

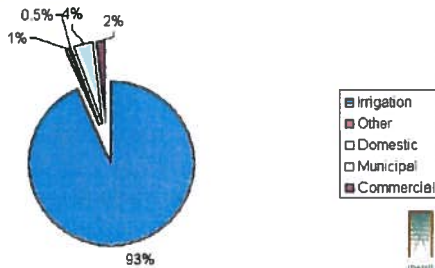
Estimating Fraction of
Consumptive Use by Priority
Date
for
Forward-looking
Analyses

(What do we gain if we curtail)



1

Sum of Consumptive Use - ESPA



- Irrigation
- Other
- Domestic
- Municipal
- Commercial



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Non-Irrigation CU

- Domestic
- Municipal and Industrial
- Commercial
- Other



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Non-Irrigation CU

- Domestic
 - Deminimus right 0.04 cfs, 1.2 acre feet/year
 - 0.6 acre feet in-home, zero CU
 - 0.6 acre feet irrigation, 50% CU
 - 0.3 acre feet/0.04 cfs = 7.5 acre feet CU/cfs



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Non-Irrigation CU

- Domestic
- Municipal and Industrial
 - For ESPAM modeling we used RASA (Goodell) values converted to annual depth
 - Using area of cities w/in sample area & diversion rates, we calculate 148 af CU / cfs



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Non-Irrigation CU

- Domestic
- Municipal and Industrial
- Commercial
 - ESPAM estimate 3,000 acre feet/year associated with Jerome & Gooding Co. Dairy
 - Assume Dairy is 50% of commercial
 - Using Jerome & Gooding commercial diversion rate, we calculate 111 af CU/ cfs



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Non-Irrigation CU

- Domestic
- Municipal and Industrial
- Commercial
- Other
 - Most are minimally consumptive (“administrative,” “fish propagation,” “fire protection”)
 - Small total diversion rates
 - Use domestic ratio 7.5 af CU/ cfs

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Irrigation Consumptive Use

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Hypothesis:

$$\frac{\text{Junior CFS}}{\text{Total CFS}} \sim \frac{\text{Junior CU}}{\text{Total CU}}$$

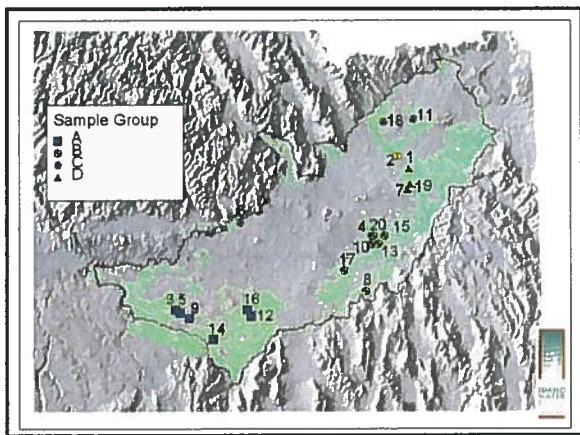
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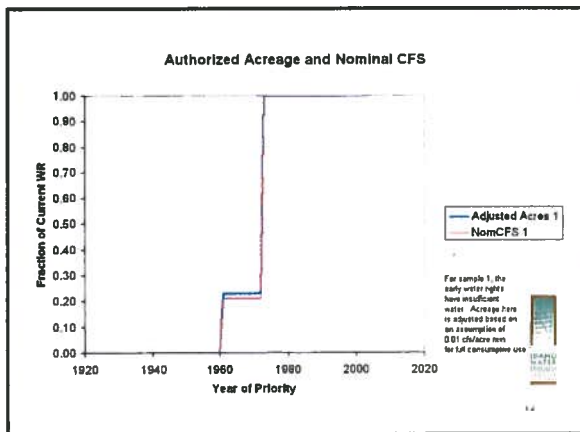
Test:

