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## **Estimating the Benefits of NPL Remediation with Hedonic Data**

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### **Abstract:**

Numerous studies have used hedonic pricing methods to estimate the decrease in the value of homes located near hazardous waste sites, typically examining one or a handful of sites. This paper applies this data in order to estimate the benefit of remediating NPL sites. Key issues include meeting the theoretical requirements of such an analysis, utilizing the existing data which is focused largely on single-family detached homes to evaluate the effects on all residential property types, estimating the magnitude and extent of the price effect, and specifying an appropriate model for the benefit estimate. In this study, effect distances of 1, 2.5, and 4 miles are considered. Both linear and non-linear price effects are used, and both absolute and percentage of benefit models are used. The average of the linear effects found in the literature, ignoring upper and lower extremes, is \$9,404 per home, or 6.5% of home price. For a price effect of 2.5 miles, the benefits of NPL remediation are estimated to range from \$1–\$1.5 Billion annually for 1980–2009, or \$4–\$6 Billion annually for 2000–2009, using a 7% discount rate.