
2. As part of an application for a new residential subdivision that may be visible from a lake or other public viewpoint, the developer shall submit design standards for new construction to ensure that new housing units, garages, roads, lighting, and other components of the development will not have an unreasonable potential visual impact on scenic resources within and adjacent to the Plan area.
3. Subdivisions planning shall include professionals who are trained and have experience in the application of principles of visual quality management and hillside development. As part of the planning process, the developer shall identify areas with high and moderate visual sensitivity (both on and off the site) and take appropriate measures to avoid unreasonable potential visual impacts wherever necessary.
4. Alterations to existing contours for roads, driveways, utilities, homes, and non-residential structures shall be kept to a minimum by using design and construction techniques that are appropriate to the natural topography of the site.
5. Vegetated ridgelines shall be preserved to the extent practical by establishing limits to clearing and construction in certain areas (e.g., requiring existing vegetation and natural contours to remain intact; establishing minimum horizontal or vertical setbacks from ridgelines; and incorporating ridgelines into the required open space).
6. The design standards to be provided by the developer shall include measures to address visual impacts from color, form, line and texture. This may include provisions that require (examples shown in parentheses in B.6 are provided as potentially suitable techniques to minimize adverse visual impacts, and that the applicant should explore a range of options to determine what is most effective and appropriate for each particular situation):
  - a. The use of colors and materials that minimize color contrasts with surrounding forestland;
  - b. Lighting used for roadways and residential use must be shielded to prevent glare and off-site visibility (e.g., the use of shields may effectively block visibility of light sources);

- c. Consideration of limits on the amount of windows and other reflective surfaces that may be visible from lakes or other public viewpoints;
- d. Cleared openings for building sites, septic systems, roads, driveways, or community uses must have a minimal visual impact if seen from public vantage points (e.g., maintaining a vegetative buffer of a sufficient height, density and composition to make the cleared opening visually indistinct);
- e. Clearing for views may be allowed, but should be limited to minimize potential visual impacts, as seen from public viewpoints (e.g., narrow view openings between trees and beneath tree canopies downslope from development sites may be more effective than removal of mature trees);
- f. Buildings shall be designed to complement the site and topography (e.g., avoiding long unbroken roof lines; orienting buildings in the same direction of the slope; stepping the building down the slope rather than creating building pads requiring extensive excavation and slope filling);
- g. Existing vegetation shall be preserved / maintained where practicable in areas necessary to help screen hillside development from public view points;
- h. Slopes greater than 20% should be avoided (e.g., wherever possible, development should be located in areas where sustained slopes are less than 15%; development may not be allowed on slopes in excess of 25%); and
- i. Homes shall be sited to avoid extensive areas of steep slopes immediately below the homesite where clearing may expose significant portions of the building.

### **3. Yexas/Square Lake Development**



### 3. YERXAS/SQUARE LAKE E DEVELOPMENT

The Concept Plan has been revised in the following ways to change the zoning for Yexas from D-FRL-RF to D-FRL-YX and to require a Schematic Design Plan to guide future project development and coordination within this zone.

- ***Text Changes in the Concept Plan***

- **Amend pages 10-11 by deleting E,1,b and replacing it with a new provision:**

- b. Yexas Development Zone (D-FRL-YX):**

The Concept Plan rezones one area as a D-FRL-YX zone. The D-FRL-YX zone allows for a wide range of compatible development in appropriate areas, including recreation facilities. See Sub-Chapter III, Section 10.21,N. The development area rezoned D-FRL-YX is labeled “Square Lake Yexas” on the Concept Plan Maps. See Map 31. Square Lake Yexas is approximately 51 acres in size and is located on the east side of Square Lake. It is surrounded to the north, east, and south by Square Lake E. Lots will be granted deeded access over the existing road network from Route 161 via Disy Road, Disy Crossover Road, and Black Brook Road. See Map 36.

Prior to development in this zone, a Schematic Design Plan will be required to illustrate how the zone will be developed, including reserved areas for residential use, commercial activity, recreation facilities, public water access, parking for Square Lake W, and other facilities..

- Land Uses in D-FRL-YX**

The D-FRL-YX Zone is a new zone that does not currently exist in Chapter 10. Permitted land uses include an array of compatible residential and commercial uses, as well as others, including recreational facilities. The zone is intended to encourage, but does not require, development of a recreational lodging facility at the site of the former Yexa’s sporting camp, as well as a public or commercial trailered ramp to provide public access into Square Lake.

- Land Use Standards in D-FRL-RF**

As with the land uses, the D-FRL-YX is a new zone that does not currently exist in Chapter 10. Dimensional standards will be the same as those that apply to a D-GN subdistrict.

- ***Text Changes in Chapter 10***

- **Delete entirety of 10.21,J and replace with:**

Addendum neither replaces nor supplements 10.21,J, Recreation Facility Development (D-RF).

- **Add a new 10.21,N (note: this proposal remains conceptual at this stage while Petitioners seek guidance on several key policy issues from the public hearing process):**

## **N. SQUARE LAKE YERXAS ZONE (D-FRL-YX)**

### **1. Purpose**

The purpose of the D-FRL-YX Zone is to designate an area that can support a mixture of complementary uses that are compatible with the recreational nature of Square Lake and that support future residential development by creating a focal point for recreational and limited community services. This Zone will allow uses of appropriate scale and require creative site planning for efficient use of the land. Because development has the potential to be built out over a longer period of time and will likely be reflective of market forces, a Schematic Design Plan Schematic Design Plan will be approved by the Commission to guide development and help assure that the goals and policies of the Concept Plan are met.

### **2. Description**

The Square Lake Yexas development area, as delineated on the maps contained in Section 1.H of the Concept Plan, is located in the D-FRL-YX Zone.

Except as authorized by Section 10.08,A,3, no additional areas within the Plan area shall be designated as D-FRL-YX Zone or added to or removed from the D-FRL-YX Zones identified herein except for the purpose of more accurate zone boundaries for the zones identified herein. Any boundary modification request shall be submitted for the Commission's consideration along with supporting documentation that must include, at minimum, boundary surveys, updated Concept Plan maps, updated spatial data of any proposed boundary modifications, and documentation that the total acreage of land within the D-FRL-YX Zone will not materially change. Commission acceptance of any such minor boundary modifications shall not constitute an amendment pursuant to Section I.D of the Concept Plan.

### **3. Land Uses**

#### **a. Uses Allowed Without a Permit**

The following uses shall be allowed without a permit from the Commission within D-FRL-YX Zone:

- (1) Emergency operations conducted for the public health, safety or general welfare, such as resource protection, law enforcement, and search and rescue operations;
- (2) Forest management activities, except for timber harvesting;
- (3) Motorized vehicular traffic on roads and trails, and snowmobiling;
- (4) Primitive recreational uses, including fishing, hiking, wildlife study and photography, wild crop harvesting, horseback riding, tent and shelter camping,

canoe portaging, cross country skiing, and snowshoeing, but not including hunting or trapping;

- (5) Surveying and other resource analysis;
- (6) Wildlife and fishery management practices.

**b. Uses Allowed Without a Permit Subject to Standards**

**b.1. Before approval of the Schematic Design Plan.**

The following uses shall be allowed without a permit from the Commission within D-FRL-YX Zone subject to the applicable requirements set forth in Sub-Chapters III and IV. Once the Schematic Design Plan is approved, the following activities shall be subject to the applicable requirements set forth in the Schematic Design Plan and the related approval.

- (1) Timber harvesting in compliance with the requirements of Section 10.30, if completed in any given development area within the D-FRL-YX Zone prior to submission of an application for a subdivision or other development approval in that development area.

**b.2. After approval of the Schematic Design Plan .**

The following uses shall be allowed without a permit from the Commission within D-FRL-YX Zone, after the Schematic Design Plan has been approved, subject to the applicable requirements set forth in Sub-Chapters III and IV, and in the Schematic Design Plan :

- (1) Accessory structures: New or expanded structures accessory to, and located on the same lot as, any legally existing principal structures and uses, provided that:
  - (a) The accessory structure is located in a subdistrict that allows the principal use;
  - and
  - (b) The total square footage of the footprint of all new or expanded accessory structures built on a lot within a two (2) year period is not more than 750 square feet and all other requirements and standards of Section 10.27,P are met;
- (2) Constructed ponds: Creation, alteration or maintenance of constructed ponds of less than 4,300 square feet in size which are not fed or drained by flowing waters provided they are constructed and maintained in conformance with the vegetative buffer strip requirements of Section 10.27,C,2,a;
- (3) Docking structures: temporary docking structures;
- (4) Driveways associated with residential uses;
- (5) Filling and grading;
- (6) Hand-carry launches: Commercial and public hand-carry launches
- (7) Home occupations: Minor home occupations;
- (8) Road projects: Level A road projects;
- (9) Service drops;
- (10) Signs;

- (11) Timber harvesting in compliance with the requirements of Section 10.30, if completed in any given development area within the D-FRL-YX Zone prior to submission of an application for a subdivision or other development approval in that development area
- (12) Trails, provided they are constructed and maintained so as to reasonably avoid sedimentation of water bodies;
- (13) Utility services: Buildings or structures necessary for the furnishing of public utility services, provided they contain not more than 500 square feet of floor area, are less than 20 feet in height, and are not supplied with water; and
- (14) Water crossings of minor flowing waters;

**c. Uses Requiring a Permit**

The following uses, and related accessory structures, may be allowed after the approval of the Schematic Design Plan within the D-FRL-YX Zone upon issuance of a permit from the Commission pursuant to 12 M.R.S.A. §685-B, subject to the applicable requirements set forth in Sub-Chapters III and IV, and in the Schematic Design Plan Schematic Design Plan ; and subject to the applicable requirements of Section 10.21,C,3,g, h and i below:

- (1) Campsites, Residential;
- (2) Commercial uses having not more than 2,500 square feet of gross floor area compatible with supporting recreational and residential uses in the area such as (but not limited to) the following, but excluding auto service stations or repair garages, laundry mats, and uses which may create a nuisance or unsafe or unhealthy conditions or are otherwise incompatible with recreational or residential uses:
  - (a) Businesses related to commercial recreation or real estate sales: such as a guide services or real estate sales office;
  - (b) Facilities offering food or beverages prepared on the premises
  - (c) Retail stores and services, convenience store, limited retail gasoline sales;
- (3) Constructed ponds: Creation, alteration or maintenance of constructed ponds 4,300 square feet or greater in size which are not fed or drained by flowing waters, or of such ponds less than 4,300 square feet in size which are not in conformance with the vegetative buffer strip requirements of Section 10.27,C,2,a;
- (4) Draining, dredging, or alteration of the water table or water level for other than mineral extraction;
- (5) Driveways associated with non-residential uses; driveways associated with residential uses which are not in conformance with the standards of Section 10.27,H;
- (6) Filling and grading which is not in conformance with the standards of Section 10.27,F;
- (7) Home occupations: Major home occupations;
- (8) Land management roads;
- (9) Recreation facilities: Public or private recreation facilities including, but not limited to, parks, playgrounds and tennis courts;
- (10) Recreational lodging facilities:
  - (a) Level B;

- (b) Level C;
- (c) Level C – Expanded Access;
- (d) Level D; and
- (e) Level D – Expanded Access;
- (11) Residential: Single family dwellings, two-family dwellings, and multi-family dwellings, and in accordance with Section 10.33;
- (12) Road projects: Level B and C road projects, except for water crossings as provided for in Section 10.21,C,3,b; and
- (13) Shoreland alterations, including reconstruction of permanent docking structures, and permanent on-shore structures used to secure docks and moorings; but excluding marinas, new or expanded permanent docking structures, water-access ways, trailered ramps, hand-carry launches, and water crossings of minor flowing waters;
- (14) Signs that are not in conformance with the standards of Section 10.27,J;
- (15) Subdivisions: Residential subdivisions, and commercial subdivisions for uses permitted in this subdistrict, and in accordance with Section 10.33;
- (16) Timber harvesting, in compliance with the requirements of Section 10.30, if begun in any given development area within the D-FRL-YX Zone after submission of an application for a subdivision or other development approval in that development area;
- (17) Trailered ramps: Public and commercial trailered ramps;
- (18) Utility facilities compatible with residential uses, other than service drops, and wire and pipe line extensions which do not meet the definition of service drops;
- (19) Water crossings of minor flowing waters that are not in conformance with the standards of Section 10.27,D and water crossings of bodies of standing water and of major flowing waters;
- (20) Water impoundments;
- (21) Other structures, uses or services that are essential to the uses listed in Section 10.21,C,3,a through c; and
- (22) Other structures, uses, or services which the Commission determines are consistent with the purposes of this subdistrict and of the Comprehensive Land Use Plan and are not detrimental to the resources and uses they protect, and are of similar type, scale and intensity as other allowed uses.

#### **d. Special Exceptions**

The following use, and related accessory structures, may be allowed within D-FRL-YX Zone as special exceptions upon issuance of a permit from the Commission pursuant to 12 M.R.S.A. §685-A(10), and subject to the applicable requirements set forth in Sub-Chapter III, provided that the applicant shows by substantial evidence that (a) the use can be buffered from those other uses within the subdistrict with which it is incompatible; and (b) such other conditions are met that the Commission may reasonably impose in accordance with the policies of the Comprehensive Land Use Plan:

- (1) Commercial: having more than 2,500 square feet of gross floor area compatible with supporting recreational and residential uses in the area such as (but not limited to) the following (but excluding auto service stations or repair garages,

laundry mats, and other uses that may create a nuisance or unsafe or unhealthy conditions or are otherwise incompatible with recreational or residential uses):

- (a) Businesses related to commercial recreation or real estate sales: such as a guide services or real estate sales office;
- (b) Facilities offering food or beverages prepared on the premises; and
- (c) Retail stores and services, convenience stores, limited retail gasoline sales.

The following use may be allowed within the D-FRL-YX Zone as a special exception provided that the applicant also shows by substantial evidence that (a) the use will not create an unreasonable visual or aesthetic impact to the lake; (b) the use will not have an unreasonable effect on the existing lake character; (c) there is sufficient infrastructure to accommodate the additional traffic and activity generated by the facility, such as adequate parking; and (d) such other conditions are met that the Commission may reasonably impose in accordance with the policies of the Comprehensive Land Use Plan and this Concept Plan.

- (2) Marinas that can accommodate up to 50 boats.

#### **e. Prohibited Uses**

All uses not expressly allowed, with or without a permit or by special exception shall be prohibited in a D-FRL-YX Zone.

#### **4. Schematic Design Plan**

Prior to the conveyance of any parcels, whether by sale, lease or otherwise, or any development within the D-FRL-YX Zone, a Schematic Design Plan must be prepared by the Petitioner and approved by the Commission. The purpose of the Schematic Design Plan is to provide the Commission the general layout of the uses proposed for the D-FRL-YX Zone, to discuss overall phasing of future development, and to identify issues that may pertain to the goals and objectives of the Concept Plan before making further investments into detailed development applications. The Schematic Design Plan process is intended to be general in nature but must contain enough information to guide how the zone will be developed in the future, and how the intended uses will relate to each other and the Square Lake environment.

Commission approval of a Schematic Design Plan Schematic Design Plan , or approval of a subsequent amendment to a Schematic Design Plan Schematic Design Plan pursuant to sub-section G, below, constitutes a formal determination by the Commission that the development proposed within the development area meets the criteria for approval, listed in sub-section C, below (subject to such conditions as may be attached to the approval). In preparing subdivision or development permit applications subsequent to an approved Schematic Design Plan , an applicant may rely on that approval with respect to the acceptability of the overall layout of the plan and its major elements, including phasing of critical elements of future development that are required for consistency with the goals and purposes of the D-FRL-YX Zone.

The Commission's review and approval of a Schematic Design Plan does not constitute a review, pre-approval, or an affirmative finding by the Commission that any subdivision or other development permit application or proposal satisfies applicable subdivision and other development review criteria, including, inter alia, those criteria found in 12 M.R.S.A. §685-B(4). Each subdivision and development permit application shall be individually evaluated for consistency with the approved Schematic Design Plan and must satisfy all relevant approval criteria in statute and the terms, conditions and provisions of this Concept Plan, including the LUPC amendable provisions.

**a. Preapplication Conference**

A preapplication conference shall be held with the staff of the Commission and representatives from relevant agencies prior to submission of a Schematic Design Plan. At this conference the procedures, regulations, and policies that will govern the application shall be discussed. The conference shall provide a forum for an informal discussion on the Schematic Design Plan and potential areas of consistency or inconsistent with other applicable requirements, prior to its filing with the Commission. The conference proceedings shall be summarized in writing and made available to the applicant.

**c. Contents of Schematic Design Plan**

Schematic Design Plan (1) Submittals

The following items are required to be submitted with any Schematic Design Plan application.

- (a) A legal description of the property boundaries proposed for development, including a statement of present and proposed ownership.
- (b) A narrative describing the proposed uses to be located on the site, including:
  - (i) How commercial development opportunities will be incorporated into the residential and recreational components of the plan and within this zone.
  - (ii) The timing for development of a a) public or commercial trailered boat ramp and mechanisms for assuring public access to Square Lake and b) parking that may be required for development at the Square Lake W development area.
- (c) A general statement indicating Schematic Design Plan anticipated phasing of development.
- (d) A statement of the applicant's evaluation and demonstration of the adequacy and availability of public facilities and services necessary to serve the proposed development, to the extent that public services are intended to be utilized, and, if public services are not intended to be utilized, a statement indicating how such services will be provided by private means.

- (e) A general statement that indicates how the natural resources of the area will be properly integrated into the planning and development.
- (f) A statement demonstrating how the proposed development will meet the objectives and policies of the Concept Plan.
- (g) A location map (drawn on a USGS topographic map base or equivalent, or Commission Land Use Guidance Map) that indicates the area for which approval is sought and indicating that all of the project will be located within the Square Lake Yexas development area.
- (h) A map showing existing site conditions, including contours at 10 foot intervals, water courses, unique natural conditions, forest cover, wetlands, lakes, ponds, existing buildings, road boundaries, property lines and names of adjoining property owners, scenic locations and other prominent topographical or environmental features.
- (i) A soils map of at least medium intensity that covers those portions of the site where any development is proposed. The description should use the soil group designations utilized in the Subsurface Waste Water Disposal Rules or the USDA Series names.
- (j) A site plan drawn at a scale of 1" = 50' that shows the general location of proposed development components, including commercial areas, roads, residential areas, open spaces, recreational areas, and utility systems, and the relationship to natural and already developed features in the area.

**d. Criteria for the Approval of a Schematic Design Plan**

The criteria for approval of a Schematic Design Plan are:

- (1) Conforms with the objectives and policies of the Concept Plan;
- (2) Incorporates high quality site planning and design in accordance with accepted contemporary planning principles;
- (3) Establishes or sets aside a reasonable amount of land for future commercial development to support recreational and residential development in the area.
- (4) Establishes the location, size, and timing of construction of a publicly accessible trailered ramp and water access site and the mechanism for assuring it will be publicly accessible.
- (5) Incorporates a parking area and access point to facilitate parking and access by boat for future development at the Square Lake W development area if necessary.
- (6) Provides for safe and efficient traffic circulation; and



### **e. Procedure for Review**

- (1) **Notices:** Notice of the receipt by the Commission of a Schematic Design Plan application, or a proposed amendment thereto, will be governed by Section 4.04(c) of the Commission's Rules of Practice (Chapter 4), as may be amended from time to time.
- (2) **Public Hearings:** A public hearing is not required for Schematic Design Plan Approval, however, the Commission, may elect to hold one. The Commission's determination as to whether to hold a public hearing on an application for a Schematic Design Plan , and public notice requirements for any such public hearing, will be governed by section 4.04 of the Commission's Rules of Practice (Chapter 4), as may be amended from time to time.
- (3) **Decision:** In making its decision, the Commission shall determine whether the Schematic Design Plan: (a) satisfies the criteria for approval, above; (b) conforms with all relevant terms, conditions and provisions of this Concept Plan; and (c) complies with any other applicable provision of law. The Commission shall make written findings of fact and issue an order either approving, approving with conditions, or denying the application as proposed. The Commission's decision shall constitute final agency action. Any successor(s)-in-interest must comply with the terms and conditions of an approved Schematic Design Plan in existence at the time of the transfer of interest in the Schematic Design Plan area or a portion thereof, and said Schematic Design Plan shall govern all uses on all parcels contained within the Schematic Design Plan area.
- (4) **Application Fees:** A fee shall be assessed by the Commission for the processing of a Schematic Design Plan. Such a fee shall be the same as the flat fee portion assessed for a Schematic Design Plan for a change to Schematic Design Plan, as established in the Commission's General Provisions (Chapter 1), as may be amended from time to time.

### **g. Amendments**

Any entity with title, right, or interest in the area covered by the Schematic Design Plan, or a portion thereof, may propose to amend an approved Schematic Design Plan and shall submit evidence that the proposed amended Schematic Design Plan continues to comply with the criteria for approval. An application to amend a Schematic Design Plan may be submitted concurrently with a subdivision or development permit application for a given phase of development, and will be reviewed by the Commission pursuant to the same criteria and process set forth in this Section 10.21,N,4 for new applications.

If more than one entity possesses title, right, or interest in the Schematic Design Plan area as a result of divisions or transfers of land conducted pursuant to Section II, Sub-Chapter III, 10.25,Q,1,B,(3), such amendment applications may be submitted jointly for the entirety of the Schematic Design Plan area or may be submitted individually for that portion of the Schematic Design Plan area for which the entity possesses a legal right or interest. In any case, the Commission shall review any proposed amendments to an approved Schematic Design Plan as a whole and without consideration to divisions of ownership or any limitations created therefrom.

## **4. Subdivision Standards**

#### 4. SUBDIVISION STANDARDS

In response to our discussions with LUPC Staff on subdivision standards in Chapter 10, the Concept Plan has been amended by allowing these provisions to “float,” meaning that the Concept Plan incorporates the then-applicable subdivision standards from Chapter 10, as they may be amended by LUPC from time to time. Any such standards that conflict with standards specifically adopted in the Concept Plan, however, will not take effect.

- ***Text Changes in the Concept Plan***
  - No text changes proposed
  
- ***Text Changes in to Chapter 10***
  - **Delete 10.25,Q,2-7 and replace with:**  
Addendum neither replaces nor supplements 10.25,Q,2 through 10.25,Q,7.

## **5. Cluster Development Dimensional Requirements**

## 5. CLUSTER DEVELOPMENT DIMENSIONAL REQUIREMENTS

The Concept Plan initially proposed to expand the dimensional standards that could be waived by the LUPC for cluster developments. In response to our discussions with LUPC Staff, the Concept Plan has been amended to delete these proposed changes.

- ***Text Changes in the Concept Plan***
  - No text changes proposed
- ***Text Changes in to Chapter 10***
  - **Return Section 10.25,R,2,d to its original language, as follows:**  
The Commission may reduce lot size, road frontage, or shore frontage for individual dwellings or lots in a cluster development, provided that, in the aggregate, dimensional requirements are met within the development.

## **6. Floodplain Changes Over Time**

## 6. FLOODPLAIN CHANGES OVER TIME

The Concept Plan has been amended to ensure that protective zoning for floodplains may change as new floodplain data becomes available, thereby ensuring compliance with federal floodplain insurance requirements.

- ***Text Changes in the Concept Plan***
  - No text changes proposed
- ***Text Changes in to Chapter 10***
  - **Revise 10.23,1,A as follows:**  
For all protection subdistricts other than the P-FRL-FP subdistrict established as of the effective date, . . .
  - **Revise 10.23,1,C as follows:**  
Any amendments to the protection subdistricts other than the P-FRL-FP subdistrict that are located within the boundaries of development areas . . .

## **7. Uses In M-GN Affecting Property Owners in D-RS Areas**



## 7. USES IN M-GN AFFECTING PROPERTY OWNERS IN D-RS AREAS

To further limit the impacts of forestry operations that may occur in the M-FRL-GN Zone on residential property owners in adjacent D-FRL-RS Zones, the Concept Plan has been revised to require – as part of a subdivision design – provisions to ensure that the subdivision includes a sufficient buffer to provide visual separation and some sound attenuation from future forest management operations.

- ***Text Changes in the Concept Plan***
  - **Concept Plan, page 22, add a new subsection E,4,g:** To manage the potential impacts of forestry operations that may occur in the M-FRL-GN Zone on residential property owners in abutting D-FRL-RS Zones, the Concept Plan requires as a part of a subdivision’s design provisions to ensure a sufficient buffer to provide visual separation and some sound attenuation from future forestry operations.
  
- ***Text Changes in to Chapter 10***
  - **Ch. 10, add a new provision at 10.25,Q,2: Subdivision Buffers.** Where residential development areas in the D-FRL-RS zone are adjacent to lands in the M-FRL-GN zone, subdivisions shall be designed to provide the opportunity to incorporate sufficient buffers to provide visual separation and some sound attenuation from future forest management operations that may occur on the abutting land. The subdivision plan shall demonstrate that a sufficient buffer is being provided for the subdivision overall (e.g., incorporating buffers into open space or requiring vegetated buffers) or that individual building lots have suitable vegetation and area to allow homeowners the opportunity to preserve a sufficient buffer to provide separation between homes and potential forest management activities.

## **8. Minimum Lot Size**

## 8. MINIMUM LOT SIZE

In response to our discussions with LUPC staff on the topic of minimum lot size, the Concept Plan will maintain the 40,000 Square foot minimum lot size and allow a minimum lot size of 20,000 square feet only if the lot will be served by an offsite wastewater disposal system that meets current state standards per the current Chapter 10 standards.

- ***Text Changes in the Concept Plan***

- Concept Plan, pg. 6, delete E,1,a,ii

- ***Text Changes in to Chapter 10***

- **Amend 10.26,A,1 to revert to the original language of the rule:**  
The minimum lot size for residential uses is 40,000 square feet per dwelling unit or residential campsite except where each dwelling unit is to use a common or community sewer and no on site subsurface waste water disposal, the minimum lot size shall be 20,000 square feet per dwelling unit.

## **9. Assurance of Public Benefits**

## 9. ASSURANCE OF PUBLIC BENEFITS

To provide greater assurances of public benefits, the Concept Plan has been amended in the following ways:

### ***Amendments Related to Cross Lake Boat Launch***

The Concept Plan outlines the mechanisms for guaranteeing the long-term public access to the Cross Lake Boat Launch and includes provisions for Petitioners' commitment to maintenance responsibilities, including who will operate the site, how public access will be assured, how the site will be maintained, and how the site will be managed.

- ***Text Changes in the Concept Plan***
  - Text changes to the Concept Plan are provided #1 above.
- ***Text Changes to Chapter 10***
  - There are no changes proposed to Chapter 10.

### ***Amendments Related to Van Buren Cove***

The Concept Plan is committed to maintaining public access to Van Buren Cove. Revisions to the plan include mechanisms for maintenance of the beach and associated infrastructure; commitments to develop a site improvement plan (within 3 years); and commitments to improvements to the beach area to address water quality issues, access, parking, and site aesthetics.

- ***Text Changes in the Concept Plan***
  - Text changes to the Concept Plan are provided #1 above.
- ***Text Changes to Chapter 10***
  - There are no changes proposed to Chapter 10.

### ***Amendments Related to Mud Lake Boat Launch***

Based on feedback from the resource agencies, the hand-carry boat launch proposed for the northwestern end of Mud Lake has been removed from the Plan.

- ***Text Changes in the Concept Plan***
  - Concept Plan, pg. 18, E,3 – delete paragraph on Mud Lake Access Point.
- ***Text Changes to Chapter 10***
  - Delete the addition to 10.21,N,3,c,7 authorizing one public hand carry launch.
  - Delete first row of table at 10.27,L,1,b authoring one public hand carry launch at Mud Lake.

## **10. Trail Access**

## 10. TRAIL ACCESS

The Concept Plan has been revised to clarify that, although Irving may close trails for safety or environmental reasons, the public will be guaranteed a consistent level of trail access throughout the life of the Plan and within the easement area.

- **Text Changes in the Concept Plan**

- **Revise pg. 19, E,4,b as follows:**

- i. **Traditional Recreational Activities:** Other than in development areas and on camp lots, public access for traditional recreational activities, such as boating, fishing, hiking, hunting and similar activities, will be allowed for the life of the Concept Plan throughout the Plan area and in perpetuity in the Easement Area. ~~allowed; provided, however that~~ While Petitioners reserve the right to make and enforce reasonable rules to protect public safety, protect the conservation values (where applicable), ensure compliance with all applicable laws, and safely accommodate forestry operations, including, without limitation, rules regarding night use, camping (such as determining appropriate locations for campsites), loud activities, open fires, use of equipment, and areas of access, Petitioners shall make available opportunities to maintain a reasonably comparable level of public access. Thus, for example, if a trail is closed due to weather, safety, or to protect natural resource values, Petitioners shall make reasonable efforts under the circumstances to allow access over a comparable trail nearby or to a similar site. Petitioners also reserve the right to close certain roads to public access for recreational purposes on one or more occasions.
- ii. **ATV/Snowmobile Access:** Other than in development areas and on camp lots, the managed use of ATVs and snowmobiles by the public will be allowed for the life of the Plan throughout the Plan area and in perpetuity in the Easement Area on dedicated trails that have been marked for these uses. See Map 32 for the location of ATV and snowmobile trails in and around the Project area. ATV owners must register with local clubs and follow recreational use guidelines based on Petitioners' motorized recreational use policy. Snowmobiles must have current state of Maine registration; no club affiliation is required. The availability of trails for ATV and snowmobile use may be evaluated on an annual basis and will be subject to modification based on ongoing development, harvesting and other forest management activities. While Petitioners reserve the right to make and enforce reasonable rules to protect public safety, protect the conservation values (where applicable), ensure compliance with all applicable laws, and safely accommodate forestry operations, including without, limitation, rules regarding night use, loud activities, use of equipment, and areas and seasonality of access, Petitioners shall make available opportunities to maintains a reasonably comparable level of public access. Thus, for example, if a trail is closed due to weather, safety, or to protect natural resource values, Petitioners shall make reasonable efforts under the circumstances to allow access over a comparable trail nearby or to a similar site. Petitioners also reserve the right to close certain trails to public access on one or more occasions; provided that reasonably comparable trails are made available.

Development plans proposed for the residential and Community/Economic Development areas shall consider the location of existing dedicated trails for snowmobile/ATV use. Development plans shall either incorporate the existing trails into the overall layout with accommodations for buffers, privacy, and acoustical separation from proposed residential or other uses, or work with the Petitioner to make available a comparable trail outside of the development area.

- ***Text Changes in Chapter 10***

- **Add a new provision, 10.25,Q,8:**

**ATV/Snowmobile Trails.** Where development areas are reasonably proximate to existing dedicated ATV and/or snowmobile trails, the subdivision plan shall consider the location of such trails and either incorporate them into the overall layout, with accommodations, as appropriate, for buffers, privacy, and acoustical separation from any potentially incompatible uses in the subdivision, or make reasonable efforts to work with Petitioner to offer a comparable trail outside of the development area.



## **11. CD Areas**

## 11. CD AREAS

In response to our discussion with LUPC Staff on the Community/Economic Development areas, and recognizing the appropriateness of more dispersed commercial development in this area's rural context, the Concept Plan has been revised in the following ways:

### AMENDMENTS TO CD-2

The overall size of CD-2 has been reduced to eliminate most of the areas that may contain wetlands (according to the NWI mapping). The Plan will keep 72± acres that a) are closest to the Sinclair Sanitary District and b) have some topography and therefore offer higher probabilities of better soils on a site-specific basis. The number of allowable lots for CD-2 has been reduced to 5.

- **Text Changes to the Concept Plan**

- **Revise page 13, E,1,d, second paragraph:** The first area rezoned D-FRL-GN is labeled "CD-2" on the Concept Plan Maps. See Map 23. CD-2 is located within the Village of Sinclair, is approximately ~~167~~ 72 acres in size and has approximately ~~3,950~~ 1,600 feet of frontage on Route 162. A portion of CD-2 abuts the east side of the Sinclair Sanitary District's wastewater treatment facility and is bisected by approximately 900 feet of Thibodeau Drive, the access road that serves that facility.

- **Text Changes to Chapter 10**

- **Revise 10.26,A,5,b as follows:** CD-2 Development Area: No more than 50% of the development area shall be developed and there shall be no more than ~~30~~ 5 lots.

### AMENDMENTS TO CD-3

CD-3b and CD-3c have been eliminated from the Plan. The number of allowable lots for CD-3a has been reduced to 2. CD-3a has been retitled CD-3.

- **Text Changes to the Concept Plan**

- **Revise page 13, E,1,d, first paragraph as follows:** The Concept Plan rezones ~~four~~ three areas as D-FRL-GN. The D-FRL-GN Zone recognizes existing patterns of development in appropriate areas and encourages further growth of compatible development. See Sub-Chapter II, Section 10.21,C,1.
- **Revise page 14, E,1,d, second paragraph as follows:** The ~~three remaining areas~~ second area rezoned D-FRL-GN ~~are~~ is labeled as "CD-3"; "~~CD-3b~~" and "~~CD-3c~~" on the Concept Plan Maps. See Map 23 or 24. All ~~CD-3 areas are located near the intersection of Route 161 and Route 162.~~ CD-3 is located southeast of the intersection of Route 161 and Route 162, is approximately 11 acres in size and has approximately 1,300 feet of frontage on the northern side of Route 161. ~~CD-3b is located northeast of the intersection, is approximately 6 acres in size and has approximately 2,100 feet of frontage on eastern side of Route 162.~~ ~~CD-3c is located northwest of the intersection, is approximately 11 acres in size and has approximately 1,900 feet of frontage on the western side of Route 162.~~

- **Text Changes to Chapter 10**
  - **Revise 10.21,C,2,b-d as follows:**
    - b. ~~CD-3a~~ CD-3 Development Area;
    - c. ~~CD-3b~~ Development Area; and
    - d. ~~CD-3c~~ Development Area.
  - **Revise 10.26,A,5,c as follows:**

CD-3 Development Area: There shall be no more than 2 lots.

    - i. ~~For CD-3a~~ Development Area, there shall be no more than 4 lots;
    - ii. ~~For CD-3b~~ Development Area, there shall be no more than 4 lots; and
    - iii. ~~For CD-3c~~ Development Area, there shall be no more than 4 lots.

#### AMENDMENTS TO CD-4

CD-4 has been reconfigured to include a larger area of suitable soils to the west while removing areas of wetter soils to the east, resulting in an area of approximately 63 acres. The Plan also changes the zoning in CD-4 from D-FRL-CI, which allows industrial development, to D-FRL-GN, which is more of a commercial zone that would also allow a variety of commercial and community uses that would complement the existing and future development along Route 161. The number of allowable lots has been reduced to 6.

- **Text Changes to the Concept Plan**
  - **Revise page 12, E.1,c, first paragraph as follows:**

The Concept Plan rezones ~~two areas~~ one area as D-FRL-CI. The D-FRL-CI zone allows for commercial, industrial and other development that may not be compatible with residential uses. See Sub-Chapter 11, Section 10.21,A.1.
  - **Revise page 12, E.1,c, third paragraph; amend and move to what is now E.1,d and insert as the last paragraph in that section:**

The ~~second~~ final area rezoned ~~D-FRL-CI~~ D-FRL-GN is labeled “CD-4” on the Concept Plan Maps. See Map 23 or 24. CD-4 is approximately ~~73~~ 63 acres in size and is located near the intersection of Route 161 and Route 162. CD-4 is accessible from Route 162 and Route 161. The Route 161 access would pass under a transmission corridor that parallels the highway.
- **Text Changes to Chapter 10**
  - **Revise 10.21,A,2 as follows:**

**2. Description**

~~The following development areas~~ The CD-1 development area, as delineated on the maps contained in Section 1.H of the Concept Plan, ~~are~~ is located in the D-FRL-CI Zone:

    - a. ~~CD-1~~ development area; and
    - b. ~~CD-4~~ development area.

- **Provide a new 10.21,C,2,c:**
  - c. CD-4 Development Area.
  
- **Revise 10,26,A,5,d as follows:**

CD-4 Development Area: No more than 50% of the development area shall be developed and there in no case shall be no more than ~~30~~ 6 lots.

## **12. Land Divisions**

## 12. LAND DIVISIONS

In response to our discussion with LUPC Staff on the topic of land division, the Concept Plan has been revised to eliminate the traditional 2-in-5 exemption to subdivision reviews, thereby eliminating the threat of unplanned development throughout the life of the Plan. The Plan has also been revised to make certain divisions more efficient by providing that the sale of all or part of development areas, the sale or expansion of camp lots, and the development of specified remote rental cabins, remote campsites, and publicly accessible water access sites shall not require subdivision approval. In addition, the Plan has been revised to require certain declaration elements to be recorded in the deeds for Plan parcels that advise the public of the application of the Concept Plan.

- ***Text Changes in the Concept Plan***

- **On page 22, add a new paragraph after what is currently E,4,e:**

- f. **Lot Creation:** The Concept Plan substantially revises the lot creation rules to eliminate the potential for haphazard, unplanned development through use of the traditional exception allowing the creation of two lots every five years without subdivision approval. The new rules eliminate the two-in-five exemption, as well as some of the other traditional exemptions, by redefining a subdivision for purposes of the Concept Plan as the division of an existing parcel into two or more lots, whether by platting, sale, or lease. See Sub-Chapter I, Section 10.02,202; Sub-Chapter III, Section 10.25,Q,1; and Sub-Chapter IV, Section 10.33.

- **Insert a new Appendix at 3,D:**

### MINIMUM MANDATORY DECLARATION ELEMENTS

#### A. Mandatory Declaration Language

##### 1. The mandatory declaration shall provide at a minimum:

- a. The following statement: “All or a portion of this land is subject to the Fish River Chain of Lakes Resource Protection Plan (P-RP) Subdistrict pursuant to Maine Land Use Planning Commission (“LUPC”) Zoning Petition ZP 768 dated \_\_\_\_\_, as may be amended from time to time, recorded in the Aroostook County Registry of Deeds in Book \_\_\_\_\_, Page \_\_\_\_\_. A copy of ZP-768 is also available at the LUPC offices in Ashland and Augusta. The Concept Plan is scheduled to expire on \_\_\_\_\_, unless otherwise amended, extended, or renewed.”; and
- b. A description of the deeded road access rights to the lot or parcel, as approved in advance by the Commission.

##### 2. Mandatory Declaration Elements

The mandatory declaration language set forth in this appendix applies to lands within development areas. Nothing herein shall be construed as limiting the Commission’s authority to require the same or similar declarations to be recorded in connection

with permit approvals for other forms of development consistent with the Concept Plan and applicable law.

Prior to or concurrent with the sale or other transfer of interest of any portion of any development area, owner shall record all Mandatory Declaration Elements against such property.

Mandatory Declaration Elements may not be modified or omitted from Declarations, except as follows:

- a. Changes made to the Mandatory Declaration Elements to correct scrivener's errors, adjust numbering, supplement with subdivision- or development-specific references, or re-order terms shall be permitted without approval of the Commission.
- b. Terms may be added to Declarations so long as they are not inconsistent with the Mandatory Declaration Elements and the terms of the Concept Plan. Other than those transfers of interest that are exempt from Commission subdivision review pursuant to Section II, Sub-Chapter III, 10.25,Q,1 and Section 10.33 of the Concept Plan, any such additional terms must be submitted to the Commission for review and approval as part of a subdivision permit application in order for the Commission to determine their consistency with the Mandatory Declaration Elements, the terms of the Concept Plan and any other terms and conditions of permits issued by the Commission.

- ***Text Changes to Chapter 10***

- **Revise 10.02,202 as follows:**

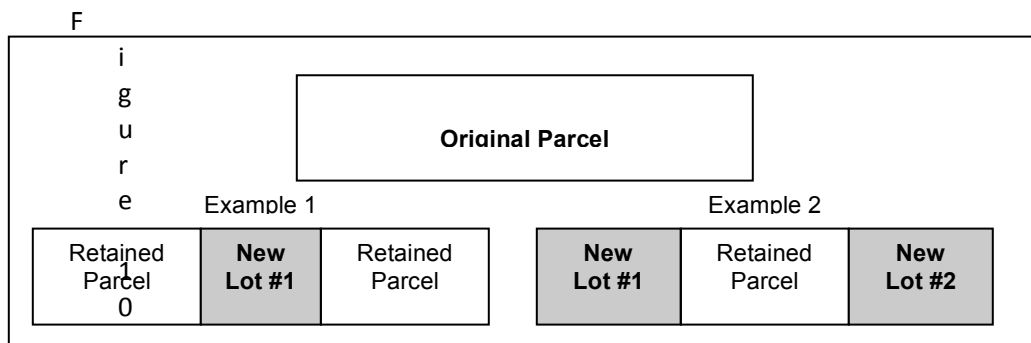
- **Subdivision:**

For purposes of this Concept Plan, additional limitations on the subdivision of land within the Concept Plan Area apply beyond those set forth in 12 M.R.S.A. §682(2-A) and §682-B. Specifically, for the term of this Concept Plan, except as provided in Section II, Sub-Chapter III, 10.25,Q,1 of this Concept Plan, "subdivision" means a division of an existing parcel of land into 2 or more parcels or lots, whether this division is accomplished by platting of the land for immediate or future sale, by sale of land or by leasing; "subdivision" also means the division, placement or construction of a structure or structures on any tract or parcel of land resulting in 1 or more dwelling units. ~~Except as provided in 12 M.R.S.A. §682-B, "subdivision" means a division of an existing parcel of land into 3 or more parcels or lots within any 5-year period, whether this division is accomplished by platting of the land for immediate or future sale, by sale of land or by leasing. The term "subdivision" also includes the division, placement or construction of a structure or structures on a tract or parcel of land resulting in 3 or more dwelling units within a 5-year period. 12 M.R.S.A. §682(2-A).~~ Refer to Section 10.25,Q, "Subdivision and Lot Creation" and Section 10.33 for additional criteria on types and numbers of lots that are included or are exempt from this definition.

**Level 1 subdivision:** Any subdivision that does not meet the criteria of a level 2 subdivision is considered a level 1 subdivision.

**Level 2 subdivision:** Any subdivision that meets the criteria of Section 10.25,Q,2 is considered a level 2 subdivision.

- **Amend 10.21,C,3,c, 21 as follows:**  
Subdivisions: Residential subdivisions, and commercial and industrial subdivisions for uses permitted within this subdistrict, and in accordance with Section 10.33;
- **Amend 10.21,C,d,9 as follows:**  
In the CD-2 Development Area, Multi-Family Dwellings for Affordable Housing, and in accordance with Section 10.33;
- **Amend 10.21,K,3,c,18 as follows:**  
Subdivisions: Residential subdivisions for uses permitted in this subdistrict, and in accordance with Section 10.33;
- **Amend Section 10.25,Q,1 as follows:**  
This section governs the division of lots and the creation of subdivisions.
  1. **Counting Parcels, Lots, or Dwelling Units Under the Definition of Subdivision.**
    - a. **Lots Created by Dividing a Parcel.** When a parcel is divided, the land retained by the person dividing land is always counted in determining the number of lots created unless the lot retained qualifies for any of the exemptions listed in Section 10.25,Q,1,g below. This figure illustrates two examples:



25,Q-1. Two examples where two new lot lines were drawn, each resulting in the creation of three parcels.

- b. **Subdivision Created by the Placement of Dwelling Units.** The placement of three or more dwelling units on a single lot within a five-year period creates a subdivision. The division of one lot into two parcels coupled with the placement of one or two dwelling units on either or both lots does not create a subdivision.
- ~~c. **Parcels Originally Part of a Subdivision.** A lot or parcel which, when sold, leased or developed, was not part of a subdivision but subsequently became part of a subdivision by reason of another division by another landowner is counted as a lot under the subdivision definition. The Commission, however, will not require a subdivision permit be obtained for such lot, unless the intent of such transfer or development is to avoid the objectives of 12 M.R.S.A. §206-A.~~
- d. **Remote Rental Cabins.** See Section 10.33. In order to foster primitive recreational opportunities on large tracts of land, up to eight remote rental cabins within a single contiguous ownership larger than 5,000 acres within a township shall be



~~allowed without subdivision review. Placement of more than eight remote rental cabins within such an ownership requires subdivision review by the Commission.~~

- e. Renewal of Leases.** For the purpose of counting lots under the Commission’s definition of subdivision, the renewal of a lease or license within a Commission approved subdivision shall not be counted as the creation of a lot. For the renewal of leases or licenses in other than Commission approved subdivisions, a lease, as is enumerated in Section XXXX, that is renewed within two (2) years of its expiration shall not be counted as the creation of a lot. Renewal of leases or licenses in other circumstances shall be counted as the creation of a lot.
- f. Existing parcels.** For the purposes of the definition of subdivision in 12 M.R.S.A. §682(2) and in these rules, an “existing parcel” shall include the contiguous area within one township, plantation, or town owned or leased by one person or group of persons in common ownership.
- g. Exempt lots.** The following divisions are exempt when counting lots for purposes of subdivision, unless the intent of such transfer is to avoid the objectives of 12 M.R.S.A. Chapter 206-A:
- (1) Transfer of Lots for Forest Management, Agricultural Management or Conservation of Natural Resources. ~~See Section 10.33,B,1,f. A lot or parcel is not considered a subdivision lot if the following conditions are met:~~
    - (a) ~~The lot is transferred and managed solely for forest management, agricultural management or conservation of natural resources;~~
    - (b) ~~The lot is at least 40 acres in size;~~
    - (c) ~~If the lot is less than 1,000 acres in size, no portion of the lot is located within 1,320 feet of the normal high water mark of any great pond or river or within 250 feet of the upland edge of a coastal or freshwater wetland as these terms are defined in 38 M.R.S.A. §436-A;~~
    - (d) ~~The original parcel from which the lot was divided is divided into an aggregate of no more than 10 lots within any 5-year period; and~~
    - (e) ~~When 3 to 10 lots each containing at least 40 acres in size are created within any 5-year period, a plan is recorded in accordance with 12 M.R.S.A. §685-B(6-A). Any subsequent division of a lot created from the original parcel within 10 years of the recording of the plan in the registry of deeds or any structural development unrelated to forest management, agricultural management or conservation creates a subdivision and may not occur without prior commission approval. 12 M.R.S.A. §682-B(4).~~
  - (2) Retained Lots. A lot is not counted as a lot for the purposes of subdivision if it is retained by the person dividing the land, and for a period of at least 5 years:
    - (a) is retained and not sold, platted, leased, conveyed or further divided, except for transfer to an abutter pursuant to Section 10.25,Q,1,g,(3) below; and
    - (b) is used solely for forest or agricultural management activities and associated structures and development such as buildings to store equipment or materials used in forest or agricultural management activities, land management roads, driveways consistent with forest or agricultural management activities, or natural resource conservation purposes.

Only one retained lot exempt under this Section 10.25,Q,1,g,(2) may be created from any one existing parcel.

