

National Biological Assessment
and Criteria Workshop

Advancing State and Tribal Programs



Coeur d'Alene, Idaho
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TRIBE 101

Fond du Lac Reservation: Programmatic Implementation of Bioassessment

Presented by

Nancy Costa

Fond du Lac Reservation





Nonpoint Source Assessment

- Secured funding through Minnesota Clean Water Partnership to assess NPS impacts, develop Management Plan
- Apply for Treatment as Affected State; eligible for tribal 319 funds
- Early in the process; monitoring the effectiveness of BMPs will be critical component of NPS Management Plan



NPS Issues

- Erosion control is most pervasive issue
- Wetland specialist responsible for site inspections, reviewing erosion control plans for tribal development projects
- Road construction, stream/wetland crossings have significant impact; culvert inventory of reservation



Big Lake Partnership

- Heavily developed recreational lake; high rate of noncompliant septic systems, with majority nontribal owners
- Clearwater, macrophyte-dominated lake
- Biological data indicates vulnerability to nutrient, human pathogen impacts
- Jurisdictional authority through tribal water quality standards



Alternatives Study

- CWP funding to study wastewater collection, treatment alternatives
- Partnership with lake association, county, local sanitary district
- Public outreach and education
- Determine best approach for this community to protect uses: fishable, swimmable, trophic status



Restoration activities

- Monitoring has identified problem areas, potential solutions
- Hydrologic impacts are significant (both human and beaver)
- Funding outside of EPA 106 program to do projects (Circle of Flight, EQIP)









Next Steps

- Tribal 305(b) report
- Evaluate monitoring strategy; sufficient data and appropriate quantitative methods?
- Define reference conditions for different waterbody classes
- Triennial review of WQS: nutrient and biological criteria



Wild Rice nutrient cycling

- Partner with local university for NSF grant
- 4-year mesocosm study of nutrient cycling (N^{15} labeled straw)
- Determine if nitrogen availability controls annual production
- Data can also be used to determine wild rice lake-specific nutrient criteria



Assessments

- Biological data will be given greatest weight in waterbody assessments
- Waters in Northern Lakes and Forests Ecoregion (Heiskary) tend to be low in nutrients (oligo- to mesotrophic)
- Calculating TSI somewhat confounded by high DOC (tannins, humic acids)

