

Bair, Lucas/SAC

From: Steve Pavich [steve.pavich@cardno.com]
Sent: Thursday, February 16, 2012 2:49 PM
To: Bair, Lucas/SAC
Subject: RE: NODOS - IMPLAN
Attachments: RED_recreation.xlsx

Hi Lucas,

This should be it... Please let me know if you have questions.

Thx,
Steve

Steve Pavich

Senior Project Economist

Cardno ENTRIX

701 University Avenue, Suite 200, Sacramento, CA 95825

Phone: 916 923 1097 **Direct:** 916 386 3842 **Fax:** 916 923 6251

From: Lucas.Bair@CH2M.com [<mailto:Lucas.Bair@CH2M.com>]

Sent: Thursday, February 16, 2012 2:45 PM

To: Steve Pavich

Subject: RE: NODOS - IMPLAN

Hi Steve,

I have been unable to find the recreation spending estimates by alternative that were used as IMPLAN input. Fatuma mentioned that the IMPLAN model information she has contains results only and the information in Appendix C of the NODOS Feasibility Report is in general form. Could you forward the specific recreation spending estimates by NODOS alternative?

Thanks,
Lucas

From: Steve Pavich [<mailto:steve.pavich@cardno.com>]

Sent: Friday, January 27, 2012 1:29 PM

To: Bair, Lucas/SAC

Subject: FW: NODOS - IMPLAN

Hi Lucas

Per our conversation... Please let me know if you have any questions.

Steve

Steve Pavich

Senior Project Economist

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From: Steve Pavich
Sent: Tuesday, December 06, 2011 3:19 PM
To: 'Sou, Sean'; 'Fatuma.Yusuf@CH2M.com'; Stephen.Hatchett@CH2M.com
Cc: 'Herrin, Jeff'; Duane Paul
Subject: NODOS - IMPLAN

Hi Sean,

I've completed the additional IMPLAN modeling for the NODOS project. The additional runs I completed covered the following:

- Construction analysis run through the statewide model
 - Same as the "local" analysis except using the state model
- Agricultural impacts for lands affected by the Project run through both the two-county (local) and statewide models
 - Permanent impacts cover lands underlying the reservoir and project facilities
 - Short-term impacts cover lands underlying temporary construction areas
 - For more details, see write-up by Amy Lyons, DWR GIS staff (Sean should have that e-mail)

I'm attaching here a summary Excel spreadsheet that includes all of the work I've completed for the Feasibility Study, which I augmented with the new model runs. The worksheets are labeled so you should be able to find what you're looking for – the second worksheet has the new modeling results for the EIR. I'm also attaching the supporting spreadsheet for the new AG analysis, as well as the RED summary that we discussed back at our meeting in October. I'm also sending by mail the IMPLAN models that I've been working with (I will send the CD directly to Fatuma).

Please let me know if you have any questions.