- (3) Transfers to an Abutter and Contiguous Lots. A lot transferred to an abutting owner of land is not counted as a lot for the purposes of subdivision provided the transferred property and the abutter's contiguous property is maintained as a single merged parcel of land for a period of 5 years. Where a lot is transferred to an abutter, or two or more contiguous lots are held by one person, the contiguous lots are considered merged for regulatory purposes except for:
- (a) lots that are part of a subdivision approved by the Commission;
  - (b) a land division certified by the Commission as qualifying under 12 M.R.S.A. §682-B; or
  - (c) as provided in Section 10.11.

If the property exempted under this paragraph is transferred within 5 years to another person without all of the merged land, or without satisfying either subparagraph (a), (b), or (c) above, then the previously exempt division creates a lot or lots for purposes of Section 10.25,Q.

- (4) Divisions by ~~Inheritance, Court Order, or Gifts~~. Divisions of land accomplished solely by ~~inheritance, or by court order, to a person related to the donor by blood, marriage, or adoption are not counted as lots for the purposes of this subsection.~~

~~A division of land accomplished by bona fide gift, without any consideration paid or received, to a spouse, parent, grandparent, child, grandchild or sibling of the donor of the lot or parcel does not create a subdivision lot if the donor has owned the lot or parcel for a continuous period of 5 years immediately preceding the division by gift and the lot or parcel is not further divided or transferred within 5 years from the date of division. 12 M.R.S.A. §682-B(1)~~

- (5) Conservation Lots. ~~See Section 10.33,B,1,g. A lot or parcel transferred to a nonprofit, tax-exempt nature conservation organization qualifying under the United States Internal Revenue Code, Section 501(c)(3) is not considered a subdivision lot if the following conditions are met:~~
- ~~(a) For a period of at least 20 years following the transfer, the lot or parcel must be limited by deed restriction or conservation easement for the protection of wildlife habitat or ecologically sensitive areas or for public outdoor recreation; and~~
  - ~~(b) The lot or parcel is not further divided or transferred except to another qualifying nonprofit, tax-exempt nature conservation organization or governmental entity. 12 M.R.S.A. §682-B(3)~~
- (6) Transfer to Governmental Entity. ~~See Section 10.33,B,1,h. A lot or parcel transferred to a municipality or county of the State, the State or an agency of the State, or an agency of the Federal government is not considered a subdivision lot if the following conditions are met:~~
- ~~(a) The lot or parcel is held by the governmental entity for the conservation and protection of natural resources, public outdoor recreation or other bona fide public purposes and is not further sold or divided for a period of 20 years following the date of transfer; and~~
  - ~~(b) At the time of transfer the transferee provides written notice to the commission of transfer of the lot or parcel, including certification that the lot or parcel qualifies for exemption under this subsection. 12 M.R.S.A. §682-B(2)~~

- (7) Large Lots Managed for Forest or Agricultural Management Activities or Conservation. ~~See Section 10.33,B,1,i. A lot transferred or retained following transfer containing at least 5,000 acres is not counted as a lot for the purposes of this subsection, provided the lot is managed solely for the purposes of forest or agricultural management activities or conservation and the lot is not further divided for a period of at least 5 years. Nothing in this paragraph, however, shall be construed to prohibit public outdoor recreation on the lot.~~
- (8) Unauthorized Subdivision Lots in Existence For at Least 20 Years. A lot or parcel that when sold or leased created a subdivision requiring a permit under this chapter is not considered a subdivision lot and is exempt from the permit requirement if the permit has not been obtained and the subdivision has been in existence for 20 or more years. A lot or parcel is considered a subdivision lot and is not exempt under this subsection if:
- Approval of the subdivision under 12 M.R.S.A §685-B was denied by the Commission and record of the Commission’s decision was recorded in the appropriate registry of deeds;
  - A building permit for the lot or parcel was denied by the Commission under 12 M.R.S.A. §685-B and record of the Commission’s decision was recorded in the appropriate registry of deeds;
  - The Commission has filed a notice of violation of 12 M.R.S.A. §685-B with respect to the subdivision in the appropriate registry of deeds; or
  - The lot or parcel has been the subject of an enforcement action or order and record of that action or order was recorded in the appropriate registry of deeds. 12 M.R.S.A §682-B(5).

- **Add a new Section 10.33:**  
**10.33 LOT CREATIONS AND TRANSFERS**

In addition to the provisions contained in Section 10.25,Q,1 the following provisions apply to all land within the Concept Plan area:

**A. Recorded Transactions**

All land divisions, subdivisions, and transfers that are recorded shall include the following as part of the recorded transaction, as further described in Appendix 3(D):

- Clear enumeration of the specific development rights where limited to a specific number, responsibilities, and allocations as provided by the Plan, as applicable including but not limited to: the number of lots, units, and water access sites; phosphorus allocations; and dedicated road access; and
- Reference to, and required compliance with, the terms and restriction of the Concept Plan.

**B. Limitations on Lot Creation**

**1. Lot Divisions**

Upon notice in accordance with Section 10.33,D, the following land divisions are allowed without subdivision approval:

- Land covered by the Fish River Chain of Lakes Conservation Easement  
The transfer of any parcel of land covered by the Fish River Chain of Lakes Conservation Easement (“Easement”) shall be governed by the terms and conditions of the Easement. Any divisions of the land covered by the Easement

that occur subsequent to the effective date of this Concept Plan and are accomplished pursuant to the terms and conditions of that easement shall be exempt from Commission subdivision review.

(b) Development Areas

The transfer of any of the 15 development areas, individually or collectively, in part or in whole;

(c) Existing Camp Lots

The existing camp lots may be expanded and sold in accordance with this Plan. The maximum number of lots shall be distributed as follows.

<u>Lake</u>	<u>Maximum Number of Lots</u>
<u>Cross Lake</u>	<u>237</u>
<u>Long Lake</u>	<u>150</u>
<u>Mud Lake / Cross Lake Thoroughfare</u>	<u>19</u>
<u>Square Lake</u>	<u>19</u>

(d) Remote Campsites and Remote Rental Cabins. The maximum number of lots shall not exceed one lot per site, 13 in total, as listed in Section 1,E,1,d of the Concept Plan.

(e) Water Access Sites which are not related to development areas. The maximum number of lots shall not exceed one lot per site, 3 in total, as listed in Section 10.27,L,1,b of the Concept Plan.

(f) Transfer of Lots for Forest Management, Agricultural Management or Conservation of Natural Resources. A lot or parcel is not considered a subdivision lot if the following conditions are met:

(1) The lot is transferred and managed solely for forest management, agricultural management or conservation of natural resources;

(2) The lot is at least 40 acres in size;

(3) If the lot is less than 1,000 acres in size, no portion of the lot is located within 1,320 feet of the normal high water mark of any great pond or river or within 250 feet of the upland edge of a coastal or freshwater wetland as these terms are defined in 38 M.R.S.A. §436-A;

(4) The original parcel from which the lot was divided is divided into an aggregate of no more than 5 lots; and

(5) When 3 to 10 lots each containing at least 40 acres in size are created within any 5-year period, a plan is recorded in accordance with 12 M.R.S.A §685-B(6-A). Any subsequent division of a lot created from the original parcel within 10 years of the recording of the plan in the registry of deeds or any structural development unrelated to forest management, agricultural management or conservation creates a subdivision and may not occur without prior commission approval. 12 M.R.S.A §682-B(4).

- (g) Conservation Lots. A lot or parcel transferred to a nonprofit, tax-exempt nature conservation organization qualifying under the United States Internal Revenue Code, Section 501(c)(3) is not considered a subdivision lot if the following conditions are met:
- (1) For a period of at least 20 years following the transfer, the lot or parcel must be limited by deed restriction or conservation easement for the protection of wildlife habitat or ecologically sensitive areas or for public outdoor recreation;
  - (2) The lot or parcel is not further divided or transferred except to another qualifying nonprofit, tax-exempt nature conservation organization or governmental entity, 12 M.R.S.A. §682-B(3);
  - (3) The lot or parcel is at least 20 acres; and
  - (4) No more than 5 such lots or parcels are transferred during the term of the Concept Plan.
- (h) Transfer to Governmental Entity. A lot or parcel transferred to a municipality or county of the State, the State or an agency of the State, or an agency of the Federal government is not considered a subdivision lot if the following conditions are met:
- (1) The lot or parcel is held by the governmental entity for the conservation and protection of natural resources, public outdoor recreation or other bona fide public purposes and is not further sold or divided for a period of 20 years following the date of transfer;
  - (2) At the time of transfer the transferee provides written notice to the commission of transfer of the lot or parcel, including certification that the lot or parcel qualifies for exemption under this subsection, 12 M.R.S.A. §682-B(2);
  - (3) The lot or parcel is at least 20 acres; and
  - (4) No more than 5 such lots or parcels are transferred during the term of the Concept Plan.
- (i) Large Lots Managed for Forest or Agricultural Management Activities or Conservation. A lot transferred or retained following transfer containing at least 5,000 acres is not considered a subdivision lot if the following conditions are met:
- (1) The lot is managed solely for the purposes of forest or agricultural management activities or conservation and the lot is not further divided for a period of at least 5 years; and

(2) No more than 3 such lots or parcels are transferred during the term of the Concept Plan.

2. Subdivision

Upon Commission approval, subdivisions in the development areas shall be allowed up to the following maximum numbers of lots.

(a) In addition to the limits set below, each development area shall be allowed additional lots that if created shall be transferred and used only for development related administrative purposes (e.g., subdivision roads, septic systems, common lot, open space, water access site, etc.). The following limits relate to, and correspond with, Section 10.28 (i.e., one lot per unit) and Section 1, Table 6 of the Concept Plan.

<u>Development Area</u>	<u>Maximum Number of Lots</u>	<u>Lake Lot Cap</u>
<u>Cross Lake A</u>	<u>30</u>	
<u>Cross Lake B</u>	<u>30</u>	
<u>Cross Lake C</u>	<u>30</u>	<u>125</u>
<u>Cross Lake D</u>	<u>35</u>	
<u>Cross Lake E</u>	<u>60</u>	
<u>Long Lake A</u>	<u>50</u>	
<u>Long Lake B</u>	<u>15</u>	<u>75</u>
<u>Long Lake C</u>	<u>25</u>	
<u>Square Lake East</u>	<u>85</u>	
<u>Square Lake West</u>	<u>30</u>	<u>130</u>
<u>Square Lake Yexas</u>	<u>67*</u>	
<u>CD-1</u>	<u>30</u>	
<u>CD-2</u>	<u>5</u>	
<u>CD-3</u>	<u>2</u>	<u>na</u>
<u>CD-4</u>	<u>6</u>	

\* No more than 50 of these new lots may be in recreational lodging facilities.

**C. Lot Transfers**

For purposes of this Concept Plan, lots or parcels located within a development area may be divided and transferred without prior Commission subdivision approval only under the following circumstances. Such transfers shall include the statements provided in Appendix 3(D) of the Concept Plan.

1. In accordance with Section 1,G of the Concept Plan;
2. Intercompany transfers. One or more lots or parcels transferred from a parent company to a subsidiary, from a subsidiary to its parent, or between affiliate entities which are ultimately owned by a common parent.

**D. Notice**

1. Prior to any lot divisions or the transfer of any lands within the Plan Area, as specified above, the property owner shall submit a written Notice of Planned Activities to the Commission. Such notice shall be filed with the Commission at least 14 days prior to the transfer or division and shall set out the nature of the activities proposed, their extent, and their location within the Plan Area. Furthermore, such notice shall include affirmative statements by the property owner that the proposed

activity complies with all criteria for such activities; and a draft plat that is consistent with the Commission's Specifications for Subdivision Plats.

2. Commission staff, upon receipt of such notice shall, within 14 working days of the date the notice was received, review the proposal and notify the owner in writing of any proposed activities determined to require subdivision approval from the Commission or additional or revised statements to be included as part of the recorded transaction.
3. The property owner may proceed with the activity without subdivision approval in conformity with the Plan and all applicable standards 14 days after the notification is received by the Commission, unless within such time period the staff disapproves the activity or requests additional information needed for adequate review.

## **13. Conservation Easement**



### 13. CONSERVATION EASEMENT

The Conservation Easement has been amended in various ways, including the following:

The Conservation Easement further restricts the allowable structures and uses that can be developed, including eliminating the potential for transmission lines, restricting the size of potential gravel pits, both individually and in the aggregate, eliminating the potential for water extraction to serve development areas, and restricting emergency structures in the easement area to within 1 mile of Square Lake West.

The Conservation Easement strengthens the role of the easement holder in determining whether structures and uses will be allowed by expanding the requirements to obtain the holder's consent for gravel pits, roads, and utility structures. Consent shall only be granted upon a determination that the project minimizes the amount of protected property affected and minimizes any undue adverse effects on the conservation values of the easement.

- ***Changes in the Concept Plan***
  - A revised Conservation Easement will be inserted as new Section 3,A. See current draft of the following pages.
- ***Changes to Chapter 10***
  - No text changes proposed

**FISH RIVER CHAIN OF LAKES**  
**CONSERVATION EASEMENT**

Granted by

**ALLAGASH TIMBERLANDS LP**

to

**FOREST SOCIETY OF MAINE,**  
as Holder

## CONSERVATION EASEMENT

KNOW ALL PERSONS BY THESE PRESENTS, ALLAGASH TIMBERLANDS LP with a place of business in Bangor, Maine (hereinafter referred to as “**Grantor**”, which word, unless the context clearly indicates otherwise, include Grantor’s successors and/or assigns, GRANTS to FOREST SOCIETY OF MAINE, a Maine not-for-profit corporation with a place of business in Bangor, Maine (hereinafter referred to as “**Holder**”, which word shall, unless the context clearly indicates otherwise, include Holder’s successors and/or assigns), with QUITCLAIM COVENANT, in perpetuity, the following described Conservation Easement on land located in Aroostook County, State of Maine, hereinafter referred to as the “**Protected Property**”, as described in Exhibit A-1 and as shown on maps in Exhibit A-2, each of which is attached hereto and made a part hereof by reference (“**Conservation Easement**”).

### PURPOSE

The purpose of this Conservation Easement is to provide a significant public benefit by protecting in perpetuity the Conservation Values of the Protected Property and by allowing, but not requiring, the Protected Property’s continued operation as a Commercial Working Forest.

### RECITALS

**WHEREAS**, the Protected Property is a predominantly forested land area of significant breadth and diversity, with important values including sizeable forests of high quality, productive soils, diverse wildlife and plant habitat, rare and endangered species habitat, extensive bogs, wetlands, streams, lakes, ponds, and other water bodies, and unique natural features, and qualifies as a “relatively natural habitat of fish, wildlife, or plants, or similar ecosystem,” as that phrase is used in P.L. 96-541, Title 26 U.S.C. § 170(h)(4)(A)(ii), and in regulations promulgated thereunder; and

**WHEREAS**, the Protected Property contains popular recreational areas important to the people of the State of Maine, and guaranteed access to and use of the Protected Property by the public for Non-exclusive, Low-intensity Outdoor Recreation in perpetuity, consistent with the preservation and protection of the other values of the Protected Property and Grantor’s reserved rights, is in the public interest; and

**WHEREAS**, the Protected Property is capable of providing a continuing and renewable source of forest products; and

**WHEREAS**, Grantor has the reserved right to use the Protected Property for Forest Management Activities and to take other actions under the terms and conditions set forth in this Conservation Easement, in a manner that is consistent with the protection of the Conservation Values; and

**WHEREAS**, the Parties agree that the Conservation Easement and the Management Plan together are sufficient to ensure the protection of the Conservation Values; and

**WHEREAS**, the permanent protection of the Protected Property for conservation and for Non-exclusive, Low-intensity Outdoor Recreation, and the allowance of Motorized Recreation uses permitted pursuant to Section 6.1 hereof by the public, while permitting use of the Protected Property for Forest Management Activities and other uses allowed in this Conservation Easement, all in a manner that is consistent with the protection of the Conservation Values, will make a lasting contribution to the State of Maine;

**WHEREAS**, this Conservation Easement is granted in accordance with the terms and provisions of the Concept Plan approved by the Maine Land Use Planning Commission (“LUPC”) pursuant to Zoning Petition ZP \_\_\_\_\_ on \_\_\_\_\_ [Date], of which the Protected Property is a part; and

**WHEREAS**, this Conservation Easement is granted not as a gift but pursuant to the terms of the Concept Plan and in consideration for and mitigation of certain development rights that will be or have been authorized by the LUPC; and

**WHEREAS**, Holder is a tax exempt public charity under §§ 501(c)(3) and 509(a) of the Internal Revenue Code of 1986, and the regulations thereunder, is qualified under § 170(h) of such Code to receive qualified conservation contributions and is qualified to hold conservation easements pursuant to Title 33 M.R.S. § 476(2)(B); and

**WHEREAS**, this Conservation Easement is created pursuant to Maine’s Conservation Easement Act, Title 33 M.R.S. §§ 476 *et seq.*

**NOW THEREFORE**, the Parties hereto have established this Conservation Easement affecting the Protected Property consisting of the following terms, conditions, restrictions, and affirmative rights, which shall run with and bind the Protected Property in perpetuity.

**1. DEFINITIONS.**

In this Conservation Easement, the following terms shall have the following meanings:

“**AAA**” has the meaning ascribed to such term in Section 18.1(b) hereof.

“**Affiliate**” means any corporation, partnership, limited partnership, limited liability company, trust, or other entity in existence on the date of this Conservation Easement or at any time thereafter: (a) controlled by a Party, (b) in control of a Party, or (c) controlled (directly or indirectly) by the same person or entity that controls a Party. The term “control” as used herein includes control through common ownership and/or management, or a trust which is established for the benefit of a Party.

“**Arbitrator**” has the meaning ascribed to such term in Section 18.2(a) hereof.

“**Baseline Documentation**” means the baseline documentation report prepared in the manner described in Section 5 hereof.

**“Campsite”** means a camping location for tents, registered tent trailers, registered pickup campers, registered recreational vehicles, registered trailers or similar devices used for camping. Campsite does not include a camping location that has access to a pressurized water system or permanent Structures other than outhouses, fireplaces, picnic tables, picnic tables with shelters, or lean-tos. A Campsite shall include no more than 4 sites for transient occupancy by 12 or fewer people per site.

**“Commercial Working Forest”** means an area of land that is used for the production of revenue from Forest Management Activities.

**“Concept Plan”** means the concept plan of Maine Woodlands Realty Company, Allagash Timberlands LP, and Aroostook Timberlands LLC, entitled “The Fish River Chain of Lakes Concept Plan” and authorized by LUPC pursuant to Zoning Petition \_\_\_\_\_ approved on [DATE], as may be amended or extended.

**“Conservation Easement”** has the meaning ascribed to such term on Page 1 of this Conservation Easement.

**“Conservation Values”** means, in no particular order, each and all of the following values associated with the Protected Property:

- a) Forest Values. The condition of the Protected Property as a healthy, diverse in age and biological conditions, forest land area containing high quality, productive and non-eroding soils and capable of providing a continuing and renewable source of commercial forest products;
- b) Landscape-Scale Forestland Values. The condition of the Protected Property as a largely unfragmented, diverse, substantially natural, and sustainably managed forest land area;
- c) Aquatic Resources and Wetland Values. The Protected Property’s diverse and extensive bogs, fens, thoroughfares, wetlands, streams, lakes, ponds, and other aquatic habitats, including fisheries habitats, their water quality, undeveloped shorelines and riparian areas, and the ecological values of these areas;
- d) Wildlife, Plant, and Natural Community Values. The Protected Property’s diverse and extensive wildlife, plant, forest and other terrestrial habitats, habitats of rare, threatened and endangered flora and fauna, including natural communities, and the ecological values of these areas;
- e) Recreational Values. The diverse and extensive opportunities on the Protected Property for Non-exclusive, Low-intensity Outdoor Recreation and/or certain Motorized Recreation, consistent with the conduct of Forest Management Activities on the Protected Property; and

- f) Scenic Values. The scenic qualities of the Protected Property, as experienced from the lakes and thoroughfares in the Fish River Chain of Lakes and public vantage points, as identified in the Baseline Documentation, consistent with the conduct of Forest Management Activities on the Protected Property; and
- g) Other Special Site Values. The unique, historic, cultural, archaeological, geological, scientific or educational sites on the Protected Property, and the attributes and resources of these sites, as identified in the Baseline Documentation.

“**Construction Materials**” has the meaning ascribed to such term in Section 3.2(a) hereof.

“**Dispute**” has the meaning ascribed to such term in Section 18.1 hereof.

“**Division**” has the meaning ascribed to such term in Section 7.1 hereof.

“**FOAA**” has the meaning ascribed to such term in Section 11.3 hereof.

“**Forest Management Activities**” means all aspects of planting, tending, harvesting, and removal of any and all forest products, by any and all current and future planting, harvesting, and removal techniques allowable under law (now or in the future). Forest Management Activities shall include, but are not limited to, the following activities and Grantor’s management of such activities: reforestation, planting, growing, cutting, tending, and harvesting trees, forest products, and other vegetation; construction, use, and maintenance of skid trails, skid roads, skidder bridges, log yards, landing and staging areas, land management roads, winter haul roads or other paths, roads, or Trails used to provide pedestrian, domestic animal, and vehicular access on and from and within the Protected Property to carry out the Forest Management Activities on the Protected Property; clearing for reforestation; harvesting, pruning, girdling, thinning, or trimming trees and other vegetation; harvesting forest products with domestic animals or mechanical equipment; maintenance of fields and meadows, as identified in the Baseline Documentation; conducting timber cruising, forest management planning, forest stand improvement, forest crop selection, forest research, and other forest resource evaluation activities; cutting and removing forest products, including, but not limited to, trees, logs, poles, posts, pulpwood, firewood, chips, seeds, pinestraw, stumps, seed cones, bark, shrubs, lesser vegetation, and biomass; collection and processing of all sugar maple products; conducting fire control and other activities to prevent or control losses or damage to forest crops or forest products; identifying and marking boundaries; salvaging forest crops or forest products; marking timber and performing other activities to identify trees or areas for harvest; performing commercial and pre-commercial silvicultural treatments; disposing of harvesting debris and conducting post-harvest or site recovery activities; prescribed burning; applying in accordance with applicable statutes and regulations herbicides, pesticides, fungicides, rodenticides, insecticides, and fertilizers; removing, loading, and transporting timber and other forest crops and products; processing forest products with portable or temporary equipment designed for in-woods processing, including the establishment and maintenance of log merchandising yards; trimming, cutting, removing, burning, or otherwise disposing of any trees or vegetation that are diseased, rotten, damaged, or fallen; trimming, cutting, removing, or otherwise disposing of any trees or vegetation as is necessary to construct

or maintain fire lanes, Trails, and any roads or Utility Structures permitted under this Conservation Easement; and any other similar activities.

**“Forestry Improvements”** means any and all Structures, facilities, improvements and utilities that are directly related to the conduct of Forest Management Activities, including, but not limited to, roads, fences, bridges, gates, maple sugar collection portable sawmills, mobile chippers, and other equipment and facilities, associated signs and Structures, wells, but does not include permanent sawmills or other permanent forest processing facilities.

**“Fund”** has the meaning ascribed to such term in Section 10.1 hereof.

**“Fund Operator”** has the meaning ascribed to such term in Section 10.1 hereof.

**“Grantor”** has the meaning ascribed to such term on Page 1 of this Conservation Easement.

**“Herein”** or **“Hereof”** mean in or of this Conservation Easement as a whole, and do not refer to any individual section, unless specifically indicated.

**“Holder”** has the meaning ascribed to such term on Page 1 of this Conservation Easement.

**“Informational Signage”** means informational signage related to uses and Structures authorized by this Conservation Easement.

**“Indemnitees”** has the meaning ascribed to such term in Section 8.8 hereof.

**“Low-intensity Outdoor Recreation”** means non-motorized outdoor, nature-based recreational activities, including, but not limited to, boating, swimming, fishing, hiking, hunting, trapping, picnicking, nature observation, photography, horseback riding, tent and shelter camping, cross-country skiing, bicycling, snowshoeing, rock climbing, ice climbing, and enjoyment of open space.

**“Motorized Recreation”** means those uses approved as part of a Motorized Recreational Use Plan of motorized recreational vehicles designed to be used in a forested landscape on Trails, such as snowmobiles, all-terrain vehicles (ATVs) or similar vehicles, which recreation shall include designated trails but which recreation does not rely on additional structures like racetracks or grandstands or on surface alterations more intensive than an unpaved trail.

**“Motorized Recreational Use Plan”** means the plan of even date herewith regarding Motorized Recreation called for in Section 6.1 hereof, and any subsequent amendments thereto.

**“LUPC”** means the Maine Land Use Planning Commission, or any successor commission, organization or regulatory authority.

**“Management Plan”** means the Multi-Resource Management Plan of even date herewith between Grantor and Holder called for in Section 3.2(b) hereof, and any subsequent amendments thereto.

**“Non-exclusive”** means those activities available to the public in which participation is not prohibited or affirmatively restricted based on required membership or application of other discriminatory or exclusive criteria; provided, however, that the charging of a reasonable fee for service or for reimbursement of costs for these activities, in and of itself shall not cause an activity to be deemed “exclusive”.

**“Original Percentage Reduction”** has the meaning ascribed to such term in Section 17.9 hereof.

**“Owner”** has the meaning ascribed to such term in Section 10.2(c) hereof.

**“Party”** means any one signatory to this Conservation Easement and its successors and/or assigns.

**“Parties”** means all signatories to this Conservation Easement and their successors and/or assigns.

**“Permitted Construction Materials Removal Activities”** has the meaning ascribed to such term in Section 3.2(a) hereof.

**“Practicable”** means available and feasible considering cost, existing technology, and logistics based on the overall purpose of the project.

**“Qualifying Forestry Certification Program”** means any of the following certification programs: (a) the Sustainable Forestry Initiative 2015-2019 Standards as in effect on the date hereof; (b) the Forest Stewardship Council Program as in effect on the date hereof; (c) any successor program to those listed in subsections (a) and (b) above; provided, however, that Holder shall have reviewed any successor program and determined that the standards and procedures of the successor program are no less protective of the Conservation Values than the program it is replacing; or (d) any similar certification program to those listed in subsections (a), (b), and (c) above; provided that Holder shall have reviewed any similar certification program and determined that the standards and procedures of the certification program are no less protective of the Conservation Values than the certification programs listed in either subsections (a) or (b) or their approved successor programs. Holder shall conduct such reviews in a timely manner. If Holder reasonably determines that the auditing process used or proposed to be used to determine compliance by Grantor with the standards of the qualifying certification program is administratively or technically incapable of making an accurate certification determination, Holder may remove a previously listed certification program from the list of qualifying certification programs, but only after the conclusion of all dispute resolution procedures pursuant to Section 18 hereof that may occur as a result of Holder’s reasonable determination, in which Holder’s determination of incapacity is upheld.



**“Recreational Facilities”** means (a) up to 9 Remote Rental Cabins or Campsites; and (b) new public boat launches and expansions of existing public boat launches that are identified in the Baseline Documentation.

**“Remote Rental Cabin”** means a building used only as a commercial lodging facility on a transient basis by persons primarily in pursuit of recreation in an isolated and remote setting. A remote rental cabin cannot be larger than 750 square feet in gross floor area; cannot be served by any public utilities providing electricity, water, sewer, or land-based data or telephone services; cannot have pressurized water; cannot have a permanent foundation; and cannot be located within 1,000 feet of any public road or within 1,000 feet of any other type of residential or commercial development.

**“Resource Information System”** means an information system established and maintained by Grantor in accordance with Section 5.3 hereof that is sufficient, in the reasonable judgment of Holder, to meet Grantor’s obligations pursuant to this Conservation Easement.

**“Stewardship Fund Agreement”** has the meaning ascribed to such term in Section 10.1 hereof.

**“Structure”** means anything constructed or erected with a fixed location on, over, in and/or under the ground, or attached to something having a fixed location on, over, in and/or under the ground. A Structure may be primarily two dimensional, such as a paved road or parking lot or a sign, or three dimensional, such as a building, wall or piping. An unpaved road or trail shall not be considered a Structure.

**“Taking”** has the meaning ascribed to such term in Section 17.10 hereof.

**“Trail”** means all recreational trails, including, but not limited to, trails for Motorized Recreation and/or Non-exclusive, Low-intensity Outdoor Recreation.

**“Utility Structures”** means Structures associated with the distribution, but not transmission, of telecommunication or electrical power services, including, but not limited, to “cell” towers, and including, but not limited to, related systems and equipment.

**“Water Extraction Activities”** means any and all activities that are related to the surface and subsurface extraction of water for those uses permitted in Section 3.2(c) hereof.

## **2. PROHIBITED LAND USES AND STRUCTURES**

The following land uses are specifically prohibited on the Protected Property unless expressly permitted elsewhere in this Conservation Easement: residential, commercial, industrial, and institutional uses. Structural development associated with the following land uses is specifically prohibited on the Protected Property unless expressly permitted elsewhere in this Conservation Easement: residential, commercial, industrial, and institutional uses. Without limiting the generality of the foregoing, the following Structures are all specifically

prohibited on the Protected Property unless otherwise expressly permitted in this Conservation Easement: residential dwellings (including houses, apartment buildings, multi-family housing units, or mobile homes); permanent outdoor high-intensity lights; hostels, motels or hotels; billboards (other than directional and informational signs associated with permitted land uses); junk yards; landfills; energy generation or waste disposal facilities; new public or toll roads; and energy, electrical, or telecommunications distribution systems. Further, no new filling, drilling, excavation, or alteration of the surface of the earth, no removal of soil, minerals, sand or gravel, and no changes in the topography are allowed on the Protected Property unless otherwise expressly permitted elsewhere in this Conservation Easement.

### **3. PERMITTED LAND USES AND STRUCTURES**

**3.1 Permitted Land Uses and Structures.** Grantor hereby expressly reserves the right, all as defined by and subject to the terms and conditions contained in this Conservation Easement including, but not limited to, those contained in Sections 3.2 and 6.2 hereof, to:

(a) undertake and conduct, or allow to be undertaken and conducted, on the Protected Property: (i) Permitted Construction Materials Removal Activities; (ii) Forest Management Activities; (iii) Water Extraction Activities; (iv) uses necessary or incidental to the construction, maintenance and operation of Recreational Facilities; (v) uses associated with the construction, maintenance and operation of emergency Structures in accordance with Section 3.2(e); (vi) uses associated with the construction, placement, maintenance, and replacement of Informational Signage; (vi) Non-exclusive, Low-intensity Outdoor Recreation; and (viii) Motorized Recreation;

(b) construct, place, repair, maintain, expand and replace on the Protected Property: (i) new or expanded temporary or permanent roads, driveways and/or Utility Structures in accordance with Section 4 hereof; (ii) Structures existing as of the date of the grant of this Conservation Easement, as identified in the Baseline Documentation, (iii) Structures necessary or incidental to the uses and activities identified in Section 3.1(a) hereof; (iv) Structures associated with nature observation (including, but not limited to, observation blinds and platforms); (v) Trails; (vi) Structures required for the administration and collection of fees in accordance with Section 6.2 hereof; and (vii) Structures and improvements in furtherance of Non-exclusive, Low-intensity Outdoor Recreation and/or required for permitted Motorized Recreation uses pursuant to Section 6.1 hereof (including, but not limited to, trailheads, trailhead parking, bridges, benches, tables, erosion control systems, wells, springs, and signs for educational or informational purposes); provided, however such Structures may not be expanded without the consent of Holder, which consent shall be granted only upon a determination by Holder that such expansion will not result in an unreasonable adverse effect on the Conservation Values. Notwithstanding the foregoing, the level of consultation, review, or consent of Holder required (A) for proposed expansion of Structures that qualify as Forestry Improvements, shall be governed by Section 3.2(b) hereof, and (B) for expansion of roads and Utility Structures, shall be governed by Section 4 hereof.

### 3.2 Terms and Conditions Governing Permitted Land Uses and Structures.

#### (a) Construction Materials Removal Activities.

(i) Grantor hereby expressly reserves the right to excavate or alter the Protected Property by removal (by quarrying or otherwise), processing with portable devices (such as crushers and screens), and storage of rock (including decorative rock), gravel, aggregate, sand, other similar construction or landscaping materials (collectively “**Construction Materials**”) and to construct, maintain, and operate Structures and facilities necessary for the same, in connection with (A) Forest Management Activities on the Protected Property; (B) Forest Management Activities on lands that are owned by Grantor or its Affiliates adjacent to the Protected Property; (C) the construction and use of roads that are used by Grantor or its Affiliates to access the Protected Property or lands adjacent to the Protected Property that are owned by Grantor or its Affiliates; or (D) the maintenance of roads that are used by Grantor or its Affiliates to access the Protected Property or lands adjacent to the Protected Property that are owned by the Grantor or its Affiliates in the same or adjacent townships to the Protected Property, provided that no reasonable alternative to the proposed site exists that is within a two (2) mile radius of the proposed site and is accessible by the then established road system. The permitted excavations or alterations of the Protected Property as identified in this Section 3.2(a)(i) are referred to hereinafter collectively as the “**Permitted Construction Materials Removal Activities**”. Grantor’s Permitted Construction Materials Removal Activities, including, but not limited to, any reclamation undertaken following such activities, shall be conducted in accordance with applicable laws and shall not result in an unreasonable adverse effect on the Conservation Values.

(ii) The right to conduct Permitted Construction Materials Removal Activities is subject to the requirement that the disturbed area for such activity does not exceed two (2) acres in size per extraction site and that no more than ten (10) acres within the Protected Property be actively disturbed and not revegetated and stabilized at any one time; provided that any site less than an acre in size, the materials from which are used solely for Grantor’s Forest Management Activities, shall not count for purposes of the 10-acre cap set forth above. The removal of loose surface decorative rock that does not materially disturb forest soils and vegetation is not subject to these restrictions.

(iii) For such sites with a disturbed area of one (1) acre or more, Grantor shall not commence Permitted Construction Materials Activities identified in Sections 3.2(a)(i)(A), 3.2(a)(i)(B), and 3.2(a)(i)(C) hereof, without the consent of Holder, which consent shall be granted only upon a determination by Holder (A) that such activity will not result in an unreasonable adverse effect on the Conservation Values and (B) that no reasonable alternative to the proposed site exists that is within a two (2) mile radius of the proposed site and is accessible by the then established road system. For such sites with a disturbed area of less than one (1) acre, Grantor shall give Holder ten (10) days prior notice prior to commencement of activities identified in Sections 3.2(a)(i)(A), 3.2(a)(i)(B), and 3.2(a)(i)(C) hereof. No consent or notice is required prior to commencement of activities identified in Section 3.2(a)(i)(D) hereof.

#### (b) Forest Management Activities.

(i) General Conduct of Forest Management Activities; Management Plan. Grantor hereby expressly reserves the right to conduct Forest Management Activities on the Protected Property. All Forest Management Activities on the Protected Property, other than timber cruising and resource evaluation, shall be conducted in accordance with the Management Plan, which Grantor shall develop and maintain for so long as Forest Management Activities are occurring on the Protected Property. Grantor acknowledges that a purpose of the Management Plan is to guide Forest Management Activities so as to be in compliance with the terms and conditions of this Conservation Easement. The Management Plan shall both protect the Conservation Values and allow for the Protected Property's continued operation as a Commercial Working Forest in accordance with the terms and conditions of the Management Plan. The Parties agree that the terms and conditions contained in this Conservation Easement and in the Management Plan (as may be amended or modified in accordance with this Section 3.2(b)(i)) are sufficient to protect the Conservation Values. Grantor shall operate within the constraints of the Management Plan, and the Management Plan shall be reviewed every five (5) years by the Parties. Each associated annual operating plan shall be reviewed annually by the Parties, in advance. The Management Plan shall remain in effect until amended or modified by the Parties, at which time the amended or modified form of the Management Plan shall become effective. No amendment or modification to the Management Plan shall become effective until agreed to by the Parties in writing.

(ii) Management of Non-Commercial Vegetation. Grantor hereby expressly reserves the right to manage non-commercial vegetation on the Protected Property by cutting, pruning, and planting without the requirement of a management plan, as Grantor reasonably deems necessary to exercise the rights reserved to Grantor hereunder, including to accommodate Non-exclusive, Low-intensity Outdoor Recreation and Motorized Recreation uses permitted pursuant to Section 6.1 hereof. Managing non-commercial vegetation includes, but is not limited to, the removal of vegetation for safety purposes, for control of invasive plant species, and for the creation of scenic vistas and views from Trails, public roadways, roads, Recreational Facilities, overlooks, and public vantage points catalogued by Holder pursuant to Section 5.2 hereof, provided that all vegetation management shall be conducted in a manner that does not have an unreasonable adverse effect on the Conservation Values. The incidental sale of vegetation cut or removed from the Protected Property in the exercise of Grantor's non-commercial vegetation management rights shall not require a management plan, and need not be addressed in the Management Plan.

(iii) Forestry Improvements. Grantor may develop, construct, place, maintain, install, replace, expand, and repair at any time and from time to time Forestry Improvements on the Protected Property without Holder's consent, subject to the provisions of Section 4 hereof provided that any such improvements shall be conducted in a manner that does not have an unreasonable adverse effect on the Conservation Values. All Forestry Improvements permitted hereunder shall be developed, placed, installed, and constructed in accordance with applicable laws.

(iv) Third-Party Certification.

(A) If Grantor seeks or maintains a third-party certification on

the Protected Property, Holder shall be permitted to observe the audit process as it relates to the Protected Property and shall have access, subject to the provisions of Section 11 hereof, to Grantor's supporting information for the certification as it relates to the Protected Property.

(B) For purposes of obtaining or maintaining a certification from a Qualifying Forestry Certification Program, the qualifying auditing program shall audit and determine certification based upon a determination of Grantor's compliance with this Section 3.2(b) and the Management Plan, in addition to the requirements of such Qualifying Forestry Certification Program.

(C) So long as Grantor obtains or maintains a third-party certification from a Qualifying Forestry Certification Program that the Protected Property is being managed in accordance with the requirements of this Section 3.2(b) and the Management Plan, then there shall be a rebuttable presumption that Grantor is in full compliance with the terms of the Management Plan. Notwithstanding this rebuttable presumption:

(1) Compliance with Management Plan. If Holder reasonably determines there to be a lack of compliance by Grantor with the Management Plan, and further determines that the certification standards and procedures as applied through the audit were materially flawed or otherwise reasonably inadequate to determine compliance with the Management Plan, Holder shall first seek to resolve all compliance issues with Grantor acting in good faith in accordance with Section 18 hereof. If this effort does not resolve all compliance issues, Holder shall follow the appeals process, if any, of said Qualifying Forestry Certification Program. If the appeals process is not completed within one year of submittal of an appeal by Holder to the Qualifying Forestry Certification Program, or Holder continues to believe that all issues relating to a violation have not been resolved notwithstanding the existence of certification, then Holder may enforce this Conservation Easement or the Management Plan as provided in Section 8 hereof. To rebut any presumption of compliance, Holder must demonstrate that the certification standards and procedures as applied through the audit were materially flawed or otherwise reasonably inadequate to determine compliance with this Conservation Easement or the Management Plan.

(2) Certification Audit and Violations. If the certification audit finds violations of this Conservation Easement or the Management Plan that do not result in the loss or proposed loss of certification, then no presumption of compliance with the Management Plan will apply to the practices that resulted in such violations. For all violations, whether resulting or not in the loss or proposed loss of certification, Holder shall first determine whether the remedial action (if any) sought by the Qualifying Forestry Certification Program for the violation has been implemented and, if so, whether such remedial action resolves the violation. If Holder concludes that the remedial action, if any, does not materially resolve the violation, then Holder shall seek to resolve any issues relating to the violation with Grantor acting in good faith. If Holder continues to reasonably believe that all issues relating to the violation have not been materially resolved by Grantor, Holder may enforce this Conservation Easement or the Management Plan as provided in Section 8 hereof.

(3) Violations After Completion of Audit. If Holder

reasonably believes that a violation of this Conservation Easement or the Management Plan has occurred after the completion of the most recent certification audit, then Holder may immediately seek to enforce this Conservation Easement or the Management Plan, and compliance with this Conservation Easement and the Management Plan will be evaluated based upon the Forest Management Activities conducted and outcomes thereof. In such event, Holder shall first seek to resolve any compliance issue with Grantor acting in good faith. If this does not resolve issues relating to the violation, then Holder may enforce this Conservation Easement or the Management Plan as provided in Section 8 hereof.

(D) Absence of Third-Party Certification. In the absence of third-party certification of the Protected Property from a Qualifying Forestry Certification Program, including as a result of (1) the choice of Grantor to no longer seek third-party certification, (2) the failure to receive certification following an audit, or (3) the removal by Holder of the forestry certification program previously utilized by Grantor due to its administrative or technical incapacity to make an accurate certification determination and the subsequent failure of Grantor to seek third-party certification from another Qualifying Forestry Certification Program, the Management Plan shall continue to govern Forest Management Activities on the Protected Property, and compliance with this Conservation Easement and the Management Plan will be determined by Holder based upon the Forest Management Activities conducted and outcomes thereof. In the absence of said third-party certification, subject to the provisions of Section 11 hereof, Grantor will provide Holder with the same types and detail of information required for a Qualifying Forestry Certification Program so that Holder can determine consistency with this Conservation Easement and the Management Plan, including sustainable forest management provisions.

(c) Water Extraction Activities. Grantor hereby expressly reserves the right to conduct Water Extraction Activities on the Protected Property for Forest Management Activities, including, but not limited to, watering of seedlings and firefighting.

(d) Recreational Facilities.

(i) Grantor hereby expressly reserves the right to develop, construct, maintain, expand, replace and operate, or to allow the development, construction, maintenance, expansion, replacement and operation of Recreational Facilities on the Protected Property. The development, construction and/or expansion of a Recreational Facility may only occur following the consent of Holder, which shall be granted unless Holder determines that such development, construction, and/or expansion of the Recreational Facility will have an unreasonable adverse effect on the Conservation Values. Once developed, constructed, or expanded, said Recreational Facility may be operated, maintained, repaired, or reconstructed in kind and in place at any time and from time to time, without the consent of Holder.

(ii) Structures accessory to new or existing Recreational Facilities that (A) support septic treatment that are sized and used solely to meet the needs of the Recreational Facilities, or (B) that enable the generation of electric power from renewable energy sources, such as solar collectors or similar technology, or wind or hydropower turbines, are permitted; provided, however, that the renewable energy generation source is both sized and

used solely to serve the Recreational Facilities at which the renewable energy source is located, and construction, operation, and repair of a renewable energy source will not have an undue adverse effect on the Conservation Values.

(e) Public Fire, Safety and Emergency Structures. Grantor hereby expressly reserves the right within one (1) mile of the development area identified in the Concept Plan as Square Lake West to develop, construct, maintain, expand, replace and operate, or to allow the development, construction, maintenance, expansion, replacement and operation of public fire, safety, and emergency Structures required or appropriate for performing said public functions in Square Lake West. Development, construction and/or expansion of such public fire, safety and emergency Structures may only occur following the consent of Holder, which shall be granted if Grantor demonstrates to Holder's reasonable satisfaction that no reasonable alternative location for such Structures exists outside the Protected Property and that such development, construction, and/or expansion of the public fire, safety and emergency Structures will not have an unreasonable adverse effect on the Conservation Values.

(f) Informational Signage. Grantor hereby expressly reserves the right to construct, place, maintain, and replace at any time and from time to time Informational Signage on the Protected Property. In designing, constructing, and siting the Informational Signage, Grantor shall reasonably minimize the intrusiveness of the Informational Signage and ensure that Informational Signage reasonably blends in with the local setting.

#### **4. ROADS, UTILITY STRUCTURES, AND EASEMENTS ON PROTECTED PROPERTY**

##### **4.1 Roads and Utility Structures**

(a) General. Grantor hereby expressly reserves the right to develop, construct, place, maintain, expand, replace and operate, or to allow the development, construction, placement, maintenance, expansion, replacement and operation, of any new temporary or permanent roads, driveways or Utility Structures on the Protected Property, and to maintain, expand, replace and operate or permit to be maintained, expanded, replaced and operated any existing roads, driveways or Utility Structures on the Protected Property as follows:

(i) as Grantor may determine to be required to access and/or service development located in lands in the Concept Plan, so long as said roads, driveways and/or Utility Structures are located, designed, placed, and constructed in a manner so as to (A) minimize the amount of Protected Property utilized, and (B) minimize unreasonable adverse effects on the Conservation Values;

(ii) as Grantor may determine to be required to conduct Forest Management Activities occurring on the Protected Property pursuant to Section 3.2(b) hereof or outside of the Protected Property, or to access and/or service Forestry Improvements, so long as said roads, driveways and/or Utility Structures are located, designed, placed, and constructed in a manner so as to (A) minimize the amount of Protected Property utilized, and (B) minimize unreasonable adverse effects on the Conservation Values;

(iii) as Grantor may determine to be required to access and/or service the land uses and Structures permitted for Forest Management Activities , so long as said roads, driveways and/or Utility Structures are located, designed, placed, and constructed in a manner so as to (A) minimize the amount of Protected Property utilized, and (B) minimize undue adverse effects on the Conservation Values;

(iv) as Grantor may determine to be required to access and/or service the land uses and Structures permitted pursuant to Sections 3.2(a), 3.2(c), 3.2(d), and 3.2(e) hereof, provided that Grantor first obtains the consent of Holder, which shall be granted only upon a determination by Holder that said roads, driveways and/or Utility Structures are located, designed, placed, and constructed in a manner so as to (A) minimize the amount of Protected Property utilized, and (B) minimize undue adverse effects on the Conservation Values;

(v) as Grantor may determine to be required to access or service locations in which Non-exclusive, Low-intensity Outdoor Recreation activities or motorized recreational uses permitted pursuant to Section 6.1 hereof are occurring or desired, either on the Protected Property or on government-owned or managed lands adjacent or reasonably proximate to the Protected Property, provided that Grantor first obtains the consent of Holder, which shall be granted only upon a determination by Holder that said roads, driveways and/or Utility Structures are located, designed, placed, and constructed in a manner so as to (A) minimize the amount of Protected Property utilized, and (B) minimize undue adverse effects on the Conservation Values; and

(vi) as Grantor may determine to be required to access or service (A) Structures existing as of the date of the grant of this Conservation Easement, as identified in the Baseline Documentation, (B) Structures used for nature observation (including, but not limited to, observation blinds and platforms), (C) Trails, or (D) Structures required for the administration and collection of fees pursuant to Section 6.2 hereof; provided, however that under no circumstances may there be more than one (1) “cell” tower on the Protected Property at any point in time.

(b) All such roads, driveways and/or Utility Structures shall be constructed, placed, or expanded only in accordance with all necessary regulatory approvals, including, but not limited to, permits required for the development that is to be accessed or serviced by such roads, driveways and/or Utility Structures.

