

# CHAPTER 18

## Wildlife Evaluations

### 18.1 REVIEW OF WILDLIFE VALUES AND POTENTIAL

The water dependent wildlife resources of the Okanagan Valley are limited. Productivity generally is low. Some resident waterfowl exist in the north arm of Okanagan Lake and the north arm is also an important resting and holding area for migrating and wintering waterfowl.

The Okanagan River system has a low wildlife productivity with the possible exception of some of the larger "oxbow" areas of the old river bed removed from the channel during flood control "improvements" of the late 1950's, and the delta area marshes at the north end of Osoyoos Lake. A limited number of muskrats and beaver reside in the Okanagan River and are occasionally taken by trapping.

Vaseux Lake is approximately on a par with the north arm of Okanagan Lake with reference to waterfowl breeding and migratory capabilities. Canada geese are the primary waterfowl users of Vaseux Lake. The area has been declared a waterfowl sanctuary, primarily due to its reproduction capability for Canada geese.

Numbers of waterfowl using the system has declined since the turn of the century, primarily due to altered shoreline, influxes of humans and introduction of carp. The exception to this are Canada geese, whose numbers have increased in recent years. Stabilized water levels in Vaseux Lake and habitat improvements are in part accountable for the increase.

### 18.2 EVALUATION

#### 18.2.1 Water Quantity

Alteration of lake levels at critical times of the year, primarily during the spring nesting and incubation, would adversely effect brood success in the north arm of Okanagan Lake and Vaseux Lake. A major elevation increase would result in nesting flooding, while a major lowering would make reed and bulrush areas unavailable to young. Major water level changes at other periods of the year will effect availability of food sources, i.e. rooted and semi-attached aquatic plants.

The oxbow areas of the Okanagan River are generally dependent on the maintenance of river levels to maintain water in the oxbows. These oxbows are now

either directly charged from the river to service irrigation intakes, or controlled by seepage if no direct charging takes place. From observation, it appears that river flows below 250 cfs severely limit wildlife capabilities of the oxbows. Charged oxbows become essentially useless to wildlife once the irrigation season ends and the water flow is shut off.

Table 18.1 indicates the "scores" various water quantity alternatives were rated at, with respect to their effect on wildlife. Generally, little effect is to be expected from implementing any of these alternatives. A slight decrease in wildlife populations are expected if alternatives 1(b) and 2(b) are implemented, otherwise an improvement of wildlife populations will result.

TABLE 18.1

EFFECT OF VARIOUS MAINSTEM OPERATING ALTERNATIVES ON WATER DEPENDENT WILDLIFE  
IN THE OKANAGAN BASIN, BASED ON PRESENT CONDITIONS. EVALUATED AT ZERO  
ON A +10 TO -10 RANGE

ALTERNATIVE	SCORE -RANGE- (+10 to -10)	
	1970	2020
1(a) Historic Conditions (Fisheries Incidental)	0	0
1(b) Historic Conditions (Fisheries Met)	-2	-
2(a) Flood Control & Water Conservation (Fisheries Incidental)	+5	-
2(b) Flood Control & Water Conservation (Fisheries Met)	+2	-2
3(a) Water Importation (Fisheries Incidental)	+4	+1
3(b) Water Importation (Fisheries Met)	+2	-

\* A zero score indicates no change from 1970 conditions.

#### 18.2.2 Water Quality

Waterfowl thrive in marsh-like, heavily eutrophic aquatic areas. The generally oligotrophic-mesotrophic nature of the main valley lakes coupled with the lack of muddy organic bottom sediments is one of the major factors limiting waterfowl production in the area. Limited eutrophic areas, i.e. north arm, Okanagan Lake, north end, Osoyoos Lake and Vaseux Lake where other requirements for aquatic plant production exist, are exceptions to this. Heavy aquatic growths at outlets of nutrient rich effluents would be expected to attract waterfowl.

Addition of nutrients to most of the lakes would be expected to slightly increase water bird usage of the immediate area.

Water quality is expected to have a negligible effect on the wildlife potential of the Okanagan River.

### 18.2.3 General Comment and Summary

The Okanagan lakes have a limited water dependent wildlife potential. The north arm of Okanagan Lake, Vaseux Lake and some of the larger oxbows adjacent to the southern portion of Okanagan River have some wildlife production capabilities. Mainstem operating alternatives are not expected to effect wildlife to a major degree. With two exceptions, mainstem quantity alternatives will be beneficial to nesting and migrant waterfowl.