

Economic and Social Analysis of the Boardman River Dams Management Options

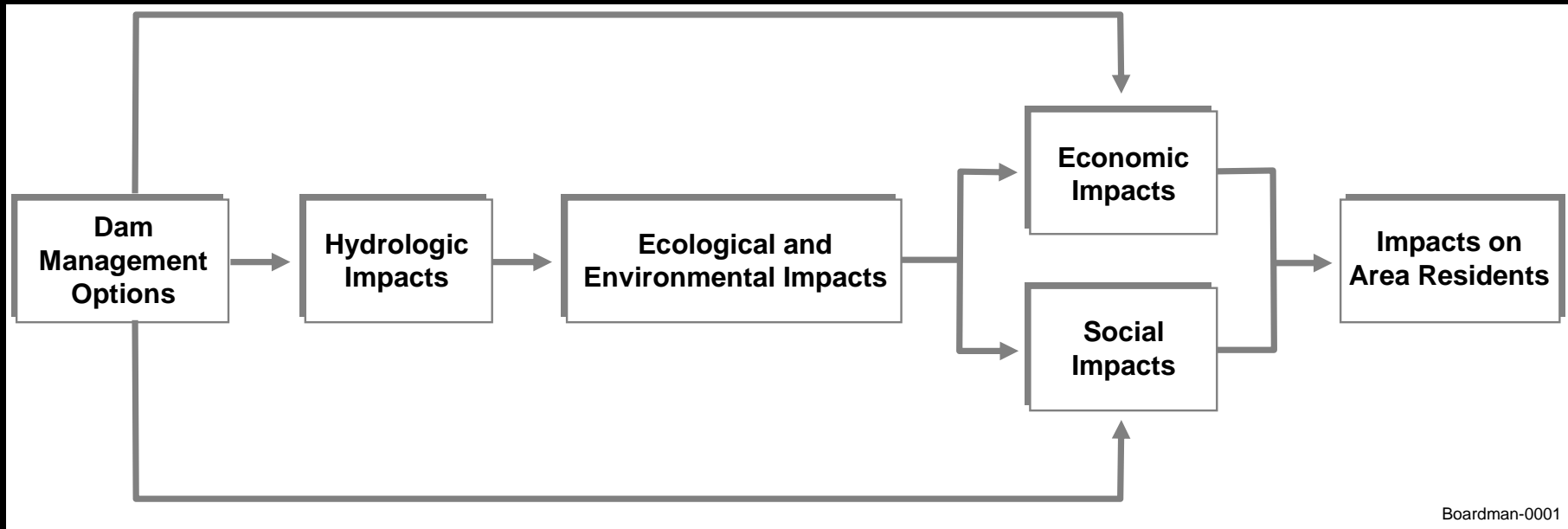
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Source: www.michigan.gov