#### **4.2 Easements, Rights of Way, or Other Interests.**

(a) Grantor hereby expressly reserves the right to grant permanent or temporary easement rights, rights of way, and/or other interests for (i) the conduct of any activity permitted on the Protected Property by this Conservation Easement, or (ii) as may be reasonably necessary in furtherance of any activity conducted on property adjacent to the Protected Property, provided, however, that such easement shall not have an unreasonable adverse effect on the Conservation Values. Holder’s consent shall not be required, however notice shall be provided to Holder at least ten (10) days prior to the grant of any easement, rights-of-way or



other interests.

(b) Any conveyance pursuant to Section 4.2 hereof shall explicitly state that it is made subject to this Conservation Easement.

## **5. BASELINE DOCUMENTATION AND UPDATING THEREOF**

**5.1 Preparation of Baseline Documentation.** The Parties acknowledge and agree (a) that prior to the date of the grant of this Conservation Easement and in consultation with the LUPC, Holder has prepared and completed Baseline Documentation on the Protected Property consistent with the requirements of Section 5.2 hereof, and subject to the provisions of Section 11 hereof; (b) that Grantor has acknowledged to Holder the accuracy of the Baseline Documentation; and (c) that Holder has employed natural resources professionals and other experts as necessary to assist it in preparing and completing the Baseline Documentation. The Parties further acknowledge and agree that the purpose of preparing such Baseline Documentation, and subsequently updating the information contained in such Baseline Documentation by means of the Resource Information System, is to assist Grantor in achieving compliance with the terms and conditions of this Conservation Easement and to assist Holder in monitoring and enforcing the terms and conditions of this Conservation Easement.

**5.2 Content of Baseline Documentation.** The Baseline Documentation includes as of the date of the grant of this Conservation Easement: (a) documentation of the knowledge of the physical and biological condition of the Protected Property, its physical improvements, and the special sites and resources that may require special management, including, but not limited to, all such information as it relates to documenting the Conservation Values; (b) a cataloguing of scenic resources of high public value and the public vantage points from which such scenic resources are observed; (c) the most recent Qualifying Forest Certification Program audit and supporting documentation that includes all data, mapped information, procedures, and policies that make up Grantor's supporting information for its certification; (d) documentation required in Section 17.9 hereof regarding the valuation ratio; and (e) any other information required to determine initial compliance with the requirements of this Conservation Easement. The Baseline Documentation also describes where there are information deficiencies in the categories of information sought in this Section 5.2, if any. In compiling information described in Section 5.2(a) hereof, Holder may obtain input from Federal and State natural resource agencies possessing knowledge of these issues.

**5.3 Resource Information System.** Upon the date of the grant of this Conservation Easement, Grantor shall establish and maintain a Resource Information System for the purpose of updating and keeping current over time the information contained in the Baseline Documentation. Grantor shall update the Resource Information System from time to time as new information becomes available. The Resource Information System shall, at minimum, include the data contained in the Baseline Documentation.

**5.4 No Shield.** All sites and resources that may be identified by Grantor or by Holder subsequent to the completion of the Baseline Documentation that otherwise would have met the criteria for inclusion in the Baseline Documentation pursuant to Section 5.2 hereof

shall be added to the information contained in the Resource Information System at the time of identification and protected in accordance with this Conservation Easement and the Management Plan.

## 6. PUBLIC ACCESS

**6.1 Grant of Public Access.** It is Grantor's intent and objective that this Conservation Easement create a permanent right of non-motorized public access to, on, and across, and use of, the Protected Property for Non-exclusive, Low-intensity Outdoor Recreation, and to maintain opportunities for such uses of the Protected Property. In furtherance thereof, Grantor hereby grants to Holder, to hold on behalf of the public and for the public benefit, the right of non-motorized public access to, on, and across and use of the Protected Property (including use of the Protected Property by commercial guides, by customers of Campsites and Remote Rental Cabins, by commercial sporting camps, and by non-profit camping and educational and scientific institutions) for Non-exclusive, Low-intensity Outdoor Recreation as provided herein. To this end, Grantor agrees to take no action to prohibit or discourage non-motorized access to, on, or across the Protected Property nor to inhibit Non-exclusive, Low-intensity Outdoor Recreation by the public; provided, however, that Grantor reserves the right to make reasonable rules and regulations for different types of public use, and to control, limit, or temporarily prohibit, by posting and other means, any use by the public (including, but not limited to, night use, camping, loud activities, open fires, use of equipment, and areas of access) for purposes of (a) protecting public safety, (b) protecting the Conservation Values, (c) ensuring compliance with all applicable laws, and (d) accommodating Grantor's Forest Management Activities and other uses of the Protected Property permitted hereunder. Grantor hereby expressly reserves the right to allow, limit, or prohibit motorized recreational uses on the Protected Property, in the sole and absolute discretion of Grantor. Grantor may allow Motorized Recreation uses on the Protected Property only if Motorized Recreation uses are consistent with a Motorized Recreational Use Plan proposed by Grantor and consented to by Holder, which demonstrates that the Motorized Recreation described and located on trails/roads in the Motorized Recreational Use Plan is sited and will be operated in such a manner so as to avoid unreasonable adverse effects to the Conservation Values. Grantor may propose amendments of the Motorized Recreational Use Plan to Holder at any time for its consent. Grantor shall take reasonable efforts to ensure that all motorized recreational uses on the Protected Property are consistent with the Motorized Recreational Use Plan.

**6.2 Fees.** Grantor reserves the right to charge the public fees in an amount that in Grantor's reasonable estimation, and subject to Holder's consent, will recompense Grantor for the costs of any or all of (a) maintenance resulting from public recreational use of permitted roads to, on, and over the Protected Property (to the extent not otherwise recompensed), (b) maintaining permitted recreational Structures on the Protected Property, including, but not limited to, Recreational Facilities, (c) managing and developing Trails on the Protected Property, (d) managing both permitted Non-exclusive, Low-intensity Outdoor Recreation and permitted Motorized Recreation (including the cost of procuring necessary insurance), and (e) providing the services, personnel, and facilities required to administer and collect these fees. Grantor may assign the right to charge such fees to the State of Maine or other entity that assumes responsibility for any of the items described in clauses (a) – (e) of this Section 6.2.

Notwithstanding any other provision hereof, Grantor expressly reserves the right to require a permit and charge fees without Holder's consent and in an amount that exceeds Grantor's costs for permitted commercial activities, including, but not limited to, fees for the use of the roads for transportation of forest products, "bear baiting", and for commercial or for-profit enterprises (recreational or otherwise).

**6.3 Limitation on Grant.** Notwithstanding the foregoing, this Conservation Easement does not grant any easement, right of way, right of access, or other interest or license on, across, over, or affecting any other land of Grantor not included in the Protected Property, and this Conservation Easement does not, and shall not be construed to impose upon Grantor any obligation to provide or allow public access on, across, over, or affecting any land of Grantor not included in the Protected Property. Any such rights or licenses affecting any land of Grantor not included in the Protected Property, if granted by Grantor in its sole discretion, shall be by a separate instrument or instruments recorded in the Registry of Deeds where such other land is located, and no such rights or licenses shall arise by implication, necessity, or otherwise, and this Conservation Easement does not expand or extend any privilege or license currently provided by Grantor.

**6.4 Immunity.** Grantor and Holder claim all of the rights and immunities against liability for injury to the public to the fullest extent of the law under Title 14 M.R.S. § 159-A, under the Maine Tort Claims Act, Title 14 M.R.S. §§ 8101 *et seq.*, and/or under any other applicable provision of law or equity.

**6.5 Right of Law Enforcement to Enter the Protected Property.** Nothing in this Section shall be construed to prevent law enforcement or public safety personnel from entering the Protected Property at any and all times for the purposes of carrying out official duties in compliance with law.

## 7. CONVEYANCES AND DIVISION

### 7.1 Division Limitations.

(a) Notwithstanding that the Protected Property may be described as separate parcels, for the purposes of this Conservation Easement, the Protected Property shall be treated as a single merged parcel. Except to the extent otherwise provided in this Conservation Easement, the Protected Property shall remain in its current configuration as an entirety without division, partition, subdivision, or other legal creation of lots or parcels in separate ownership other than that of Grantor or its Affiliates (each a "**Division**"). The Grantor may divide the Protected Property provided that (a) not more than four (4) separate Divisions may be created and conveyed to others; and (b) any Division allowed pursuant to this Section 7.1 hereof shall not be subsequently re-divided into a smaller Division unless one of the divisions permitted in (a) above is transferred and counted to the total of the four (4) permitted divisions; provided, however, that the following Divisions are exempt from the limitations of this subsection: (i) any Division made to develop a Recreational Facility authorized by the Concept Plan, provided that any such Division is not larger than reasonably necessary for such purpose; and (ii) any Division to transfer ownership of a portion of the Protected Property to any governmental entity.

(b) With the consent of Holder, Grantor may enter into boundary line agreements to resolve *bona fide* boundary line disputes, provided that there will be no unreasonable adverse effect on the Conservation Values and that the total acreage of land protected under this Conservation Easement shall not materially be reduced thereby without court order pursuant to Section 17.5 hereunder. A boundary line adjustment under this subsection shall not constitute a Division, and the portion of the Protected Property conveyed by the Grantor shall not be part of the Protected Property.

**7.2 Extinguishment of Development Rights.** Except as provided for by the terms of this Conservation Easement, all rights to develop or use the Protected Property that are expressly prohibited by this Conservation Easement are extinguished, and as a result of such extinguishment, shall not be available for transfer to any other lands pursuant to a transferable development rights scheme or cluster development arrangement or otherwise. Neither the Protected Property nor any portion thereof shall be included as part of the gross area of any other property not subject to this Conservation Easement for the purposes of determining density, lot coverage, or open space requirements under an otherwise applicable statute, regulation, or ordinance controlling land use and building density. For the avoidance of doubt, nothing in this subsection is intended to prohibit Grantor from undertaking practices or restrictions to its Forest Management Activities or other permitted land uses that are allowed by this Conservation Easement, but are additional to practices and restrictions required by the terms and conditions of this Conservation Easement all for the purposes of achieving carbon emissions or other environmental services credits, offsets, banking, or mitigation, the right to use the Protected Property for these purposes is not extinguished.

**7.3 Transfer of Resource Information System Information.** For any and all sales, transfers, or other conveyances by Grantor of some or all of the Protected Property that may occur pursuant to Section 7.1 hereof, Grantor shall, as a condition of conveyance, provide transferee all information contained in the Resource Information System regarding the portion of the Protected Property being conveyed, subject to any confidentiality protections duly exercised by Grantor pursuant to Section 11 hereof.

**7.4 Notice of Divisions.** Grantor agrees to give Holder thirty (30) days prior notice of any Division of its interest in the Protected Property.

## **8. HOLDER'S RIGHTS AND OBLIGATIONS**

### **8.1 Enforcement.**

(a) Subject to Sections 3.2(b) and 18 hereof, Holder has the right to enforce this Conservation Easement and the Management Plan in law and equity against Grantor for violation of the Conservation Easement or the Management Plan including for actions of its agents, employees, contractors or designees.

(i) Damages. In any action to enforce the terms of this Conservation Easement or the Management Plan, monetary damages shall be limited to those

ordered by the arbitrator, as provided in Section 18 hereof, as compensatory damages, and shall not include consequential, liquidated, or punitive damages. However, if the arbitrator finds that a violation of the terms of this Conservation Easement or the Management Plan was knowing, intentional, or willful, the arbitrator may award monetary damages up to and including twice the economic benefit gained by Grantor from activities in violation.

(ii) Costs. If the arbitrator under Section 18 determines that this Conservation Easement or the Management Plan has been breached, the arbitrator shall also have the right to order Grantor to reimburse Holder for any reasonable costs of enforcement, including any court costs, reasonable attorney's fees, out-of-pocket costs and any other payments ordered by the arbitrator, including those incurred pursuant to Section 8.1(a)(iii) hereof, but not including those subject to Section 8.13 hereof.

(iii) Emergency injunction. Notwithstanding the dispute resolution provisions of Section 18 hereof, Holder shall have the right in an emergency by proceedings in a court of competent jurisdiction at law and in equity to seek to enjoin a violation, *ex parte* as necessary, by temporary or permanent injunction, and to require the restoration of the Protected Property to the condition that existed as nearly as practicable to Holder's satisfaction, acting reasonably, prior to any such injury. The exclusive remedy available to Holder in such an action shall be injunctive relief.

(iv) Presumption of Compliance. In any action to enforce the terms and conditions contained in Section 3.2(b) hereof, Holder shall have the burden of overcoming the presumption of compliance afforded by the existence of certification by a Qualifying Forestry Certification Program under Section 3.2(b) hereof.

(v) Opportunity to Cure Violations. Prior to initiating any enforcement action, Holder shall provide Grantor with sixty (60) days prior notice of and opportunity to cure any breach, except where emergency circumstances require enforcement action without such delay, in which case Holder may bring immediate enforcement action pursuant to Section 8.1(a)(iii) hereof.

(b) Holder may not bring an enforcement action against Grantor for injury to or change in the Protected Property resulting from changes beyond the control or responsibility of Grantor, including, but not limited to, fire, flood, storm, and earth movement, from the actions of parties not under the control of Grantor (including Holder or any of its agents, employees, contractors or designees), or from any prudent action taken by Grantor under emergency conditions to prevent, abate, or mitigate significant injury to the Protected Property.

**8.2 Right of Entry**. Holder or its designee has the right to enter the Protected Property, including the right to travel on roads outside the Protected Property to which the Grantor has rights of access, for gathering information regarding the Protected Property and for inspection and enforcement purposes, at any time and from time to time and in a reasonable manner that is consistent with the Conservation Values, so long as Holder or its designee does not unreasonably disrupt, interfere, inhibit, or restrict any Forest Management Activities. Grantor makes no representation or warranty that either the Protected Property or any access

thereto is able to support or is suitable for any particular vehicles, supplies, machinery or equipment (including heavy equipment and machinery) and access will be conducted at the sole risk of Holder and its employees, agents, and contractors. Holder acknowledges: (a) industrial forestry activities regularly take place on the Protected Property; (b) such activities involve the use of large forestry equipment and motor vehicles, including trucks; (c) such forestry equipment utilizes the roads located on the Protected Property; and (d) that it will attempt at all times to cooperate with Grantor regarding safe access to the Protected Property.

**8.3 Holder Damage to Grantor's Property.** If, in conducting any activities on the Protected Property, including monitoring or enforcement activities, Holder or its employees, agents, or contractors cause damage to roads or any building or Structure located on the Protected Property, Holder will promptly inform Grantor of such damage and will be responsible for the reasonable cost and expense of repairing the damage. Grantor may elect to undertake the required repair work within ten (10) days or Grantor and Holder may agree on a contractor to perform the repair work, and which will be pursued with commercially reasonable diligence.

**8.4 Permits.** Prior to conducting any activities on the Protected Property, Holder will obtain, and will then maintain and comply with, all permits and approvals required by applicable laws in connection with such activities.

**8.5 Insurance.** Holder, at its sole cost and expense, will maintain or cause to be maintained (a) commercial general liability insurance covering bodily injury and property damage including sudden and accidental pollution liability and forest fire fighting expense, in respect of the Protected Property, protecting Grantor and Holder, with a combined single limit of not less than \$10,000,000 and which will be written on an occurrence basis; (b) automobile liability insurance with limits of \$5,000,000 per occurrence; (c) all risks property insurance covering all property and equipment brought onto the Protected Property on a replacement cost basis; and (d) workers compensation and employers liability as per statutory requirements. The commercial general liability policies of insurance to be maintained by Holder under the provisions of this Conservation Easement will name Grantor as an additional insured and will contain a cross liability clause. All such policies will be endorsed to provide that insurers will waive their rights of subrogation against Grantor, its officers, directors, employees, agents, contractors, and mortgagees. All such policies will be issued by companies licensed to do business in the State of Maine, reasonably satisfactory to Grantor and with an A.M. Best's (or its successor) rating of A- or better or the then equivalent of such rating. Holder will deliver to Grantor copies of the endorsements to the policies evidencing such additional insured coverage, in form reasonably satisfactory to Grantor, issued by the insurance company or its authorized agent prior to any entry upon the Protected Property. To the extent reasonably obtainable, such policies will contain a provision whereby the same cannot be canceled or denied renewal (including by reason of non-payment of premium) unless Grantor are given at least thirty (30) days prior notice of such cancellation or denial. Where such a provision is not reasonably obtainable, Holder will within two (2) days of (i) receipt of any notice either threatening or indicating the insurance company's intent to cancel or deny such policies, or (ii) receipt of any notice of any cancellation or denial of such policies, inform Grantor of such notice. Notwithstanding any other provision of this Conservation Easement, Holder, its employees, or

any contractor engaged by Holder may only enter upon the Protected Property up to the date of policy cancellation or expiration unless Holder provides Grantor evidence of renewal or replacement of such policies within no less than five (5) days of the expiration thereof. In addition, Holder will require all contracts with third parties retained by Holder or any contractor or agent of Holder for the performance of any work or activities on the Protected Property to carry the following insurance: (A) workers' compensation insurance and employers' liability insurance covering all persons employed in connection with such work or activities, as per statutory requirements (B) commercial general liability insurance to protect it from claims for damages for bodily injury and property damage including sudden and accidental pollution liability and forest fire fighting expense which may arise from operations performed with a limit of \$1,000,000 per occurrence, and (C) and automotive liability insurance with a limit of \$1,000,000 per occurrence on all owned, non-owned and hired vehicles. Grantor may at any time and from time to time upon no less than thirty (30) days prior written notice to Holder, increase the required policy limits identified in this Section 8.5, acting reasonably.

**8.6 Co-Operation.** The Parties, and their Affiliates, if applicable, will cooperate to schedule and conduct their respective activities on the Protected Property to cause the least practicable interruption or reduction to each other's activities.

**8.7 Forest Fire.** Holder agrees that all activities of the Holder and its employees, contractors, and subcontractors on the Protected Property will be conducted in a manner that minimizes the risk of fire.

**8.8 Indemnity.** Holder shall defend, indemnify, release, and hold Grantor, and its subsidiaries and Affiliates (including the respective directors, officers, shareholders, members, trustees, beneficiaries, employees, principals, agents and representatives of the aforementioned entities) (collectively, the "**Indemnitees**"), harmless from and against any and all claims, demands, actions, suits, damages, liability, loss, costs, and expense, including reasonable attorney's fees, which may be brought against, suffered, or incurred by the Indemnitees resulting from, arising from, or in connection with the exercise by Holder, its employees, agents, invitees, guests, or any other person of rights under this Conservation Easement, except in the case of intentional misconduct or willful violation of law by Indemnitees. Grantor shall defend, indemnify, release, and hold Holder harmless from and against any and all claims, demands, actions, suits, damages, liability, loss, costs, and expense, including reasonable attorney's fees, which may be brought against, suffered, or incurred by Holder resulting from, arising from, or in connection with the exercise by Grantor, its employees, agents, invitees, guests, or any other person of rights under this Conservation Easement, except in the case of intentional misconduct or willful violation of law by Holder.

**8.9 Right to Certain Information.** In the absence of third-party certification under Section 3.2(b)(iv) hereof, and subject to the provisions of Section 11 hereof, Grantor agrees to provide to Holder the types of information that would be made available to a third-party auditor, including, but not limited to, information contained in the Baseline Documentation and the Resource Information System, to the extent reasonably necessary for Holder to perform the monitoring and enforcement responsibilities as set forth in this Conservation Easement.

**8.10 Meetings.** Grantor and Holder shall meet on at least an annual basis (or such other basis as is mutually agreed upon by the Parties) to review, monitor, and discuss implementation of the terms of this Conservation Easement.

**8.11 Annual Reporting.** Holder shall comply with the annual reporting requirements of Title 33 M.R.S. § 479-C. In addition, Holder shall provide written annual reports to the Grantor covering monitoring undertaken during the year; any easement violations found and actions taken as a result; emerging issues identified by the Holder or brought to the attention of the Holder by any other entity, and any other information relevant to monitoring the easement. Such written reports shall be maintained by Holder in its permanent records, and a copy of all such reports shall be provided to Grantor within thirty (30) days of filing.

**8.12 Boundary Surveys.** Grantor has the responsibility to adequately maintain boundaries of the Protected Parcel and shall provide Holder digital files of the boundaries sufficient for Holder to monitor and enforce this Conservation Easement. Holder, at its sole cost, has the right to conduct a professional boundary survey of the Protected Property, or any part thereof, if one is required to determine whether there is a violation of this Conservation Easement. Grantor shall reimburse Holder for such survey cost if it is determined through the results of such boundary survey that there was a material violation of this Conservation Easement.

**8.13 Offset for Civil Penalties.** In the event that any governmental agency or citizen obtains penalties or fines in an enforcement action against Grantor for a violation of law that is also a violation of this Conservation Easement, the amount of any such penalty or fine, including any amount paid toward supplemental environmental projects pursuant to Title 38 M.R.S. § 349(2-A) or other comparable State, federal, or local law, shall be credited against any corresponding award of monetary damages obtained by Holder through a subsequent enforcement action for the violation of this Conservation Easement or the Management Plan caused by the same underlying conduct unless the arbitrator determines the conduct was knowing, intentional, or willful under Section 8.1(a). Nothing in this paragraph subsection shall limit the right of Holder to pursue any equitable or other relief, including specific performance or restoration of the Protected Property.

## **9. ATTORNEY GENERAL RIGHTS**

Nothing in this Conservation Easement shall be construed as limiting or removing any independent rights of the Attorney General of the State of Maine under Maine law to enforce the terms and conditions of this Conservation Easement and the Management Plan.

## **10. STEWARDSHIP FUND**

**10.1 Initial Contribution.** For the purpose of providing support to Holder relating to its role as Holder of the Conservation Easement, Grantor shall, within sixty (60) days from the date of the grant of this Conservation Easement, establish a dedicated stewardship fund



(hereinafter the “**Fund**”) at the Maine Community Foundation or at another fund operator (hereinafter “**Fund Operator**”) meeting the selection criteria under Section 3 of the “Agreement on Fish River Lakes Region Conservation Easement Stewardship Fund” pursuant to an agreement (the “**Stewardship Fund Agreement**”) of near or even date herewith and by and among Grantor, Holder, and Fund Operator. The amount of the initial contribution by Grantor to the Fund shall be \_\_\_\_\_, in 2018 U.S. dollars. The Fund shall be managed and funds disbursed for monitoring purposes and in accordance with the terms of the Stewardship Fund Agreement.

**10.2 Additional Contributions.** Additional contributions to the Fund shall be required as follows:

(a) Additional Contribution for Each Division of the Protected Property. For each Division of the Protected Property under Section 7.1 hereof, Grantor shall contribute \_\_\_\_\_ to the Fund.

(b) Contributions Required Prior to Division. No conveyance of any portion of the Protected Property shall be made unless the contribution to the Fund required by this Section 10.2 is made by Grantor on or before the date of the Division, and unless a certificate of Holder is recorded in the Registry of Deeds for the county in which the lot is located stating that the required contribution to the Fund has been paid.

(c) Contributions Due to Absence of Third-Party Certification. In the absence of third-party certification of the Protected Property from a Qualifying Forestry Certification Program pursuant to Section 3.2(b)(vi) hereof, Grantor then owning that portion of the Protected Property (the “**Owner**”) shall contribute a one-time lump sum of \_\_\_\_\_ to the Fund, provided, however, that no such payment shall be required if the Owner discontinues all Forest Management Activities on that portion of the Protected Property and files an affidavit in the Registry of Deeds stating that all Forest Management Activities on that portion of the Protected Property have been discontinued. If the Owner discontinues all Forest Management Activities on that portion of the Protected Property and files an affidavit stating that all Forest Management Activities on that portion of the Protected Property have been discontinued, Forest Management Activities shall not be resumed on that portion of the Protected Property until the Owner has paid \_\_\_\_\_ into the Fund or, until a certificate of Holder stating that the Owner has complied with the requirements of this subsection has been recorded in the Registry of Deeds.

(d) Adjustment to 2018 U.S. Dollars. Contributions to the Fund required by this Section 10 shall be paid in the amounts indicated in U.S. dollars, adjusted for inflation and/or deflation for each year after 2018 based on the Consumer Price Index for all Urban Consumers (CPI-U) published by the Bureau of Labor Statistics of the U.S. Department of Labor or the successor thereto for each year after 2018, or if that index is discontinued, based on a similar index published by the United States Government and selected in accordance with the terms of the Stewardship Fund Agreement.

(e) Continuing Lien. As and when they become due, all additional

contributions to the Fund and other amounts due to Holder under this Section 10 shall be continuing liens for the benefit of Holder against those portions of the Protected Property that give rise to the additional contributions or other amounts due. The lien(s) may be enforced by any means provided under Maine law, provided that action to enforce the lien(s) is brought within one-hundred and twenty (120) days of Holder's receipt of written notice of the absence of third-party certification giving rise to the lien(s). Without waiving or prejudicing any rights of collection and costs against Grantor, enforcement of the lien(s) shall proceed against the Owner of that portion of the Protected Property giving rise to the additional contribution, with notice to Grantor, and Holder shall be entitled to recover all reasonable, out of pocket costs of collection, including reasonable attorney's fees.

(f) Estoppel Certificates. In consideration of the foregoing, and as requested, Holder agrees to deliver estoppel certificates in a customary commercial form, certifying that all relevant amounts due under this Section 10 have been timely paid. Failure of Holder to deliver such estoppel certificates ten (10) business days following receipt of a written request containing all information material to the preparation and delivery of the certificates shall constitute a waiver of the lien(s) described in Section 10.2(e) hereof.

## 11. ACCESS TO RECORDS OF GRANTOR

**11.1 Intent.** Holder shall have access to records in the possession of Grantor to the extent reasonably necessary to perform the monitoring and enforcement responsibilities as set forth in this Conservation Easement. The Parties recognize that the identity of the holder of this Conservation Easement may change and that governmental agencies serving as Holder may be subject to public records laws. The intent of the Parties, therefore, is that (a) non-governmental organizations serving as Holder shall maintain as confidential proprietary information or trade secrets contained in records made available by Grantor to the maximum extent permitted by law, (b) governmental agencies serving as Holder shall maintain as confidential such records to the maximum extent allowed by law, including public records laws, and that (c) the existence of potentially proprietary information or trade secrets within such records will not impede the ability of Holder from accessing all information in the possession of the Grantor required for fully performing its monitoring and enforcement responsibilities.

**11.2 Non-Governmental Organization as Holder.** This subsection applies to a Holder that is a non-governmental organization. Grantor shall promptly make available to Holder upon request copies of any records reasonably necessary to perform monitoring or enforcement responsibilities under this Conservation Easement. To the extent Grantor concludes in good faith that such records contain proprietary information or trade secrets, Grantor may either (a) redact such proprietary information or trade secrets within said records, so long as the redacted information is not reasonably necessary for monitoring and enforcement and Grantor further provides a written explanation of the nature of the redacted information in sufficient detail to allow Holder to assess its need for the redacted information; or (b) submit the requested records in unredacted form clearly marked as "confidential." Holder shall maintain the confidentiality of records Grantor submits under a claim of confidentiality to the maximum extent allowed by law, and shall promptly return to Grantor or at Grantor's request destroy all records designated as "confidential" as soon as such records are no longer reasonably necessary

to perform its monitoring and enforcement responsibilities, or upon the termination of Holder's status as Holder.

**11.3 Governmental Organization as Holder.** This subsection applies to a Holder that is a governmental agency. Grantor shall promptly make available to Holder upon request copies of any records reasonably necessary to perform monitoring or enforcement responsibilities under this Conservation Easement. To the extent Grantor concludes in good faith that such records contain proprietary information or trade secrets, Grantor may either (a) redact such proprietary information or trade secrets within said records, so long as the redacted information is not reasonably necessary for monitoring and enforcement and Grantor further provides a written explanation of the nature of the redacted information in sufficient detail to allow Holder to assess its need for the redacted information; or (b) submit the requested records in unredacted form clearly marked as "confidential." Holder shall consider any information Grantor may provide in support of a claim of confidentiality in determining whether (i) such records are reasonably necessary to perform monitoring and enforcement responsibilities, and (ii) such records are properly subject to disclosure or entitled to protection from disclosure under applicable public records laws, including Maine's Freedom of Access Law, Title 1 M.R.S. §§ 401 *et seq.* ("FOAA"). Except to the extent required by law or court order, in the event that Holder determines that records subject to a claim of confidentiality by Grantor are subject to disclosure pursuant to FOAA or other applicable law, Holder shall, prior to disclosure, provide Grantor with written notice and a reasonable opportunity to obtain a court order barring disclosure.

**11.4 Confidentiality in Court Proceedings.** Records obtained by the Attorney General in connection with the enforcement of this Conservation Easement shall be governed by Title 33 M.R.S. § 478(4) and any other applicable provision of law.

## **12. DELINEATION AND MODIFICATION OF BOUNDARIES**

Upon mutual agreement of Grantor and Holder, the boundaries of the Protected Property may be modified to establish an easily identifiable boundary to the Protected Property (such as a roadway or stream thread), provided that such boundary modification involves an insignificant amount of land and there is no more than a *de minimis* change in the total acreage of the Protected Property, and provided further that any such modification during the term of the Concept Plan is approved by LUPC. Any such modification shall not be considered a Division under Section 7.

## **13. NOTICES**

### **13.1 Notice and Consent.**

Notices and consent required or contemplated hereunder to any Party must be in writing and will be sufficient if served personally or sent by facsimile with a receipt of delivery, overnight mail with receipt acknowledged, or certified mail, return receipt requested, addressed as follows:

To Grantor: Irving Woodlands LLC  
 300 Union Street – 8<sup>th</sup> Floor  
 P.O. Box 5777  
 Saint John, NB E2L 4M3  
 Canada  
 Attn: Co-Chief Executive Officer & Co-  
 President  
 Fax: (506) 632-6451

With a copy to: J. D. Irving, Limited  
 300 Union Street, 12<sup>th</sup> Floor P.O. Box 5888  
 Saint John, NB E2L 4L4  
 Canada  
 Attn: Secretary  
 Fax: (506) 658-0517

To Holder: Forest Society of Maine  
 115 Franklin Street, 3<sup>rd</sup> Floor  
 Bangor, ME 04401  
 United States of America  
 Attn.: Executive Director  
 Fax: (207) 945-9229

or to such other authorized person as any Party may from time to time designate by written notice to the others in the manner set forth above. Notices given in accordance with this Section 13.1 will be deemed given on the date personally delivered or three (3) days after being sent by facsimile, overnight, or certified mail. In the event that such notice to a Party is returned as undeliverable, notice shall be sent by certified mail, return receipt requested, or by such commercial carrier as requires a receipt, and by regular mail to the Party's last known address on file with the Bureau of Taxation for the State of Maine, and with the Bureau of Corporations, Secretary of the State of Maine, if applicable, and the mailing of such notice shall be deemed in compliance with the notice provisions of this Easement.

#### **14. LIENS, TAXES, INDEMNITY**

**14.1 Liens.** Grantor represents that as of the date of the grant of this Conservation Easement there are no liens for money owed or mortgages outstanding against the Protected Property. Any portion of the Protected Property may be used to secure the repayment of debt, provided that any lien or other rights granted for such purpose are subordinate to all of the rights of Holder, including the right to enforce the terms, restrictions, and covenants created under this Conservation Easement. Under no circumstances shall Holder's rights be extinguished or otherwise affected by the recording, foreclosure, or any other action taken concerning any lien or other interest in the Protected Property.

**14.2 Property Taxes.** Grantor is responsible to pay and discharge when due all property taxes, assessments, and other costs, charges, liens, and encumbrances lawfully

imposed upon or in connection with the Protected Property and to avoid the imposition of any liens or encumbrances that may affect Holder's rights hereunder. In the event a lien created against the Protected Property is to be executed, Holder, at its option, shall, after written notice to Grantor, have the right to pay funds to discharge the lien to protect Holder's interest in the Protected Property and to assure the continued enforceability of this Conservation Easement; provided, however, that Grantor first shall have the right to contest any such lien by legal proceedings. In the event Grantor elects to contest any property taxes, assessments, and other costs, charges, liens, and encumbrances by legal proceedings, Holder's right to pay and discharge such lien(s) shall not arise until and unless such lien(s) are determined as a result of such legal proceedings to be valid and enforceable against the Protected Property, or unless and until Grantor has abandoned its prosecution of such legal proceedings. If Holder exercises its right and pays funds to discharge a lien, Holder shall be entitled to recover such amount from Grantor.

**14.3 Indemnity.** Grantor acknowledges that Holder has no possessory rights in the Protected Property or any responsibility or right to control, maintain, or keep-up the Protected Property. Grantor is responsible for all costs and ownership, control, operation, maintenance, and upkeep of the Protected Property, unless performed by Holder or its designees voluntarily, and will indemnify, defend, and hold harmless Holder from any claims for damages that arise therefrom, except for harm proximately caused by Holder's negligent act or misconduct, or as may arise out of Holder's workers' compensation obligations.

## **15. ASSIGNMENT OF CONSERVATION EASEMENT**

This Conservation Easement is assignable by Holder with the consent of Grantor. Assignment of this Conservation Easement during the term of the Concept Plan to any entity may only occur after notice to and written approval by LUPC (or any successor) and Grantor, and only to an entity that (a) satisfies the requirements of Section 170(h)(3) of the Internal Revenue Code of 1986 and Title 33 M.R.S. § 476(2); (b) has land conservation as its primary goal or purpose and otherwise has goals and purposes that are reasonably consistent with protecting the natural, scenic, or open space values of real property; (c) agrees, in writing, as a condition of transfer, to monitor, enforce, and otherwise uphold the Conservation Values and abide by the terms and conditions of this Conservation Easement; (d) possesses both the financial resources and the demonstrated experience required to monitor and enforce large-acreage easements; and (e) has no potential conflicts of interest with its responsibilities to hold and enforce the Conservation Easement in a fair and impartial manner, and operates in the public interest and not for the benefit of private individuals or corporations. Grantor may only withhold consent of Holder's proposed assignment of this Conservation Easement upon a showing that the proposed assignee does not satisfy the requirements and qualifications set forth in this Section 15. Arbitration pursuant to Section 18 hereof of a decision to withhold consent of assignment shall be *de novo* and without deference to the withholding Party.

## **16. COMPLIANCE WITH MAINE CONSERVATION EASEMENT LAW**

**16.1 Conservation Easement Act.** This Conservation Easement is created pursuant to Maine's Conservation Easement Act, Title 33 M.R.S. §§ 476 *et seq.*

**16.2 Holder Qualification.** Holder is qualified to hold conservation easements pursuant to Title 33 M.R.S. § 476(2)(B), and is a Qualified Organization under Section 170(h)(3) of the Internal Revenue Code of 1986, to wit: a publicly funded, non-profit, Section 501(C)(3) organization having a commitment and the resources to protect the conservation purposes of the donation and enforce the restrictions .

## 17. GENERAL PROVISIONS

**17.1 Reservation of Rights.** Grantor hereby expressly reserves to itself, its successors, and assigns all rights and use accruing from ownership of the Protected Property, including the right to engage in or permit others to engage in, including, but not limited to, by easement, lease, or otherwise, subject to this Conservation Easement, all uses of the Protected Property that are not prohibited by this Conservation Easement.

**17.2 Protected Property Only.** This Conservation Easement applies to the Protected Property only. Nothing herein shall be construed to impose any obligation, restriction, or other encumbrance on any real property not expressly made a part of the Protected Property.

**17.3 Waiver of Certain Defenses.** Grantor hereby waives any defense of laches, prescription, or estoppel for the failure or delay, for any reason whatsoever, of Holder to enforce this Conservation Easement or Management Plan. Only Holder, or the Attorney General to the extent authorized by applicable law, may enforce the terms of this Conservation Easement and the Management Plan. The failure or delay of the Holder, for any reason whatsoever, to do any action required or contemplated hereunder, or to discover a violation or initiate an action to enforce this Conservation Easement shall not constitute a waiver, laches, or estoppel of its rights to do so at a later time.

**17.4 Obligations Terminated.** A Party's rights and obligations under this Conservation Easement shall terminate when such Party ceases to have any interest in the Protected Property or this Conservation Easement, except that liability for acts or omissions occurring prior to transfer shall survive such transfer.

### 17.5 Discretionary Approvals, Consents and Amendments.

(a) Discretionary Approvals. Grantor and Holder acknowledge that certain activities by the Grantor may warrant the prior discretionary approval of Holder, and that Holder has the right to issue such discretionary approvals without prior notice to any other entity. Nothing in this subsection shall require either party to agree to any discretionary approval.

(b) Consents. For any activity requiring Holder's consent hereunder, consent shall not be unreasonably withheld, conditioned or delayed. In each case requiring consent, Grantor shall send a request for consent pursuant to Subsection 13.1 hereunder, including, at a minimum, sufficient information to enable Holder to determine whether proposed plans are consistent with the terms of this Conservation Easement and would not have an unreasonable adverse effect on the Conservation Values. Holder's consent shall be deemed granted if Holder

has not responded to a request for consent within forty-five (45) days of receipt of such request, except as otherwise specifically stated in this Conservation Easement. In addition, where consent is required, Holder shall use all reasonable efforts to reach a decision on whether to provide such consent as quickly as is practicable.

(c) Amendments. Grantor and Holder recognize that rare and extraordinary circumstances could arise that warrant modification of certain of the provisions of this Conservation Easement. To this end, subject to more restrictive laws and regulations, if applicable law, Grantor and Holder have the right to agree to amendments to this Conservation Easement, provided that in the reasonable judgment of Holder, such amendment is consistent with the Conservation Values intended for protection under this Conservation Easement. Amendments will become effective upon recording at the Aroostook County Registry of Deeds. Nothing in this paragraph subsection shall require the Grantor or the Holder to agree to any amendment or to negotiate regarding any amendment. During the term of the Concept Plan, all rights of Holder to amend this Conservation Easement shall require the approval of LUPC.

(d) Further Limitations on Discretionary Approvals and Amendments. Notwithstanding the foregoing, without the prior approval of the court in an action in which the Attorney General is made a party as provided by Title 33 M.R.S. §§ 477-A(2)(B), Holder and Grantor have no right or power to approve any action or agree to any discretionary approval or amendment that would: (i) materially detract from the conservation values intended for protection; (ii) limit the term or result in termination of this Conservation Easement; or (iii) adversely affect the qualification of this Conservation Easement or the status of the Holder under applicable laws, including Title 33 M.R.S. §§ 476 *et seq.*, and Sections 170(h), 501(c)(3), 2522, and 2031(c) of the Internal Revenue Code, and regulations issued pursuant thereto.

**17.6 Invalidity.** If any provision of this Conservation Easement or the application of any provision to a particular person or circumstance is found to be invalid, the remainder of this Conservation Easement and the application of such provision to any other person or in any other circumstance shall remain valid. Nothing contained herein will result in a forfeiture of this Conservation Easement or reversion to Grantor of any rights extinguished or conveyed hereby. Failure to comply with the requirements of Title 33 M.R.S. §§ 477-A(1), (2)(A), or (3) shall not invalidate this Conservation Easement.

**17.7 Governing Law.** Interpretation and performance of this Conservation Easement shall be governed by the laws of the State of Maine. This Conservation Easement shall be liberally construed in favor of the grant to effect the conservation purposes of this Conservation Easement and the policy and purpose of the Maine Conservation Easement Act Title 33, Maine 33 M.R.S. §§ 476 *et seq.* If any provision in this instrument is found to be ambiguous, an interpretation consistent with the conservation purposes of this Conservation Easement shall govern.

**17.8 Extinguishment.** This Conservation Easement can only be terminated or extinguished including by eminent domain, whether in whole or in part, by prior approval of a court of competent jurisdiction in an action in which the Attorney General is made a party

pursuant to Title 33 M.R.S. § 477-A(2)(B). It is the intention of the Parties that an extinguishment or termination be approved by a court only if all of the Conservation Purposes of this Conservation Easement are impossible to accomplish. Should this Conservation Easement be terminated or extinguished as provided in this subsection, in whole or in part, Holder shall be entitled to be paid the increase in value of the Grantor's estate resulting from such extinguishment, as determined by the court, or in the absence of such court determination, by the agreement of the parties or, in the absence of such agreement, by an independent appraiser mutually selected by Grantor and Holder. After satisfying its costs and expenses associated with any termination or extinguishment proceeding, Holder shall use its share of the proceeds or other moneys received under this subsection in a manner consistent, as nearly as possible, with the stated, publicly beneficial purposes of this Conservation Easement. This subsection shall not apply, and there will be no division of proceeds with respect to any sale, exchange or transfer of the Protected Property where the transferred Protected Property remains subject to the Conservation Easement whether explicitly or by operation of law.

**17.9 Valuation.** This Conservation Easement constitutes a real property interest immediately vested in Holder, which, for purposes of Section 17.8 hereof, the Parties stipulate to have a fair market value determined by multiplying the fair market value of the Protected Property unencumbered by the Conservation Easement (minus any increase in value after the date of the grant of this Conservation Easement attributable to improvements made by Grantor, which amount is reserved to Grantor) by the ratio of the value of the Conservation Easement at the time of this grant to the value of the Protected Property, without deduction for the value of the Conservation Easement, at the time of this grant. For the purposes of this subsection, the ratio of the value of the Conservation Easement to the value of the Protected Property unencumbered by the Conservation Easement shall remain constant (hereinafter the “**Original Percentage Reduction**”). The Parties have included the Original Percentage Reduction in the Baseline Documentation and shall amend such values, if necessary, to reflect any final determination thereof by the Internal Revenue Service or court of competent jurisdiction.

**17.10 Condemnation.** If either Holder or Grantor receives notice of the actual or threatened exercise of the power of eminent domain or a proposed acquisition by purchase in lieu of condemnation whether by public, corporate, or other authority (hereinafter a “**Taking**”) with respect to any interest in or any part of the Protected Property, the party who receives the notice shall promptly notify the other and the parties may proceed jointly or either party may at its discretion take such legal action as it deems necessary to: (a) challenge the Taking; (b) challenge the amount of allocation of any award tendered by the Taking authority; or (c) otherwise participate in, challenge or appeal such proceedings, findings or awards. Any third party counsel and consultants (including appraisers) hired by either party shall be reasonably acceptable to the other party. Each party shall be responsible for its own costs and legal fees, absent written agreement of the parties.

**17.11 Comparative Economic Test.** Pursuant to Title 33 M.R.S. § 478, no comparative economic test may be used to determine if this Conservation Easement is in the public interest or serves a publicly beneficial conservation purpose. In making this grant, Grantor has considered the possibility that uses prohibited by the terms of this Easement may become more economically valuable than permitted uses, and that neighboring properties may in the



future be put entirely to such prohibited uses. In addition, the unprofitability of conducting or implementing any or all of the uses permitted under the terms of this Conservation Easement shall not impair the validity of this Conservation Easement or be considered grounds for its termination or extinguishment. It is the intent of both Grantor and Holder that any such economic changes shall not be deemed to be changed conditions or a change of circumstances justifying the judicial termination, extinguishment or amendment of this Conservation Easement.

**17.12 Requirement to Comply with Laws and Regulations.** Nothing in this Conservation Easement is intended to supersede, eliminate, or otherwise change any obligation of Grantor under any applicable law, including, but not limited to, the obligation to obtain any and all required regulatory approvals for activities permitted under this Conservation Easement's terms. Nothing in this Conservation Easement may be construed to permit an activity otherwise prohibited or restricted by State, local, or Federal laws or regulations, with which Grantor shall have a responsibility to comply.

**17.13 Section Headings.** The word or words appearing at the commencement of sections and subsections of this Conservation Easement are included only as a guide to the contents thereof and are not to be considered as controlling, enlarging, or restricting the language or meaning of those sections or subsections.

**17.14 Initiation Date of Certain Limitations.** For purposes of calculating all acreage and other limits established for certain permitted uses and Structures in this Conservation Easement, said calculations shall commence on the date that is fifteen (15) days following the date of approval of the Concept Plan by LUPC.

**17.15 Extended Meanings.** In this Conservation Easement, words importing the singular number include the plural and vice versa, and words importing persons include individuals, corporations, limited and unlimited liability companies, general and limited partnerships, firm, associations, trusts, unincorporated organizations, joint-stock companies, joint ventures, business units, divisions, Governmental Authorities and other entities.

**17.16 Statutory References.** In this Conservation Easement, unless something in the subject matter or context is inconsistent therewith or unless otherwise herein provided, a reference to any statute, regulation, rule, agreement, document, or section thereof is a reference to such statute, regulation, rule, agreement, document, or section as may be amended, modified, or supplemented (including any successor section and, with regard to statutes, any regulations made thereunder) and in effect from time to time.

**17.17 Time.** Whenever the last day for the exercise of any right or the discharge of any duty under this Conservation Easement falls on a Saturday, Sunday, or a legal holiday, the Party having such right or duty will have until the next day that is not a Saturday, Sunday, or legal holiday to exercise such right or discharge such duty.

## **18. DISPUTE RESOLUTION**

### **18.1 Resolution of Disputes.**

(a) Informal Dispute Resolution. Any controversy, claim, or dispute between the Parties arising out of or related to this Conservation Easement or the breach, termination, or invalidity hereof (“**Dispute**”) that cannot be resolved by the Parties within thirty (30) days after receipt by a Party of written notice of such Dispute, the other Party will be referred to a panel consisting of a senior executive (President, a Vice President or similarly titled person) of each Party or any of its Affiliates, if applicable, with authority to decide or resolve the Dispute, for review and resolution. Such senior executives will meet and attempt in good faith to resolve the Dispute within twenty-five (25) days after receipt of such written notice.

(b) Arbitration. Except to the extent expressly provided herein, if a Dispute has not been resolved within sixty (60) days after receipt of written notice, the Dispute will be determined by final and binding arbitration in accordance with the Federal Arbitration Act, Title 9 U.S.C. § 10 (or if not applicable, the applicable State law), the then-current rules for arbitration of the American Arbitration Association, or any successor thereof (“**AAA**”), and the “Special Rules” set forth in Section 18.3 hereof. In the event of any inconsistency, the Special Rules shall control. Judgment upon the award rendered by the arbitrator may be entered in any court having jurisdiction. The decision of the arbitrator will be final and binding on the Parties thereto. The arbitrator will hear and determine all questions of fact and law relating to any Dispute, including, but not limited to, any claim for final injunctive or other equitable relief. By agreeing to arbitration, the Parties do not intend to deprive any court of its jurisdiction to issue a pre-arbitral injunction, pre-arbitral attachment, or other order in aid of arbitration.

(c) Emergency Injunction. Notwithstanding anything to the contrary in Section 18.1 hereof, Holder reserves the right to bring an action in law or equity in a court of competent jurisdiction to enjoin temporarily the imminent violation of this Conservation Easement pursuant to Section 8.1 hereof when, in its reasonable judgment, immediate action is necessary to prevent irreparable harm to the Conservation Values.

