



Dissolved Oxygen Downstream of Glen Canyon Dam, 2019

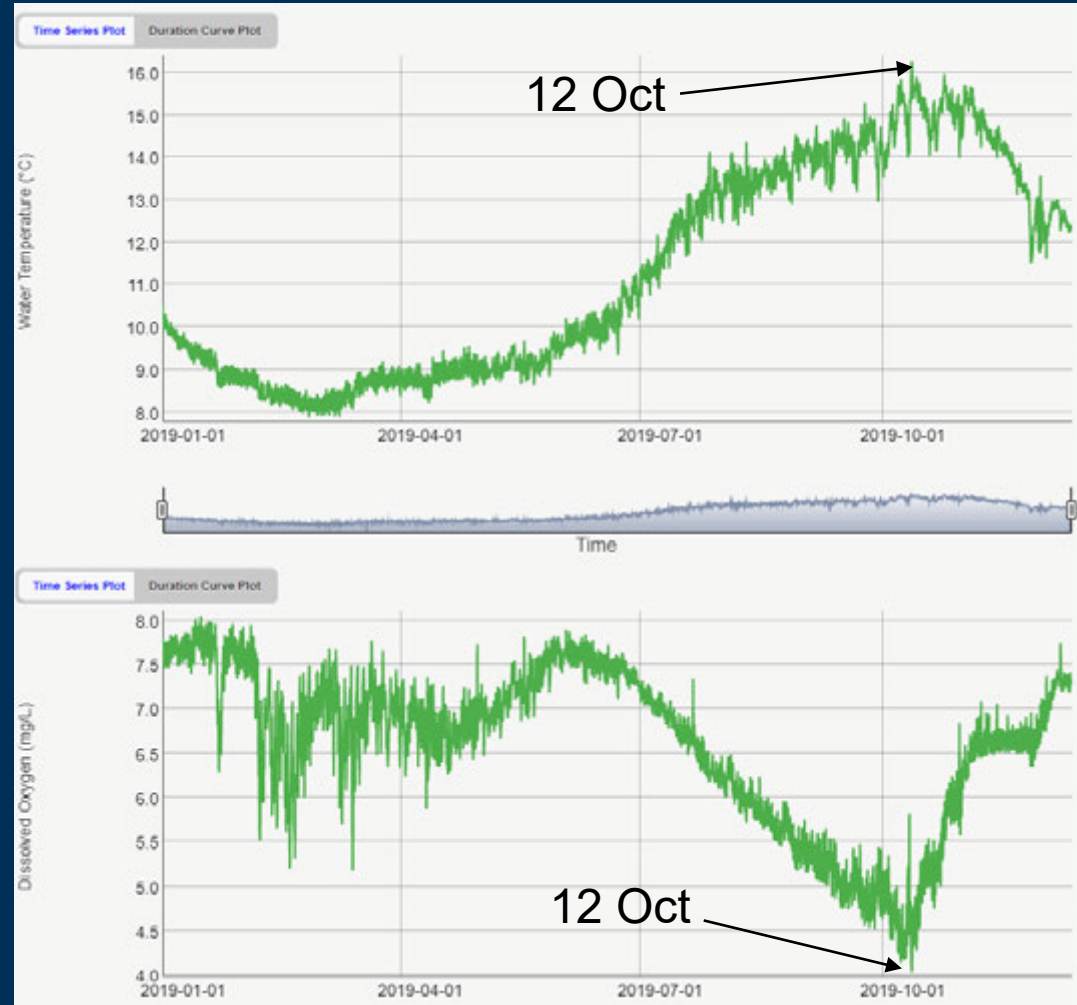
Technical Working Group Meeting
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2019 water quality statistics

