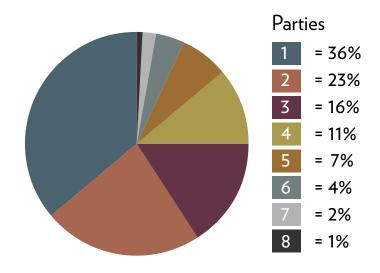
LANGAN

COST ALLOCATION AND COST ESTIMATING

LITIGATION AND EXPERT WITNESS SERVICES

TECHNICAL BASIS FOR COST ALLOCATION

Langan's approach to cost allocation begins with the premise that every site is unique – its history of ownership and use, subsurface conditions, degree of risk it poses to human health and the environment, and numerous other characteristics. Complex sites involve not only multiple contaminants impacting multiple media, but also multiple parties, including relationships among property owners, tenants, facility operators, waste generators, and waste transporters, all of which may exhibit varying degrees of involvement with the cost recovery process. Ultimately, the cost allocation methodology developed for a specific site is desired to be fair and equitable and based on the application of consistent judgment and avoidance of bias. Typically the results of the cost allocation serve as the basis for an agreement.



COST ESTIMATING FOR COST ALLOCATION

Langan helps clients assess site remediation approaches and devise negotiation and litigation strategies by taking a risk analysis approach that draws upon probabilistic cost estimating, probabilistic performance assessment, and decision analysis.

Probabilistic cost estimates for soil gas, soil, and groundwater remediation incorporate the uncertainties that may arise from existing data gaps, changes in economic conditions, pending regulatory decisions, fluctuations in commodity prices, and other factors. Probabilistic performance assessments provide the technical basis for probabilistic cost estimates by bounding uncertainties associated with short- and long-term performance of the remediation technologies being

considered. Decision analyses can guide decision making to evaluate site remediation alternatives and best land uses for redevelopment.

When combined, these methods provide a powerful framework for a methodical and quantitative assessment of uncertainties in the environmental impacts to the site, the anticipated duration of remediation efforts, and the potential range of costs associated with initial remediation and long-term operation and maintenance. In combination, these three techniques form a useful set of tools to assist clients in resolving cases with multiple potentially responsible parties (PRPs) and to negotiate with regulatory agencies.

