

Environmental Assessment



Copper Creek 2000 Inc
Proposed Nine Hole Golf Course
&
RV Trailer Park

1.0 Name of Undertaking:

Environmental Assessment Registration Document for proposed golf course and RV park, subject of Crown Lands Application No. 122884.

2.0 Proponent:

- | | |
|------------------------|--------------------------------------|
| 2.1. Name | Copper Creek 2000 Inc. |
| 2.2. Address | P.O. Box 520, Baie Verte, NL A0K 1B0 |
| 2.3. CEO | Idella Barker, President |
| Telephone | (709) 532-4054 |
| Fax | (709) 532-4262 |
| 2.4. Principal Contact | Shannon Lewis, Manager |
| Address | P.O. Box 520, Baie Verte, NL A0K 1B0 |
| Telephone | (709) 532- 4054 |
| Fax | (709) 532-4262 |

3.0 The Undertaking:

3.1. Nature of the Undertaking

3.1.1. Golf Course

A nine hole golf course will be developed along the south side of the saltwater body of Baie Verte at the Town of Baie Verte. The fairways will be cleared to within 50 feet of the bank to the saltwater body of Baie Verte. The tee for the 2nd hole will be developed within 5 meters of the top of the bank.

The vegetation will be thinned and pruned to the top of the riverbank. The deadwood in the fairways will be piled and burned. Roots and stumps will be buried on site and will form portions of the finished areas of the golf course. Existing soil on site is gravelly loam and is considered as being suitable for the development of a golf course. At this time it is unknown as to whether or not it will be required that the soil be screened and modified to facilitate the growth of grass. Sprinklers will be buried in the fairways. An irrigation pond and associated pump house will not be required as a component of the development of this project. The proponent has a water withdrawal system established from the Baie Verte River. The system has been established for the past 2 years and is associated with the near by ski hill. It is contemplated that a 4" diameter line from the ski hill facility will provide water for the golf course.

Due to local climatic conditions, it is not expected that great quantities of water will be required for the golf course. At this time, the required volumes of water have not been calculated by the Proponent. A 15 meter buffer zone of thinned vegetation will remain between the developed

areas of the site and the bank of the bay.

Fertilizers, herbicides and pesticides will be used on the greens and tees. The application of these materials will depend on golf course conditions. Analysis of surface areas will be conducted after the surfaces have been created. For example, phosphorus may or may not be required, in order to bring levels up to acceptable norms. Certain general statements can be made: In general, the level of use of herbicides and pesticides will be fifty (50) to seventy-five (75) percent lower and fertilizer use will be fifty (50) percent lower than typically used on golf courses. This will be due to cooler than typical climate, and shorter growth season. Start-up requirements for these materials will be higher than on going demands. Yearly fertilizer application will begin in late May.

Best Turf Management practices may be utilized to maintain optimum soil conditions for turf growth. Fertilizer management practices will be aimed at minimizing leaching losses and optimizing the use of nutrients. The following practices will minimize fertilizer leaching: close regulation of irrigation, soil testing to identify nutrient requirements and optimize nutrient use, the use of slow release fertilizers and the timing of fertilizer application in relation to active plant uptake and potential runoff events. Nitrogen and phosphorus will be the main fertilizers to be considered. Studies have shown leaching losses of nitrogen to be negligible.

Integrated Pest Management practices may be utilized. These practices include the proper establishment of soil and turf, regular soil testing, the minimization of soil compaction, controlled irrigation and proper mowing heights. These practices reduce the likelihood of pest problems. Pesticide selection will include the least mobile, the least toxic and the least of persistence. Pesticides are applied when conditions merit, rather than on a predetermined basis.

There is soil on site, which will be stockpiled during construction. The existing material on site may or may not be screened and augmented with a medium in order to create suitable golf course finished surfaces. Generally, cleared areas will be seeded to obtain a growth of grass at the end of summer periods. Hydro seeding is not contemplated. Hydro seeding contains a tackifier which acts to minimize the potential for erosion.

Greens may have a 10" to 12" rootzone of 80% sand and 20% peat moss, which may set on top of a herringbone pattern sub-drainage system, if required, with 4" perforated pipe and 4" of gravel. Greens may have a minimum grade of 2.5%. Vegetation may be bentgrass. Subsurface irrigation will be provided with 2 ½" underground piping and sprinkler heads approximately 60 feet apart.

