# Table 2b ‐ Criteria for Siting, Investigation & Design of Liquid Waste Storage Facilitates with a water depth of 2 feet or less. Very High High Moderate Slight

## Risk

Less than 500' upgradient from public

drinking water supply well; Doesn't meet Very High Risk criteria;

**OR** <200' upgradient from a domestic

Doesn't meet High Risk criteria; Doesn't meet Moderate Risk criteria;

well or Class 1 designated use surface water,

**OR** 1st ground water is a Class IB

**AND** In a recharge area for Sole Source

aquifers

**OR** 500'‐1000' up gradient from a public

**AND** 600' ‐ 1000' upgradient from an

domestic well or Class I surface water;

**AND** >1000' upgradient from an

domestic well or Class I surface water;

aquifer

drinking water supply well, **OR** < 600' up gradient from a non‐

**OR** > 600' up gradient from a non‐

**Or** 200'‐600' upgradient from an domestic water supply well or Class 1 designated use surface water,

Vulnerability

**OR** 1st ground water is a Class IA or Class

domestic water supply well or Class 2‐5 designated use surface water,

domestic water supply well or Class 2‐5 designated use surface water,

II aquifer **OR** 1st ground water is a class III aquifer **OR** 1st ground water is a class IV aquifer

# Very High Liner Requirements Liner Requirements Liner Requirements Liner Requirements

Large Voids (e.g. karst limestones, ~ Strongly consider relocation to another

~specific discharge less than

~specific discharge less than

~specific discharge less than

### lava tubes improperly abandoned

site

1 X 10‐7 cm3/cm3/sec

1 X 10‐6 cm3/cm3/sec

1 X 10‐6 cm3/cm3/sec

### well);

**Or** Highest anticipated ground water elevations within 2' of

~ synthetic liner with specific discharge less than

1 X 10‐11 cm3/cm3/sec

~ No manure sealing credit ~ No manure sealing credit ~ No manure sealing credit

~ Design includes sampling and testing of ~ Design includes sampling and testing of ~ Design includes sampling and testing of

earthen liner or in‐place material

earthen liner or in‐place material

earthen liner or in‐place material

### pond bottom

including classification, standard Proctor including classification, standard Proctor including classification, standard Proctor

~Testing required on synthetic liner by a

compaction, in‐place density, and

compaction, in‐place density, and

compaction, in‐place density, and

third party testing firm

sample permeability by a licensed testing sample permeability by a licensed testing sample permeability by a licensed testing

firm

firm

firm

# High Liner Requirements Liner Requirements Liner Requirements Liner Requirements

Doesn't meet Very High Vulnerability

criteria; ~specific discharge less than

1 X 10‐7 cm3/cm3/sec

~specific discharge less than

1 X 10‐7 cm3/cm3/sec

~specific discharge less than

1 X 10‐6 cm3/cm3/sec

~specific discharge less than

1 X 10‐6 cm3/cm3/sec

**AND** Bedrock (assumed fractured

within 2' of pond bottom; ~ No manure sealing credit ~ No manure sealing credit ~ No manure sealing credit ~ No manure sealing credit

**OR** Coarse soils/parent material

~ Design includes sampling and testing of ~ Design includes sampling and testing of ~ Design includes sampling and testing of ~ Design includes sampling and testing of

(Permeability Group I soils as defined

earthen liner or in‐place material

earthen liner or in‐place material

earthen liner or in‐place material

earthen liner or in‐place material

in AWMFH, always including GP, GW, including classification, standard Proctor including classification, standard Proctor including classification, standard Proctor including classification, standard Proctor

SP, SW);

compaction, in‐place density, and

compaction, in‐place density, and

compaction, in‐place density, and

compaction, in‐place density, and

**OR** Highest anticipated groundwater sample permeability by a licensed testing sample permeability by a licensed testing sample permeability by a licensed testing sample permeability by a licensed testing

Elevation is between 2' ‐15' below pond bottom;

firm

firm

firm

firm

# Moderate Liner Requirements Liner Requirements Liner Requirements Liner Requirements

Doesn't meet High Vulnerability

criteria; ~specific discharge less than

~specific discharge less than

~specific discharge less than

~specific discharge less than

**AND** Medium soils/parent material (Permeability Group II soils as

1 X 10‐6 cm3/cm3/sec

1 X 10‐6 cm3/cm3/sec

1 X 10‐6 cm3/cm3/sec

1 X 10‐6 cm3/cm3/sec

defined in AWMFH, usually including CL‐ML, GM, SM, ML);

~ No manure sealing credit ~ No manure sealing credit ~ No manure sealing credit ~ No manure sealing credit

**OR** Flocculated or blocky clays

~ Design includes sampling and testing of ~ Design includes sampling and testing of ~ Design includes sampling and testing of ~ Design includes sampling and testing of

(typically associated with high Ca);

earthen liner or in‐place material

earthen liner or in‐place material

earthen liner or in‐place material

earthen liner or in‐place material

including classification, standard Proctor including classification, standard Proctor including classification, standard Proctor including classification, standard Proctor

**OR** Highest anticipated groundwater

compaction, in‐place density, and

compaction, in‐place density, and

compaction, in‐place density, and

compaction, in‐place density, and

Elevation is between 15' ‐50' below

sample permeability by a licensed testing sample permeability by a licensed testing sample permeability by a licensed testing sample permeability by a licensed testing

pond bottom;

firm

firm

firm

firm

# Low Liner Requirements Liner Requirements Liner Requirements Liner Requirements

Doesn't meet Moderate Vulnerability

criteria; ~specific discharge less than 1 X 10‐6 cm3/cm3/sec

~specific discharge less than 1 X 10‐6 cm3/cm3/sec

~specific discharge less than 1 X 10‐6 cm3/cm3/sec

~specific discharge less than 1 X 10‐6 cm3/cm3/sec

**AND** Fine soils/parent material

(Permeability Group III and IV soils as

~ No manure sealing credit ~ No manure sealing credit ~ No manure sealing credit ~ No manure sealing credit

defined in AWMFH, usually including ~ Design includes sampling and testing of ~ Design includes sampling and testing of ~ Design includes sampling and testing of ~ Design includes sampling and testing of

GC, SC, MH, CL, CH);

earthen liner or in‐place material

earthen liner or in‐place material

earthen liner or in‐place material

earthen liner or in‐place material

including classification, standard Proctor including classification, standard Proctor including classification, standard Proctor including classification, standard Proctor

**OR** Highest anticipated groundwater

compaction, in‐place density, and

compaction, in‐place density, and

compaction, in‐place density, and

compaction, in‐place density, and

Elevation is > 50' below pond

sample permeability by a licensed testing sample permeability by a licensed testing sample permeability by a licensed testing sample permeability by a licensed testing

bottom;

firm

firm

firm

firm