- Max. temp: 16.3°C
- Min. DO: 4.0 mg/L
- 38 days w/ DO <5 mg/L

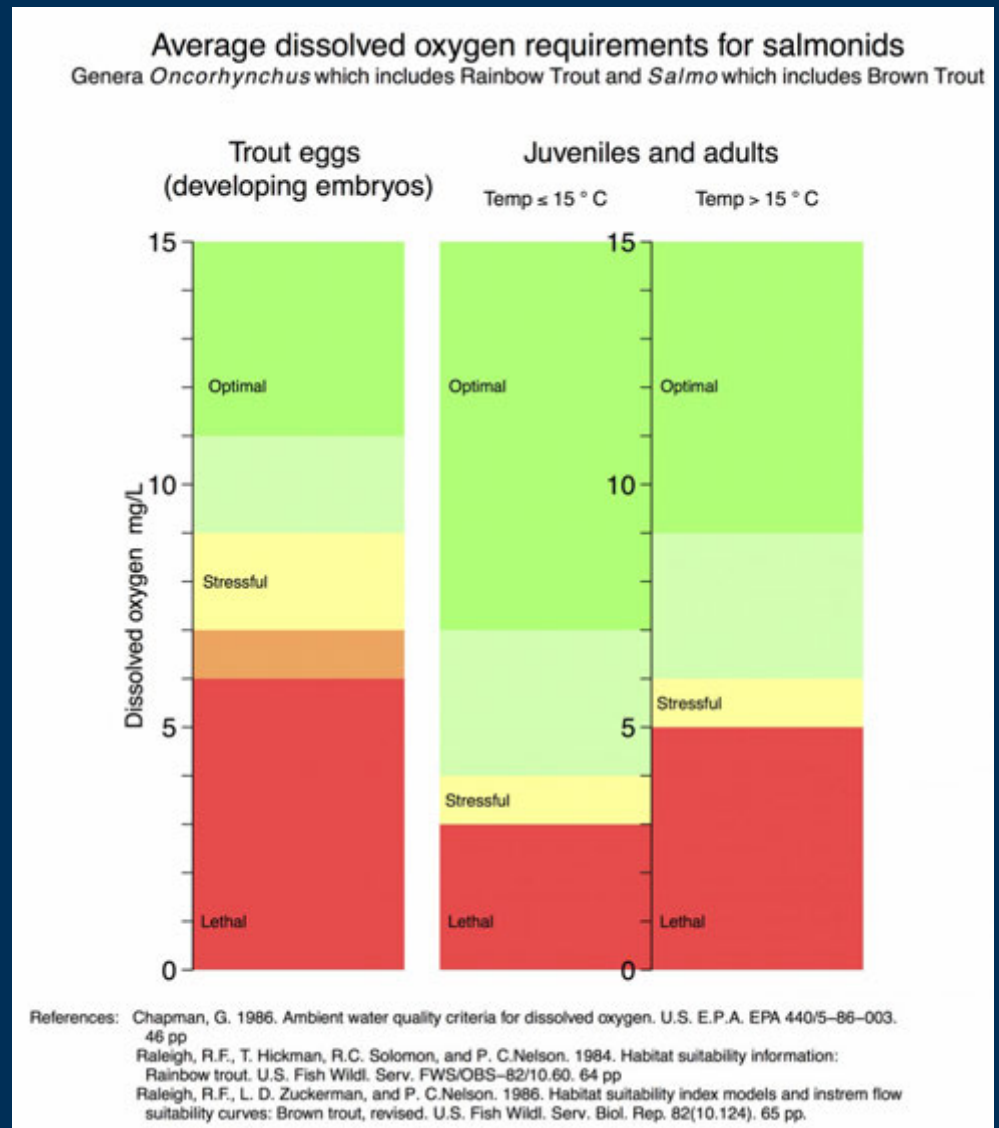
Graph showing temperature and dissolved oxygen for Colorado River below Glen Canyon Dam