Tee decks may have a 6" to 8" rootzone of one part topsoil and one part sand. Tees may have a maximum drainage of 1.25%. Vegetation may be blue grasses, rye and fescue. 2 ½" underground piping with sprinkler heads may be provided.

Primary roughs will have limited irrigation from tee and fairway sprinklers. Vegetation may be blue grasses, rye and fescue.

Bunkers may have concave shapes and sub-drainage.

Fairways will have a minimum 2% slope. A largely 3" diameter subsurface fairway irrigation system may be installed with sprinkler heads approximately 90 feet apart. Piping sizes increase to 4" and 6".

There will be no development of gravel pits on site. There will be no removal of soils below the water table.

A club house and maintenance building will not be required as the Proponent will utilize existing facilities at the ski hill.

3.1.2. Develop RV Trailer Park

50 sites will be developed for an RV Trailer Park. The development will occur on the south side of Baie Verte River and a minimum of 200' from River and 1000' from the head of the bay.

A dumping station will not be required as the RV Park will tie into municipal sewer and water services. There will be no washrooms, showers or laundry facilities constructed. Facilities associated with the ski hill will be utilized.

A sewage treatment plant building is located nearby.

3.2 Purpose/Rationale/Need for the Undertaking

Copper Creek Mountain, located in Baie Verte Newfoundland is Newfoundland's second largest Ski Resort with aspirations of becoming a multi-seasonal operation by expanding existing services and products in addition to developing a nine hole golf course and RV park. After the conception of Copper Creek in the early 90's, the venture was burdened with climatic changes and the inconsistent weather patterns made the viability of the ski hill questionable. In October 1999, Copper Creek 2000 Inc. was formed and the facility was taken over by Roy and Idella Barker. Under new ownership Copper Creek 2000 has been investigating ways to make the facility feasible and self-reliant. It was determined that through further development and by expanding into other seasonal operations Copper Creek can achieve financial feasibility. The proposed initiatives will create an economic atmosphere where the facility will reach full utilization throughout the year, therefore expanding revenue generation opportunities. In addition, these new developments will enhance the tourism product on the Baie Verte Peninsula and expand other economic opportunities within the region.

Copper Creek is ideally located geographically for this development. Currently, there are no other golf course developments in this region, however the popularity of the sport and supporting tourism infrastructure in the region will complement and warrant this development with a high yield. This location is strategically located because there are no other golf courses within a two hour drive time in an easterly or westerly direction.

4.0 Description of the Undertaking:

4.1. Geographical Location

The project is located in Baie Verte on the North East coast of Newfoundland. The town of Baie Verte is located at Latitude - Longitude: 49° 56' 00" N - 56° 11' 00"W. The Town of Seal Cove is located 14 kilometres to the southwest and Town of Ming's Bight is located 11 kilometres to the north. The golf course site is located on the south side of the salt water body of Baie Verte and near the head of the bay. The RV Park site is located at the south side of Baie Verte River near where the river intersects the bay. The nearby road is known as South Shore Drive.

4.2. Physical Features: Develop Nine Hole Golf Course

The site bounds the south side of the saltwater body of Baie Vere. The ski hill is already developed by the Proponent lies to the south of the golf course. The area of the site will be approximately 45 acres. The bank rises from the bay of Baie Verte approximately 30 to 40 feet. The land then gently slopes up approximately 30' over the width of the golf course. In general, golf course holes will parallel the bank of the river. The tide goes out leaving an exposed bottom at the head of the bay.

The soil is gravel and loam. Bedrock has not been detected on the site. There are no perched watertables on the site. Spruce, fir and birch grow in this forested area. This is merchantable timber approximately 50' in height.

There are no watercourses on site. There are two small runoff areas or drainage locations each approximately 1' wide on the site. These are not established watercourses nor are they intermittent streams.

There are no wells, streams, ponds or rivers within 1000' the site. The adjacent lands are undeveloped woodlands. There are no known archaeological sites, forest management preserves, protected water supply areas, provincial parks, or seabird sanctuaries near the site. The site is not under native land claim.

The site of the new construction has not been previously developed.

The site is habitat for wildlife (rabbits, moose, grouse, songbirds, waterfowl, hawks, foxes, partridge and squirrel).

Rare vascular plants have not been collected in the area.

The site is not considered as being habitat for rare, threatened or vulnerable species of bird.