## **18.2 Special Rules for Arbitration.**

(a) The arbitration shall be conducted in Portland, Maine, unless otherwise agreed by the Parties. The arbitration shall be administered by AAA, who will appoint an arbitrator. If AAA is unwilling or unable to administer or is legally precluded from administering the arbitration, then either Party may substitute another arbitration organization that has similar procedures to AAA and that will observe and enforce any and all provisions of this Section. The provisions of Sections 18.1 and 18.2 hereof shall be binding on said substitute arbitrator. All Disputes shall be determined by one arbitrator; however, if the amount in controversy in a Dispute exceeds One Million Dollars (\$1,000,000), upon the request of either Party, the Dispute shall be decided by three arbitrators (for purposes of this Section, referred to collectively as the “**arbitrator**”).

(b) All arbitration hearings will be commenced within ninety (90) days of the demand for arbitration and completed within ninety (90) days from the date of commencement; provided, however, that upon a showing of good cause, the arbitrator shall be permitted to extend

the commencement of such hearing for up to an additional sixty (60) days.

(c) The judgment and the award, if any, of the arbitrator shall be issued within thirty (30) days of the close of the hearing. The arbitrator shall provide a concise written statement setting forth the reasons for the judgment and for the award, if any. The arbitration award, if any, may be submitted to any court having jurisdiction to be confirmed and enforced, and such confirmation and enforcement shall not be subject to arbitration.

(d) The arbitrator will give effect to statutes of limitations and any waivers thereof in determining the disposition of any Dispute and may dismiss one or more claims in the arbitration on the basis that such claim or claims is or are barred. For purposes of the application of the statute of limitations, the service on AAA under applicable AAA rules of a notice of Dispute is the equivalent of the filing of a lawsuit.

(e) Any dispute concerning this arbitration provision, including any such dispute as to the validity or enforceability of this provision, or whether a Dispute is arbitrable, shall be determined by the arbitrator; provided, however, that the arbitrator shall not be permitted to vary the express provisions of these Special Rules.

(f) The arbitrator shall have the power to award reasonable attorney's fees and costs pursuant to the terms of this Conservation Easement.

(g) Notwithstanding the foregoing, for any dispute for which the provisions of Sections 3.2(b)(iv) and 8.1 hereof are applicable, the dispute resolution procedures contained in such sections shall govern.

(h) All information disclosed as a result of any arbitration proceeding, including the results of said arbitration, shall be confidential except to the extent provided by applicable law.

**18.3 Conditions for ADR By Mutual Agreement of the Holder and Grantor.** The parties by mutual agreement may, in addition to arbitration, submit the dispute to other forms of alternative dispute resolution, such as mediation. By mutual agreement, other conditions may be set under which the process of such alternative dispute resolution would proceed.

*[the remainder of this page intentionally left blank]*

IN WITNESS WHEREOF, Grantor has caused this Conservation Easement to be duly executed as of this \_\_\_day of \_\_\_\_\_, 2018.

**GRANTOR:**

**ALLAGASH TIMBERLANDS LP**

By: Eagle Lake Timberlands Inc.,  
a New Brunswick corporation,  
its General Partner

By: \_\_\_\_\_  
Name:  
Its:

By: \_\_\_\_\_  
Name:  
Its:

PROVINCE OF NEW BRUNSWICK  
COUNTY OF ST. JOHN, ss. \_\_\_\_\_, 2018

Personally appeared the above-named \_\_\_\_\_,  
of Eagle Lake Timberlands Inc., as general partner of Allagash Timberlands LP, a \_\_\_\_\_  
\_\_\_\_\_ and acknowledged the foregoing instrument to be his/her free act and deed in his/her said  
capacity and the free act and deed of said limited partnership.

Before me,

\_\_\_\_\_  
Notary Public  
Printed Name: \_\_\_\_\_  
My Commission Expires: \_\_\_\_\_

**HOLDER ACCEPTANCE**

The above and foregoing Conservation Easement was authorized to be accepted by the Forest Society of Maine, Holder as aforesaid, and said Holder does hereby accept the foregoing Conservation Easement, by and through \_\_\_\_\_, its \_\_\_\_\_, hereunto duly authorized, this \_\_\_\_\_ day of \_\_\_\_\_, 2018.

**HOLDER:**

Signed, sealed and delivered in the presence of: **FOREST SOCIETY OF MAINE**

\_\_\_\_\_  
By: \_\_\_\_\_  
Name: \_\_\_\_\_  
Its: \_\_\_\_\_

STATE OF MAINE  
COUNTY OF \_\_\_\_\_, ss. \_\_\_\_\_, 2018

Then personally appeared \_\_\_\_\_, \_\_\_\_\_ an authorized representative of the above-named Holder and acknowledged the foregoing instrument to be his/her free act and deed in his/her said capacity, and the free act and deed of said Holder.

Before me,

\_\_\_\_\_  
Notary Public  
Printed Name: \_\_\_\_\_  
My Commission Expires: \_\_\_\_\_

**Exhibit A-1**

**[MAPS – TO BE FINALIZED PRIOR TO EXECUTION]**

**Exhibit A-2**

**[PROPERTY DESCRIPTION – TO BE FINALIZED PRIOR TO EXECUTION]**

## **14. Sustainable Forestry Principals**



## 14. SUSTAINABLE FORESTRY PRINCIPLES

In response to our discussion with LUPC Staff and others on the topic of sustainable forestry principles (a.k.a. Outcome Based Forestry, or “OBF”), the Concept Plan has revised the Sustainable Forestry Principles to better illustrate the policies and metrics that will apply to forestry in the Plan area.

- **Text Changes in the Concept Plan**

- **Amend page 19, E,4,a as follows:**

- a. **Sustainable Forestry Requirements:** Forestry activities within the Plan area will be conducted as follows.

- i. All forest management activities are subject to sustainable forest management practices that are based on ecologically sound, economically appropriate, and socially responsible outcomes (known as Outcome Based Forestry, or OBF). OBF is a program of the Maine Forest Service, authorized by statute at 12 M.R.S. § 8869(3-A), that, among other things, required “at least the equivalent forest and environmental protection as provided by existing rules and any applicable local regulations.” These practices include watercourse and wetland buffer requirements that meet or exceed current Commission and Maine Department of Environmental Protection regulations, aesthetic timber harvesting practices to minimize the visual impact of harvest operations, maintenance of biological diversity to maintain healthy populations of flora and fauna, and promotion of overall forest health. See Sub-Chapter IV, Section 10.30.

- ii. Forest Management activities within development areas will be required to use aesthetic management practices in the most highly visible areas, i.e., hillsides and viewsheds of the four lakes and thoroughfares. Prior to any harvesting activity, Petitioners will identify those areas that are considered of moderate or high scenic value. Within these identified areas, Petitioners have committed to using selective harvesting techniques exclusively, which will remove approximately only 30% of the standing timber on an individual tree basis, retaining the majority of the forest cover. The outcome is a harvesting operation that will retain its aesthetic appeal when seen from public viewpoints and provide sufficient buffering to minimize visual impacts from ongoing forest management operations.

- iii. Forest management activities in the Plan area will only be conducted in accordance with a long-term Forest Management Plan that will guide establishment of sustainable harvest levels and habitat and biodiversity objectives and constraints. Overall management activities will be subject to independent third-party verification by a recognized forestry certification program (such as ~~American Tree Farm System~~ Forest Stewardship Council or Sustainable Forestry Initiative).

- **Add a new Appendix D:** The Forestry Management Plan referenced in the Conservation Easement has been relocated from Volume 1 of the application materials to Volume 2.

- **Text Changes in the Chapter 10**

- **Revise/replace 10.30 with the following:**

**10.30 SUSTAINABLE FORESTRY MANAGEMENT PRACTICES**

All timber harvesting in the Plan area shall comply, where applicable, with Section 10.27,E; the provisions of the agreement, Outcome Based Forestry Agreement # 2015-1, between Irving Woodlands LLC and the Department of Conservation, Maine Forest Service, dated May 07, 2015, as may be amended on one or more occasions and so long as it remains in effect (“OBF Agreement”); and the outcome-based forestry principles pursuant to Title 12 M.R.S., Section 8869, Subsection 3-A, as may be amended from time to time (“OBF Statute”).<sup>1</sup> Where there is a conflict among these, the outcome-based forestry principles pursuant to Title 12 M.R.S., Section 8869, Subsection 3-A, as may be amended from time to time shall govern.

**A. Application of Sustainable Forestry Principles**

1. **Anti-backsliding.** If at any time during the life of the Concept Plan the OBF Agreement or the OBF Statute is not renewed or otherwise no longer effective, including if the land is sold, the landowner shall be required to continue to meet standards at least as stringent as those pursuant to the OBF Agreement and to develop a sustainable forestry management plan that is based on Sustainable Forestry Principles, the OBF Agreement, and approved by the Commission, with input from Maine Forest Service and, when within the area protected by the Conservation Easement, by the easement holder. The intent of this provision is to ensure that the Sustainable Forestry Principles within this Concept Plan remain effective even if the OBF Agreement or OBF Statute is no longer in effect to ensure that future regulatory provisions are no less stringent than those established in the OBF Agreement.
2. **Antidegradation.** Overall levels of habitat quality achieved within the Plan area pursuant to these Sustainable Forestry Management Practices shall be maintained and protected, consistent with the OBF Agreement and OBF Statute.

**B. Goals and Outcomes of Forest Sustainability**

**1. Water Quality, Wetlands, and Riparian Zones**

The Plan area has a diverse range of aquatic habitats, including bogs, fens, thoroughfares, wetlands, streams, lakes, and ponds, that are recognized for their water quality and the quality of their fisheries, their undeveloped shorelines and riparian areas, and their ecological values. Forestry activities in the Plan area will meet and or exceed the current LUPC or MEDEP standards for setbacks and buffering through adoption of the Addendum.

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<sup>1</sup> Explanatory note: Timber harvesting in protection and management districts is regulated by the Maine Forest Service. (See P.L. 2001, ch. 599.)

To minimize siltation and associated water quality degradation, new forestry roads shall be sited to minimize the number of stream crossings and will use current LiDAR or comparable data to make road layout and water crossing siting decisions. Design of required crossings and for replacement culverts or bridges shall incorporate a 15% increase in flow calculations over the standard design requirements to anticipate the effects of potential climatic changes in the Plan area.

## **2. Soil Productivity**

Soil productivity is important for regrowth of the forest resource. Forestry activities within the Plan area will be conducted pursuant to policies to maintain or improve site productivity. This will include setting specific policies for limiting the total amount of roads and landings within the Plan area and establishing site disturbance procedures for rutting. No more than 5% of the land base will be in forestry roads or landings within the areas that are zoned as M-FRL-GN. Rutting, which can cause erosion and soil compaction, is not allowed within watercourse buffers. If rutting begins to occur during the operation, the operation shall cease until the problem can be resolved. Outside of a water course buffer, no more than 30% of trails shall contain a rut (ruts are 12 inches deep and 60 feet long) in any given harvest area.

## **3. Timber Supply and Quality**

The timber supply within the Plan area is diverse and of high quality. To help sustain the timber supply and quality silviculture, activities will focus on stand tending and planting programs that optimize growth and long term forest health. Clearcut areas with good site productivity will be replanted to a variety of spruce species, depending on soil types. Tolerant hardwood stands will be managed using selective harvesting to create uneven aged stands.

Planting and tending levels shall be determined as part of a forest management plan that is updated on a rolling basis.

## **4. Aesthetic Impacts of Timber Harvesting**

The Plan area has scenic qualities and aesthetic values that are intrinsic to the recreational resources and overall enjoyment by visitors. As part of the development of a Forest Management Plan, planners shall identify, with input from stakeholders, areas that may have scenic or aesthetic value in the areas that are targeted for forestry activity. Within these areas, harvest operations will use methods that minimize the visual impacts. In addition, all forestry and planning staff will be trained in methods to minimize visual impact.

Forest management activities within development areas shall use aesthetic management practices, which will include at least the following:

- a. Areas that are considered of moderate or high scenic value will be identified prior to any harvesting activity;

- b. Within the areas identified as having moderate or high scenic value, only selective harvesting techniques will be permitted, which will limit tree removal to approximately 30% of the standing timber on an individual tree basis and retain the majority of the forest cove;
- c. Screening or buffering, as necessary, along road corridors or along trails to minimize visual impact based on harvesting activities and traffic volumes; and
- d. Highly visible locations (such as hillsides) with moderate or high scenic value will be modeled to identify potential visual impacts before operations begin and management planning will be adjusted to minimize impacts.

## 5. **Biodiversity**

The Plan area has a diverse and extensive range of wildlife, forest, meadow, and other terrestrial habitats, including habitats of rare, threatened and endangered flora and fauna, natural communities, and places of significant ecological value. The maintenance of biological diversity with healthy populations of flora and fauna will be assured through a variety of practices including:

- a. **Deer Wintering Areas (DWAs).** Using current scientific and biological data, DWAs will be identified and managed to maintain or improve the quality of their habitat. Management of DWAs outside of State regulated areas will continue to be coordinated with Maine IF&W or its successor through cooperative agreements and partnerships.
- b. **Late Successional Forest Policy.** Currently there are 2,500 acres of late successional forests within the Plan area. These are important habitats for plant and animal species that rely on a mixture of dead and fallen trees and multiple canopy layers. Ten percent of each of the 5 major stand types of concern (old tolerant hardwood stands, old tolerant mixed wood stands, old cedar stands, old pine/hemlock stands, old softwood stands) will be maintained by acreage in late successional stage(s).
- c. **Snag Policy.** As part of the forest management and harvesting operations, portions of standing dead and coarse woody debris across the harvest areas will be maintained. Where practicable, trees containing active stick or cavity nesting birds, large hollow trees that are providing wildlife dens or nests, and trees with decay exhibiting heavy use by cavity excavating birds should be left standing. In even aged harvesting prescriptions, these trees could form the nucleus of an island. If these trees are located near the edge of a block or an adjacent riparian zone, small adjustments to the block boundary should be made.
- d. **High Conservation Value Forests.** At locations within the Plan area that are identified as High Conservation Value Forests, harvesting operations will be managed so as to minimize impacts to them or to avoid those areas altogether. High Conservation Value Forests are those that possess one or more of the following attributes: (1) forest areas containing globally,

regionally, or nationally significant concentrations of biodiversity values; (2) forest areas that are in or contain rare, threatened, or endangered ecosystems; (3) forest areas that provide basic services of nature in critical situations (e.g., watershed protection or erosion control); or (4) forest areas fundamental to meeting the basic needs of local communities (e.g., subsistence or health) or are critical to local communities' traditional cultural identity (e.g., areas of cultural, ecological, economic, or religious significance identified in cooperation with such local communities).

- e. **Important, Rare, Threatened, and Endangered Habitats.** Within the Plan area, there are areas that provide important habitat for rare, threatened, and endangered species. These include stick nests, rare plant sites, and smelt streams. These areas will be managed using techniques such as, but not limited to, timing of activities, maintaining buffers, and/or avoiding the area altogether.
- f. **Riparian Zones.** Within the Plan area riparian zones will be maintained to provide shade and protection for lakes and streams. Riparian zones shall be a minimum width of 100' on either side of permanent streams and 25' in width on either side of intermittent streams. This large area of interconnected riparian zones also creates corridors for many different species to utilize for travel and foraging.

### **C. Public Accountability**

Forest management activities in the Plan area will be subject to third-party verification by a recognized forestry certification program for sustainability (for example, Forest Stewardship Council or Sustainable Forestry Initiative). A Forest Management Plan must be developed and approved by a licensed forester. Contractors must employ at least one Certified Logging Professional. As part of the third party certification an annual audit and site inspection will be required and the results will be made available to the public.

### **D. Economic Considerations**

The working forest is an important part of the local and regional economy. The majority of the Plan area will remain available as “working forest” that contributes to the overall local economy, including businesses like pulp and paper mills, saw mills, harvesters, and many more.

### **E. Social Considerations**

Access to private timberlands for hunting, fishing, ~~camping~~, boating, snowmobiling, ATV riding, and other low-intensity recreational activities is an intrinsic aspect of the culture of Northern Maine. Traditionally managed access for recreational purposes will continue as long as such uses do not conflict with forest management operations or landowner values. This includes adopting the appropriate management policies for

recreational users (for example, ATV and snowmobile use) and committing to allowing managed access to the Plan area.

**F. Forest Health**

Overall forest health is critical to the sustainability of the ecological and economic success of a working forest. Within the Plan area, ongoing actions to maintain forest health will continue, such as insect and disease monitoring/management, fire suppression activities, and other forest health actions.

## OUTCOME-BASED FORESTRY AGREEMENT #2015-1

This agreement by and between IRVING WOODLANDS LLC (the "Participant"), the DEPARTMENT OF AGRICULTURE, CONSERVATION AND FORESTRY, MAINE FOREST SERVICE (the "MFS") is entered into pursuant to 12 M.R.S § 8003(3)(Q), § 8868 (2-B) and § 8869 (3-A) and (7-A), and in accordance with MFS Forest Policy and Management Division procedures.

Whereas, the Maine Legislature has defined outcome-based forestry as "a science-based, voluntary process to achieve agreed-upon economic, environmental and social outcomes in the State's forests, as an alternative to prescriptive regulation, demonstrating measurable progress towards achieving statewide sustainability goals and allowing landowners to use creativity and flexibility to achieve objectives, while providing for the conservation of public trust resources and the public values of forests;" 12 M.R.S. § 8868 (2-B) and

Whereas, in its 1999 State of the Forest report, the MFS stated that the state has "reached the limits of what a command and control regulatory framework has to offer [with respect to regulation of forest practices]. Command and control regulation has many limitations and may result in unintended consequences, such as forest fragmentation and premature harvesting to recover equity in a forest investment. The Maine Forest Service believes that the state should begin to focus more on outcome-based forestry regulation, on the premise that this approach will do more to promote, stimulate and reward excellent forest management yet still provide a baseline of regulatory protection for critical public resources;" and

Whereas, the Maine Legislature has endorsed outcome-based forestry and directed the MFS to pursue outcome-based forestry agreements consistent with legislative direction; and,

Whereas, outcome-based forestry is intended to be a long term approach to ensuring the sustainable management of Maine's forests; now therefore,

The Participant and the MFS agree as follows:

1. Authority: Pursuant to 12 M.R.S. Chapters 801 and 805, subchapter 3-A, the MFS has regulatory authority over the activities described herein.
2. Partner to this agreement: The Participant is a landowner and/or involved in forest management in the state of Maine. The Participant's primary office is located in St. John Plantation, Maine.
3. Location: The Participant manages approximately 1.25 million acres in the state of Maine.
4. Application of this agreement; forest management plan: This agreement applies to all forest management activities on lands owned by Allagash Timberlands, LP,

Aroostook Timberlands, LLC, and Maine Woodlands Realty (as described in the Forest Management Plan) that are managed by the Participant in Maine (the "Property"). The J.D. Irving Northern Maine Woodlands 2013 - 2037 Strategic Forest Management Plan dated July 2013 (the "Forest Management Plan") is incorporated in this agreement by reference, as it will guide the Participant on its activities on the Property. The Participant's Forest Management Plan has outlined targets for opening size, age class distribution, and harvest levels by silvicultural prescription. The Forest Management Plan will be updated and revised from time to time at the discretion of the Participant's Chief Forester to reflect substantive changes.

5. Interpretation of this agreement: In the context of this agreement, the use of terms including, but not limited to, "maximize," "minimize," and "optimize," and other similar terms are understood to mean that the landowner will take reasonable measures to achieve the specific outcomes identified.
  
6. Panel of technical experts: As required by 12 M.R.S. § 8869 (3-A); the Governor of Maine has established a panel of technical experts (the "panel") to work with the Director of the Maine Forest Service to implement, monitor and assess the results of outcome-based forestry agreements. The makeup of the panel may change from time to time at the discretion of the Governor of Maine. Present membership on the panel is:
  - A. Michael Dann, Forester;<sup>1</sup>
  - B. Gary Donovan, Certified Wildlife Biologist;
  - C. Maxwell L. McCormack, Jr., Research Professor Emeritus of Forest Resources, University of Maine;
  - D. David B. Struble, State Entomologist, Maine Forest Service;
  - E. Peter Triandafillou, VP Woodlands, Huber Resources; and,
  - F. Robert G. Wagner, Director, Center for Research on Sustainable Forests, University of Maine, and Henry W. Saunders Distinguished Professor in Forestry.
  
7. Desired outcomes of Outcome-based Forestry:
  - A. Compliance with the state's forest sustainability goals and outcomes for soil productivity; water quality; wetlands and riparian zones; timber supply and quality; aesthetic impacts of timber harvesting; biological diversity; public accountability; economic and social considerations; and, forest health (see Appendix).

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<sup>1</sup> Mr. Dann recused himself from working on this agreement to avoid the appearance of a conflict of interest.



- B. Improve timber quality and quantity through active forest management while reducing the forest's susceptibility to disease, insect infestations and damage caused by fire, wind and climate change.
  - C. Increase reforestation success, growth rates, and/or timber quality on site specific areas and on a landscape basis, using a variety of forest management techniques that may include but are not limited to the establishment of planted areas, vegetation management, matching species to site, tree improvement techniques, fertilization, and pre-commercial and commercial thinning.
  - D. Implement a credible program to maintain and protect adequate critical deer wintering habitat. The Participant shall confer with the Department of Inland Fisheries and Wildlife during the preparation and any necessary implementation of the program.
  - E. Continued certification to the standards of a nationally recognized sustainable forest management certification program.
8. Exemptions from certain requirements of 12 M.R.S. § 8869 and MFS Chapter 20 Rule, Forest Regeneration and Clearcutting Standards: Provided that the Participant satisfies the conditions set forth in Section 7 of this agreement, the Participant is exempt from the following requirements of law and rule:
- A. Chapter 20 Rule Sections 5.A. and 6. The Participant will not create clearcuts larger than 250 acres without securing express written approval from the MFS.
  - B. 12 M.R.S. § 8869 (2-A) and Chapter 20 Rule Section 5.B. (clearcut separation zones).
  - C. 12 M.R.S. § 8869 (3) and Chapter 20 Rule Section 5.C. (forest management plans for individual clearcuts larger than 20 acres).
  - D. 12 M.R.S. § 8883-B (1) and Chapter 20 Rule, Section 3.A.3. (prior notification, submission of harvest plans to the MFS for individual clearcuts larger than 75 acres).
  - E. Chapter 20 Rule, Section 5.C.3.b. (certification of establishment of clearcuts).
  - F. Chapter 20 Rule, Sections 4.C. and 5.C.3.a. (certification of regeneration of clearcuts). Notwithstanding such exemption, the Participant will measure regeneration success on clearcuts, the results of which shall be made available for inspection by the MFS and the panel. In cases where regeneration is found to be inadequate, the Participant will implement a reforestation strategy in a timely fashion.
9. Modifications to certain requirements of 12 M.R.S. § 8869 and MFS Chapter 20 Rule, Forest Regeneration and Clearcutting Standards: The Participant may operate subject to the following modifications of law and rule:

- A. Chapter 20 Rule, Section 3.A.3. The Participant must file one harvest notification per township harvested per two years. The Participant is not required to file harvest notification amendments with the MFS. However, the Participant is required to internally maintain adequate documentation of harvest activities by township to permit harvest inspections by the MFS and to facilitate work of the panel.
10. Participant commitments: The Participant agrees to and commits to the following as good faith demonstrations of its commitment to practice forestry in a manner that provides at least the equivalent forest and environmental protection provided by existing rules and any applicable local regulations:
- A. The Participant shall maintain certification status with a nationally recognized sustainable forest management certification program.
  - B. A member of the panel or a mutually agreeable designee shall be permitted to participate in any independent third party review of the Participant's forest management practices, and to provide input to the independent third party on behalf of the panel.
  - C. The Participant shall invite one member of the panel or a mutually agreeable designee to attend meetings and provide input to the Participant's Forest Research Advisory Committee.
  - D. As per the understanding reached with the Legislature's Agriculture, Conservation and Forestry Committee during its deliberations on Public Law 2013, Chapter 542, An Act To Clarify Outcome-Based Forestry, the Participant shall annually invite members of the committee to review the Participant's operations and management in the field.
  - E. The Participant shall document results of its efforts to improve measurably the quantity and/or quality of its timber resource. In addition to documentation of compliance with applicable certification standards, the Participant shall provide evidence of attainment of the desired outcomes described in Section 7 of this agreement through the use of metrics outlined in Section F, below.
  - F. The Participant shall annually report to the MFS information about its harvest management and silvicultural metrics including, but not limited to:
    - 1. Acres of high risk separation zones harvested during the past year.
    - 2. Trends in silvicultural investments, including, but not limited to precommercial thinning and competition control, organized by Forest Operations Notification number or where commercial harvesting has not taken place in a township, by individual township.

3. Estimates of harvest acreage summarized for the coming five-year period by silvicultural prescription, including overstory removal, commercial thinning, shelterwood, and clearcut.
  4. A more specific annual harvesting plan that describes the planned acreage for harvest for the upcoming year in each township by prescription, with clearcuts exceeding 250 acres individually mapped and identified.
  5. Annual harvest summary for the previous year, provided within 60 days of year end, a summary of the area harvested over the previous year by prescription (actual versus plan) and total volumes. Information will be made available for sites visited by the panel. The Participant will continue to provide information on acres harvested by harvest type, by township, as required on the "Confidential Report of Timber Harvest."
  6. Annual regeneration report for clearcuts. Acres planted by species and site class, organized by Forest Operations Notification number or where commercial harvesting has not occurred in a township, by individual township. Where available, information will be provided for sites where the panel conducts field verifications.
  7. Road density (miles per acre of ownership by township).
  8. Harvest opening size distribution (acres by opening size class for each harvest prescription by township).
  9. Development stage distribution (acres by development stage within each broad cover type class by township). Development stages to be reported are: regeneration, sapling, young, immature, mature, and overmature.
- G. The Participant shall prepare and submit a report of the average clearcut size and total clearcut areas on an annual basis.
- H. A Maine Licensed Forester in the employ of the Participant shall review and approve the landowner's Forest Management Plan.
- I. Harvests will be laid out with consideration for visual aesthetics in areas of moderate and higher visual sensitivity. The Participant's forest management staff will be proficient in managing and receive periodic training for visual aesthetics.
- J. The Participant will prepare an annual report regarding its efforts and any active management undertaken to maintain and protect critical deer wintering habitat.
- K. The Participant will accommodate other reasonable requests for information made by the MFS and the panel as mutually agreed upon.

11. Sale and purchase of lands:

- A. The Participant will be permitted to add any lands their ownership group purchases to this agreement, provided that the Participant promptly includes those same additional lands in its forest certification program and its management strategy and plans, and provided the Participant manages the lands to the same standards as the rest of its ownership. Similarly, this agreement does not prohibit the Participant from selling some or its entire ownership group lands to an unaffiliated third party.
- B. Any lands sold would immediately upon transaction closing be removed from governance under this agreement and would be required to fully comply with all forest practices regulations for all subsequent activity. Any remaining lands managed by the Participant would continue to be governed by this agreement provided the lands remain credibly third party certified and managed according to the strategy outlined in the management plan.
- C. The Participant shall notify the MFS of any sales or purchases of land covered under this section within 30 days of closing.

12. Confidentiality:

- A. The parties recognize that portions of documents and other information that the Participant may be required, or may elect, to provide or make available to the MFS or the panel (irrespective of the form or manner in which such information is provided or made available) pursuant to or in connection with this agreement may contain information that constitutes a trade secret (as defined in 10 M.R.S. § 1542 (4)) or proprietary information (as defined in 12 M.R.S. § 8869 (13)), the public disclosure of which, or the use of which, other than for the express purposes set forth in this agreement could result in competitive harm and/or economic loss to the Participant or its subsidiaries and affiliates.
- B. The parties also recognize that pursuant to the Maine Freedom of Access Act ("FOAA"), the MFS, as a division of an agency of the state of Maine, has an obligation to make records in its possession available to members of the public, except in limited and defined circumstances. 1 M.R.S. § 402 (3) and § 408 (1). Some of those exceptions may apply to documents and other information provided or made available by the Participant to the MFS or the panel.
- C. Specifically, 1 M.R.S. § 402(3)(A) exempts from disclosure "[r]ecords that have been designated confidential by statute." Two statutes may apply to information the Participant provides or makes available pursuant to this agreement and may exempt some information from disclosure under the FOAA.
- D. 10 M.R.S. § 1542(4) designates certain information as trade secrets and not subject to disclosure by governmental subdivisions or agencies. Maine statute defines a trade secret as follows:

1. "Trade secret" means information, including, but not limited to, a formula, pattern, compilation, program, device, method, technique or process, that:
  - a. Derives independent economic value, actual or potential, from not being generally known to and not being readily ascertainable by proper means by other persons who can obtain economic value from its disclosure or use; and
  - b. Is the subject of efforts that are reasonable under the circumstances to maintain its secrecy.

E. In addition, 12 M.R.S. § 8869 (13) provides:

Confidential information.

Information provided to the bureau<sup>2</sup> voluntarily or to fulfill reporting requirements for the purposes of establishing and monitoring outcome-based forestry areas, as created pursuant to section 8003, subsection 3, paragraph Q, is public unless the person to whom the information belongs or pertains requests that it be designated as confidential and the bureau has determined it contains proprietary information. For the purposes of this subsection, "proprietary information" means information that is a trade secret or production, commercial or financial information the disclosure of which would impair the competitive position of the person submitting the information and would make available information not otherwise publicly available. The bureau, working with the landowner and the panel of technical experts appointed under subsection 3-A, may publish reports as long as those reports do not reveal confidential information.

F. Therefore, if the Participant believes that information it is providing to the MFS or the panel "voluntarily or to fulfill reporting requirements for the purposes of establishing and monitoring outcome-based forest policy areas," is "proprietary information" as defined in 12 M.R.S. § 8869 (13), it must request that the information be designated as confidential by the MFS. If the MFS determines that the information being provided contains "proprietary information," the MFS will designate that information as confidential. The MFS will notify the Participant whether the information has been designated as confidential or not within a reasonable period of time.

Notwithstanding the foregoing, the parties agree and acknowledge that the information listed or described on Schedule A to this Agreement shall be treated as having been designated by the MFS as proprietary and confidential without the requirement of a review on a case-by-case basis.

G. If the MFS receives a request for information under the FOAA that it has designated as confidential, it will notify the Participant of that request within a

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<sup>2</sup> "Bureau of Forestry" and "bureau" are the statutory references to the Maine Forest Service.

reasonable of time. The MFS will also notify the Participant if it plans to disclose the information or deny the request.

- H. The Participant may require any panel member participating in the forest management certification audit to sign a confidentiality agreement. This agreement must be similar in scope and content to any confidentiality agreement required by the Participant of the auditor and/or any other participants in the audit. Information designated hereunder as confidential or proprietary shall not be made available to any panel member who has not executed such a confidentiality agreement.
- I. The parties recognize that the final determination about whether information is exempt from disclosure under the FOAA rests exclusively with Maine's courts. The parties also recognize that the MFS is bound by any decision rendered by a Maine court and that the MFS will comply with any final decision issued by a Maine court. The MFS reserves the right to appeal a decision issued by a Maine court if it determines in good faith that the decision contains an erroneous interpretation of the FOAA. 10 M.R.S. § 1542(4) or 12 M.R.S. § 8869 (13). The Participant also remains free to exercise its legal rights, including any appeal rights it might have, regarding any decision issued by a Maine court.

13. Representations and Warranties. The MFS hereby represents and warrants to the Participant that as contemplated by 12 MRS § 8003 (3)(Q), after giving effect to this agreement, the MFS will not have designated more than six (6) outcome-based forestry agreement areas.

14. Reimbursement: The Participant shall pay the MFS a reasonable annual fee for its participation in outcome-based forestry, not to exceed \$10,000 annually.

15. Duration of this agreement: This agreement takes effect on 01 June 2015 and terminates on 31 May 2020. It is renewable at any time by mutual, written agreement between the MFS and the Participant.

16. Amendments; Entire Agreement: This agreement may be amended at any time by mutual, written consent of the parties. This agreement constitutes the entire agreement between or among the parties hereto with respect to the subject matter hereof, and supersedes any and all prior oral or written expressions, agreements or understandings with respect thereto.

17. Termination of this agreement: This agreement may be terminated prior to the expiration of the term:

A. By mutual agreement of the parties.

B. By the Participant, effective upon at least ninety (90) days prior written notice to the MFS.

- C. By the MFS effective upon at least ninety (90) days prior written notice to the Participant in the event that the Participant has materially breached any provision of this agreement and has failed to cure such breach to the reasonable satisfaction of the MFS within such ninety (90) day period (or, in the event that such cure cannot reasonably be effectuated within such ninety (90) day period, such longer period as may reasonably be required, provided that the Participant continues to diligently pursue such cure.

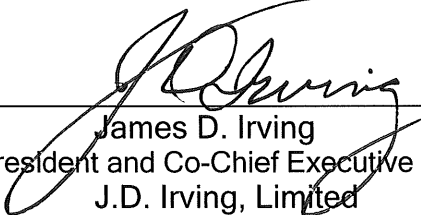
The parties agree and acknowledge that the termination of this agreement shall result only in the prospective loss to the Participant and the Property of the exemptions set forth in Section 8 hereof, and that any actions, omissions, conditions or circumstances arising or prevailing prior to such termination or expiration shall be covered by the exemptions provided pursuant to Section 8 hereof.

18. Official Record: This agreement shall not be effective nor become part of the official record unless and until it is signed by the Director of the Maine Forest Service.



IN WITNESS WHEREOF, the parties hereto have executed this Outcome-based Forestry Agreement consisting of 13 (thirteen) pages, including Schedule A and the Appendix.

Irving Woodlands LLC

By:  Date: June 22, 2015  
James D. Irving  
Co-President and Co-Chief Executive Officer  
J.D. Irving, Limited



Department of Agriculture, Conservation and Forestry, Maine Forest Service

By: Douglas Denico Date: June 25, 2015  
Douglas Denico  
Director, Maine Forest Service



#### Schedule A. List of Proprietary and Confidential Information

The Participant has requested and the Director of the Maine Forest Service has determined that the following information which may be provided to the Panel is either considered confidential or proprietary information and must not be further circulated.

1. Annual Reporting Metrics that are currently provided to the MFS in the landowner reports of timber harvesting activities (confidential under 12 M.R.S. § 8885 (4)).  
Exception: Annual reporting on trends in silvicultural investments is not confidential by agreement of the Participant.
2. Maine management plan information that is not part of the annual Irving Woodlands Public Summary, such as:
  - a. Information regarding quantity and quality of the timber resource;
  - b. Information regarding sustainable and planned harvest levels; and,
  - c. Information regarding forest inventory and/or cover type and/or area distribution (confidential under 36 M.R.S. § 579).
3. Employee or contractor, supplier or customer lists or employee or contractor specific information (proprietary information).
4. Pay rate and/or cost information (proprietary information).



APPENDIX. State of Maine Criteria, Goals, and Outcomes of Forest Sustainability.

1. Criterion 1: Soil productivity

- a. Goal: Maintain site productivity.
- b. Outcome: Site productivity will be maintained or improved, and the area in roads and yards will be minimized.

2. Criterion 2: Water quality, wetlands and riparian zones

- a. Goal: Maintain or improve the chemical, physical, and biological integrity of aquatic systems in forested areas and riparian forests.
- b. Outcomes: Forest management in shoreland areas protects water quality and aquatic and riparian forest biodiversity.

3. Criterion 3: Timber supply and quality

- a. Goal: Improve the quantity and quality of future timber supply when appropriate.
- b. Outcome: The management strategy and harvest levels for the lands will increase the quality and quantity of the forest resource as appropriate in the medium and long term (20 - 50 years).

4. Criterion 4: Aesthetic impacts of timber harvesting

- a. Goal: Minimize adverse visual impacts of timber harvesting.
- b. Outcomes:
  - 1. The landowner will minimize visual impacts of harvests, roads, landings and other management activities.
  - 2. The landowner's planning staff are trained in and apply principles of visual quality management.
  - 3. The landowner identifies areas with high and moderate visual sensitivity, and takes appropriate measures to avoid significant visual impacts whenever necessary.

5. Criterion 5: Biological diversity

- a. Goal: Maintain biological diversity with healthy populations of native flora and fauna, forest communities and ecosystems.

b. Outcomes:

1. Management addresses the habitat needs of the full range of species present.
2. Maintain or manage for acreage in the late successional (LS) condition through management and protection.
3. Maintain a reasonable component of standing dead trees, live cull trees, and down logs across the landscape (not necessarily on every acre).
4. High Conservation Value Forests are properly identified and values are protected on the ownership.
5. Rare, threatened and endangered species habitats are properly identified, and the land is managed to protect the habitats and occurrences of rare, threatened and endangered species.
6. Important plant communities are properly identified, and the land is managed to protect important plant communities.
7. Deer wintering areas are properly identified and managed to maintain or improve their value as winter cover for deer.

6. Criterion 6: Public accountability

- a. Goal: Demonstrate sustainable forestry and build public confidence that forest management is protecting public values for the long-term.

b. Outcomes:

1. The landowner will maintain independent 3<sup>rd</sup> party certification with a nationally recognized sustainable forestry management certification system without major, unresolved non-conformances on managed lands.
2. A Licensed Forester within the company will review and approve the landowner's Forest Management Plan.
3. The landowner will employ Licensed Foresters who are actively involved in the management, planning and supervision of operations on the land.
4. All timber harvesting contractors will employ at least one person possessing Certified Logging Professional or Qualified Logging Professional certifications or the equivalent.



7. Criterion 7: Economic considerations

- a. Goal: Optimize benefits to the local and regional economy while also achieving the goals specified for the other criteria, to the extent allowed by market conditions.
- b. Outcome: The landowner's management activities support as vibrant and diverse a forest products industry as is practicable, including loggers, truckers, and production facilities.

8. Criterion 8: Social considerations

- a. Goal: The landowner supports the communities surrounding their lands and operations, and except where special circumstances dictate otherwise, the landowner continues to provide historic and traditional recreational opportunities that do not conflict with the landowner's objectives or values.
- b. Outcome: The landowner provides opportunities for appropriate historic and traditional recreational uses that do not conflict with the landowner's values or objectives.

9. Criterion 9: Forest Health

- a. Goal: The forest is healthy and vigorous with no serious insect infestations or disease outbreaks.
- b. Outcome: The landowner does what is prudent and practicable to monitor for and prevent and control insects, disease, and fire, consistent with good practice in the industry and assists MFS in forest health monitoring programs on the ownership.



## **15. Access Issues**

## 15. ACCESS ISSUES

In response to our discussion with LUPC Staff on the topic of ensuring access to Square Lake W, which currently requires travelling over a state-owned roadway to reach by vehicle, the Concept Plan has been revised to include provisions for a reserved parking area to serve development at Square Lake W for those owners who would reach that development area by boat. The reservation of space will be triggered when a public access point is created at Square Lake E/Yerxas. Construction will be triggered as part of the sale/development of lots at Square Lake W. In addition, the Plan also includes a provision for a boat landing to serve residents of Square Lake W who may chose to leave a vehicle at the aforementioned parking area.

- ***Text Changes in the Concept Plan***
  - **See changes proposed as part of Section 3 above.**
  
- ***Text Changes in Chapter 10***
  - **See changes proposed as part of Section 3 above.**

## **16. Service Provision**

## 16. SERVICE PROVISIONS

In response to our discussion with LUPC Staff on the topic of service provisions to the development areas (including emergency services and sewer extensions where applicable), we anticipate that these issues will be addressed at the time of application for subdivision approval.

- ***Text Changes in the Concept Plan***
  - No changes proposed to Concept Plan.
- ***Text Changes in Chapter 10***
  - See changes related to Road Access in Section 20 of this Submission.



## **17. Allowed Uses**

## 17. ALLOWED USES

In response to our discussion with LUPC Staff on the topic of allowed uses, the Concept Plan has been revised in the following ways:

### ***Amendments Related to P-WL Zones***

The provisions of the P-WL Zones have been revised to allow development of remote rental cabins and remote campsites without a Plan amendment provided a) the developer can demonstrate that the structures will be built in uplands and b) the developer obtains a zone amendment.

- ***Text Changes to the Concept Plan***

- **Amend pg. 4, D,3 as follows:**

Upon the filing of a notice with the Commission by Petitioners, any development area in the Plan area may be rezoned to M-FRL-GN if such development area has not been approved for development with any new development units since the effective date. See Sub-Chapter I, Section ~~10.08,A,3~~ 10.08,D,1.

- ***Text Changes to Chapter 10***

- **Revise 10.21,N,c as follows:**

~~(20) Remote campsites within a P-WL2 or P-WL3 subdistrict in compliance with Section 10.25,Q,1,d; and~~

~~(21) Remote rental cabins within a P-WL2 or P-WL3 subdistrict in compliance with Section 10.25.Q,1,d.~~

- **Revise 10.08,A as follows:**

~~3. Upon filing of a notice with the Commission by the landowner(s), an individual development area will be automatically rezoned to M-FRL-GN if such development area has not been approved for development of any new development units since the effective date.~~

- **Provide a new 10.08,D:**

### **D. Expedited Zone Changes**

The following revisions to zoning boundaries do not constitute a Plan amendment, provided they are in conformance with Section 10.08,A:

1. Upon filing of a notice with the Commission by a landowner, an individual development area will be automatically rezoned to M-FRL-GN if such development area has not been approved for development of any new development units since the effective date; and

2. Rezoning within a P-WL to develop a remote campsite or a remote rental cabin, provided a landowner can demonstrate that the project will be built on upland soils and in conformance with the Concept Plan.

- **Add a new provision as 10.22,A,3,c,28:**  
(28) Remote rental cabins
- **Add a new provision as 10.23,E,3,c,26:**  
(26) Remote rental cabins
- **Add a new provision as 10.23,L,3,c,28:**  
(28) Remote rental cabins

#### ***Amendments Related to Remote Camps***

Remote camps, which were originally added in the M-FRL-GN zone as a use allowed subject to standards, have been deleted as a use listing.

- ***Text Changes to the Concept Plan***
  - **No changes proposed**
- ***Text Changes to Chapter 10***
  - **Delete 10.22,A,3,b,20.**

#### ***Amendments Related to the term Marina***

Marinas will not be allowed in the D-FRL-RS zones. New provisions in the D-FRL-YX Zone address limit the number of slips and adds other review criteria under the special exception provision.

- ***Text Changes to the Concept Plan***
  - **No changes proposed**
- ***Text Changes to Chapter 10***
  - Add a new definition at 10.02,120.A:

Marina - A business establishment having frontage on navigable water and, as its principal use, providing for hire moorings or docking facilities for boats, and which may also provide accessory services such as boat and related sales and rentals, indoor and outdoor storage of boats and marine equipment, bait and tackle shops, boat repair, and marine fuel and other service facilities.

- Delete as a permitted use from the D-FRL-RS Zone (10.21,K3,d,3)
  - a. **Special Exceptions**  
The following uses, and related accessory structures, may be allowed within ~~D-RS subdistricts~~ D-FRL-RS Zone as special exceptions upon issuance of a permit from the Commission pursuant to 12 M.R.S.A. §685-A(10), and subject to the applicable requirements set forth in Sub-Chapter III, provided that the applicant shows by substantial evidence that (a) there is no alternative site which is both suitable to the proposed use and

reasonably available to the applicant; (b) the use can be buffered from those uses within the vicinity or area likely to be affected by the proposal with which it is or may be incompatible; and (c) such other conditions are met that the Commission may reasonably impose in accordance with the policies of the Comprehensive Land Use Plan:

- (1) Docking structures: New or expanded permanent docking structures;
  - (2) Hand-carry launches: Public hand-carry launches on Management Class 1 and 2 lakes;
  - (3) ~~Marinas~~
  - (4) Residential: Multi-family dwellings;
  - (5) Trailered ramps: Commercial and private public trailered ramps, ~~and public trailered ramps on Management Class 1 and 2 lakes~~; and
  - (6) Water-access ways.
- See Section 20 of this submission for additional changes related to Marinas in the D-FRL-YX Zone.

## **18. Recreational Boating Numbers**

## APPENDIX C: EVALUATION OF RECREATIONAL RESOURCES, SUPPLEMENT

### Outline

In response to our discussion with LUPC Staff on the topic of recreational boating numbers, this supplement to Appendix C, Evaluation of Recreational Resources, has been provided to clarify the methodology used to predict potential recreational impacts on the lakes within the Concept Plan area.

**Overview.** Appendix C, an Evaluation of Recreation Resources (Evaluation), was prepared to provide LUPC with a) an indication of the relative number of boats that are anticipated on each of the four lakes in the Fish River Chain of Lakes in the Concept Plan (i.e., Long Lake, Mud Lake, Cross Lake, and Square Lake) and the connecting thoroughfares, if the Concept Plan were fully implemented, and b) the effect that the additional boating use is expected to have on the recreational experience of those using these resources.

The analysis in the Evaluation is based upon the Recreation Opportunity Spectrum (ROS), a recreation inventory and management tool that was developed by the USDA Forest Service in the late 1970s for use on public lands in the western United States. In 2003, a team of Vermont researchers developed a revision of ROS aimed at recreational land holdings in the Northeastern United States. This program, called the ROS Northeast Guide (the Guide), was aimed at lands similar to the Petitioner's holdings in Aroostook County, i.e., smaller land holdings (smaller than those found in the Western US), and greater number of roads. In 2004, the Forest Service issued a refinement to the original ROS for water-based recreation planning called the Water Recreation Opportunity Spectrum (WALROS). The Evaluation used both the Guide and WALROS to evaluate impacts to the recreation experience.

**Summary.** This Amendment re-examines the assumptions that were used in the evaluation for both Cross Lake and Square Lake, based upon comments received by LUPC staff. The Amendment takes a more conservative approach in establishing a WALROS Class for the lakes and refines the number of boats that are anticipated to be on the lakes during peak times. While the estimated number of boats for both lakes changed slightly, the increase is in line with the Evaluation, which determined that the possible development allowed under the Concept Plan will not have an unreasonable effect on the experience characterizations for either lake.

### Cross Lake

Cross Lake has a surface area of 2,515 acres. The area north of the boat launch (approximately 80% of the lake, or approximately 2,000 acres) is heavily developed, with approximately 275 camps along the shoreline. The Evaluation characterized this part of the lake as Suburban (according to WALROS). Many, if not most, of these existing camps have docks, and it is assumed that they have some type of watercraft.

If all five of the residential development areas on Cross Lake were built, there would be an additional 125 units within easy walking distance of the lake. While very few of these new units would have water frontage, a limited number of water access sites and docking facilities would be available.

