

---

---

## **Appendix 5.4.8B**

# **Yellow Rail Species Account**

## BLACKWATER GOLD PROJECT

APPLICATION FOR AN  
ENVIRONMENTAL ASSESSMENT CERTIFICATE /  
ENVIRONMENTAL IMPACT STATEMENT  
ASSESSMENT OF POTENTIAL ENVIRONMENTAL EFFECTS



**Project Name:** *Blackwater*  
**Scientific Name:** *Coturnicops noveboracensis*  
**Species Code:** B\_YERA  
**Status:** Red listed by British Columbia, and listed as Special Concern by COSEWIC and SARA.

### 1.0 DISTRIBUTION

#### Provincial Range

Yellow Rails have a very restricted and disjunct range in the province; they have been found in the Peace River area, a wetland near Anaheim Lake and in the Rocky Mountain Trench.

#### Elevational Range

Up to at least 1080 m elevation.

#### Provincial Context

Territorial yellow rails have been at several locations across the province, however, due to the biology of this species it is difficult to detect and it may be more widespread than currently known. Up until the 1990's few records existed for the province this species was not known to nest. Subsequently it has been found to be a regular breeder in the Peace Region and recently several territorial males have been found in consecutive years near Anaheim Lake. Additional records for the Rocky Mountain Trench also exist, however, it is not known if these reflect additional populations or isolated records.

Outside of British Columbia this species is found throughout the prairies and across the Hudson Bay lowlands, as well as a disjunct population in Oregon.

#### Project Area:

Ecoprovince:	<i>Central Interior</i>
Ecoprovince:	<i>Central Interior</i>
Ecoregions:	<i>Fraser Plateau</i>
Ecosections:	<i>Nazko Upland</i>
Biogeoclimatic Zones:	<i>Sub-boreal Spruce</i>
	<i>Sub-boreal Pine and Spruce</i>
	<i>Englemann Spruce-Subalpine Fir</i>
	<i>Boreal Altai Fescue Alpine</i>

**Project Map Scale:** *project specific*

## 2.0 ECOLOGY AND KEY HABITAT REQUIREMENTS

Yellow rails are a small wetland bird, with few details known about their ecology. They are found in British Columbia from June through August, when they are found on breeding territory. Migration routes and habitat used in the province are currently unknown.

Potential nesting habitat is considered to be wetlands with extensive areas of short sedges, with less than 15 cm of standing water; additional components include areas with dead grass-like vegetation, and minimum wetland sizes of 0.5 ha. While fens are the principal wetland inhabited, bogs and marshes may also be used, and meadows, hay and rice fields may also occasionally be used.

## 3.0 HABITAT USE: LIFE REQUISITES

### Living (LI)

The Living life requisite for yellow rail are satisfied by the presence of suitable reproductive, feeding, and security/thermal habitat, which are described in detail below.

### Reproducing (young)

Reproductive habitat provides yellow rail the ability to build a nest, incubate eggs, and raise young in safety from predators, precipitation, wind, and temperature extremes. Nests are placed on the ground or above ground on hummocks up to 15 cm above ground, and are located in the drier sections of marsh and located in areas with 4 cm or less of standing water. Optimal habitat is provided by sedge-fen wetlands with less than 15 cm of standing water.

### Feeding

Yellow rail feed primarily on small invertebrates and seeds, although fish and amphibians are occasionally taken. Prey is obtained by gleaning from vegetation, the ground, water, and sometimes underwater, and takes place diurnally.

### Security/Thermal

Security and thermal habitat, typically wetlands provide yellow rails with protection from predators, precipitation and wind. Optimal habitat is provided by sedge-fens with little to no shrub cover, that have some standing water, but less than 15 cm of water during the nesting season.

## 4.0 TERRITORIALITY

Territoriality is poorly understood in yellow rails; males may be territorial during the breeding season, yet frequently have overlapping territories and may be colonial. Male territory size may range up to 7.8 ha, while females typically range from 0.3 to 1.2 ha.

