

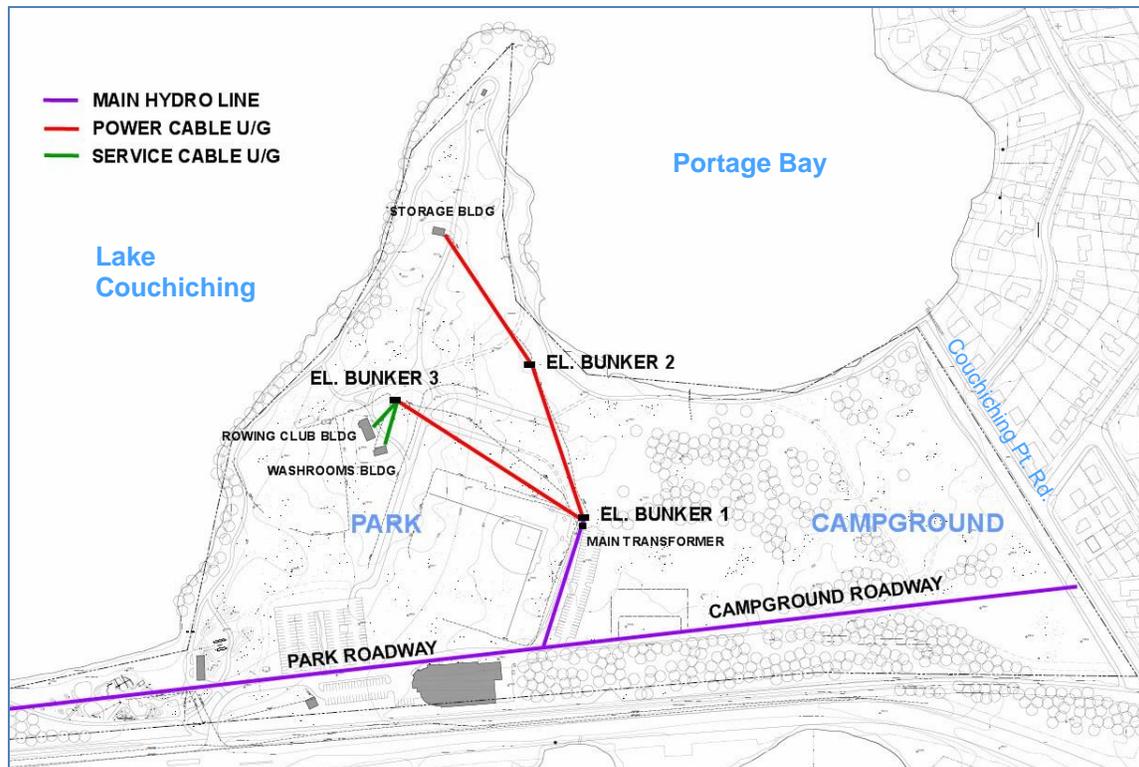
Mariposa Folk Festival and Celebration Park, Orillia

