

Interstate Policies Impact Replenishment of Stream Flow with Effluent

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How does policy address the impacts of effluent on stream flow and health?

Water is the essence of life. Streams and rivers are major contributor in maintaining life.

- Many organisms are found in streams and rivers. Streams not only affect the vitality in the stream but also of the surrounding area as well.
- Water is an important resource in the Western United States and many rely on water from streams for: drinking, irrigation and services
- Maintaining environmental flows is important to maintaining life.
- Many communities discharge water into nearby streams to maintain stream flow, but is that enough?
- To understand the impact of interstate policies three cities were chosen: Casper Wyoming, Durango Colorado, and Sierra Vista Arizona.
- Water policies were researched in these communities and states to understand the impact of their policies in maintaining healthy stream flow.
- These cities have a variety of reasons that environmental flow and stream health are addressed



Platte River WY
Photographer unknown

Various Factors Influence Policy

- Maintaining stream flow regime is enormously vital and customarily protected by law.
- There are variances between states on environmental flow policies.
- Other considerations include water conservation, climate change, endangered species protection and the assurance of water access to downstream communities.

Polices Impacts on Stream Flow

Cities	Address Environmental Flow?	Address using Effluent Discharge to maintain Environmental flow?	Address Emergence in stream
Casper, WY	Yes	Yes	No
Durango, CO	Yes	Yes	No
Sierra Vista, AZ	Yes	Yes	No

Table 1: Shows if specific issues are addressed in current policy.

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Ratio of Effluent set by Colorado Policy

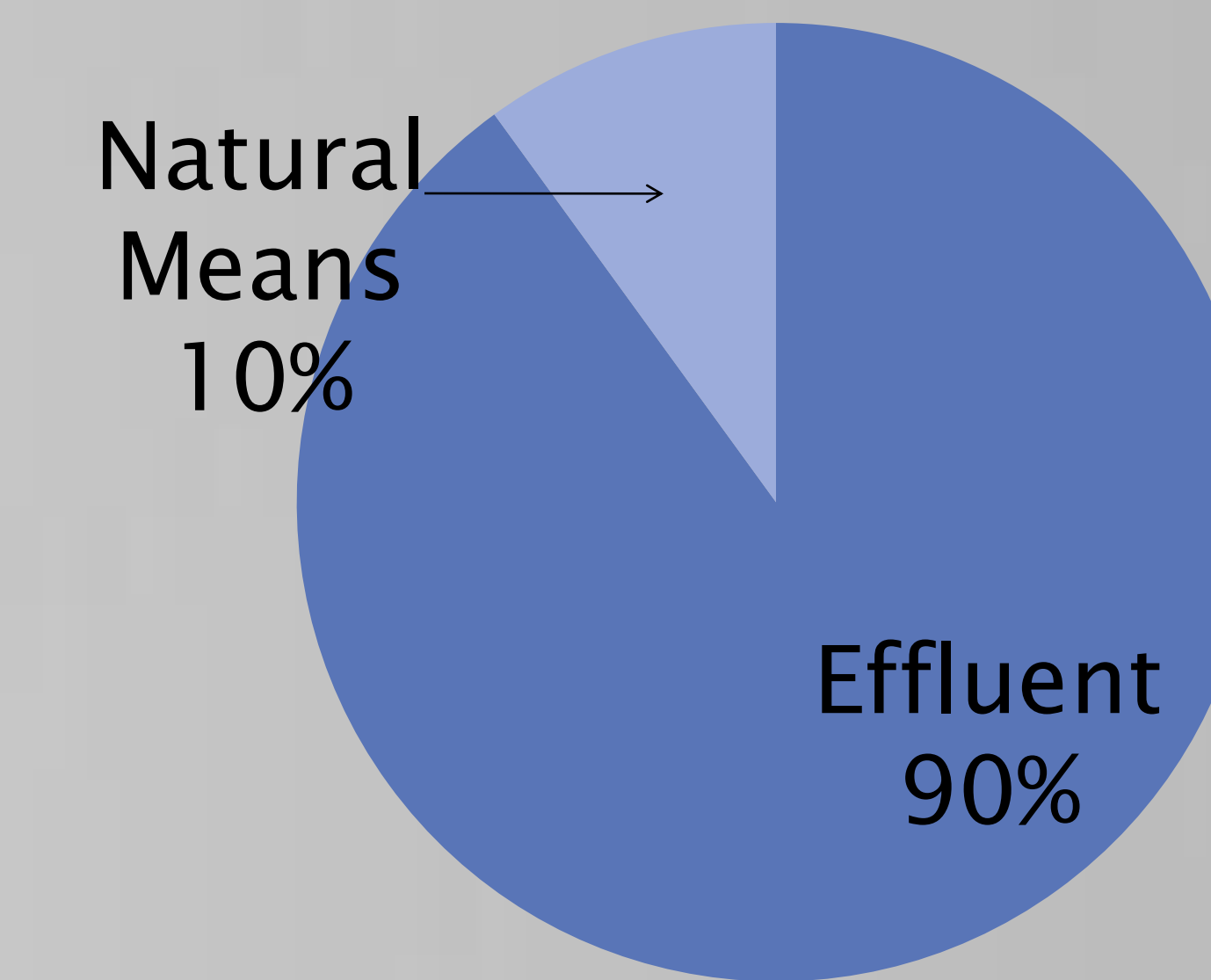


Figure 1: Streams in Colorado can have up to a ratio of 90% effluent in a stream. Is this safe?

Policies Address:

- Maintaining environmental flow in a stream for a variety of reasons from protecting endangered species, ensuring water for downstream communities, to providing recreation activities such as fishing
- Effluent discharge is not only widely practiced but is key to maintaining environmental flow.
- Best practices are used to discharge pure water back into the stream but some emergencies are released.

Future Studies and work:

- Discovering affect of emergence in streams.
- Developing new strategies to remove or reduce the amount of emergence being discharged is suggested.
- Enhanced understanding of what levels of emergence and safe ratio of effluent in a stream.
- Greater public awareness of proper pharmaceutical disposal methods

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