

DRAFT Rev 8/19/25.

TO: Dr. Michael Dietz and Director David Dickson, UConn
RE: UConn Intern project concepts – Low Impact Development (LID) GIS based tracking data layer, recognition program, Design Analysis Tool, and demonstration projects
FROM: Coventry Inland Wetland Agency LID Work Group
DATE: August 4, 2025, **rev 8/19**

Thank you for your assistance in meeting and working with our Work Group to move forward concepts for LID-based internships to enhance watershed protection measures for Coventry Lake. The vision and mission of the Coventry LID Work Group is to focus on proactive protection of Coventry Lake water quality through effective LID implementation within the Lake's watershed area.

We recognize that developing the GIS LID tracking and recognition program ("TARP" concepts 1 and 2 below) aligns better with your internship programs, while the LID Design tool's complexity and LID demonstration projects require further exploration. We wish to engage you and your students to develop work plans for the four LID concepts noted below, with the understanding that TARP could possibly be developed working with student interns, and the LID Design Tool and LID demonstration projects developed through further collaboration, discussion, planning and pursuit of future grant funding,

1. LID Tracking GIS based data layer – Develop a tracking database in the form of a GIS layer suitable for the Town's ArcMap License that will enable effective LID structure tracking, inspection, reporting, and mapping that encompasses the town of Coventry with an initial concentration and focus on the Coventry Lake watershed. Product components:
 - a. Designed for ease of use and modification by town staff,
 - b. Designed to allow for database updates and input of LID structures and related details,
 - c. Data layer that is parcel based and provides tracking, inspection and reporting of existing LID structures and related maintenance details,
 - d. Compatible and integrated within Town of Coventry's existing GIS data system,
 - e. Public facing and shared via Town's webpage,
 - f. Capacity to generate reports and customize maps.

2. LID Recognition Program – Create a program that recognizes installation and maintenance of LID structures and LID designs that protect Coventry Lake water quality. Program components:
 - a. Develop alongside town land use staff and Commission members a recognition procedure and process for Town Council approval,
 - b. Intended to identify and then recognize residential property owners who own and are responsible for the operation and maintenance of LID structures that are properly designed, installed, inspected, and maintained,
 - c. Designed to recognize professional LID designers and landscapers who have designed and/or installed operational town approved LID structures,
 - d. Review recognition award options and incentives with Town Officials,
 - e. Develop public facing webpages to announce program and share annual recognitions.

3. LID Design Tool - Develop a tool that assists residential property owners, town land use staff, and engineering consultants in the design of appropriate LID structures on parcels within the Coventry Lake watershed to minimize pollutant runoff. Program components of the design tool:
 - a. provides for analysis of detailed, parcel-based, existing, and future land use and land coverage including lawn coverage, vegetated and wooded areas, roof area, drainage and slope, roadway/pavement etc. and calculates a parcel-based land cover runoff coefficient and estimates pollutant loads,
 - b. provides for menu of options in LID designs for specific parcels, assists to review low cost-effective options,
 - c. promotes effective LID land use structures,
 - d. shares and promotes detailed design criteria,
 - e. designed as a planning tool for future parcel-based land use LID design options,
 - f. Assists to protect Coventry Lake water quality by minimizing pollution through effective and efficient LID design and ensuring appropriate installation design criteria.

4. LID Public Demonstration Projects – Develop green LID infrastructure as part of Patriots Park plan and/or at the newly planned location of the UConn Rowing Facility.
 - a. Analyze Patriots Park and/or new location for the UConn Rowing Facility for LID green infrastructure design and installation opportunities near the Coventry Lake shoreline,
 - b. Review options for possible grant funding to assist with LID design and installation,
 - c. Analyze LID incorporation as a compliment to the current Patriots Park master plan,
 - d. LID public educational opportunity –
 - i. Demonstration projects at both locations on the shoreline of Coventry Lake would assist in promoting LID functionality to the public by provision of working examples that are town and University owned at the Coventry Lake shoreline area.
 - ii. Provide promotional story maps for publishing on town LID webpage.
 - iii. Develop high school level learning opportunities, develop environmental science class curriculum, and field trip opportunities.

Outcomes:

- GIS based LID tracking, mapping, and reporting data layer that provides for tracking inspections and reporting maintenance. Assist town staff in tracking annual LID operation and maintenance.
- LID recognition program that assists in communication and education of the importance of LID structure maintenance in the protection of Lake water quality.
- LID design analysis tool that assists town staff, town land use boards, property owners, consultants, and the public by sharing LID design data and maximizing LID effectiveness on watershed parcels in the protection of Coventry Lake water quality. Assist in the education and communication of LID design and maintenance.
- LID demonstration projects at Patriots Park and newly planned location for the new UConn Rowing Facility at the shoreline of Coventry Lake will assist in promoting LID education to the public, promote LID installs at Coventry Lake shoreline while addressing stormwater water quality.