4.3. Physical Features: Develop RV Park - The area of the site will be approximately 2 acres. The site is relatively flat and approximately 20' in elevation above the river. The site is relatively dry. The soil is gravel.

The site was previously cleared and graded. It was utilized by transient workers for accommodations during the development of the mine. Consequently, the site has water and sewer services. The services run parallel to the base of the ski hill. The mine is located at a distance of approximately 7 kilometres from the site.

At present the site is vegetated in alders. The town will tree surrounding vacant lands in aspen to make the site more presentable.

Baie Verte River is a scheduled salmon river.

The site has not been previously developed with the exception of the RV park site which was used for temporary accommodations.

4.4. Construction

4.4.1 This development will commence subject to approval dates and issuance of Crown Title in a phase system.

Phase 1. Consists of site preparation of all nine holes, preparation of driving range, removal and disposal of all vegetation, grubbing on RV Park and driving range.

Phase 2. *RV Park* - beautification of site, removal of waste material, vegetation removal, moderate tree spacing, stake and lay out lots, preparation of site for roadway improvements, fill and topsoil, ditching for electrical outlet installation, installation of electrical service to lots, ditching and installation of pipe for water well installation (a distribution off of town water system), construction of water well (small water fill up area). *Driving Range* - vegetation removal, moderate tree spacing and grubbing, disposal of waste brush and timber, irrigation/drainage ditching on surrounding perimeter, construction of portable tee off platform, preparation of driving range for topsoil distribution and

seeding.

Golf Course - (3-5 holes) beautification / vegetation removal and tree spacing surrounding all identified holes in this phase, site preparation and land scaping of scenic vistas along the holes for seating areas, removal and disposal of stump age, waste brush and timber, removal and disposal of rock and undesirable materials on holes, prepare holes for primary distribution of topsoil, screen and stockpile and distribute prime topsoil over fairways, stake out and prepare tees and greens for seeding and irrigation. Establishing 3 -5 holes as operational on temporary greens.

Phase 3

RV Park & Driving Range - Completion of site. Further beautification, minor landscaping and general maintenance of site.
Golf Course - Continuation of previous developments, completion of tees and greens from holes in the previous stage. Site preparation and land scaping of scenic vistas along the holes for seating areas, removal and disposal of stump age, and waste brush, removal and disposal of rock and undesirable soils on holes, prepare holes for primary distribution of topsoil, screen and stockpile and distribute prime topsoil over fairways, stake out and prepare tees and greens for seeding and irrigation. Establishing remaining holes as operational on temporary greens.

Construction of this project will conclude once all the previous phases have been completed. Each phase will be completed on an individual time frame and will be scheduled according to regular construction periods once the necessary approvals have been granted.

4.4.2 Potential Construction Pollutants

The following are some potential construction pollutants that should be considered and monitored for evaluation and control:

- airborne emissions and dust created by construction equipment
- solid waste materials
- fuel and lubricant spills from construction equipment
- increased run off owing to vegetation removal
- noise from construction equipment
- application of fertilizers and pesticides

4.4.3. Mitigation

- 4.4.3.1. Obtain building permits from the Town of Baie Verte.
- 4.4.3.2. Secure a Certificate of Approval under Section 27 of the Department of Environment and Lands Act, Government of Newfoundland and Labrador for an alteration to a water body. The permit will be required for the 2nd hole that is within 15 meters of Baie Verte and for any construction activity associated the development of an irrigation pond.
- 4.4.3.3. Workers are to be under supervision. The supervisor is to be responsible to ensure that workers follow safe working procedures as recommended by:
Department of Environment and Labour
Workplace Health and Safety Inspections
P.O. Box 8700
St.John's, NL A1B 4J6
Phone # (709) 729-2706
Fax (709) 729-6639
- 4.4.3.4. Licensed applicators only, are to apply herbicides and pesticides. Only properly trained, educated and certified personnel are to purchase and apply chemicals. Applicators are to be certified under Provincial regulations and /or in accordance with the most stringent recommendations of material suppliers. Untrained summer students and casual workers are not to utilize these chemicals.
- 4.4.3.5. Herbicides, Pesticides and Fungicides are to be stored in accordance with the Warehousing Standards of the Crop Protection Institute of Canada. The various aspects of the design which are required to be in compliance with the Standards include: Siting, Site Location, Layout, Safety, Packaging, Labels, Signs, Handling of Damaged Goods, Storage Procedures and Methods, Bulk Storage and Handling, Training, Handling of Hazardous Waste, Transportation and Insurance.
- 4.4.3.6. Secure (from the supplier) and follow the requirements of the Material Safety Data Sheets for Herbicides, Pesticides and Fungicides. General recommendations for applicators include:
- A) Recycle pesticide rinsate or field applied diluted rinsate in adjoining areas.
 - B) Never dispose of pesticide wastes in or near a body of water.
 - C) Handle all pesticides and wash equipment away from water or other potable water sources.
 - D) Triple rinse or pressure rinse pesticides containers as soon as they are empty.
 - E) Do not reuse containers unless they are specifically designed for that purpose.
 - F) Do not draw water into equipment or containers used to hold, mix or apply