For purposes of determining the maximum number of boats to be expected on the lake during peak times (i.e., occurring on a warm, sunny day during a weekend or holiday) the Evaluation assumed that a) all residences had a boat and b) 15% of those households were using their boat on the water. This number is in line with a 2005 literature review of boating carrying capacity<sup>1</sup> in seven selected studies throughout the United States and Canada that found that the proportion of moored boats on a lake at any given time ranged from 3.6% to 25%.

Likewise, the Evaluation assumed that all new units would have boats, and that 15% of these boats would be on the water during this peak time. The following projection of boating activity (which is revised from the original Evaluation in Appendix C) also accounts for day-use boats that would gain access from the Cross Lake boat launch.

15% of 275 existing residences on lake	41 boats
15% of the 125 new units	19 boats
50% of boats from boat launch	10 boats
<b>Total anticipated boats on Cross Lake</b>	<b>70 boats</b>

These estimates are very conservative. It is unlikely that all residences in the new development areas would have boats, since there are so few water access sites. Likewise, the boat launch at Cross Lake typically has a small number of boats using the facility. And, as noted in the Evaluation, year-round residents report that on a busy July 4th there may be as many as 30 motorized boats (including jet skis) on the lake, plus another 5 canoes/kayaks. On a “typical” day during the summer, there may be as many as a dozen motorized boats on the lake. (Cheryl St. Peter, Cross Lake Resident. Personal Communication.)

Table 3, Range of Boating Coefficients, from WALROS (from the Evaluation and presented below) presents a range of “reasonable boating capacity coefficients,” which are defined as the number of water surface acres adequate for each recreational boat in a particular WALROS class. Lake users in each of the WALROS classes have an expectation of the number of boats that might be on the lake; once that number is exceeded, the perception of the lake may change. (For example, if a boater was on a lake in a Rural Natural area and the number of boats exceeded 50 acres/boat on a

<sup>1</sup> Hosley, Holly E., Techniques for Estimating Boating Carrying Capacity: A Literature Review, North Carolina State University, Department of Parks, Recreation & Tourism Management. For Catawba-Wateree Relicensing Coalition. August, 2005.

regular basis, it would start to take on the characteristics of a Rural Developed lake.)

The Evaluation assumed that the northern end of Cross Lake was in the Suburban WALROS Class, due to the density of the waterfront development. For lakes in the Suburban class, the coefficients range from 10 to 20 acres per boat, which translates into a coefficient range of 100 to 200 boats over the 2,000 acres in the northern portion of Cross Lake. At 70 boats (from chart on previous page), based upon the assumptions for boat ownership and use, this is well below the acceptable range for the Suburban class.

LUPC staff has suggested, however, that northern portion of Cross Lake may be considered a Rural Developed ROS class, which has a coefficients range from 20 to 50 acres per boat. This translates into a coefficient range of 40 to 100 boats over the 2,000 acres. At 70 boats, this is well within the acceptable range for the Rural Developed class.

<b>TABLE 3 RANGE OF BOATING COEFFICIENTS</b>		
<b>WALROS CLASS</b>	<b>Range of Boating Coefficients</b>	
	Low End (more boats)	High End (fewer boats)
<b>Primitive</b>	480 acres/boat	3,200 acres/boat (5 sq. miles)
<b>Semiprimitive</b>	110 acres/boat	480 acres/boat
<b>Rural Natural</b>	50 acres/boat	110 acres/boat
<b>Rural Developed</b>	20 acres/boat	50 acres/boat
<b>Suburban</b>	10 acres/boat	20 acres/boat

### **Square Lake**

Square Lake has a surface area of 8,150 acres. Its north half is considered Rural Developed, due to the number of camps along the western shoreline (19 Irving leased/licensed lots) and the northern shoreline (approximately 36 non-Irving properties). One additional camp is located at the point where the Cross Lake thoroughfare enters the lake. The southern half is almost completely undeveloped and was considered Rural Natural in the Evaluation.

The Evaluation estimated that there currently may be as many as 18 boats on the lake during peak times. However, this number is undoubtedly high, due to lack of convenient public access, lack of deep water access, limited number of residents, distance from the Cross Lake boat launch, obstructions in the Cross Lake thoroughfare, wind and wave conditions on the lake, and lack of service facilities.

The Concept Plan anticipates a maximum of 130 new units on the lake, divided between Square Lake W, Square Lake E, and Square Lake Yexas. In addition, the Concept Plan calls for a public or commercial trailered ramp to be constructed on the east side of the



lake in conjunction with development at Square Lake E or Yexas. The Concept Plan also allows a commercial marina at Yexas, which may have slips for up to 50 boats.

The assumptions used for Cross Lake (i.e., 15% of moored boats would be on the water at peak times) were also applied to Square Lake, even though it would likely result in higher use numbers than would actually occur.

The Evaluation's projection of boating activity on Square Lake has been revised to account for a) a decrease in the number of boats coming from the Cross Lake boat launch, partially due to b) boats that would use the new Square Lake boat launch, and c) boats launched from the existing Muscovic facility (private) at the northern end of the lake.

15% of 56 existing camps on lake	8 boats
Boats from Cross Lake boat launch	5 boats
Boats from Muscovic boat launch	5 boats
Boats from new trailered facility	15 boats
15% of 130 new units (total on lake)	19 boats
Boats for lease (estimate)	15 boats
<b>Total anticipated boats on Square Lake 67 boats</b>	

For purpose of this assessment, Square Lake is divided into the northern and southern half, due to their different ROS characteristics. The northern portion is considered Rural Developed. Table 3 (above) indicates that for lakes in this class, boating coefficients are expected to range from 20 to 50 acres per boat, which translates into a capacity of 80 to 200 boats for the roughly 4,000 acres in the north half of the lake. The southern half of the lake is classified as Rural Natural, which has a boating coefficient range from 50 to 110 acres per boat, or 36–80 boats for the 4,000 acres at the south half of the lake. Combined totals for the entire lake are 116 to 280 boats.

At 67 boats, based upon the assumptions for boat ownership and use, this is well within or below the acceptable range for both the Rural Developed and Rural Natural classes. As noted, it is highly unlikely that this number would ever be achieved, or that the boats would concentrate in either the northern or southern end.

LUPC staff suggested that the lake may have characteristics of less intense ROS classes, i.e., portions of the northern half could be considered Rural Natural, while portions of the southern half could be considered Semi-Primitive. The coefficients for these classes range from 36 to 80 boats for the northern half, and 8 to 36 for the southern half. Combined totals under this scenario range from 44 to 116 boats. At 67 boats, assuming they were split evenly between the north and southern halves of the lake, this is still within or below the acceptable range for Square Lake.

**Conclusion**

Based on this supplemental analysis for the Evaluation, additional boating pressure from the Concept Plan is not expected to have an unreasonable effect on the recreational experience on the Fish River Chain of Lakes in the Plan area.

## 19. Phosphorus

## 19. PHOSPHORUS

In response to our discussion with LUPC Staff and DEP Staff on the topic of phosphorus within the Plan Area a study has been prepared by Stantec to evaluate the potential phosphorus (“P”) export from development areas, particularly within the Cross Lake watershed. In addition, CD-3b and 3c has been eliminated, the number of lots within CD-3a (now identified as CD-3) has been reduced from 4 to 2, and CD-4 has been reconfigured and the number of lots has been reduced from 30 to 6. The following changes have been made to the Plan:

- **Changes to the Petition for Rezoning (Volume 1)**
  - Add two new documents - *Appendix J: Cross Lake Phosphorus Export Assessment and Evaluation of Phosphorus Export and Allocations for Fish River Chain of Lake Concept Plan*. See Attached.
- **Text Changes to the Concept Plan**
  - **Concept Plan, page 18, add a new provision at E,2,d:**

**Phosphorus.** The Concept Plan implements a phosphorus control plan to help protect the water quality of Cross Lake that accounts for an upper limit of up to 125 residential units in the five Cross Lake development areas, full build out of the two Community/Economic development areas in the Cross Lake watershed, impacts from current and anticipated forestry operations, including road building, and even possible future residential development in other areas within the Cross Lake watershed after the Plan expires. The phosphorus control plan adopts a budget set by Maine DEP for the total amount of phosphorus export to Cross Lake that cannot be exceeded from lands owned by Petitioners. The total phosphorus budget will be managed by Petitioners but carried out through permitting by LUPC and MDEP by allocating portions of the overall budget for Cross Lake to various residential and community/economic development areas in the Cross Lake watershed. Petitioners and developers will also have the option of mitigating phosphorus export by requiring steps to manage phosphorus, either within development areas (such as through the use of vegetated buffers) or in areas outside the development areas (such as restoration projects that reduce export from roads or other developed areas), so long as the total export numbers remain below the allocated budget for the Petitioner’s portion of Cross Lake as a whole. See Sub-Chapter IV, Section 10.35.

- **Text Changes to the Concept Plan**
  - **Amend 10.25,L,2,a as follows:**

Provision shall be made to limit the export of phosphorus from the site following completion of the development or subdivision so that the project will not exceed the allowable per-acre phosphorus allocation for the water body, determined by the Commission according to the Maine Stormwater Management Design Manual, Phosphorus Control Manual Volume II, Maine Department of Environmental Protection, 2016, “Maine Stormwater Best Practices Manual, Volume II, Phosphorus Control in Lake Watersheds: A Technical Guide to Evaluating New Development” Maine Department of Environmental Protection, 2008, and hereafter cited as the Phosphorus Design Manual. For subdivisions or other development in

development areas within the watershed of Cross Lake, compliance with this provision shall be satisfied pursuant to the provisions of Section 10.35.

- **Add a new provision at 10.35:**

### **10.35 PHOSPHORUS CONTROL FOR CROSS LAKE WATERSHED**

#### **A. Purpose.**

This section establishes a flexible program to manage total phosphorus export from development activities in development areas within the watershed of Cross Lake. This program therefore applies to development of subdivisions in the following development areas: Cross Lake A, Cross Lake B, Cross Lake C, Cross Lake D, Cross Lake E, CD-3, and CD-4. The purpose of the program is to protect water quality in Cross Lake by establishing a total phosphorus budget for these development areas and allowing for that budget to be allocated by the Petitioners to development areas or specific subdivisions, or both, provided that the total phosphorus export from such development does not exceed the overall total phosphorus budget for the lake. These provisions are intended to be applied in addition to all other applicable phosphorus regulations, including those established at Section 10,25,L for development projects regulated by the Commissioner and by the Site Location of Development Act for those project regulated by the Department of Environmental Protection. All calculations shall be performed in accordance with “Management Design Manual, Phosphorus Control Manual Volume II, Maine Department of Environmental Protection, 2016”, or as separately reviewed and approved by the Commission.

#### **B. Phosphorus Budget**

1. The maximum potential phosphorus export resulting from development of the development areas in the Cross Lake watershed shall be 55.46 pounds (the “Total Phosphorus Budget”). Once the Total Phosphorus Budget is reached, no more development of the Cross Lake development areas may occur absent the use of mitigation projects or phosphorus control measures, as described below.
2. Petitioner shall be responsible for managing development in the development areas to ensure that total phosphorus export from development does not exceed the Total Phosphorus Budget for Cross Lake. Petitioner shall maintain accurate records demonstrating compliance with this program for the life of the Concept Plan.

#### **C. Phosphorus Allocations**

1. Petitioner may allocate all or portions of the Total Phosphorus Budget to development areas and/or to individual subdivisions within development areas in any manner that is otherwise consistent with the provisions of the Concept Plan and these rules.

For example, options might include, but are not limited to:

- Petitioner could choose to allocate the entire the Total Phosphorus Budget to only some of the Cross Lake development areas, or to only certain subdivision projects, thus leaving other development areas undeveloped; or
  - Petitioner could choose to allocate a portion of the Total Phosphorus Budget to each development area.
2. When development rights to land in a development area are conveyed, whether by sale, lease, or otherwise, or the land is proposed to be developed, Petitioner shall allocate a specific upper limit for phosphorus that may be exported from the affected land area, measured in pounds of phosphorus per acre per year, known as an “allocation.” Each allocation shall be subtracted from the Total Phosphorus Budget for Cross Lake.
- a. The allocation shall be clearly specified at the time of conveyance, if applicable, and submitted as part of any subdivision or other development application to the Commission and MaineDEP sufficient to allow the Commission to track compliance with this rule.
  - b. The allocation shall be imposed as a condition of approval in any subdivision or other development approval issued for the affected land.
  - c. If Petitioner can demonstrate to the Commission that not all of the allocation for a particular development area was used in a given subdivision project, the remaining allocation will be added back to the Total Phosphorus Budget.
  - d. Allocations may be traded within or between development areas located in the Cross Lake watershed, provided Petitioners and the Commission are notified at the time of the conveyance of the quantity of the allocation, the development areas affected, and the parties involved in the transaction.

#### D. **Mitigation Projects**

The Total Phosphorus Budget may be increased through certified mitigation projects that generate mitigation credits by reducing existing sources of phosphorus export. Examples of mitigation projects include, but are not limited to, restoring and revegetating existing forestry roads and improving stormwater drainage for existing forestry roads.

1. Mitigation projects may be conducted by Petitioners or other parties anywhere in the Cross Lake watershed and shall be measured in pounds per acre of phosphorus export that have been eliminated from the watershed by the mitigation project on a 1:1 basis.
2. Mitigation projects must be approved by the Commission, in input from MaineDEP, in advance and fully implemented before the Commission will certify the mitigation credits in writing.

3. Once mitigation credits have been certified by the Commission, the Total Phosphorus Budget shall be increased by the number of mitigation credits. These credits may then be allocated pursuant to subsection C,1 above.

**E. Phosphorus Control Measures**

The allocation for a subdivision project may be increased through implementation of phosphorus control measures that reduce phosphorus export from the project. Examples of phosphorus control measures include, but are not limited to, the use of vegetated buffers or level lip spreaders to eliminate channelized flow.

1. As part of the subdivision or other development review process, an applicant may propose to implement phosphorus control measures to reduce phosphorus export from a given project, known as “phosphorus reductions.”
2. Phosphorus reductions shall be measured in pounds per acre of phosphorus export that have been eliminated from the watershed by the phosphorus control measures on a 1:1 basis.
3. Phosphorus control measures that generate phosphorus reductions shall be required as a condition of any subdivision or other development approval to increase the allocation to the subdivision or site development.
4. The design and maintenance of phosphorus control measures sufficient to generate phosphorus reductions shall be subject to the requirements of Section 10.25,L,4.

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To:	Jeff Dennis, Biologist Maine DEP	From:	Pat Clark Scarborough, Maine
File:	Irving Fish River Concept Plan	Date:	April 9, 2018

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**REFERENCE: CROSS LAKE PHOSPHORUS EXPORT ASSESSMENT****Purpose**

The purpose of this memo is to provide additional analysis on the potential phosphorus export from future uses within the area encompassed by the Fish River Lakes Concept Plan (Plan Area). For this exercise we have evaluated the phosphorus export that could be generated from two main sources:

- anticipated development that would be permitted within areas identified as appropriate for future development within the Plan Area (Development Areas or Development Zones), and
- potential future unregulated, non-Concept Plan activities (e.g. new logging roads, upgrades to existing roads, and additional house lots within the watershed after the plan expires).

Previous findings from Maine DEP generally conclude that future development within the Plan Area could reasonably occur without long term impacts to the lakes due to the fairly large lake phosphorus budgets and proposed limited levels of development and associated P export, except for on Cross Lake where existing elevated phosphorus related impacts are an area of concern. Therefore, this analysis primarily focuses on the Cross Lake watershed to ensure that future permitted development can be achieved without the need for more complicated treatment measures, BMPs, lot restrictions, off-site mitigation or long term maintenance requirements, which may not be practical in a rural development setting.

Overall, our analysis concludes there is a reasonable likelihood that water quality within the Cross Lake watershed will be maintained. In addition, that the total export from permitted development within the Cross Lake watershed will not exceed the phosphorus budget for the lake while still allowing some reserve budget capacity for off-site and unregulated activities not associated with the development areas.

**Background**

This memo refers to the December 7, 2017 Technical Review Memorandum (DEP memo) from Jeff Dennis and Dave Waddell of the Maine Department of Environmental Protection (DEP), regarding the Irving Fish River Chain of Lakes Concept Plan (Concept Plan).(See Attachment 1). The DEP memo was written “to assess the feasibility of being able to develop the numbers of community/economic development lots and residential units proposed for the development areas included in the proposed Concept Plan without exceeding the per acre phosphorus allocations.”. In addition to information contained in the DEP memo, this memorandum includes and addresses related information subsequently discussed with DEP staff, Land Use Planning Commission (LUPC), Terrence DeWan & Associates (TJD&A), The Musson Group, Irving Woodlands, LLC (Irving) and Stantec.

The DEP memo specifically addressed the potential phosphorus (P) export from each of the proposed development areas in the Concept Plan and provided discussion on related information in the Concept Plan. The Concept Plan includes 4 community/economic development areas and 11 residential development areas within the Fish River Chain of Lakes watersheds of Long Lake, Mud Lake, Cross Lake and Square Lake. Irving and its related corporate entities, Aroostook Timberlands, Allagash Timberlands, and Maine Woodlands Realty



(collectively referred to as “Irving”) currently own between 40% to 90% of all land within the Townships (TWP) where development would be allowed for each of these lake watersheds.

Calculations for P export were provided in the DEP memo for each development as determined by the DEP methodology, utilizing the per acre allocation for each TWP portion of the lake watersheds. The DEP made assumptions for a range of development densities for each of the community/economic development areas and residential subdivisions, both with or without deeded restrictions or Best Management Practices (BMPs) at each area. The DEP calculations estimated the amount of P export from each area/scenario. The calculated P export(s) based on these assumed development scenarios were compared against the allocated per acre Project Phosphorus Budget (PPB) for each area, dependent upon the development boundaries and size (acres) of each development parcel and included some basic assumptions for access roads and parking.

The findings of the DEP memo generally conclude that the developments that may be allowed within the Concept Plan are feasible without long term impacts to the lakes. This is mostly a factor of fairly large lake phosphorus budgets available well beyond the estimated levels of P export for each of the lakes, except for Cross Lake. The memo expresses a need to manage potential development within the Cross Lake watershed by limiting the PPB at each area to less than the allowable increase in Phosphorus loading which will support long term lake health and water quality.

### **Phosphorus Export**

The DEP memo evaluated each development area using the per acre phosphorus allocation methodology for each TWP’s watershed portion contributing to each lake where potential development will be allowed. This method calculates a PPB for each development area according to the proposed project area and the individual per acre phosphorus allocation factor for each contributing subwatershed, as provided in Appendix C of the MDEP Phosphorus Control Manual (Manual). This evaluation by DEP was intended to provide a basis for determining feasibility of the possible developments in the Concept Plan and estimated how much P export would result from each area according to typical assumptions described in the Background section above.

For this assessment, each of the residential and community/economic development areas within the Cross Lake watershed were initially evaluated to assess the P export associated with the levels of development that would be possible. Assumptions were made regarding typical residential development based on sketches and descriptions provided by TJD&A for each area (Attachments 2, 3). These assumptions included estimated areas of typical lot coverage from roofs, driveways, septic systems and lawns, new access roads, upgrades to existing roads, common areas, number of potential lots, soils, and limitations due to maximum potential development based on an overall unit cap for Cross Lake of 125 units. The community/economic development areas included assumptions for the maximum developed coverage that would likely occur on each lot. The P exports were initially determined according to these assumptions and Table 3.1 from the MDEP Manual.

This initial approach was later revised for the residential areas based on additional conversations with DEP. DEP recommended that the export from residential house lots should be based on the more conservative export values provided in Table 3.2 of the *Manual for Single Family Residential Lots*. Although it is reasonable to assume that residential lots in this part of Maine would most likely be described as “camp lots,” rather than the much larger development footprints of a typical “single family” house lot that may occur elsewhere in the state, it was agreed that the use of Table would be used to calculate conservatively the export from the residential lots. As a result, the house lot exports increased by approximately 65%, which requires larger phosphorus budgets for each of the residential development areas.

While the per acre phosphorus allocation method is standard for assessing P impacts to Maine lakes for development projects, recent discussions with DEP staff resulted in recommendations to evaluate the Concept Plan using an overall combined P budget for each lake, rather than evaluating each area based on the per acre phosphorus allocations associated with the actual project areas allotted for each development parcel. Because of the unique character of this Concept Plan, which involves extremely large landholding parcels that may encompass large parts of, or even the entire subwatersheds within the TWPs of the lakes involved, the DEP determined that it is reasonable and more practical to establish an overall combined phosphorus budget for each

lake (PB) that would be proportional to the percentage of each total direct lake watershed occupied by the Concept Plan and owned or controlled by Irving. This Concept Plan includes over 51,000 acres, of which only 4% will be rezoned for development. This unique approach will allow Irving to manage how these overall lake phosphorus budgets should be applied or distributed within the Concept Plan areas for each lake and associated development areas.

Based on this concept of providing a total combined phosphorus budget for each lake, the individual project PPB allocations for all development areas within each lake watershed can be determined. The PPB for each area will be assigned so that the aggregate sum of all phosphorus budgets given to each development area will not exceed the PB for each lake, after considering any development limitations based on residential unit caps within each lake watershed, and such that each development area can be fully developed based on the “full-build” PPB until the unit cap is reached and, after which, no further residential development can occur within the lake watershed, unless other measures are taken to reduce P export from other activities in the watershed.

### **Cross Lake Phosphorus Budget**

Pursuant to DEP’s calculations, Cross Lake has an overall PB of 82.19 lbs P/yr for land within the watershed that is owned by Irving. This PB is available and applies to all of the development areas draining to Cross Lake. It will be up to Irving, with the oversight and approval of LUPC, to manage this budget and assign a PPB to each development area to allow for possible levels of development. Each development area will have a maximum PPB allocation to allow for up to the “full build,” or maximum number of lots allowed within each development area, based on the overall allowable distribution of residential lots, totaling 185 lots. The aggregate total of developed lots for the watershed, however, will be capped and limited to 125 lots, and thus Irving will have to manage development of the individual development areas so that they are not all fully built out. The result is that the total export from all residential and community/economic development lots will not exceed the total PB for Cross Lake. This will assure that any area can be fully developed according to the zoning provisions regarding the number of residential lots that can be created at each area, provided that the 125 unit cap will not be exceeded within the Cross Lake Concept Plan area.

The DEP memo asserts that the goal of the phosphorus methodology is to provide protection sufficient to avoid an increase in the lake's trophic state, and to distribute the burden of this protection over the watershed and over time, thus allowing a sustainable level of development potential within any watershed. This works well in typical lake watersheds where most of the new sources of phosphorus are associated with development activities that are subject to regulations and required to meet some version of the lake water quality standard. But in watersheds with other existing and future phosphorus sources generated from off-site activities that may account for a portion of the threat to the lake's water quality, the Phosphorus Standard is not likely to provide sufficient protection, unless some of the allowable increase in phosphorus load (PB) is reserved for these unregulated or under-regulated sources. In fact, the DEP memo states that the principal source of P export to Cross Lake is from non-Irving agricultural activities located primarily in the Dickey Brook watershed, and that runoff from roads and harvesting operations also contributes to the potential degradation of the lake water quality status. With the recognition that there is potential for future P sources not associated with development activities within the Concept Plan area, but with unregulated timber harvesting road construction, a portion of the PB for Cross Lake will be reserved for future harvesting activity and for other potential uncontrolled non-Concept Plan sources.

Since Irving may sell the development areas to developers or other entities in the future, rather than acting as the developer, the DEP also suggested that Irving should decide up front how much of the Concept Plan's phosphorus budget should be allocated and assigned to each development area. These PPB budget numbers would then be included in the zoning, sales agreement and/or any deed restrictions so the buyers would know the potential for development in the area they are purchasing, and the DEP and LUPC would know what the phosphorus budget is for each development parcel. The PPB for each project would be tracked, as development occurs within the Plan area, along with the total unit count, to assure that the Cross Lake PB and/or residential unit cap will not be exceeded.

Although not anticipated, or necessary to meet the assigned full-build PPB, some of these areas could have lots with treatment measures and/or restrictions, and some with none, or any combination thereof at the time of a future development proposal. The many potential issues associated with such restrictions, treatment BMPs, or stormwater management structures that may be proposed should be considered and potential problems of design, construction, long-term maintenance, and the responsibility for that maintenance would need to be worked out. Monitoring, inspecting, policing, and lot clearing maximums or BMP maintenance requirements have caused problems in the past, especially in the Unorganized Territories, and are usually difficult to correct or mitigate once the lot has been cleared or site construction completed. Such restrictive and specific requirements to establish predetermined or prescribed limitations for future and unknown development proposals is beyond the scope and intent of the Concept Plan, which is to provide adequate zoning to accommodate future economic growth and development in the area without adversely impacting water quality.

As a result, the P export associated with potential lot development for each area has been evaluated for full build-out without any such restrictions, covenants, BMPs or mitigation requirements. This has been done to fit strictly within the assigned PPB for each of these areas to assure that the levels of development anticipated in the Concept Plan can be achieved.

**Conclusion: Residential and Community Development.** The total export from all residential and community development within the Cross Lake watershed, after considering the residential unit cap, will not exceed the PB for the lake while still allowing some reserve budget capacity for off-site and unregulated activities not associated with the development areas. As a result, the water quality of the lake will be protected.

The total export of phosphorus is calculated as described.

### **Cross Lake Phosphorus Export**

#### Assumptions

Cross Lake watershed has a Phosphorus Budget (PB) of 82.19 lbs P/yr for all land owned by Irving.

The Concept Plan includes 2 community/economic development areas and 5 residential development areas within the watershed of Cross Lake

Assumptions used for this assessment are described in the narrative and shown on lot sketches. Both are included in Attachments 2 and 3.

All lots are forested under existing conditions.

Soils are as shown on the lot sketches per Natural Resources Conservation Service (NRCS) soils mapping. Soils are assumed to have drainage characteristics according to the NRCS Hydrologic Soils Groups (HSG), which may affect the export of phosphorus from vegetated areas.

Phosphorus export values were taken from Tables 3.1 and 3.2. of the MDEP Manual.

Refer to Pre-treatment and Post-treatment Phosphorus Export Calculations worksheets in Attachment 4 for detailed calculations.

#### P Export for Lots

Residential lot export is **0.29** for HSG C soils and **0.24** for HSG B soils according to Table 3.2 for Single Family Lots with no restrictions on cleared areas or driveway/parking area, and without any buffers.

Community/economic development areas are evaluated based on values provided in Table 3.1 for Commercial Development with no restrictions on fertilizer use, no buffers, and no restrictions on impervious surfaces or ditch design, and using the High Export Option.

P Export for Roads

Export from roads is evaluated based on values provided in Table 3.1 with no restrictions on impervious surfaces or ditch design, and using the High Export Option and assuming (HSG C soils), as follows:

Three types of roads are assumed:

1. New roads will be 20' in width, in a 40' wide clearing (**0.108 lb/100 LF**)
2. Upgraded roads from 12' in width to 20', with a clearing that goes from 24' to 40' in width (**0.054 lb/100LF**)
3. Existing roads suitable for residential development in terms of their current width and condition (**0lb**)

Common areas are separate from residential lots and generally near the water (HSG C soils assumed). These areas are evaluated based on assumed lot coverages and on values provided in Table 3.1 for Commercial Development with no restrictions on fertilizer use, no buffers, and no restrictions on impervious surfaces or ditch design, and using the High Export Option.

Areas A, B, C and D

Buildings	400 SF	(0.0092ac) x (.5)	0.005 lb
Parking/Drive/Paths	5,000 SF	(0.1148ac) x (1.75)	0.201 lb
Lawn/grass Area	7,000 SF	(0.1607ac) x (.6)	0.096 lb
Canopy Clearing	12,400 SF	(0.2847ac)	<b>0.302 lb</b>

Area E

Buildings	800 SF	(0.0184ac) x (.5)	0.009 lb
Parking/Drive/Paths	8,000 SF	(0.1837ac) x (1.75)	0.322 lb
Lawn Area	14,000 SF	(0.321ac) x (.6)	0.193 lb
Canopy Clearing	22,800 SF	(0.2847ac)	<b>0.524 lb</b>

. Residential Areas

Cross Lake A (Option 1)

110 acres			
30 lots x 0.29 lb/lot			8.70 lbs
1,000 ft new roads	1,000/100 x 0.108 lb/100 LF		1.08 lbs
1,400 ft upgraded roads	1,400/100 x 0.054lb/100 LF		0.76 lb
Common area			0.30 lb
<b>Total export-Cross Lake A(1)</b>			<b>10.84 lbs*</b>

(\*Cross Lake A Option 1 is not included in totals)

Cross Lake A (Option 2)

110 acres			
30 lots x 0.29 lb/lot			8.70 lbs
2,000 ft new roads	2,000/100 x 0.108 lb/100 LF		2.16 lbs
1,400 ft upgraded roads	1,400/100 x 0.054lb/100 LF		0.76 lb
Common area			0.30 lb
<b>Total export Cross Lake A(2)</b>			<b>11.92 lbs</b>

Cross Lake B (HSG B soils)

91 acres	
30 lots x 0.24 lb/lot	7.20 lbs
Existing roads	0.00 lb
Common area	<u>0.30 lb</u>
<b>Total export Cross Lake B</b>	<b>7.50 lbs</b>

Cross Lake C

57 acres	
30 lots x 0.29 lb/lot	8.70 lbs
3,550 ft new roads 3,550/100 x 0.108 lb/100 LF	3.83 lbs
2,150 ft upgraded roads 2,150/100 x 0.054lb/100 LF	1.16 lbs
Common area	<u>0.30 lb</u>
<b>Total export Cross Lake C</b>	<b>13.99 lbs</b>

Cross Lake D

187 acres	
35 lots x 0.29 lb/lot	10.15 lbs
1,300 ft new roads 1,300/100 x 0.108 lb/100 LF	1.40 lbs
Common area	<u>0.30 lb</u>
<b>Total export Cross Lake D</b>	<b>11.85 lbs</b>

Cross Lake E

163 acres	
60 lots x 0.29 lb/lot	17.40 lbs
10,000 ft new roads 10,000/100 x 0.108 lb/100 LF	10.79 lbs
1,400 ft upgraded roads 1,400/100 x 0.054lb/100 LF	0.76 lb
Common area	<u>0.52 lb</u>
<b>Total export Cross Lake E</b>	<b>29.47 lbs</b>

**Total export: Residential House Lots only, Full-Build (185 units): 52.15 lbs**

**Total export: Full-Build: Residential Lots, Common Areas, Roads (185 units): 74.73 lbs**

**Community/Economic Development areas**

Cross Lake CD-3

Total area: 11 acres

Maximum number of lots: Assume 2 (eliminated development areas CD-3b and CD-3c and reduced CD-3a [now CD-3] to 2 lots - a reduction from initial proposal of 12 lots total).

Proposed zoning for M-FRL-GN district allows 2,500 SF buildings, with ability to go higher as a special exception (Existing St. Peters Store [not in Concept Plan area] occupies approximately 4,700 SF).

For purposes of this exercise assume:

Roof: 5,000 SF (0.1148ac) x (.5)	0.06 lb
Parking: 5,000 SF (0.1148ac) x (1.75)	0.20 lb
Lawn: 7,000 SF (0.1607ac) x (.6)	<u>0.10 lb</u>
	<b>0.36 lb/lot</b>

2 lots x 0.36 lb/lot	0.72 lb
No additional roads; buildings front on Route 161.	<u>0.00 lb</u>
<b>Total export Cross Lake CD 3</b>	<b>0.72 lb</b>

Cross Lake CD-4

Total area: Approximately 62 acres

Maximum number of lots: Assume 6 lots (a reduction from initial proposal of 30 lots)

Concept Plan limits development to half of available acreage (31 acres)

Proposed zoning for GN district allows 2,500 SF buildings with greater footprint allowed by Special Exception; for purposes of this exercise, assume 5,000 SF buildings.

New road from Route 161: 1,400 LF: 24' width, HSC B soils, 50' clearing (road is wider, since it will be for commercial use).

Roads

33,600 sf (0.7713 ac) x (1.75) = **1.35 lbs** + 36,400 sf (0.8356 ac) x (.4) = **0.334 lb** = **1.684 lbs**

Lots

Soils: 4 lots HSG B, 2 lots HSG C

For purposed of this exercise assume:

Roof:	5,000 SF	(0.1148 ac) x (.5)	0.057 lb
Parking:	5,000 SF	(0.1148 ac) x (1.75)	0.201 lb
Lawn:	7,000 SF	(0.1607 ac) x (.6)	<u>0.096 lb</u>
			<b>0.354 lb/lot*</b> (HSG C soils)

\*0.322 lb/lot adjusted for HSG B soils

4 lots x 0.322 lb/lot	1.290 lbs
2 lots x 0.354 lb/lot	0.708 lb
Roads	<u>1.684 lbs</u>
<b>Total export Cross Lake CD-4</b>	<b>3.682 lbs`</b>

**Cross Lake Export Summary**

The primary objective of this assessment is to balance the Cross Lake PB by limiting or restricting the levels of potential development that will be allowed in the Concept Plan, and at the same time, consider any contributing background impacts from existing and future uncontrolled sources of export, to ensure that the possible development of all of the areas can be achieved without the need for more complicated treatment measures, BMPs, lot restrictions or off-site mitigation and long term maintenance requirements. Several contributing factors were evaluated in order to achieve this objective.

For each of the residential areas, the assigned individual PPB will be sufficient to allow for the full build-out for all of the lots considered for each area, including new roads or upgrades of existing roads that may be needed for access. While each area may be fully constructed according to the number of lots allowed by the proposed rezoning, an overall unit cap will limit the total number of new units that can be built to 125. This will ultimately limit the associated P export from all areas combined, to that generated from 125 lots or less. Although this may restrict or prohibit the level of development at some areas, it is likely that some of the areas may not be fully developed and thus allow some development at all of the residential areas.

In order to provide assurance that the PPE from the residential areas will not exceed the assigned PPB, the calculated export was revised to include higher export values (Table 3.2) associated with conventional house lots, which is 65% higher than the "camp lot" exports initially considered in the plan (per Table 3.1). All of the PPE was calculated using the high export options, with no requirements for restrictions, BMPs or mitigation. This provides a comfortable and conservative PPB for each residential area and allows some flexibility for a



potential developer to overcome any restrictive site limitations or access issues by having the option to consider such restrictions, buffers or BMPs, if necessary, and with the approval of the LUPC.

Since the higher export values associated with the residential areas have the effect of reducing the available PPB for the community/economic development areas, it was necessary to reconsider the development potential for these areas. Three commercial areas rezoned D-FRL-GN were included in the May 2017 submittal for the Concept Plan identified as “CD-3a”, “CD-3b” and “CD-3c. These areas are located near the intersection of Route 161 and Route 162. Each of these development areas allowed up to 4 lots for a total of 12 community/economic development lots on a combined area of 28 acres. In order to reduce the PPE to acceptable levels from these areas to meet the overall lake PB, the number of lots allowed has been significantly reduced to only 2 lots within the area originally identified as CD- 3a. CD-3b and CD-3c have been eliminated and this remaining 11-acre parcel (CD-3a) has been renamed as CD-3. The area zoned D-FRL-CI included in the Concept Plan identified as “CD-4,” has been rezoned to D-FRL-GN and re-sized and reduced to approximately 62 acres. The number of lots for this area has been substantially reduced from 30 to 6 lots. The net effect is a reduction in the number of community/economic development lots in the Cross Lake watershed from 42 potential lots to 8 lots. This reduction will significantly reduce the PPE and greatly improve the ability to meet the PB for Cross Lake.

Calculations for total P export to Cross Lake (PE) are as follows:

#### **Cross Lake Export for all Concept Plan Developments w/ Residential Unit Cap**

Total P export (full-build) from all residential areas (does not include A-1) = 74.73 lbs (185 units)

Maximum residential unit cap = 125 units  
 $(52.15 + 20.86) \times (125/185) + 1.73 = \mathbf{51.06 \text{ lbs}}$  (max. export with cap)

This assumes that approximately 2/3rds of the roads envisioned for the full build-out scenarios would be constructed to achieve the residential unit cap of 125 units.

Total P export from all community/economic development areas

$0.72 \text{ lb (CD-3)} + 3.68 \text{ lbs (CD-4)} = \mathbf{4.40 \text{ lbs}}$

**Total P export to Cross Lake for all developments (PE) = 55.46 lbs**

Total Phosphorus Budget (PB) to Cross Lake = 82.19 lbs/yr

$\text{PB} - \text{PE} = 82.19 - 55.46 = \mathbf{26.73 \text{ lbs (32.5\%) = budget reserved for unregulated sources}}$

#### **Non-Concept Plan Activities**

Refer to Summary for Non-Concept Plan; Unregulated Future Activities in Attachment 5 for detailed calculations.

As described above, Irving owns or controls large landholdings that encompass large parts of the subwatersheds within the TWPs of the lakes involved in the 51,000 acre Concept Plan area. For example, Irving owns approximately 15,395 acres within the Cross Lake watershed, approximately 41% of the entire watershed. The 5 residential and 2 remaining community/economic development areas in the Cross Lake watershed total approximately 680 acres, which is about 4.5% of Irving’s land in the watershed. The actual development footprints assumed within each of these areas is significantly smaller than the total area sizes due to accessibility, slopes, soils and developable lot sizes. As a result a very small portion of the watershed will be subject to development under the Concept Plan. The remaining land outside of these designated development zones will be managed for commercial forestry, where anticipated development activities are primarily construction or maintenance of forestry management roads.

For this reason, to protect future water quality the DEP has requested that the Plan consider potential existing and future P sources not associated with development activities within the Concept Plan area for Cross Lake, including unregulated forestry management road construction. LUPC has also suggested that a small P budget should be included to allow for exempt residential lots that may be constructed in the future, after the Concept Plan expires. Therefore, a portion of the PB for Cross Lake will be reserved for future harvesting activity and other potential uncontrolled future non-Concept Plan sources.

In order to assess the other sources of P in the Cross Lake watershed not associated with the Concept Plan development, we evaluated the potential for the construction of 7.9 miles of new logging roads and upgrades to about 2.1 miles of roads that are included in Irving’s long-term forest management plan for the Cross Lake watershed. Irving also plans to decommission approximately 2.0 miles of logging roads. Although no mitigation or credit is taken for these, it is important to note that they will no longer continue to export P once they have revegetated.

Since the logging roads are all located in managed forestry areas that do not have any other associated developments, driveways or connected impervious areas, they are considered as “linear”. In addition, since they traverse undeveloped land that is often several thousand feet, and even miles, from the lake, and are surrounded by naturally vegetated or revegetated terrain that will provide significant buffering from P export to the lake, it is reasonable to assume that only 75% of the road surface and 50% of the cleared area will export phosphorus to the lake, generally in accordance with LUPC Chapter 10.25.3.d. (quoted below):

***d. Exception for Linear Portions of a Project.** For a linear portion(s) of a project, runoff control may be reduced to no less than 75 percent of the impervious area and no less than 50 percent of the developed area that is impervious, landscaped or otherwise disturbed.*

In addition we have assumed the addition of 8 future house lots that could be developed after the Concept Plan expires. While Irving has no plans to sell parcels of land outside of the residential development areas, TJD&A identified these locations on existing roads that are either within 0.5 mile of the lake, on the thoroughfare, or in other desirable locations, and thus are a reasonable prediction of future development potential.

The estimated export contribution for these unregulated uses are calculated as follows:

Forestry Management Roads (future)

New roads are assumed to be 14 feet wide with 10' of clearing on both sides. Upgraded roads are assumed to be increased from 12 to 14 feet wide and no additional clearing. Adjustments were made for runoff from linear roads impervious area (0.75) and cleared area (0.50) per LUPC Chapter 10.25.3.d.

17 possible new logging roads	
41,750 LF x 14' (584,500 sf; 13.42 ac) x 1.75 x 0.75 =	17.61 lbs
41,750 LF x 20' (835,000 sf; 19.17 ac) x 0.6 x 0.5 =	5.75 lbs

3 road upgrades	
11,100 LF x 2' (22,200 sf; 0.51 ac) x 1.75 x 0.75 =	0.67 lb
<b>Total P export from all roads =</b>	<b>24.03 lbs</b>

Exempt house lots (future)  
 8 new single family house lots = 8 x 0.29 = **2.32 lbs**

**Total Cross Lake P Export From unregulated Non Concept Plan Sources = 26.35 lbs\***

\*Totals do not include 2.0 miles of forestry roads to be abandoned and revegetated (approximately 5.21 lbs of existing export)



**Conclusion**

For this assessment we have evaluated the maximum phosphorus export that could be generated from anticipated development that may be allowed within the Concept Plan in the Cross Lake watershed. In addition, we evaluated potential future unregulated, non-Concept Plan activities to account for new logging roads and upgrades and additional house lots within the watershed.

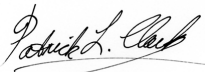
The overall Cross Lake PB for Irving’s land allocated to these combined activities is 82.19 lbs/year. Approximately 55.5 lbs/year export has been allocated by DEP to be distributed to all of the Cross Lake development areas for residential and community/economic development areas. By limiting the combined PPB available for Concept Plan developments to the maximum PPE calculated for the developed areas, a reserve PB of 26.7 lbs/year is set aside for any unregulated activities for long term protection of the Cross lake watershed for all potential sources of P export anticipated for the life of the Concept Plan and beyond. The potential unregulated sources of P export have been estimated to be 26.4 lbs/year, which is less than the reserve PB. The total combined export from all sources is 81.9 lbs/year, which meets the overall PB for Cross Lake.

Cross Lake P Budget for Irving Land (PPB):	82.19 lbs/year
– P Export from Residential / Community Development:	55.50 lbs/year
Reserved PB for unregulated activities:	26.70 lb/year
Anticipated P export from roads / houselots:	26.40 lb/year

**For acceptable site development(s), the Post-PPE needs to be smaller than the PPB for the parcel(s). Based upon the calculations presented in this report, it appears that the level of development envisioned in the Concept Plan is feasible and will be protective of water quality in Cross Lake.**

The Concept Plan for Cross Lake development meets the goal of the phosphorus methodology to provide protection from degradation of the lake water quality by limiting all potential development in the watershed sufficient to avoid increase in the lake's trophic state, with no visible effects, and distribute the burden of this protection over the watershed and over time.

**STANTEC CONSULTING SERVICES INC.**



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April 9, 2018 Jeff Dennis, Biologist

#### Attachment

- c. Attachment 1: Maine DEP Technical Review Memorandum, December 7, 2017
- Attachment 2: Cross Lake Narrative (TJD&A), 03/02/18
- Attachment 3: Cross Lake Sketches (TJD&A), 03/07/18
- Attachment 4: Phosphorus Export Calculations worksheets
- Attachment 5: Summary for Non-Concept Plan; Unregulated Future Activities
- Attachment 6: Potential House Lot Locations (TJD&A), 04/10/18

(NOTE: Cross Lake Narrative and Cross Lake Sketches depict initial concepts previously reviewed by DEP and are the basis for this assessment, but may not indicate current assumptions, concepts, or lot arrangements)

# **ATTACHMENT 1**

Maine DEP Technical Review Memorandum, December 7, 2017



PAUL R. LEPAGE  
GOVERNOR

PAUL MERCER  
COMMISSIONER

**TECHNICAL REVIEW MEMORANDUM**  
*Bureau of Water Quality*

**TO: Billie J. MacLean, Project Manager – Land Use Planning Commission**  
**FROM: Jeff Dennis, Biologist and David A. Waddell, Asst. Env. Eng. -- Division of Environmental Assessment, Bureau of Water Quality**  
**DATE: December 7, 2017**  
**RE: Irving Fish River Concept Plan**

**Purpose:**

The original purpose of this memorandum was to assess the feasibility of being able to develop the number of commercial and residential lots proposed for the development areas in the proposed Fish River Concept Plan without exceeding the per acre phosphorus allocations, as most recently estimated by DEP, for each of the lakes in question. This analysis, which is still included, suggests that, at least for the Cross Lake development areas, there would be insufficient allocation. Given this, a section has been added providing background information about the lakes, the issues, the options considered for limiting phosphorus additions to the lakes and some of the history of development and consideration of these options.

**Background:**

**Water Quality.** The water quality standards for Maine lakes require that they have a stable or decreasing trophic state, subject only to natural fluctuations, and must be free of culturally induced algal blooms that impair their use and enjoyment. Of the four lakes included in the proposed plan (Long Lake, Mud Lake, Cross Lake and Square Lake), only Cross Lake fails to meet these standards. Cross Lake has for many years supported mid-summer blue green algal blooms that reduce measured secchi disc transparency, in most years, to 2.0 m or less. Long Lake is a productive lake that, in past years has supported algal blooms, but is currently exhibiting a promising trend of decreasing trophic state. Mud Lake is a productive lake with an apparent stable trophic state, though little water quality data has been collected on the lake in recent years. Square Lake is a moderately productive lake with a stable trophic state.

While the principle reason for impairment of Cross Lake is inputs of phosphorus from agricultural activities located primarily in the Dickey Brook watershed, runoff from roads and harvesting operations also contribute to the problem. Any additional phosphorus load to the lake has the potential to increase the duration and intensity of the algal blooms, so any new phosphorus sources or expansion of existing phosphorus sources should be treated with particular care.

**The Phosphorus Standard and the General Standard.** The Chapter 500 Stormwater Management Rules require that any project disturbing one acre or more of land and creating 20,000 sq ft or more (in Most at

AUGUSTA  
17 STATE HOUSE STATION  
AUGUSTA, MAINE 04333-0017  
(207) 287-7688 FAX: (207) 287-7826

BANGOR  
106 HOGAN ROAD, SUITE 6  
BANGOR, MAINE 04401  
(207) 941-4570 FAX: (207) 941-4584

PORTLAND  
312 CANCO ROAD  
PORTLAND, MAINE 04103  
(207) 822-6300 FAX: (207) 822-6303

PRESQUE ISLE  
1235 CENTRAL DRIVE, SKYWAY PARK  
PRESQUE ISLE, MAINE 04769  
(207) 764-0477 FAX: (207) 760-3143

Risk Lake watersheds) or one acre or more (in all other lake watersheds) of new impervious area either meet the Phosphorus Standard or the General Standards. The goal of both of these standards is to insure management and treatment of stormwater runoff sufficient to avoid significant cumulative impacts to downstream lakes. If a project in a lake watershed requires a Site Law permit, it is required to meet the Phosphorus Standard; the option of meeting the General Standard is not available.

The General Standards require that BMPs of approved type and sizing be incorporated such that they provide treatment for runoff from at least 95% of the project's impervious area and at least 80 % of the project's developed area. There are several possible exceptions to this, the most significant one dealing with linear portions of the project (i.e. roads). For a linear portion of the project the area required to be treated may be reduced to no less than 75% of the linear portions impervious cover and no less than 50% of its developed area. All projects are treated the same regardless of the nature of the waterbody to which they drain.

