# Table 2a ‐ Criteria for Siting, Investigation & Design of Liquid Waste Storage Facilitates with a water depth greater than 2 feet.

## Risk

**Very High**

Less than 500' upgradient from public drinking water supply well; **OR** <200' upgradient from a domestic well or Class 1 designated use surface water,

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

Vulnerability

# High

Doesn't meet Very High Risk criteria;

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

**OR** 500'‐1000' up gradient from a public drinking water supply well,

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

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

# Moderate

Doesn't meet High Risk criteria;

**AND** 600' ‐ 1000' upgradient from an domestic well or Class I surface water;

**OR** < 600' up gradient from a non‐ domestic water supply well or Class 2‐5 designated use surface water,

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

# Slight

Doesn't meet Moderate Risk criteria;

**AND** >1000' upgradient from an domestic well or Class I surface water;

**OR** > 600' up gradient from a non‐ domestic water supply well or Class 2‐5 designated use surface water,

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

# Very High

### Large Voids (e.g. karst limestones,

**Liner Requirements**

~ Relocate to another site or

# Liner Requirements Liner Requirements

~specific discharge less than

# Liner Requirements

~specific discharge less than

### lava tubes improperly abandoned

well);

~ Install steel or concrete tank with no

Consider relocation to another site

~specific discharge less than 1 X 10‐11 cm3/cm3/sec

1 X 10‐7 cm3/cm3/sec

~ No manure sealing credit

1 X 10‐7 cm3/cm3/sec

~ No manure sealing credit

### **Or** Highest anticipated ground

discharge

~ Testing required on synthetic liner by a ~ Design includes sampling and testing of ~ Design includes sampling and testing of

third party testing firm

earthen liner or in‐place material

earthen liner or in‐place material

### water elevations within 2' of

including classification, standard Proctor including classification, standard Proctor

### pond bottom

compaction, in‐place density, and

compaction, in‐place density, and

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

firm

firm

# High

Doesn't meet Very High Vulnerability criteria;

**AND** Bedrock (assumed fractured within 2' of pond bottom;

# Liner Requirements

Consider relocation to another site

~specific discharge less than 1 X 10‐11 cm3/cm3/sec

# Liner Requirements

Consider relocation to another site

~specific discharge less than 1 X 10‐11 cm3/cm3/sec

# Liner Requirements

~specific discharge less than 1 X 10‐7 cm3/cm3/sec

~ No manure sealing credit

# Liner Requirements

~specific discharge less than 1 X 10‐7 cm3/cm3/sec

~ No manure sealing credit

**OR** Coarse soils/parent material

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

(Permeability Group I soils as defined

~ Testing required on synthetic liner by a

earthen liner or in‐place material

earthen liner or in‐place material

in AWMFH, always including GP, GW, ~ Testing required on synthetic liner by a

third party testing firm

including classification, standard Proctor including classification, standard Proctor

SP, SW);

third party testing firm

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

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

firm

firm

# Moderate

Doesn't meet High Vulnerability

# Liner Requirements

**Liner Requirements**

**Liner Requirements Liner Requirements**

criteria;

**AND** Medium soils/parent material (Permeability Group II soils as defined in AWMFH, usually including CL‐ML, GM, SM, ML);

**OR** Flocculated or blocky clays (typically associated with high Ca);

**OR** Highest anticipated groundwater Elevation is between 15' ‐50' below pond bottom;

# Low

Doesn't meet Moderate Vulnerability criteria;

**AND** Fine soils/parent material (Permeability Group III and IV soils as

~specific discharge less than 1 X 10‐7 cm3/cm3/sec

~ No manure sealing credit

~ Design includes sampling and testing of earthen liner or in‐place material including classification, standard Proctor compaction, in‐place density, and sample permeability by a licensed testing firm

# Liner Requirements

~specific discharge less than 1 X 10‐7 cm3/cm3/sec

~ No manure sealing credit

### ~specific discharge less than 1 X 10‐7 cm3/cm3/sec

~ No manure sealing credit

~ Design includes sampling and testing of earthen liner or in‐place material including classification, standard Proctor compaction, in‐ place density, and sample permeability by a licensed testing firm

**Liner Requirements**

~specific discharge less than 1 X 10‐7 cm3/cm3/sec

~ No manure sealing credit

### ~specific discharge less than 1 X 10‐7 cm3/cm3/sec

~ No manure sealing credit

~ Design includes sampling and testing of earthen liner or in‐place material including classification, standard Proctor compaction, in‐ place density, and sample permeability by a licensed testing firm

**Liner Requirements**

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

~ No manure sealing credit

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

~ No manure sealing credit

~ Design includes sampling and testing of earthen liner or in‐place material including classification, standard Proctor compaction, in‐place density, and sample permeability by a licensed testing firm

# Liner Requirements

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

~ 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