FLOW 2018 Drought Mitigation Options – What did we learn? What next?



Christopher Estes, Chalk Board Enterprises, LLC

Instream Flow Council - Director at Large

April 26, 2018

Hilton Hotel - Ft. Collins, CO

THANKS TO:

- Moderators/Speakers
- Poster Presenters
- Sponsors & Exhibitors
- Audience
- Workshop Committees (& other contributors)



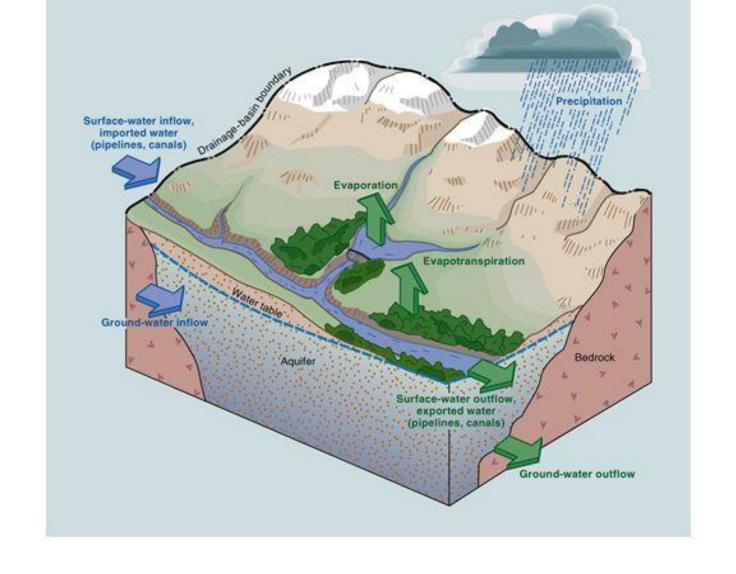
Follow-up to:



Protecting Rivers and Lakes in the Face of **Uncertainty**Third International Workshop on Instream Flows and Water Levels

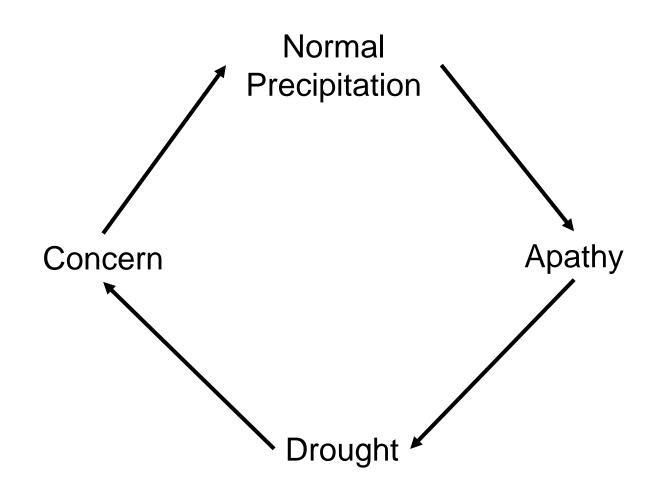
Portal to all ppt/dialogue and other products