## 5.0 SEASON OF USE

Yellow rails are present in British Columbia only during the growing season (summer), and based on the habitat requirements identified in this species account and the location of the project, the growing season will be rated (Table 1).

**Table 1: Monthly Life Requisites for Yellow Rail**

Month	Season*	Life Requisites
January	Winter	-
February	Winter	-
March	Winter	-
April	Early Spring	-
May	Late Spring	-
June	Summer	Reproductive/Feeding/Security&Thermal
July	Summer	Reproductive/Feeding/Security&Thermal
August	Summer	Reproductive/Feeding/Security&Thermal
September	Fall	-
October	Fall	-
November	Winter	-
December	Winter	-

## 6.0 HABITAT USE AND ECOSYSTEM ATTRIBUTES

Table 2 outlines how each life requisite relates to specific ecosystem attributes (e.g., site series/ecosystem unit, plant species, canopy closure, age structure, slope, aspect, terrain).

**Table 2: Relationship between Terrestrial Ecosystem Mapping (TEM) attributes and the life requisite for yellow rail**

Life Requisite	TEM Attribute
Living (reproduction, feeding, security/thermal)	<ul style="list-style-type: none"> <li>• site -site series, site disturbance, elevation, structural stage</li> <li>• vegetation - % cover by layer, species list by layer, structural stage modifier, stand composition modifier</li> </ul>

## 7.0 RATINGS

There is an intermediate level of knowledge of the habitat requirements of yellow rail in British Columbia and therefore, a 4-class rating scheme is used.

**Table 3: Habitat Suitability 6-Class Rating Scheme used for Ring-necked Duck**

% of Provincial Best	Rating	Code
100% - 76%	High	H
75% - 26%	Moderate	M
25% - 1%	Low	L
0%	Nil	N

### Habitat Suitability Ratings

Habitat Suitability is defined as the ability of the habitat in its current condition, to provide the life requisites of a species (RIC Habitat Rating Standards 1999). In assigning a suitability rating for yellow rail to a particular habitat that habitat is assessed for its potential to support the species for a specified season and life requisite compared to the best habitat in the province (i.e. the provincial benchmark) for the same season and life requisite. Each Biogeoclimatic zone, Site Series and Structural Stage (stages 1-7) is evaluated and assigned a Suitability Rating Class based on its ability to provide the life requisites for yellow rail for the growing season (spring, summer, and fall).

### Provincial Benchmark

Ecosection: Unknown

Biogeoclimatic Zones: Unknown

Habitats: Sedge-fen wetlands

### Ratings Assumptions

- Units with fen wetlands, particularly those with a high dominance of sedges will be rated up to high.

**Table 4: Summary of General Habitat Attributes for Ring-necked Ducks**

Season	Life Requisite	Structural Stage	Requirements
Summer	Living (Reproduction, Feeding, Thermal/Security)	0	Sedge-fen wetlands

## 8.0 RATINGS ADJUSTMENTS

Mapping adjustments to habitat ratings are suggested to reflect the extent of suitable habitat, and to reflect individuals detected during field surveys and areas where habitats have been rated.

## **BLACKWATER GOLD PROJECT**

APPLICATION FOR AN  
ENVIRONMENTAL ASSESSMENT CERTIFICATE /  
ENVIRONMENTAL IMPACT STATEMENT  
ASSESSMENT OF POTENTIAL ENVIRONMENTAL EFFECTS

---



### **9.0 LITERATURE CITED**

- COSEWIC. 2009. COSEWIC assessment and status report on the Yellow Rail *Coturnicops noveboracensis* in Canada. Committee on the Status of Endangered Wildlife in Canada. Ottawa.
- Southwell, D. 2002. Conservation Assessment for Yellow Rail (*Coturnicops noveboracensis*). USDA Forest Service, Eastern Region. Available at:  
[http://www.fs.fed.us/r9/wildlife/tes/ca-overview/docs/coturnicops\\_noveboracensis-YellowRailHNF.pdf](http://www.fs.fed.us/r9/wildlife/tes/ca-overview/docs/coturnicops_noveboracensis-YellowRailHNF.pdf). Accessed October 2013.