Under the Phosphorus Standard, the amount of phosphorus mitigation and/or stormwater treatment required for a given project is a function of the size of the parcel, the per acre phosphorus allocation for the lake watershed in which the project is located and the potential for the project to export phosphorus in its stormwater. Per acre phosphorus allocations are determined for each lake in a three step process: (1)an allowable increase in phosphorus load to the lake is estimated based on the hydrologic sensitivity of the lake to phosphorus loading, the water quality of the lake and its potential to recycle phosphorus from its sediments and to support cold water fisheries; (2)the area within the watershed that over time will be subject to development is predicted based on the anticipated growth rate in the watershed and the amount of land available for development; and (3)the allowable increase in phosphorus load (lbs P/yr) is divided by the expected area of growth in acres to get the per acre phosphorus allocation (lbs P/acre/year). To determine the phosphorus budget for a project (the Project Phosphorus Budget, PPB) the per acre allocation for the watershed is multiplied by the acreage of the parcel being developed. The project design must then incorporate enough appropriate mitigation measures and/or stormwater treatment BMPs to prevent the projects projected phosphorus export (PPE) from exceeding the project's phosphorus budget. Low density projects in relatively less sensitive watersheds are required to do less stormwater management and treatment than high density projects in sensitive watersheds.

The goal of this methodology is to provide protection sufficient to avoid increase in the lake's trophic state, and to distribute the burden of this protection over the watershed and over time, thus allowing for the maximum development potential within any watershed. This strategy works best in watersheds where most of the new sources of phosphorus are associated with development activities that are subject to regulation and required to meet some version of this standard. In watersheds with other significant, and potentially expanding, phosphorus sources (i.e. agriculture, harvesting roads) account for a substantial portion of the threat to the lake's water quality, the Phosphorus Standard is not likely to provide sufficient protection unless some of the allowable increase in phosphorus load is reserved for these un- or under-regulated sources.

Strategies for protecting lakes in Concept Plan type development. In the southern, more developed part of Maine the activity that is likely to result in increased phosphorus loading to lakes is watershed development, especially development that includes roads and other transportation infrastructure (i.e. parking, driveways, etc.). Usually this type of development is regulated, at least at the local level, and the parcels on which the development takes place are relatively small, not much more than is required for the proposed development. In this situation implementation of the Phosphorus Standard is likely to be

effective. In LUPC jurisdiction, especially in cases of Concept Plan and Planned Development districts, this is not the case. The parcels involved are very large, orders of magnitude bigger than that required for the proposed level of development, and, unlike in the more developed portions of the state, may encompass large parts of, or even the entire watershed of the lake(s) involved. In this case the owner of the land involved in the Concept Plan or Planned Development has complete control of what happens on these lands, and the plan poses a course of management and development that will avoid unacceptable impacts to natural resources. Since the landowner controls much if not all of the watershed it seems reasonable to allocate an appropriate portion of the allowable increase in lake phosphorus loading, call it the Plan's phosphorus budget, to the owner, and let him or her decide how that allocation should be applied within the Plan area, provided that the total net addition of phosphorus to the lake associated with activities in the Plan area does not exceed the Plan phosphorus budget.

This is the strategy that was applied in both the Saddleback Plan and the Plum Creek. In the case of Saddleback, it has worked well, with Saddleback's consultants keeping track of the magnitude of additional phosphorus sources from new development projects as well as the reduction of phosphorus export resulting from retrofitting stormwater management BMPs on many existing, grandfathered sources. As long as the net increase phosphorus load does not exceed the Plan phosphorus budget, Saddleback is in compliance with its Plan requirements. In the case of Saddleback, most, if not all of the potential increased phosphorus load to the lake is associated with new development activities that were regulated under the plan, so there was no issue of not dealing with other potential uncontrolled sources in the watershed.

When we at DEP were initially questioned about the Fish River Lake Concept Plan, we suggested the same strategy be applied, but with a recognition that much of the potential for future phosphorus sources is associated not with proposed development activities, but with unregulated road construction and enhancement servicing harvesting operations. The following table is one developed in 2012 by DEP staff and Conway Elkins, who was working with Irving at the time. It presents a phosphorus allocation proposal where the plan's phosphorus budget is based on the percentage of the lakes' watersheds that were within the plan area, and where a significant portion of the budget was reserved for future harvesting activity and for other potential uncontrolled future sources.

Fish River Chain of Lakes  
P Allocation Discussion Meeting 1/19/12

Lake	Phosphorus allocated to total direct watershed per pop in lake (lbs)	Acceptable increase in lake's phosphorus concentration	Allowable increase in annual phosphorus load to the lake	Direct Watershed per Town Park (acres)	Direct Watershed per GIS (acres)	Irving Ownership in Direct Watershed per GIS (acres)	Irving Ownership in Direct Watershed per GIS (%)	Possible Irving Allocation for Direct Watershed (lb/yr)	Net Increase due to Proposed Development	Net Increase due to New Roads since 2000	% of Allocation Used	Remaining Allocation
	[F]	[C]	[FC]									
Long Lake	707	0.75	530.25	48,260	49,450	19,449	39%	208.55	9.67	52	29.6%	146.89
Mud Lake	115.5	1.00	115.5	7,502	7,404	6,651	90%	103.75	3.28	17	19.5%	83.47
Cross Lake	398	0.50	199	34,654	37,267	15,392	41%	82.19	19.05	3	26.8%	60.14
Square Lake	728	0.75	546	44,558	48,402	40,613	84%	458.14	22.39	58	17.5%	377.75
								852.63	54.39	130	21.6%	668.24

This table is very similar to Table 3 on page 10 in the Shoreland Criteria section (Question #14) of Volume 1 (Part C) of the Concept Plan shown below.

**TABLE 3  
PHOSPHOROUS EXPORT BY DEVELOPMENT AREA ON/ADJACENT TO EACH LAKE**

Lake	P allocated to total dir. watershed per ppb in lake (lbs) [F]	Acceptable increase in lake P conc. in ppb [C]	Allowable increase in ann. P load to lake (lbs/year) [FC]	Direct Watershed per GIS (acres)	Irving Ownership in Direct Watershed per GIS (acres)	Irving Ownership in Direct Watershed per GIS (%)	Possible Irving Allocation for Direct Watershed (lbs/yr)	Net Increase due to allowed Development	Net Increase due to New Roads since 2000	% of Allocation Used	Remaining Allocation
Long	707	0.75	530.25	49,450	19,449	39%	208.55	14.02	52	31.7	142.53
Mud	115.5	1	115.5	7,404	6,651	90%	103.75	0.58	17	19	84.07
Cross	598	0.5	199	37,267	15,392	41%	82.19	21.3	3	30.5	57.14
Square	728	0.75	546	48,402	40,613	84%	458.14	22.39	58	17.5	377.75
TOTALS							852.63	58.29	130	22.4	662.24

The strategy discussed above works well in the case of the Saddleback Planned Development District in part because Saddleback is the developer of each of the projects implemented under the plan. They therefore determine how much of their available phosphorus budget will be applied to the project (the magnitude of the project and the level of stormwater management applied to it), and have an understanding of what remains available for future projects. In the proposed Fish River Concept Plan a different development process is involved. Rather than acting as the developer of the proposed developed areas, Irving plans to sell the developed areas to other entities to develop as they intend within the limitations (e.g. number of lots) described in the plan. Another difference is that LUPC no longer has jurisdiction over Site Law projects in the Unorganized Territories. They are now handled by DEP, and will be required to meet the phosphorus allocation for the parcel being permitted. Unless Irving is willing to decide up front how much of the Concept Plan’s phosphorus budget is allocated to each developed area and include that in the sales agreement and deed restrictions, the buyers will not know the potential for development in the area they are purchasing, and the DEP will not know what the phosphorus budget is for the parcel.

Since this type of internal allocation was not proposed in the plan, DEP staff developed a straight up per acre allocation for each township’s share of each lake’s watershed (including lands both within and outside the Concept Plan’s boundaries), and assumed a relatively high growth rate of 25% since, in these watersheds, development activities are likely to account for only a part, and probably a minority part, of the potential future increase in phosphorus load to the lake. The allocation and associated assumptions are presented in the table below.

Fish River Lake Concept Plan P Allocations

Lake Name	Town in which development is located	Watershed Area in Town (acres) DDA	Area not available for development (acres) ANAD	Area available for development (acres) AAD	GF	Expected developed area (acres) D	(lbP/yr) F	Water Quality Category	WQC	LOP	C	FC	Per acre phosphorus allocation (lb/acre/yr) P	Small Watershed Threshold (acres) SWT
Square Lake	T16R5 WELS	8287	1000	7287	0.25	1822	135.4	mod-sensitive	h	0.75	101.55	0.056	455	
Cross Lake	T16R5 WELS	3014	300	2714	0.25	679	34.66	poor restorable	h	0.50	17.33	0.026	170	
Cross Lake	Cross Lake Twp	18018	4300	13718	0.25	3430	207.13	poor restorable	h	0.50	103.57	0.030	857	
Long Lake	T17R3 WELS	8203	400	7803	0.25	1951	120.28	mod-sensitive	h	0.75	90.21	0.046	488	
Long Lake	T17R4 WELS	10182	500	9682	0.25	2421	149.3	mod-sensitive	h	0.75	111.98	0.046	605	
Mud Lake	T17R4 WELS	5715	400	5315	0.25	1329	88.02	mod-sensitive	h	0.75	66.02	0.050	332	
Mud Lake	T17R5 WELS	1433	250	1183	0.25	296	22.07	mod-sensitive	h	0.75	16.55	0.056	74	

The following section evaluates the feasibility of potential development scenarios for each development area, with the phosphorus budget for the development area defined as the product of the developed areas acreage minus any NWI wetlands and the appropriate per acre allocation in the table above (highlighted in yellow).

**Analysis of feasibility of proposed development densities in the developed areas:**

Proposed under the Irving Concept Plan are 6 Commercial Development areas and 11 Residential Unit areas, one with potential for a multi-unit recreational facility. Evaluation of the plan for its total phosphorous impacts on the four major lakes in the plan area is challenging due to the large amount of land in the plan and difficulty of assessing future phosphorus loads from activities that fall under typical forest management, including roads. The simplest way of looking at the proposed development is to address the areas that are specifically being proposed for development and restricting evaluation of the phosphorous impacts to those areas. The following analysis does that with assumptions as to how development might proceed.

**Commercial Development Areas CD-1, CD-2, CD-3A, CD-3B, CD-3C, CD-4.**

To analyze the commercial development areas some assumptions about the development were needed. These areas only specified the number of lots and the kind of development i.e. a mix of commercial, light industrial, civic, or multi-unit residential complexes for senior or affordable housing development. The phosphorous methodology only differentiates between cover types. The mix of possibilities would be endless and will come out as specifics of the developments are proposed. For these areas three scenarios were evaluated:

- 20% Lawn, 30% Parking, 50% Roof
- 20% Lawn, 50% Parking, 30% Roof
- 100% Impervious (for comparison)

Also, these scenarios were then adjusted for the use of the Chapter 500 standard suite of Best Management Practices of Storm Water Quality Control (60% phosphorous treatment.)

CD-1

CD-1 sets aside 281 Acres for the development of 30 lots. This lot is divided between Mud Lake and Long Lake. An existing road is on this lot and appears to have been recently upgraded for development. For this analysis, the lake specific Project Phosphorous Budgets (PPB) have been added together. The combined Long Lake and Mud Lake portions have a Project Phosphorous Budget of 7.937 lb/YR of "P". This is reduced by 0.763 lb/YR for the upgraded road.

The following table shows the amount of developable acreage allowed by each scenario.

	Scenario 1	Scenario 2	Scenario 3
w/o BMPs	9.630 Ac	8.016 Ac	5.739 Ac
w/ Standard BMPs	15.408 Ac	12.826 Ac	9.183 Ac

With 30 lots the amount of developable acreage per lot is between 0.191 and 0.514 Acres.

CD-2

CD-2 sets aside 167 Acres for the development of 30 lots. This lot is in the Mud Lake watershed. Wetlands along Rte 162 appear to prevent direct access to the lots. A 1500' access road has been assumed. The Project Phosphorous Budget (PPB) for CD-2 is 6.830 lb/YR of "P".



This is reduced by 1.888 lb/YR for the road w/o treatment. This would be 0.755 lb/YR if treated with standard BMPs: Assume the road is treated.

The following table shows the amount of developable acreage allowed by each scenario.

	Scenario 1	Scenario 2	Scenario 3
w/o BMPs	8.154 Ac	6.788 Ac	4.860 Ac
w/ Standard BMPs	13.047 Ac	10.861 Ac	7.776 Ac

The developable acreage per lot is between 0.162 and 0.435 Acres.

### CD-3A

CD-3A allows for 11 acres divided into 4 potential lots. This parcel is in the Cross Lake watershed. The Project Phosphorous Budget is 0.330 lb/YR of "P". It was assumed that the lot would directly access the existing road.

The following table shows the amount of developable acreage allowed by each scenario.

	Scenario 1	Scenario 2	Scenario 3
w/o BMPs	0.443 Ac	0.369 Ac	0.264 Ac
w/ Standard BMPs	0.709 Ac	0.590 Ac	0.422 Ac

The developable acreage per lot is between 0.066 and 0.177 Acres.

### CD-3B

CD-3B allows for 6 acres divided into 4 potential lots. This parcel is in the Cross Lake watershed. The Project Phosphorous Budget is 0.180 lb/YR of "P". It was assumed that the lot would directly access the existing road.

The following table shows the amount of developable acreage allowed by each scenario.

	Scenario 1	Scenario 2	Scenario 3
w/o BMPs	0.242 Ac	0.201 Ac	0.144 Ac
w/ Standard BMPs	0.387 Ac	0.322 Ac	0.230 Ac

The developable acreage per lot is between 0.036 and 0.097 Acres.

### CD-3C

CD-3C allows for 11 acres divided into 4 potential lots. This parcel is in the Cross Lake watershed. The Project Phosphorous Budget is 0.330 lb/YR of "P". It was assumed that the lot would directly access the existing road.

The following table shows the amount of developable acreage allowed by each scenario.

	Scenario 1	Scenario 2	Scenario 3
w/o BMPs	0.443 Ac	0.369 Ac	0.264 Ac
w/ Standard BMPs	0.709 Ac	0.590 Ac	0.422 Ac

The developable acreage per lot is between 0.066 and 0.177 Acres.

CD-4

The remaining parcel is 73 acres, with a Project Phosphorous Budget of 2.104 lb/YR of “P”. This would be divided into 30 lots. It is hard to determine if the road access needs to be upgraded from the information presented and no reduction was made for upgrades but this would reduce the amount of development the lot could have.

The following table shows the amount of developable acreage allowed by each scenario.

	Scenario 1	Scenario 2	Scenario 3
w/o BMPs	2.824 Ac	2.351 Ac	1.683 Ac
w/ Standard BMPs	4.518 Ac	3.762 Ac	2.693 Ac

Divide by 30 lots the amount of developable acreage per lot is between 0.056 and 0.151 Acres.

Phosphorus export from Commercial Development Areas. The above analysis of the Commercial Development Areas looks at the potential amount of developed land (under 3 scenarios) that could be created in each development area without exceeding the phosphorus budget for the developed area. It does not give any indication of how much phosphorus export would likely be created if all lots were “fully developed”. As stated earlier, this is because there are too many possibilities for types and intensities of development on these lots. In an attempt to provide some perspective on this, we have attempted conservative estimates based on an evaluation of the amount and type of impervious area associated with some typical existing commercial parcels in the local area. Looking at 9 such parcels, it was determined that 0.909 acres of non-roof impervious area and 0.139 acres of building area represented the average for the parcels. This translates into 1.031 lb P/yr being exported from a typical commercial lot. Obviously less is possible and much more is also possible. One large industrial site could export 10 times this amount.

In the Cross Lake Watershed, 42 commercial lots are proposed for 43.3 lb P/yr of impact without treatment and 17.3 lb P/yr with standard best management practices. The new road that would have to be constructed to access lots in CD4 would likely export around 4.5 lb P/yr without treatment and 2.0 lb with standard treatment, though this would depend on the size distribution and arrangement of the lots.

In Mud Lake Watershed, 50 lots are proposed for 53.4 lb P/yr of impact without treatment and 21.3 lb P/yr with standard best management practices.

In Long Lake Watershed, 10 lots are proposed for 10.3 lb P/yr of impact without treatment and 4.1 lb P/yr with standard best management practices.

**Residential Development Areas: Long Lake A, B, C; Cross Lake A, B, C, D, E; Square E, W; Yexas**

Evaluation of the residential areas is a little easier. The phosphorous methodology (in table 3.2) has defined allocations of individual lots based on the hydrologic soil class. This allocation includes a 150-foot maximum length driveway. Driveways longer than 150 feet need to be assessed as road. The table is further divided by lot restrictions or not. Lots with restrictions are limited on the amount of cleared opening for development and a maximum amount of driveway and parking. It is assumed that the option of 75% drive way buffers being applied is not used due to the complications of making this work on each lot. Calculations then were used to apply standard treatment BMPs that provide 60% removal of phosphorous for use as a comparison.

Access roads were determined by both the length of the road necessary to accommodate a minimum lot frontage of 100', if existing roads were available, if upgrades of the road were necessary, and anticipation of the most desirable lot locations. Upgraded roads were assumed to be 12 foot existing and upgraded to 20' with shoulders and ditches.

Long Lake "A"

Long Lake "A" uses 129 acres of HSG "C" soils to accommodate 50 lots with a PPB of 5.934 lb/YR. Road Conditions are unknown and it is assumed that upgrading will be necessary.

	w/o restrictions	w/ restrictions
w/o standard BMPs	14.500 lb/YR	10.000 lb/YR
w/ standard BMPS	5.800 lb/YR	4.000 lb/YR

Potential road upgrade: 0.431 to 1.726 lb/YR.

Lots and road with treatment would be acceptable for this lot number.

Long Lake "B"

Long Lake "B" caps the lots at 15 and uses 56 acres of HSG "C" soils to do so. With a PPB of 2.576 lb/YR, the lots are only applied as the road access other cottages and should be to a reasonable standard.

	w/o restrictions	w/ restrictions
w/o standard BMPs	4.350 lb/YR	3.000 lb/YR
w/ standard BMPS	1.740 lb/YR	1.200 lb/YR

Lots with treatment or restrictions would be acceptable.

Long Lake "C"

Long Lake "C" uses 120 acres of HSG "C" soils to accommodate 25 lots along a higher ridge. No existing road accesses these lots and a new road is assumed necessary. This road would appear to need to be 3000' at a minimum. PPB of 5.520 lb/YR.

	w/o restrictions	w/ restrictions
w/o standard BMPs	7.250 lb/YR	5.000 lb/YR
w/ standard BMPS	2.900 lb/YR	2.000 lb/YR

Potential road upgrade: 1.096 to 2.739 lb/YR.

Lots and road with treatment would be acceptable for this lot number.

Long Lake "overall cap"

Long Lake impacts are capped at 75 lots for all the projects. To evaluate this all of the PPBs can be added for the parcels and the lots applied with no consideration for road upgrades. This is a combined PPB of 14.030 lb/YR.

	w/o restrictions	w/ restrictions
w/o standard BMPs	21.750 lb/YR	15.000 lb/YR
w/ standard BMPs	8.700 lb/YR	6.000 lb/YR

Lots with treatment would be acceptable for this lot number and total property.

Cross Lake "A"

Cross Lake "A" uses 110 acres of HSG "C" and "D" soils to accommodate 30 lots with a PPB of 3.300 lb/YR. There is limited access off the existing road and an access road seems necessary: minimum of 1500 feet.

	w/o restrictions	w/ restrictions
w/o standard BMPs	9.450 lb/YR	6.450 lb/YR
w/ standard BMPs	3.780 lb/YR	2.580 lb/YR

Access road: 0.559 to 1.398 lb/YR.

Lots and road with treatment, and restrictions on the lots would be acceptable for this lot number. For no restrictions or treatment on the lots or road the parcel would more likely allow for 6 lots.

Cross Lake "B"

Cross Lake "B" has better HSG "B" soils and access off or an existing road. The 91 acres yields a PPB of 2.730 lb/YR to accommodate 30 lots.

	w/o restrictions	w/ restrictions
w/o standard BMPs	7.200 lb/YR	5.100 lb/YR
w/ standard BMPs	2.880 lb/YR	2.040 lb/YR

Lots with treatment and restrictions would be acceptable for this lot number. For no restrictions or treatment on the lots this parcel would accommodate 11 lots.

Cross Lake "C"

Cross Lake "C" uses 57 acres of HSG "C" and "D" soils to accommodate 30 lots with a PPB of 1.710 lb/YR. Access off of the existing road can accommodate 12 lots. A second road on the parcel closer to the lake could accommodate remaining lots with upgrades.

	w/o restrictions	w/ restrictions
w/o standard BMPs	9.450 lb/YR	6.450 lb/YR
w/ standard BMPs	3.780 lb/YR	2.580 lb/YR

Potential road export assumed at 1.000 lb/YR.

Road upgrade with treatment and lots with treatment and restrictions allow for 15 lots. Road and lot without restrictions or treatment would allow for 2 lots.

Cross Lake "D"

Cross Lake "D" uses 187 acres to accommodate 35 lots. A 16% of the lot is deducted for the steep slopes that are considered non-buildable or very high export potential under the methodology. Consisting of HSG B, C, and D' soils the PPB of the parcel is 4.108 lb/YR. Access off the existing road is assumed. Lots are apportioned as 11 in B soils, 18 in C soils and 6 in D soils.

	w/o restrictions	w/ restrictions
w/o standard BMPs	9.900 lb/YR	6.850 lb/YR
w/ standard BMPs	3.960 lb/YR	2.740 lb/YR

Well distributed lots with treatment will fit in this area.

Cross Lake "E"

To accommodate 60 lots, Irving has set aside 163 acres for Cross Lake "E". 11% of the lot is deducted for the steep slopes and wetlands that are considered non-buildable. Consisting of HSG "C" soils the PPB of the parcel is 3.770 lb/YR. A new access road of 4000' is required.

	w/o restrictions	w/ restrictions
w/o standard BMPs	17.400 lb/YR	12.000 lb/YR
w/ standard BMPs	6.960 lb/YR	4.800 lb/YR

Potential road upgrade: 1.460 to 3.652 lb/YR.

Road upgrade with treatment and lots with treatment and restrictions allow for 28 lots. To have lots without restrictions the road would need to be significantly shortened and the number of lots reduced to 10 or less.

Cross Lake "overall cap"

Cross Lake impacts are capped at 125 lots for all the projects. To evaluate this all of the PPBs can be added for the parcels and the lots applied with no consideration for road upgrades. This is a combined PPB of 15.618 lb/YR. Assume C/D soils for lots

	w/o restrictions	w/ restrictions
w/o standard BMPs	39.375 lb/YR	26.875 lb/YR
w/ standard BMPs	15.750 lb/YR	10.750 lb/YR

Lots with treatment and restrictions and roads would be acceptable for this total property.

Square Lake "East"

Square Lake "East" uses 278 acres of HSG "C" soils to accommodate 85 lots with a PPB of 15.568 lb/YR. Road upgrades are necessary. Assuming a 100' frontage, 4250 feet of road is necessary.

	w/o restrictions	w/ restrictions
w/o standard BMPs	24.650 lb/YR	17.000 lb/YR
w/ standard BMPs	9.860 lb/YR	6.800 lb/YR

Potential road upgrade: 1.534 to 3.835 lb/YR.

Lots w/ BMPs and road would be acceptable.

Square Lake "West"

Square lake "West" uses 121 acres of HSG "C" soils to accommodate 30 lots with a PPB of 6.776 lb/YR. It is assumed that upgrading will be necessary on the road for 3000 ft.

	w/o restrictions	w/ restrictions
w/o standard BMPs	8.700 lb/YR	6.000 lb/YR
w/ standard BMPs	3.480 lb/YR	2.400 lb/YR

Potential road upgrade: 1.096 to 2.739 lb/YR.

Lots with treatment and roads would be acceptable.

Square Lake "Yerxas"

The Yerxas lot is more complicated due to the chance for a blended residential setup with either lots or "camps" with amenities, or lodge like areas. The combination would be limitless. To that end, three scenarios have been looked at to provide a basis for evaluation. The parcel is 51 acres of HSG "C" soils. Deducting 3.4 acres of wetland, the PPB is 2.666lb/YR. The parcel is set aside for 67 housing "units". It should be noted that the roads with in the parcel will not accommodate the minimum frontage requirements but this should be expected.

- Scenario One. As in the commercial lots above, a weighted average for development was developed to determine how much acreage could be developed for the lot using a "20% Lawn, 40% Parking, 40% Roof" weighting.

Assume a 1000-foot access road: w/ BMPs = 0.365 lb/YR, w/o = 0.913 lb/YR.

This results in between 2.13 acres and 2.79 acres of development. 48,600 sqft of building and 48,600 of parking with landscaping and lawn.

- Scenario Two. Building off scenario one, set aside 30 units of 20' x 30' camps and use the remaining allocation for a lodge. Assume the same road impacts (with treatment). This results in 30 camps and a lodge of 2.55 acres (landscape, roof, parking). (Note this does not include landscaping around camps or additional access road to camps but is to give a general idea of the impacts and potentials.)
- Scenario Three. 67 "units" could be interpreted as lots. This would be difficult to meet the frontage standard without additional road.

	w/o restrictions	w/ restrictions
w/o standard BMPs	19.430 lb/YR	13.400 lb/YR
w/ standard BMPs	7.772 lb/YR	5.360 lb/YR

For this impact a minimum of 96 acres of land would be necessary.

It should be noted that in the analysis above not all of the myriad of lot configurations or limitation or treatment options have been investigated. Developments could have some lots with treatment and restrictions and some with none, or any combination thereof. Also, the political realities of treatment structures should be considered. Potential problems of long-term maintenance and the responsibility for that maintenance need to be worked out. Policing lot clearing maximums has caused problems in the past and is hard to mitigate once the lot has been cleared. It may make far more sense to reduce the number of lots for these parcels to fit within the allocation restrictions.

Assumptions about road impacts were conservative and possibly less than realistic. Offsite access roads were not assessed nor looked at for upgrade requirements. These impacts will need to be considered and balance against the lot development on the parcels. Offsite road construction or upgrades within the lakes' watersheds that are required to access these development areas have as much potential to impact the lake as those within the developed area. Since it would be difficult to determine an appropriate area to define an allocation for this linear off site activity, a possible option would be to require these roads to meet either the General Standards in Chapter 500, or perhaps more reasonably, a natural hydrology standard that insures that runoff from uphill sides of the road would be efficiently distributed on the downhill side of the road with no diversion of uphill runoff to different intermittent catchments. This will require, in most instances, much more frequent culverting than is typically applied, and level spreaders or other distribution devices at culvert outlets.

Evaluation of possible phosphorus loadings from developed areas.

Phosphorus Export Comparisons					
Lake	Development Area	lb P/yr w/out restrictions or treatment	lb P/yr with restrictions and treatment	Concept Plan allocation for watershed (lb P/yr) from Table 3	Concept Plan net increase due to proposed development from Table 3
Long	Commercial Areas	10.3	4.1		
	Residential Areas	21.8	6		
	total	32.1	10.1	209	14
Mud	Commercial Areas	53.4	21.3		
	total	53.4	21.3	104	0.6
Cross	Commercial Areas	47.8	19.3		
	Residential Areas	39.4	10.8		
	total	87.2	30.1	82	21
Square	Residential Areas	52.7	22.6		
	total	52.7	22.6	458	22

The table above shows a summation of the likely increase in phosphorus load from proposed development in the development areas in each lake watershed either with or without restrictions and treatment. It is a very conservative estimate in that it assumes light development on the lots in CD4 and it does not include any export from new or improved roads to access the developed areas. For comparison purposes the table also shows the possible allocation (the Plan Phosphorus Budget) for each watershed and the expected increase in phosphorus load due to development as presented in Table 3 in Voume1(Part C) of the Concept Plan. The only lake that jumps out as a particular concern is Cross Lake. If all proposed lots in the Development Areas in the Cross Lake watershed were developed without restrictions or treatment increase in phosphorus load to the lake would exceed the plan's phosphorus budget, even without taking into account all the increases in phosphorus export that would likely occur over time within the Concept Plan area but outside of the developed areas. If all of the proposed lots

incorporated strict restrictions and relatively high level stormwater BMPs the likely increase in load would use up just less than 40% of the Budget leaving 60% to be allocated for access roads and harvesting related road upgrades. This sounds promising, but implementing and overseeing the long term maintenance of the phosphorus mitigation required to achieve this may not be feasible.

**Conclusions:**

It appears that the level of development envisioned in the plan is feasible, particularly in the Long, Mud and Square watersheds. Fitting the level of development that is proposed into the Cross Lake watershed will present very significant challenges.

Given the fact that Irving intends to sell the developed areas to other individuals or entities, it will have to be worked out how much of the Plan's Phosphorus Budget will be allocated to each developed area and how much will be reserved to cover future increases in load from other sources outside the developed areas.

In conclusion, it appears that the parcels and lot expectations are not un-realistic with adjustments. Particularly in the Cross Lake watershed, it will be necessary to apply sophisticated BMPs to most of the development activity, unless the number of lots created is significantly reduced. Long term lake health would then hinge on the correct application of the treatment BMPs, good erosion control, and maintenance of both, along with the other non-development specific impacts throughout the watershed whether in the control of Irving or not. This is a tall order left in the hands of LUPC staff, even if relying on third party partners to monitor.



## **ATTACHMENT 2**

Cross Lake Narrative (TJD&A), 03/02/18

(NOTE: Cross Lake Narrative may depict initial concepts previously reviewed by DEP and are the basis for this assessment, but may not indicate current assumptions, concepts, or lot arrangements)



March 2, 2018

TO: Krista Reinhart, Stantec  
Pat Clark, Stantec  
Steve Bushsey, Stantec  
FR: Terry DeWan, TJD&A

**RE: CROSS LAKE: POTENTIAL RESIDENTIAL DEVELOPMENT**

### **ASSUMPTIONS**

The assumptions used in the sketches for potential residential development are based on the DeLuca Hoffman Due Diligence Analysis and Report, March 2012 that was prepared by Bill Hoffman. The attached Typical Lot Coverage for Waterfront Lots sketch is taken from that report (p. 36). Since there are very few actual waterfront lots, adjustments were made to the dimensions shown on the sketch, which are reflected in the amount of driveway (gravel) that would typically be found. The other numbers used in the determination of lot disturbance should be relatively good as averages. We understand the term 'Canopy clearing' is simply the sum of all the areas required for buildings, driveway and other hard surfaces, the septic field, and lawn areas.

Buildings	2,100 SF
Driveway	1,400 SF
Septic Field	2,000 SF
Lawn Area	5,000 SF
Canopy Clearing	10,500 SF

### **LAYOUTS**

The site sketches for each of the residential development areas should be considered preliminary density studies that test the unit caps assigned to each area. The layouts are based upon an initial consideration of soils, slopes, drainage patterns, existing access roads, setbacks from the water, relationship to existing residential development, and the potential for water access and community space. In two instances (Cross Lake A and Cross Lake D), alternatives are provided for consideration (see notes below).

### **LOT SIZES**

A typical lot size of approximately one acre is used in areas where the underlying soils are rated as Suitable. While this is greater than the minimum lot size (20,000 SF) used

for the Concept Plan, it may be more realistic for purposes of evaluating phosphorus impact since it would account for variability in the land in terms of drainage ways, steep slopes, and other factors that would drive the ultimate layout.

Where the underlying soils are categorized as Limited Suitability or Generally Unsuitable, the lot sizes are increased to approximately two acres, which should provide enough room to find a location that is suitable for a homesite and on-site septic system. However, the underlying assumptions for buildings, driveways, septic fields, and lawn areas do not change.

## **ROADS**

The sketches show three types of roads:

- New roads that would be 20' in width, in a 40' wide clearing. These are shown in red.
- Upgraded roads (primarily haul roads) that would be upgraded from 12' in width to 20', with a clearing that goes from 24' to 40' in width. These are shown in green.
- Existing roads that are suitable for residential development in terms of their current width and condition. These are shown in black.

## **WATER ACCESS SITE**

Most of the sites have a Common Area, generally near the water, that would provide a place for a hand-carry boat launch, temporary dock, picnic tables, and other common amenities to serve the residential community.

## **CROSS LAKE UNIT CAP**

The five sites described below show a total of 185 units. The Concept Plan establishes a cap of 125 units for Cross Lake, which means that 1/3rd of the units shown (60) would never be developed. The final determination will be a function of market demand, site suitability, continued agency input, and other factors.

## RESIDENTIAL DEVELOPMENT AREAS

### CROSS LAKE A

110 Acres  
30 units maximum

Two sketches are provided, one that takes advantage of the existing Irving road, the second would require a new road parallel to the lake.

**Option 1:** Uses the existing roads on the west and south. A new road would provide frontage and access to 8 interior lots. On the east side there is a woods road that would be upgraded to the West Side Road, which would provide a route to the water access site.

New Roads: 1,000 LF  
Upgraded Roads: 1,400 LF

**Option 2:** Recognizes that road frontage might not be the most desirable, and a better location for lots may be the interior, which offers more privacy and proximity to the lake.

New Roads: 2,000 LF  
Upgraded Roads: 1,400 LF

**Common Area.** There is a site on the water that may be suitable for a hand-carry boat launch. It is located between two existing leased sites and has a small stream running through the middle. Parking would probably have to be on the south side of West Side Road. The Common Area assumes the following:

Buildings	400 SF
Parking/Drive/Paths	5,000 SF
Lawn Area	7,000 SF
Canopy Clearing	12,400 SF

### CROSS LAKE B

91 Acres  
30 units maximum

All the potential building sites are on existing Irving roads, which come off State Route 161. The roads all seem to be well maintained by the Homeowners Associations, and

should be suitable for access for new individual homes. The lots shown are all well above one acre in size, which may be well received by the residents in the existing lots.

**Common Area.** There are two potential sites on the water that may be suitable for a hand-carry boat launch. Only one would be developed as a common area. In either location, parking may have to be located several hundred yards away from the lake, due to drainage courses and a desire to minimize views of cars from the water. The Common Area assumes the following:

Buildings	400 SF
Parking/Drive/Paths	5,000 SF
Lawn Area	7,000 SF
Canopy Clearing	12,400 SF

### **CROSS LAKE C**

57 Acres

30 units maximum

This development area is on a relatively level area of well drained soils on the opposite side of Cyr Road. Due to concern for traffic, access may be from an existing woods road off Route 161. The layout should consider the presence of an existing ATV trail that winds through the woods.

New Roads:	3,550 LF
Upgraded Roads:	2,150 LF

**Common Areas.** The sketch indicates a common area within the subdivision, which would be a simple gathering spot with picnic tables, fire rings, and a playground for residents.

Water access may be on the Mud Lake / Cross Lake thoroughfare, where there are several undeveloped lots that may be able to be used for a hand-carry boat launch and related facilities. For purposes of the phosphorus calculations, assume the following:

Buildings	400 SF
Parking/Drive/Paths	5,000 SF
Lawn Area	7,000 SF
Canopy Clearing	12,400 SF

**CROSS LAKE D**

187 Acres  
35 units maximum

The majority of the development area (22 lots) would occur on either the Disy Road (14 lots on either side of the road coming in from the east) or Mifs Lane (8 lots on the east side of the road running north/south from the Landing Road). The remaining 13 lots could either be located on a hillside overlooking the lake on the east side of the existing road, OR on a new road that starts near the boat launch on Landing Road.

New Road east of Disy Road / Mifs Lane: 1,000 LF  
New Road south of Landing Road: 1,300 LF

The four lots shown on the water are all set back at least 200 feet, due to the topography and limitations on access.

**Common Areas.** Cross Lake D already has a significant common area, with a boat launch, picnic area, and sand beach. However, a new common area could be developed on the water at the end of the new southerly road for the new residents. For purposes of the phosphorus calculations, assume the following:

Buildings	400 SF
Parking/Drive/Paths	5,000 SF
Lawn Area	7,000 SF
Canopy Clearing	12,400 SF

**CROSS LAKE E**

163 Acres  
60 units maximum

The residential development is divided into two distinctly different areas. The eastern component (upper area) is located on relatively level topography with suitable soils, just above a section of very steep topography. Access would be from a new road off an existing Irving road.

The lower area is on an area of limited soil suitability at the base of the slope. The site sketch anticipates a common area at the end of the road, with the possibility of a second area along the waterfront.

Upper: New Road: 4,900 LF  
Lower: New Roads: 5,100 LF

Upgraded Road: 1,400 LF

**Common Area(s).** The Concept Plan allows two water access sites, due to the number of possible residential units. While the sketch only shows one site (at the end of the lower access road), for purposes of the phosphorus calculations, assume the following:

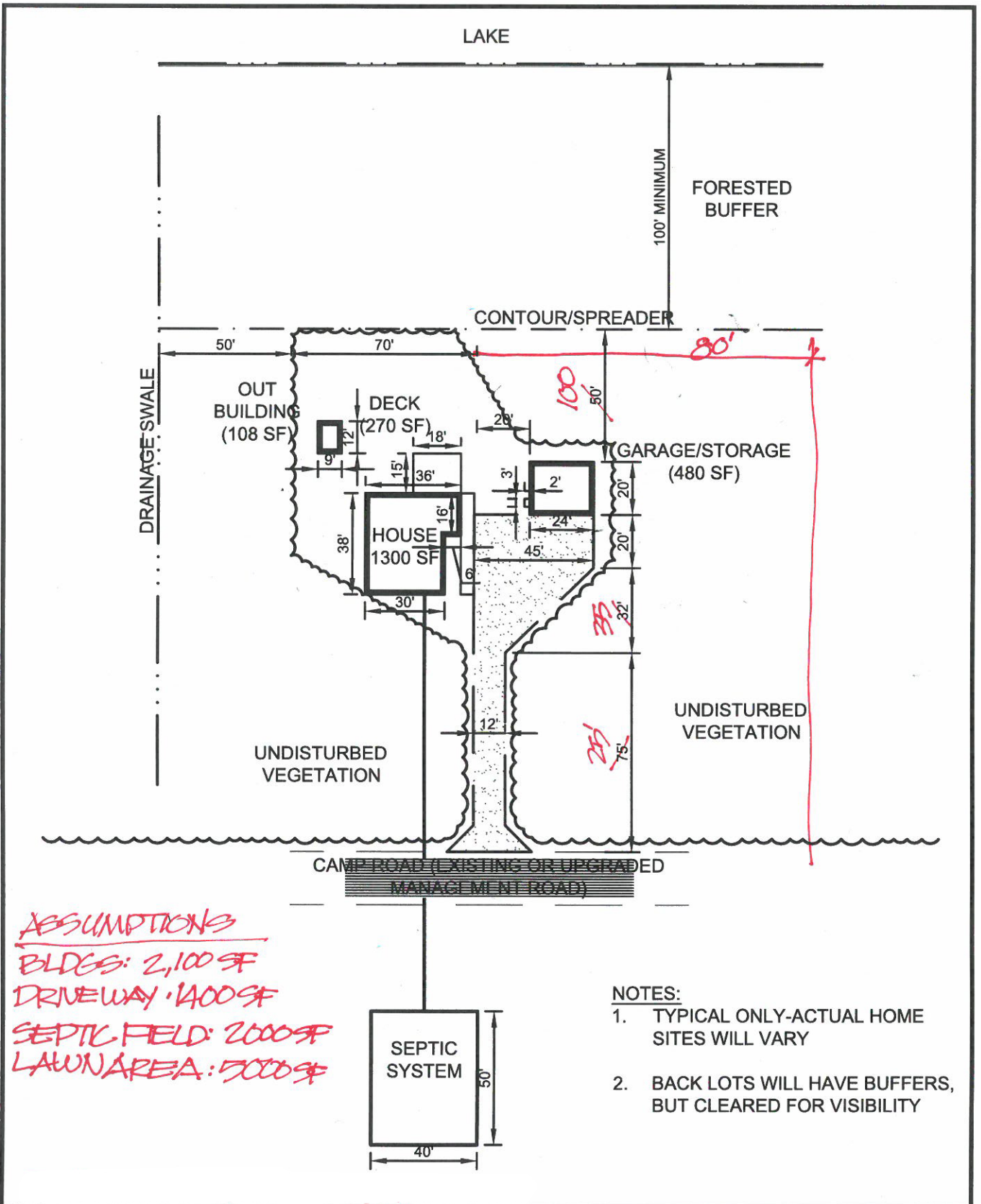
Buildings	800 SF
Parking/Drive/Paths	8,000 SF
Lawn Area	14,000 SF
Canopy Clearing	22,800 SF

## **ATTACHMENT 3**

Cross Lake Sketches (TJD&A), 03/07/18

(NOTE: Cross Lake Sketches depict initial concepts previously reviewed by DEP and are the basis for this assessment, but may not indicate current assumptions, concepts, or lot arrangements)





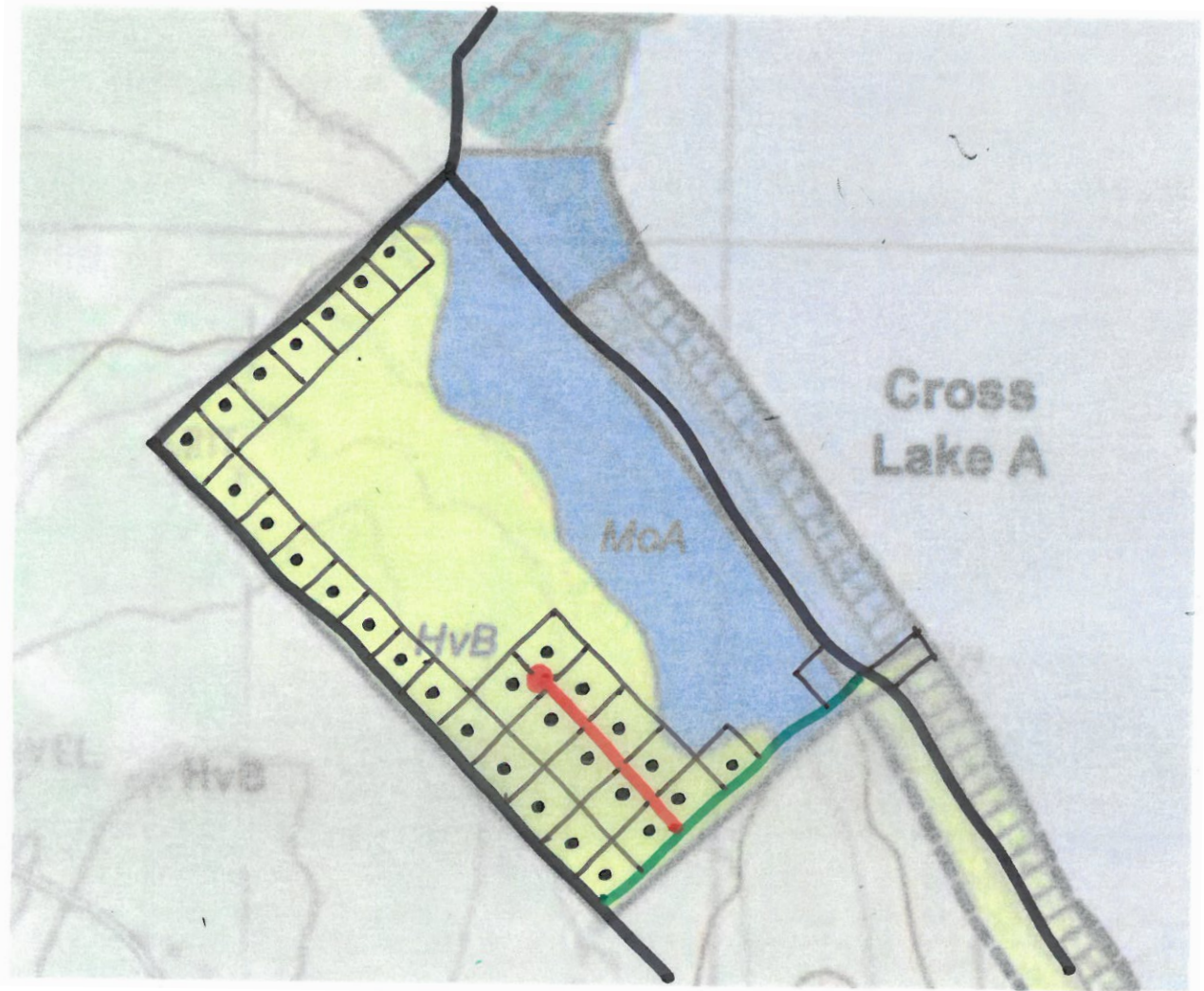
JD IRVING LONG RANGE PLAN

TYPICAL LOT COVERAGE  
FISH RIVER CHAIN OF LAKES

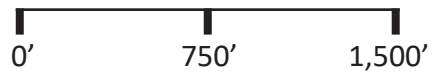
**DH**  
 DeLuca-Hoffman Associates, Inc.  
 778 MAIN STREET, SUITE 8  
 SOUTH PORTLAND, ME 04106  
 207.775.1121  
 WWW.DELUCAHOFFMAN.COM





