

19m

**EVALUATION OF FUTURE HABITAT VALUES AND MITIGATION CREDITING
WITHIN THE BPA VANCOUVER LOWLANDS PROJECT AREA.**

COPY

Brian M. Calkins
Wildlife Area Manager
Washington Department of Wildlife

January, 1996

INTRODUCTION:

This report is a follow up analysis of potential future habitat values within the Bonneville Power Administration (BPA), Vancouver Lowlands project area. Baseline habitat values had previously been established in a separate report (Calkins et al. 1995).

The objective of this report is to provide projected habitat values based upon proposed management strategies by the Washington Department of Fish and Wildlife (WDFW) and BPA. Projected mitigation credit is represented by either the total predicted habitat value in the case of BPA acquired land or the change in value in the case of lands that are already protected through fee title (WDFW or other agency ownership).

METHODS:

As in the baseline study, each individual parcel was evaluated. Two of the parcels (Fazio A and Egger A) in the baseline study have been divided into two subareas to reflect current trends in acquisition strategy. In a few other cases only the acreage presumed to be affected was evaluated. Each parcel is evaluated separately as it is still not clear which lands may be acquired as a result of BPA acquisition efforts.

Projected average habitat suitability index (hsi) values were derived for the nine indicator species in each habitat type (Table 1). Exceptions to the average values were made in several unique cases. These are noted in the summary sheets for each parcel in the appendix. The projected hsi values were derived either from the best example of the desired future condition where one existed in the study area, or from predicted changes in habitat parameters where a good example was not available in the study area.

The projected future habitat unit (hu) values also reflect changes in the acreage of the various habitat types. These

PROJECTED AVERAGE HABITAT SUITABILITY INDEX VALUES BY HABITAT TYPE:

Habitat Type:	Pasture	Agricultural	Riparian Forest/Shrub	Emergent Wetland	Forested Wetland	Shrub/Grassland	Dense Deciduous	Exposed	Urban
Species Model:									
Mink	0.00	0.00	1.00	0.70	0.20	0.00	0.00	0.00	0.00
Western Meadowlark	0.50	0.05	0.00	0.00	0.00	0.50	0.00	0.00	0.00
Yellow Warbler	0.00	0.00	0.70	0.10	1.00	0.00	0.00	0.00	0.00
Black Capped Chickadee	0.00	0.00	1.00	0.00	1.00	0.00	1.00	0.00	0.00
Heron	0.40	0.05	1.00	0.70	0.00	0.00	0.00	0.00	0.00
Canada Goose (breeding)	0.40	0.20	0.00	0.40	0.00	0.00	0.00	0.00	0.00
Canada Goose (wintering)	1.00	0.85	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Mallard	0.15	0.00	0.00	0.00	0.00	0.80	0.00	0.00	0.00
Dabbling Duck	0.00	0.00	0.00	1.00	0.50	0.00	0.00	0.00	0.00
Total HU/acre	2.45	1.15	3.70	2.90	2.70	1.30	1.00	0.00	0.00

NOTE: Optimum value shown for heron will take a considerable period of time to develop in some areas.
 Zero values for canada goose and mallard in emergent wetland may be misleading. These models were only used to evaluate upland sites.
 Dabbling duck model was used to evaluate the value of wetlands to waterfowl in general.

acreage changes are based upon projected habitat conversion presented in BPA's draft NEPA document (1995). The NEPA document preferred alternative presents acreage conversion as a range. For purposes of this evaluation the maximum amount of conversion to emergent wetland was used. This assumes that BPA and WDFW will be successful over time in acquiring and developing functioning moist soil management wetland impoundments within the entire Shillapoo Lakebed area.