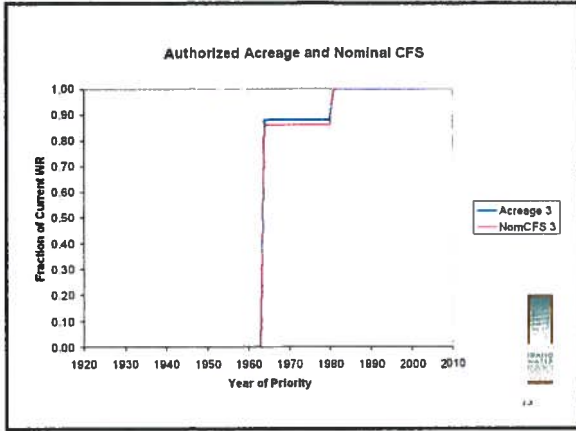
- 20 random GIS points on GW or Mixed-source lands. QQ in which they fall is sample unit
- IDWR query, IWRRRI download WR reports
- Manually calculate time progression of acres, considering all remarks and conditions
- Calculate time progression of *nominal cfs* using only what would be available with automated query

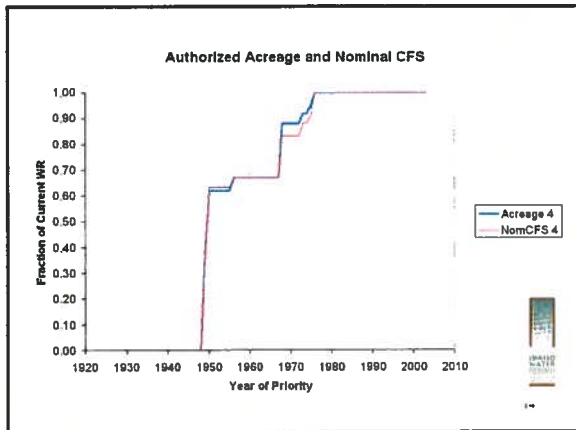


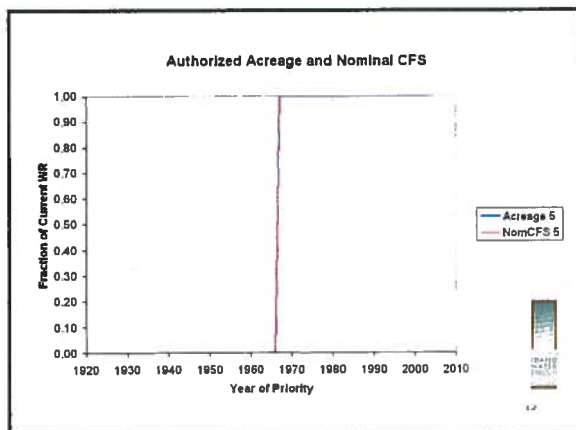
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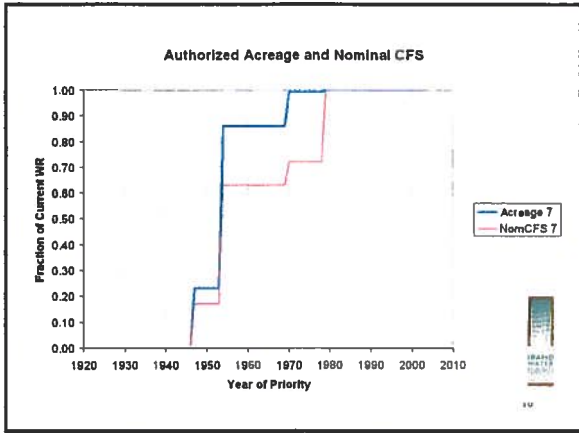


