

November 29, 2013

Mr. Shawn Persaud
Manager of Planning & Development
Corporation of the Township of Tiny
130 Balm Beach Road West
Tiny, Ontario. L0L 2J0

Dear Mr. Persaud:

**Subject: Beamish- Sibthorpe Pit Application – Operational & Tree
Planting Proposal**

This is further to the June 11, 2013 letter from Severn Sound Environmental Association (SSEA) to your office regarding the subject pit application in Tiny Township.

There has been extensive consultation on tree planting priorities for the Sibthorpe & Teedon pit properties with Trees Ontario, the retention of a Registered Professional Forester and resulting "Tree Planting Assessment and Recommendations" for the Teedon Pit - see attached.

On June 11, 2013, the SSEA sent a letter to Tiny Township outlining a number of items that has been discussed over the past 1-2 years. SSEA has advised of the following:

Tree Cutting- The SSEA has no further comments, provided that the stated tree cutting timing, agreed to by Beamish, is incorporated into the Site Plan/ Silvicultural Prescription for this application.

Confirmation- Beamish has agreed that tree cutting is only to occur between September and February to protect any forest nesting birds on site. This will be appropriately placed on the site plan notes as agreed to earlier.

North Buffer Area- The SSEA has no further comment, provided that the retention of secondary growth on the berms be incorporated into the

site plan for this application.

Confirmation- The secondary growth can be maintained on the berms and shown on the site plan notes with the qualifier that this will occur until the berm materials are required for progressive and final site rehabilitation. At that time, any secondary growth would, along with the rehabilitation materials in the berms, be removed. Eventually, any disturbed areas will be reseeded & reforested.

On page 5, of the June 11 letter, SSEA recognizes that Beamish has protected a portion of significant woodlands on the Teedon Pit. We feel that corporately Beamish has protected the majority of the significant woodlands on the site by not designating the significant woodlands within the extraction limits of the pit operations.

We also wish to emphasize that Beamish has proposed to the Township & SSEA that the extraction of phase 3 be excluded from the base of slope to the western site boundary to protect the most significant woodland area of the property. Initially phase 3 was approximately 13 ha's.

Of the 13 ha's of significant woodland, Beamish proposes to protect 10.65 ha's of the 13 ha's and proposes to remove 2.35 ha's of significant woodland, which represents the wooded area on the steep slope.

There was also a commitment that should the proposal be approved to extract to the bottom of slope, Beamish initially advised that they would plant up to an additional 10 ha's of land on the adjacent Teedon pit property and the whole of the Sibthorpe property (including an additional 3.4 ha's of open field) as compensation.

Final rehabilitation on the proposed pit expansion (Sibthorpe property) site could illustrate a full reforestation effort and remove any reference to agriculture rehabilitation, thus committing to full reforestation of the proposed 39 ha disturbed area minus the 10.65 ha proposed protected significant woodlands in phase 3, totaling 28.35 ha, providing extraction is permitted to the base of slope on the property.

On page 5, SSEA states that “ Before considering whether or not to accept the proposed compensation planting in exchange for extraction to the bottom of slope, mapping of the proposed area to be planted, as compensation

should be provided for review. In addition, commitments should be made to amend the site plan for the Teedon pit and to modify: the Site Plan, Silviculture Prescription and Tree Planting Prescriptions modifications for the Sibthorpe Pit that should be required before compensation planting would be considered - these include:"

1. Species Planted
2. Survival Requirements & Refill Planting
3. Survival Assessments

As mentioned earlier, we are pleased to submit a Tree Assessment Planting and Recommendations report for the Teedon Pit authored by Mr. Peter Hynard, RPF. We have summarized the assessment as follows:

Teedon Pit Tree Planting Assessment:

The attached map in the report illustrates 5 Blocks for immediate or future planting. A total of 10,700 trees are to be planted, including 850 red oaks on approximately 11.0 acres (4.45 ha). The total area assessed was 31 acres (12.55 ha), of which 11 acres are recommended for planting.

In Block 4, another 20 – 22.5 acres of land was assessed to have high value for wildlife habitat as it was in early stages of natural succession. This area of old field growth & early successional stages was deemed to be remarkably productive as a food source for wildlife because of existing shrubs and trees, such as apples, cherries, grape, mountain ash berries, raspberry/ blackberries, hawthorn, clover, etc.

Initially, through air photo interpretation, approximately 10 ha was deemed potentially plantable on the Teedon pit. Through the assessment by Mr. Hynard, 20 plus acres are not recommended to be planted because of the productive successional growth for wildlife values. Some small plots of conifer plantings are recommended to compliment the area.

Should you include the 20 acres of productive wildlife habitat, in early successional growth, then the Teedon pit property has 12.55 ha of plantable land or in some form of natural succession growth benefiting wildlife values.

Sibthorpe & Teedon Properties- Comments by Mr. Peter Hynard in Response to SSEA

Species Planted:

The SSEA would like the species list to be revised to include a larger diversity of species and be more representative of the current species composition in the Phase 3 area. (These include sugar maple, white ash, red oak, large tooth aspen, beech, basswood, white pine, white birch, red ash, ironwood, black cherry, hemlock, red maple and trembling aspen.)

