

Appendix to EPA ICR 1989.06:  
Supporting Statement for the Information Collection Request for NPDES and ELG  
Regulatory Revisions for Concentrated Animal Feeding Operations (Final Rule)

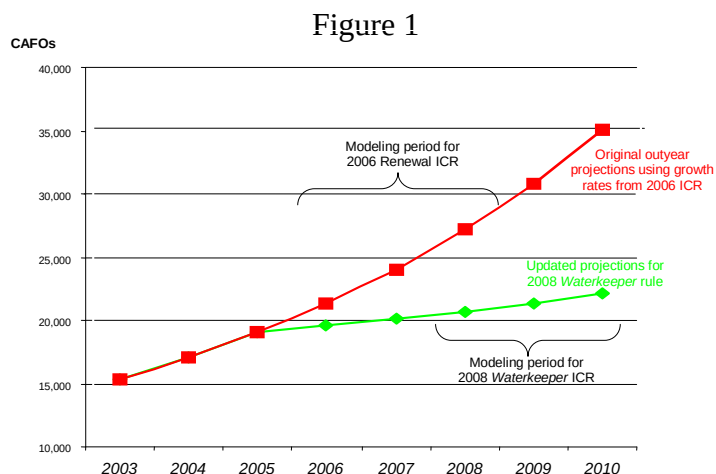
**Discussion of Changes to Estimation Procedure and Resulting Effects on Burden  
Calculations**

For the **original industry size projections** performed for EPA's renewal of the CAFO ICR in 2006, the Agency estimated labor burden impacts for the three-year time period spanning 2006-2008 (EPA ICR 1989.04). For this analysis, EPA assumed steady increases in the number of the largest facilities (i.e., those most likely to meet EPA's definition of a Large CAFO) in the major animal agriculture industries based on the changes in actual numbers of facilities and animal production as

reported in USDA's agriculture census for 2002<sup>1</sup>. As shown in Figure 1, long-term projections using these growth patterns yielded an estimate of roughly 27,000 CAFOs by the end of 2008. For the ICR supporting the *Waterkeeper* rule revisions in 2008, EPA shifted the ICR modeling period out to the three-year period spanning 2008-2010. Using the same growth rates as used in the 2006 ICR yielded a projection of 35,000 CAFOs by the year 2010. This estimate diverges widely from EPA's own internal reporting on actual facilities in the CAFO NPDES universe, which as of 2008 showed a universe size holding roughly steady at 19,000 CAFOs.

To develop a burden impacts analysis for the *Waterkeeper* final rule that reflected EPA's most current knowledge of actual industry size, the Agency started by re-examining growth rates for each individual animal sector. EPA observed that rapid expansion in the swine industry in prior years significantly had affected the growth forecast for the total CAFO industry, especially when extrapolated to out to the year 2010. More specifically, the swine industry had documented annual growth in the number of large swine operations as high as 20 percent in one of the previous reporting years for the USDA data. This large annual rate of sector expansion, combined with the fact that swine operations constitute nearly 20 percent of total CAFOs, resulted in the unlikely projection shown in Figure 1 of 35,000 total CAFOs by 2010.

To derive **updated industry size projections** for the *Waterkeeper* final rule ICR estimates, EPA analysts used market forecasts and historical changes in the total number of farms since 1992 to develop more tailored annual growth rates for each animal sector that accounted more fully for the cycles of expansion and downsizing inherent in the



<sup>1</sup> USDA Census of Agriculture. 2002 U.S. Summary and State Reports. 2002.

animal agriculture industry. EPA confirmed that the resulting projected increases in the numbers of the largest facilities were commensurate with the most recent reported marketings<sup>2</sup> for each animal species. These new overall growth rates resulted in a projection of approximately 22,000 total CAFOs by the year 2010, and EPA then used improved estimate of projected industry respondents to adjust its burden impacts analysis accordingly.

As shown in Table 1, EPA had originally estimated the number of CAFO respondents in 2008 at 27,095 for the 2006 CAFO ICR renewal. For purposes of comparison, Table 1 also shows that the new universe projections for *Waterkeeper* ICR using the more tailored growth rates resulted in an estimate of 20,685 CAFO respondents by 2008—a nearly 25 percent reduction in the baseline estimate of industry respondents.

Table 1

	Annual number of respondents					Annualized burden impact (labor hrs)	
	2006	2007	2008	2009	2010		
2006 CAFO ICR Renewal (EPA ICR #1989.04)	(ICR Modeling Period: 2006-2008)						
	CAFOs	21,137	23,876	27,095	--	--	3,040,000
	States	44	44	44	--	--	450,000
	All respondents						3,500,000
2008 CAFO ICR Revisions (EPA ICR #1989.06)*	(ICR Modeling Period: 2008-2010)						
	CAFOs	--	--	20,685	21,363	22,129	2,613,514
	States	--	--	44	44	44	385,088
	All respondents						2,998,602
Net burden reduction from 2006 ICR to 2008 ICR (i.e., the amount that the burden decreased from 2006 to 2008)							501,398

N.B.: Numbers may not add due to rounding.

\* EPA ICR # 1986.05 presented the PRA burden analysis supporting the 2007 CAFO proposed rule. These calculations were subsequently subsumed into EPA ICR #1989.04.

As Table 1 also shows, EPA’s burden estimate for the CAFO regulations decreased in total by 501,398 labor hours from the 2006 CAFO ICR renewal to the 2008 *Waterkeeper* ICR. This reduction was driven by two factors: The smaller number of respondents submitting permits due the revised regulations as well as the smaller estimate of total industry size. For EPA’s ICR supporting the 2008 *Waterkeeper* rule revisions, EPA estimated that roughly 75 percent of the total CAFO universe would incur PRA burden due to discharges and the resulting need for a permit.<sup>3</sup> In the ICR supporting statement, EPA documented how the resulting reduction in permitting would yield a combined burden reduction for CAFO respondents and permitting authorities of 25,514 annual labor hours.<sup>4</sup>

Table 2 in turn shows the contributions of the regulatory revisions and the industry baseline adjustments, respectively, to the recalculation of the PRA labor burden estimate for the CAFO regulations. Once the burden change due specifically to the

<sup>2</sup> USDA Hog and Pig Report. March 30, 2007; USDA Cattle on Feed Report. April 20, 2007; USDA-ERS Livestock, Dairy, and Poultry Outlook. June 19, 2007.

<sup>3</sup> EPA ICR No. 1986.06, Supporting Statement. Table 4-2 on p. 12 shows estimates for 2008 of 20,685 total CAFOs, out of which as many as 15,285 CAFOs (~75 percent) could discharge.

<sup>4</sup> Ibid. Table 6-18.

regulatory revisions is accounted for (25,514 hours), the portion of the total burden reduction of 501,398 hours that remains is 475,884 hours. This difference represents the portion of the total labor burden reduction that is attributable to EPA's updated CAFO industry size projections.

Table 2

Total burden reduction from 2006 ICR to 2008 ICR (i.e., the amount that the burden decreased from 2006 to 2008)	501,398
Portion of burden reduction attributable solely to 2008 regulatory revisions (as documented in EPA ICR #1989.06)	25,514
Portion of burden reduction exogenous to regulatory revisions (e.g., external factors such as changes in industry growth)	475,884