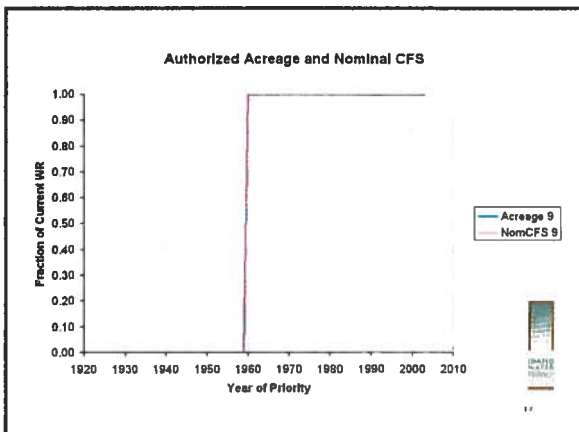


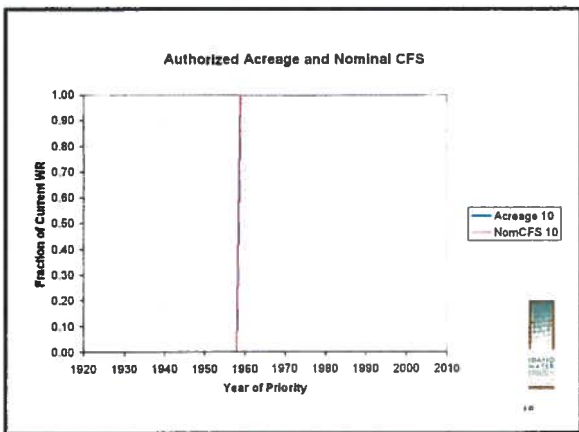


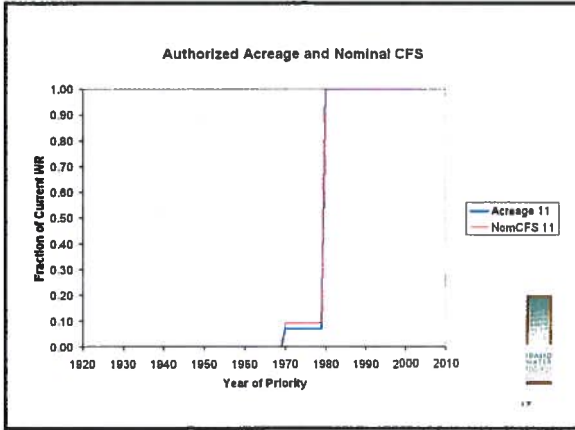


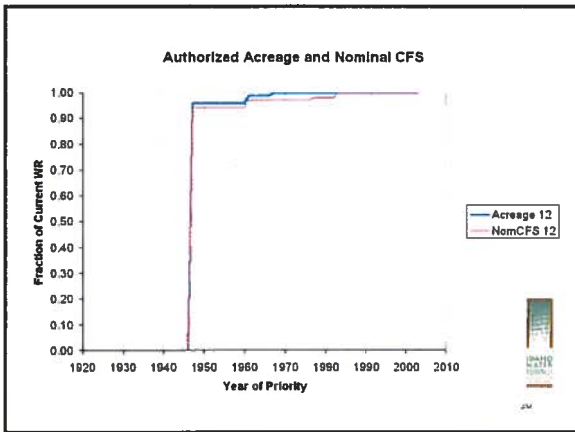


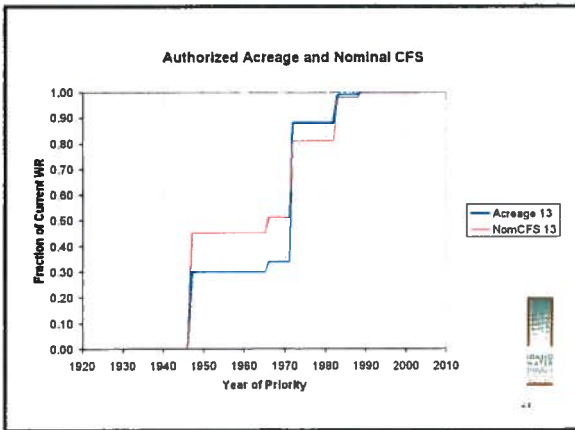


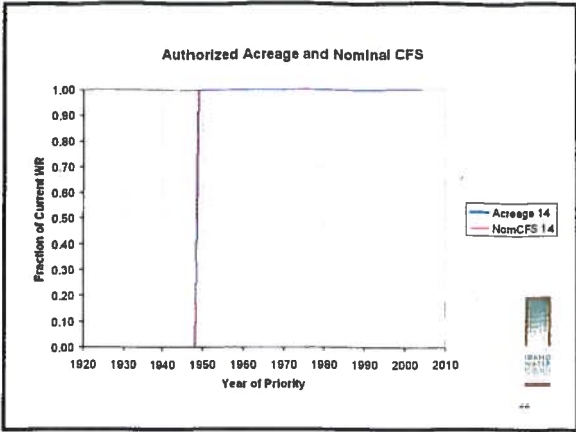


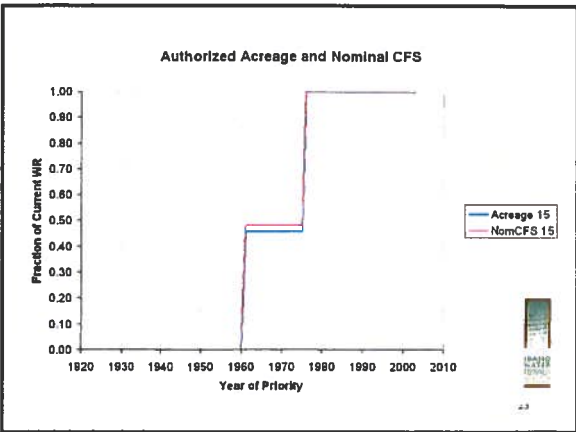


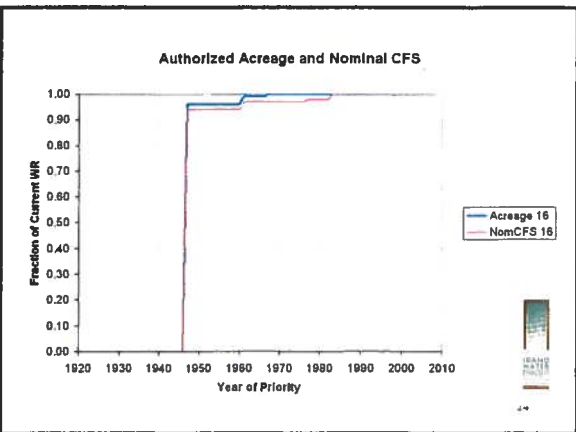


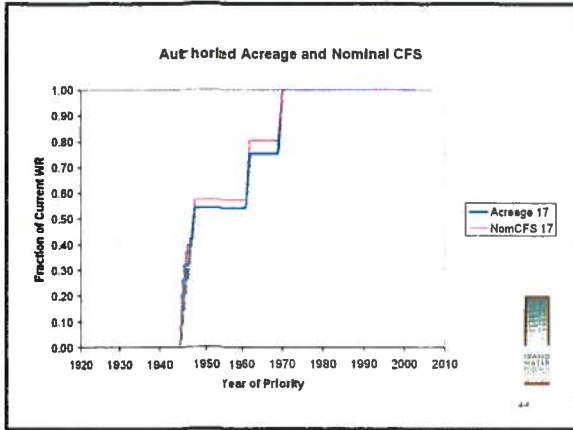


