COLORADO
Water Quality Control Division
Department of Public Health & Environment

Colorado River Watch – citizen science data used in decision making

May 29, 2019

Colorado River Watch

- Statewide water quality monitoring program
- Focus on citizen science involvement and education
- Fill data gap for WQ decision made with little or no data
- Leverage resources of CPW, citizens, teachers and students
- Funded primarily by Colorado Parks and Wildlife (federal $ and Colorado lottery $)

Water Quality Data

- Stations monitored monthly for Temp, DO, alkalinity, hardness

- Stations monitored monthly for 13 metals diss/tot (Al, Ar, Ca, Cd, Cu, Fe, K, Mg, Mn, Na, Pb, Se, Zn)

- High and low flow nutrient monitoring (total nitrogen, ammonia, nitrate/nitrite, total phosphorus, chloride, sulfate, and TSS)

- Fall macroinvertebrate and physical habitat assessment

Data Quality/Flow

- CDPHE-WQCD methods used

- SOP Manual, QAAP, data management plan, required annual training

- 20% QAQC used, rather than 10%

- Data available on RW website, WQ Portal, CDSN, and submitted directly to CDPHE-WQCD for annual data call

Colorado Data Sharing Network

- Customized version of AWQMS

- Water quality exchange (WQX) framework

- Data uploaded into CDSN can be submitted to EPA WQX easily

- 319 funded nps projects use CDSN

- CDPHE-WQCD allows regulatory and other data to be submitted through CDSN without additional formatting

Data users

- Assessments – 303(d) list decisions
  - Annual data call
- TMDL development
  - Pull data from WQ Portal, CDSN, assessments
- Permits – ambient conditions for WQBELs
  - Pull data from WQ Portal, CDSN
- 319 nonpoint source funded projects/watershed plans
  - RW provide match $ and guidance to other citizen science groups; RW data used in watershed characterization

Is the data useful/usable?

- Stigma of citizen science data
- Improve data flow – WQ Portal
- Can we better leverage resources for specific WQ needs/goals? (TMDL development, assessments)
- Documenting issues (avoid revisiting same topics year after year)
- Correction of site names/descriptions, locational data

QUESTIONS?

Contact Information

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River Watch of Colorado:

https://coloradoriverwatch.org/

Colorado Data Sharing Network

http://www.coloradowaterdata.org/