- pesticide unless a proper air gap is present or a back flow prevented is used.
- G) Don't wash or clean any pesticide application containers or equipment within 30 meters (100 feet) of an open body of waste or storm sewer system.
 - H) Maintain a 15 meter buffer between application areas and watercourses.
 - I) Monitor application rates and keep up to date records including materials applied and active ingredient, application dates, area and rate and total amount of fertilizer used.
 - J) A 6 hour period following the application of pesticides is all that is required for maximum efficacy in pest control. Application should be made during a time which has a low probability of rainfall within this time period.
 - K) Consider adopting and customize an Integrated Pest Management program for the golf course. The elements of such a program include:
 - Planning and managing turf to prevent organisms from becoming pests.
 - Identification of potential turf pests.
 - Monitoring populations of pests, beneficial organisms and all other relevant environmental factors.
 - Establishment of damage/ action threshold.
 - Application of cultural, physical, biological, behavioural and chemical control measures to maintain pest populations below threshold levels.

4.4.3.7. Evaluation of the effects and efficacy of pest control measures used. There are various Integrated Pest Management programs which may be utilized such as The Canadian Audubon Cooperative Sanctuary Program.

4.4.3.8. Manage fuels and lubricants on site.

- A) Avoid fuel spills.
- B) Repair equipment with lubricant leaks.
- C) Storage of fuels is to comply with provincial storage regulations

4.4.3.9. Burning vegetation may result in complaints from residents. Control the amount of burning and conduct the burning under conditions unlikely to lead to complaints. In the event of complaints, chip, truck or otherwise dispose of brush, wood and roots. Off site disposal of organic materials, while not contemplated within the current scope of the work, would if it occurs, require a disposal site approved by the Town of Baie Verte.

4.4.3.10. Burn only when the prevailing wind is away from residential areas.

4.4.3.11. Secure a Burning Permit and a Cutting Permit from:

Forest Resources and Agrifoods
P.O. Box 220
Springdale, NL A0J 1T0
Phone: (709) 673-3821
Fax: (709) 673-4525

- 4.4.3.12. Workers are to wear safety equipment and follow the instructions of manufacturers respecting safety when utilizing power and heavy equipment. Workers are to be supervised by a qualified supervisor. Worker safety is to be priority of the work supervisor.
- 4.4.3.13. The supervisor of construction should be trained in First Aid and emergency procedures.
- 4.4.3.14. The Proponent is requested to collect a baseline water sample, in the Baie Verte adjacent the site of the proposed golf course. Test for residuals of herbicides, pesticides, fungicides and fertilizers before an initial application of these materials is made and test water yearly. While it is not anticipated that water quality will be degraded, it will be useful to have baseline data available for future reference, if required. Have the laboratory compare water quality sampling with CCME Guidelines (Interim Canadian Environmental Quality Criteria for Contaminated Sites), and Canadian Drinking Water Quality Guidelines.
- 4.4.3.15. Ensure that the Pesticide Applicator is licensed.

4.4.4. Operation

Copper Creek 2000 Inc, with the result of this development, will be a fully functional and feasible multi-seasonal tourism operation. It will consist of a number of seasonal activities such as; Alpine skiing, Nordic Skiing, Snowmobiling, Tubing, Nine Hole Golf Course, Driving Range, RV Park Area, and Special Social Functions.

Each activity will operate within the normal operating period. Copper Creek 2000 Inc. is already engaged in many winter aspects of this operation and the summer activities will be new developments to look forward to. The Golf course, RV Park and Driving Range will operate between May and October. The golf course will operate during daylight hours along with the RV park, however the driving range will be developed with night lighting so that the facility can be utilized as a social gathering during summer evening hours.

