



Angler Participation and Surveys

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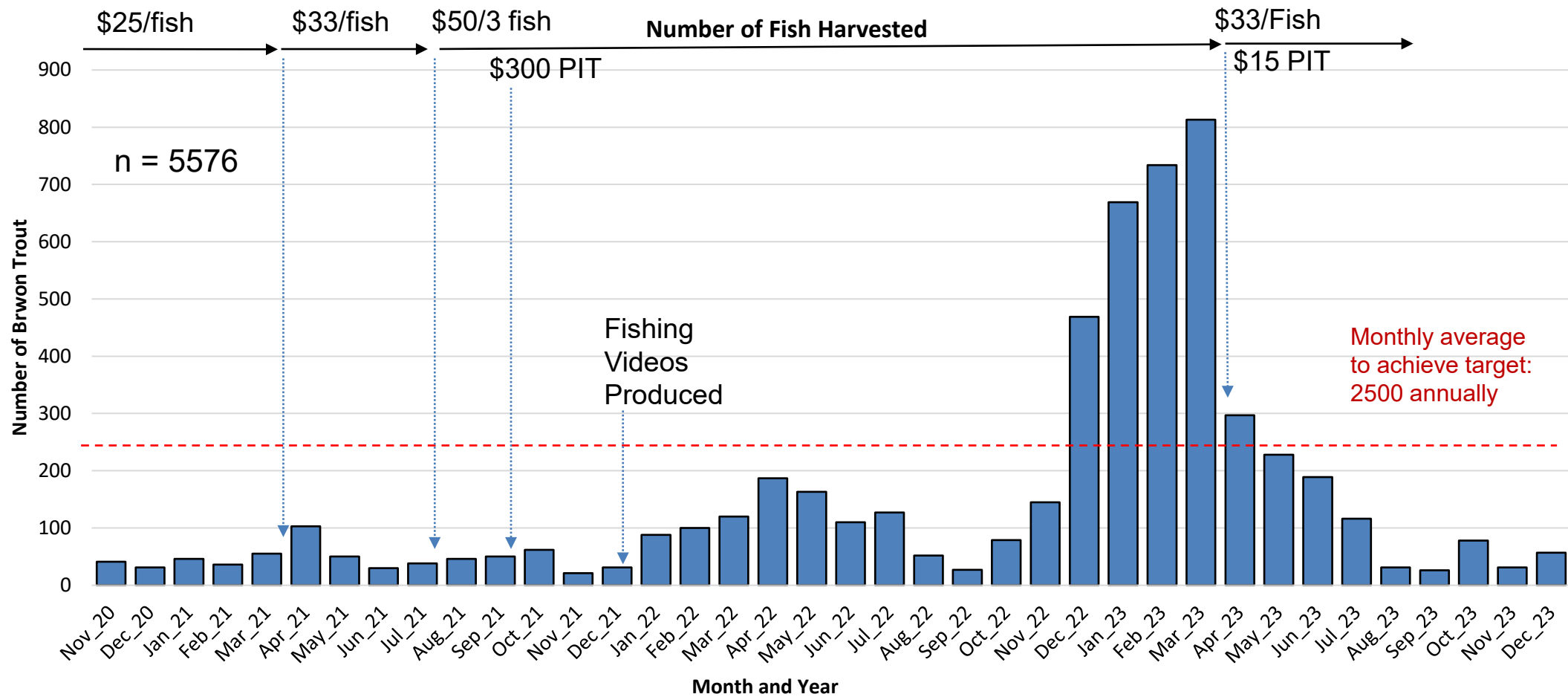
David Rogowski, Arizona Game and Fish Department

Josh Abbott, Arizona State University

Glen Canyon Dam Adaptive Management Program Annual Reporting Meeting

January 23, 2024 Phoenix, Arizona

Number of Brown Trout Harvested



Brown trout incentivized harvest

_____ name _____ phone number _____

_____ address/PO box _____

_____ city, state, zip code (or foreign equivalent)

Can we contact you for future research? **y / n**

Please describe each brown trout caught:

Bag #	Fish length (inches or millimeters)	River Reach (map on back)	Tackle
1	_____	_____	Fly <input type="checkbox"/> Lure <input type="checkbox"/>
2	_____	_____	Fly <input type="checkbox"/> Lure <input type="checkbox"/>
3	_____	_____	Fly <input type="checkbox"/> Lure <input type="checkbox"/>
4	_____	_____	Fly <input type="checkbox"/> Lure <input type="checkbox"/>

(please use another card for additional brown trout)

