

Did You See the Elk?

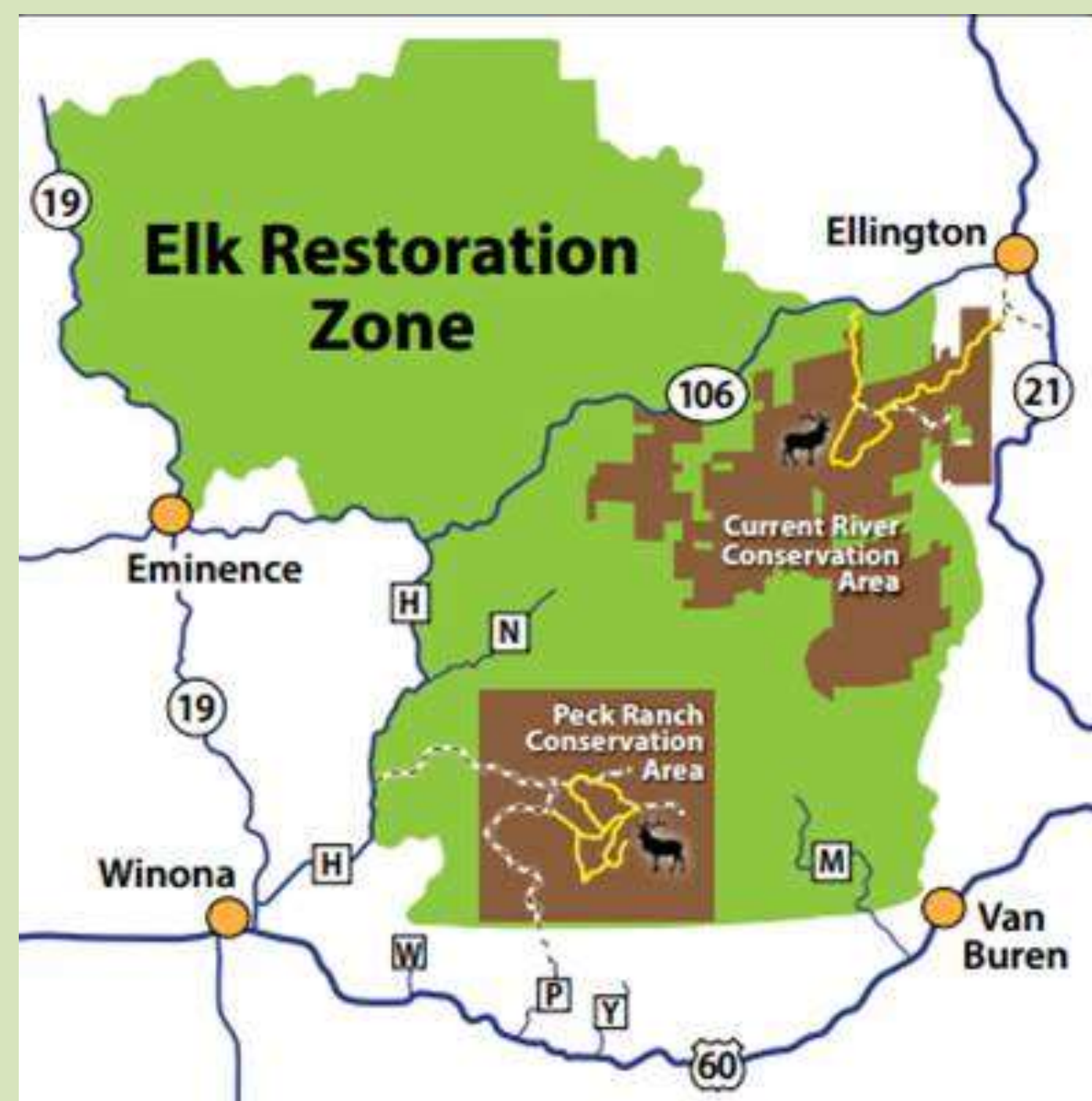
Results from On-Site Visitor Surveys at the Missouri Department of Conservation's Elk Tour Loops

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In case you hadn't heard...

- In 2011, MDC began elk restoration in Missouri
- MDC has established and promoted elk "tour loops" in the restoration zone



Project goals: to provide baseline data on

- economics as promised to local communities
- pre-elk hunt visitation, attitudes and opinions



How did we count\estimate visits?

- On-site survey
 - Randomly scheduled sample periods
 - Scripted interviews with exiting visitors
- Car counter cameras
- Statistical assumptions



$$\hat{t}_{ij} = \frac{N_{ij}}{n_{ij}} \sum_{k=1}^{n_{ij}} \frac{M_{ijk}}{m_{ijk}} \sum_{l=1}^{m_{ijk}} t_{ijkl}$$



How did we estimate economic impact?