4.4.4.1 Potential Sources of Operating Pollutants

The significance of potential impacts as follows:

0 = none, 1 = low, 2 = moderate, 3 = high , 4 = unknown

Impacts are indicated as positive (+) or negative (-).

Resource	Significance	Description
Ground Water Quality and Quantity	0	No Impact.
Surface Water	-1	Surface water quality has potential to be degraded
Rivers & Lakes	-1	Silt has potential to degrade water quality. The RV Park is a minimum of 200' from Baie Verte River. There will be a vegetated buffer between the golf course holes in Baie Verte. The potential for silt to enter these watercourses is marginal.
Valued Ecosystems	0	None Noted
Marine Waters	-1	Marine waters have potential to be degraded by residuals of fertilizers, herbicides and pesticides
Wetlands	0	There are no wetlands on site.
Soils	+1	Stripped soils will be re-vegetated.
Geology/Geophysics	0	Not applicable.
Air Quality	-1	Burning brush can degrade air quality with smoke and dust.

Archaeology/Heritage	0	<p>No impact. There are no known archaeological sites on the property. The RV Site does not have high archaeological potential as a native camping site as it is approximately 1000 feet back from the river. Also, the site has previously been graded so any archaeological resources would have been lost.</p> <p>The golf course site is a wooded area facing a 30' to 40' bank. It has low potential as a site for native habitation and low potential as an archaeological site.</p>
Recreation	+3	A recreational facility will be developed.
Public Interest	+3	The public is aware of the project. There has been no opposition expressed regarding the project. There has been support expressed from the Tourism Association, The Town of Baie Verte, and Baie Verte and Area Chamber of Commerce.
Community / Social Service	+1	The golf club may be utilized by the community.
Health & Safety	-1` -1	<p>The use of power and heavy equipment is a potential safety hazard for workers.</p> <p>The use of pesticides is a potential safety hazard for workers.</p>
Land Use	+3	Undeveloped lands will be developed.

Municipal Services	0	Not applicable.
Native Lands	0	The area is not subject to native land claims.
Navigation	0	Not applicable.
Economics	+3	Employment will be provided.
Local/Regional Planning	0	No impact.
Cumulative Sociological Effects	+1	The project will make the community a more desirable place to live.
Other	-1	Residential homeowners may become irritated by the smoke and dust from burning brush.

4.4.4.2. Potential Causes of Resource Conflicts

There are no significant Resource conflicts with the proposed development as indicated in the table above.

4.4.5. Occupations

This section will be broken down in two separate key areas, construction and operation of the proposed development. However, to date the proponent has consulted the expertise of J.D.P Environmental to consult on this development and their assessment is included in appendix A.

During the construction the following positions will be required:

- 1 - Facility Manager
- 1 - Golf Course Architect Consultant
- 1 - Heavy Equipment Operator
- 1 - Truck Driver
- 5 - 10 Labourers

Operational Occupation requirements:

- 1 - Facility Manager
- 1 - Office/Lodge Manager
- 1 -3 Operations & Maintenance Staff
- 1 - Pro Shop Supervisor
- 1 - Pro Shop Technician
- 1 + Golf Instructor(s)
- 1 - 3 Kitchen/Lodge Staff
- 1 - 3 Lounge Staff

Operational positions may fluctuate pending market demand

5.0 Approval Of The Undertaking:

The required area for the proposed golf course is subject to Crown Lands application No. 122884. In

accordance with Crown Lands referral process, before the application can continue, remaining approval must be received from the Department of Environment. All other departments required for Crown Lands approval have concluded a favourable response at this time. Other permits required for this undertaking may include; permit to cut and burn timber from Forest Resources and Agrifoods Newfoundland Forest Service, Municipal Permit to Operate from the Town of Baie Verte, Permit to use pesticides from Environment and Labour. Support of this undertaking has been formally expressed from the Town of Baie Verte, Baie Verte and Area Chamber of Commerce and the Dorset Trail Tourism Association in writing. These letters can be found in Appendix E.

6.0 Schedule:

The proponent would like to initiate construction of the golf course once Crown Lands provides Copper Creek with approval of the application and issues the appropriate title. In order to have the project close to completion by early summer of 2005, construction must commence in the fall of 2003.

Under these circumstances the proponent would like to see the environmental assessment process completed as soon as possible.

_____ Date

 Signature of Chief Executive Officer

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