

population residing in the vicinity of the sample MP&M facilities. These additional variables, however, are likely to affect the occurrence and size of benefits associated with reduced discharges from MP&M facilities. Omission of benefit-related characteristics in designing the original sample frame may lead to conditional bias in benefit estimates. To validate the general conclusions that EPA draws from its main analysis based on the traditional benefit estimation method, EPA also estimated national level benefits for the final rule using two alternative extrapolation methods. Detailed discussion of the alternative extrapolation methods can be found in the NODA (*see* 67 FR 38752), section IX.E and F of this preamble, and in the EEBA for the final rule.

As discussed in the NODA, EPA submitted its case study analysis of recreational benefits for an official peer review. The peer review was favorable and concluded that EPA had done a competent job. Peer reviewers, however, provided several suggestions for further improvements in the analysis. The Agency made most of the recommended changes to the Ohio model, as discussed in the NODA (*see* 67 FR 38752). This revised model is used in the analysis supporting today's final rule.

However, EPA did not include multiple day trips in the benefit estimates from improvements in recreational opportunities due to reduced MP&M discharges, as it was suggested by the peer reviewers. The Ohio case study focuses on single day trips because data for single day trips are more complete and because the majority of recreational trips are single day trips. Thus, EPA estimated changes in per trip values from improved water quality for single day trips only. The Agency decided not to approximate welfare gain to participants in multi-day recreational trips based on the single-day trip values because multi-day recreational trips are likely to differ from single day trips for a number of reasons: overnight trips may include multiple purposes and destinations; the individual chooses not only to take a trip and the trip's destination, but the length of the trip; and the length of stay has costs that are not connected to travel costs. The Agency acknowledges that excluding multiple day trips from this analysis is likely to result in understatement of benefits from water quality improvements. Detailed discussion of the Ohio case study can be found in the EEBA for the final rule.

EPA did not incorporate changes to the recreational benefits methodology used in the national-level analysis from

the NODA. In estimating benefits from improved boating and wildlife viewing opportunities for the final rule, EPA considers only individuals taking single day trips due to insufficient data on per multi-day trip benefits from water quality improvements. Both individuals taking single day trips and those who take multiple day trips to local water bodies were considered in the NODA analysis of recreational benefits. Similarly to the Ohio case study, excluding multiple day trips from the national analysis is likely to result in understatement of recreational benefits from water quality improvements.

d. POTW Administrative Cost and POTW Benefits Analyses

EPA received several comments to the proposal on the use of EPA's 1997 POTW survey in the analysis of POTW administrative costs and benefits from improved quality of sewage sludge. Commentors stated that EPA overestimated pollutant loadings, economic benefits, and environmental benefits associated with improved sludge quality. Commentors also stated that EPA underestimated the administrative costs associated with implementing the rule. They provided new information on POTW characteristics which EPA used to revise assumptions and its analysis of POTW administrative costs and benefits for the final rule. Specifically, the Association of Metropolitan Sewerage Agencies (AMSA) provided EPA with comments on the proposed MP&M rule and supplemented these comments with a spreadsheet database. The database contains data from an AMSA formulated survey and covers responses from 176 POTWs, representing 66 pretreatment programs. The AMSA survey was conducted to verify data from EPA's survey of POTWs, and therefore, included similar, although fewer, variables compared to EPA's survey.

EPA used some of the data provided in AMSA's survey to revise its own analyses of POTW administrative costs of the proposed MP&M rule. Elements of the administrative cost analysis include: (1) The estimated number of indirect dischargers; and (2) the unit costs of certain permitting activities, including permit implementation, sampling, and sample analysis. EPA found that although AMSA estimates of the number of indirect dischargers and the unit costs of permitting activities are consistent with the EPA's estimates used for the proposed rule analysis, their estimate neglected to take into account that not all MP&M indirect discharging facilities would have been required to meet the proposed

standards. DCN 37500, section 25.4.1, provides comparisons between AMSA's and EPA's estimates. EPA added to its analysis using the AMSA data include: (1) Screening costs for POTWs that do not currently operate under a pretreatment program; and (2) oversight costs associated with implementing various regulatory options. The revised methodology for POTW administrative costs analysis is presented in EEBA Appendix F.

EPA also used the AMSA data to revise the POTW benefits methodology. Elements of the POTW benefits analysis EPA verified using the AMSA survey include: (1) Percentage of metal loadings contributed by MP&M facilities; and (2) the number of MP&M facilities served by POTWs.

AMSA also provided additional information on the number of POTWs (and percentage of total annual dry metric tons of POTW biosolids) currently meeting metals limitations in the "Standards for the Use or Disposal of Sewage Sludge," (40 CFR part 503), and reasons why POTWs may choose to not land apply biosolids. These nationally-applicable standards set the general requirements, management practices, operational standards and monitoring and reporting requirements for the final use and disposal of biosolids. AMSA's survey data includes the following reasons for not land applying qualifying biosolids: (1) Land was not available for application of sewage biosolids; (2) other biosolids use/disposal practices were less expensive than land application; (3) pathogen/vector reduction requirements could not be met at an acceptable cost; and (4) local regulations or opposition to land application. EPA revised the POTW benefits methodology according to the results of the joint analysis of the EPA and AMSA surveys. The revised methodology for POTW benefits analyses is presented in EEBA Chapter 16.

4. Determining POTW Percent Removal Estimates

As discussed in the proposed rule, EPA solicited comment on potential changes to the methodology for estimating the pollutant reduction (*i.e.*, percent removal) used in EPA's pass through analysis for identifying pollutants requiring pretreatment standards (*see* 66 FR 476). For today's final rule, EPA has not changed the POTW pass-through analysis because EPA is not promulgating any new pretreatment standards for indirect dischargers.