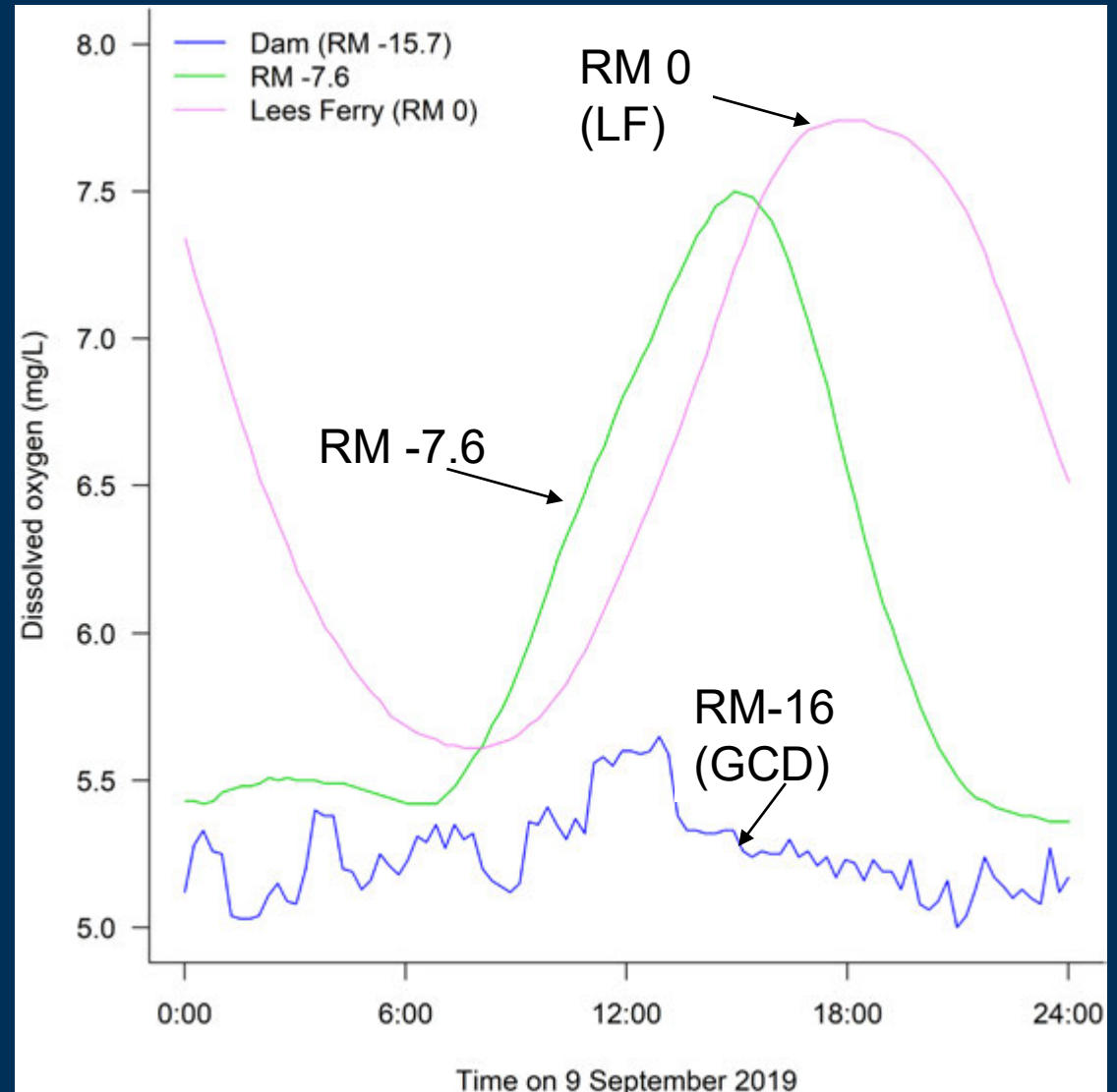
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Dissolved oxygen and trout

- Temps <15C
 - DO can be lethal if <3 mg/L
- Temps >15C
 - DO can be lethal if <5 mg/L

