Common Pitfalls of Closure

- Excessive amount of sludge and solids
  - Add freshwater and agitate in order to irrigate
  - Consider a dewatering technology
  - Transfer all to tankers (may be high cost)

Common Pitfalls of Closure

- Remaining sludge difficult to remove
  - Push shallow sludge towards one end; impound with temporary berm
    - Pump as long as possible
  - Use a bulking agent to manage sludge as a solid

The archived presentation is available at:
http://www.extension.org/pages/21819/chronological-webcast-archive
Common Pitfalls of Closure

• Limited land: due to sale of property, urban encroachment, sensitive environment
  – Will require tanking
  – Find nearest land for lease or land app agreement

Common Pitfalls of Closure

• High soil test phosphorus in traditional or established application areas
  – Transport to alternate location with lower soil test P
  – Apply at lower rate on greater acreage
  – Separate solids for export

Common Pitfalls of Closure

• Crop production has ceased
  – Contract farming in order to best utilize nutrients and empty structure
  – Plant low maintenance pasture or hay ground

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Avoiding Closure Pitfalls

- Agitate and pump during life of lagoon
  - Maintain designed volumes for solids, treatment and storage
- Use inline solid separation with earthen storages
  - Reduces P in irrigated/tanked fraction
  - Enhanced options for further distribution of solids
- For treatment lagoons and manure storages:
  - Monitor soil P in land application areas
  - Do not over-use land closest to structure

Avoiding Closure Pitfalls

- Lagoons require continuous management to control solids
- Plan for closure of earthen structures
  - Financial
  - Technical
  - Logistical
- Review and understand pertinent regulations:
  - National/State/Local
  - Specific site or permit requirements

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