COMMUNITY MANURE STORAGE & NUTRIENT REDISTRIBUTION

LCC Committee Presentation

February 16, 2017

Background

- Budget Line Item LWLEGACY 57226 – Community Manure Storage
- 2014 Budget
  - $500,000 budgeted to Community Manure Storage
- 2015 Budget
  - Additional $500,000 budgeted to Community Manure Storage
  - Resolution 331 for $100,000 to contract with UW to study locations for community storages
- 2016 Budget
  - No new funds added
  - Study from 2015 conducted
- 2017 Budget
  - Additional $200,000 budgeted to Community Manure Storage

Objectives of Manure Storage Study

1. Assessment and quantification of the total amount of manure produced and total nutrient applied in the Yahara Watershed and how increasing storage capacity can impact water quality

2. Recommendations on the amount of storage needed in the county, how the location of collective or individual storage structures can be optimized to facilitate a reduction in the importation and release of nutrients to the Yahara watershed

3. Develop a strategy to identify storage locations that would have the greatest impact on water quality of the Yahara Lakes by reducing the necessity of winter spreading or other criteria

4. Develop outreach efforts that can be utilized to encourage implementation by individual farms or groups of farms to have the most impact on water quality

Community Manure Storage

Cost-share assistance to construct manure storages:

- Off site locations
- Community storages through producer partnerships
- Emergency options

Community Manure Storage

- Challenges to be addressed:
  - The distance between cropland and livestock operations where the manure is produced
  - The type of crops that are being grown
  - Environmental factors such as rain and freezing temperatures
  - Weight restrictions on local roads during spring thaw
  - Limited financial resources for the construction of manure storage structures

Community Manure Storage

- Proposed program would:
  - Provide an emergency storage location where livestock producers can take their manure should unforeseen circumstances arise*
  - Redistribute and redirect manure to cropland areas that currently receive little or no manure applications*
  - Prevent the application of liquid manure during critical times of the year*

Proposed Program - Eligibility

- Producers with livestock manure within the Yahara Watershed
- Preference given to groups of producers located within close proximity

Proposed Program – Criteria

- Location within critically identified sub watershed within the Yahara River basin*
- Proximity to other interested producers
- Proximity to other manure storage structures
- Available cropland acres for the application of manure

Proposed Program - Conditions

- Participant cropland must be inventoried*
  - Current soil samples
  - PI values
- No application of manure from December 1st to March 31st
- Nutrient management plans and record of implementation must be updated and submitted to the County annually
- Producers may be responsible to take back the entire volume of material they contribute to the community manure storage facility, unless other arrangements are made

Feasibility Study

Request for proposals to develop a feasibility study for the treatment and management of manure in the Yahara Watershed

Feasibility Study

- Challenges to be addressed:
  - Unpredictable weather conditions
  - High volume/low nutrient concentration manure
  - Traffic and weigh restrictions for roads
  - Narrow crop windows
  - Reducing manure and nutrient runoff
  - Storage options for small/medium sized operations

Feasibility Study

- Program objectives:
  - Reduce manure and nutrient runoff
  - Improve the economic viability of manure handling
  - Concentrate nutrients to redistribute to areas of need*
  - Encourage partnerships between multiple producers
  - Logistics associated with weather, timing, field conditions and transportation*

Proposed Program - Eligibility

- Livestock producers in the Yahara Watershed
- Preference given to small/medium sized operations*
- Partnerships between producers
- Projects that export nutrient out of the watershed*

Proposed Program - Criteria

- Submit a RFP including:
  - Overview of operation, landowners, producers
  - Organizational capabilities of consultants or firms assisting with the project
  - Description of current manure management systems, livestock numbers, nutrient management, cropland
  - Description of proposed manure management systems
  - Proposed budget and funding sources
  - Proposed timeline for study

Proposed Program - Conditions

- Criteria to be included with a selected feasibility study:
  - Details associated with
    - Technologies
    - Management strategies
    - Business plan

Proposed Program - Conditions

- Feasibility study includes:
  - Overall approach and technology used to store, manage and redistribute manure and nutrients
  - Description of out proposal addresses results of Manure Storage Study
  - Technical information regarding proposed technology
  - Costs associated with equipment, installation, ongoing operation, maintenance
  - Maintenance plans and strategies for routine maintenance protocols and emergency response
  - Management procedures for manure and by-product handling before and after proposed treatment
  - Process and product flow diagrams
  - End product use descriptions
  - Permitting requirements