DRAWN:	LA	DATE:	01.17.12
DESIGNED:	WGH	SCALE:	1"=50'
CHECKED:	WGH	JOB NO.	3066
FILE NAME:	3066-SITE		

FIGURE  
**1**

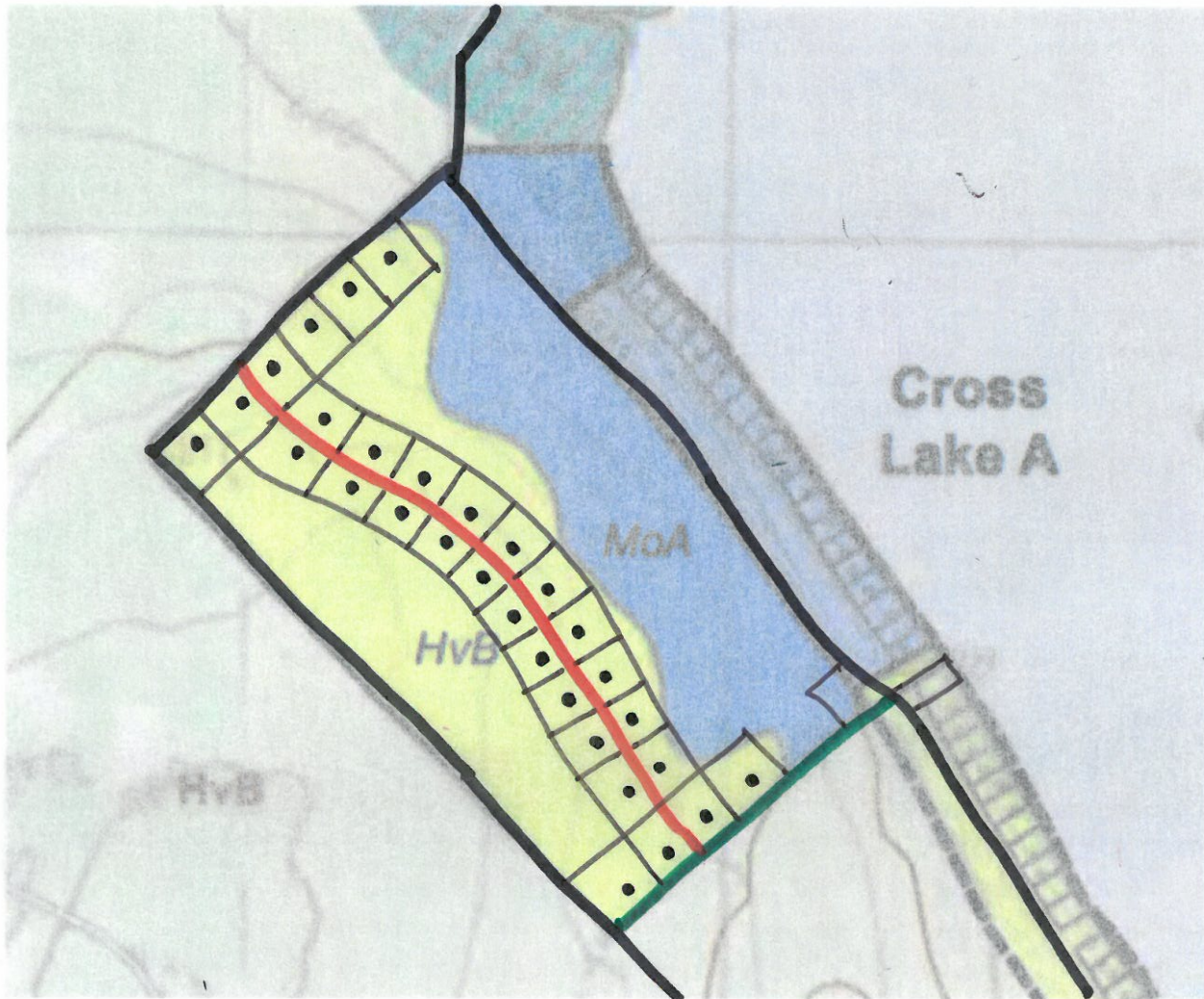


**CROSS LAKE A  
OPTION 1**

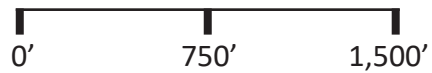






-  Existing Road
-  Upgraded Road
-  New Road
-  Common Area





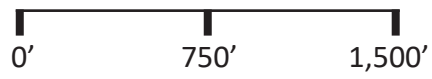
**CROSS LAKE A  
OPTION 2**







-  Existing Road
-  Upgraded Road
-  New Road
-  Common Area

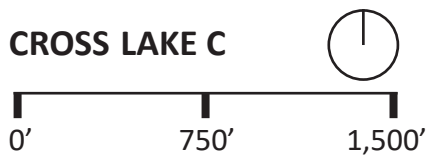
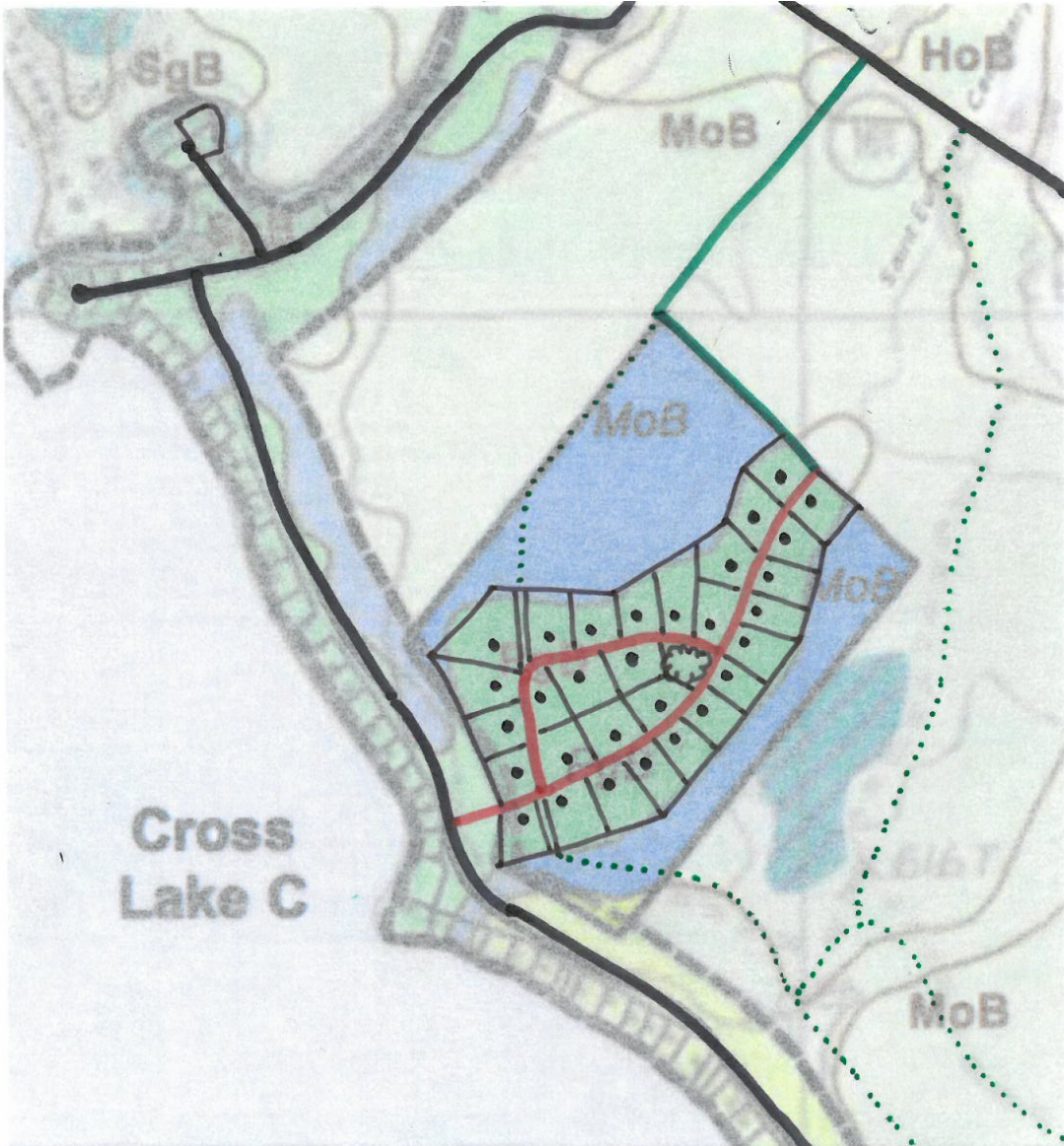






**CROSS LAKE B**

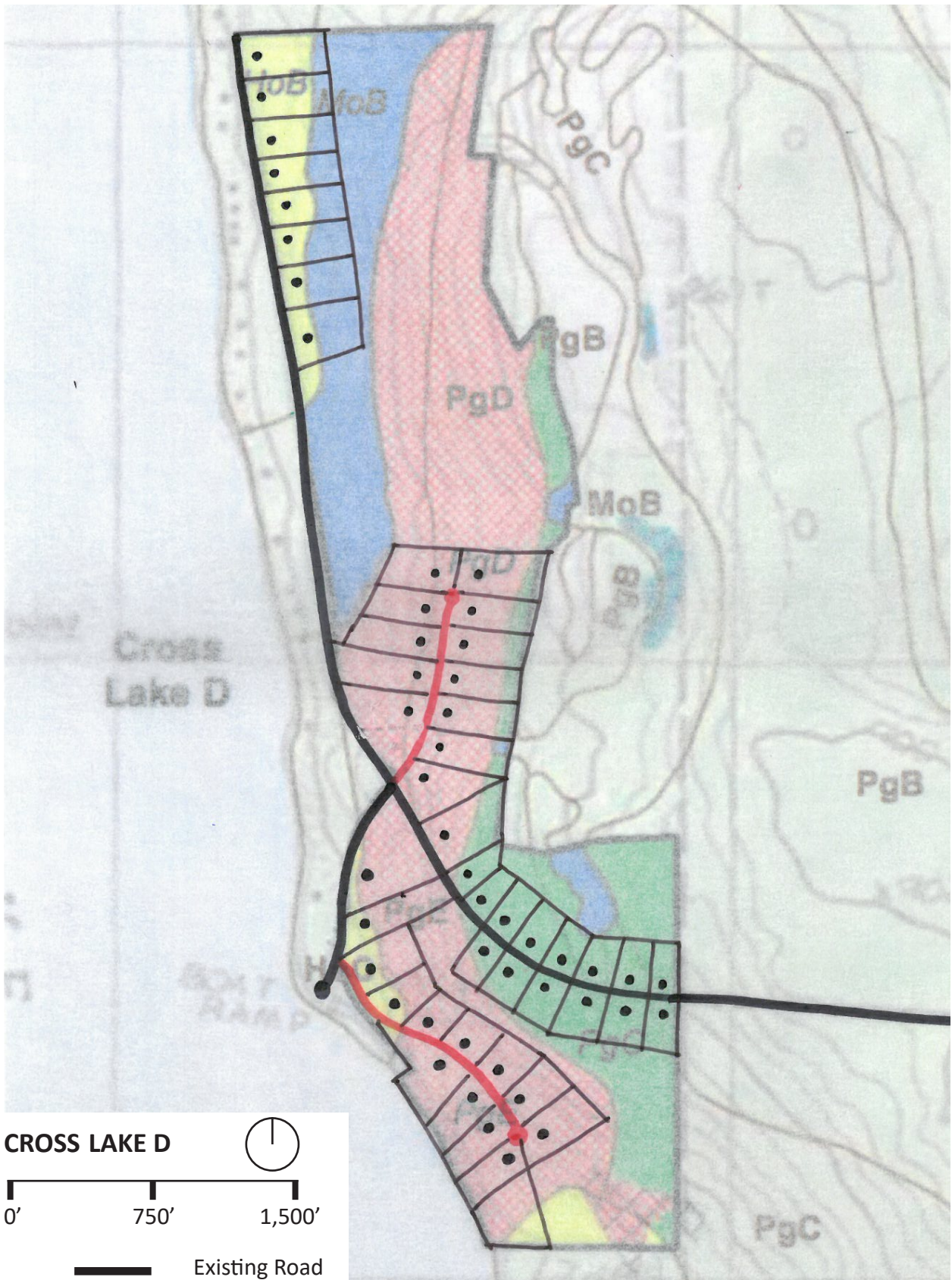


-  Existing Road
-  Upgraded Road
-  New Road
-  Common Area

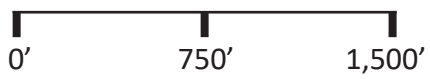








-  Existing Road
-  Upgraded Road
-  New Road
-  Common Area

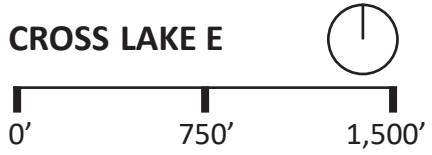
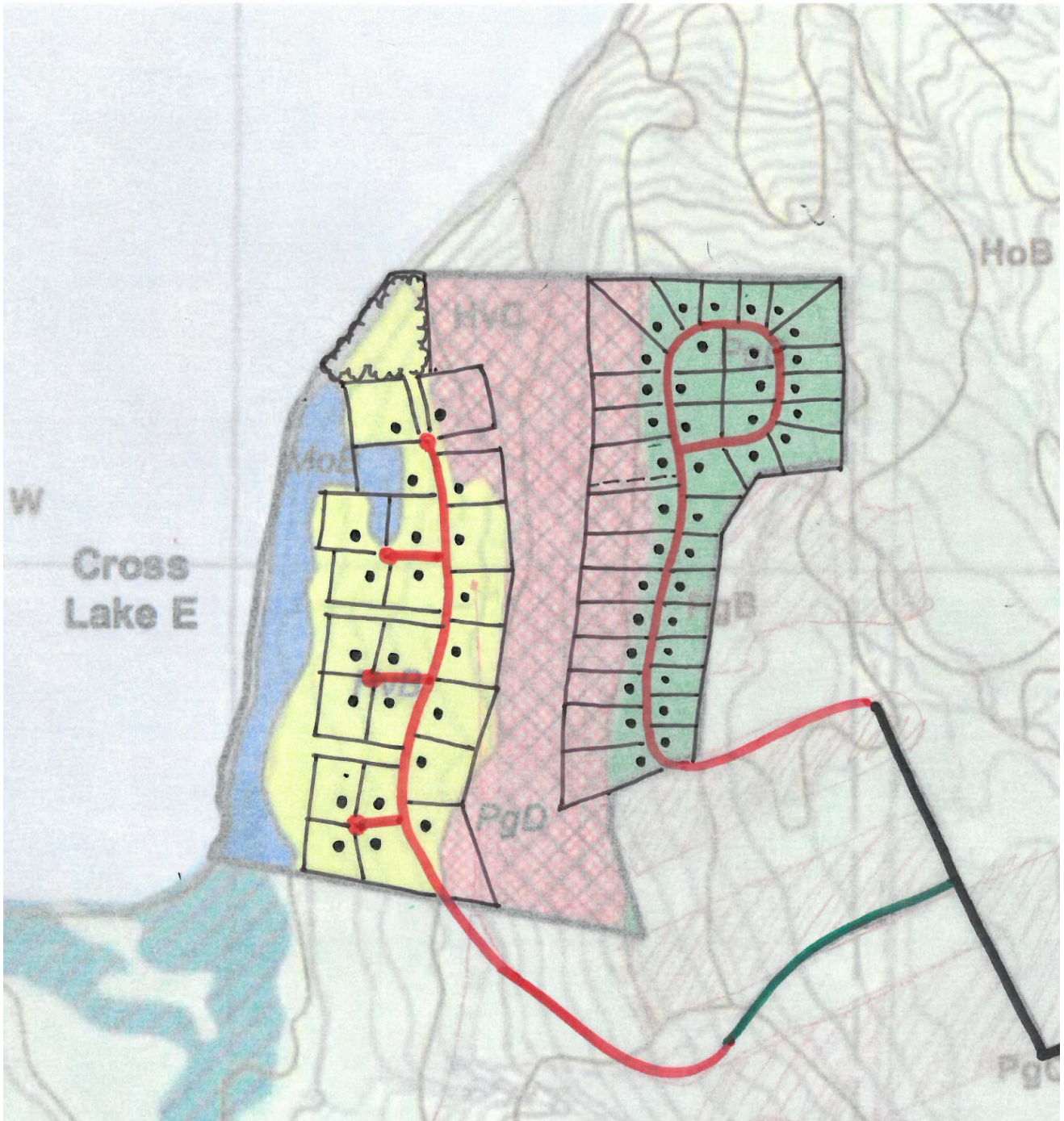






**CROSS LAKE D**



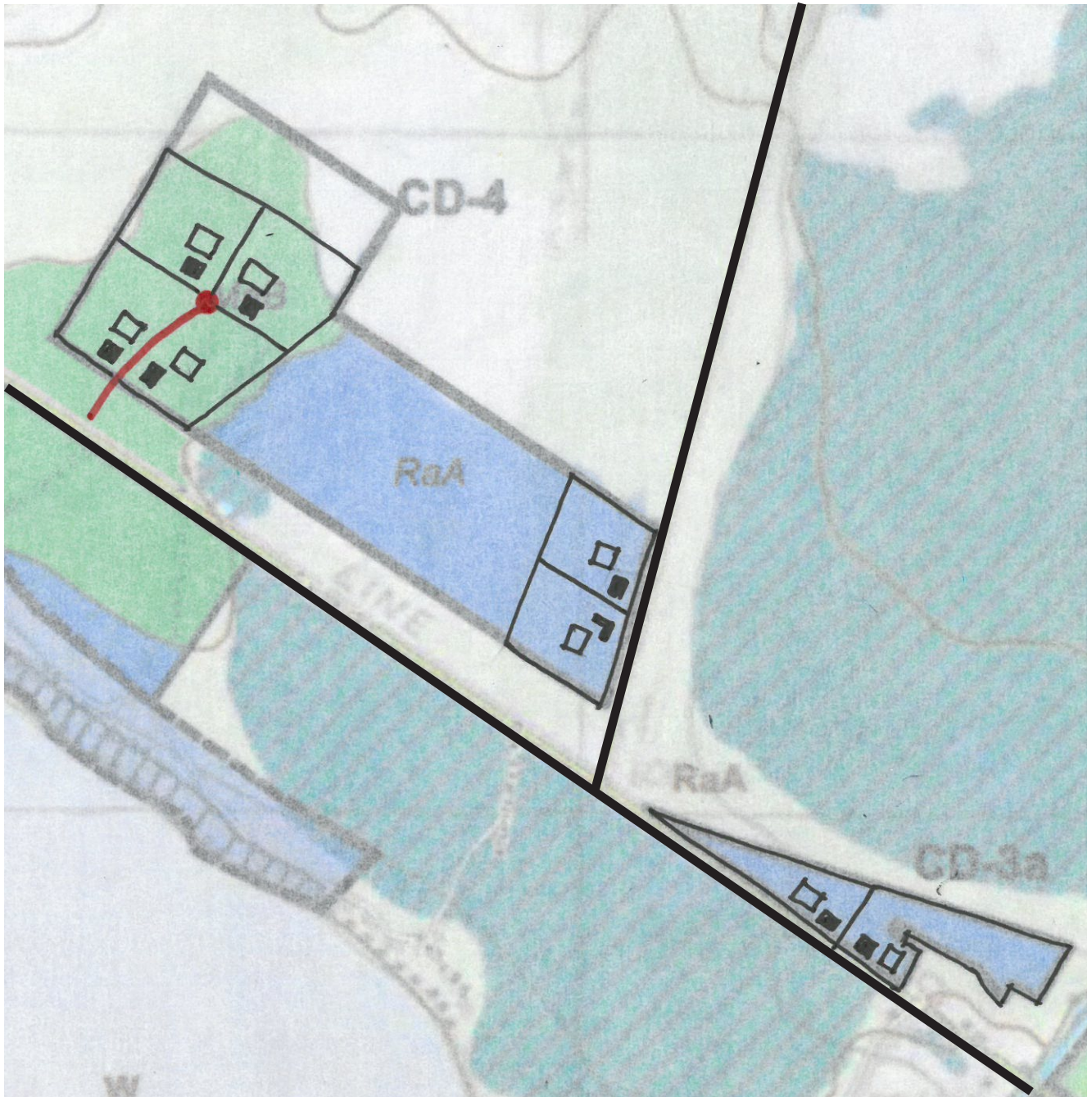
-  Existing Road
-  Upgraded Road
-  New Road
-  Common Area



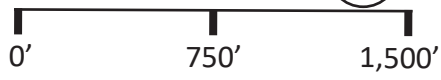




-  Existing Road
-  Upgraded Road
-  New Road
-  Common Area





CD-3 & CD-4



-  Existing Road
-  New Road



## **ATTACHMENT 4**

Phosphorus Export Calculations worksheets



IRVING WOODLANDS, LLC

# FISH RIVER CHAIN OF LAKES CONCEPT PLAN

APRIL 2018

Watershed: CROSS LAKE Development type: RESIDENTIAL \_\_\_\_\_ Sheet # CROSS LAKE A(2)

Land Surface Type or Lot #(s) with description	# of lots or (area_sf)	Export Coefficient from <b>Table 3.1</b> <b>Table 3.2</b>	Pre-treatment Algal Av. P Export (lbs P/year)	No Treatment or BMP(s)	Post-treatment Algal Av. P Export (lbs P/year)	Description
House lot (typical) including buildings, parking, lawns, leach field, (HSG C)	30	0.29	8.7	1	<b>8.700</b>	Cross Lake A(2) lots
Cross Lake A Common Area high export; HSG C soils	400	<b>0.5</b>	0.005	1	0.005	buildings/roof
	5000	<b>1.75</b>	0.201	1	0.201	roads/driveways/parking
	7000	<b>0.6</b>	0.096	1	0.096	open lawn/septic/grass
	<b>total</b>		0.302		<b>0.302</b>	
Cross Lake A Roads high export; HSG C soils	2000	<b>1.75</b>	1.607	1	1.607	new 20' roads (LF)
	2000	<b>0.6</b>	0.551	1	0.551	new roads (40' ROW) clearing (LF)
	1400	<b>1.75</b>	0.450	1	0.450	upgraded 12' to 20' roads (LF)
	1400	<b>0.6</b>	0.309	1	0.309	upgraded roads (24' to 40') clearing (LF)
	<b>total</b>		2.916		<b>2.916</b>	
Cross Lake A Export		<b>Total Pre-PPE (lbs P/year)</b>	11.918	<b>Total PostPPE (lbs P/year)</b>	<b><u>11.918</u></b>	
<b>Total P budget allocated for "Full-Build" Development in Cross Lake A</b>					<b>11.9</b>	<b>Project P budget (PPE) to be assigned to Cross Lake A Development (subject to overall Cross Lake unit cap)</b>



IRVING WOODLANDS, LLC

# FISH RIVER CHAIN OF LAKES CONCEPT PLAN

APRIL 2018

Watershed: CROSS LAKE Development type: RESIDENTIAL \_\_\_\_\_ Sheet # CROSS LAKE B

Land Surface Type or Lot #(s) with description	# of lots or (area_sf)	Export Coefficient from <b>Table 3.1</b> <b>Table 3.2</b>	Pre-treatment Algal Av. P Export (lbs P/year)	No Treatment or BMP(s)	Post-treatment Algal Av. P Export (lbs P/year)	Description
House lot (typical) including buildings, parking, lawns, leach field, (HSG B soils)	30	0.24	7.2	1	<b>7.200</b>	Cross Lake B Lots
Cross Lake B Common Area high export; HSG C soils	400	<b>0.5</b>	0.005	1	0.005	buildings/roof
	5000	<b>1.75</b>	0.201	1	0.201	roads/driveways/parking
	7000	<b>0.6</b>	0.096	1	0.096	open lawn/septic/grass
	<b>total</b>		0.302		<b>0.302</b>	
Cross Lake B Roads high export; HSG B soils	No new or upgraded roads					
	<b>total</b>		0.000		<b>0.000</b>	
Cross Lake B Export		<b>Total Pre-PPE (lbs P/year)</b>	7.502	<b>Total PostPPE (lbs P/year)</b>	<b>7.502</b>	
<b>Total P budget allocated for "Full-Build" Development in Cross Lake B</b>					<b>7.5</b>	<b>Project P budget (PPE) to be assigned to Cross Lake B Development (subject to overall Cross Lake unit cap)</b>



IRVING WOODLANDS, LLC

# FISH RIVER CHAIN OF LAKES CONCEPT PLAN

APRIL 2018

Watershed: CROSS LAKE Development type: RESIDENTIAL Sheet # CROSS LAKE C

Land Surface Type or Lot #(s) with description	# of lots or (area_sf)	Export Coefficient from <b>Table 3.1</b> <b>Table 3.2</b>	Pre-treatment Algal Av. P Export (lbs P/year)	No Treatment or BMP(s)	Post-treatment Algal Av. P Export (lbs P/year)	Description
House lot (typical) including buildings, parking, lawns, leach field, (HSG C)	30	0.29	8.7	1	<b>8.700</b>	Cross Lake C lots
Cross Lake C Common Area high export; HSG C soils	400	<b>0.5</b>	0.005	1	0.005	buildings/roof
	5000	<b>1.75</b>	0.201	1	0.201	roads/driveways/parking
	7000	<b>0.6</b>	0.096	1	0.096	open lawn/septic/grass
	<b>total</b>		0.302		<b>0.302</b>	
Cross Lake C Roads high export; HSG C soils	3550	<b>1.75</b>	2.852	1	2.852	new 20' roads (LF)
	3550	<b>0.6</b>	0.978	1	0.978	new roads (40' ROW) clearing (LF)
	2150	<b>1.75</b>	0.691	1	0.691	upgraded 12' to 20' roads (LF)
	2150	<b>0.6</b>	0.474	1	0.474	upgraded roads (24' to 40') clearing (LF)
	<b>total</b>		4.995		<b>4.995</b>	
Cross Lake C Export		<b>Total Pre-PPE (lbs P/year)</b>	13.997	<b>Total PostPPE (lbs P/year)</b>	<b>13.997</b>	
<b>Total P budget allocated for "Full-Build" Development in Cross Lake C</b>					<b>14.0</b>	<b>Project P budget (PPE) to be assigned to Cross Lake C Development (subject to overall Cross Lake unit cap)</b>



IRVING WOODLANDS, LLC

# FISH RIVER CHAIN OF LAKES CONCEPT PLAN

APRIL 2018

Watershed: CROSS LAKE Development type: RESIDENTIAL \_\_\_\_\_ Sheet # CROSS LAKE D

Land Surface Type or Lot #(s) with description	# of lots or (area_sf)	Export Coefficient from <b>Table 3.1</b> <b>Table 3.2</b>	Pre-treatment Algal Av. P Export (lbs P/year)	No Treatment or BMP(s)	Post-treatment Algal Av. P Export (lbs P/year)	Description
House lot (typical) including buildings, parking, lawns, leach field (HSG C)	35	0.29	10.15	1	<b>10.150</b>	Cross Lake D lots
Cross Lake D Common Area high export; HSG C soils	400	<b>0.5</b>	0.005	1	0.005	buildings/roof
	5000	<b>1.75</b>	0.201	1	0.201	roads/driveways/parking
	7000	<b>0.6</b>	0.096	1	0.096	open lawn/septic/grass
	<b>total</b>		0.302		<b>0.302</b>	
Cross Lake D Roads high export; HSG C soils	1300	<b>1.75</b>	1.045	1	1.045	new 20' roads (LF)
	1300	<b>0.6</b>	0.358	1	0.358	new roads (40' ROW) clearing (LF)
	<b>total</b>		1.403		<b>1.403</b>	
Cross Lake D Export		<b>Total Pre-PPE (lbs P/year)</b>	11.855	<b>Total PostPPE (lbs P/year)</b>	<b>11.855</b>	
<b>Total P budget allocated for "Full-Build" Development in Cross Lake D</b>					<b>11.9</b>	<b>Project P budget (PPE) to be assigned to Cross Lake D Development (subject to overall Cross Lake unit cap)</b>



IRVING WOODLANDS, LLC

# FISH RIVER CHAIN OF LAKES CONCEPT PLAN

APRIL 2018

Watershed: CROSS LAKE Development type: RESIDENTIAL \_\_\_\_\_ Sheet # CROSS LAKE E

Land Surface Type or Lot #(s) with description	# of lots or (area_sf)	Export Coefficient from <b>Table 3.1</b> <b>Table 3.2</b>	Pre-treatment Algal Av. P Export (lbs P/year)	No Treatment or BMP(s)	Post-treatment Algal Av. P Export (lbs P/year)	Description
House lot (typical) including buildings, parking, lawns, leach field (HSG C)	60	0.29	17.4	1	<b>17.400</b>	Cross Lake E lots
Cross Lake E Common Area high export; HSG C soils	800	<b>0.5</b>	0.009	1	0.009	buildings/roof
	8000	<b>1.75</b>	0.321	1	0.321	roads/driveways/parking
	14000	<b>0.6</b>	0.193	1	0.193	open lawn/septic/grass
	<b>total</b>		0.523		<b>0.523</b>	
Cross Lake E Roads high export; HSG C soils	10000	<b>1.75</b>	8.035	1	8.035	new 20' roads (LF)
	10000	<b>0.6</b>	2.755	1	2.755	new roads (40' ROW) clearing (LF)
	1400	<b>1.75</b>	0.450	1	0.450	upgraded 12' to 20' roads (LF)
	1400	<b>0.6</b>	0.309	1	0.309	upgraded roads (24' to 40') clearing (LF)
	<b>total</b>		11.548		<b>11.548</b>	
Cross Lake E Export		<b>Total Pre-PPE (lbs P/year)</b>	29.472	<b>Total PostPPE (lbs P/year)</b>	<b><u>29.472</u></b>	
<b>Total P budget allocated for "Full-Build" Development in Cross Lake E</b>					<b>29.5</b>	<b>Project P budget (PPE) to be assigned to Cross Lake E Development (subject to overall Cross Lake unit cap)</b>



IRVING WOODLANDS, LLC

# FISH RIVER CHAIN OF LAKES CONCEPT PLAN

APRIL 2018

Watershed: CROSS LAKE Development type: COMM/ECON DEV Sheet # CROSS LAKE CD-3

Land Surface Type or Lot #(s) with description	# of lots or (area_sf)	Export Coefficient from Table 3.1	Pre-treatment Algal Av. P Export (lbs P/year)	No Treatment or BMP(s)	Post-treatment Algal Av. P Export (lbs P/year)	Description
COMM/ECON DEV lots	2					Cross Lake CD-3 lots
COMM/ECON DEV lot (typical) including buildings, parking, lawns, leach field Cross Lake CD-3 high export; HSG C soils	5000	0.5	0.057	1	0.057	buildings/roof
	5000	1.75	0.201	1	0.201	roads/driveways/parking
	7000	0.6	0.096	1	0.096	open lawn/septic/grass
	per lot		0.355		0.355	Cross Lake CD-3/lot (HSG C soils)
	<b>total</b>			0.709		<b>0.709</b>
Cross Lake CD-3 Roads high export; HSG C soils	No new or upgraded roads necessary					
	<b>total</b>		0.000		<b>0.000</b>	
Cross Lake CD-3 Export		<b>Total Pre-PPE (lbs P/year)</b>	0.709	<b>Total PostPPE (lbs P/year)</b>	<u><b>0.709</b></u>	
<b>Total P budget allocated for "Full-Build" Development in Cross Lake CD-3</b>					<b>0.7</b>	<b>Project P budget (PPE) to be assigned to Cross Lake CD-3 Development</b>



IRVING WOODLANDS, LLC

# FISH RIVER CHAIN OF LAKES CONCEPT PLAN

APRIL 2018

Watershed: CROSS LAKE Development type: COMM/ECON DEV Sheet # CROSS LAKE CD-4

Land Surface Type or Lot #(s) with description	# of lots or (area_sf)	Export Coefficient from Table 3.1	Pre-treatment Algal Av. P Export (lbs P/year)	No Treatment or BMP(s)	Post-treatment Algal Av. P Export (lbs P/year)	Description
COMM/ECON DEV lots Cross Lake CD-4 (HSG B)	4					Cross Lake CD-4 lots
COMM/ECON DEV lots Cross Lake CD-4 (HSG C)	2					Cross Lake CD-4 lots
COMM/ECON DEV lot (typical) including buildings, parking, lawns, leach field high export; HSG B soils	5000	0.5	0.057	1	0.057	buildings/roof
	5000	1.75	0.201	1	0.201	roads/driveways/parking
	7000	0.4	0.064	1	0.064	open lawn/septic/grass
	per lot		0.323		0.323	Cross Lake CD-4/lot (HSG B soils)
<b>total</b>					<b>1.290</b>	Cross Lake CD-4 lots (HSG B soils)
COMM/ECON DEV lot (typical) including buildings, parking, lawns, leach field high export; HSG C soils	5000	0.5	0.057	1	0.057	buildings/roof
	5000	1.75	0.201	1	0.201	roads/driveways/parking
	7000	0.6	0.096	1	0.096	open lawn/septic/grass
	per lot		0.355		0.355	Cross Lake CD-4/lot (HSG C soils)
<b>total</b>					<b>0.709</b>	Cross Lake CD-4 lots (HSG C soils)
Cross Lake D Roads high export; HSG B soils	1400	1.75	1.350	1	1.350	new 20' roads (LF)
	1400	0.4	0.334	1	0.334	new roads (40' ROW) clearing (LF)
	<b>total</b>		1.684		<b>1.684</b>	
Cross Lake CD-4 Export		<b>Total Pre-PPE (lbs P/year)</b>	3.684	<b>Total PostPPE (lbs P/year)</b>	<b>3.684</b>	
<b>Total P budget allocated for "Full-Build" Development in Cross Lake CD-4</b>					<b>3.7</b>	<b>Project P budget (PPE) to be assigned to Cross Lake CD-4 Development</b>





IRVING WOODLANDS, LLC

# FISH RIVER CHAIN OF LAKES CONCEPT PLAN

APRIL 2018

SUMMARY FISH RIVER CHAIN OF LAKES CONCEPT PLAN Watershed: CROSS LAKE					% total cross lake budget
	LOTS	COMMON	ROADS	TOTAL	
Cross Lake A	8.70	0.30	2.92	11.92	
Cross Lake B	7.20	0.30	0.00	7.50	
Cross Lake C	8.70	0.30	5.00	14.00	
Cross Lake D	10.15	0.30	1.40	11.85	
Cross Lake E	17.40	0.52	11.55	29.47	
<b>CROSS LAKE TOTAL (FULL-BUILD-RESIDENTIAL)</b>	52.15	1.73	20.86	74.74	
<b>CROSS LAKE TOTAL (RESIDENTIAL CAP=125 UNITS)</b>	35.24	1.73	14.10	<b>51.06</b>	62.1%
<b>Maximum allowable P export from all residential development sites</b>				<b>51.1</b>	
Cross Lake CD-3	0.71	NA	0.00	0.71	
Cross Lake CD-4 (HSG B)	1.29	NA	1.68	2.97	
Cross Lake CD-4 (HSG C)	0.71	NA	0.00	0.71	
<b>CROSS LAKE TOTAL (COMM/ECONN DEV LOTS)</b>	2.71		1.68	<b>4.393</b>	5.3%
<b>CROSS LAKE TOTAL (FULL-BUILD)</b>	54.86	1.73	22.55	79.14	
<b>CROSS LAKE TOTAL (WITH RESIDENTIAL UNIT CAP)</b>	37.95	1.73	15.78	<b>55.46</b>	67.5%
total Cross Lake P budget				82.19	100.0%
<b>Total P budget allocated for all Concept Plan Development in Cross Lake watershed</b>	(subject to overall Cross Lake Residential unit cap)			<b>55.5</b>	67.5%
Total Cross Lake P Export from Non Concept Plan sources				26.35	
Total Cross Lake P Budget available for Non Concept Plan sources				26.73	
<b>Total P export applied to all Concept Plan and unregulated Development in Cross Lake watershed</b>				<b>81.81</b>	99.5%

## **ATTACHMENT 5**

Summary for Non-Concept Plan; Unregulated Future Activities

**FISH RIVER CHAIN OF LAKES CONCEPT PLAN  
NON-CONCEPT PLAN; UNREGULATED FUTURE ACTIVITIES**

Watershed: **CROSS LAKE** Development type: **unregulated-non concept plan activities** Sheet # **CROSS LAKE CD-3a**

Estimated Non Concept Plan Activities (assume HSG C soils)	Linear feet of unregulated roads (UPGRADED)	# of lots or (area_sf)	Export Coefficient from Table 3.1	Adjustment for Linear Roads (note 5)	Post-treatment Algal Av. P Export (lbs P/year)	Description
ROAD1	2800	39200.0	1.75	0.75	1.181	New Road surface (high export)
	2800	56000.0	0.6	0.5	0.386	Cleared roadway (high export)
ROAD2	2200	30800.0	1.75	0.75	0.928	New Road surface (high export)
	2200	44000.0	0.6	0.5	0.303	Cleared roadway (high export)
ROAD3	750	10500.0	1.75	0.75	0.316	New Road surface (high export)
	750	15000.0	0.6	0.5	0.103	Cleared roadway (high export)
ROAD4	1000	14000.0	1.75	0.75	0.422	New Road surface (high export)
	1000	20000.0	0.6	0.5	0.138	Cleared roadway (high export)
ROAD5	1200	16800.0	1.75	0.75	0.506	New Road surface (high export)
	1200	24000.0	0.6	0.5	0.165	Cleared roadway (high export)
ROAD6	2300	32200.0	1.75	0.75	0.970	New Road surface (high export)
	2300	46000.0	0.6	0.5	0.317	Cleared roadway (high export)
ROAD7	2000	28000.0	1.75	0.75	0.844	New Road surface (high export)
	2000	40000.0	0.6	0.5	0.275	Cleared roadway (high export)
ROAD8	4000	56000.0	1.75	0.75	1.687	New Road surface (high export)
	4000	80000.0	0.6	0.5	0.551	Cleared roadway (high export)
ROAD9	3600	50400.0	1.75	0.75	1.519	New Road surface (high export)
	3600	72000.0	0.6	0.5	0.496	Cleared roadway (high export)
ROAD10	4800	67200.0	1.75	0.75	2.025	New Road surface (high export)
	4800	96000.0	0.6	0.5	0.661	Cleared roadway (high export)
ROAD11	2800	39200.0	1.75	0.75	1.181	New Road surface (high export)
	2800	56000.0	0.6	0.5	0.386	Cleared roadway (high export)
ROAD12	4400	61600.0	1.75	0.75	1.856	New Road surface (high export)
	4400	88000.0	0.6	0.5	0.606	Cleared roadway (high export)
ROAD13	1100	15400.0	1.75	0.75	0.464	New Road surface (high export)
	1100	22000.0	0.6	0.5	0.152	Cleared roadway (high export)
ROAD14	1700	3400.0	1.75	0.75	0.102	Upgraded Road (high export)
	0	0.0	0.6	0.5	0.000	
ROAD15	1200	16800.0	1.75	0.75	0.506	New Road surface (high export)
	1200	24000.0	0.6	0.5	0.165	Cleared roadway (high export)
ROAD16	4200	8400.0	1.75	0.75	0.253	Upgraded Road (high export)
	0	0.0	0.6	0.5	0.000	
ROAD17	2800	39200.0	1.75	0.75	1.181	New Road surface (high export)
	2800	56000.0	0.6	0.5	0.386	Cleared roadway (high export)
ROAD18	2100	29400.0	1.75	0.75	0.886	buildings/roof
	2100	42000.0	0.6	0.5	0.289	roads/driveways/parking
ROAD19	2700	37800.0	1.75	0.75	1.139	New Road surface (high export)
	2700	54000.0	0.6	0.5	0.372	Cleared roadway (high export)
ROAD20	5200	10400.0	1.75	0.75	0.313	Upgraded Road (high export)
	0	0.0	0.6	0.5	0.000	
<b>NEW ROAD TOTALS</b>	<b>41750</b>	<b>584500.0</b>			<b>23.362</b>	
<b>UPGRADED</b>	<b>11100</b>	<b>22200.0</b>			<b>0.669</b>	
<b>TOTAL ALL ROADS</b>	<b>52850</b>				<b>24.031</b>	

FUTURE HOUSE LOTS		8.0	0.29	1	2.320	Future House lots (typical) including buildings, parking, lawns, leach field (HSG C)
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<b>Total Cross Lake Reserve P Export From unregulated Non Concept Plan Sources</b>	<b>Total PPE (lbs P/year)</b>	<b>26.351</b>	Unassigned P budget reserved for all non-Concept Plan unregulated activities			
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- LOCATIONS OF UNREGULATED ACTIVITIES FOR CONSTRUCTION OF NEW FORESTRY MANAGEMENT ROADS AND UPGRADES ARE SHOWN ON ROADS KEY MAP PROVIDED BY IRVING FOR ESTIMATED FUTURE ACTIVITIES WITHIN CROSS LAKE WATERSHED
- NEW ROADS ARE ASSUMED TO BE 14 FEET WIDE AND 10' CLEARING ON BOTH SIDES
- UPGRADED ROADS ARE ASSUMED TO BE INCREASED FROM 12 TO 14 FEET WIDE AND NO ADDITIONAL CLEARING
- TOTALS DO NOT INCLUDE 10,800 LF OF FORESTRY ROADS TO BE ABANDONED AND REVEGETATED (APPROXIMATELY 5.21 LB OF EXISTING EXPORT)
- ADJUSTMENT MADE FOR RUNOFF FROM LINEAR ROADS IMPERVIOUS (0.75) AND CLEARED AREA (0.50) PER CHAPTER 10.25.3.d

## **ATTACHMENT 6**

Potential House Lot Locations (TJD&A) April 10, 2018

### Non-Concept Plan Activities: House Lots

In addition to the possible new logging roads and upgrades to existing logging roads, the Stantec phosphorus report assumed that a certain number of additional house lots could be developed after the Concept Plan expires. The Petitioners are in the forest management business, and has resisted most of the requests by individuals for house lots within their active forestland. While the Petitioners have no plans to sell parcels of land outside of the designated residential development areas, TJD&A identified several locations on existing roads that are either within 0.5 mile of the lake, on the thoroughfare, or in other desirable locations, and thus are a reasonable prediction of future development potential.

Site characteristics used in the location of potentially suitable house lots include:

- Land within the Cross Lake watershed
- Land currently owned by the Petitioners and outside of designated development areas
- Within half a mile of the Cross Lake shoreline on a Petitioners-maintained road or adjacent to a state-maintained road (Routes 161 and 162)
- Soils that are described as Generally Suitable on the USDA NRCS Soil Survey for Aroostook County
- Avoid areas that are shown as Unsuitable due to wetness
- Avoid areas adjacent to transmission lines
- Avoid areas that have been recently replanted
- Preference given to locations where the house site may be part of an existing pattern of development

Three areas were identified that meet these criteria and are shown on the accompanying map with a red hexagon:

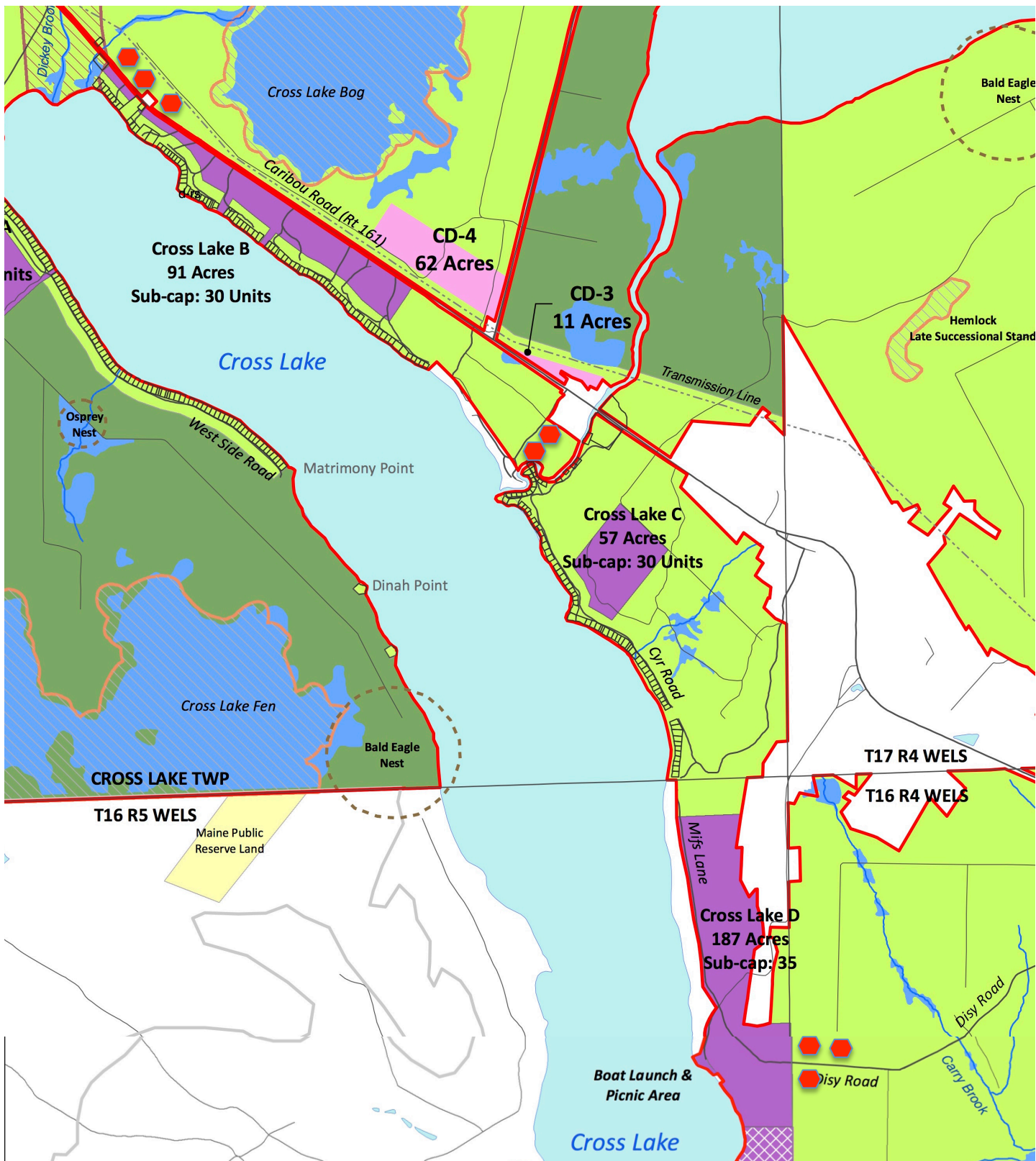


- On Route 161, adjacent to the existing Senior Center: several possible sites
- On the east side of an unnamed woods road on the north side of the Mud/Cross Lake Thoroughfare: one or two possible sites
- On the Disy Road lading to Cross Lake D: several possible sites.

For purposes of determining potential phosphorus export, the calculations used a total of eight lots and applied a factor of 0.29 lbs/lot/year. This assumed that the lots would have the following characteristics:

- No restrictions on the area that would be cleared
- No restrictions on the area of driveways or parking areas
- Driveways would be a maximum of 150 feet in length
- No buffer vegetation around the home or paved areas
- Soils would be in Hydrologic Soil Group C.

This is a very conservative approach to determining potential P export from future house lots, beyond the expiration of the Concept Plan. If the Petitioners did decide to offer land for sale past the date of the Concept Plan, they would have a record of how much of the phosphorus budget was available, following the development any residential or community/economic development areas.



**CROSS LAKE POTENTIAL HOUSE LOT LOCATIONS**



**EVALUATION OF PHOSPHORUS EXPORT AND ALLOCATIONS**

FOR

**FISH RIVER CHAIN OF LAKES CONCEPT PLAN**

April 12, 2018

Prepared for:

Irving Woodlands, LLC  
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## Executive Summary

In May 2017, Irving Woodlands LLC and its related corporate entities, Aroostook Timberlands, Allagash Timberlands, and Maine Woodlands Realty (collectively referred to as “Irving”) issued The Fish River Chain of Lakes Concept Plan and filed a petition with The Land Use Regulation Commission (LURC) for rezoning of the Plan area that encompasses approximately 51,015 acres, currently included in the P-RP Subdistrict. The Concept Plan includes land within 6 unorganized townships: T17 R3, T17 R4, T17 R5 (Cross Lake Township), T16 R4 (Madawaska Lake Township), T16 R5, and T15 R5. The Plan area also includes approximately 34.5 miles of frontage on Long Lake, Mud Lake, Cross Lake, and Square Lake, and along the thoroughfares that connect the lakes. The current use of the lands in the Plan area is primarily forest management and recreational uses. There is limited existing development in the Plan area, including approximately 425 existing camp lots and the Village of Sinclair is located adjacent to the Plan area.