Veritas Economic Consulting
Cary, North Carolina

Linkages between Dam-Management Options and Socioeconomic Outcomes



Boardman-0001

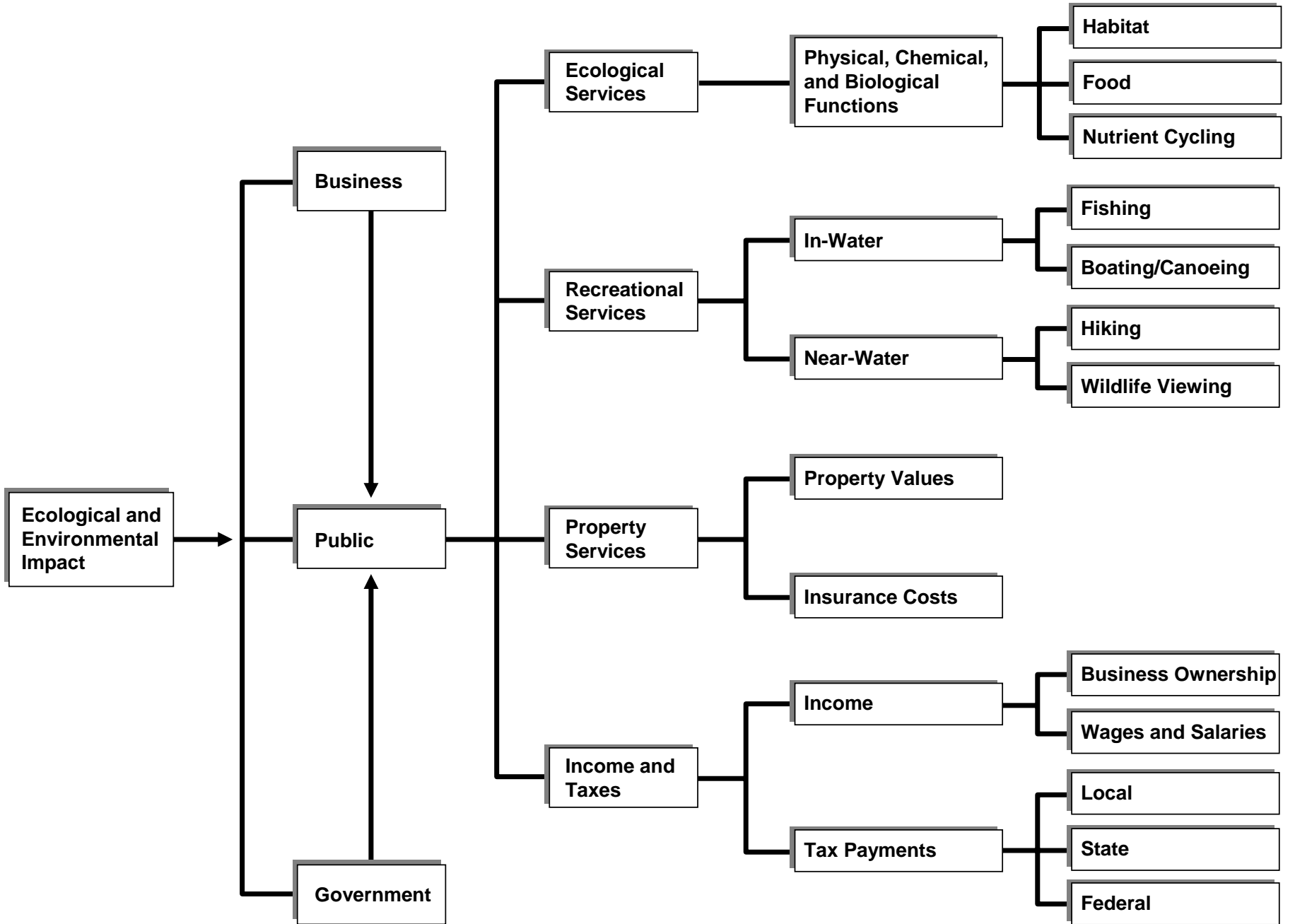
Socioeconomic Modeling Framework

□ Principles

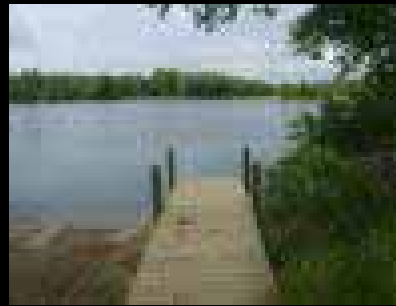
- With and without
- Local values count

□ Approach

- Segment the river
- Identify and model impacts
- Value impacts

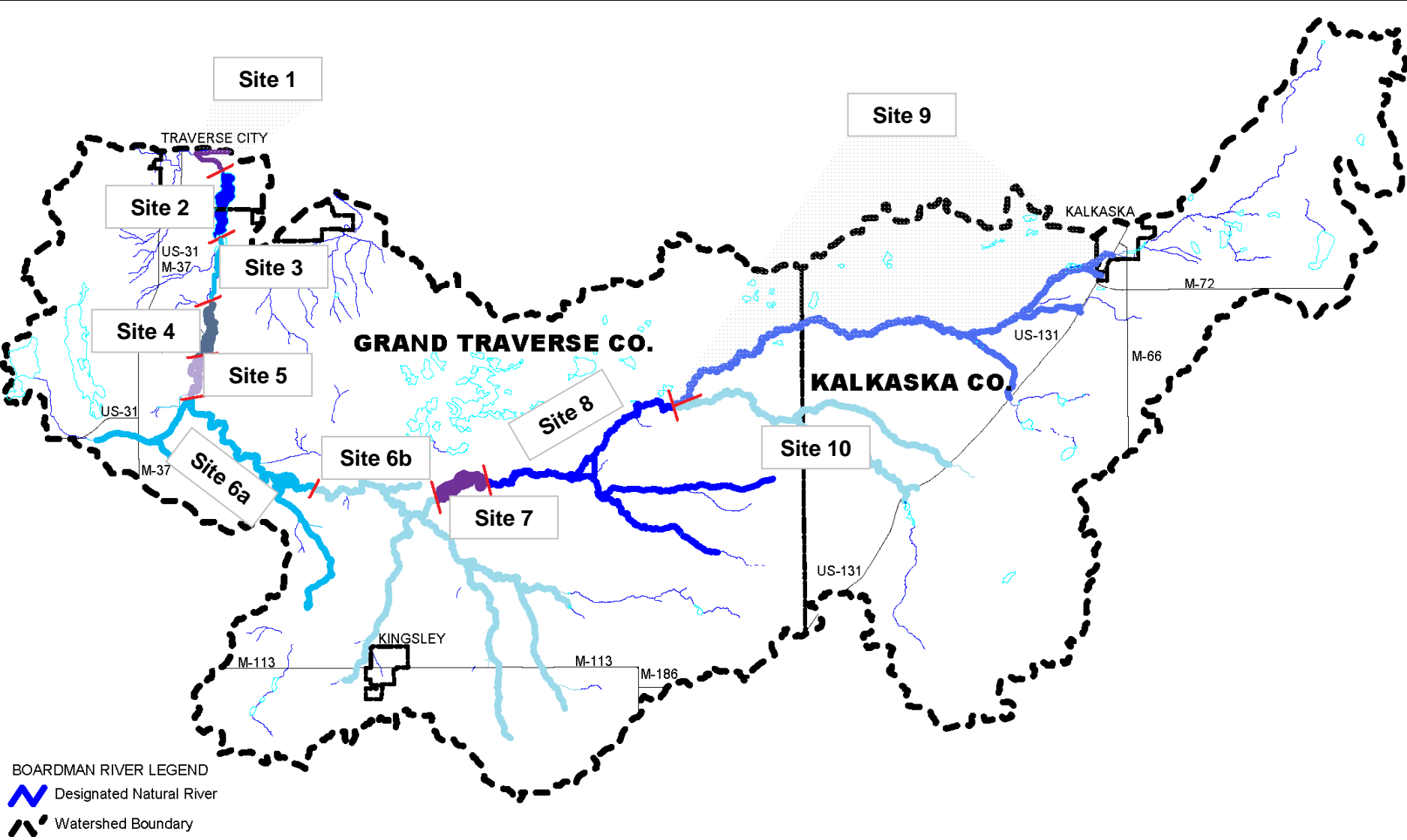


Characteristics of the Boardman River



Photos: boardmanriver.org

Location of Sites 1–10 Along the Boardman River



Hydrological and Ecological Baseline Information

- ❑ Water flow
- ❑ Water quality
- ❑ Water temperature
- ❑ Sediment transport

Site-Level Baseline Characteristics for Recreation

- Fishing
 - Lake-adapted vs. riverine species
 - Expected catch and size distribution
 - Number of trips
- In-water recreation
 - Canoeing, boating, tubing
 - Quality and number of trips
- Near-water recreation
 - Camping
 - Hiking

Economic Baseline Characteristics

- ❑ Property values
- ❑ Tourism
- ❑ Employment opportunities
- ❑ Government tax receipts and expenditures
- ❑ Power generation

