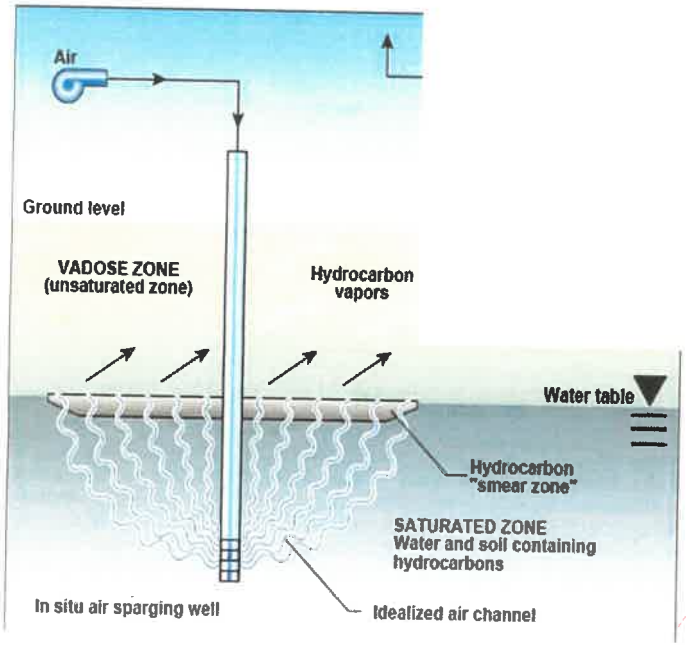
188 Madison Ave - Skowhegan, ME
DEP SPILL # R-1-2013

DRAWN BY: ELC, MEDEP
BASED ON 00/00/00 FIELD DWG
MEASUREMENTS NOT EXACT



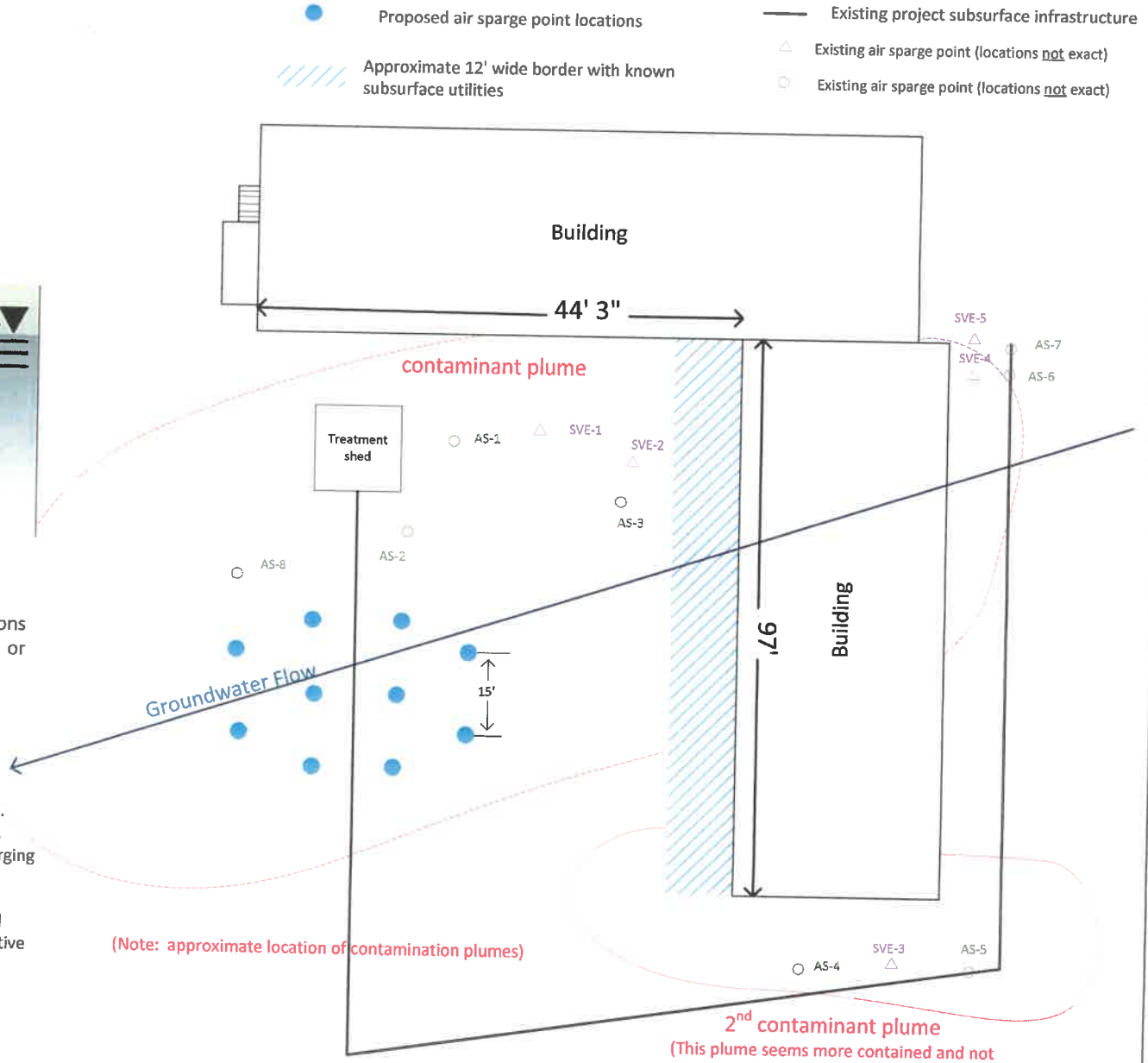
By injecting air beneath the groundwater, air sparging operations can induce aquifer mixing and promote the volatilization or biodegradation of dissolve organic contaminants.

