



# East Shore Internet Society

P.O. Box 145 Crawford Bay BC V0B 1E0 Tel. 250.505.4089  
e-mail: [info@esis.theeastshore.ca](mailto:info@esis.theeastshore.ca) web: [esis.theeastshore.ca](http://esis.theeastshore.ca)

## Columbia Point Radio Tower Project

### Management Plan

#### Project Overview

The East Shore Internet Society (ESIS) is engaged in the process of establishing a series of radio towers to serve as access nodes for Broadband Internet services. The process has been an incremental one expanding from the network center in Crawford Bay to a network that now includes towers established at several locations to service areas on both sides of Kootenay Lake as far north as Riondel and south to Boswell. Further expansion of the network will be funded by a grant to ESIS from "Connecting Citizens Grant Program" administered by Network BC.

It is our present intention to expand the service network to provide Internet access beyond Boswell by establishing a further series of radio towers along the east shore of Kootenay Lake south of Boswell. Because of line-of-sight limitations and power requirements, feasible tower locations are difficult to find. The proposed Columbia Point Radio Tower is effectively the only feasible site to which the present network can link to in order to expand and provide services to the south.

The proposed tower is to be located on Columbia Point, 4.5 km. south of Boswell. The site was formerly the location of a Knowledge Network transmitter tower (20 watts) constructed in 1989 and removed ca. 2002. The proposed tower will be free-standing, 96' (29.3 m) in height fitted with five radio-antennas. The radios operate on an unlicensed bandwidth.

The site is adjacent to Highway 3A and is presently accessed by a narrow track leading from the pavement 30 meters to the site. No changes to this access are proposed.

## Project Description

The site is serviced by primary and secondary power with a transformer located at the highway right-of-way and a service pole located east of the site. A new secondary line to a new mast and meter at the site will be constructed to code requirements.

The present access is a vehicle track 10 meters in length to the highway right-of-way with a 30 meter cumulative length to the road pavement. This all-weather trail is unobtrusive yet will provide adequate access for the purposes of tower construction, maintenance and repair. No changes to this road are anticipated.

The proposed tower will be a free-standing, Titan Self Support tower manufactured by Tylon TSF. This tower, 96' (29.3 m) in height will be fitted with one omni-directional, two Point-to-Point and two Point-to-Multipoint radio-antennas. The communication bandwidths are unlicensed. The tower can support an antenna area up to 8.9 m<sup>2</sup>, antenna weight up to 66 kg, and survive winds to 160 km/hr. The proposed antennae will have a combined weight of 16 kg (35.4 lb) and maximum total area of 0.71 m<sup>2</sup> (1099 in<sup>2</sup>).

The site occupies a rocky promontory with bedrock immediately underlying the proposed tower base. Since the proposed tower would replace an earlier tower of similar height and construction, it is anticipated that the existing concrete foundation will be used. Additionally, to support and anchor the tower, brackets, braces, rock anchors and concrete structures will be emplaced and constructed as required.

The tower will be enclosed by a 5 meter-square chain-link fence with a lockable gate, and appropriate signage indicating potential electrical hazards. A powerline mast, electric meter and a weather-proofed controls panel box will be constructed within the fenced perimeter. The heated box will be constructed of steel. All electronic and electric components within the fenced area and the tower itself will be adequately grounded against lightning or overloads.

The site will not generate environmentally hazardous material. All material of this nature used in the construction of the installation will be disposed-of off-site.

## Additional Information

### Environmental:

No environmental impacts by the proposed tower construction and operation are anticipated. Moreover, the existing concrete footing, if adequate, will be used for the proposed tower base.

As the installation will not be serviced by water or sewer, waste disposal or collection will not be required.

### Socio-Community:

The establishment of a Columbia Point access node will allow local residents and businesses to take advantage of the benefits of Broadband Internet access and electronic communication. The benefits include personal communication and recreation, access to education, health and emergency response services, opportunities for social and economic development and marketing.

The site will enable residents and railroad personnel in remote areas of the west shore to access the Internet node where otherwise no other Internet access, such as dial-up, is available.

The site will enable ESIS to continue to expand its service area to the south to provide Internet access to other isolated areas on the east and west shores of southern Kootenay Lake.

### First Nations:

While a number of archeological sites such as rock paintings have been identified on the west shore of Kootenay Lake and on the east shore at Redman Point about 10 km. to the south, no sites of archeological significance have been identified on Columbia Point.