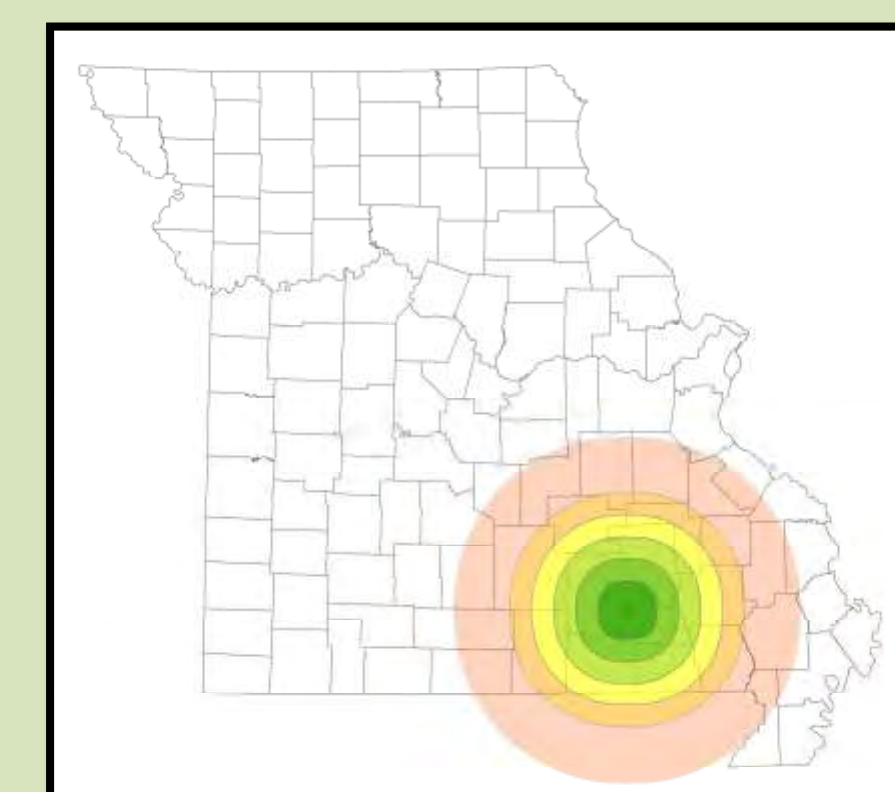
- Interviews included expenditure questions
- Estimate total spending (as above)
- Insert into linear input/output model(IMPLAN)



Impact Type	Employment	Labor Income	Value Added	Output
Direct Effect	6.6	\$169,159	\$281,148	\$456,099
Indirect Effect	1.0	\$44,017	\$77,216	\$136,309
Induced Effect	1.7	\$65,209	\$117,535	\$193,380
Total Effect	9.3	\$278,386	\$475,899	\$785,788

How did we estimate consumer surplus?

- Travel Cost Method
 - Estimate # of trips/population from cost "zones"
 - Assumption: trip/pop. varies with cost
 - Estimate demand curve
 - CS is the area under the demand curve



Some Results

Peck Ranch CA	
Total Visits (2016)	11,867
Avg. Times Visiting per Year	1.1
Avg. Distance Traveled to Site	86
Local Visitors	19%
Came to See Elk	89%
Saw Elk	31%
Satisfaction (Excellent/Good)	86%
Lodging Expenditures	\$176,263
Food Expenditures	\$148,471
Transport Expenditures	\$220,667
Other Expenditures	\$18,250
Economic Impact	\$649,810
Consumer Surplus (per visitor)	\$14.95



Economic impact analysis (is the effect of an event (here, elk viewing) on the economy in a specified area. It includes direct spending and indirect and induced effects, measuring changes in business revenue, business profits, personal wages, and/or jobs.



Current River CA	
Total Visits (2016)	11,557
Avg. Times Visiting per Year	3.5
Avg. Distance Traveled to Site	28
Local Visitors	62%
Came to See Elk	27%
Saw Elk	3%
Satisfaction (Excellent/Good)	84%
Lodging Expenditures	\$64,995
Food Expenditures	\$269,571
Transport Expenditures	\$323,929
Economic Impact	\$644,620
Consumer Surplus (per visitor)	\$14.80

Consumer surplus is defined as the difference between the total amount that consumers are willing and able to pay for a good or service (here, elk viewing) and the total amount that they actually do pay (here \$0, there is no admission price for the elk tour loops)