Quantitative Baseline Information

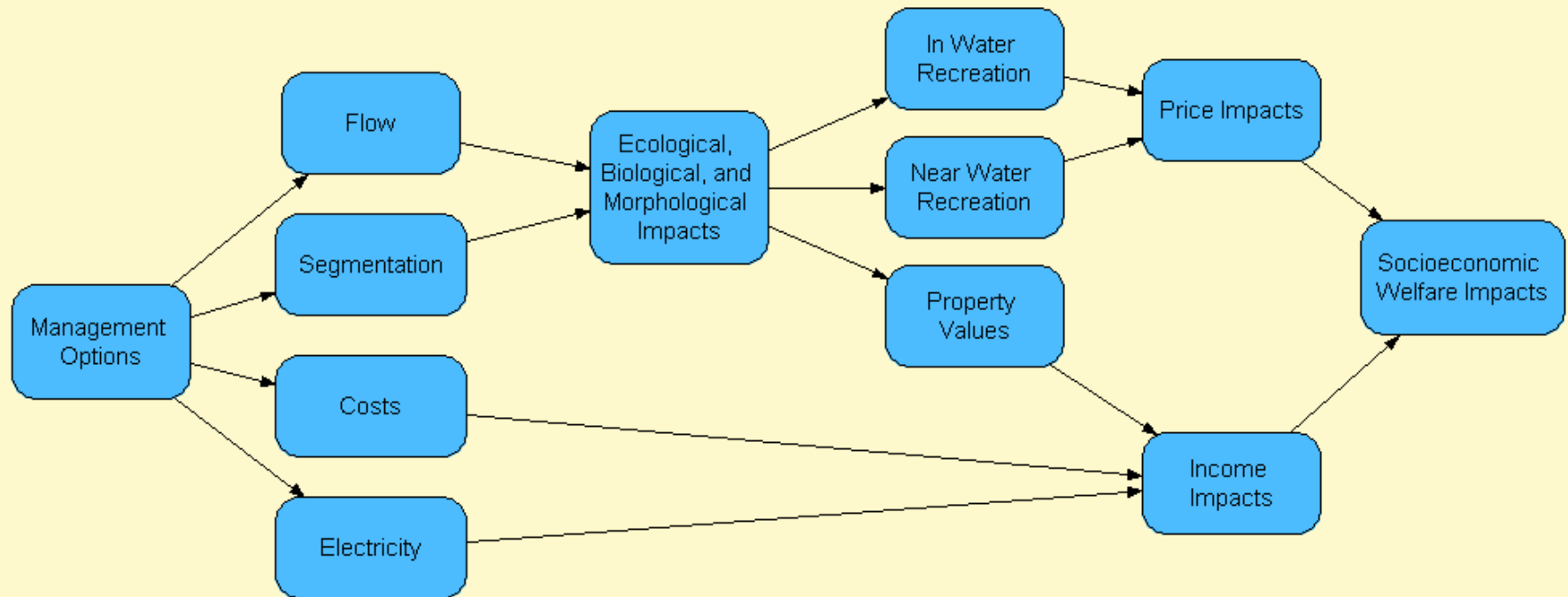
- ❑ Recreation pressure: fishing; camping; canoeing; and hiking, biking, and walking
- ❑ Characteristics of river sites: length and width, important features, land uses, and catch rates

Socioeconomic Linkage Functions

- ❑ Provencher et al.'s study can be used to estimate changes in property values that are attributable to removal of the Boardman River Dams
- ❑ Lupi et al.'s study can be used to estimate fishing pressure
- ❑ The National Survey on Recreation and the Environment provides data on many forms of outdoor recreation
- ❑ The IMPLAN software package can be used to estimate direct and indirect impacts of a policy implementation

Potential Model Structure

Potential Model Structure



Conclusions

- Baseline information
 - Recreational
 - Ecological
 - Property
 - Income and taxes
 - Costs
- Management options
- Linkage functions