Appendix 1. Lagoon Sludge Survey Form

Revised June 2020

A. Farm Permit # (DEQ Identification Number) _____

B. Lagoon identification _____

C. Person(s) taking measurements _____

D. Date of measurements _____/_____/_____

E. Methods/devices used for measurement of:

   a. Distance from the lagoon liquid surface to the top of the sludge layer: _____

   b. Distance from the lagoon liquid surface to the bottom (soil) of the lagoon: _____

   c. Thickness of the sludge layer if making a direct measurement with "core sampler": _____

F. Lagoon surface area (using dimensions at inside top of bank): _____ (acres)

(Draw a sketch of the lagoon on a separate sheet, list dimensions, and calculate surface area. The lagoon may have been built differently than designed, so you must take actual measurements.)

G. Estimate number of sampling points:

   a. Less than 1.33 acres: use 8 points.

   d. If more than 1.33 acres, _____ acres × 6 = _____ , with maximum of 24.

(Using sketch and dimensions, develop a uniform grid that has the same number of intersections as the estimated number of sampling points needed. Number the intersection points on the lagoon grid so that data recorded at each can be easily matched.)

H. Conduct sludge survey and record data on Sludge Survey Data Sheet (Appendix 2). Also, at the location of the pump intake, measure the distance from the liquid surface to the top of the sludge layer and record it on the Sludge Survey Data Sheet (last row); there must be at least 2½ feet of clear irrigation liquid at the pump intake.

I. At the time of the sludge survey, measure the distance from the Maximum Liquid Level to the Present Liquid Level (measure at the lagoon gauge pole): _____

J. Determine the distance from the top of the bank to the Maximum Liquid Level: _____

(Use lagoon management plan or other lagoon records.)

K. Determine the distance from the Maximum Liquid Level to the Minimum Liquid Level: _____

(Use lagoon management plan or other lagoon records.)

L. Calculate the distance from the Present Liquid Level to the Minimum Liquid Level: _____

(Item K minus Item I, assuming the Present Liquid Level is below the Maximum Liquid Level.)

M. Record from the Sludge Survey Data Sheet the distance from the Present Liquid Level to the lagoon bottom *(average for all the measurement points)*: _____

N. Record from the Sludge Survey Data Sheet the distance from the Present Liquid Level to the top of the sludge layer (average for all the measurement points): _____

O. Record from the Sludge Survey Data Sheet the average thickness of the sludge layer: _____

P. Calculate the thickness of the existing Liquid Treatment Zone (Item N minus Item L): _____

Q. If Item O is greater than Item P, proceed to the Sludge Volume and Treatment Volume Worksheet (Appendix 3). If Item O is equal to or less than Item P, you do not have to determine volumes.

Completed by: _____ _____

Print Name Signature

Date: _____