

## CFAES WATERMAN MANURE MANAGEMENT STUDY PROGRAM CHARTER – DRAFT 2021-01-15

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### PROGRAM GOALS

- Move from current state to a long-term multispecies manure and nutrient management plan to support current and upcoming CFAES facilities at Waterman.
- Establish an operationally sustainable approach to best practices in manure management.
- Contribute to the overall environmental stewardship at Waterman.
- Coordinate with City of Columbus regulatory requirements for sanitary sewer.
- Support the “Valve Concept” as defined: Built in flexibility that allows multiple, potential, TBD, solid-&-liquid, research and instructional opportunities. This could include use and/or connections to the manure system without impacting the effective operation of the facility.

### IMPLEMENTATION

- Duration: 3-5 months beginning in January 2021 and concluding in or before June 2021.
- Design Meetings: Every 2-3 weeks, adjustable pending time required for homework.
- Initial meeting with Executive and Design Team to evaluate goals, process, and milestones.
- Propose, discuss, and evaluate 3-5 options.
  - Examples and imagery.
  - Pros and cons.
  - Impact to Waterman footprint, construction cost, sustainability, transportation, and operations.
  - Possible benchmarks (virtual).
- Pause and select 1 option.
- Develop selected option to +/- SD level with narrative, coordination with City of Columbus, details, probable construction cost, and operations impact summary. (Sketches may be generic. They will be used to inform the future design of the facility.)
- Scheduled updates to Executive Team at key milestones.
- CFAES Executive Team: Graham Cochran, Julie Morris, Dewey Mann, and Brian Hanna
- CFAES Design Team: Dewey Mann, Julie Morris, Mike Sword (as needed), and Chuck Gamble.
- Programming: Chanhee Lee, Amanda Douridas, Glen Arnold, Ajay Shah, Heather Raymond, Brian Roe, Brian Slater, others TBD

### BACKGROUND

**Current State:** The current flush system uses large quantities of water to flush manure down the alleys in the free stall barn into a main holding pit. Manure from the tie-stall barn uses gutter and chain to transfer manure to the main holding pit. The holding pit has an agitator that is run periodically to keep the solids suspended. Manure in the pit is released daily into the City of Columbus sanitary system.

**Waterman Animal Facilities:** Multispecies Animal Learning Center (MALC) is currently in design. Current dairy facilities are undergoing a design to improve technology and reduce herd size. A future dairy replacement is indicated in the CFAES Facility Master Plan with details and timeline to-be-determined.



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