Electrical and Lighting Considerations

BRIEF REPORT

January 5, 2016

1. Present Situation - Hydro



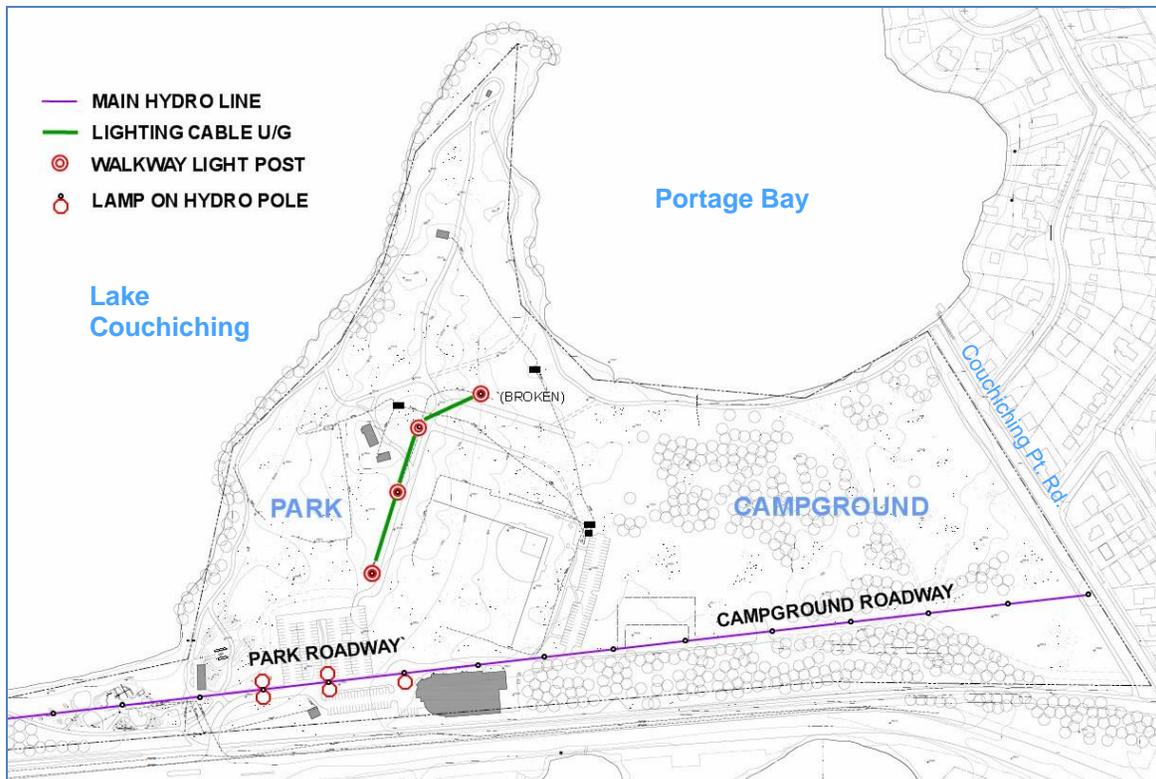
The area is serviced by a main hydro line along south edge of the property. The Main Transformer and Electrical Bunker 1 are located centrally between the Park and the Campground. 600V power is fed by underground cables to Park hydro distribution at Bunker 2, Bunker 3 and the Park Storage Building. Presently, there is no power infrastructure at the Campground.

Bunker 2 supplies the Main Stage area except the audio equipment, which commonly comes with own mobile generators. Bunker 3 supplies the vendor area and is reportedly under-powered, with the event organizers providing extra portable generators.

While the exact extent of spare power in the system remains to be verified, the main hydro line appears adequate. If the Main Transformer and its feeder are at capacity, they may be upsized, or a second transformer added, preferably near Bunker 3 as it is centrally located to the Park.

The hydro line is owned by the Orillia Power Corporation, who needs to be approached for the records on the present hydro demand, as well as the feasibility of adding more loads.

2. Present Situation - Lighting



Park lighting is in disrepair and at the barest minimum level. At the Campground there is no lighting at all, including the car parking areas and their access roads.

