Building Partners for a Sustainable Kankakee River Basin Future: Five Truths About Rivers

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Truth I: People Have Deep Emotional Attachments to Rivers

• 90% of human beings live within 10 km of a freshwater lake or river

• When archeologists prioritize lands for surveys proximity to freshwater is a primary criterion

• Almost all economic activity is to some degree water-dependent, there is a strong positive correlation between a country’s freshwater availability and their GDP

• Most of us have a river that has run through our lives
Truth II: Rivers Are Unpredictable

• They meander in their floodplains
• They flood
• They go dry
• They even can go underground
Truth III: Nobody Can Really Own a River

• Because of number 1 everybody wants to own or control rivers, but because of number 2, you really can’t, consequently:
  ▪ Water law is complex and variable
  ▪ Maybe you can “own” the bottom, but rivers meander
  ▪ Maybe you can have “rights” to the water in the river, until it flows off your land
  ▪ Waters of the United States, until they flow into Mexico, or Canada, or the Great Lakes, or an ocean.
Truth IV: We All Want the Most We Can Get From “Our” River

- What do you want?
- What do you need?
- What can you live with?
Truth V: We Will Use Whatever Tools Are Out There to Get What We Need (or Want!)

- **Conflict Oriented Tools (Creates Winner and Losers, and Bad Feelings):**
  - Legislators
  - Laws

- **Cooperation Oriented Tools (Everybody Wins):**
  - Partnerships, Coalitions, Associations
  - Decision Support Tools
  - Optimization Models
The Resilient Watersheds Initiative: Coupled Models for Decision Support

Couple Models

Decision Support Tools

Community Engagement

Locally Driven
Respectful of Needs
Shared Risks
Shared Rewards

Scenarios
Alternative Futures
Optimized Outcomes

NOT PREDICTIVE

Climate
Hydrologic
Hydraulic
Land Use
Stormwater
Nutrients
Sediment
Water Quality
Biotic Integrity
Ag Productivity
Economic

Couple Models
The Ultimate Truth: One Size Does NOT fit all!

• Laws, Rules, Regs, at best only work out for most people, most of the time!

• Many Laws, Rules, Regs work out for only a few people, some of the time, so they get changed a lot!

• To optimize outcomes for everybody, you need data driven models that predict past events well, so you have confidence future predictions are in the ballpark – run the model a zillion times adjusting the variables and you can look at the range of possible outcomes – hedging your bets to avoid hurting anybody’s interests severely!