Air Sparge System

- Wells should be constructed of 2 inch diameter pvc.
- Four rows (total of 10 sparge wells) approximately 15 feet apart.
- Wells should be set approximately 5 feet below the water table.
- Pulsation frequency is an important design parameter in air sparging groundwater remediation applications.

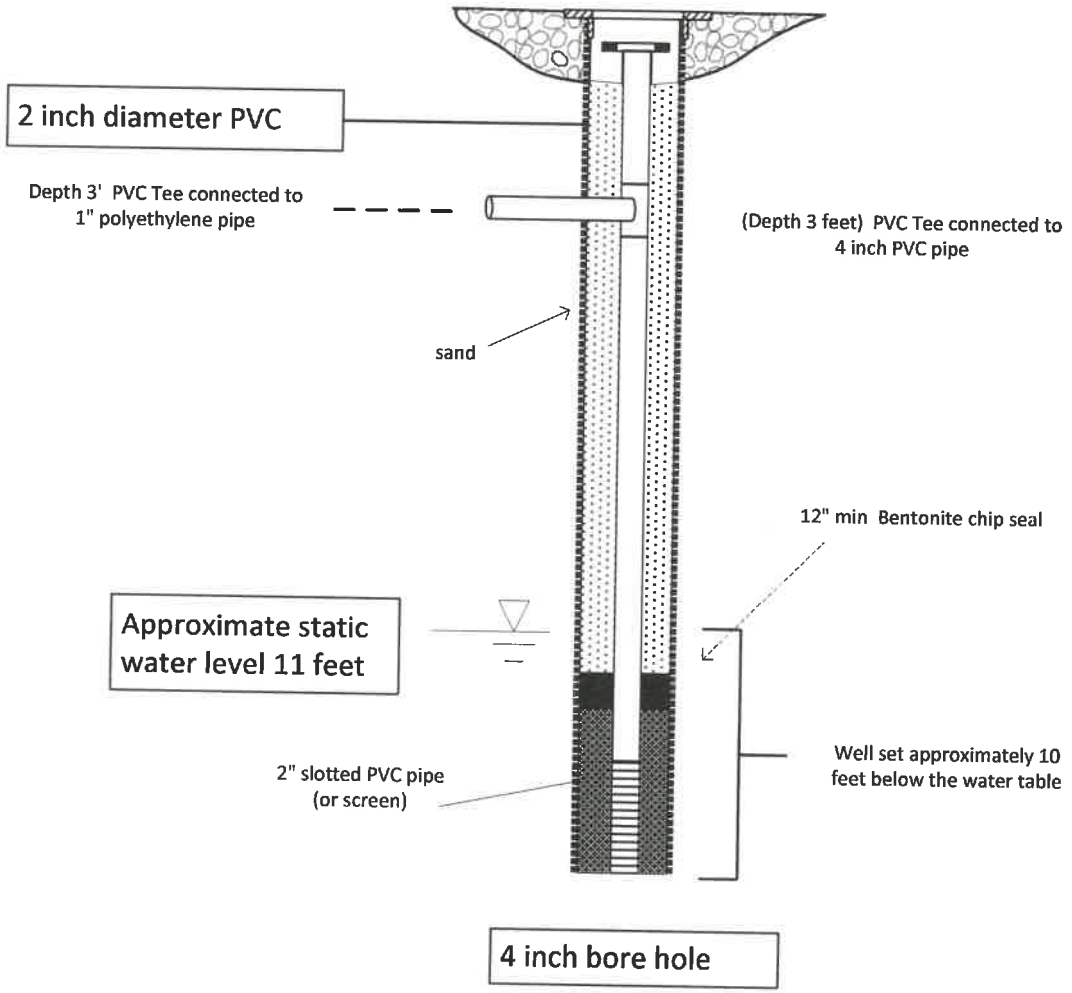
(Note: Research has shown that pulsed operation results in increased mass removal rates of contaminants and a lower energy demand relative to continuous operation.)

(A relatively dense well spacing is preferred because it increases the amount of overlap of the influence of the individual wells).



Estimated Air Sparge Well Dimensions
(Modify existing treatment equipment in shed to incorporate new air sparge equipment)
(Depth of air sparge points 5 feet below the water table.)

Flush-Mounted Air Sparge Well



Air sparging, without SVE, can be designed to deliver a mixture of oxygen to the saturated zone to stimulate microbial growth and therefore enhance aerobic biodegradation of target compounds dissolved in groundwater. This approach can be an option if the contaminants are aerobically biodegradable SVOCs.