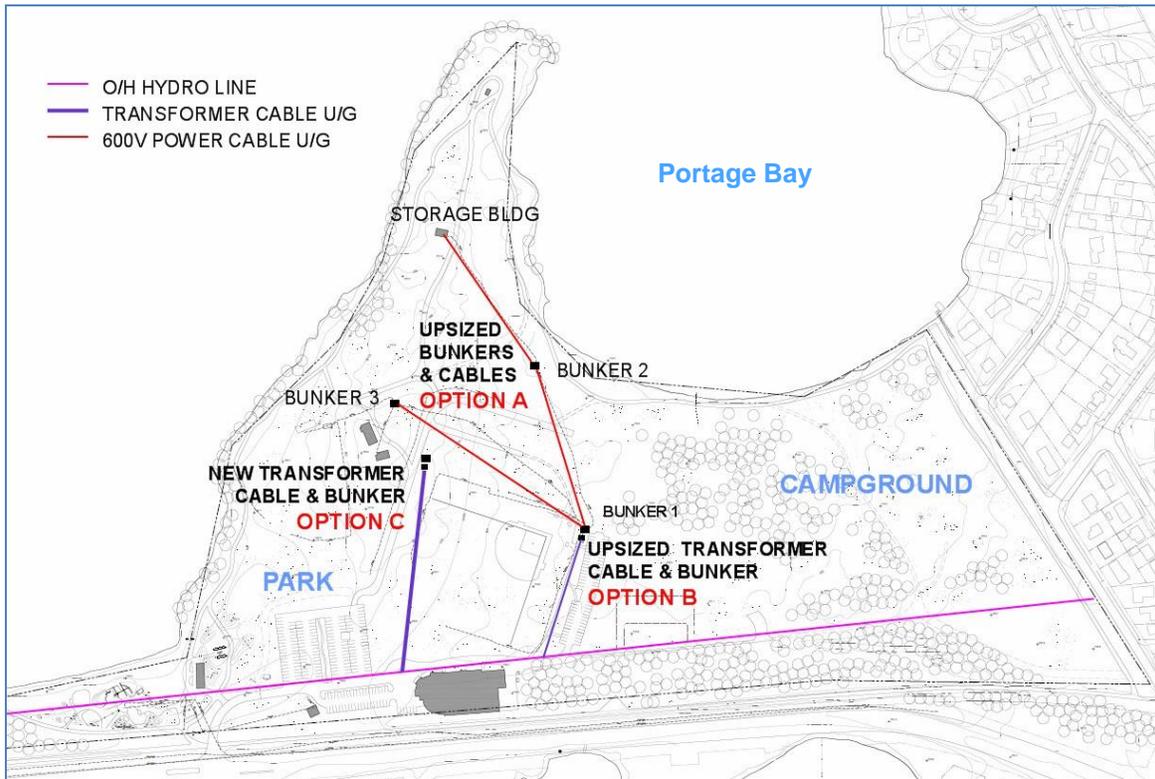
The Park Roadway leading from the Main Entrance to parking lots and the Campground is flanked by hydro line poles. There are cobra-head lighting fixtures on the first three and none on the rest. The Campground Roadway is totally unlit.

The Park has a network of internal pathways interconnecting the Main Entrance with parking lots and baseball fields. Its lighting consists of four light poles at the central pathway, one with a fixture missing and the other three in bad disrepair.

The Park and Campground are encircled along the waterfront by a paved pathway, known as Lightfoot Trail, connecting to the Roadway via the Couchiching Point. Road. Presently there is no illumination at either one.

There are two parking lots near the central baseball fields. Although both fields are equipped with tall-mast lighting, illumination of the parking lots is inadequate. The third overflow/ festival parking lot is located at the Campground and without any illumination.

3. Hydro Power Upgrade - Options



The Bunkers and the Storage Building serve as hubs for the Park 600V power. They step the power down to 120V for distribution via underground service cables. Should the supply of hydro power prove inadequate for the Mariposa Folk Festival, it may be upgraded in either, or combination of the following options:

OPTION A – UPSIZE PRESENT DISTRIBUTION

Replace electrical equipment inside Bunker 2, Bunker 3 and Storage Building with switches and circuit breaker panels of larger size and replace or double up existing underground cables. This will deliver more power to those distribution hubs. However, total power available to the site will remain at 300 KW, the present size of the Main Transformer.