Fish lengths based on (circle one)? **guess/ tape/ fishboard**

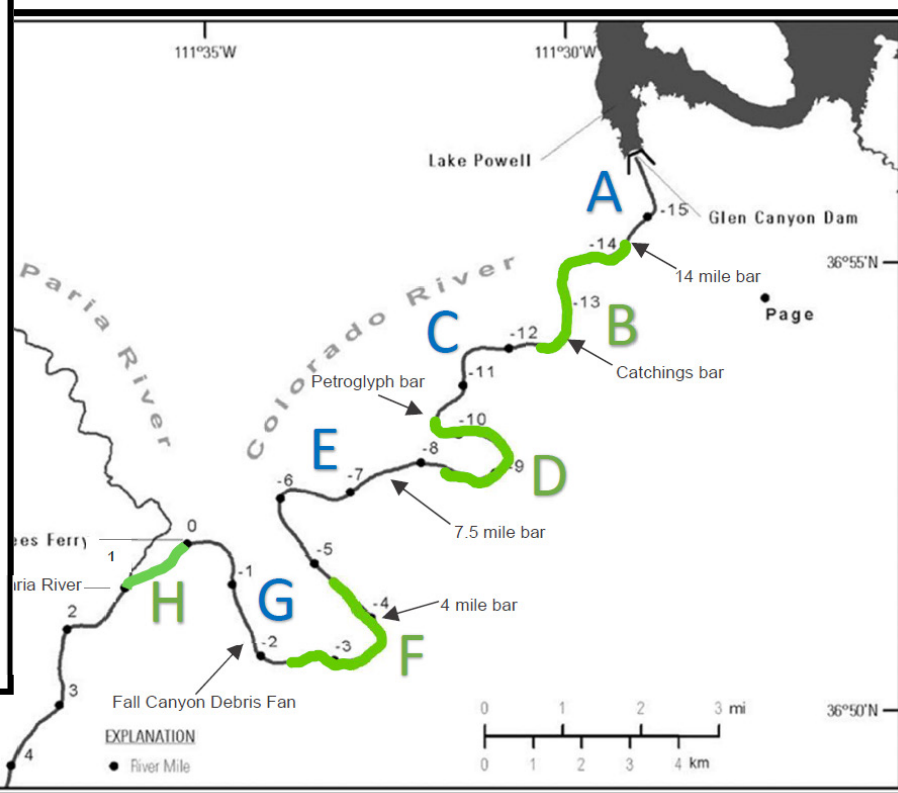
Date (mm/dd/yy): _____ Total hours fished: _____