The Land Use Regulation Commission (LURC) established Concept Plans in 1990 as part of the Comprehensive Land Use Plan to encourage meaningful long-range planning based on resource characteristics and site suitability, and to prevent random or unplanned incremental development in the Unorganized Territories. The process for developing the Concept Plan by Irving has taken more than 5 years and includes a comprehensive planning approach to ensure that development pursuant to the Concept Plan will not have any undue adverse impact on the Plan area or natural resources including the Chain of Lakes. The Concept Plan proposes rezoning a few small areas or parcels that specifically include limited development potential within the watershed of Long Lake, Mud Lake, Cross Lake, and Square Lake.

Forestry is an important economic and cultural resource in the region and for Maine’s Unorganized Territories. The Concept Plan will enable Irving to make long-term decisions for forest management activities, allow for continued recreational use and encourage limited residential and community and economic growth, with a high degree of predictability, by identifying those areas to be designated for future development. The Concept Plan seeks to preserve the working forest and sustainability of the forest products industries in the region and to conserve the natural resources, and recreational opportunities enjoyed by those who live, work, and recreate in the region. Important elements of the Plan include placing over 14,600 acres of land in permanent conservation and adopting existing protection subdistricts throughout the Plan area to ensure that significant habitats will be preserved and also limiting the potential for development to a sustainable level at locations throughout the Plan area that will prevent adverse impacts to the water quality of the lakes.

The adoption of the Concept Plan is subject to the requirements and standards provided in the *Land Use Districts and Standards, for Areas Within the Jurisdiction of the Maine Land Use Planning Commission* manual, as revised in May 2017, and as included in proposed amendments within the Concept Plan. Specifically the plan must meet the standards for Surface Water Quality (Chapter 10.25.K) and Phosphorus Control (Chapter 10.25.L). These standards require all development to cause no undue adverse impact to the surface water quality of the affected lakes and to limit the export of phosphorus from the development sites following completion of any development or subdivision.

In December, 2017, The Maine Department of Environmental Protection (DEP) issued a memo to assess the feasibility of being able to develop the numbers of all commercial lots and residential units within the development areas identified in the Fish River Concept Plan, without exceeding the phosphorus budget determined for each lake. The DEP memo addressed potential phosphorus (P) export from each of the proposed development areas in the Concept Plan and concluded that the development areas that may be allowed within the Concept Plan are feasible without long term impacts to the lakes, but identified some concerns specifically within the Cross Lake watershed due to its existing status and greater vulnerability to development pressure, limited lake phosphorus budget, and contributing land areas where unregulated activities such as agriculture and forestry management practices also continue to contribute to the water quality status.

Terrence DeWan & Associates (TJD&A), The Musson Group, Irving, and Stantec have worked with the Land Use Planning Commission (LUPC) and DEP staff to revise the Concept Plan for the development areas to be rezoned within the Cross Lake watershed in order to balance the phosphorus budget to include potential influence from unregulated non-Concept Plan activities. A portion of the lake phosphorus budget for Cross Lake will be reserved for future timber harvesting activity and for other potential uncontrolled future sources. Detailed export calculations of the Cross Lake developments are included in Appendix A.

The export of phosphorus from all potential development sites within the Concept Plan was calculated using methodology approved by DEP and LUPC. The total export from all allowable residential and community development areas in the Concept Plan, will not exceed the lake phosphorus budgets (PB) for the lakes, after considering any residential unit caps, while still allowing some reserve budget capacity for off-site and unregulated activities not associated with the development areas. As a result, the Fish River Chain of Lakes will be protected and will meet Maine water quality standards for non-point stormwater discharge and phosphorus export to receiving waterbodies that must maintain a stable or decreasing trophic state.

## Abbreviations

DEP	Maine Department of Environmental Protection
P	Phosphorus
PB	Overall Lake Phosphorus Budget
PPB	Project Phosphorus Budget (per development area)
Concept Plan	Fish River Chain of Lakes Concept Plan
LUPC	Land Use Planning Commission
TJD&A	Terrence DeWan & Associates
Irving	Irving Woodlands, LLC
TWP	Township
BMPs	Best Management Practices
Manual	DEP Phosphorus Control Manual
NRCS	Natural Resources Conservation Service
SF	Square Feet (area)
LF	Linear Feet (distance)
ac	Acre (area)

## 1.0 INTRODUCTION

Among the many imminent threats to Maine lakes, near the top of the list, and perhaps the most pervasive, is the potential for lakes to become nutrient enriched and more biologically productive, usually as a result of increasing development pressure occurring in lake watersheds. This condition is characterized by declining water clarity or transparency, resulting from an increase in the production and growth of algae. Excess algae in lake water can cause a disturbance to the normal equilibrium of the aquatic ecosystem. In most lake systems, there is typically a limiting nutrient that restricts the amount of plant growth that can occur. Phosphorus is a common nutrient typically associated with soil particles and organic matter and ultimately controls the level of algae production that may occur in lakes.

The Maine DEP determines a lake's vulnerability or current status and the potential for additional phosphorus loading in a lake watershed, and evaluates and distributes the potential for export amongst anticipated new development sources in the lake's watershed, usually on a per acre basis according to the size of the area(s) draining to the lake. Phosphorus export from any development project cannot exceed the predetermined phosphorus budget allocated for the parcel to be developed. The goal of the DEP phosphorus methodology is to provide for a level of development and protection sufficient to avoid any increase in each lake's trophic state, and to distribute the burden of this protection over the entire watershed, and over time, thus allowing for the maximum development potential within any watershed that may occur, without exceeding the phosphorus budgets allocated for each development area or overall lake phosphorus budgets.

Phosphorus usually reaches a lake in stormwater runoff from within the lake's watershed, and tends to be attached to small, lightweight soil particles that may be flushed from the land area draining to the lake during rain events. The amount of phosphorus reaching the lake depends on what the stormwater flows over on its way to the lake that is generally defined by the levels of development surrounding the lake. Natural vegetated and forested areas do not readily release phosphorus to stormwater runoff due to the organic debris or duff layer on the ground, natural vegetation cover, and tree canopy coverage that block or absorb rainfall and limits phosphorus export. The sources of phosphorus are mostly from natural occurrences in an undeveloped environment and from atmospheric deposition. Phosphorus loading contributed by runoff from pastures and croplands is likely the largest source of nonpoint phosphorus on a regional or statewide basis. In undisturbed natural environments, phosphorus is mostly fixed and remains available locally as a nutrient that may be consumed by the trees and vegetation, and results generally in a state of natural equilibrium. However, developed areas, such as residential, commercial or industrial areas, and especially urban areas, contain much higher levels of phosphorus available to be transported to the lake through drainage channels, pipes or flushed from paved or impervious surfaces. The absence of the natural filters and vegetation in developed areas disrupts the equilibrium and allows the phosphorus to be freely transported to shallow channels and streams discharging to the lake waters. Generally speaking, the more developed a lake's watershed is, the greater the transport of phosphorus and the higher the phosphorus concentration of the lake water. This process of transferring phosphorus from developed areas to the lake is referred to herein as phosphorus export or export.

The watersheds draining to lakes also vary greatly in overall characteristics. They can be large or small relative to the lake size and can contribute a wide range of volumes of stormwater and groundwater to the lake. A watershed may be entirely vegetated as upland or it may contain a number of streams and wetlands. It may contain steep slopes or be relatively flat. Soils may range from loose sands or gravels to tight clays or shallow tills. Watershed characteristics can range from forested, pastoral, agricultural, or developed, and the lake watershed may be subject to rapid growth and development pressure. These factors, along with the physical characteristics of the lake itself, such as size, volume, depth, flushing rate and recreational use may determine the potential for increased phosphorus export, which could result in algae blooms in the lake over time. Lakes are individuals, each one differing from the others with specific lake characteristics that affect the way a lake may respond to additions of phosphorus.

## **2.0 PHOSPHORUS ASSESSMENT**

Irving owns or controls extremely large landholding parcels within 6 unorganized townships, totaling over 51,000 acres of land around four of the lakes that comprise the Fish River Chain of Lakes in northern Aroostook County, that include large parts of the watersheds within the TWPs of the lakes involved. For the four lakes, Irving owns between 40% to 90% of all land within the Townships and within the direct watersheds of Cross Lake, Mud Lake, Long Lake and Square Lake. The Concept Plan rezones the Plan area to a P-RP Subdistrict with four types of development zones around the Fish River Chain of Lakes: Residential Development (D-FRL-RS); Recreation Facility Development (D-FRL-RF); General Development (D-FRL-GN); and Commercial Industrial Development (D-FRL-CI). Each of these zones has one or more development areas where proposed zoning regulations to allow new development will be implemented. The Concept Plan includes 11 residential and 4 community/ economical development parcels representing only about 4% of Irving's total land in the Plan.

Accordingly, a very small portion of the overall lake watersheds will be subject to development. The remaining land areas of the Plan are zoned as General Management (M-FRL-GN) or in a Protection subdistrict and will be managed to promote traditional forestry and recreational activities where no development activities will occur other than construction or maintenance of forestry management roads. These unregulated uses are not included in the portions of the Concept Plan to be rezoned for development, and therefore are not considered in the phosphorus export as calculated for the potential development sites. There is a maximum number of new residential development units that may be approved in the new development areas located around each of Long Lake (75), Cross Lake (125) and Square Lake (130), known as the development area cap, and an overall Concept Plan unit cap of no more than 330 new development units that may be approved in the new development areas. Even though each lake may have a total of more units allowed by zoning than the area cap will permit, the actual number of units that can be constructed within each lake watershed will be limited to the area cap for that lake.

The water quality standards for Maine lakes require that they have a stable or decreasing trophic state, subject only to natural fluctuations, and must be free of culturally induced algal blooms that impair their use and enjoyment. Of the four lakes included in the proposed plan only Cross Lake fails to meet these

standards. Cross Lake has, for many years, supported mid-summer blue green algal blooms that reduce measured secchi disc transparency to 2.0 m or less. Long Lake is a productive lake that, in past years has supported algal blooms, but is currently exhibiting a promising trend of decreasing trophic state. Mud Lake is a productive lake with an apparent stable trophic state, though little water quality data has been collected on the lake in recent years. Square Lake is a moderately productive lake with a stable trophic state. While the principle reason for impairment of Cross Lake is from inputs of phosphorus from agricultural activities located primarily in the Dickey Brook watershed, runoff from forestry roads and harvesting operations also contribute to the problem.

Except for the possible construction of a hand carry launch on Mud Lake, the Concept Plan does not actually propose any specific development, but rather is a rezoning plan to allow for future development and long term conservation in specified areas. Each lake subject to residential development will also have a unit cap. All of the development sites in the Concept Plan will be subject to the LURC Land Use District Standards for Surface Water Quality (10.25.K) and Phosphorus Control (10.25.L). However, the vast majority of the land in the Concept Plan will be unregulated with regards to these standards and are not subject to phosphorus export calculations or standards.

Each lake has an overall allocated Lake Phosphorus Budget (PB) as determined by the DEP. According to the DEP, the Concept Plan PB allocations (lb P/yr) for each lake are 208.55 (Long Lake), 103.75 (Mud Lake), 82.19 (Cross Lake), and 458.14 (Square Lake). These were developed based on the total land areas within each township draining to a lake, according to how much the lake's phosphorus concentration can be increased without risking a perceivable increase in its algal production or a decline in its healthy, natural fish community. This value, representing the acceptable increase in lake phosphorus concentration (C), is a function of two variables: Water Quality Category of the lake; and the Level of Protection appropriate for the lake and specific to each lake. These PB allocations are available and will apply to all of the development areas draining to each lake. It will be up to Irving, with the oversight and approval of LUPC, to manage these lake phosphorous budgets and assign an individual Project Phosphorus Budget (PPB) to each development area to allow for possible levels of development.

Since Irving will not be acting as a developer and may sell the designated development areas to developers or other entities in the future, the DEP recommended that Irving should decide up front how much of the Concept Plan's lake phosphorus budgets should be allocated or assigned to each development area within each lake's watershed. Each development parcel will have an assigned Project Phosphorus Budget (PPB) to offset the Project Phosphorus Export (PPE) calculated for each of these sites as determined by the DEP methodology for calculating phosphorus export. Refer to Appendix A for detailed results of phosphorus calculations. These project phosphorus budget numbers will be included in the zoning, sales agreement and/or any deed restrictions so the future buyers would know the potential for development in the area they are purchasing, and the DEP and LUPC would know what the allocated phosphorus budget is for each development parcel.

Each lake was assessed according to combined export totals from the PPE calculated for each residential and community/ economic development area within the direct watershed, and may also be subject to area caps for residential units. The phosphorus export from all areas must meet the allocated PPB for the development site and the cumulative export will not exceed the overall lake PB for each lake watershed.

The PPB for each project will be tracked, as development occurs within the Plan area, along with the total unit count, to assure that each lake PB and/or residential unit cap will not be exceeded.

### **3.0 METHODOLOGY**

Every lake is uniquely situated and the watersheds draining to lakes involve many distinguishing factors relating to vegetative cover, topography, soils, rainfall, existing levels of development or disturbance, and rate of population growth or development pressure. The Maine Department of Environmental Protection (DEP) has considered all of these factors, as well as the physical characteristics of each lake in developing a methodology for determining phosphorus budgets for the watershed of each lake. Each lake is given a per acre allocation factor (P) depending on these unique watershed and lake characteristics. These factors are found in Appendix C of the DEP Manual for most Maine lakes that have been evaluated by the DEP Division of Watershed Management. This Appendix C also presents the information and assumptions used to derive the value of P for the lake watershed of concern.

The DEP methodology is provided in the Maine Stormwater Design Manual, Phosphorus Control Manual, or DEP Manual as referred to herein. The DEP Manual addresses long-term phosphorus loading to lakes by setting standards to limit phosphorus contributions from new developments, and outlines guidelines to meet these standards with the focus on limiting, but not preventing, phosphorus contributions from new developments to lake watersheds. Each lake's phosphorus budget, or per acre allocation factor, is based on how much additional phosphorus loading the lake could accept without resulting in a perceivable change in the lake's water quality. The methodology distributes this additional phosphorus load amongst anticipated new development sources in the lake's watershed on a per acre basis. The per acre phosphorus allocation for a development parcel is used to determine a project phosphorus budget and defines how much phosphorus can be allowed to discharge to a lake, in stormwater runoff from a development project, from each acre of land that may become developed or disturbed. The total phosphorus budget for the project (PPB) is thereby defined by the size (acres) of a development for a project within the watershed based upon the per acre allocation factor.

Phosphorus export from any development project cannot exceed the phosphorus budget allocated for the parcel to be developed. Most projects will generate more phosphorus than the project's phosphorus budget (PPB) will allow. In order to meet the budget, the excess phosphorus export must be reduced by redesigning the project so that initial phosphorus export is minimized or by reducing a project's export from developed areas by incorporating stormwater best management practices (BMPs) to remove and reduce phosphorus from the stormwater before it leaves the site. Some examples of treatment BMPs are vegetated buffer areas, wet ponds, soil filters and infiltration beds. Comparison of the pre-treatment PPE with the PPB will determine how much potential export will need to be reduced onsite.

While per acre phosphorus allocation is the standard method for determining the PPB when assessing impacts to Maine lakes for development projects, the DEP recommended using an overall combined phosphorus budget (PB) for each lake to evaluate the Concept Plan. Rather than evaluating each development area in the Concept Plan based on the PPB determined from the per acre phosphorus

allocation factors associated with the actual project areas, the DEP determined that it is reasonable and more practical to establish an overall combined phosphorus budget for each lake. The DEP provided the PB for each of the lakes in the Concept Plan. The total amount of each PB is proportional to the percentage of each total direct lake watershed occupied by the Concept Plan and owned or controlled by Irving. Because of the unique character of this Concept Plan, which involves extremely large landholding parcels and widely distributed development areas, this approach will allow Irving to manage how these overall lake phosphorus budgets should be applied or distributed for each lake and associated development areas.

Based on this approach of providing a total combined phosphorus budget for each lake, the individual project PPB allocations for all development areas within each lake watershed can be determined. The PPB for each area is assigned so that the aggregate sum of all phosphorus budgets given to each development area will not exceed the overall PB for each lake. The PPE for each site cannot exceed the assigned PPB. This PPE/PPB comparison is made after considering any development limitations based on residential unit caps within each lake watershed. The PPB for each site is assigned with a maximum value to include all potential export, such that each development area can be fully developed based on the “full-build” potential and maximum number of allowable lots. The assigned PPB need not be fully used up at a site, but will be applied for all proposed development up until the proposed level of development is implemented, or the unit cap is reached, after which, no further residential development can occur within the lake watershed, unless other measures are taken to reduce P export from other activities in the watershed. Any excess phosphorus budget not used at a development site may be transferred to other developments, upon review and approval by LURC, within the same lake watershed, providing that the overall PB for the lake is not exceeded for all sites. No portion of any lakes PB can be transferred to a different lake.

Each of the residential and community/economic development areas within each Lake watershed were evaluated to assess the P export associated with the levels of development that would be possible according to assumptions made regarding typical development densities and road access requirements, based on sketches and descriptions provided by TJD&A for each area. These assumptions include estimated areas of typical lot coverage from roofs, driveways, septic systems and lawns, individual house lots, new access roads, upgrades to existing roads, common areas, number of potential lots, soils, and limitations due to maximum potential development based on an overall residential unit cap for each lake. The community/economic development areas included conservative assumptions for the maximum developed coverage that would likely occur on each lot.

#### **4.0 PHOSPHORUS CALCULATIONS**

Although not anticipated, or necessary to meet the assigned full-build PPB, some of the development areas could have lots with treatment measures and/or restrictions, and some with none, or any combination thereof at the time of a future development proposal. The many potential issues associated with such restrictions, treatment BMPs, or stormwater management structures that may be proposed need to be considered as well as potential related problems of design, construction, long-term



maintenance, and the responsibility for that maintenance would need to be worked out. Monitoring, inspecting, policing, and lot clearing maximums or BMP maintenance requirements have caused problems in the past, especially in the Unorganized Territories, and are usually difficult to correct or mitigate once the lot has been cleared or site construction completed. Such restrictive and specific requirements to establish predetermined or prescribed limitations for future and unknown development proposals is beyond the scope and intent of the Concept Plan, which is to provide adequate zoning to accommodate future economic growth and development in the area without adversely impacting water quality.

Export values were determined from Table 3.1 and 3.2 from the DEP manual based on the assumed lot coverages for each lot. Although it is reasonable to assume that residential lots in this part of Maine would most likely be described as smaller “camp lots,” rather than the much larger development footprints of a typical “single family” house lot that may occur elsewhere in the state, it was agreed that the use of Table 3.2 would be used to conservatively calculate the export from the residential lots. The P export associated with potential lot development for each residential area has been evaluated for full build-out without any restrictions, covenants, BMPs or mitigation requirements. This has been done to fit strictly within the assigned PPB for each of these development areas to assure that the levels of development anticipated in the Concept Plan can be achieved. All other export values were determined from Table 3.1. Community/economic development areas are evaluated based on values provided in Table 3.1 for Commercial Development with no restrictions on fertilizer use, no buffers, and no restrictions on impervious surfaces or ditch design, and using the High Export Option.

Refer to Appendix A for summary of results of phosphorus calculations.

<b>Table 3.1</b>			
<b>Algal Available Phosphorus Export (pre-treatment) for Commercial Development and Subdivisions</b>			
		<b>Low Export Option</b>	<b>High Export Option</b>
Land Use	Hydrologic Soil Group	P Fertilizers restricted, roads and drives paved and constructed with stable swales (lb/acre/yr)	No restrictions on fertilizer use, road surface or ditch design and construction (lb/acre/yr)
<b>Landscaped Areas, Lawns &amp; Ditches</b>	A	0.1	0.2
	B	0.2	0.4
	C	0.3	0.6
	D	0.4	0.8

<b>Roads/Driveways</b>	N/A	1.25	1.75
<b>Parking</b>	N/A	1.25	1.25
<b>Roofs/Other</b>	N/A	0.5	0.5
<b>Riprap/crushed rock</b>	N/A	0.3	0.6

<b>Table 3.2 Algal Available Phosphorus Export from Single Family Residential Lots (pre-treatment)</b>				
<b>Hydrologic Soil Group</b>	<b>With Area Restrictions</b>		<b>Without Area Restrictions</b>	
	Cleared Area < 12,000 sq ft Driveway/Park < 1,750 sq ft (lb/lot/year)		No Restriction on cleared area or driveway/parking area (lb/lot/year)	
	w/ 75% drive/park area to buffer	w/o 75% drive/park area to buffer	w/ 75% drive/park area to buffer	w/o 75% drive/park area to buffer
<b>A</b>	0.09	0.14	0.12	0.18
<b>B</b>	0.12	0.17	0.17	0.24
<b>C</b>	0.15	0.20	0.22	0.29
<b>D</b>	1.08	0.23	0.27	0.34
<p>Note: Driveways and parking are considered to be draining directly to a buffer if the flow path to the buffer is 50 feet or less and if the runoff reaches the buffer in well distributed overland flow.</p> <p>Note: phosphorus export values in this table assume a driveway of 150 feet in length, or less. If driveways will likely exceed 150 feet, the excess driveway length should be considered a road and its export calculated using Worksheet 2 and Table 3.1.</p>				

The DEP memo asserts that the goal of the phosphorus methodology is to provide protection sufficient to avoid an increase in the lake's trophic state, and to distribute the burden of this protection over the watershed and over time, thus allowing a sustainable level of development potential within any watershed. This works well in typical lake watersheds where most of the new sources of phosphorus are associated with development activities that are subject to regulations and required to meet some version of the lake water quality standard. But in watersheds with other existing and future phosphorus sources generated from off-site activities that may account for a portion of the threat to the lake's water quality, the Phosphorus Standard is not likely to provide sufficient protection, unless some of the allowable increase in phosphorus load (PB) is reserved for these unregulated or under-regulated sources. With the recognition that there is potential for future P sources not associated with development activities within the Concept Plan area, but with unregulated timber harvesting road construction, a portion of the PB for

each lake will be reserved for future harvesting activity and for other potential uncontrolled non-Concept Plan sources.

Previous findings from Maine DEP generally concluded that future development within the Plan Area could reasonably occur without long term impacts to the lakes due to the fairly large lake phosphorus budgets and proposed limited levels of development and associated P export, except for on Cross Lake where existing elevated phosphorus related impacts are an area of concern. In fact, the DEP memo stated that the principal source of P export to Cross Lake is from non-Irving agricultural activities located primarily in the Dickey Brook watershed, and that runoff from roads and harvesting operations also contributes to the potential degradation of the Cross Lake water quality status. Additional phosphorus load to Cross Lake, beyond acceptable levels of export exceeding the PB for the lake has the potential to increase the duration and intensity of the algal blooms, so any new phosphorus sources or expansion of existing phosphorus sources should be treated with particular care. Because the overall Cross Lake PB is relatively small and Cross Lake watershed includes a substantial portion of the Concept Plans development areas, a separate analysis, submitted to DEP, focused on the Cross Lake watershed to ensure that future permitted development can be achieved without the need for more complicated treatment measures, BMPs, lot restrictions, off-site mitigation or long term maintenance requirements, which may not be practical in a rural development setting. The results of that assessment are provided herein.

#### **4.1 CROSS LAKE PHOSPHORUS EXPORT**

##### Assumptions

Cross Lake watershed has a Phosphorus Budget (PB) of 82.19 lb P/yr for all land owned by Irving.

The Concept Plan includes 2 community/economic development areas and 5 residential development areas within the watershed of Cross Lake

All lots are forested under existing conditions.

Soils are as shown on the lot sketches per Natural Resources Conservation Service (NRCS) soils mapping. Soils are assumed to have drainage characteristics according to the NRCS Hydrologic Soils Groups (HSG), which may affect the export of phosphorus from vegetated areas.

Phosphorus export values were taken from Tables 3.1 and 3.2. of the MDEP Manual.

Refer to Pre-treatment and Post-treatment Phosphorus Export Calculations worksheets in Appendix A for detailed calculations

##### P Export for Lots

Residential lot export is **0.29** for HSG C soils and **0.24** for HSG B soils according to Table 3.2 for Single Family Lots with no restrictions on cleared areas or driveway/parking area, and without any buffers.

Community/economic development areas are evaluated based on values provided in Table 3.1 for Commercial Development with no restrictions on fertilizer use, no buffers, and no restrictions on impervious surfaces or ditch design, and using the High Export Option.

P Export for Roads

Export from roads is evaluated based on values provided in Table 3.1 with no restrictions on impervious surfaces or ditch design, and using the High Export Option and assuming (HSG C soils), as follows:

Three types of roads are assumed:

1. New roads will be 20' in width, in a 40' wide clearing (**0.108 lb/100 LF**)
2. Upgraded roads from 12' in width to 20', with a clearing that goes from 24' to 40' in width (**0.054 lb/100LF**)
3. Existing roads suitable for residential development in terms of their current width and condition (**0 lb**)

Common areas are separate from residential lots and generally near the water (HSG C soils assumed). These areas are evaluated based on assumed lot coverages and on values provided in Table 3.1 for Commercial Development with no restrictions on fertilizer use, no buffers, and no restrictions on impervious surfaces or ditch design, and using the High Export Option.

Areas A, B, C and D

Buildings	400 SF	(0.0092ac) x (.5)	0.005 lb
Parking/Drive/Paths	5,000 SF	(0.1148ac) x (1.75)	0.201 lb
Lawn/grass Area	7,000 SF	(0.1607ac) x (.6)	0.096 lb
Canopy Clearing	12,400 SF	(0.2847ac)	<b>0.302 lb</b>

Area E

Buildings	800 SF	(0.0184ac) x (.5)	0.009 lb
Parking/Drive/Paths	8,000 SF	(0.1837ac) x (1.75)	0.322 lb
Lawn Area	14,000 SF	(0.321ac) x (.6)	0.193 lb
Canopy Clearing	22,800 SF	(0.2847ac)	<b>0.524 lb</b>

Residential Areas

Cross Lake A (Option 1) 110 acres

30 lots x 0.29 lb/lot		8.70 lb
1000 ft new roads	1000/100 x 0.108 lb/100 LF	1.08 lb
1400 ft upgraded roads	1400/100 x 0.054lb/100 LF	0.76 lb
Common area		<u>0.30 lb</u>
<b>Total export-Cross Lake A(1)</b>		<b>10.84 lb*</b>

(\*Cross Lake A-Option 1 is not included in totals)

<u>Cross Lake A (Option 2) 110 acres</u>		
30 lots x 0.29 lb/lot		8.70 lb
2000 ft new roads	2000/100 x 0.108 lb/100 LF	2.16 lb
1400 ft upgraded roads	1400/100 x 0.054lb/100 LF	0.76 lb
Common area		<u>0.30 lb</u>
<b>Total export-Cross Lake A(2)</b>		<b>11.92 lb</b>

<u>Cross Lake B (HSG B soils) 91 acres</u>		
30 lots x 0.24 lb/lot		7.20 lb
Existing roads		0.00 lb
Common area		<u>0.30 lb</u>
<b>Total export-Cross Lake B</b>		<b>7.50 lb</b>

<u>Cross Lake C 57 acres</u>		
30 lots x 0.29 lb/lot		8.70 lb
3550 ft new roads	3550/100 x 0.108 lb/100 LF	3.83 lb
2150 ft upgraded roads	2150/100 x 0.054lb/100 LF	1.16 lb
Common area		<u>0.30 lb</u>
<b>Total export-Cross Lake C</b>		<b>13.99 lb</b>

<u>Cross Lake D 187 acres</u>		
35 lots x 0.29 lb/lot		10.15 lb
1300 ft new roads	1300/100 x 0.108 lb/100 LF	1.40 lb
Common area		<u>0.30 lb</u>
<b>Total export-Cross Lake D</b>		<b>11.85 lb</b>

<u>Cross Lake E 163 acres</u>		
60 lots x 0.29 lb/lot		17.40 lb
10,000 ft new roads	10000/100 x 0.108 lb/100 LF	10.79 lb
1400 ft upgraded roads	1400/100 x 0.054lb/100 LF	0.76 lb
Common area		<u>0.52 lb</u>
<b>Total export-Cross Lake E</b>		<b>29.47 lb</b>

**Total export: Residential House Lots only, Full-Build (185 units):** **52.15 lb**

**Total export: Full-Build: Residential Lots, Common Areas, Roads (185 units):** **74.73 lb**

**Community/Economic Development areas**

Cross Lake CD-3

Total area: 11 acres

Maximum number of lots: Assume 2 (eliminated development areas CD-3b and CD-3c and reduced CD-3a [now CD-3] to 2 lots - a reduction from initial proposal of 12 lots total).

Proposed zoning for M-FRL-GN district allows 2,500 SF buildings, with ability to go higher as a special exception (Existing St. Peters Store [not in Concept Plan area] occupies approximately 4,700 SF).

For purposed of this exercise assume:

Roof: 5,000 SF	(0.1148ac) x (.5)	0.06 lb
Parking: 5,000 SF	(0.1148ac) x (1.75)	0.20 lb
Lawn: 7,000 SF	(0.1607ac) x (.6)	0.10 lb
		<b>0.36 lb/lot</b>

2 lots x 0.36 lb/lot

No additional roads; buildings front on Route 161.	0.00 lb
<b>Total export-Cross Lake CD-3</b>	<b>0.72 lb</b>

Cross Lake CD-4

Total area: Approximately 62 acres

Maximum number of lots: Assume 6 lots (a reduction from initial proposal of 30 lots)

Concept Plan limits development to half of available acreage (31 acres)

Proposed zoning for GN district allows 2,500 SF buildings with greater footprint allowed by Special Exception; for purposes of this exercise, assume 5,000 SF buildings.

New road from Route 161: 1,400 LF: 24' width, HSC B soils, 50' clearing (road is wider, since it will be for commercial use).

Roads

33,600 sf (0.7713ac) x (1.75) = **1.35 lb** + 36,400 sf (0.8356ac) x (.4) = **0.334 lb** = **1.684 lb**

Lots

Soils: 4 lots HSG B, 2 lots HSG C

For purposed of this exercise assume:

Roof:	5,000 SF	(0.1148 ac) x (.5)	0.057 lb
Parking:	5,000 SF	(0.1148 ac) x (1.75)	0.201 lb
Lawn:	7,000 SF	(0.1607 ac) x (.6)	0.096 lb
			<b>0.354 lb/lot*</b> (HSG C soils)

\*0.322 lb/lot adjusted for HSG B soils

4 lots x 0.322 lb/lot	1.290 lb
2 lots x 0.354 lb/lot	0.708 lb
Roads	<u>1.684 lb</u>
<b>Total export-Cross Lake CD-4</b>	<b>3.682 lb`</b>

The overall Cross Lake PB for Irving's land allocated to these combined activities is 82.19 lb/year. Approximately 55.5 lb/year export has been allocated by DEP to be distributed to all of the Cross Lake development areas for residential and community/economic development areas. By limiting the combined PPB available for Concept Plan developments to the maximum PPE calculated for the developed areas, a reserve PB of 26.7 lb/year is set aside for any unregulated activities for long term protection of the Cross Lake watershed for all potential sources of P export anticipated for the life of the Concept plan and beyond. The potential unregulated non-Concept Plan sources of P export have been estimated to be 26.4 lb/year, which is less than the reserve PB. The total combined export from all sources is 81.9 lb/year, which meets the overall PB for Cross Lake.

Cross Lake P Budget for Irving Land (PPB):	82.19 lb/year
– <u>P Export from Residential / Community Development:</u>	<u>55.50 lb/year</u>
Reserved PB for unregulated activities:	26.70 lb/year
Anticipated P export from roads / houselots:	26.40 lb/year

#### 4.2 LONG LAKE PHOSPHORUS EXPORT

Long Lake A residential development is divided into two distinctly different areas. A cluster of up to 26 homes would be located on a sloping site above the Van Buren Cove Beach. An existing logging road in a very wide clearing located above the East Van Buren Cove Road would provide access to an area with less density due to steeper topography (24 lots).

New Roads: 2,600 LF  
Upgraded Roads: 4,800 LF

<u>Long Lake A</u> 129 acres	
50 lots x 0.29 lb/lot	14.50 lb
2,600 ft new roads      2600/100 x 0.108 lb/100 LF	2.81 lb
4,800 ft upgraded roads 4800/100 x 0.054 lb/100 LF	2.60 lb
Common area	<u>0.30 lb</u>
<b>Total export-Long Lake A</b>	<b>20.21 lb</b>

Long Lake B includes 75 acres, including 19 acres restricted as open space, 15 units maximum

The majority of the development (12 lots) would occur at the southern end of Long Lake B, in an area of moderate slopes overlooking the beach at Van Buren Cove. There are also opportunities for a few homesites accessed by individual or shared driveways on the west side of the back lots on the west side of West Van Buren Cove Road.

New Roads: 2,500 LF (includes two driveways to access individual lots)

Common Area. A hand-carry boat launch and related infrastructure could be developed on the Long Lake shoreline, accessed by walking path from Long Lake B.

<u>Long Lake B</u> 75 acres	
15 lots x 0.29 lb/lot	4.35 lb
2,500 ft new roads      2500/100 x 0.108 lb/100 LF	2.70 lb
Common area	<u>0.30 lb</u>
<b>Total export-Long Lake B</b>	<b>7.35 lb</b>

Long Lake C includes 120± acres, 25 units maximum

There are two potential development areas on Long Lake C: an area of gentle to moderate slopes on the western end closest to Sinclair Village and Barn Brook Road, and the sloping hillside on the east side of a small stream that bisects the land. Primary access would be from Barn Brook Road (to be acquired by a developer). Secondary access could be developed from the south over Irving's Knockout Hill Road. There would likely be no common area associated with Long Lake C, since there is no waterfront owned by Irving.

New Roads: 4,150 LF (off Barn Brook Road)

<u>Long Lake C</u> 75 acres		
25 lots x 0.29 lb/lot		7.25 lb
4,200 ft new roads	4200/100 x 0.108 lb/100 LF	4.53 lb
Common area		<u>0.30 lb</u>
<b>Total export-Long Lake C</b>		<b>12.08 lb</b>

The overall Long Lake PB for Irving's land allocated to these combined activities is 208.55 lb/year. Approximately 39.64 lb/year export has been allocated to be distributed to all of the Long Lake development areas for residential and community/economic development areas. A 10% contingency is added to this PB to allow some flexibility of future development to avoid restrictions or BMPs. This allocates a PB to Long Lake of 44 lb/year. By limiting the combined PPB available for Concept Plan developments to the maximum PPE calculated for the developed areas, a reserve PB of 165 lb/year is set aside for any unregulated activities for long term protection of the Long Lake watershed for all potential sources of P export anticipated for the life of the Concept Plan and beyond. The potential unregulated non-Concept Plan sources of P export have not been estimated due to the substantial reserve PB.

The total phosphorus budget available for all development is 44 lb/year, which is well below the overall PB for Long Lake of 209 lb/year.

### 4.3 MUD LAKE PHOSPHORUS EXPORT

CD-1 includes 281 acres; 30 lots maximum for commercial and industrial use; 50% maximum land utilization

The CD-1 Community/Economic Development area has 2,500 feet of frontage on State Route 162 and has an established road network (6,400 LF) that could provide access to much of the land. Due to soil limitations, the majority of the development would probably occur at the northern end of the property. The land is adjacent to the Maine Public Reserve Land and the Sinclair Sanitary District treatment facility.

New Roads: 5,000 LF, all within the Mud Lake watershed.

#### **Community/Economic Development areas**

Mud Lake CD-1

Total area: 281 acres

Maximum number of lots: 30 lots total. Assume 10 lots developed on HSG C soils and 20 lots developed on HSG D soils

Proposed zoning for M-FRL-GN district allows 2,500 SF buildings, with ability to go higher as a special exception (Existing St. Peters Store [not in Concept Plan area] occupies approximately 4,700 SF). For purposed of this exercise assume:

<u>HSG C soils</u>		
Roof:	7,500 SF (0.1722ac) x (.5)	0.086 lb



Roads/ driveways:	3,500 SF (0.0803ac) x (1.75)	0.141 lb
Parking:	10,000 SF (0.2296ac) x (1.25)	0.287 lb
Lawn:	15,000 SF(0.3444ac) x (.6)	<u>0.207 lb</u>
		<b>0.720 lb/lot</b>

10 lots x 0.720 lb/lot = **7.20**

1,500 ft new roads **1.983 lb**

CD-1 (HSG D soils)

Roof:	7,500 SF (0.1722ac) x (.5)	0.086 lb
Roads/ driveways:	3,500 SF (0.0803ac) x (1.75)	0.141 lb
Parking:	10,000 SF (0.2296ac) x (1.25)	0.287 lb
Lawn:	15,000 SF(0.3444ac) x (.8)	<u>0.275 lb</u>
		<b>0.789 lb/lot</b>

20 lots x 0.789 lb/lot = **15.78**

3,500 ft new roads **5.046 lb**

**Total export-Mud Lake CD-1** **30.01 lb**

Mud Lake CD-2

73 acres; 5 commercial lots maximum; 50% maximum land utilization

The CD-2 Community/Economic Development has 900 feet of frontage on Thibodeau Drive, the paved access road into the Sinclair Sanitary District treatment facility, and 1,600 LF of frontage on State Route 162. Due to soil limitations, the majority of the development would probably occur on relatively small lots at the southwestern portion of the property, between Thibodeau Drive and Route 162, with some larger lots to the north. The land is adjacent to the Maine Public Reserve Land and the Sinclair Sanitary District treatment facility.

New Roads: 1,000 LF, all within the Mud Lake watershed.

CD-2 (HSG D soils)

Roof:	7,500 SF (0.1722ac) x (.5)	0.086 lb
Roads/ driveways:	3,500 SF (0.0803ac) x (1.75)	0.141 lb
Parking:	10,000 SF (0.2296ac) x (1.25)	0.287 lb
Lawn:	15,000 SF(0.3444ac) x (.8)	<u>0.275 lb</u>
		<b>0.789 lb/lot</b>

5 lots x 0.789 lb/lot = **3.95**

1,000 ft new roads= **1.442 lb**

**Total export-Mud Lake CD-2** **5.39 lb**

The overall Mud Lake PB for Irving's land allocated to these combined activities is 103.75 lb/year. Approximately 35.40 lb/year export has been allocated to be distributed to all of the Mud Lake development areas for residential and community/economic development areas. A 10% contingency is added to this PB to allow some flexibility of future development to avoid restrictions or BMPs. This

allocates a PB to Mud Lake of 39 lb/year. By limiting the combined PPB available for Concept Plan developments to the maximum PPE calculated for the developed areas, a reserve PB of 65 lb/year is set aside for any unregulated activities for long term protection of the Mud Lake watershed for all potential sources of P export anticipated for the life of the Concept Plan and beyond. The potential unregulated non-Concept Plan sources of P export have not been estimated due to the substantial reserve PB.

The total phosphorus budget available for all development is 39 lb/year, which is well below the overall PB for Mud Lake of 104 lb/year.

## 4.4 SQUARE LAKE PHOSPHORUS EXPORT

### Square Lake W

Square Lake W; residential; 169± acres, including 48± acres restricted as open space; 30 units maximum

Half of the lots in this off-the-grid area would be developed off an existing logging road that parallels the shoreline of Square Lake. The other half would be developed on a new road that extended down a slope, which would also provide access to a common area on the water.

New Roads: 2,200 LF (includes 700 LF to gain access to water)

Upgraded Roads: 2,600 LF

Common Area. A private boat launch, dock, and related infrastructure could be developed on the Square Lake shoreline, accessed by walking path

### Square Lake W 169 acres

30 lots x 0.29 lb/lot		8.70 lb
2,200 ft new roads	2200/100 x 0.108 lb/100 LF	2.37lb
2,600 ft upgraded roads	2600/100 x 0.054lb/100 LF	1.40 lb
Common area		<u>0.30 lb</u>
<b>Total export-Square Lake W</b>		<b>12.77 lb</b>

### Square Lake E

Square Lake E; 278± acres; 85 units maximum

Square Lake E is divided into two distinct areas on either side of Square Lake Yexas. The northern portion, with 50 lots shown on the sketch, would utilize an existing logging road, with clusters of additional lots on new loop roads on either side. The other lots (35 shown on the sketch) would be built on the southern portion of the property, primarily on a new lower road that parallels the shoreline and an upper road built into the hillside.

New Roads: 4,250 LF (use 6500 for diversity)

Upgraded Roads: 2,150 LF (use 9000 to include existing road to site)

Common Area. Two common areas focused on the waterfront are shown on the sketch. One could have a trailered ramp with a dock and associated facilities. Square Lake E may also include a parking area to serve residents of Square Lake W who choose to boat across the lake to access their lots.

<u>Square Lake E 278 acres</u>	
85 lots x 0.29 lb/lot	24.65 lb
6,500 ft new roads 6500/100 x 0.108 lb/100 LF	7.02 lb
9,000 ft upgraded roads 9000/100 x 0.054 lb/100 LF	4.86 lb
Common areas (2 x 0.503)	1.01 lb
<b>Total export-Square Lake E</b>	<b>37.54 lb</b>

Square Lake Yexas

Square Lake Yexas; 51± acres; 67 units maximum

Square Lake Yexas is being proposed as a general development area, with the potential for recreational lodging facility (50 units maximum) and the potential for additional lots, a marina, public boat launch, complementary small-scale commercial development, and recreational facilities. Access would be provided over roads developed or upgraded as part of Square Lake E.

(assume 67 single family lots for worse case and include 40,000 sf for parking for lodge option)

New Roads: 1,000 LF

<u>Square Lake Yexas 51 acres</u>	
67 lots x 0.29 lb/lot	19.43 lb
1,000 ft new roads 1000/100 x 0.108 lb/100 LF	1.08 lb
40,000 sf upgraded roads 0.9183 ac x 1.25	1.15 lb
Common area	0.30 lb
<b>Total export-Square Lake E</b>	<b>21.96 lb</b>

The overall Square Lake PB for Irving’s land allocated to these combined activities is 458.14 lb/year. Approximately 72.29 lb/year export has been allocated to be distributed to all of the Square Lake development. A 10% contingency is added to this PB to allow some flexibility of future development to avoid restrictions or BMPs. This allocates a PB to Square Lake of 80 lb/year. By limiting the combined PPB available for Concept Plan developments to the maximum PPE calculated for the developed areas, a reserve PB of 378 lb/year is set aside for any unregulated activities for long term protection of the Square Lake watershed for all potential sources of P export anticipated for the life of the Concept Plan and beyond. The potential unregulated non-Concept Plan sources of P export have not been estimated due to the substantial reserve PB.

The total phosphorus budget available for all development is 80 lb/year, which is well below the overall PB for Square Lake of 458 lb/year.

## 5.0 CONCLUSION

For this assessment we have evaluated the maximum phosphorus export that could be generated from all anticipated development that may be allowed within the Concept Plan.

The overall lake budgets for all of the four lakes can be met with at least one third of the total lake PB reserved for potential unregulated non-Concept Plan sources.

For acceptable site development(s), the Post-PPE needs to be smaller than the PPB for the parcel(s). Based upon the calculations presented in this report, it appears that the level of development envisioned in the Concept Plan is feasible and will be protective of water quality in all of the Fish River Chain of Lakes.

The Concept Plan meets the goal of the phosphorus methodology to provide protection from degradation of the lake water quality by limiting all potential development in the watershed sufficient to avoid increase in the lake's trophic state, with no visible effects, and distribute the burden of this protection over the watershed and over time.

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## 20. Roads

## 20. ROADS

In response to our discussion with LUPC Staff and DEP Staff on the topic of roads within the Plan Area, the following changes have been made to the Plan:

The Concept Plan has been revised to clarify that road access rights for parcels must be identified and approved by LUPC prior to sale. All lots will be sold with deeded access rights out to a public road.

- ***Text Changes in the Concept Plan***
  - Add the following new provision at pg. 22, E,4,f:  
**f. Road Access:** Prior to sale of lots in the Plan area, road access to a public road must be identified and approved by the Commission. All lots will be sold with such deeded access rights.
- ***Text Changes in Chapter 10***
  - This issue was previously addressed in the new lot creation rule (See Section 12 of this Submission).

The Concept Plan has been revised to specify that existing road/homeowner associations will be used wherever they exist and are functioning adequately.

- ***Text Changes in the Concept Plan***
  - Add the following new provision at pg. 22, E,4,g:  
**g. Owners and Road Associations:** To maintain and manage roads that access development areas, lot owners will be required to join road associations that will manage and maintain roads and associated stormwater drainage infrastructure within the development area. These associations may be combined in some cases with owners associations that may be necessary to manage common areas within development areas, such as water access sites. In situations where there are existing and effective owners or road associations already in-place, every effort will be made to use such associations for these purposes. See Sub-Chapter IV, Section 10.29.
- ***Text Changes in Chapter 10***
  - No changes proposed to Chapter 10.

The Concept Plan has been amended to add, as part of subdivision review, a demonstration that roads will provide adequate access for emergency services, as appropriate given the character of the specific development area.

- ***Text Changes in the Concept Plan***
  - **No changes proposed to the Concept Plan**

- ***Text Changes in Chapter 10***

- **Add the following new provision at 10.25,D,2,f:**

- f. As part of any subdivision review, the applicant must demonstrate that roads will provide adequate access for emergency services, as appropriate given the character of the specific development area. The analysis will include access roads from the subdivision out to an existing public roadway, even if this extends beyond the boundaries of the subdivision being proposed. The level of such service shall be appropriate to the setting, and thus may vary throughout the Plan area. The analysis to a public road shall not be required for development in Square Lake West, although there shall nonetheless be required an analysis of the feasibility to provide some level of emergency services to the area.

The Plan will include language that would require road access to Barn Brook Road prior to development of Long Lake C development area.

- ***Text Changes in the Concept Plan***

- Amend page 8, E,1,a, by adding a new provision for Long Lake C at vi,e:

- e. Prior to development of the Long Lake C development area, the applicant must demonstrate as a part of subdivision review that it has secured road access to Long Lake C from Barn Brook Road.

- ***Text Changes in Chapter 10***

- No changes proposed for Chapter 10

## 21. Other



## 21. OTHER

In response to a request from a LUPC Commissioner through LUPC staff, the amendment includes a map illustrating Irving ownership in the immediate vicinity of the Concept Plan area.

- **The map is included in Section 22, Map 35.**

The Concept Plan has been amended to provide the most recent Outcome Based Forestry Agreement #2015-1 between Irving Woodlands and the Maine Forest Service.

- **The most recent Outcome Based Forestry Agreement (#2015-1) is included as part of Section 14 of this Submission.**