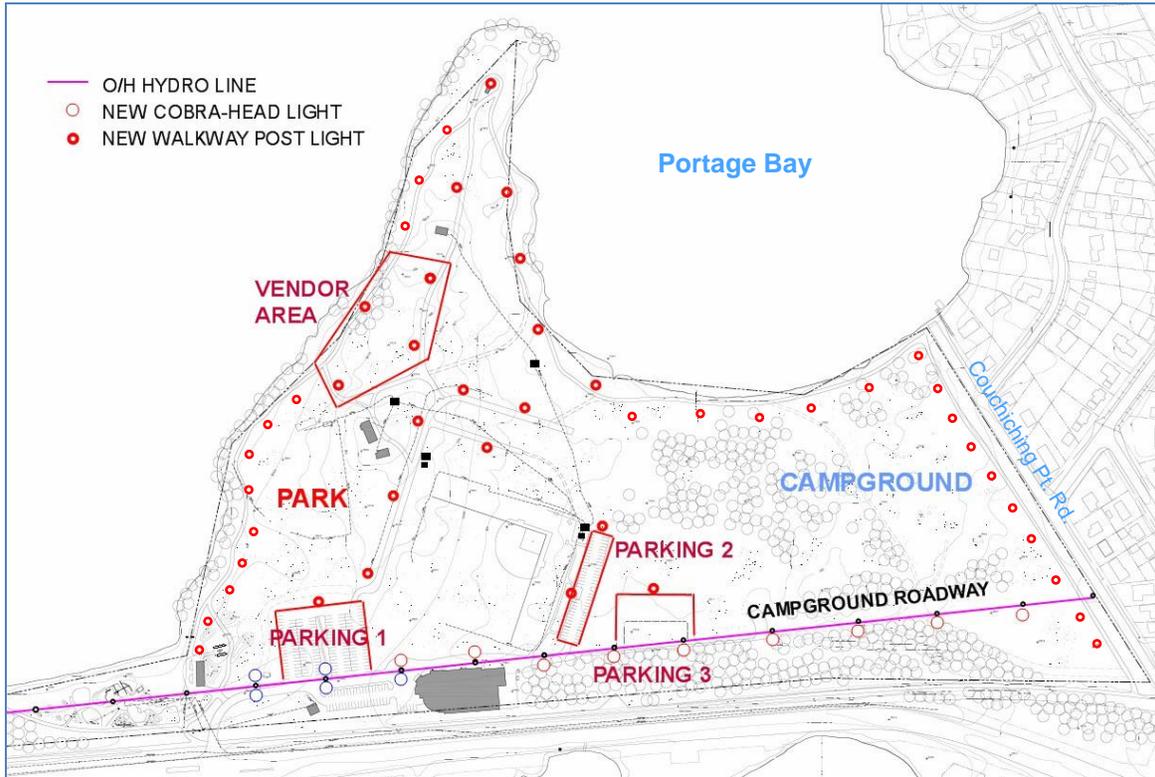
OPTION B – UPSIZE MAIN TRANSFORMER

Replace 300 KW transformer with 500 KW and upsize Bunker 1. The present transformer cable and pole equipment may need replacing as well. This option will require prior approval of the Orillia Power Corporation.

OPTION C – ADD NEW TRANSFORMER

Install another 300 KW transformer centrally to the planned Festival activities. Install new bunker, transformer cable and pole equipment. This option also will require prior approval of the Orillia Power Corporation.

4. Lighting Upgrade Concept



Electric lighting promotes safety and security, in addition to providing convenience. Road lighting, parking lot lighting and pathway lighting are subject to various provincial regulations, municipal standards and engineering guidelines.

The hydro line along the Park and Campground Roadway can provide an economical way of illuminating the vehicular traffic. The existing hydro poles may be used for new lighting fixtures.

The Park Roadway should be lit using photocells. As the Campground has only seasonal use, its cobra-heads may be placed on a master switch and turned off when not necessary.