Thanks,
Steve

Steve Pavich

Senior Project Economist
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NODOS - RED Analysis																
** Annual Average does not change relative to planning horizon (constant)																
Recreation																
** Used average spending for all activities, distinguishing between day and overnight trips																
** Excluded local visitors (within 60 miles of recreation site)																
** Average water-year conditions																
** May some substitution from local reservoirs (non-locals that would've visited Black Butte, etc.)																
** Source: Updated Spending Profiles for National Forest Recreation Visitors by Activity, White and Stynes (2010)																
Steve Pavich: based on Black Butte (DWR, 2000)																
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Steve Pavich: based on Black Butte (DWR, 2000)																
Steve Pavich: for RED analysis - only non-local considered																
Activity / Spending Category	2007\$		2007\$		# people / party	% Local	% ON	ON Days	# Visits (Recreation Days)				Non-Local Spending (\$2010)			
	NI Spending (\$/party/trip)		ADJ NI Spending (\$/party/trip)						NA	A	B	C	NA	A	B	C
	Day	Overnight	Day	Overnight												
Shore fishing									0	31,405	31,150	32,508				
Lodging	\$0.00	\$85.74	\$0.00	\$85.74	2.6	74%	13.5%	2.5	0	31,405	31,150	32,508	\$0	\$14,540	\$14,422	\$15,051
Restaurant	\$7.28	\$43.23	\$7.38	\$43.23	2.6	74%	13.5%	2.5	0	31,405	31,150	32,508	\$0	\$27,379	\$27,157	\$28,341
Groceries	\$7.80	\$64.19	\$7.80	\$64.19	2.6	74%	13.5%	2.5	0	31,405	31,150	32,508	\$0	\$32,075	\$31,815	\$33,202
Gas and oil	\$27.51	\$79.10	\$27.51	\$79.10	2.6	74%	13.5%	2.5	0	31,405	31,150	32,508	\$0	\$88,146	\$87,431	\$91,243
Other transportation	\$0.00	\$1.84	\$0.00	\$1.84	2.6	74%	13.5%	2.5	0	31,405	31,150	32,508	\$0	\$312	\$310	\$323
Entry fees	\$1.19	\$10.77	\$1.19	\$10.77	2.6	74%	13.5%	2.5	0	31,405	31,150	32,508	\$0	\$5,059	\$5,018	\$5,237
Rec. and entertainment	\$3.50	\$12.69	\$3.50	\$12.69	2.6	74%	13.5%	2.5	0	31,405	31,150	32,508	\$0	\$11,660	\$11,565	\$12,070
Sporting goods	\$7.49	\$23.45	\$7.49	\$23.45	2.6	74%	13.5%	2.5	0	31,405	31,150	32,508	\$0	\$24,324	\$24,126	\$25,178
Souvenirs and other	\$0.45	\$9.70	\$0.45	\$9.70	2.6	74%	13.5%	2.5	0	31,405	31,150	32,508	\$0	\$2,867	\$2,844	\$2,968
Total:	\$66.32	\$330.71	\$66.32	\$330.71	2.6	74%	13.5%	2.5	0	31,405	31,150	32,508	\$0	\$206,362	\$204,689	\$213,612
Boat fishing									0	16,244	16,112	16,815				
Lodging	\$0.00	\$85.74	\$0.00	\$85.74	2.6	74%	13.5%	2.5	0	16,244	16,112	16,815	\$0	\$7,521	\$7,460	\$7,785
Restaurant	\$7.28	\$43.23	\$7.38	\$43.23	2.6	74%	13.5%	2.5	0	16,244	16,112	16,815	\$0	\$14,162	\$14,047	\$14,659
Groceries	\$7.80	\$64.19	\$7.80	\$64.19	2.6	74%	13.5%	2.5	0	16,244	16,112	16,815	\$0	\$16,590	\$16,456	\$17,173
