

Day Two - Track Two

Thursday, March 23rd, 2017

9:30 a.m. – 10:00 a.m.

Urban Stream Restoration Strategies in Two Case Studies

Presenter: Jonathan Koepke, ENCAP Inc.

Biography



Jonathan Koepke, CEPSC, LEED-AP, is the Vice President and General Manager for ENCAP, Inc. in DeKalb, IL. Jonathan Koepke has been with ENCAP, Inc. since 2006. Jonathan is a three time graduate of Northern Illinois University where he completed both his Bachelors and Masters degrees and holds a Masters in Business Administration. He is also the current President of the Great Lakes Chapter of the International Erosion Control Association (IECA) and currently serves as a member of the Board of Directors of the IECA as Treasurer.

Abstract

This presentation will focus on understanding and appropriately implementing stream restoration practices in urban settings through the examination of two case study projects in Northeastern Illinois. The foundation of the presentation will focus on the causes of many urban stream erosion issues including watershed imperviousness, channel constriction, floodplain restrictions, bridge and culvert impacts, and channel realignment.

The two case studies examined in the presentation include the Morton Arboretum Aquatic Ecosystem Restoration Project in Lisle, Illinois and the Valley View Pond Rehabilitation in Downers Grove, Illinois. The Morton Arboretum project will focus on bank grading and stabilization for floodplain connectivity and bank stability. The project also includes the placement of large woody debris for stabilization and habitat as well as boulder cluster and stream riffle construction for bed stability and habitat enhancement. The Valley View Pond Rehabilitation involves manipulating the outlet of a pond constructed in-line with a perennial stream and reconstructing a low flow stream channel in within the footprint of the existing pond. The project demonstrates a creative method of manipulating grade controls to recreate conditions prior to development and manipulation of a stream system.

Learning Objectives

1. Be able to adequately identify the causes of urban streambank and bed erosion;
2. Be able to identify the benefits and strategies of floodplain connectivity in stream restoration practices; and
3. Be able to identify some key principles and steps followed when constructing, installing, and maintaining stream restoration practices in urban settings.