RESULTS:

Existing WDFW lands:

Mitigation credit for WDFW lands is based upon the predicted change in habitat units for all indicator species due to future management programs proposed by BPA and WDFW (Predicted future hu - baseline hu = credit). Projected credit for the three parcels is summarized as follows:

AREA:	EST. AC.	CREDIT (Change)
Shillapoo W. A. Main Segment	1019	713.75
Chapman Island Segment	64	29.50
Vancouver Lake W. A.	469	<u>250.55</u>
TOTAL PREDICTED CREDIT FOR EXISTING LANDS:		993.80 hu's

Acquired lands:

Mitigation credit for lands acquired with BPA funds is based upon the full projected habitat value for all indicator species after enhancement. Three parcels have been proposed for acquisition as follows:

OWNERSHIP:	EST. AC.	CREDIT (future cond.)
Herzog	197	458.50
Egger A-1	680	1653.30
Fazio A-1	375	<u>977.20</u>
TOTAL PREDICTED CREDIT FOR ACQUIRED LANDS:		3089.00 hu's

Predicted total:

The two totals, above, total 4082.80 habitat units. This figure should be used as the current predicted credit amount.

Possible Cooperative agreements:

Other credit above this level may be possible through cooperative agreement but cannot reasonably be explored until a funding base is established. Clark County Parks in particular is interested

in cooperative ventures.

Two potential projects with the county have been identified below. The analysis is only for the affected acreage. The possible credit for these projects would be based upon the projected change in hu's as for existing WDFW lands.

AREA:	AFF. AC.	POSSIBLE CREDIT
Clark Co. South Vancouver Lk.	21	34.43
Clark Co. Frenchman's Bar	3	4.78

Other possible additions or substitutions:

Other possible substitutions or additions to the mitigation credit could include purchase of lands not currently under consideration as substitutes for those listed above or as additions to WDFW's current ownership. WDFW is currently pursuing acquisition of additional parcels in the area. One other option is expanding the cooperative agreement approach as Clark County is also involved in acquisition activities at this time.

The potential future value and change are listed below for these parcels due to the fact that they could either serve as substitute BPA acquisitions, Cooperative agreement lands, or additions to existing WDFW lands.

OWNERSHIP	ACRES	POTENTIAL TOTAL HU'S	CHANGE IN HU'S
Egger A-2	74	273.80	197.80
Egger B	266	868.40	337.34
Fazio A-2	175	323.40	204.20
Fazio B	264	594.20	185.85
Rufener	271	788.83	108.66
Port of Van. (part)	114	271.96	112.47

DISCUSSION:

The current best prediction of mitigation credit for BPA's mitigation program in the Vancouver Lowlands study area is 4082.80 habitat units. There are still many unknowns in this proposal that may have to be evaluated over time should strategies change from those presented above and in BPA's draft NEPA document.

Other potential options have been evaluated here to facilitate any future reevaluation of credit based on changes to proposed acquisitions in particular. There is also potential for the

projected credit amount to increase if WDFW or Clark County acquire additional lands.

One other item, that is not often considered, has not been evaluated. That being the question as to whether there is a positive influence on wildlife habitat parameters in adjoining lands due to activities on "protected lands." This is difficult to assess because the long term condition of lands that are not controlled under a mitigation agreement cannot be predicted. If this were to be evaluated, additional credits for heron and mallard in particular could increase.

In summary, the figure for mitigation credit due to the Vancouver Lowlands project may be subject to change based primarily upon the outcome of the acquisition phase. Potential values for other possible substitute parcels have been provided in the event a change in strategy is needed. A partial short-term reduction in value of the other two parcels could also result if one of the primary parcels is not acquired. However, WDFW remains confident that the desired results and full development will be achieved over the long term.

LITERATURE CITED:

Calkins, B. M., Anderson, E. A., AND Ashley, P. R. 1995. Vancouver Lowlands Baseline Habitat Evaluation, Project Report. Washington Department of Fish and Wildlife. 26pp.

Bonneville Power Administration, Washington Department of Fish and Wildlife. 1995. Vancouver Lowlands Columbia River Wildlife Mitigation Project, Preliminary Environmental Assessment and Management Plan. 53pp.