Gas and oil	\$27.51	\$79.10	\$27.51	\$79.10	2.6	74%	13.5%	2.5	0	16,244	16,112	16,815	\$0	\$45,593	\$45,223	\$47,195
Other transportation	\$0.00	\$1.84	\$0.00	\$1.84	2.6	74%	13.5%	2.5	0	16,244	16,112	16,815	\$0	\$161	\$160	\$167
Entry fees	\$1.19	\$10.77	\$1.19	\$10.77	2.6	74%	13.5%	2.5	0	16,244	16,112	16,815	\$0	\$2,617	\$2,596	\$2,709
Rec. and entertainment	\$3.50	\$12.69	\$3.50	\$12.69	2.6	74%	13.5%	2.5	0	16,244	16,112	16,815	\$0	\$6,031	\$5,982	\$6,243
Sporting goods	\$7.49	\$23.45	\$7.49	\$23.45	2.6	74%	13.5%	2.5	0	16,244	16,112	16,815	\$0	\$12,581	\$12,479	\$13,023
Souvenirs and other	\$0.45	\$9.70	\$0.45	\$9.70	2.6	74%	13.5%	2.5	0	16,244	16,112	16,815	\$0	\$1,483	\$1,471	\$1,535
Total:	\$66.32	\$330.71	\$66.32	\$330.71	2.6	74%	13.5%	2.5	0	16,244	16,112	16,815	\$0	\$106,739	\$105,873	\$110,489
Picnicking									0	83,024	82,351	85,941				
Lodging	\$0.00	\$101.13	\$0.00	\$101.13	2.6	74%	13.5%	2.5	0	83,024	82,351	85,941	\$0	\$45,340	\$44,972	\$46,933
Restaurant	\$13.70	\$44.15	\$13.70	\$44.15	2.6	74%	13.5%	2.5	0	83,024	82,351	85,941	\$0	\$118,182	\$117,224	\$122,334
Groceries	\$9.21	\$56.78	\$9.21	\$56.78	2.6	74%	13.5%	2.5	0	83,024	82,351	85,941	\$0	\$91,599	\$90,856	\$94,817
Gas and oil	\$26.92	\$67.17	\$26.92	\$67.17	2.6	74%	13.5%	2.5	0	83,024	82,351	85,941	\$0	\$223,443	\$221,632	\$231,294
Other transportation	\$1.58	\$3.68	\$1.58	\$3.68	2.6	74%	13.5%	2.5	0	83,024	82,351	85,941	\$0	\$12,997	\$12,891	\$13,453
Entry fees	\$7.15	\$12.20	\$7.15	\$12.20	2.6	74%	13.5%	2.5	0	83,024	82,351	85,941	\$0	\$56,818	\$56,357	\$58,814
Rec. and entertainment	\$8.98	\$18.71	\$8.98	\$18.71	2.6	74%	13.5%	2.5	0	83,024	82,351	85,941	\$0	\$72,879	\$72,288	\$75,440
Sporting goods	\$1.94	\$9.67	\$1.94	\$9.67	2.6	74%	13.5%	2.5	0	83,024	82,351	85,941	\$0	\$18,268	\$18,120	\$18,910
Souvenirs and other	\$2.46	\$16.94	\$2.46	\$16.94	2.6	74%	13.5%	2.5	0	83,024	82,351	85,941	\$0	\$25,261	\$25,057	\$26,149
Total:	\$71.94	\$330.43	\$71.94	\$330.43	2.6	74%	13.5%	2.5	0	83,024	82,351	85,941	\$0	\$664,787	\$659,397	\$688,145
Sightseeing									0	71,473	70,894	73,984				
Lodging	\$0.00	\$181.38	\$0.00	\$181.38	2.6	74%	13.5%	2.5	0	71,473	70,894	73,984	\$0	\$70,005	\$69,437	\$72,464
Restaurant	\$17.00	\$96.79	\$17.00	\$96.79	2.6	74%	13.5%	2.5	0	71,473	70,894	73,984	\$0	\$143,076	\$141,916	\$148,103
Groceries	\$6.02	\$47.99	\$6.02	\$47.99	2.6	74%	13.5%	2.5	0	71,473	70,894	73,984	\$0	\$55,740	\$55,288	\$57,699
Gas and oil	\$27.50	\$76.06	\$27.50	\$76.06	2.6	74%	13.5%	2.5	0	71,473	70,894	73,984	\$0	\$199,373	\$197,756	\$206,378
Other transportation	\$0.73	\$2.67	\$0.73	\$2.67	2.6	74%	13.5%	2.5	0	71,473	70,894	73,984	\$0	\$5,544	\$5,499	\$5,738
Entry fees	\$2.97	\$13.41	\$2.97	\$13.41	2.6	74%	13.5%	2.5	0	71,473	70,894	73,984	\$0	\$23,537	\$23,347	\$24,364
Rec. and entertainment	\$2.14	\$17.57	\$2.14	\$17.57	2.6	74%	13.5%	2.5	0	71,473	70,894	73,984	\$0	\$20,012	\$19,849	\$20,715