https://www.instreamflowcouncil.org/conferences-flow-2015-workshop-materials/

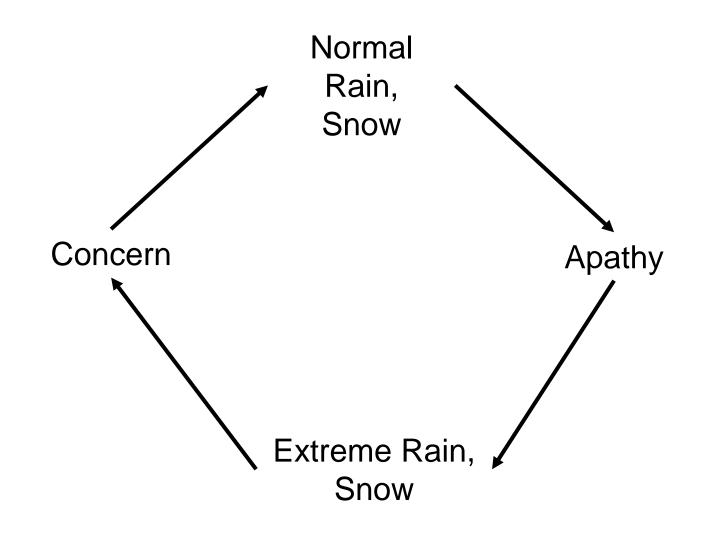


Hydrologic Cycle Water Budget

Drought Hydro-illogic Reactive Cycle



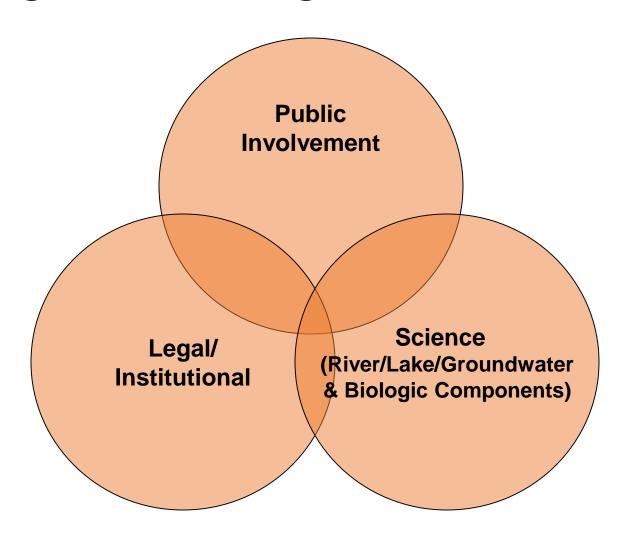
Flood Hydro-illogic Reactive Cycle



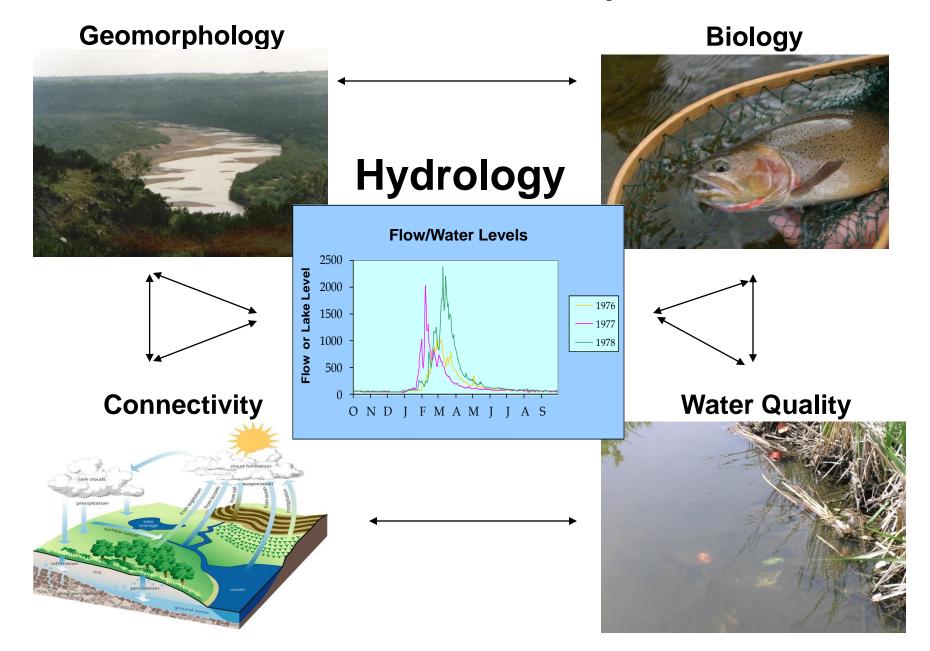
Tools & Strategies to Mitigate Negative Drought & Other Extreme Hydrologic Event Impacts to Fish, Wildlife, & Habitat Flows & Water Level Uses



3 Integrated Mitigation Elements



Understand Relationships



SOLUTION CHALLENGES:

Proactively Mitigate Hydro-illogic Cycles

No Silver Bullets!

No One Size Fits All!

Mitigation Solution Examples

- Develop/Update/Implement Drought Water Use & Basin Plans
- Forward Funding to Execute Proactive Timely Actions
- Prevent versus React, Restore/Rehabilitate
- Use Non-Regulatory & Regulatory Actions
- Monitor Outcomes Adapt if Needed
- Bridge the Past, Present, and Future
- Engage Leadership (All Stakeholder Interests)

Solution Examples (continued)

- Network with IFC Representatives
- Network with Other Experts (Multi-disciplinary)
- Network with All Stakeholders
- Integrate Water Quantity/Water Quality
- Integrate Surface Water & Groundwater
- Integrate Rivers, Lakes, & Reservoirs

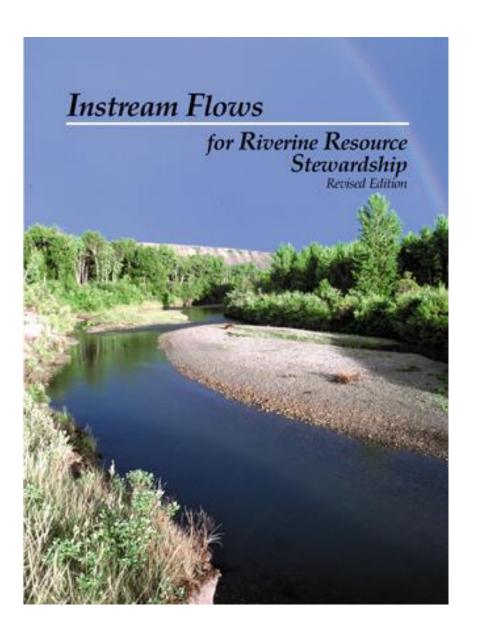
Solution Examples (continued)

- Integrate Fish, Wildlife, & Habitat Considerations
- Integrate Socio-economic Considerations
- IFC Web Site Resources
- Gaging, Gaging, Gaging!!!!

IFC Reminder:

Conserve = Protect, Restore & Enhance

OTHER RESOURCES



www.instreamflowcouncil.org

ALL ATTENDEES

•What did you learn?

•Suggestions for Improvement ?

•And, what do You want to Focus on at a Future Instream Flow Council FLOW Workshop?

THANKS TO ALL PARTICIPANTS!



What Next?

- Survey Participants for Future Workshop Themes
- Survey Participants for Future Workshop Improvements
- Post FLOW 2018 Dialogue/Power Points/ Posters, etc.
- Maintain Networking (Share Attendees Contact Information)
- Network with All Stakeholders (Future Workshops)



Christopher Estes Instream Flow Council – Director at Large

Chalk Board Enterprises, LLC
Box 221322, Anchorage, AK 99522
907-227-9549
christopher@chalkboardllc.com