

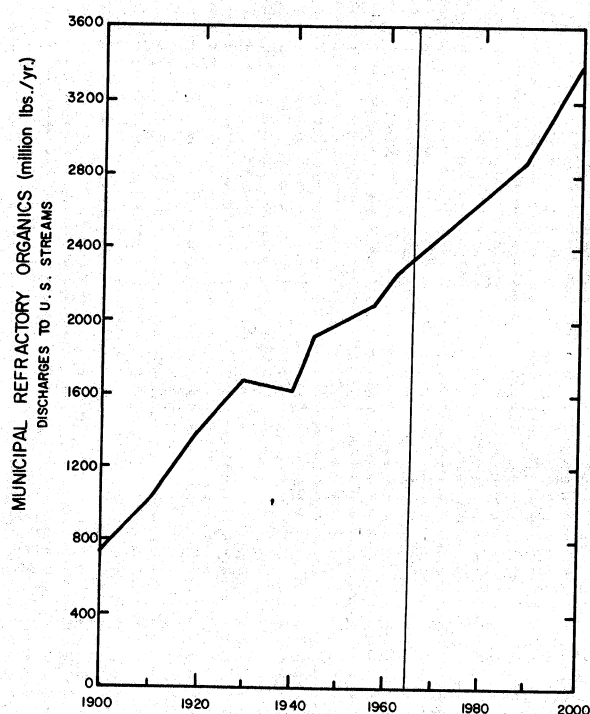


FIGURE 5. Estimate of refractory organics discharges to U.S. streams from municipal outfalls (A.D. 1900-2000).

almost constant. In the next 25 years, if we apply complete primary-secondary treatment to all municipal discharges, the national BOD load from these sources will be reduced by about 40 per cent. From that time on, BOD loads will increase continuously.

The graph in FIGURE 6 presents a potentially misleading view because it deals with a nationwide picture, while pollution is a much more "local" phenomenon. However, it is useful in making the following points. First, substantial improvements in pollution control can be achieved simply through the more widespread application of existing waste-treatment technology. Second, from 1990 onward, BOD discharges will inexorably increase due to expanding population *despite* the universal application of the most efficient waste-treatment processes now available. In fact, by 2015, just 50 years from now, BOD discharges will once again reach the present level and will be increasing by two or three per cent per year thereafter. Clearly, there are other pollutants which cannot be treated as effectively as BOD through the use of conventional techniques. For these resistant pollutants, there will not be even a temporary reduction in rates of discharge; rather, nationwide loads of these pollutants will increase from this time on, again, *despite* the universal application of existing technology (FIGURES 3-5).