Budget

$1,200,000 2014-2017 budget

- $100,000 Manure Storage Study

$1,100,000 Current Available

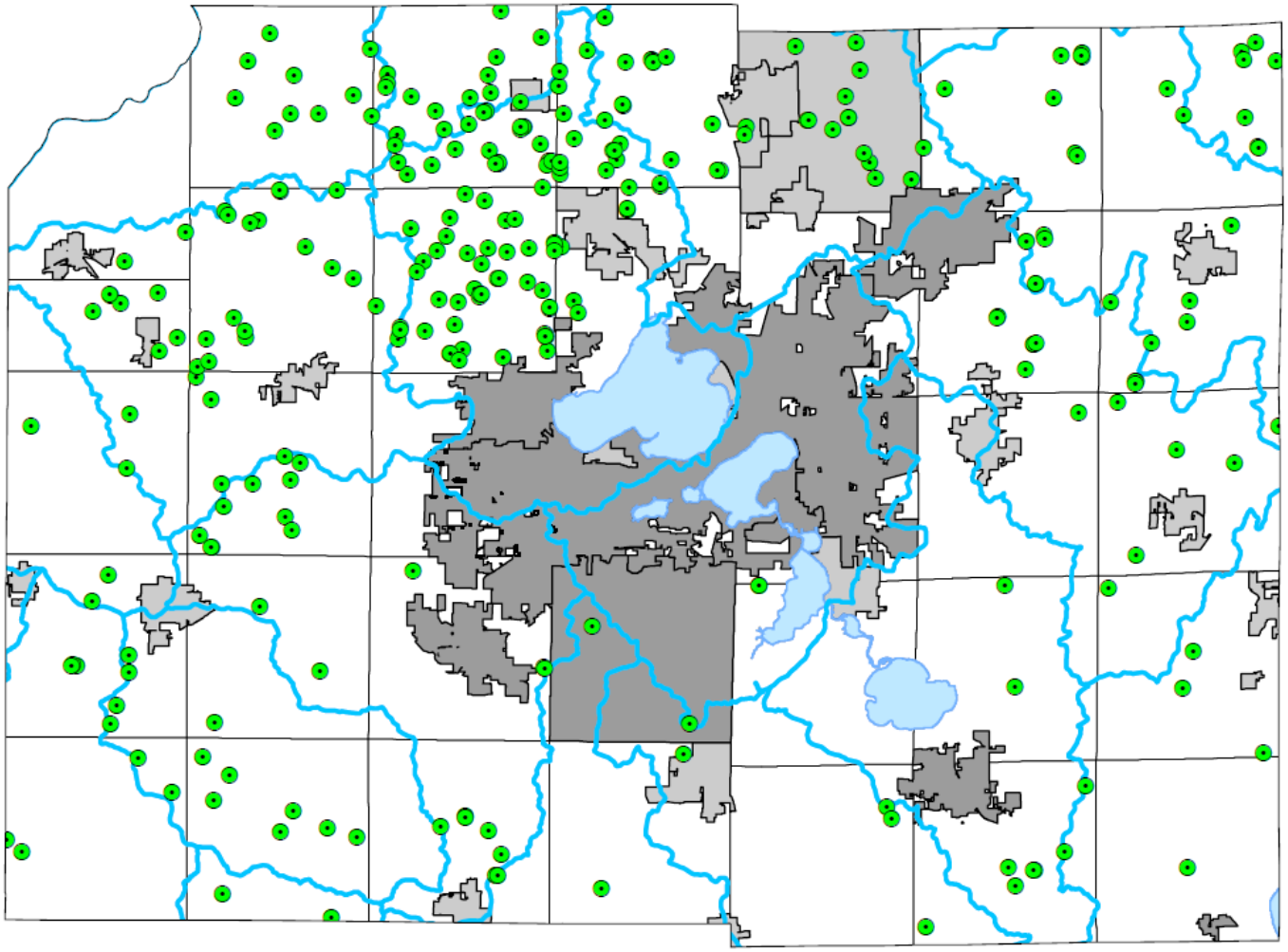
Summary from Manure Storage Study (page 25)

- Need 53 million gallons of capacity to avoid winter applications
- $5M provides approximately 19 million gallons of capacity

Manure Storage Facility
(281 total)

WDNR Watershed Boundary

Manure Storage Facilities in Dane County



Created July 7, 2016 by the Dane Co. Land & Water Resources Department.