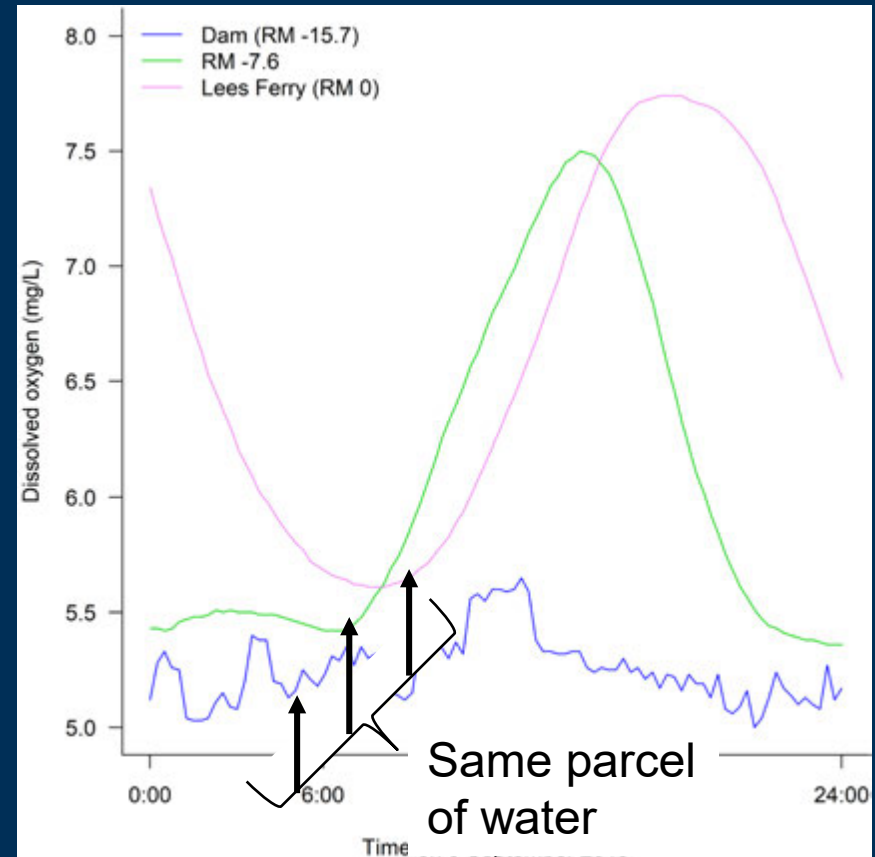


Dissolved oxygen in Lees Ferry



Dissolved oxygen increases downstream

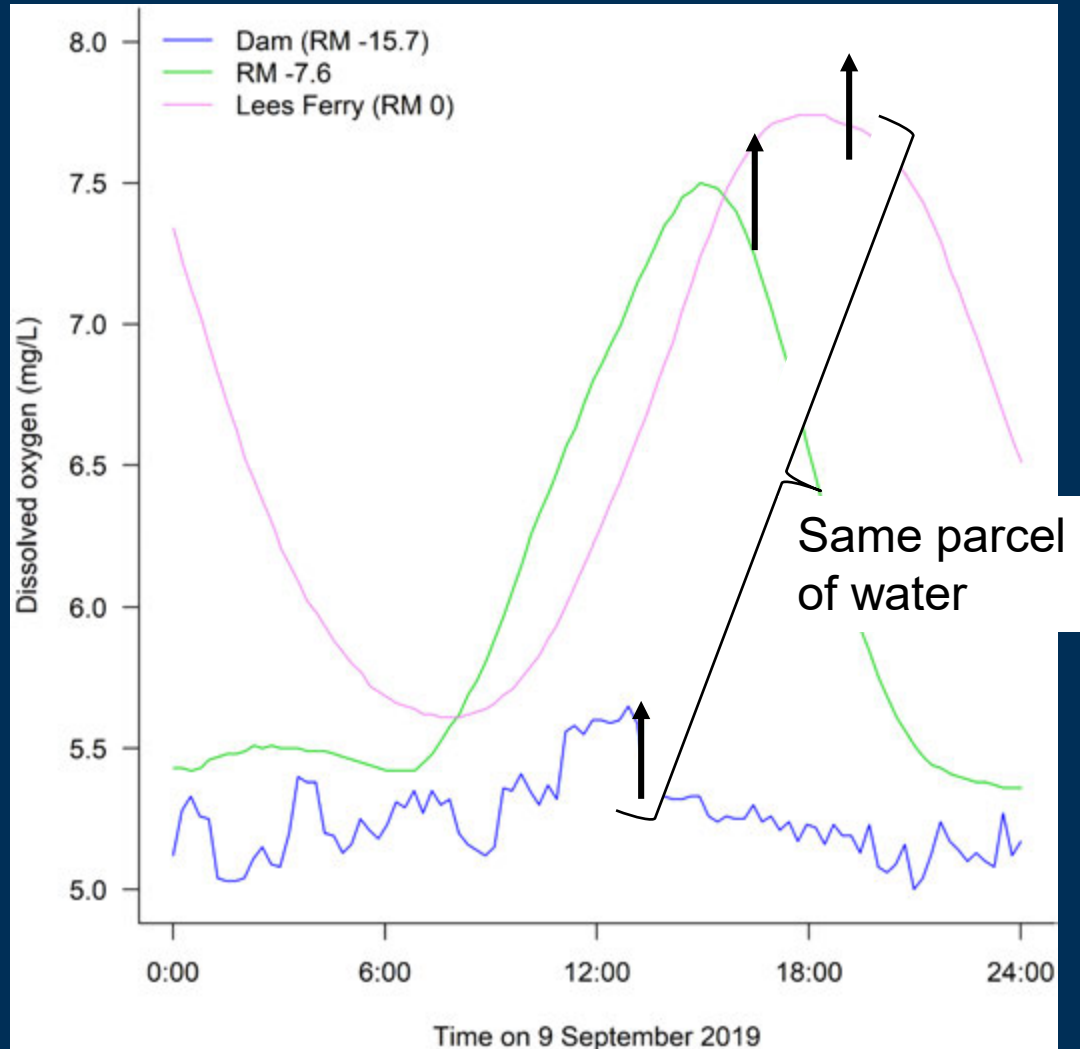
- Rule of thumb:
Air-water gas exchange increases DO in Lees Ferry by ~0.04 mg/mile



Dissolved oxygen increases downstream – cont.

- Increase in maximum DO owing to algae production

Site	Max. DO (mg/L)
Dam (RM-16)	5.65
RM -7.6	7.50
Lees Ferry (RM 0)	7.74



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Summary

- In 2019
 - Water temperature was high
 - Max of 16.3°C at Glen Canyon Dam
 - 2nd highest temp since Dam filling (2005 highest at 16.4)
 - Dissolved oxygen was low
 - Min of 4.0 mg/L on Oct 12
 - Lowest at dam and increases downstream