**Supporting Information S1: Stakeholder engagement activities and planning.**

CERCLA and the NCP require or address a number of minimum community involvement activities at Superfund sites, which are summarised in EPA (2016). These have key objectives to:

1. Conduct early, frequent and meaningful community involvement;

2. Keep the public well-informed of ongoing and planned activities; encourage and enable the public to get involved; listen carefully to what the public is saying;

3. Consider changing planned actions where public comments or concerns are considered by the site team; and

4. Explain to community members how EPA considered their comments, what the Agency plans to do, and why decisions were made.

In accordance with this guidance extensive and sustained stakeholder engagement was undertaken at Murdock, starting prior to the initial site characterisation work, and continuing through several remedial options appraisal stages, remediation strategy implementation, and monitoring. The Murdock Village Board was consulted in 1991, prior to initial site characterisation work, and an overview of planned site characterisation activities was presented in a meeting and Q&A session with the Murdock Village Board and interested citizens. Door to door visits (to distribute fact sheets and answer questions) were also undertaken, initially targeting site adjacent land/home owners, and an information repository was established in the village grocery store and reading room. A community relations plan was also drafted by the EPA, with EPA assuming lead responsibility for all technical and community relations activities at the Murdock site. The plan identified issues of community concern regarding the groundwater contamination, and outlined community relations activities to be conducted leading up to an Engineering Evaluation / Cost Analysis (EE/CA). The plan’s objectives were to:

1. Explain EPA’s site plans and provide general information about the Superfund programme;

2. Inform the local community of site findings and developments;

3. Respond to citizens’ enquiries about site activities and the presence of health and/or environmental hazards; and

4. Provide opportunities for public comment on the EE/CA.

Wide dissemination of information in the community was targeted using public briefings, fact sheets and door-to-door contact. The plan included a contact list of key officials, media representatives, and interest groups, and a mailing list of interested citizens. A community relations coordinator was also appointed.

The EE/CA presented information about appropriate response actions for a Superfund hazardous waste site, which was made available for public comment at Murdock Town Hall. Murdock representatives were provided with a copy of the final (1993) report on delineation of the groundwater plume and evaluation of remediation alternatives (focused largely on pump-and-treat), with representatives of the site team meeting regularly with the Village Chairman and members of the Village Board, and also conducting several “availability sessions” at the grocery store/coffee shop. Engagement and involvement has continued through further consideration of remedial alternatives (including the phytoremediation-wetlands combined approach developed by the USDA and Argonne in 2003-2004, with EPA oversight), remediation implementation and monitoring stages (e.g. via council meetings, liaison with local groups and land owners, school visits etc).

Reference:

US Environmental Protection Agency (EPA), 2016. *Superfund community involvement handbook.* EPA 540-K-02-015, January 2016.