

Exhibit # 2

Evaluation of 2015 Fishing License Price Reductions

Prepared for:
Pennsylvania Fish and Boat Commission



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Executive Summary

Beginning with the 2013 license year, the Pennsylvania Fish and Boat Commission (PFBC) began offering multi-year fishing licenses to both resident and nonresident anglers. In December 2014, the PFBC reduced the prices of several of its major fishing licenses including multi-year and annual licenses¹. Prices for all 2015 annual fishing licenses were reduced by \$1.00 throughout the 2015 license year. Prices of the multi-year licenses for the 2015 fishing season were temporarily reduced during the month of December 2014. Three-year licenses were reduced \$3.00; the five-year licenses were reduced \$5.00. This report examines the effect of multi-year licenses on angler churn rates and license revenues since their introduction for the 2013 license year. The study also examines the effect of the recent price reductions on sales of multi-year and annual licenses.

Price price reductions of 2015 annual and multi-year fishing licenses

	Regular Price	Reduced Price
Annual licenses*		
Resident	\$22.70	\$21.70
Nonresident	\$52.70	\$51.70
Three-year licenses		
Resident	\$64.70	\$61.70
Nonresident	\$154.70	\$151.70
Five-year licenses		
Resident	\$106.70	\$101.70
Nonresident	\$256.70	\$251.70

4.4%
4.6%
4.6%

*The price reduction of the annual licenses is for an indefinite period.

Although Pennsylvania anglers are somewhat more loyal than the average U.S. angler, large numbers of the state's anglers each year fail to renew their Pennsylvania fishing license. Only 69% of residents and 53% of nonresidents who purchased a license in 2013 bought another fishing license in 2014. Beginning in December 2012, the PFBC began selling three-year and five-year fishing licenses for the 2013 season. Multi-year licenses have the potential to reduce churn rates and subsequently lead to increased license revenue.

Based on the prior purchase history of each individual angler who has purchased a multi-year license, we are able to estimate the added licensed anglers and revenues attributed to the new multi-year licenses. Since their introduction in December 2012, the multi-year licenses have

¹ The license year in Pennsylvania coincides with the calendar year although most licenses become available on December 1st of the year prior to the license year.

reduced the number of lapsed anglers each season adding the equivalent of 64,197 licensed anglers and generating \$1.51 million in additional license revenue.

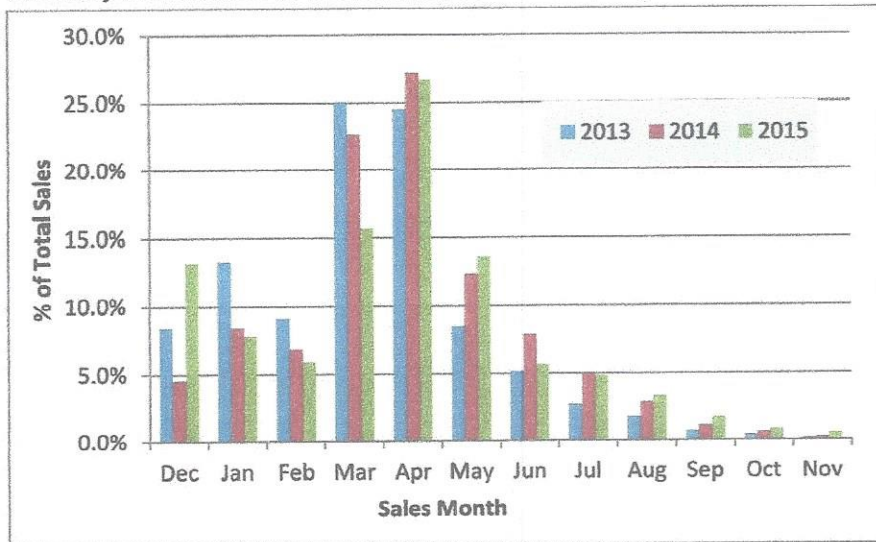
Estimated effects of multi-year licenses since December 2012

	3-Year Licenses	5-Year Licenses	TOTAL
Angler-seasons	36,616	27,581	64,197
Revenue	\$846,324	\$660,189	\$1,506,513

Coincident with the price reductions, the PFBC conducted an extensive marketing campaign to highlight the price reductions of the annual and multi-year licenses. Entitled “Catch the Value”, the 2014 holiday promotion included newspaper, radio and digital advertisements in late November and early December. Additional advertising also took place during 2015 with a particular focus on the reduced prices for annual licenses (See Appendix for campaign details). Both the price reduction and advertising would be expected to have a positive effect on the number of licenses sold. However, without experimental controls, it is not possible to separate the effect of the price reductions from the effect of the marketing campaign.

Compared to 2013 and 2014, the December sales of multi-year licenses for 2015 were relatively much higher when the price reduction was in effect, suggesting that the special price reduction and promotions had a combined positive effect. However, it is not clear that the price reduction resulted in more multi-year licenses buyers, overall, than would have been the case without the lowered price and promotions. A sharp relative drop-off in the succeeding months of 2015 (January, February and March) compared to the earlier years indicates that the reduced prices likely motivated at least some buyers to purchase their licenses sooner than they might have otherwise.

Monthly distribution of total annual sales of multi-year resident licenses



The \$1 fee reduction on the resident annual fishing license resulted in greater license sales but less revenue. Based on a statistical demand analysis of past license sales with respect to price, 8,617 more licenses were sold than would have been if the price were kept at \$21. However, license revenue would have been 3.7% higher without the fee reduction.

Estimated sales and revenue impacts of \$1 price reduction on resident annual fishing license

	Licenses Sold	License Revenue	FSR Funds	Total Revenue
Predicted 2015 Sales at \$20	704,571	\$14,091,412	\$4,614,937	\$18,706,349
Predicted 2015 Sales at \$21	695,953	\$14,615,019	\$4,558,494	\$19,173,513
Estimated Impact of \$1 Price Decrease	8,617 1.2%	-\$523,607 -3.7%	\$56,443 1.2%	-\$467,164 -2.5%