Sporting goods	\$0.88	\$8.71	\$0.88	\$8.71	2.6	74%	13.5%	2.5	0	71,473	70,894	73,984	\$0	\$8,802	\$8,731	\$9,111
Souvenirs and other	\$7.22	\$28.37	\$7.22	\$28.37	2.6	74%	13.5%	2.5	0	71,473	70,894	73,984	\$0	\$55,587	\$55,136	\$57,540
Total:	\$64.56	\$472.95	\$64.56	\$472.95	2.6	74%	13.5%	2.5	0	71,473	70,894	73,984	\$0	\$581,675	\$576,959	\$602,112
Swimming / beach use									0	81,580	80,919	84,447				
Lodging	\$0.00	\$101.13	\$0.00	\$101.13	2.6	74%	13.5%	2.5	0	81,580	80,919	84,447	\$0	\$44,551	\$44,190	\$46,117
Restaurant	\$13.70	\$44.15	\$13.70	\$44.15	2.6	74%	13.5%	2.5	0	81,580	80,919	84,447	\$0	\$116,127	\$115,185	\$120,207
Groceries	\$9.21	\$56.78	\$9.21	\$56.78	2.6	74%	13.5%	2.5	0	81,580	80,919	84,447	\$0	\$90,006	\$89,276	\$93,168
Gas and oil	\$26.92	\$67.17	\$26.92	\$67.17	2.6	74%	13.5%	2.5	0	81,580	80,919	84,447	\$0	\$219,557	\$217,777	\$227,272
Other transportation	\$1.58	\$3.68	\$1.58	\$3.68	2.6	74%	13.5%	2.5	0	81,580	80,919	84,447	\$0	\$12,771	\$12,667	\$13,219
Entry fees	\$7.15	\$12.20	\$7.15	\$12.20	2.6	74%	13.5%	2.5	0	81,580	80,919	84,447	\$0	\$55,830	\$55,377	\$57,792
Rec. and entertainment	\$8.98	\$18.71	\$8.98	\$18.71	2.6	74%	13.5%	2.5	0	81,580	80,919	84,447	\$0	\$71,612	\$71,031	\$74,128
Sporting goods	\$1.94	\$9.67	\$1.94	\$9.67	2.6	74%	13.5%	2.5	0	81,580	80,919	84,447	\$0	\$17,950	\$17,804	\$18,581
Souvenirs and other	\$2.46	\$16.94	\$2.46	\$16.94	2.6	74%	13.5%	2.5	0	81,580	80,919	84,447	\$0	\$24,822	\$24,621	\$25,694
Total:	\$71.94	\$330.43	\$71.94	\$330.43	2.6	74%	13.5%	2.5	0	81,580	80,919	84,447	\$0	\$653,226	\$647,929	\$676,177
Walking									0	10,468	10,383	10,836				
Lodging	\$0.00	\$183.03	\$0.00	\$183.03	2.6	74%	13.5%	2.5	0	10,468	10,383	10,836	\$0	\$10,346	\$10,263	\$10,710
Restaurant	\$14.41	\$95.70	\$14.41	\$95.70	2.6	74%	13.5%	2.5	0	10,468	10,383	10,836	\$0	\$18,458	\$18,309	\$19,107
Groceries	\$6.37	\$64.39	\$6.37	\$64.39	2.6	74%	13.5%	2.5	0	10,468	10,383	10,836	\$0	\$8,502	\$8,434	\$8,801
Gas and oil	\$21.48	\$63.63	\$21.48	\$63.63	2.6	74%	13.5%	2.5	0	10,468	10,383	10,836	\$0	\$23,047	\$22,860	\$23,857
Other transportation	\$0.56	\$4.81	\$0.56	\$4.81	2.6	74%	13.5%	2.5	0	10,468	10,383	10,836	\$0	\$779	\$773	\$806
Entry fees	\$2.39	\$10.35	\$2.39	\$10.35	2.6	74%	13.5%	2.5	0	10,468	10,383	10,836	\$0	\$2,749	\$2,727	\$2,846
Rec. and entertainment	\$1.49	\$15.72	\$1.49	\$15.72	2.6	74%	13.5%	2.5	0	10,468	10,383	10,836	\$0	\$2,238	\$2,220	\$2,316
Sporting goods	\$1.18	\$11.74	\$1.18	\$11.74	2.6	74%	13.5%	2.5	0	10,468	10,383	10,836	\$0	\$1,732	\$1,718	\$1,793
Souvenirs and other	\$2.93	\$23.66	\$2.93	\$23.66	2.6	74%	13.5%	2.5	0	10,468	10,383	10,836	\$0	\$3,991	\$3,958	\$4,131

GDP Price Deflator

From	To	GDP Deflator Adjustment
2004 \$'s	2010 \$'s	1.14362
2005 \$'s	2010 \$'s	1.10670
2006 \$'s	2010 \$'s	1.07172
2007 \$'s	2010 \$'s	1.04107
2008 \$'s	2010 \$'s	1.01873
2009 \$'s	2010 \$'s	1.00951
2010 \$'s	2010 \$'s	1.00000
2011 \$'s	2010 \$'s	0.99098