Did you hire a guide? **y / n**

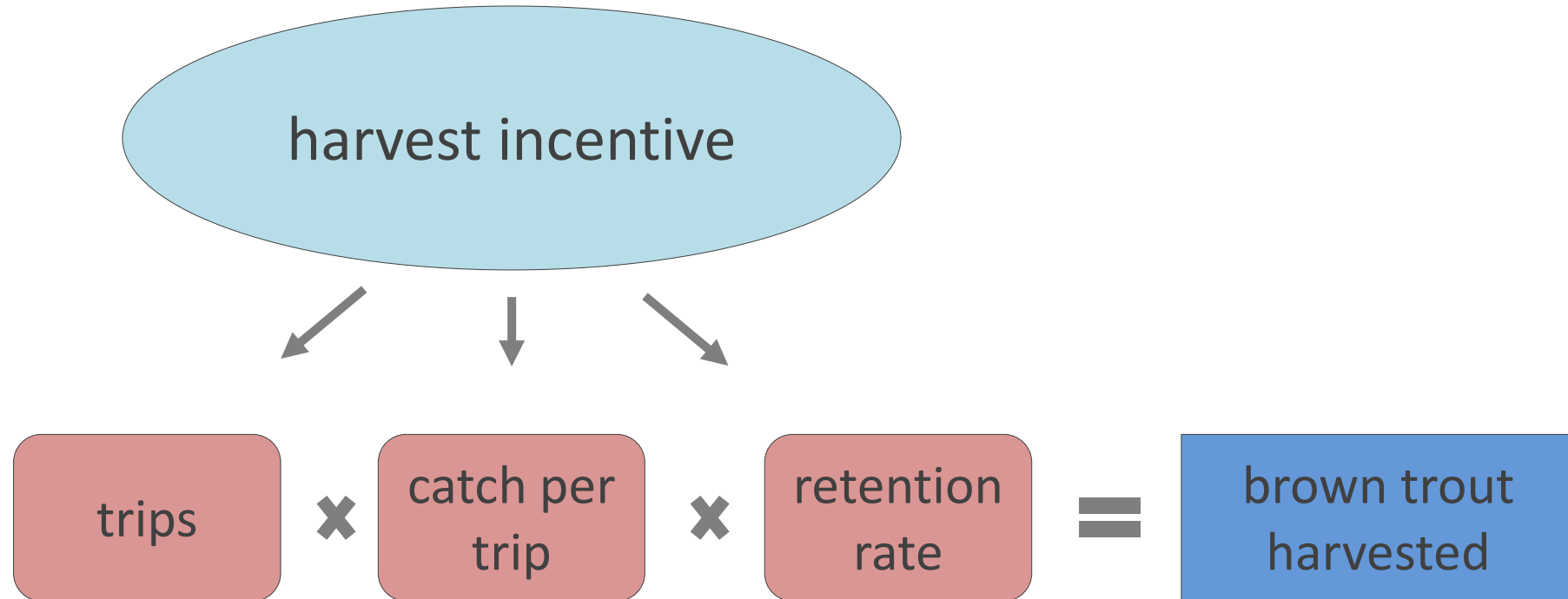
age: _____ gender: **m / f / other**

annual gross household income

<input type="checkbox"/> Less than \$50,000	<input type="checkbox"/> \$150,000 - \$199,999
<input type="checkbox"/> \$50,000 - \$99,999	<input type="checkbox"/> \$200,000 - \$250,000
<input type="checkbox"/> \$100,000 - \$149,999	<input type="checkbox"/> Greater than \$250,000



Total brown trout harvest



Data

Lees Ferry Fishing Data

AZGFD Creel Survey (2018 – May 2022)

- Trips-per-day
- Catch-per-trip (by species)
- Retention rate (by species)

Fishing Conditions

USGS Hydrological Data (2018 – May 2022)

- Discharge rate (cfs, daily mean)
- Water temperature (daily mean)

PRISM Meteorological Data (2018 – May 2022)

- Air temperature (daily mean)
- Precipitation (daily)

AAA Gas Price Data (2018 – May 2022)

COVID-19 Controls

Blavatnik School of Government & Oxford University (2020 – May 2022)

- Government response stringency index (national, daily)
- National confirmed cases & deaths

NPS Intermountain Recreation Visitation (2018 – May 2022)

- Monthly recreation visitation counts

Google Trends Data (2018 – May 2022)

- Monthly search frequency (national, lagged and unlagged)
- Search terms:
“outdoor recreation,” “fishing license,” “fly fishing,” “trout fishing.”

Brown Trout Model Results

Trips per day

- Bonanzas increase trips

Catch per trip

- Program decreases catch
- Bonanzas decrease catch
- Large incentives increase catch

