

Ellen Wohl, CSU Geosciences Professor, asks the question:
Does the Poudre River have rights of its own to the flows it
needs to be healthy?

Under our legal system, only people (& corporations) have rights

New Zealand has declared that a river can be a legal person

If we follow New Zealand and grant rivers legal status as persons,
what would an environmental bill of rights look like for rivers?

Start with physical integrity:

a set of active river processes & landforms such that the river corridor adjusts to changes in water & sediment inputs within limits of change defined by societal values

(Graf, 2001, Annals Assoc. Am. Geographers)

Add ecological integrity:

the ability of the river corridor to support & maintain a community of organisms with species composition, diversity, & functional organization similar to those within natural habitats in the same region *(Parrish et al., 2003, BioScience)*

physical integrity focuses on river's ability to adjust to changing inputs

ecological integrity focuses on river ecosystem's ability to sustain a relatively natural biotic community, which partly depends on the physical integrity of the river

River integrity combines these definitions to describe the ability of the river to adjust to changing water & sediment inputs and through these adjustments to maintain the habitat, disturbance regime, & connectivity necessary to sustain native biotic communities.

An environmental bill of rights for rivers would guarantee the right to river integrity.

Why do this?

- because it's right
- because if we don't, we lose fundamentally necessary clean water, as well as other ecosystem services

Projected future rates of extinction for freshwater fauna in North America are 5X those of terrestrial fauna

Chronic problems with surface-water quality in rivers & lakes

Riverine & nearshore eutrophication

Increasing flood damages despite more than a century of focused efforts to reduce flood hazards

Increasing shortages of water for human consumptive use

Accelerated erosion of deltas

Despite a billion-dollar-per year river restoration industry, we are experiencing net loss of rivers as functional ecosystems – rivers with integrity

‘Cosmetic’ restoration (form without function) & stream mitigation banking do not address the problem

We need to conceptualize rivers as ecosystems with the right to integrity