

## BLM STUDY REVIEW of HELLS CANYON COMPLEX STUDIES

### Effects of Water-Level Fluctuations on Riparian Habitat Fragmentation

3.2-41

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#### 1. INTRODUCTION

This report discusses the effect of water fluctuations upon the development of riparian habitat and the fragmentation of the riparian area. The lack of alluvial systems reduces the opportunity for riparian development.

#### 2. CONCLUSION

*“Riparian vegetation in Hells Canyon is typically linear in nature. Small disconnected patches are found along Oxbow and Hells Canyon reservoir and below Hells Canyon Dam. The Brownlee shoreline is largely unvegetated. Below Hells Canyon Dam riparian hackberry has increased. Coyote willow has decreased along with decreased sediment loads.”*

Tree age is needed to document recruitment of new trees.

*“Little evidence documents negative effects of riparian fragmentation.”*

#### 3. STUDY ADEQUACY

Very little is said about riparian species. Non-native tree species are mentioned but nothing is stated about whether native trees could re-occupy the land if non-natives were removed. This appears to have been an after thought. Cottonwood at the confluence of Pine Creek and the Snake River is the only native riparian trees mentioned.

#### 4. BLM CONCLUSIONS and RECOMMENDATIONS

##### CONCLUSIONS

Restoration of cottonwood and willow is more important than protecting non-native trees. Riparian could be expanded around the Powder River Arm but some kind of control over private land operations are first necessary before this would be successful.

##### RECOMMENDATIONS

I would have liked to see more information about site capability. Can native vegetation re-occupy the area from Farewell Bend to Weiser? Private land purchase around waters edge, at the west end of the Powder River arm, provide the opportunity to expand riparian vegetation. A new riparian tree plantation is needed to replace the present trees used by colony nesting birds. The Powder River pool west end shoreline should be fenced to protect any new tree plantations from grazing cattle.