



Years Experience: 40

Education:

University of Illinois, MSCE,
Hydrosystems, 1977
University of Illinois, BSCE, 1976

Registration:

Professional Engineer - Illinois
Certified Floodplain Manager
(CFM)

ISI Envision Sustainability
Professional (ENV SP)

Professional Organizations:

- American Water Works Association
- Illinois Section - American Water Works Association
- American Society of Civil Engineers
- Illinois Lakes Management Association
- Society for Protective Coatings
- Illinois Association of Floodplain and Stormwater Management
- Association of State Dam Safety Officials

Edward LaBelle, P.E., CFM, ENV SP

Senior Project Manager, Water & Wastewater Business Unit Hydrologist

Edward LaBelle’s experience includes the planning, design and construction phases in a variety of infrastructure projects for dam and spillway rehabilitation; potable water treatment, storage and distribution; wastewater treatment, collection and pumping; and storm water drainage and flooding.

Mr. LaBelle has a wide variety of experience in the areas of hydraulics and hydrology beginning as a student at the University of Illinois and during his 40-year career at Crawford Murphy and Tilly. Selected project experience in storm water and floodplains, dams and lakes, and environmental enhancement is provided below.

Stormwater/Floodplain Experience:

U.S. Army Corps of Engineers - Rock Island District

Project Engineer for Flood Reconnaissance Report for Village of Chandlerville, Illinois, funded by the Rock Island District Corps of Engineers. Performed the economic analysis for flood damage reduction alternatives and prepared report.

Corps of Engineers - St. Louis District

Design engineering for 143,000 GPM pumping station for the McGee Creek Drainage and Levee District.

Assisted with a Feature Design Memorandum for the underseepage control along the Wood River Drainage and Levee District near Lock & Dam #26 on the Mississippi River.

Village of Morton, Illinois

Project Manager responsible for computer modeling of drainage channels using HEC-2 and revision of FEMA floodplain maps.

Project Manager/Engineer for revision of Flood Insurance Maps. Developed surface water profiles for two drainageways before and after major improvements, utilizing HEC-2 software.

Menard County, Illinois

Prepared FEMA flood insurance rate map revisions for the Sangamon River and Salt Creek based on analysis of flood of record.

Illinois Department of Transportation

Analysis of ground water levels in Mason County following the 1993 flood on the Illinois River to determine the design elevation for state highways in the vicinity. Study involved correlating historical rainfall records with groundwater levels to determine maximum groundwater levels.

Dam and Lake Project Experience:

City of Litchfield, Illinois

Project Manager for improvements to Litchfield Lake Dam to bring the dam into compliance with current State of Illinois dam regulations.

Coordination of the use of HEC-1 for flood routing and dam breach analysis for Litchfield Lake. Flood analysis was performed for non-storm and probable maximum precipitation storm.

Project Manager for sealing a 70-year old 300 GPM leak in the bottom of Litchfield Lake.

Project Manager/Engineer for report on the drought yield of Lake Lou Yaeger as a water supply for the city of Litchfield and surrounding areas.

Project Manager and Technical Advisor for the dam breach analysis and Emergency Action Plan for Litchfield Lake and Lake Yaeger. Coordinated meetings with the state regulating agency and advised on the parameters in the computer modeling of hydraulics and hydrology.

Preparation of Clean Lakes Diagnostic and Feasibility Study for Lake Lou Yaeger to identify and evaluate the condition of the lake and to make recommendations for remediation of the lake.

Project Engineer for rehabilitation work at Lake Lou Yaeger and Litchfield Lake. Project included pressure grouting of concrete spillway, concrete repair, ground penetrating radar, trash rack, outlet works headwall modifications, and grading and seeding.

Project Manager for evaluation and repairs to Walton Lake Dam, which was washed out during a major rainfall event.

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A section of roadway on the dam also collapsed resulting in road closure. Project included engineering services for emergency, intermediate and long-term repairs to the dam and spillway, specifically planning, design and full construction phase services. Hydrologic and hydraulic work was performed, including establishing watershed characteristics, development of the hydrograph and peak outflow utilizing HEC-1 software, and design of a new principal spillway and drawdown facilities.

Project Manager for upgrading the intake structure at Lake Yaeger with two new drawdown gates, trash rack, lake level monitoring and personnel safety improvements.

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City of Taylorville, Illinois

Project Manager for emergency improvements to the Lake Taylorville intake structure to repair sluice gate and other components.

Illinois American Water Company – Streator, Illinois

Project Manager for reclassification of the hazard class for the Streator Dam on the Vermilion River. Analysis of potential downstream hazards associated with 10-mile section of the Vermilion River. Specific tasks included aerial and topographic mapping using LiDAR, hydraulic modeling with HEC-RAS software, agency coordination and report preparation.

Canton Lake, Illinois

Technical Advisor for rehabilitation of concrete spillway.

Lake Wee Ma-Tuk, Fulton County, Illinois

Project Manager for new auxiliary principal spillway and emergency spillway improvements. Re-evaluation of flood hydrology resulted in the need for additional capacity in the principal spillway. Specific tasks included oversight of geotechnical investigations, hydrological analysis and modeling (including HEC-1 and HEC-RAS), and

preparation of plans and specifications, and construction permitting. Project also included breach analysis, Emergency Action Plan, property acquisition and application for funding.

City of Mattoon, Illinois

Coordinator and Technical Advisor for the Clean Lakes study for Lake Paradise. The project funded under Section 319 of the Clean Water Act included innovative measures to restore the quality of the lake. Specific tasks for the study included preparation of lake sediment, nutrient and hydrologic budgets; development of alternative improvements; agency coordination and public involvement. Guided preparation of lake sediment, nutrient and hydrologic budgets; prepared alternative improvements; and presented at the public hearing.

Project Manager for implementation phase of restoration of Lake Paradise. Engineering included sediment removal for an in-lake sedimentation basin. Other elements included shoreline enhancement and protection, fish crib installation, lake education program and wetland development.

CWLP, Springfield, Illinois

Project Engineer for alternative design of Hunter Lake as a secondary water supply for the City of Springfield. The alternative design is proposed to allow the City to address concerns with phosphorus levels in the proposed lake.

Illinois Capitol Development

Provided technical assistance on Hunter Lake and dam evaluation of alternatives for the environmental impact study.

Illinois Capital Development Board

Provided coordination with the Corps of Engineers on discharges into Lake Shelbyville as part of a recreation area expansion at Wolf Creek State Park/ Eagle Creek State Recreation Area.

City of Effingham, Illinois

Project Engineer for water system report, including recommendations for replacement of channel dam on the Little Wabash River.

Corps of Engineers – Louisville District

Dam Safety Inspection reports for

approximately 20 dams in Illinois and Indiana. Performed field inspection, examined engineering documents and prepared reports.

Environmental Enhancement Experience: Illinois Department of Natural Resources

Project Manager/Engineer for study of the water level management system for Rice Lake and Big Lake Conservation Area, a 6,000-acre waterfowl refuge in the Illinois River floodplain, Fulton County. Included study of the water level at various stages for the period of record, hydraulic and hydrologic analyses of water movement through the site, and a cost comparison of alternative hydraulic systems.

Project Engineer for well rehabilitation/upgrade, irrigation system and emergency power system at Mason State Tree Nursery. Project included preparation of plans and specifications for construction as well as construction observation.