A typical air injection well is 1- to 4- inches in diameter and vertical well having a 1- to 2-ft-long screened interval installed 5 ft below the lowest depth of observed contamination.

To the extent possible, existing groundwater monitoring wells and other monitoring installations should be incorporated into the design.

Air injection wells are placed in locations consistent with the selected well spacing within the target treatment area. A relatively dense well spacing of 15 feet in a triangulated spacing is preferred because it increases the amount of overlap of the influence of the individual wells.

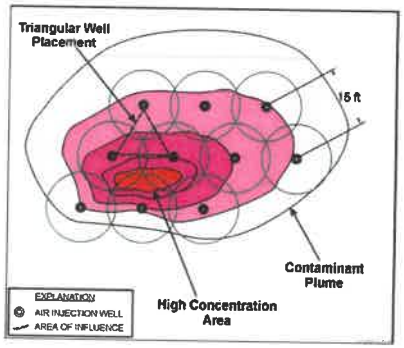


Figure from Air Sparging Guidance Document (NFESC Technical Report)

DEP Spill #
R-001-2013

188 Madison Ave
Skowhegan, ME

Proposed Air Sparge (cross-section)

DRAWN BY:
ELC, MEDEP

Last visit
April 4, 2017
Field Notes

DRAWING FOR CONCEPTUAL PURPOSES ONLY, MEASUREMENTS NOT EXACT