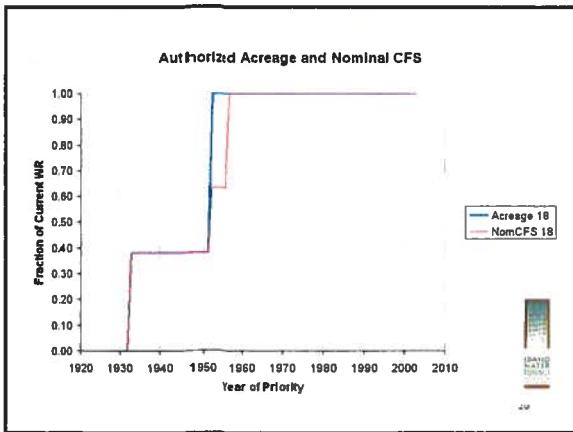


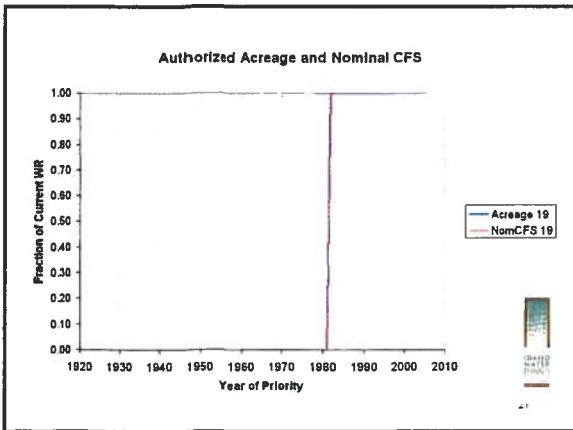


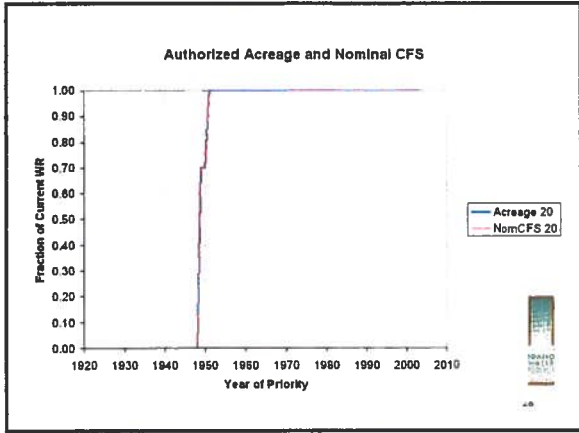


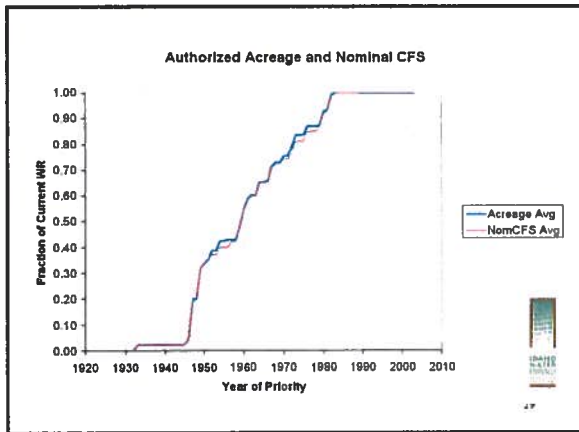


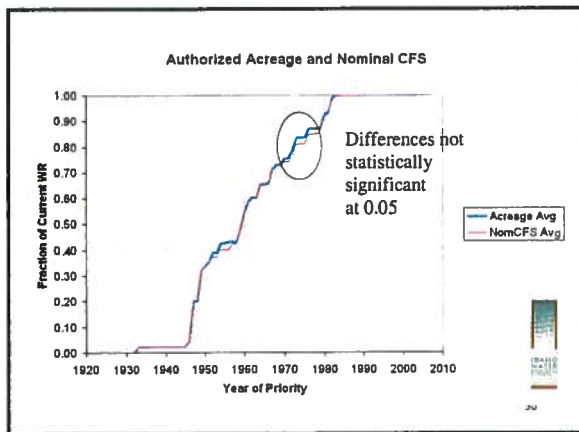












Conclusion:

$$\frac{\text{Junior CFS}}{\text{Total CFS}} \sim \frac{\text{Junior CU}}{\text{Total CU}}$$

The hypothesis is reasonable
for irrigation water rights.



Database Query:

- All IDWR administrative basins that touch the plain
 - Basin 21-23,25,27,29
 - Basin 31-37
 - Basin 41, 43, 45, 47
- AJ Decrees, Recommendations, or Claims
- WR post-AJ licenses and permits
- Source = All
- Report:
 - Water use
 - Priority day, month, year
 - POD IDTM coordinates
 - POD diversion rate
 - Enlargement Flag



The End



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