Unfortunately, I do not believe this to be advisable. It is not possible to move directly from a post-extraction pit to a natural and diverse forest in one step. This goal will require the establishment of a nurse crop of some type first, the availability of a seed source for the succeeding stand, and time. The planting of most of the species suggested by SSEA would result in a high failure rate and, besides, some of them are unsuitable to act as successional species because of their shade tolerance or seedbed requirements.

It would be possible to add more species along with the red pine to act as a successional seed source but they would have a low survival rate. Mr. Hynard does not believe this to be necessary as there is already a suitable seed source nearby.

He does not believe that we should be too prescriptive about these details at this time. The soil conditions following extraction are key to species selection but it will be decades before the pit is cleared and the post extraction soil conditions can be assessed. Perhaps the site plan should be more descriptive of the principles and less prescriptive on the details. For example, the goal is to establish a natural, self-sustaining forest and the strategy is to establish a nurse crop and suitable successional seed supply. The details of the exact species choice could be left to that time, when the exact conditions are known.

Survival Requirements & Refill Planting:

The SSEA would like to see a 60% survival standard of each of the species planted.

This, too, is problematic. The secondary species are being added only to provide a successional seed source. They are not as well suited to the harsh conditions of post-extraction and a high survival rate is not expected of them. A lesser survival rate would be quite satisfactory, as long as some of them survived to produce seed.

Survival Assessments:

The SSEA would like to a fifth-year free-to-grow assessment added to the first- and second-year survival assessments.

This is not a problem. A third assessment seems unnecessary but there is no harm in doing so.

Discussions with Trees Ontario

Mr. Hynard has discussed afforestation techniques with Mr. Tim Gray and Mr. Glenn McLeod of Trees Ontario. Trees Ontario is the private, not-for-profit corporation that handles the private land tree planting initiative for MNR. These professional are technical advisors for Trees Ontario.

Trees Ontario does not recommend planting hardwoods on open disturbed lands because of the low survival rate. To the best of their knowledge, no one is doing it. They always recommend planting a nurse crop first, with a thought toward providing a seed source for a successional forest to invade the understory at a later date.

Trees Ontario can be reached through the contact information on their website: <http://www.treesontario.ca/>.

Plantable & Protected Forested Lands- Sibthorpe & Teedon Properties

On the Sibthorpe property, our initial site plans indentified 42 ha of licensed area and 39 ha of area to be extracted, which included all of phase 3, containing the significant woodlands. Since that time, Beamish has indicated that they are prepared to protect approximately 10.65 ha of the significant woodlands in phase 3, if permitted to excavate to the bottom of slope.

Should 10.65 ha of the 13.0 ha significant woodland area not be excavated, then the excavated area becomes 28.35 ha, providing

extraction is permitted to the base of slope on the property. Thus all of the

proposed excavated land of 28.35 ha can be rehabilitated into reforestation efforts.

In this proposal, 2.35 ha of significant woodlands would be removed, 10.65 protected and 28.35 ha progressively reforested in conjunction with the rehabilitation on the Sibthorpe property. It is noted that 3.4 ha of the area to be planted in trees is presently open field area.

On the Teedon pit, approximately 12.55 ha of non extractive area was assessed for tree planting. It was deemed that the retention of existing old fields and secondary growth to protect wildlife values was important on this property. Tree planting is to be undertaken on 4.45 ha of open field area.

Beamish is committed to the tree plant plan & to protecting the wildlife values provided that extraction is permitted to the bottom of slope.

Final rehabilitation of both properties, would amount to considerably more forested lands than that which existed prior to licensing of the properties. On the Sibthorpe property, 28.35 ha will be planted with 10.65 ha left in its natural state, primarily the significant woodlands. In the Teedon pit, 24.45 ha will be planted and 8.5 ha left in its natural state. Not all of the Teedon pit will be planted as the final pit floor will be rehabilitated for agricultural uses.

On the 2 properties approximately 52.8 ha will be planted and 19.15 ha will be protected in its natural state. Approximately 15 ha of protected forest is represented by significant woodlands.

Next Steps

In consultation with Beamish, they wish to have peer review consultant sign offs before going to a Public Meeting.

Following this request by our clients, we wish to resolve any outstanding items as soon as possible. Many upper tier municipalities require this of us before going to a public meeting as well.

update of the site plans before the public meeting to reflect any outstanding recommendations of the technical reports and peer review agreed upon recommendations.

We encourage SSEA to review the Tree Planting Assessment and to arrive with us at a mutually agreeable planting plan as discussed above. Once agreed to, we are prepared to make any appropriate site plan notes to this affect.

In this regard, we wish to finalize our proposed extraction limits and phases for the operation, specifically as it relates to extraction to the bottom of the slope.

We respectfully seek approval from Tiny Township and by SSEA, once all tree planting and rehabilitation requirements are agreed to for the Sibthorpe and Teedon pits to permit extraction to the bottom of slope.

We look forward to further discussions and the operational resolution for the Sibthorpe application.

Thank you

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