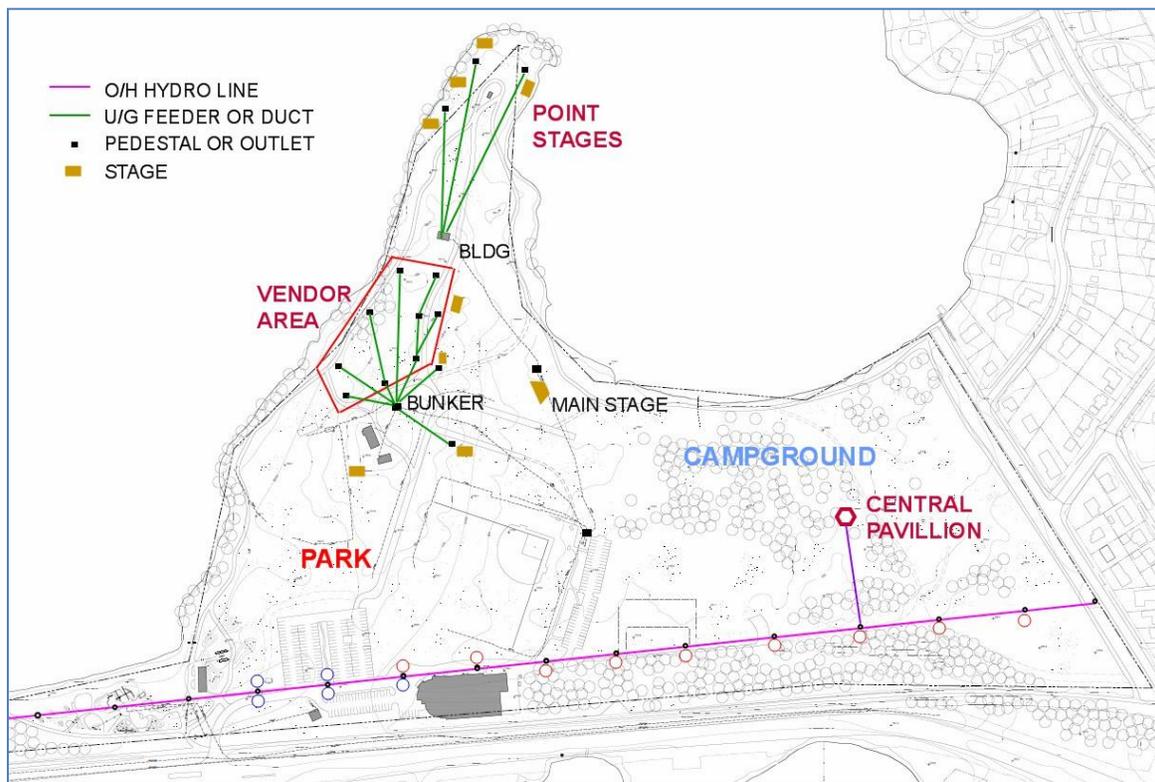
Existing light poles at the Park central walkway are in disrepair, pose a liability and should be all replaced. It is also recommended to logically extend the present lighting by adding new poles.

As during the Festival vendor booths are set up and remain for several nights, it is recommended to add lighting poles in the Vendor Area.

It is recommended to install lighting along the entire lake-front Lightfoot Trail. In addition, based on the available budget, lighting along the Couchiching Point Road should also be considered, to connect Lightfoot Trail with the Roadway.

Lighting at the parking lots fails to meet the required municipal and provincial levels. It is recommended that proper parking lot illumination is considered for each of the lots.

5. Further Considerations



During Mariposa Festival, event organizers provide temporary portable generators, to which vendors plug in their extension cords.

To avoid stringing cords overland, safe passage under pathways may be created using buried PVC ducts. Alternatively, a permanent solution may be provided by low-profile pedestals with GFI safety receptacles, similar to those the City of Barrie uses at the annual KempenFest Waterfront Festival.

Also, the Campground could benefit from a seasonal building with potable water supply, power hub and charging station for smart phones and personal devices.

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