Retention rates

- Program increases retention

Rainbow Trout Model Results

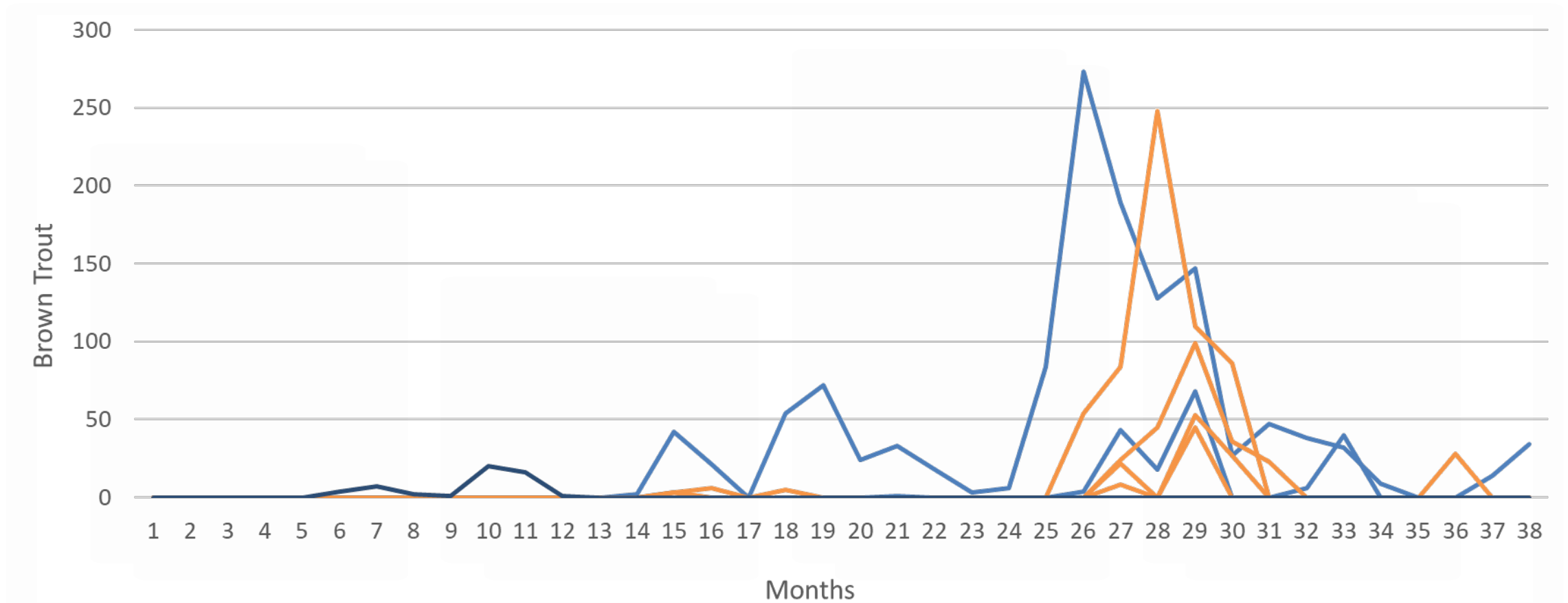
Catch per trip

- Program decreases catch
- Bonanzas increase catch

Retention rates

- Program decreases retention
- Bonanzas increase retention

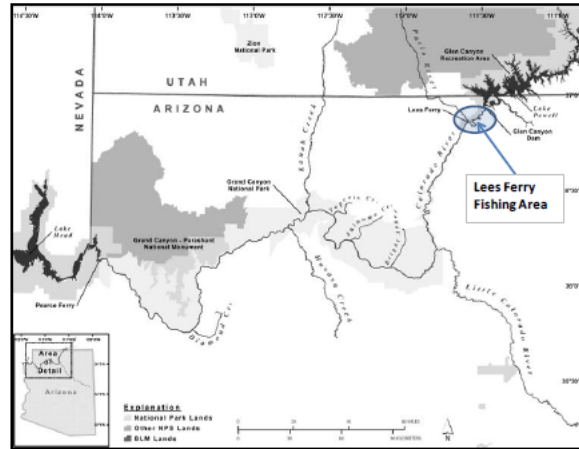
Brown Trout Highliners



Online survey data collection

OMB Control Number: 1024-0272
Expiration Date: 8-31-2018

Glen Canyon Angler Survey



PAPERWORK REDUCTION ACT STATEMENT The National Park Service is authorized by 16 U.S.C. 1a-7 to collect this information. This information will be used by park managers to evaluate fishing trips at Lee's Ferry. Response to this request is voluntary. No action may be taken against you for refusing to supply the information requested. Please do not put your name or that of any member of your group on the questionnaire. The permanent data associated with this collection will be anonymous.

BURDEN ESTIMATE: The public reporting burden for this form is estimated to average 20 minutes per response. Direct comments regarding the burden estimate or any other aspect of this form to: the NPS Information Collection Review Coordinator, National Park Service, 1201 Oakridge Dr., Fort Collins, CO 80525.

In the past few months you were contacted by Arizona Game and Fish and asked to participate in a short creel survey while fishing in the vicinity of Lee's Ferry. We would like you to think about that trip when completing this survey.

check ONE box at the bottom of the table to indicate whether you prefer Trip A, Trip B, or Not Visit.

Characteristic	Trip A Assume that everything about your Lee's Ferry trip were the same except the following	Trip B Assume that everything about your Lee's Ferry trip were the same except the following	Not Visit
Large River Flow Level	40,000 cfs	25,000 cfs	I would not choose to take a Lee's Ferry Fishing trip if these were my only choices
Large River flow fluctuation	5,000-8,000 cfs flow fluctuations	5,000-8,000 cfs flow fluctuations	
Number of Fish Caught	Same number of fish as you caught on your trip	Double the number of fish you caught on your trip	
Number of fish caught	Double the chance of catching a trophy fish	Same chance of catching a trophy fish as on your trip	
Number of individual trip costs increased by	\$75	\$700	
I would choose (check one only)	Trip A <input type="checkbox"/>	Trip B <input type="checkbox"/>	Not Visit <input type="checkbox"/>

check ONE box at the bottom of the table to indicate whether you prefer Trip A, Trip B, or Not Visit.

Characteristic	Trip A Assume that everything about your Lee's Ferry trip were the same except the following	Trip B Assume that everything about your Lee's Ferry trip were the same except the following	Not Visit
Large River Flow Level	3,000 cfs	40,000 cfs	I would not choose to take a Lee's Ferry Fishing trip if these were my only choices
Large River flow fluctuation	5,000-8,000 cfs flow fluctuations	Steady Flow levels	
Number of Fish Caught	Double the number of fish you caught on your trip	Same number of fish as you caught on your trip	
Number of fish caught	Same chance of catching a trophy fish as on your trip	Same chance of catching a trophy fish as on your trip	
Number of individual trip costs increased by	\$25	\$75	
I would choose (check one only)	Trip A <input type="checkbox"/>	Trip B <input type="checkbox"/>	Not Visit <input type="checkbox"/>

Future of the Incentivized Harvest Program

- About \$45,000 remains in current funding.
- Remaining funds will focus on tribal youth fishing trips.
- NPS will continue the program for an additional 2-years.

Questions?